

**Tide Tables 2018 – Central and Western Pacific Ocean and Indian Ocean**

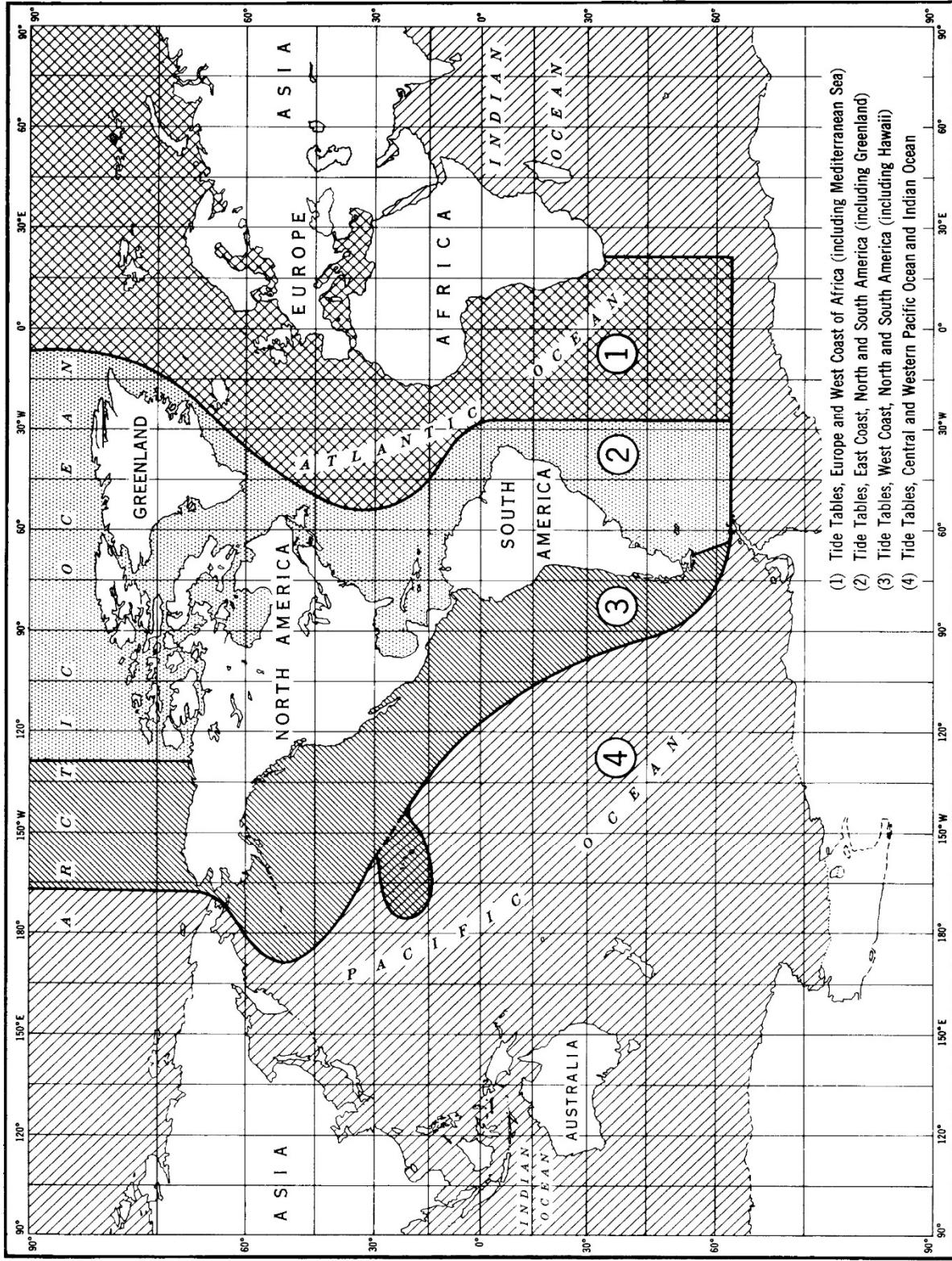


**Tide Tables 2018 HIGH AND LOW WATER PREDICTIONS**

# **Central and Western Pacific Ocean and Indian Ocean**



## INDEX OF TIDE TABLE COVERAGE



**Tide Tables 2018** HIGH AND LOW WATER PREDICTIONS

# **Central and Western Pacific Ocean and Indian Ocean**

Issued 2017



## SOURCES OF ADDITIONAL INFORMATION

**THE NATIONAL OCEAN SERVICE IS NO LONGER PRINTING AND DISTRIBUTING  
THE TIDE AND TIDAL CURRENT TABLES**

***Tide and Tidal current data continue to be updated, generated and published by the NOAA/National Ocean Service; however, the printing and distribution in book-form is now done by several private companies working from information provided by NOS.***

NOS now offers two vehicles for obtaining predictions. First, the complete set of Tables as camera-ready page-images will be available on CD-ROM. The CD-ROM vehicle is primarily intended for use by federal or private printers who wish to print in book-form the full set of Tables for distribution to resellers and the general public. Second, for domestic tide stations, predictions are available on the NOS, Center for Operational Oceanographic Products and Services (CO-OPS), website, (<http://tidesandcurrents.noaa.gov/>).

In addition to predictions, the website provides updated information on the status of the Tables as they are finalized each year. Notices concerning the most recent Table updates and publication cut-off dates are included.

For the names of companies printing and distributing the Tables, please call or write to:

National Ocean Service  
Oceanographic Division, N/OPS3  
1305 East-West Highway  
Silver Spring, MD 20910  
(301) 713-2815, fax (301) 713-4500

*A list of authorized sales agents is published in the Nautical Chart Catalogs or may be obtained on request from the National Ocean Service.*

### **TECHNICAL ASSISTANCE:**

Technical questions relating to **tide and current predictions**, as well as requests for **special predictions**, should be addressed to:

National Ocean Service  
Oceanographic Division, N/OPS3  
1305 East-West Highway  
Silver Spring, MD 20910  
(301) 713-2815

Technical questions relating to **actual tide observations, tidal datums, and other information necessary for engineering projects** should be addressed to:

National Ocean Service  
Oceanographic Division, N/OPS3  
1305 East-West Highway  
Silver Spring, MD 20910  
(301) 713-2877

Technical questions relating to **other publications and nautical charts** should be addressed to:

National Ocean Service  
Navigation Services Division  
1315 East-West Highway  
Silver Spring, MD 20910  
(888) 990-NOAA (6622)

## SOURCES OF ADDITIONAL INFORMATION

### **WEBSITES**

Center for Operational Oceanographic Products and Services  
(PORTS® \* Predictions \* Observations \* Bench Marks \* Tides Online \* Great Lakes Online)  
**<http://tidesandcurrents.noaa.gov>**

Marine Chart Division - <http://www.nauticalcharts.noaa.gov>  
Office for Coastal Management - <http://www.coast.noaa.gov>  
Ocean Predictions Center - <http://www.opc.ncep.noaa.gov>  
National Center for Environmental Information - <https://www.ncei.noaa.gov>  
National Centers for Environmental Predictions - <http://www.ncep.noaa.gov>  
National Climatic Data Center - <http://www.ncdc.noaa.gov>  
National Data Buoy Center - <http://www.ndbc.noaa.gov>  
National Geodetic Survey - <http://www.ngs.noaa.gov>  
National Geophysical Data Center - <http://www.ngdc.noaa.gov>  
National Ocean Service - <http://www.oceanservice.noaa.gov>  
National Oceanic and Atmospheric Administration - <http://www.noaa.gov>  
National Oceanographic Data Center - <http://www.nodc.noaa.gov>  
National Weather Service - <http://www.weather.gov>  
U.S. Coast Guard - <http://www.uscg.mil>  
U.S. Geological Survey - <http://www.usgs.gov>  
U.S. Naval Observatory - <http://www.usno.navy.mil>  
U.S. Naval Oceanographic Office - <http://www.usno.navy.mil/NAVO>

### **CORRECTIONS:**

Corrections to this publication, after the date of printing, may appear in the Notice to Mariners. They may also appear in the Local Notice to Mariners, published weekly, by the various United States Coast Guard Districts.

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## IMPORTANT NOTICES

For the most part, tide predictions for U.S. reference stations are based upon analyses of tide observations for periods of at least one year. Since the extremes of meteorological conditions have been excluded from the analyses and predictions, the predicted tidal heights should be considered as those expected under average weather conditions. During times when weather conditions differ from what is considered average for the area, the mariner must take note of the corresponding differences between predicted levels and those actually observed. Generally, prolonged onshore winds or a low barometric pressure can produce higher levels than predicted, while the opposite can result in lower levels than those predicted. Exclusive of weather conditions, the astronomical tide is subject to range variations which should be noted. Decreased ranges may be expected near the times when the Moon is in apogee (apogean tides) or in quadrature (neap tides), and increased ranges may be expected when the Moon is in perigee (perigean tides) or in a new or full position (spring tides). A larger diurnal range may also result when the Moon is in its maximum declination (tropic tides). The actual range will depend upon the extent to which combinations of these positions reinforce or detract one from the other. The effect of these astronomical lineups is included in the predictions and may be apparent upon inspection.

The mariner may be kept aware of the times of these astronomical events by referring to the astronomical data listed in this book. He should realize, however, that there is generally a time lag from a few hours to several days from the time of the astronomical event to the time of the resultant tide. During times of storm surges or when extreme weather conditions are imminent, the mariner should closely follow local weather forecasts as they relate to the effects upon the tide levels.

**DAYLIGHT-SAVING TIME IS NOT USED IN THIS PUBLICATION.** All daily tide predictions and predictions compiled by the use of Table 2 data are based on the standard time meridian indicated for each location. Predicted times may be converted to daylight-saving times, where necessary, by adding 1 hour to these data. In converting times from the Astronomical Data on the inside back cover, it should be noted that daylight-saving time is based on a meridian 15° east of the normal standard meridian for a particular place.

Predicted heights for all reference stations in Table 1 are given in both feet and centimeters. Predicted values from the use of Table 2 and 3 will be in the English system, but can be converted to metric units by the use of Table 6.

**The daily tide predictions** for the Philippine locations, JOLO, LEGASPI PORT, and SAN FERNANDO HARBOR do not appear in this publication. Daily tide predictions for the Philippine locations are normally supplied to the National Ocean Service by the Bureau of Coast and Geodetic Survey, Republic of the Philippines in accordance with cooperative arrangements for the exchange of tidal predictions. Their predictions were not forwarded in time to appear in this publication. Those predictions usually appear on pages 172 through 175 and 188 through 195. These pages have been omitted from this publication.

NOS, in partnership with other agencies and institutions, has established a series of Physical Oceanographic Real Time Systems (PORTS®) in selected areas. These PORTS® sites provide constantly updated information on tide and tidal current conditions, water temperature, and weather conditions. This information is updated every six minutes. PORTS® sites are currently in operation at several major harbors with future sites to be added. The information is accessible through a computer data connection or by a voice response system at the following numbers:

## IMPORTANT NOTICES

<b>PORTS® SITES</b>	<b>VOICE ACCESS</b>	<b>INTERNET ACCESS</b>
CAPE COD	Not Available	<a href="http://www.tidesandcurrents.noaa.gov">www.tidesandcurrents.noaa.gov</a>
CHARLESTON HARBOR	855-216-2137	"
CHERRY POINT	888-817-7794	"
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	"
CUYAHOGA	800-376-1192	"
DELAWARE RIVER & BAY	866-30-PORTS (866-307-6787)	"
HOUSTON/GALVESTON	866-HG-PORTS (866-447-6787)	"
HUMBOLDT BAY	855-876-5015	"
JACKSONVILLE	855-901-1549	"
LAKE CHARLES	888-817-7692	"
LOS ANGELES/LONG BEACH	Not Available	"
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	"
LOWER MISSISSIPPI RIVER	888-817-7767	"
MATAGORDA BAY	888-524-9765	"
MOBILE BAY	877-84-PORTS (877-847-6787)	"
MORGAN CITY	888-312-4113	"
NARRAGANSETT BAY	866-75-PORTS (866-757-6787)	"
NEW HAVEN	888-80-PORTS (888-807-6787)	"
NEW LONDON	855-626-0509	"
NEW YORK/NEW JERSEY	866-21-PORTS (866-217-6787)	"
PASCAGOULA	888-257-1857	"
PORT OF ANCHORAGE	866-AK-PORTS (866-257-6787)	"
PORT FOURCHON	855-687-2084	"
SABINE NECHES	888-257-1859	"
SAN FRANCISCO BAY	866-SB-PORTS (866-727-6787)	"
SOO LOCKS	301-713-9596	"
SAVANNAH	855-907-3136	"
TACOMA	888-60-PORTS (888-607-6787)	"
TAMPA BAY	866-TB-PORTS (866-827-6787)	"

### SAMOA ISLANDS

The country of Samoa has changed their time meridian from 165° West to 195° East. Beginning with the 2013 edition of the "Tide Tables, Central and Western Pacific and Indian Ocean", tide predictions for "Apia, Samoa Island" and for secondary stations in the country of Samoa have been provided relative to the 195° East time meridian. Secondary stations in the western hemisphere which were reference to "Apia, Samoa Island" have been recalculated to use "Pago Pago" as the new reference station for tide predictions.

(Issued January 9, 2012)

## INTRODUCTION

Tide tables for the use of mariners have been published by the National Ocean Service (formerly the Coast and Geodetic Survey) since 1853. For a number of years these tables appeared as appendixes to the annual reports of the Superintendent of the Survey, and consisted of detailed instructions enabling the mariner to make his own prediction of tides as the occasion arose.

The first tables to give predictions for each day were those for the year 1867. They gave the times and heights of high waters only and were published in two separate parts, one for the Atlantic coast and the other for the Pacific coast of the United States. Together they contained daily predictions for 19 stations and tidal differences for 124 stations. A few years later predictions for the low waters were also included, and for the year 1896 the tables were extended to include the entire maritime world, with full predictions for 70 ports and tidal differences for about 3,000 stations.

The tide tables are now issued in four volumes, as follows: Europe and West Coast of Africa (including the Mediterranean Sea); East Coast of North and South America (including Greenland); West Coast of North and South America (including the Hawaiian Islands); Central and Western Pacific Ocean and Indian Ocean. Together, they contain daily predictions for more than 250 reference ports and differences and other constants for about 6,500 stations.

This edition of the Tide Tables, Central and Western Pacific Ocean and Indian Ocean contains full daily predictions for more than 90 reference stations and differences and other constants for more than 1,900 stations. It also contains a table for obtaining the approximate height of the tide at any time, a table of local mean time of sunrise and sunset for every 5th day of the year for different latitudes, a table for the reduction of local mean time to standard time, a table for converting feet to centimeters, a table of the Greenwich mean time of the Moon's phases, apogee, perigee, greatest north and south and zero declination, and the time of the solar equinoxes and solstices, and a glossary of terms.

Up to and including the tide tables for the year 1884, all the tide predictions were computed by means of auxiliary tables and curves constructed from the results of tide observations at the different ports. From 1885 to 1911, inclusively, the predictions were generally made by means of the Ferrel tide-predicting machine. From 1912 to 1965, inclusively, they were made by means of the Coast and Geodetic Survey tide predicting machine No. 2. Since 1966, predictions have been made by electronic computer.

In the preparation of these tables all available observations were used. In some cases, however, the observations were insufficient for obtaining final results, and as further information becomes available it will be included in subsequent editions. All persons using these tables are invited to send information or suggestions for increasing their usefulness to the National Ocean Service, Oceanographic Division, 1305 East-West Highway, N/OPS3, Silver Spring, Maryland 20910, U.S.A.

In accordance with cooperative arrangements between the National Ocean Service and the authorities listed below, predictions for the following stations appear in this issue:

*Hydrographic Office, Japan.*—O. Paramushir Island, Kamaisi, Yokohama, Kobe, Kure, Moji, Sasebo, and Naha.

*Hydrographic Department, Admiralty, England.*—Musi River, Surabaja Strait, Kutei River entrance, Barito River, Shatt al Arab, Mina Salman, Aden, Karachi, Dar es Salaam, Dreger Harbor, Mina Al Ahmadi, Musay'id Outer Channel Entrance, Mina Jebel Ali, Manila, Cebu and Davao.

*Department of Lands and Survey, New Zealand.*—Wellington and Auckland.

*Geodetic and Research Branch, Survey of India, India.*—Mergui, Rangoon, Sagar, Madras, Colombo, Bombay, and Suez.

*Service Hydrographique, France.*—Do Son, Mui Vung Tau.

*Hydrographic Department, Thailand.*—Bangkok Bar.

*Maritime Headquarters, Republic of South Africa.*—Durban.

*Instituto Hidrografico, Portugal.*—Beira.

*Hydrographic Office, Australia.*—Sydney, Darwin, Port Phillip, Townsville, Brisbane Bar, Port Adelaide, Port Lincoln, and Port Hedland.

## INTRODUCTION

*Port of Singapore Authority.*—Singapore.

*National Mapping & Resource Information Authority, Republic of the Philippines.*—Legaspi Port, San Fernando Harbor, Jolo.

*National Marine Data and Information Service, Peoples Republic of China.*—Hong Kong, Dalian, Qinhuangdao, Tanggu, Yantai, Qingdao, Lianyungang, Wusong, Zhongjun, Kanmen, Xiamen, Shantou, Huangpu, Haikou, and Beihai.

*Marine Meteorological Center, Central Weather Bureau, Taiwan.*—PengHu, Keelung.

## LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Aden, Yemen.....	360	4.40		
Apia, Samoa Islands .....	252	1.60		
Auckland, New Zealand .....	268	5.80		
Bangkok Bar, Thailand .....	140	7.70		
Barito River (Outer Bar), Borneo .....	168	4.30		
Beihai, China .....	128	8.40		
Beira, Mozambique .....	372	11.40		
Belawan Channel, Sumatra.....	148	4.90		
Bombay, India .....	328	8.20		
Brisbane Bar, Australia.....	284	4.00		
Cebu, Philippines .....	180	2.40		
Ch'ang Chiang Approach, China.....	92	9.70		
Chuuk, Moen Island, Caroline Islands.....	204	3.56	2003	6 years (1981-1986)
Colombo, Sri Lanka.....	324	1.20		
Dalian, China.....	60	5.30		
Dar Es Salaam, Tanzania .....	368	5.00		
Darwin, Australia .....	276	13.50		
Davao, Philippines.....	176	2.50		
Diego Garcia Island .....	380	2.70		
Djakarta (Tandjungpriok), Java .....	156	2.00		
Do Son, Hon Dau, Vietnam <sup>1</sup> .....	132	6.10		
Dreger Harbor, New Guinea.....	272	3.80		
Durban, South Africa .....	376	3.60		
Guam (Apra Harbor), Mariana Islands .....	196	1.40	2002	5 years (1994-2000)
Haikou, China.....	124	4.90	2002	5 years (1994-1998)
Hilo, Hawaii Island, Hawaii .....	240	1.19	2002	5 years (1994-1998)
Hong Kong, China .....	120	4.50		
Honolulu, Oahu Island, Hawaii .....	228	0.80	2003	5 years (1996-2000)
Huangpu, China .....	116	5.10		
Inch'on, Korea .....	52	15.20		
Johnston Island .....	244	1.07	2002	5 years (1994-1998)
Jolo, Philippines <sup>1</sup> .....	172	1.10		
Kahului, Maui Island, Hawaii .....	236	1.16	2002	5 years (1994-1998)
Kamaishi, Japan.....	16	2.80		
Kanmen, China.....	96	10.80		
Karachi, Pakistan .....	332	5.40		
Keelung (Chi-lung Chiang), Taiwan .....	112	1.90		
Kobe, Japan .....	24	3.10		
Kure, Japan .....	32	6.60		
Kutei River Entrance, Borneo .....	164	4.60		
Kwajalein Atoll, Marshall Islands .....	216	3.00	2001	5 years (1994-1998)
Legaspi Port, Philippines <sup>1</sup> .....	192	2.40		
Lianyun Gang, China.....	80	9.50		
Madras, India.....	320	2.10		
Malakal Harbor, Palau Islands .....	200	3.60		
Manila, Philippines .....	184	1.60		
Mergui, Burma .....	308	9.10		
Mina Al Ahmadi, Kuwait .....	340	5.64		
Mina Jebel Ali, United Arab Emirates.....	356	3.34		
Mina Salman, Bahrain, Persian Gulf .....	348	4.20		
Moji, Japan .....	36	4.60		
Moku O Loe, Oahu Island, Hawaii.....	232	1.07	2002	4 years (1993-1996)

## LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Mui Vung Tau, Vietnam <sup>1</sup> .....	136	7.90		
Musay'id Outer Channel Entrance, Qatar .....	352	3.84		
Musi River (Outer Bar), Sumatra .....	152	6.20		
Naha, Nansei Shoto, Japan .....	44	3.90		
Namp'Ohang, Korea .....	56	10.00		
Nawiliwili, Kauai Island, Hawaii .....	224	0.85	2002	4 years (1993-1996)
O. Paramushiru, Kuril Islands .....	8	3.80		
Otomari, Sakhalin Island .....	4	2.40		
Pago Pago, American Samoa .....	260	1.34	2002	3 years (1989-1991)
Papeete Harbor, Tahiti Island .....	248	0.73	2003	5 years (1994-1998)
PengHu (Ma-Kung Kang), Pescadores .....	108	5.10		
Pohnpei Harbor, Caroline Islands .....	208	2.30		
Port Adelaide, Australia .....	296	4.90		
Port Hedland, Australia .....	304	10.00		
Port Lincoln, Australia .....	300	2.90		
Port Phillip, Point Lonsdale, Australia .....	292	2.90		
Pusan, Korea .....	48	2.10		
Qingdao (Da Gang), China .....	76	7.80		
Qinhuangdao, China .....	64	3.00		
Rangoon, Burma .....	312	10.20		
Ras At Tannurah, Saudi Arabia .....	344	4.10		
Sagar, Hooghly River, India .....	316	9.70		
Sakate, Shodo Shima, Japan .....	28	3.30		
San Fernando Harbor, Philippines <sup>1</sup> .....	188	1.00		
Sand Island, Midway Islands .....	220	0.65	2002	5 years (1994-1998)
Sasebo, Japan .....	40	5.40		
Shantou, China .....	104	4.50		
Shatt Al Arab (Outer Bar), Iraq .....	336	5.70		
Singapore (Tanjong Pagar), Singapore .....	144	5.20		
Suez, Egypt .....	364	3.70		
Surabaja Strait, Djamuang Reef, Java .....	160	3.60		
Suva, Suva Harbor .....	256	2.15	2003	8 years (1990-1997)
Sydney, Australia .....	288	3.00		
Tanggu (Xingang), China .....	68	7.90		
Townsville, Australia .....	280	5.20		
Wake Island .....	212	1.17	2002	5 years (1994-1998)
Wellington, New Zealand .....	264	2.90		
Wusong (Shanghai), China .....	84	6.60		
Xiamen, China .....	100	10.80		
Yamato Wan, Matsuwa To, Kuril Islands .....	12	2.60		
Yantai, China .....	72	4.80		
Yokohama, Japan .....	20	3.80		
Zhongjun, Changjiang Approach, China .....	88	7.40		

Each datum figure above represents the difference in elevation between the local mean sea (or river) level and the reference level from which the predicted heights in table 1 were calculated.

Local mean sea level datum should not be confused with the National Geodetic Vertical Datum which is the datum of the geodetic level net of the United States. Relationships between geodetic and local tidal datums are published in connection with the tidal benchmark data of the National Ocean Service.

1 Daily predictions for this station were omitted.



## TABLE 1.— DAILY TIDE PREDICTIONS

### EXPLANATION OF TABLE

This table contains the predicted times and heights of the high and low waters for each day of the year at a number of places which are designated as *reference stations*. By using tidal differences from table 2, one can calculate the approximate times and heights of the tide at many other places which are called *subordinate stations*. Instructions on the use of the tidal differences are found in the explanation of table 2.

High water is the maximum height reached by each rising tide, and low water is the minimum height reached by each falling tide. High and low waters can be selected from the predictions by the comparison of consecutive heights. Because of diurnal inequality at certain places, however, there may be a difference of only a few tenths of a foot between one high water and low water of a day, but a marked difference in height between the other high water and low water. Therefore, in using the Tide Tables it is essential, to note carefully the heights as well as the times of the tides.

**Time.**—The kind of time used for the predictions at each reference station is indicated by the time meridian at the bottom of each page.

**Datum.**—The datum from which the predicted heights are reckoned is the same as that used for the charts of the locality. In this table a datum approximating to mean low water springs, Indian spring low water, or the lowest possible low water is generally used. The depression of the datum below mean sea level for each of the reference stations of this volume is given on the preceding page.

**Depth of water.**—The nautical charts published by the United States and other maritime nations show the depth of the water as referred to a low water datum corresponding to that from which the predicted tidal heights are reckoned. To find the actual depth of water at any time, the height of the tide should be added to the charted depth. If the height of the tide is negative—that is, if there is a minus sign (−) before the tabular height—the height should be subtracted from the charted depth. For any time between high and low water, the height of the tide may be estimated from the heights of the preceding and following tides, or table 3 may be used. The reference stations in Table 1 contain the heights in centimeters as well as feet.

**Variation in sea level.**—Changes in winds and barometric conditions cause variations in sea level from day to day. In general, with onshore winds or a low barometer the heights of both the high and low waters will be higher than predicted, while with offshore winds or a high barometer they will be lower. There are also seasonal variations in sea level, but these variations have been included in the predictions for each station. At ocean stations the seasonal variation in sea level is usually less than half a foot.

At stations on tidal rivers the average seasonal variation in river level due to freshets and droughts may be considerably more than a foot. The predictions for these stations include an allowance for this seasonal variation representing average freshet and drought conditions. Unusual freshets or droughts, however, will cause the tides to be higher or lower, respectively, than predicted.

**Number of tides.**—There are usually two high and two low waters in a day. Tides follow the Moon more closely than they do the Sun, and the lunar or tidal day is about 50 minutes longer than the solar day. This causes the tide to occur later each day, and a tide that has occurred near the end of one calendar day will be followed by a corresponding tide that may skip the next day and occur in the early morning of the third day. Thus, on certain days of each month only a single high or a single low water occurs. At some stations, during portions of each month, the tide becomes diurnal—that is, only one high and one low water will occur during the period of a lunar day.

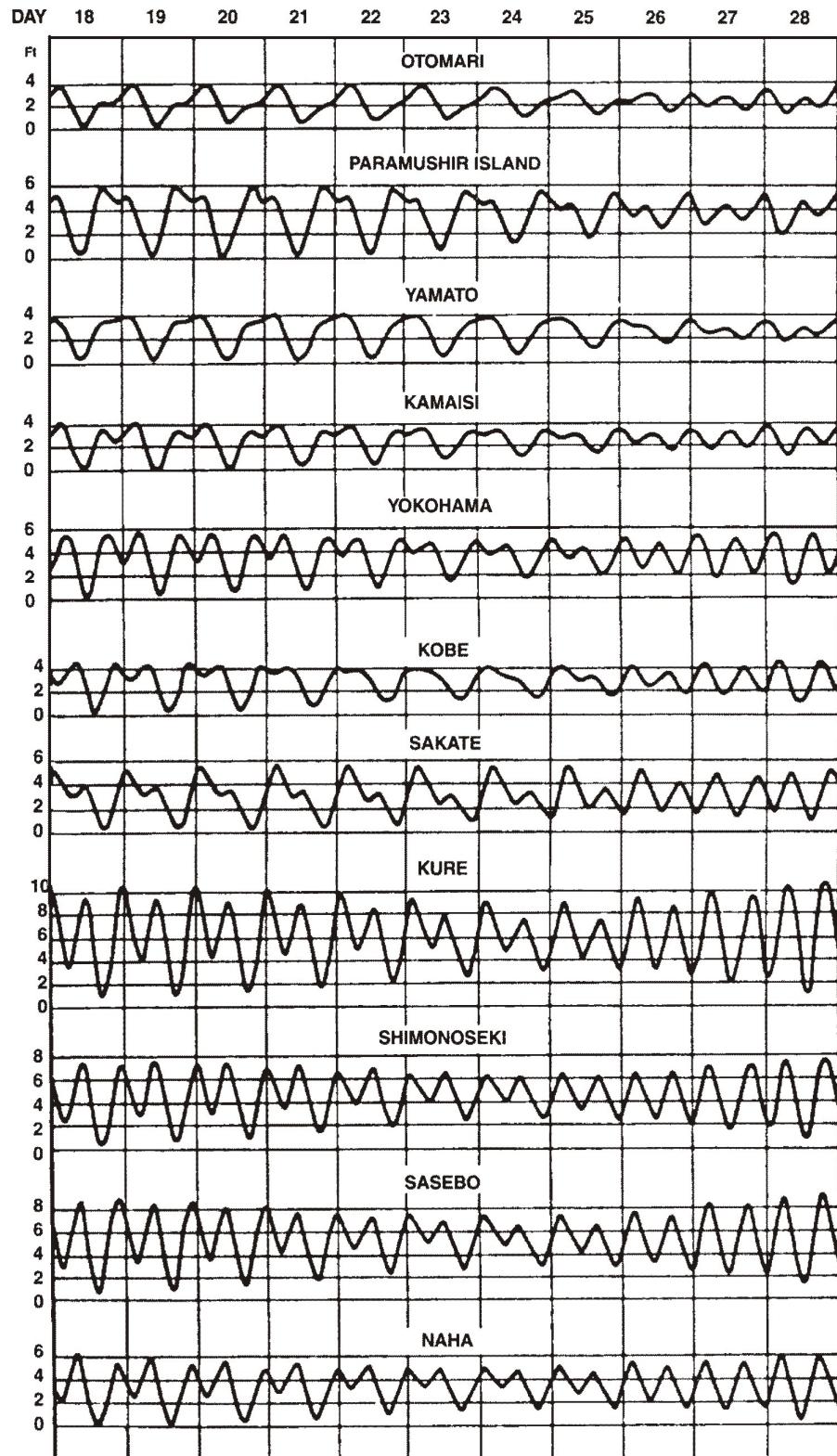
**Relation of tide to current.**—In using these tables of tide predictions bear in mind that they give the times and heights of high and low waters and not the times of turning of the current or slack water. For stations on the outer coast there is usually a small difference between the time of high or low water and the beginning of ebb or flood current, but for places in narrow channels, landlocked harbors, or on tidal rivers, the time of slack water may differ by several hours from the time of high or low water stand. The relation of the times of high and low water to the turning of the current depends upon a number of factors, so no simple or general rule can be given. For the predicted time of slack water, and other current data, reference should be made to the Tidal Current Tables prepared by the National Ocean

## TABLE 1.—DAILY TIDE PREDICTIONS

Service, for the Atlantic and the Pacific coast of North America and Asia.

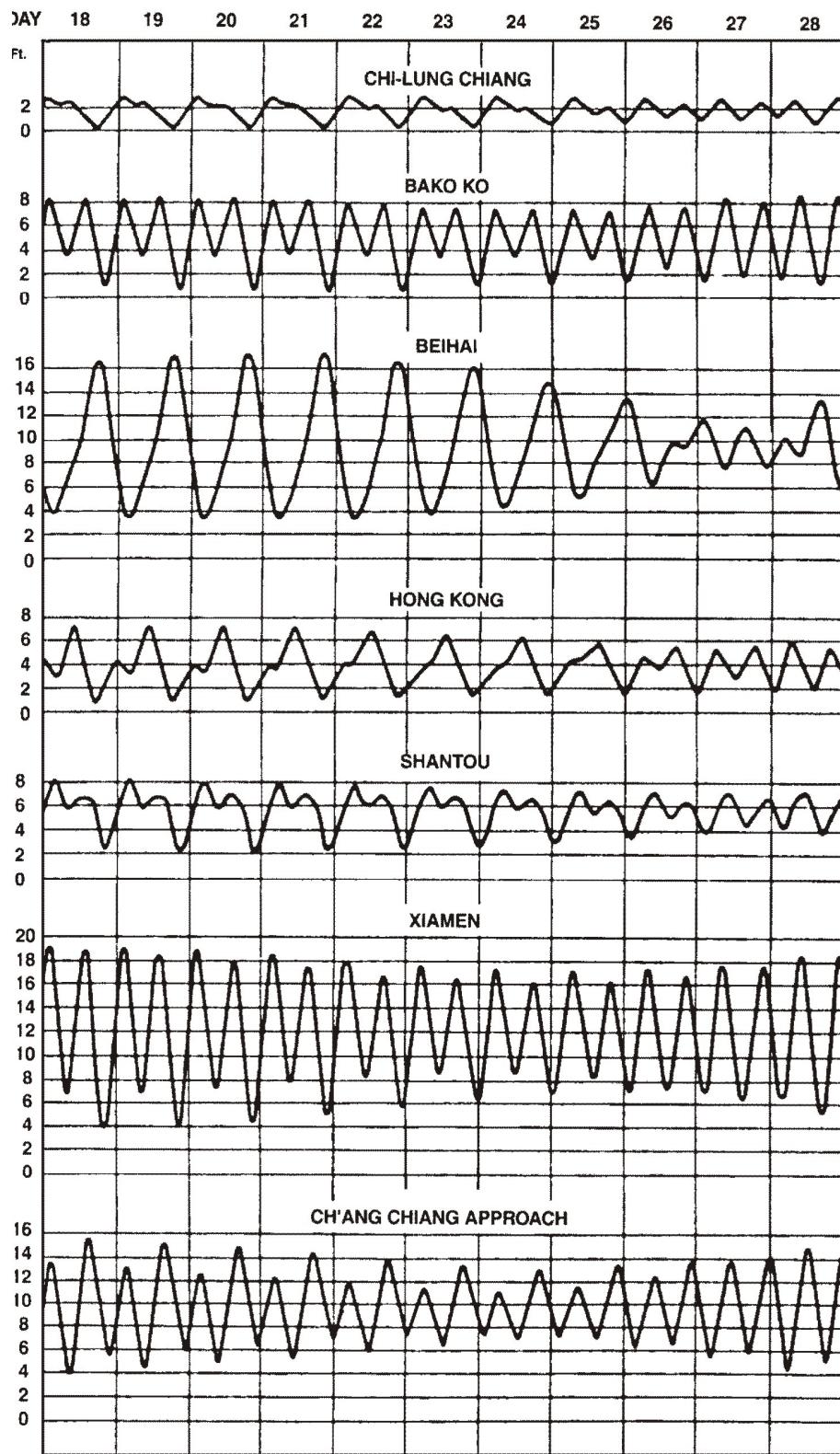
**Typical tide curves.**— The principal variations in the tide are illustrated by the curves for 25 stations on pages 3, 3a and 3b. These stations are on the Japan and China coasts, but similar variations will be found in other localities. The tide at Pusan is uniformly semidiurnal with the variations following the Moon's phase. The tides for the remainder of the group exhibits considerable inequality. By reference to the curves it is seen that where the inequality is large the tide at some places becomes diurnal around the times of the Moon's maximum declination, whereas at other places there is just a few tenths of a foot difference between the heights of successive high and low waters. It is essential therefore in using tide tables to carefully note the heights as well as the times of the tide.

## TYPICAL TIDE CURVES



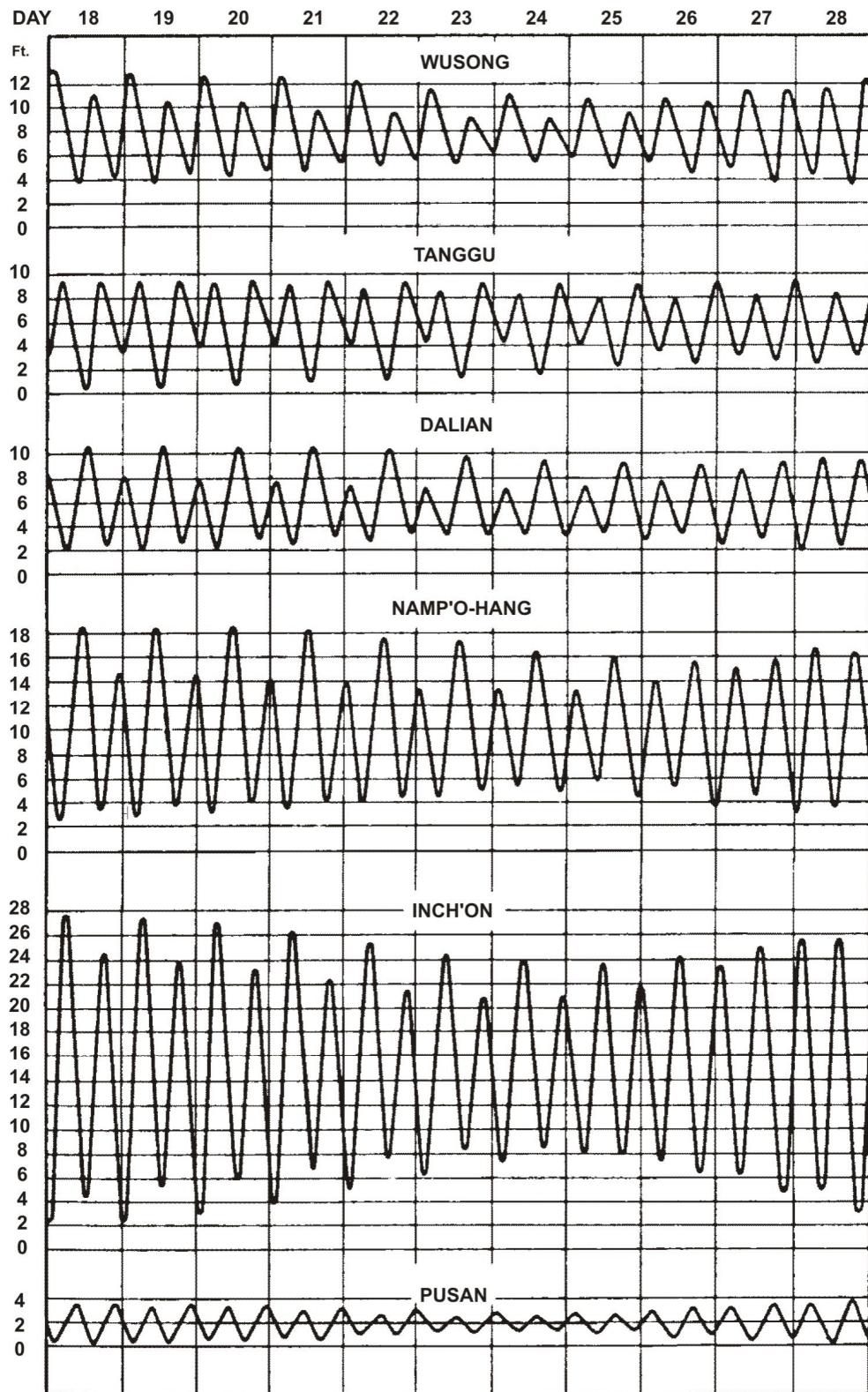
Lunar Data: On Equator, 12th; full Moon, 16th; maximum south declination, 20th; last quarter, 24th; on Equator, 27th; new Moon, 31st.

## TYPICAL TIDE CURVES



Lunar Data: On Equator, 12th; full Moon, 16th; maximum south declination, 20th; last quarter, 24th; on Equator, 27th; new Moon, 31st.

## TYPICAL TIDE CURVES



Lunar Data: On Equator, 12th; full Moon, 16th; maximum south declination, 20th; last quarter, 24th; on Equator, 27th; new Moon, 31st.

# Otomari, Sakhalin Island, 2018

Times and Heights of High and Low Waters

January					February					March													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm																				
<b>1</b> M	1530 2340	4.8 0.4	146 12	<b>16</b> Tu	0633 0914 1618	2.7 2.6 4.5	82 79 137	<b>1</b> Th	0016 0700 1012 ○ 1710	0.3 2.6 2.3 4.9	9 79 64 149	<b>16</b> F	0018 0635 1049 ● 1725	0.8 2.6 2.1 4.2	24 79 64 128	<b>1</b> Th	0600 0929 1619 2352	2.4 2.1 4.3 0.5	73 64 131 15	<b>16</b> F	0527 1008 1636 2339	2.5 1.7 3.6 0.9	76 52 110 27
<b>2</b> Tu	1620	5.1	155	<b>17</b> W	0009 0652 1002 ● 1656	0.9 2.7 2.5 4.5	27 82 76 137	<b>2</b> F	0053 0718 1116 1800	0.4 2.7 2.1 4.8	12 82 64 146	<b>17</b> Sa	0043 0654 1130 1759	0.9 2.7 1.9 4.1	27 82 58 125	<b>2</b> F	0608 1036 1712 ○ 1725	2.6 1.8 4.3 125	79 55 131 15	<b>17</b> Sa	0543 1052 1716	2.6 1.5 3.6	79 46 110
<b>3</b> W	0025 0734 0956 1709	0.2 2.7 2.6 5.2	6 82 79 158	<b>18</b> Th	0040 0715 1043 1731	0.9 2.7 2.4 4.5	27 82 73 137	<b>3</b> Sa	0127 0741 1214 1847	0.6 2.9 2.0 4.5	18 88 61 137	<b>18</b> Su	0107 0713 1209 1833	1.0 2.8 1.8 4.0	30 85 55 122	<b>3</b> Sa	0022 0625 1132 1801	0.6 2.8 1.5 4.1	18 85 46 125	<b>18</b> Su	0003 0600 1132 ● 1754	0.9 2.8 1.3 3.5	27 85 40 107
<b>4</b> Th	0109 0804 1052 1758	0.3 2.7 2.5 5.1	9 82 76 155	<b>19</b> F	0110 0739 1121 1804	0.9 2.8 2.4 4.5	27 85 73 137	<b>4</b> Su	0157 0807 1311 1933	0.9 3.0 1.9 4.1	27 91 52 125	<b>19</b> M	0128 0731 1249 1907	1.1 2.9 1.7 3.7	34 88 40 113	<b>4</b> Su	0049 0648 1224 1846	0.8 3.0 1.3 3.8	24 91 40 116	<b>19</b> M	0024 0619 1213 1832	1.1 2.9 1.1 3.3	34 88 101
<b>5</b> F	0152 0835 1149 1846	0.4 2.7 2.4 4.9	12 82 73 149	<b>20</b> Sa	0138 0804 1158 1836	1.0 2.8 2.4 4.3	30 85 73 131	<b>5</b> M	0224 0835 1409 2018	1.2 3.2 1.8 3.6	37 98 55 110	<b>20</b> Tu	0146 0750 1333 1943	1.3 3.1 1.7 3.4	40 94 52 104	<b>5</b> M	0114 0713 1313 1929	1.1 3.2 1.1 3.4	34 98 30 104	<b>20</b> Tu	0042 0638 1254 1912	1.3 3.1 1.0 3.1	40 94 30 94
<b>6</b> Sa	0231 0907 1250 1934	0.7 2.8 2.4 4.5	21 85 73 137	<b>21</b> Su	0205 0827 1236 1908	1.1 2.8 2.3 4.1	34 85 70 125	<b>6</b> Tu	0247 0906 1512 2105	1.5 3.4 1.8 3.1	46 104 55 94	<b>21</b> W	0200 0809 1423 2022	1.6 3.2 1.6 3.0	49 98 49 91	<b>6</b> Tu	0135 0739 1403 2012	1.3 3.4 1.1 3.0	40 101 34 91	<b>21</b> W	0057 0658 1338 1954	1.5 3.3 0.9 2.7	46 101 27 82
<b>7</b> Su	0308 0940 1357 2023	1.0 2.9 2.4 4.0	30 88 70 122	<b>22</b> M	0228 0849 1320 1941	1.3 2.9 2.3 3.9	40 88 70 119	<b>7</b> W	0304 0939 1627 2159	1.8 3.5 1.9 2.7	55 107 58 82	<b>22</b> Th	0207 0833 1527 2111	1.8 3.4 1.6 2.5	55 104 76 79	<b>7</b> W	0152 0807 1454 2057	1.6 3.5 1.1 2.6	49 107 34 79	<b>22</b> Th	0106 0721 1429 2042	1.7 3.5 0.8 2.3	52 107 24 70
<b>8</b> M	0341 1017 1517 2115	1.4 3.1 2.4 3.5	43 94 73 107	<b>23</b> Tu	0249 0911 1414 2018	1.5 3.0 2.3 3.5	46 91 70 107	<b>8</b> Th	0312 1019 1805 ● 2330	2.0 3.6 1.8 2.3	61 110 55 70	<b>23</b> F	0206 0906 1655 ● 2232	1.9 3.6 1.5 64	58 110 46 64	<b>8</b> Th	0204 0837 1553 2148	1.7 3.5 1.2 70	52 110 24 61	<b>23</b> F	0107 0749 1530 2148	1.8 3.6 0.8 2.0	55 110 24 61
<b>9</b> Tu	0410 1057 1659 ● 2221	1.7 3.3 2.4 3.0	52 101 73 91	<b>24</b> W	0306 0936 1526 2104	1.7 3.2 2.3 3.1	52 98 70 94	<b>9</b> F	0301 1109 2001	2.1 3.6 1.7	64 110 52	<b>24</b> Sa	0137 0952 1906	2.0 3.7 1.3	61 107 40	<b>9</b> F	0207 0912 1707 ● 2309	1.9 3.5 1.3 2.0	58 107 40 61	<b>24</b> Sa	0051 0825 1653	1.8 3.7 0.9	55 113 27
<b>10</b> W	0434 1141 1901	2.0 3.5 2.2	61 107 67	<b>25</b> Th	0318 1009 1708 ● 2216	2.0 3.4 2.1 2.6	61 104 64 79	<b>10</b> Sa	1212 2123	3.7 1.4	113 43	<b>25</b> Su	1101 2057	3.8 1.0	116 30	<b>10</b> Sa	0145 0956 1852	1.9 3.4 1.4	58 104 43	<b>25</b> Su	0914 1850	3.7 0.9	113 27
<b>11</b> Th	0010 0451 1230 2041	2.6 2.3 3.7 1.9	79 70 113 58	<b>26</b> F	0320 1055 1922	2.2 3.7 1.8	67 113 55	<b>11</b> Su	1324 2213	3.8 1.2	116 37	<b>26</b> M	1234 2158	3.9 0.7	119 21	<b>11</b> Su	1101 2037	3.3 1.3	101 40	<b>26</b> M	1028 2032	3.6 0.8	110 24
<b>12</b> F	1319 2143	3.9 1.5	119 46	<b>27</b> Sa	1155 2103	3.9 1.4	119 43	<b>12</b> M	1429 2250	3.9 1.1	119 34	<b>27</b> Tu	1405 2242	4.1 0.5	125 15	<b>12</b> M	1232 2138	3.3 1.1	101 34	<b>27</b> Tu	1219 2131	3.5 0.7	107 21
<b>13</b> Sa	1408 2227	4.1 1.3	125 40	<b>28</b> Su	1306 2204	4.2 1.0	128 30	<b>13</b> Tu	1523 2322	4.0 0.9	122 27	<b>28</b> W	1519 2319	4.2 0.5	128 15	<b>13</b> Tu	1359 2217	3.4 1.0	104 30	<b>28</b> W	1404 2212	3.5 0.6	107 18
<b>14</b> Su	1455 2304	4.2 1.1	128 34	<b>29</b> M	1416 2253	4.5 0.6	137 18	<b>14</b> W	0607 0911 1608 2351	2.5 2.3 4.1 0.9	76 70 125 27					<b>14</b> W	0524 0802 1503 2248	2.2 2.1 3.5 0.9	67 64 107 27	<b>29</b> Th	0459 0845 1521 2244	2.2 1.9 3.5 0.7	67 58 107 21
<b>15</b> M	1538 2338	4.4 1.0	134 30	<b>30</b> Tu	1519 2336	4.7 0.4	143 12	<b>15</b> Th	0618 1005 1648	2.6 2.2 4.2	79 67 128					<b>15</b> Th	0517 0916 1553 2315	2.3 2.0 3.6 0.9	70 61 110 27	<b>30</b> F	0459 0957 1622 2312	2.4 1.5 3.5 0.8	73 46 107 24
				<b>31</b> W	0654 0854 1617	2.6 2.5 4.9	79 76 149								<b>31</b> O	0513 1051 1714 2338	2.7 1.1 3.5 1.0	82 34 107 30					

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Otomari, Sakhalin Island, 2018

Times and Heights of High and Low Waters

April					May					June														
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm									
<b>1</b> Su	0534 1140 1801	3.0 0.8 3.3	91 24 101	<b>16</b> M	0505 1130 1753 ●	3.0 0.7 3.0 1.4	91 21 91 43	<b>1</b> Tu	0514 1221 1848 2327	3.7 0.3 2.6 1.7	113 9 79 52	<b>16</b> W	0442 1211 1855 2246	3.9 0.2 2.5 2.1	119 6 76 64	<b>1</b> F	0544 1329 2017 2325	4.2 0.4 2.4 2.2	128 12 73 67	<b>16</b> Sa	0539 1345	4.8 0.1	146 3	
<b>2</b> M	0001 0558 1225 1845	1.2 3.3 0.6 3.1	37 101 18 94	<b>17</b> Tu	0527 1212 1839 2348	3.3 0.5 2.8 1.6	101 15 85 49	<b>2</b> W	0542 1300 1931 2348	3.8 0.3 2.5 1.8	116 9 76 55	<b>17</b> Th	0515 1258 1953 2303	4.2 0.0 2.4 2.1	128 0 73 64	<b>2</b> Sa	0617 1407 2059 2350	4.1 0.6 2.4 2.2	125 18 73 67	<b>17</b> Su	0625 1433	4.8 0.3	146 9	
<b>3</b> Tu	0023 0624 1308 1928	1.3 3.5 0.5 2.8	40 107 15 85	<b>18</b> W	0550 1256 1927	3.5 0.3 2.6	107 9 79	<b>3</b> Th	0611 1339 2013	3.8 0.3 2.3	116 9 70	<b>18</b> F	0550 1347 2058 2314	4.3 0.0 2.2 2.1	131 0 67 64	<b>3</b> Su	0650 1445 2144	4.0 0.7 2.3	122 21 70	<b>18</b> M	0714 1520 2232	4.5 0.6 2.5	137 18 76	
<b>4</b> W	0042 0650 1351 2010	1.5 3.6 0.5 2.5	46 110 15 76	<b>19</b> Th	0001 0617 1343 2020	1.8 3.7 0.2 2.3	55 113 6 70	<b>4</b> F	0006 0641 1419 2059	1.9 3.8 0.4 2.2	58 116 67 67	<b>19</b> Sa	0629 1439	4.3 0.1	131 3	<b>4</b> M	0015 0725 1525 2237	2.2 3.9 0.9 2.3	67 119 70 70	<b>19</b> Tu	0052 0805 1604 2310	2.4 4.2 0.9 2.6	128 128 79 79	
<b>5</b> Th	0058 0718 1435 2055	1.6 3.6 0.6 2.3	49 110 18 70	<b>20</b> F	0009 0647 1435 2127	1.9 3.9 0.3 2.0	58 119 9 61	<b>5</b> Sa	0022 0712 1503 2153	1.9 3.7 0.6 2.1	58 113 18 64	<b>20</b> Su	0712 1536	4.2 0.3	128 9	<b>5</b> Tu	0043 0802 1606	2.2 3.7 1.1	67 113 34	<b>20</b> W	0222 0902 1646 ●	2.4 3.7 1.3 2.8	113 113 40 85	
<b>6</b> F	0109 0748 1524 2147	1.7 3.5 0.8 2.0	52 107 24 61	<b>21</b> Sa	0003 0722 1536	1.9 3.9 0.4	58 119 12	<b>6</b> Su	0031 0746 1552	2.0 3.6 0.8	61 110 24	<b>21</b> M	0801 1636	4.0 0.6	122 18	<b>6</b> W	0844 1648	3.4 1.3	104 40	<b>21</b> Th	0422 1013 1724	2.4 3.2 1.6	98 98 49	
<b>7</b> Sa	0113 0821 1623	1.8 3.4 0.9	55 104 27	<b>22</b> Su	0804 1652	3.8 0.6	116 18	<b>7</b> M	0825 1650	3.4 1.0	104 30	<b>22</b> Tu	0858 1739	3.7 0.9	113 27	<b>7</b> Th	0018 0306 0939 ●	2.5 2.4 3.2 1.5	76 73 98 46	<b>22</b> F	0026 0637 1153 1758	3.1 2.2 2.7 1.9	94 67 82 58	
<b>8</b> Su	0902 1742	3.3 1.1	101 34	<b>23</b> M	0858 1821	3.6 0.7	110 21	<b>8</b> Tu	0915 1756	3.2 1.1	98 34	<b>23</b> W	1016 1837	3.2 1.1	98 34	<b>8</b> F	0049 0528 1101 1813	2.7 2.4 2.9 1.7	82 73 88 52	<b>23</b> Sa	0104 0820 1359 1830	3.4 1.8 2.5 2.1	104 55 76 64	
<b>9</b> M	0959 1919	3.1 1.1	94 34	<b>24</b> Tu	1017 1942	3.3 0.8	101 24	<b>9</b> W	1027 1901	3.0 1.2	91 37	<b>24</b> Th	0207 0619 1207 1926	2.5 2.3 2.9 1.4	76 70 88 43	<b>9</b> Sa	0117 0730 1253 1854	2.9 2.1 2.6 1.8	88 64 79 55	<b>24</b> Su	0142 0928 1549 1904	3.7 1.5 2.4 2.3	113 46 73 70	
<b>10</b> Tu	1130 2032	3.0 1.1	91 34	<b>25</b> W	1214 2039	3.1 0.9	94 27	<b>10</b> Th	0251 0544 1208 1953	2.3 2.2 2.8 1.3	70 67 85 40	<b>25</b> F	0219 0819 1400 2005	2.8 1.9 2.7 1.6	85 58 82 49	<b>10</b> Su	0146 0848 1442 1932	3.2 1.7 2.5 2.0	98 52 76 61	<b>25</b> M	0221 1017 1706 1942	3.9 1.1 2.5 2.4	119 34 76 73	
<b>11</b> W	1313 2118	2.9 1.0	88 30	<b>26</b> Th	0350 0751 1404 2119	2.3 2.0 3.0 1.0	70 61 91 30	<b>11</b> F	0248 0755 1346 2033	2.5 2.0 2.7 1.4	76 61 82 43	<b>26</b> Sa	0241 0927 1528 2038	3.1 1.4 2.6 1.8	94 43 79 55	<b>11</b> M	0218 0945 1610 2008	3.5 1.2 2.5 2.2	107 37 76 67	<b>26</b> Tu	0300 1058 1756 2026	4.1 0.9 2.5 2.4	125 27 76 73	
<b>12</b> Th	0411 0806 1431 2152	2.2 2.0 3.0 1.0	67 61 91 30	<b>27</b> F	0346 0915 1523 2150	2.5 1.6 2.9 1.2	76 49 88 37	<b>12</b> Sa	0303 0903 1504 2107	2.7 1.6 2.7 1.5	82 49 82 46	<b>27</b> Su	0308 1018 1635 2108	3.5 1.0 2.6 1.9	107 30 58	<b>12</b> Tu	0253 1035 1722 2041	3.9 0.8 2.6 2.3	119 24 79 70	<b>27</b> W	0338 1135 1832 2110	4.3 0.8 2.6 2.4	131 24 79 73	
<b>13</b> F	0414 0914 1531 2220	2.4 1.7 3.1 1.0	73 52 94 30	<b>28</b> Sa	0400 1012 1625 2217	2.9 1.1 2.9 1.3	88 34 88 40	<b>13</b> Su	0323 0955 1608 2136	3.0 1.2 2.7 1.6	91 37 82 49	<b>28</b> M	0337 1100 1729 2136	3.7 0.7 2.5 2.0	113 21 76 61	<b>13</b> Th	0330 1123 1825 2114	4.2 0.4 2.6 2.4	128 12 79 73	<b>28</b> O	0416 1210 1903 2153	4.4 0.7 2.6 2.4	134 21 79 73	
<b>14</b> Sa	0427 1004 1621 2246	2.6 1.4 3.1 1.1	79 43 94 34	<b>29</b> Su	0422 1059 1717 2242	3.2 0.8 2.8 1.5	98 24 85 46	<b>14</b> M	0346 1041 1705 2202	3.3 0.8 2.7 1.8	101 24 82 55	<b>29</b> Tu	0408 1139 1816 2205	4.0 0.5 2.5 2.1	122 15 76 64	<b>14</b> Th	0411 1210 1921 ●	4.5 0.2 2.5 2.4	137 6 76 73	<b>29</b> F	0453 1244 1933 2232	4.4 0.7 2.6 2.4	134 21 79 73	
<b>15</b> Su	0445 1048 1707 2309	2.8 1.0 3.1 1.2	85 30 94 37	<b>30</b> M	0447 1141 1804 2305	3.5 0.5 2.7 1.6	107 15 82 49	<b>15</b> Tu	0413 1126 1801 2226	3.6 0.5 2.6 1.9	110 15 79 58	<b>30</b> W	0439 1216 1857 ●	4.1 0.4 2.5 2.1	125 12 76 64	<b>15</b> F	0454 1258 2014 2220	4.7 0.1 2.5 2.4	143 3 76 73	<b>30</b> Sa	0529 1318 2003 2309	4.4 0.7 2.6 2.4	134 21 79 73	
													<b>31</b> Th	0511 1253 1937 2300	4.2 0.4 2.5 2.2	128 12 76 67								

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Otomari, Sakhalin Island, 2018

Times and Heights of High and Low Waters

July				August				September								
	Time	Height			Time	Height			Time	Height						
	h m	ft	cm		h m	ft	cm		h m	ft	cm					
<b>1</b> Su	0604	4.4	134	<b>16</b> M	0627	4.8	146	<b>1</b> W	0035	2.2	67	<b>16</b> Th	0151	1.7	52	
	1351	0.8	24		0702	4.0	122		0805	3.6	110		0206	1.5	46	
	2033	2.6	79		1414	1.3	40		1426	1.6	49	<b>1</b> Sa	1347	1.8	55	
	2346	2.4	73		2029	2.9	88		2040	3.4	104		2009	3.5	107	
<b>2</b> M	0638	4.3	131	<b>17</b> Tu	0032	2.3	70	<b>2</b> Th	0118	2.2	67	<b>17</b> F	0255	1.7	52	
	1423	0.9	27		0717	4.5	137		0856	3.1	94	<b>2</b> Su	0302	1.5	46	
	2104	2.6	79		1448	0.9	27		1445	1.8	55		0855	2.6	79	
					2113	2.9	88		2114	3.6	110		1347	2.0	61	
<b>3</b> Tu	0024	2.4	73	<b>18</b> W	0141	2.2	67	<b>3</b> F	0208	2.2	67	<b>18</b> Sa	0408	1.7	52	
	0711	4.1	125		0807	4.0	122		0955	2.7	82	<b>3</b> M	0418	1.5	46	
	1453	1.1	34		1520	1.3	40		1455	2.0	61		1005	2.2	67	
	2135	2.7	82		2147	3.1	94		2154	3.7	113	<b>3</b> O	2120	3.7	113	
<b>4</b> W	0107	2.4	73	<b>19</b> Th	0257	2.2	67	<b>4</b> Sa	0310	2.1	64	<b>19</b> Su	0539	1.7	52	
	0746	3.9	119		0901	3.5	107		1129	2.3	70	<b>4</b> W	0609	1.4	43	
	1522	1.3	40		1547	1.6	49		1446	2.2	67		2221	3.8	116	
	2205	2.8	85		2224	3.3	101		2243	3.7	113	<b>19</b> W	0810	1.3	40	
<b>5</b> Th	0202	2.5	76	<b>20</b> F	0428	2.2	67	<b>5</b> Su	0434	2.0	61	<b>20</b> M	0726	1.6	49	
	0823	3.6	110		1004	3.0	91		2346	3.7	113	<b>5</b> W	0811	1.2	37	
	1549	1.5	46		1609	1.9	58					<b>20</b> Th	0913	1.2	37	
	2235	2.9	88	<b>●</b>	2306	3.5	107	<b>5</b> O	2224	3.6	110					
<b>6</b> F	0317	2.5	76	<b>21</b> Sa	0617	2.0	61	<b>6</b> M	0628	1.8	55	<b>21</b> Tu	0855	1.4	43	
	0908	3.3	101		1137	2.5	76		1206	2.2	67	<b>6</b> Th	0924	0.9	27	
	1613	1.7	52		1623	2.2	67		1438	2.1	64	<b>21</b> F	0144	3.4	104	
	<b>●</b>	2308	3.1		2353	3.7	113		2318	3.8	116		0954	1.1	34	
<b>7</b> Sa	0500	2.4	73	<b>22</b> Su	0803	1.8	55	<b>7</b> Tu	0821	1.5	46	<b>22</b> W	0100	3.8	116	
	1014	2.9	88						0952	1.2	37	<b>7</b> F	0127	4.0	122	
	1637	2.0	61							1012	0.7	21	<b>22</b> Sa	0250	3.5	107
	2346	3.3	101									1026	1.1	34		
<b>8</b> Su	0658	2.1	64	<b>23</b> M	0046	3.9	119	<b>8</b> W	0027	4.1	125	<b>23</b> Sa	0247	4.2	128	
	1209	2.5	76		0918	1.5	46		0934	1.1	34		1051	0.6	18	
	1658	2.2	67							1032	1.1	34	<b>23</b> Su	1732	2.4	73
										2059	2.1	64		2059	2.1	64
<b>9</b> M	0029	3.6	110	<b>24</b> Tu	0140	4.0	122	<b>9</b> Th	0140	4.3	131	<b>24</b> F	0307	4.0	122	
	0832	1.7	52		1010	1.2	37		1027	0.7	21		1104	1.0	30	
	1500	2.4	73							1745	2.5	76	<b>24</b> M	1116	1.1	34
	1715	2.3	70							2100	2.3	70		1116	2.8	85
<b>10</b> Tu	0118	4.0	122	<b>25</b> W	0232	4.2	128	<b>10</b> F	0249	4.6	140	<b>25</b> M	0448	4.2	128	
	0938	1.2	37		1051	1.1	34		1112	0.5	15		1155	0.8	24	
										1755	2.6	79		1756	2.8	85
										2155	2.1	64	<b>25</b> O	2310	1.5	46
<b>11</b> W	0209	4.3	131	<b>26</b> Th	0320	4.3	131	<b>11</b> Sa	0350	4.8	146	<b>26</b> Tu	0540	4.1	125	
	1031	0.8	24		1126	0.9	27		1152	0.4	12		1223	1.0	30	
					1828	2.6	79		1837	2.5	76		1811	2.7	82	
					2048	2.5	76	<b>●</b>	2143	2.3	70		2240	2.0	61	
<b>12</b> Th	0302	4.6	140	<b>27</b> F	0404	4.4	134	<b>12</b> Su	0446	4.8	146	<b>27</b> W	0513	4.1	125	
	1120	0.5	15		1158	0.9	27		1230	0.5	15		0628	3.8	116	
					1841	2.6	79		1853	2.6	79		1248	1.2	37	
					2145	2.4	73		2251	2.1	64		1845	3.4	104	
<b>13</b> F	0355	4.9	149	<b>28</b> Sa	0444	4.4	134	<b>13</b> M	0538	4.7	143	<b>28</b> Tu	0548	4.0	122	
	1206	0.3	9		1229	0.9	27		1304	0.7	21		0715	3.5	107	
	1925	2.6	79		1900	2.7	82		1915	2.8	85		1849	2.9	88	
	<b>●</b>	2118	2.5		2232	2.3	70		2352	1.9	58		1913	3.6	110	
<b>14</b> Sa	0446	5.0	152	<b>29</b> Su	0521	4.4	134	<b>14</b> Tu	0628	4.5	137	<b>29</b> F	0147	1.0	30	
	1250	0.3	9		1258	0.9	27		1335	0.9	27		0802	3.1	94	
	1948	2.6	79		1922	2.7	82		1940	3.0	91		1329	1.7	52	
	2225	2.4	73		2314	2.3	70					1942	3.7	113		
<b>15</b> Su	0537	5.0	152	<b>30</b> M	0556	4.4	134	<b>15</b> W	0052	1.7	52	<b>30</b> Sa	0240	1.0	30	
	1332	0.4	12		1325	1.0	30		0717	4.1	125		0852	2.7	82	
	2015	2.6	79		1945	2.8	85		1403	1.2	37		1342	1.9	58	
	2328	2.3	70		2354	2.2	67		2008	3.2	98		2014	3.7	113	
<b>31</b> Tu	0629	4.2	128	<b>31</b> F	0629	4.2	128		0120	1.6	49	<b>30</b> Su	0206	0.9	27	
					1351	1.1	34		0731	3.3	101		0738	2.8	85	
					2007	2.8	85		1339	1.6	49		1241	1.8	55	
									1946	3.3	101		1855	3.6	110	

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Otomari, Sakhalin Island, 2018

Times and Heights of High and Low Waters

October					November					December															
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm										
<b>1</b> M	0301	0.9	27	<b>16</b> Tu	0412	1.0	30	<b>1</b> Th	0535	0.9	27	<b>16</b> F	0534	1.4	43										
0925	2.1	64		2043	3.5	107	2127	3.6	110	2204	3.2	98	1 Sa	0554	1.4	43									
1229	2.0	61											<b>16</b> Su	1216	2.9	88									
1954	3.8	116											1703	2.6	79										
													2227	3.0	91										
<b>2</b> Tu	0414	1.0	30	<b>17</b> W	0528	1.2	37	<b>2</b> F	0659	1.1	34	<b>17</b> Sa	0635	1.5	46	<b>2</b> Su	0645	1.7	52						
2038	3.8	116		2140	3.3	101	2316	3.3	101	1426	2.6	79	1950	3.0	91	<b>17</b> M	0539	1.9	58						
										1746	2.5	76				1917	2.4	73							
										2346	3.0	91													
<b>3</b> W	0557	1.0	30	<b>18</b> Th	0657	1.3	40	<b>3</b> Sa	0801	1.2	37	<b>18</b> Su	0727	1.6	49	<b>3</b> M	0120	2.9	88	<b>18</b> Tu	0022	2.8	85		
2143	3.7	113		2312	3.1	94	1533	2.6	79	1428	2.8	85	1954	2.3	70	0618	2.1	64	1326	3.4	104				
										1954	2.3	70				2042	2.0	61							
<b>4</b> Th	0746	1.0	30	<b>19</b> F	0808	1.3	40	<b>4</b> Su	0122	3.2	98	<b>19</b> M	0131	2.9	88	<b>4</b> Tu	0307	2.8	85	<b>19</b> W	0228	2.6	79		
2327	3.6	110								0845	1.3	40	0808	1.7	52	0804	2.1	64	0659	2.3	70				
										1520	2.8	85	1444	3.1	94	1443	3.7	113	1400	3.7	113				
										2052	1.9	58	2100	1.9	58	2203	1.3	40	2138	1.5	46				
<b>5</b> F	0854	0.9	27	<b>20</b> Sa	0059	3.1	94	<b>5</b> M	0254	3.1	94	<b>20</b> Tu	0252	2.9	88	<b>5</b> W	0423	2.7	82	<b>20</b> Th	0404	2.7	82		
				0854	1.3	40	0918	1.5	46	0842	1.8	55	0842	3.3	101	0837	2.3	70	0739	2.4	73	1436	4.1	125	
				1545	2.5	76	1534	3.2	98	1505	3.3	101	2148	1.5	46	1515	4.1	125	2225	1.1	34				
				2009	2.2	67																			
<b>6</b> Sa	0123	3.5	107	<b>21</b> Su	0219	3.1	94	<b>6</b> Tu	0403	3.1	94	<b>21</b> W	0357	2.9	88	<b>6</b> Th	0521	2.7	82	<b>21</b> F	0515	2.7	82		
0938	0.9	27		0928	1.3	40	0946	1.7	52	0911	2.0	61	0909	2.3	70	0909	2.5	76	0817	2.5	76	1515	4.4	134	
1634	2.4	73		1550	2.7	82	1556	3.5	107	1529	3.6	110	2231	1.1	34	1548	4.3	131	2310	0.7	21				
2015	2.2	67		2110	1.8	55	2241	1.0	30							2327	0.7	21							
<b>7</b> Su	0249	3.6	110	<b>22</b> M	0319	3.2	98	<b>7</b> W	0500	3.0	91	<b>22</b> Th	0453	2.9	88	<b>7</b> F	0609	2.7	82	<b>22</b> Sa	0613	2.7	82		
1013	0.9	27		0955	1.4	43	1012	1.8	55	0938	2.1	64	0941	2.4	73	0854	2.6	79	1555	4.7	143	2354	0.5	15	
1630	2.6	79		1604	2.9	88	1622	3.8	116	1556	3.9	119	2313	0.8	24	1622	4.5	137							
2132	1.7	52		2157	1.5	46	2325	0.6	18																
<b>8</b> M	0355	3.6	110	<b>23</b> Tu	0408	3.2	98	<b>8</b> Th	0550	2.9	88	<b>23</b> F	0545	2.8	85	<b>8</b> Sa	0005	0.6	18	<b>23</b> Su	0702	2.7	82		
1042	1.1	34		1020	1.4	43	1037	1.9	58	1051	2.2	67	1024	2.3	73	0650	2.7	82	0929	2.6	79	1637	4.9	149	
1643	2.9	88		1623	3.1	94	1651	4.1	125	1100	2.0	61	1655	4.4	134	1657	4.6	140	1043	2.4	73	1731	4.6	140	
2230	1.3	40		2238	1.2	37	●			1721	4.2	128	1041	2.4	73	1012	2.4	73	1657	4.6	140				
<b>9</b> Tu	0451	3.5	107	<b>24</b> W	0454	3.2	98	<b>9</b> F	0006	0.4	12	<b>24</b> Sa	0637	2.8	85	<b>9</b> Su	0041	0.5	15	<b>24</b> M	0038	0.3	9		
1108	1.2	37		1043	1.6	49	0636	2.8	85	1100	2.0	61	1024	2.3	73	0727	2.7	82	0947	2.7	82	1006	2.6	79	
1705	3.3	101		1643	3.4	104	1100	2.0	61	1721	4.2	128	1655	4.4	134	1043	2.4	73	1731	4.6	140				
●	2320	0.9	27	2317	0.9	27																			
<b>10</b> W	0542	3.4	104	<b>25</b> Th	0538	3.1	94	<b>10</b> Sa	0047	0.4	12	<b>25</b> Su	0038	0.3	9	<b>10</b> M	0118	0.6	18	<b>25</b> Tu	0122	0.3	9		
1132	1.4	43		1104	1.7	52	0721	2.7	82	0730	2.6	79	0804	2.7	82	0828	2.6	79	1047	2.5	76	1804	5.0	152	
1730	3.6	110		1705	3.6	110	1123	2.1	64	1123	2.1	64	1041	2.4	73	1113	2.4	73	1806	4.5	137				
O	2357	0.7	21	2357	0.7	21	1752	4.3	131	1752	4.3	131	1729	4.6	140	1840	4.4	134	1850	4.8	146				
<b>11</b> Th	0007	0.6	18	<b>26</b> F	0622	2.9	88	<b>11</b> Su	0127	0.4	12	<b>26</b> M	0124	0.3	9	<b>11</b> Tu	0154	0.7	21	<b>26</b> W	0206	0.5	15		
0629	3.2	98		1122	1.9	58	0805	2.5	76	0829	2.5	76	1054	2.4	73	0841	2.6	79	0907	2.6	79	1134	2.5	76	
1155	1.6	49		1728	3.8	116	1143	2.2	67	1824	4.2	128	1806	4.7	143	1143	2.4	73	1840	4.4	134	1850	4.8	146	
1758	3.8	116																							
<b>12</b> F	0052	0.5	15	<b>27</b> Sa	0037	0.5	15	<b>12</b> M	0207	0.6	18	<b>27</b> Tu	0212	0.4	12	<b>12</b> W	0231	0.9	27	<b>27</b> Th	0249	0.7	21		
0716	2.9	88		0708	2.8	85	0852	2.4	73	1201	2.2	67	1846	4.6	140	1212	2.4	73	1232	2.5	76	1938	4.5	137	
1215	1.8	55		1136	2.0	61				1857	4.1	125					1914	4.2	128						
1826	3.9	119		1753	4.0	122																			
<b>13</b> Sa	0137	0.5	15	<b>28</b> Su	0121	0.5	15	<b>13</b> Tu	0251	0.8	24	<b>28</b> W	0304	0.6	18	<b>13</b> Th	0308	1.1	34	<b>28</b> F	0330	1.0	30		
0802	2.7	82		0759	2.5	76	0948	2.3	70	1212	2.2	67	1930	4.4	134	1002	2.6	79	1019	2.8	85	1346	2.5	76	
1232	1.9	58		1143	2.1	64	1931	4.0	122								1247	2.5	76	1950	4.0	122			
1856	3.9	119		1822	4.1	125																			
<b>14</b> Su	0223	0.6	18	<b>29</b> M	0209	0.5	15	<b>14</b> W	0338	1.0	30	<b>29</b> Th	0359	0.8	24	<b>14</b> F	0345	1.3	40	<b>29</b> Sa	0408	1.4	43		
0851	2.4	73		0901	2.3	70	2010	3.7	113	2057	3.5	107	2021	4.0	122	1048	2.6	79	1058	3.0	91	1527	2.5	76	
1244	2.0	61		1139	2.1	64	1854	4.2	128								1334	2.5	76	2029	3.7	107			
1928	3.9	119															1029	3.7	113	2130	3.5	107			
<b>15</b> M	0313	0.8	24	<b>30</b> Tu	0305	0.6	18	<b>15</b> Th	0433	1.2	37	<b>30</b> F	0457	1.1	34	<b>15</b> Sa	0422	1.5	46	<b>30</b> Su	0442	1.8	55		
0952	2.2	67		1932	4.1	125	2057	3.5	107								1135	2.8	85	1139	3.2	98			

# O. Paramushiru, Kuril Islands, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height										
1 M 0515 5.5 169		16 Tu 0534 5.7 174		1 Th 0610 5.9 179		16 F 0602 5.8 176		1 Th 0455 5.5 169		16 F 0439 5.5 167	
0928 4.9 148		0951 5.0 153		1102 4.7 143		1112 4.2 129		0955 4.4 134		1005 3.8 116	
1356 5.7 173		1402 5.7 173		1524 5.6 170		1601 5.5 168		1434 5.3 163		1518 5.3 161	
2157 0.3 9		2208 0.3 8		2303 0.5 15		2315 0.9 28		2202 1.1 34		2213 1.6 49	
2 Tu 0559 5.8 178		17 W 0610 5.9 180		2 F 0638 5.9 180		17 Sa 0627 5.8 176		2 F 0522 5.6 171		17 Sa 0505 5.5 167	
1029 5.0 151		1047 5.0 151		1146 4.4 134		1151 3.8 117		1038 4.0 122		1044 3.3 101	
1439 5.7 173		1455 5.6 172		1622 5.5 168		1659 5.5 168		1540 5.4 166		1620 5.4 166	
○ 2238 0.1 2		● 2250 0.2 6		2343 0.7 21		2355 1.2 37		○ 2246 1.2 38		2257 1.8 55	
3 W 0637 6.0 183		18 Th 0642 6.0 183		3 Sa 0705 5.9 180		18 Su 0651 5.7 175		3 Sa 0548 5.6 171		18 Su 0529 5.5 167	
1121 4.9 150		1136 4.8 145		1226 4.0 123		1230 3.4 104		1117 3.6 109		1120 2.9 87	
1526 5.6 172		1549 5.6 170		1718 5.4 166		1755 5.4 166		1640 5.5 168		1716 5.6 170	
2319 0.0 1		2331 0.3 9						2327 1.5 45		● 2338 2.1 65	
4 Th 0711 6.1 186		19 F 0712 6.0 184		4 Su 0022 1.0 30		19 M 0033 1.6 48		4 Su 0611 5.6 171		19 M 0553 5.5 167	
1209 4.8 146		1220 4.5 137		0730 5.9 179		0715 5.7 174		1154 3.1 96		1157 2.4 73	
1614 5.5 169		1643 5.5 167		1307 3.6 111		1309 3.0 91		1735 5.5 169		1808 5.6 171	
2358 0.2 5				1814 5.3 162		1850 5.3 163					
5 F 0744 6.1 186		20 Sa 0010 0.5 15		5 M 0100 1.4 43		20 Tu 0110 2.1 63		5 M 0006 1.8 56		20 Tu 0016 2.5 76	
1254 4.6 139		0740 6.0 183		0755 5.8 177		0739 5.7 174		0635 5.6 171		0616 5.5 168	
1705 5.4 165		1303 4.2 127		1349 3.2 99		1351 2.6 79		1232 2.7 82		1235 2.0 60	
		1738 5.3 163		1912 5.2 157		1947 5.2 158		1829 5.5 168		1900 5.6 171	
6 Sa 0037 0.4 13		21 Su 0049 0.9 26		6 Tu 0136 1.9 59		21 W 0145 2.6 79		6 Tu 0043 2.2 68		21 W 0053 2.9 89	
0815 6.0 184		0807 5.9 181		0819 5.8 176		0803 5.7 173		0658 5.6 171		0639 5.5 168	
1340 4.3 131		1346 3.8 116		1434 2.9 87		1435 2.3 69		1311 2.3 70		1314 1.7 51	
1759 5.2 159		1835 5.2 157		2014 4.9 150		2049 5.0 153		1923 5.4 166		1954 5.5 169	
7 Su 0116 0.8 25		22 M 0127 1.3 41		7 W 0213 2.5 76		22 Th 0221 3.1 95		7 W 0119 2.7 83		22 Th 0129 3.3 102	
0844 6.0 182		0834 5.9 179		0844 5.7 175		0828 5.7 173		0721 5.6 171		0704 5.5 169	
1427 3.9 120		1432 3.4 104		1522 2.5 100		1524 2.0 60		1353 2.0 60		1355 1.4 44	
1858 5.0 151		1936 4.9 149		2123 4.7 144		2200 4.8 147		2020 5.3 161		2051 5.4 164	
8 M 0155 1.3 40		23 Tu 0204 1.9 58		8 Th 0249 3.1 94		23 F 0257 3.6 111		8 Th 0155 3.2 98		23 F 0206 3.8 115	
0913 5.9 179		0900 5.8 177		0911 5.7 174		0855 5.6 172		0746 5.6 171		0730 5.5 168	
1518 3.5 108		1521 3.0 92		1614 2.1 65		1617 1.7 53		1437 1.7 53		1440 1.3 40	
2004 4.7 142		2045 4.7 142		○ 2247 4.6 139		● 2327 4.8 145		2122 5.1 156		2154 5.2 160	
9 Tu 0234 1.9 58		24 W 0242 2.5 76		9 F 0327 3.7 112		24 Sa 0338 4.1 126		9 F 0231 3.7 112		24 Sa 0245 4.1 126	
0941 5.8 177		0926 5.8 176		0939 5.7 174		0926 5.6 171		0812 5.6 170		0759 5.5 167	
1611 3.1 95		1613 2.6 79		1711 1.8 55		1715 1.6 48		1526 1.6 48		1530 1.3 40	
○ 2121 4.4 134		2205 4.5 136						○ 2236 5.0 152		2308 5.2 157	
10 W 0315 2.6 78		25 Th 0321 3.1 95		10 Sa 0029 4.6 140		25 Su 0110 4.8 147		10 Sa 0310 4.1 126		25 Su 0334 4.5 136	
1010 5.7 175		0954 5.7 175		0411 4.2 128		0432 4.6 139		0842 5.5 169		0832 5.4 164	
1706 2.6 80		1708 2.2 66		1012 5.7 173		1003 5.6 170		1621 1.5 45		1626 1.4 42	
2256 4.2 129		○ 2343 4.4 134		1811 1.5 46		1818 1.4 43				○ 2308 5.2 157	
11 Th 0358 3.2 98		26 F 0403 3.7 114		11 Su 0220 4.8 147		26 M 0246 5.1 154		11 Su 0004 5.0 151		26 M 0031 5.1 156	
1039 5.7 174		1024 5.7 174		0514 4.7 142		0559 4.9 148		0400 4.5 137		0443 4.7 142	
1803 2.1 65		1806 1.8 54		1051 5.6 172		1053 5.5 167		0917 5.5 167		0916 5.2 159	
				1911 1.2 38		1921 1.2 38		1722 1.4 44		1729 1.5 45	
12 F 0046 4.3 132		27 Sa 0136 4.6 139		12 M 0341 5.1 156		27 Tu 0346 5.3 161		12 M 0138 5.0 153		27 Tu 0147 5.2 158	
0448 3.8 116		0455 4.3 131		0651 4.9 150		0744 4.9 149		0516 4.8 145		0620 4.7 142	
1111 5.7 173		1058 5.7 174		1142 5.6 170		1201 5.4 164		1004 5.3 163		1023 5.1 154	
1858 1.6 50		1903 1.4 42		2008 1.0 30		2020 1.1 35		1827 1.4 43		1837 1.6 49	
13 Sa 0235 4.6 141		28 Su 0317 4.9 149		13 Tu 0430 5.4 165		28 W 0425 5.4 166		13 Tu 0250 5.2 158		28 W 0242 5.2 160	
0554 4.4 133		0612 4.7 144		0827 5.0 152		0902 4.7 144		0701 4.8 146		0750 4.4 135	
1146 5.7 173		1139 5.7 173		1245 5.5 168		1320 5.3 163		1114 5.2 159		1159 4.9 149	
1950 1.2 36		1958 1.0 31		2101 0.8 25		2113 1.1 33		1932 1.4 43		1944 1.7 52	
14 Su 0356 5.1 154		29 M 0422 5.3 161		14 W 0505 5.6 171				14 W 0337 5.3 162		29 W 0849 4.0 123	
0717 4.8 145		0747 5.0 152		0937 4.8 147				1242 5.1 156		1335 4.9 150	
1227 5.7 173		1228 5.6 172		1353 5.5 168				2032 1.4 43		2044 1.8 55	
2039 0.8 24		2049 0.7 22		2149 0.8 23							
15 M 0452 5.4 165		30 Tu 0505 5.5 169		15 Th 0535 5.7 174				15 Th 0411 5.4 165		30 F 0352 5.3 163	
0841 5.0 152		0910 5.0 153		1029 4.6 139				0922 4.2 129		0933 3.6 109	
1312 5.7 173		1324 5.6 172		1500 5.5 168				1406 5.2 157		1454 5.1 155	
2125 0.5 14		2136 0.5 16		2234 0.8 24				2126 1.5 45		2137 2.0 60	
		31 W 0540 5.8 176								31 Sa 0420 5.3 163	
		1013 4.9 150								1011 3.1 94	
		1425 5.6 171								1559 5.3 162	
		2221 0.5 14								2224 2.2 66	

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# O. Paramushiru, Kuril Islands, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0445	5.4	164	<b>16</b>	0424	5.3	162	<b>1</b>	0404	5.3	163
	1047	2.6	78	M	1051	1.8	54	<b>16</b>	0347	5.4	164
	1656	5.5	168	Tu	1729	5.6	171	W	1102	0.5	14
	2307	2.5	75	●	2317	3.1	94		1827	5.8	178
<b>2</b> M	0509	5.4	164	<b>17</b>	0449	5.3	163	<b>2</b>	0431	5.4	164
	1123	2.1	63	Tu	1127	1.3	41	<b>17</b>	0416	5.4	165
	1748	5.7	173	W	1819	5.8	176	W	1139	0.2	7
	2347	2.8	85		2357	3.4	104	Th	1914	5.9	181
<b>3</b> Tu	0533	5.4	165	<b>18</b>	0514	5.4	165	<b>3</b>	0008	4.0	121
	1200	1.6	70	W	1204	1.0	30	<b>18</b>	0021	4.4	133
	1839	5.7	175		1908	5.8	178	F	0447	5.4	166
								1218	0.1	3	
<b>4</b> W	0025	3.1	96	<b>4</b>	0049	4.2	128	<b>3</b>	0124	4.6	139
	0557	5.4	166	Th	0540	5.4	166	<b>19</b>	0147	5.4	166
	1238	1.3	40	W	1243	0.8	23		1218	0.1	3
	1930	5.7	174		1958	5.8	177	F	1959	6.0	182
<b>5</b> Th	0103	3.5	107	<b>20</b>	0115	4.0	123	<b>4</b>	0215	4.5	136
	0622	5.5	167	F	0607	5.4	166	<b>19</b>	0105	4.5	137
	1317	1.1	34	W	1322	0.7	21	W	0520	5.4	164
	2023	5.6	172		2051	5.7	175	Sa	1257	0.2	5
<b>6</b> F	0140	3.9	118	<b>21</b>	0157	4.3	131	<b>4</b>	0245	4.5	137
	0648	5.5	167	W	0636	5.4	166	<b>5</b>	0312	4.3	130
	1359	1.0	31	Sa	1405	0.8	23	<b>20</b>	0153	4.5	138
	2120	5.5	168		2146	5.6	171	W	0556	5.2	160
<b>7</b> Sa	0221	4.2	128	<b>21</b>	0219	4.5	137	<b>5</b>	0312	4.3	130
	0717	5.4	165	W	0631	5.2	160	<b>20</b>	0658	4.8	145
	1445	1.0	32	Sa	1412	0.7	20	W	1430	0.9	28
	2223	5.4	164		2205	5.7	173		2216	5.7	173
<b>8</b> Su	0244	4.5	136	<b>7</b>	0316	4.5	138	<b>7</b>	0518	3.5	107
	0709	5.3	161	W	0711	5.0	153	<b>22</b>	0350	4.3	132
	1451	0.9	28	Sa	1459	1.0	30	W	0728	4.7	144
	2245	5.5	167		2257	5.6	170	Th	1507	1.1	35
<b>9</b> M	0345	4.5	138	<b>8</b>	0428	4.4	134	<b>8</b>	0618	3.0	91
	0749	5.1	154	W	0804	4.8	145	<b>23</b>	0501	4.0	123
	1536	1.2	36	Sa	1543	1.2	37	W	0841	4.4	134
	2333	5.3	161	●	2346	5.4	165		1559	1.7	51
<b>10</b> Tu	0413	4.6	140	<b>9</b>	0547	4.1	125	<b>24</b>	0609	3.6	109
	0831	5.2	157	W	0924	4.4	135	W	1023	4.1	126
	1633	1.4	43	Sa	1641	1.6	48	Th	1657	2.2	68
								<b>25</b>	0002	5.4	164
<b>11</b> W	0043	5.2	160	<b>10</b>	0032	5.4	164	<b>9</b>	0710	2.4	73
	0542	4.6	139	W	0631	4.2	128	W	1318	4.1	125
	0932	4.9	149	Sa	1015	4.5	138	W	1809	3.2	99
	1739	1.6	50		1748	1.9	59	Th	1657	2.2	68
<b>12</b> Th	0129	5.3	162	<b>11</b>	0112	5.3	162	<b>10</b>	0036	5.3	163
	0737	3.7	114	W	0747	3.1	95	<b>25</b>	0018	5.4	164
	1212	4.4	135	Sa	1312	4.3	131	W	0705	3.0	92
	1858	2.3	69		1907	2.7	83	Th	1222	4.1	125
<b>13</b> F	0208	5.3	161	<b>12</b>	0147	5.3	161	<b>10</b>	0756	1.8	55
	0825	3.2	98	W	0830	2.5	77	W	1451	4.5	136
	1257	4.7	142	Sa	1441	4.6	141	W	1451	4.5	136
	1955	2.1	64		2005	2.6	78	Th	1803	2.8	84
<b>14</b> Sa	0126	5.3	161	<b>13</b>	0219	5.3	161	<b>11</b>	0109	5.3	163
	0814	3.9	119	W	0910	1.9	58	<b>26</b>	0054	5.4	165
	119	1.1	77	Sa	1511	5.0	152	W	0839	1.2	37
	1257	4.7	142		2104	2.9	87	Th	1602	4.9	149
<b>15</b> Su	0302	5.3	161	<b>14</b>	0249	5.3	161	<b>11</b>	029	5.3	163
	0900	3.4	103	W	0943	2.1	63	<b>27</b>	0143	5.4	164
	1426	4.9	148	Sa	1614	5.2	159	W	0921	0.7	22
	2055	2.3	70		2156	3.1	95	Th	1659	5.3	161
<b>16</b> Sa	0331	5.3	161	<b>15</b>	0318	5.3	163	<b>12</b>	0143	5.4	164
	0939	2.9	87	W	1019	1.5	47	<b>27</b>	0132	5.4	165
	1536	5.1	156	Sa	1709	5.5	168	W	1726	5.4	165
	2147	2.5	77	●	2243	3.4	104	Th	2147	4.6	141
<b>17</b> Su	0359	5.3	162	<b>16</b>	0337	5.3	161	<b>13</b>	0335	5.4	166
	1015	2.3	70	W	1025	0.9	26	W	1110	0.0	1
	1636	5.4	165	Sa	1740	5.6	172	Th	1852	5.9	180
	2234	2.8	85	●	2253	3.9	120	W	2351	4.5	138
<b>18</b> M	0331	5.3	161	<b>17</b>	0337	5.3	161	<b>14</b>	0253	5.4	166
	0939	2.9	87	W	1019	1.5	47	W	1040	0.0	-1
	1536	5.1	156	Sa	1709	5.5	168	Th	1831	5.8	177
	2147	2.5	77	●	2243	3.4	104	●	2319	4.6	141
<b>19</b> Su	0359	5.3	162	<b>18</b>	0337	5.3	161	<b>15</b>	0331	5.4	166
	1015	2.3	70	W	1019	1.5	47	<b>15</b>	1119	-0.2	-6
	1636	5.4	165	Sa	1709	5.5	168	W	1912	5.9	181
	2234	2.8	85	●	2243	3.4	104	W	1808	5.7	175
<b>20</b> M	0331	5.3	161	<b>19</b>	0337	5.3	161	<b>16</b>	0335	5.4	166
	0939	2.9	87	W	1019	1.5	47	W	1110	0.0	1
	1536	5.1	156	Sa	1709	5.5	168	Th	1852	5.9	180
	2147	2.5	77	●	2243	3.4	104	W	2351	4.5	138

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# O. Paramushiru, Kuril Islands, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0022 4.5 138	16 0034 4.2 129	1 W 0123 3.3 102	16 0125 2.7 82	1 Sa 0209 1.7 52	16 0212 1.2 36						
0426 5.3 162	M 0453 5.2 157	W 0624 4.9 149	Th 0700 4.9 149	Sa 0832 4.8 146	Su 0904 5.0 151						
1210 - 0.1 -3	1222 0.2 5	1311 1.0 32	1321 1.6 50	1405 2.8 86	1416 3.4 103						
1956 5.9 179	1954 5.7 175	2010 5.5 167	1955 5.3 163	2002 5.2 160	1946 5.2 158						
2 M 0109 4.3 132	17 0118 3.9 119	2 Th 0206 3.0 90	17 0208 2.3 70	2 Su 0255 1.4 44	17 0258 1.1 33						
0515 5.1 156	Tu 0548 5.0 152	723 4.7 143	0759 4.7 144	0938 4.6 141	1011 4.8 146						
1249 0.2 6	1300 0.6 17	1348 1.6 48	1357 2.2 67	1442 3.3 101	1456 3.8 116						
2028 5.8 177	2022 5.6 172	2035 5.4 166	2019 5.3 162	2029 5.2 160	2015 5.2 157						
3 Tu 0156 4.1 124	18 0203 3.5 108	3 F 0252 2.6 78	18 0254 2.0 60	3 M 0346 1.3 39	18 0350 1.0 32						
0609 4.9 149	W 0645 4.8 145	0827 4.5 136	0903 4.5 138	1056 4.5 137	1130 4.7 144						
1328 0.6 18	1338 1.0 32	1424 2.2 66	1432 2.8 84	1522 3.8 115	1545 4.1 126						
2059 5.7 174	2049 5.6 170	2101 5.4 164	2045 5.3 162	2059 5.2 159	2050 5.1 154						
4 W 0245 3.7 113	19 0250 3.1 96	4 Sa 0342 2.2 66	19 0344 1.6 50	4 Tu 0443 1.1 35	19 0448 1.1 33						
0709 4.6 141	Th 0748 4.5 132	0941 4.3 130	1019 4.4 133	1231 4.5 137	1258 4.7 144						
1407 1.1 34	1416 1.6 49	1501 2.8 84	1509 3.3 101	1613 4.2 127	1657 4.4 133						
2128 5.6 171	2116 5.5 168	2127 5.4 164	2112 5.3 161	2135 5.1 156	2136 4.9 150						
5 Th 0337 3.3 101	20 0340 2.7 83	5 Su 0436 1.8 54	20 0439 1.4 43	5 W 0545 1.1 33	20 0553 1.1 35						
0817 4.3 131	F 0900 4.2 129	1109 4.1 126	1152 4.3 131	1407 4.7 142	1413 4.8 147						
1447 1.7 52	1455 2.2 68	1541 3.3 102	1551 3.8 116	1734 4.4 135	1838 4.4 133						
2157 5.5 168	2143 5.4 166	2157 5.3 163	2144 5.2 160	2224 5.0 153	2245 4.8 145						
6 F 0432 2.9 87	21 0434 2.3 70	6 M 0534 1.4 44	21 Tu 0538 1.2 36	6 Th 0650 1.0 30	21 0701 1.2 37						
0940 4.0 123	Sa 1026 4.0 123	1257 4.2 128	1340 4.4 135	1514 4.9 148	1504 5.0 126						
1530 2.4 72	1535 2.9 87	1627 3.9 119	1648 4.2 129	1920 4.5 136	2006 4.1 126						
● 2227 5.4 166	2212 5.4 165	2230 5.3 162	2222 5.2 159	2335 4.9 149							
7 Sa 0528 2.4 72	22 0531 1.8 56	7 Tu 0633 1.1 33	22 W 0640 1.0 29	7 F 0753 1.0 29	22 0019 4.7 142						
1120 3.9 120	Su 1209 4.0 123	1446 4.5 137	1511 4.7 143	1557 5.0 153	0805 1.3 39						
1616 3.0 91	1620 3.5 106	1736 4.3 132	1821 4.5 137	2041 4.3 130	1541 5.0 153						
2257 5.4 165	2242 5.4 164	2310 5.3 161	2313 5.1 156		2103 3.8 115						
8 Su 0624 1.8 56	23 0628 1.4 42	8 W 0731 0.8 24	23 Th 0741 0.8 24	8 Sa 0100 4.8 147	23 0150 4.7 143						
1313 4.1 124	M 1403 4.3 130	1600 4.8 147	1605 5.0 151	0850 0.9 28	0902 1.3 41						
1711 3.6 110	1717 4.0 122	1915 4.6 140	2003 4.5 138	1629 5.1 155	1611 5.1 154						
2330 5.4 164	2317 5.4 164			2136 3.9 119	2146 3.3 101						
9 M 0717 1.3 40	24 0723 1.0 29	9 Th 0001 5.2 160	24 F 0020 5.1 154	9 Su 0220 4.9 149	24 0305 4.9 148						
1455 4.4 135	Tu 1536 4.6 141	0826 0.5 16	0837 0.6 159	0941 1.0 30	0953 1.5 46						
1821 4.1 126	1839 4.4 135	1645 5.1 156	1641 5.1 156	1657 5.2 157	1638 5.1 155						
	2358 5.3 163	2046 4.6 141	2117 4.4 133	2219 3.5 107	2224 2.8 86						
10 Tu 0006 5.4 165	25 0815 0.6 18	10 F 0102 5.2 158	25 Sa 0135 5.0 153	10 M 0329 5.0 152	25 0409 5.1 154						
0807 0.8 25	W 1635 5.0 152	0916 0.3 10	0929 0.6 18	1027 1.1 34	1038 1.7 52						
1610 4.8 147	2010 4.7 142	1720 5.3 162	1712 5.2 160	1722 5.2 157	1702 5.1 155						
1943 4.5 137		2152 4.5 137	2209 4.1 124	● 2257 3.1 93	2301 2.3 71						
11 W 0045 5.4 165	26 0046 5.3 163	11 Th 0207 5.2 158	26 Su 0246 5.1 154	11 M 0429 5.1 156	26 0505 5.2 159						
0854 0.4 12	0904 0.3 9	1003 0.3 8	1015 0.6 19	1110 1.3 41	1120 2.0 61						
1703 5.2 159	1718 5.3 161	1749 5.4 165	1738 5.3 161	1746 5.2 157	1726 5.1 156						
2102 4.7 143	2128 4.7 143	● 2243 4.2 129	2252 3.7 113	2334 2.6 78	2337 1.8 56						
12 Th 0130 5.4 165	27 0141 5.3 162	12 Su 0311 5.2 157	27 M 0350 5.1 155	12 W 0525 5.2 159	27 0558 5.3 163						
0938 0.1 3	0950 0.1 2	1046 0.3 9	1058 0.8 23	1149 1.6 62	1159 2.4 72						
1745 5.5 167	1752 5.5 167	1817 5.4 166	1803 5.3 161	1227 2.0 62	1237 2.8 84						
2207 4.7 144	2227 4.6 140	2325 3.9 119	2331 3.3 100	1832 5.2 158	1814 5.2 157						
13 F 0218 5.4 165	28 0238 5.3 161	13 M 0411 5.2 157	28 Tu 0449 5.1 156	13 Th 0011 2.1 65	28 0014 1.4 44						
1021 - 0.1 -3	Sa 1033 0.0 0	1127 0.5 14	1139 1.0 31	0618 5.2 160	0649 5.4 164						
1821 5.7 173	1823 5.6 170	1842 5.4 166	1827 5.3 161	1227 2.0 62	1237 2.8 84						
● 2302 4.7 142	O 2316 4.4 133			1832 5.2 158	1814 5.2 157						
14 Sa 0308 5.3 163	29 0335 5.2 160	14 Tu 0005 3.5 107	29 W 0009 2.9 87	14 F 0049 1.7 53	29 0052 1.1 34						
1102 - 0.2 -5	Su 1115 0.1 2	0508 5.1 156	0544 5.2 157	0710 5.2 158	0741 5.3 163						
1854 5.7 175	1852 5.6 171	1206 0.8 23	1217 1.4 42	1304 2.5 76	1314 3.1 96						
2350 4.5 136		1907 5.4 165	1851 5.3 161	1856 5.2 158	1838 5.2 158						
15 Su 0400 5.3 161	30 0000 4.1 124	15 W 0045 3.1 95	30 Th 0047 2.4 74	15 M 0129 1.4 43	30 0132 0.9 28						
1142 - 0.1 -2	M 0432 5.2 158	0604 5.0 153	0638 5.1 155	0805 5.1 155	0835 5.2 160						
1925 5.8 176	N 1155 0.3 8	1244 1.1 35	1254 1.8 56	1339 3.0 90	1351 3.5 108						
	1919 5.6 171	1931 5.4 164	1914 5.2 160	1920 5.2 159	1904 5.2 158						
	31 0041 3.7 114			31 F 0127 2.0 62							
	Tu 0528 5.1 154			0733 5.0 151							
	1233 0.6 18			1330 2.3 70							
	1945 5.5 169			1937 5.2 160							

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Heights are referred to the chart datum of soundings.

# O. Paramushiru, Kuril Islands, 2018

Times and Heights of High and Low Waters

October			November			December					
Time	Height										
h m	ft	cm									
<b>1</b> M 0215 0.8 25	0.8	25	<b>16</b> Tu 0221 0.6 19	0.6	19	<b>1</b> Th 0316 0.9 28	0.9	28	<b>16</b> Sa 0324 1.2 37	1.2	37
0934 5.1 156	5.1	156	1001 5.3 161	5.3	161	1116 5.3 163	5.3	163	1111 5.6 170	5.6	172
1431 3.9 118	3.9	118	1455 4.2 129	4.2	129	1644 4.3 130	4.3	130	1721 4.0 122	4.0	122
1933 5.2 157	5.2	157	1925 5.1 154	5.1	154	2021 4.6 140	4.6	140	2059 4.3 132	4.3	132
<b>2</b> Tu 0303 0.9 26	0.9	26	<b>17</b> W 0309 0.8 25	0.8	25	<b>2</b> F 0410 1.3 41	1.3	41	<b>17</b> Sa 0418 1.7 53	1.7	53
1041 5.0 152	5.0	152	1104 5.2 158	5.2	158	1208 5.3 161	5.3	161	1200 5.4 164	5.4	164
1520 4.2 127	4.2	127	1558 4.3 132	4.3	132	1806 4.0 121	4.0	121	1829 3.5 108	3.5	108
● 2006 5.1 154	5.1	154	2005 4.9 148	4.9	148	2146 4.3 131	4.3	131	2248 4.1 125	4.1	125
<b>3</b> W 0355 1.0 30	1.0	30	<b>18</b> Th 0402 1.1 33	1.1	33	<b>3</b> Sa 0513 1.8 54	1.8	54	<b>18</b> Su 0521 2.3 69	2.3	69
1156 4.9 150	4.9	150	1208 5.1 156	5.1	156	1254 5.2 159	5.2	159	1239 5.3 162	5.3	162
1626 4.3 132	4.3	132	1721 4.3 130	4.3	130	1913 3.5 108	3.5	108	1923 3.0 91	3.0	91
2049 4.9 148	4.9	148	2104 4.6 140	4.6	140	2343 4.2 127	4.2	127			
<b>4</b> Th 0456 1.1 35	1.1	35	<b>19</b> F 0504 1.4 43	1.4	43	<b>4</b> Su 0622 2.2 67	2.2	67	<b>19</b> M 0045 4.1 126	4.1	126
1308 4.9 150	4.9	150	1305 5.1 155	5.1	155	1334 5.2 157	5.2	157	0629 2.8 84	2.8	84
1759 4.3 131	4.3	131	1849 4.0 122	4.0	122	2003 3.0 91	3.0	91	1315 5.3 161	5.3	161
2154 4.7 142	4.7	142	2239 4.4 133	4.4	133				2008 2.4 73	2.4	73
<b>5</b> F 0603 1.4 42	1.4	42	<b>20</b> Sa 0613 1.7 53	1.7	53	<b>5</b> M 0132 4.3 131	4.3	131	<b>20</b> Tu 0222 4.4 135	4.4	135
1406 5.0 152	5.0	152	1352 5.1 155	5.1	155	0731 2.6 79	2.6	79	0739 3.2 97	3.2	97
1928 4.1 124	4.1	124	1953 3.6 109	3.6	109	1408 5.2 157	5.2	157	1348 5.3 161	5.3	161
2332 4.5 136	4.5	136				2045 2.4 74	2.4	74	2049 1.8 55	1.8	55
<b>6</b> Sa 0712 1.5 47	1.5	47	<b>21</b> Su 0033 4.3 131	4.3	131	<b>6</b> Tu 0256 4.6 141	4.6	141	<b>21</b> W 0337 4.8 147	4.8	147
1448 5.0 153	5.0	153	0722 2.0 62	2.0	62	0835 2.9 89	2.9	89	0843 3.5 108	3.5	108
2029 3.6 111	3.6	111	1429 5.1 154	5.1	154	1439 5.2 157	5.2	157	1419 5.3 161	5.3	161
			2039 3.1 93	3.1	93	2123 1.8 56	1.8	56	2128 1.2 38	1.2	38
<b>7</b> Su 0115 4.5 137	4.5	137	<b>22</b> M 0209 4.5 137	4.5	137	<b>7</b> W 0402 5.0 152	5.0	152	<b>22</b> Th 0437 5.2 159	5.2	159
0816 1.7 53	1.7	53	0826 2.3 70	2.3	70	0931 3.2 98	3.2	98	0940 3.8 117	3.8	117
1522 5.0 153	5.0	153	1501 5.1 154	5.1	154	1508 5.2 158	5.2	158	1449 5.3 163	5.3	163
2113 3.1 96	3.1	96	2119 2.5 76	2.5	76	2200 1.3 39	1.3	39	2206 0.8 23	0.8	23
<b>8</b> M 0239 4.7 143	4.7	143	<b>23</b> Tu 0323 4.8 146	4.8	146	<b>8</b> Th 0458 5.3 162	5.3	162	<b>23</b> F 0529 5.5 169	5.5	169
0913 1.9 58	1.9	58	0922 2.5 77	2.5	77	1021 3.5 107	3.5	107	1031 4.1 125	4.1	125
1551 5.1 154	5.1	154	1529 5.1 155	5.1	155	1536 5.2 160	5.2	160	1520 5.4 165	5.4	165
2152 2.6 80	2.6	80	2156 1.9 59	1.9	59	● 2237 0.8 25	0.8	25	○ 2244 0.4 11	0.4	11
<b>9</b> Tu 0347 5.0 151	5.0	151	<b>24</b> W 0424 5.1 156	5.1	156	<b>9</b> F 0548 5.6 170	5.6	170	<b>9</b> Sa 0617 5.8 177	5.8	177
1003 2.1 65	2.1	65	1012 2.8 86	2.8	86	1107 3.8 106	3.8	106	1118 4.3 132	4.3	132
1617 5.1 154	5.1	154	1556 5.1 156	5.1	156	1604 5.3 161	5.3	161	1551 5.4 166	5.4	166
● 2228 2.1 64	2.1	64	2232 1.4 43	1.4	43	2314 0.5 14	0.5	14	2322 0.1 3	0.1	3
<b>10</b> W 0445 5.2 158	5.2	158	<b>25</b> Th 0518 5.4 164	5.4	164	<b>10</b> Sa 0637 5.8 176	5.8	176	<b>25</b> M 0702 5.9 181	5.9	181
1048 2.4 73	2.4	73	1057 3.1 95	3.1	95	1150 4.0 123	4.0	123	1204 4.5 136	4.5	136
1642 5.1 155	5.1	155	1622 5.2 157	5.2	157	1633 5.3 163	5.3	163	1624 5.4 166	5.4	166
2304 1.6 49	1.6	49	○ 2308 1.0 29	1.0	29	2352 0.2 6	0.2	6			
<b>11</b> Th 0538 5.4 164	5.4	164	<b>26</b> F 0608 5.6 170	5.6	170	<b>11</b> Su 0723 5.9 179	5.9	179	<b>26</b> W 0000 0.0 0	0.0	0
1130 2.7 83	2.7	83	1139 3.4 104	3.4	104	0746 6.0 183	6.0	183	0746 6.0 183	6.0	183
1706 5.1 156	5.1	156	1648 5.2 159	5.2	159	1249 4.6 139	4.6	139	1307 4.7 143	4.7	143
2340 1.2 36	1.2	36	2345 0.6 19	0.6	19	1658 5.4 165	5.4	165	1706 5.4 164	5.4	164
<b>12</b> F 0628 5.5 168	5.5	168	<b>27</b> Sa 0657 5.7 173	5.7	173	<b>12</b> M 0030 0.1 4	0.1	4	<b>27</b> W 0049 0.2 5	0.2	5
1209 3.1 94	3.1	94	1219 3.7 113	3.7	113	0810 5.9 179	5.9	179	0829 6.0 183	6.0	183
1731 5.2 157	5.2	157	1714 5.2 160	5.2	160	1316 4.4 134	4.4	134	1336 4.6 140	4.6	140
						1734 5.3 162	5.3	162	1736 5.3 161	5.3	161
<b>13</b> Sa 0018 0.9 26	0.9	26	<b>28</b> Su 0023 0.4 12	0.4	12	<b>13</b> Tu 0110 0.2 6	0.2	6	<b>13</b> W 0119 0.3 8	0.3	8
0718 5.5 169	5.5	169	0746 5.7 174	5.7	174	0857 5.8 177	5.8	177	0911 5.9 180	5.9	180
1247 3.4 104	3.4	104	1300 4.0 121	4.0	121	1404 4.5 136	4.5	136	1429 4.5 137	4.5	137
1756 5.2 158	5.2	158	1742 5.2 160	5.2	160	1810 5.2 158	5.2	158	1819 5.1 154	5.1	154
<b>14</b> Su 0056 0.7 20	0.7	20	<b>29</b> M 0102 0.3 10	0.3	10	<b>14</b> W 0151 0.4 12	0.4	12	<b>14</b> Th 0201 0.6 18	0.6	18
0809 5.5 168	5.5	168	0835 5.7 173	5.7	173	0944 5.7 174	5.7	174	0952 5.8 177	5.8	177
1326 3.7 114	3.7	114	1342 4.2 128	4.2	128	1500 4.4 135	4.4	135	1528 4.3 131	4.3	131
1823 5.2 159	5.2	159	1812 5.2 159	5.2	159	1851 5.0 151	5.0	151	1911 4.8 146	4.8	146
<b>15</b> M 0137 0.6 17	0.6	17	<b>30</b> Tu 0143 0.4 12	0.4	12	<b>15</b> Th 0236 0.8 23	0.8	23	<b>15</b> F 0245 1.0 32	1.0	32
0903 5.4 165	5.4	165	0927 5.6 170	5.6	170	1031 5.6 171	5.6	171	1032 5.7 173	5.7	173
1407 4.0 123	4.0	123	1430 4.3 132	4.3	132	1606 4.3 131	4.3	131	1634 4.0 122	4.0	122
1852 5.2 157	5.2	157	1846 5.1 155	5.1	155	1943 4.7 142	4.7	142	2020 4.4 135	4.4	135
<b>31</b> W 0228 0.6 19	0.6	19	<b>31</b> W 1021 5.5 167	5.5	167						
			1529 4.4 133	4.4	133						
			1926 4.9 149	4.9	149						

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yamato Wan, Matsuwa To, Kuril Islands, 2018

Times and Heights of High and Low Waters

January				February				March														
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height											
h m 1354 M 2240	ft 4.3 - 0.1	cm 131 - 3	h m 1439 Tu 2323	ft 3.9 0.4	cm 119 12	h m 1534 1 Th	ft 4.4 1607	cm 134 98 116	h m 0739 F 0910	ft 3.2 3.1	cm 98 94 104	h m 0659 1 Th	ft 3.4 1440	cm 104 122 12	h m 0613 F 1004	ft 3.1 4.0	cm 94 88 107					
1 M			16 Tu			●			2300	0.4		16 F			2304	1.1						
2 Tu	1441 2326 O	4.4 - 0.3 - 9	17 W	1521 2356	4.0 0.3	122 9	2 F	0000 0811 1103 1636	- 0.1 3.4 3.3 4.3	104 104 101 131	17 Sa	0006 0742 1124 1653	0.7 3.2 2.9 3.8	21 98 88 116	2 F	0649 1027 1556 2342	3.3 3.0 4.0 0.5	101 91 122 15	17 Sa	0614 1045 1620 2335	3.1 2.6 3.6 1.2	94 79 110 37
3 W	1531 1601	4.5 4.0	18 Th			122	3 Sa	0041 0820 1206 1735	0.1 3.4 3.0 4.1	104 104 91 125	18 Su	0034 0748 1206 1738	0.8 3.2 2.7 3.7	24 98 82 113	3 Sa	0654 1123 1702	3.3 2.6 3.9	101 79 119	18 Su	0618 1122 1713	3.2 2.3 3.6	98 70 110
4 Th	0011 1623 F	- 0.4 4.5 - 12	19 F	0027 0855 1114 1640	0.3 3.3 3.2 4.0	9	4 Su	0118 0833 1305 1833	0.4 3.4 2.7 3.8	12 104 104 73 116	19 M	0101 0756 1247 1826	1.0 3.2 2.4 3.6	30 98 73 110	4 Su	0020 0705 1213 1803	0.8 3.3 2.2 3.8	24 101 67 116	19 M	0003 0625 1159 1804	1.4 3.2 2.0 3.6	43 98 61 110
5 F	0054 0929 1143 1716	- 0.4 3.5 3.4 4.4	20 Sa	0056 0905 1159 1719	0.4 3.3 3.2 3.9	12	5 M	0151 0849 1403 1932	0.8 3.4 2.4 3.5	24 104 104 73 107	20 Tu	0126 0804 1332 1917	1.2 3.3 2.2 3.4	37 101 67 104	5 M	0053 0719 1300 1900	1.2 3.4 1.9 3.6	37 104 58 110	20 Tu	0030 0634 1237 1856	1.6 3.3 1.6 3.5	49 101 49 107
6 Sa	0136 0946 1252 1809	- 0.1 3.5 3.3 4.1	21 Su	0125 0916 1247 1800	0.5 3.3 3.0 3.8	15	6 Tu	0221 0907 1504 2035	1.3 3.5 2.1 3.1	40 107 64 94	21 W	0149 0815 1420 2016	1.5 3.4 1.9 3.2	46 104 58 98	6 Tu	0122 0735 1347 1957	1.6 3.5 1.6 3.3	49 104 49 101	21 W	0054 0645 1318 1953	1.9 3.4 1.3 3.4	58 104 40 104
7 Su	0215 1005 1405 1905	0.3 3.4 3.0 3.7	22 M	0152 0926 1339 1845	0.7 3.3 2.9 3.6	21	7 W	0245 0926 1609 2151	1.7 3.5 1.9 2.8	52 107 58 85	22 Th	0210 0829 1515 2129	1.9 3.5 1.6 2.9	58 107 49 88	7 W	0147 0752 1434 2058	1.9 3.5 1.4 3.1	58 107 43 94	22 Th	0116 0700 1402 2057	2.3 3.6 1.0 3.2	70 110 30 98
8 M	0252 1025 1526 2006	0.7 3.4 2.7 3.3	23 Tu	0219 0937 1437 1938	1.0 3.3 2.6 3.3	30	8 Th	0300 0947 1719 2347	2.1 3.6 1.6 2.5	64 110 49 76	23 F	0224 0846 1618 2322	2.3 3.7 1.3 2.7	70 113 40 82	8 Th	0206 0810 1523 2210	2.3 3.6 1.3 2.9	70 110 40 88	23 F	0134 0718 1452 2220	2.6 3.8 0.8 3.1	79 116 24 94
9 Tu	0324 1046 1656 2125	1.2 3.5 2.4 2.8	24 W	0244 0949 1544 2046	1.3 3.4 2.3 2.9	40	9 F	0253 1012 1835	2.4 3.7 1.4	73 113 43	24 Sa	0217 0910 1732	2.6 3.8 1.1	79 116 34	9 F	0217 0830 1618	2.5 3.7 1.3	76 113 40	24 Sa	0140 0741 1550	2.8 3.9 0.7	85 119 21
10 W	0350 1109 1827 2331	1.7 3.6 2.0 2.5	25 Th	0306 1004 1659 2227	1.7 3.5 2.0 2.6	52	10 Sa	1042 1948	3.7 1.2	113 37	25 Su	0942 1852	4.0 0.8	122 24	10 Sa	0853 1722	3.7 1.3	113 40	25 Su	0811 1657	4.0 0.7	122 21
11 Th	0405 1135 1944	2.1 3.6 1.6	26 F	0319 1024 1819	2.2 3.6 1.6	67	11 Su	1121 2050	3.7 1.0	113 30	26 M	1029 2009	4.0 0.6	122 18	11 Su	0921 1836	3.7 1.2	113 37	26 M	0849 1815	4.0 0.7	122 21
12 F	1204 2042	3.7 1.3	27 Sa	1050 1933	3.8 1.1	113	12 M	1214 2142	3.7 0.9	113 27	27 Tu	1140 2116	4.0 0.4	122 12	12 M	1000 1952	3.6 1.2	110 37	27 Tu	0945 1935	3.9 0.7	119 21
13 Sa	1238 2130	3.8 0.9	28 Su	1127 2039	4.0 0.6	116	13 Tu	1319 2225	3.7 0.7	113 21	28 W	1311 2212	4.0 0.3	122 9	13 Tu	1107 2057	3.5 1.1	107 34	28 W	1124 2045	3.7 0.8	113 24
14 Su	1315 2211	3.9 0.7	29 M	1218 2136	4.2 0.2	119	14 W	1422 2303	3.8 0.6	116 18					14 W	1246 2148	3.5 1.1	107 34	29 Th	0525 0845 1331 2144	3.3 3.1 3.5 0.9	101 94 107 27
15 M	1357 2248	3.9 0.5	30 Tu	1320 2228	4.3 0.0	119	15 Th	0743 0948 1517 2336	3.3 3.2 3.8 0.6	101 98 116 18					15 Th	0623 0911 1415 2229	3.2 3.1 3.5 1.0	98 94 107 30	30 F	0518 0954 1512 2232	3.3 2.7 3.5 1.1	101 82 107 34
			31 W	1428 2316	4.4 - 0.2	134									31 O	0524 1043 1629 2313	3.3 2.3 3.5 1.4	101 70 107 43				

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Heights are referred to the chart datum of soundings.

\* Neither a high or low water but an intermediate value to show the period of an approximate stand.

# Yamato Wan, Matsuwa To, Kuril Islands, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0536	3.3	101	<b>16</b> M	0451	3.3	101	<b>1</b> Tu	0439	3.7	113
	1127	1.8	55		1109	1.6	49		1155	0.8	24
	1734	3.5	107		1737	3.4	104		1907	3.4	104
	2349	1.7	52	●	2322	2.1	64		2338	2.7	82
<b>2</b> M	0550	3.4	104	<b>17</b> Tu	0502	3.4	104	<b>2</b> W	0458	3.8	116
	1208	1.4	43		1145	1.2	37		1230	0.6	18
	1833	3.5	107		1834	3.5	107		2000	3.4	104
					2350	2.4	73				
<b>3</b> Tu	0020	2.0	61	<b>18</b> W	0516	3.6	110	<b>3</b> Th	0005	2.9	88
	0606	3.5	107		1223	0.8	24		0518	3.8	116
	1247	1.2	37		1932	3.5	107		1304	0.5	15
	1928	3.4	104						2052	3.4	104
<b>4</b> W	0047	2.3	70	<b>19</b> Th	0015	2.7	82	<b>4</b> F	0028	3.1	94
	0623	3.6	110		0534	3.8	116		0538	3.9	119
	1325	1.0	30		1304	0.5	15		1339	0.5	15
	2023	3.3	101		2034	3.4	104		2148	3.3	101
<b>5</b> Th	0110	2.6	79	<b>20</b> F	0036	3.0	91	<b>5</b> Sa	0046	3.2	98
	0641	3.7	113		0556	4.0	122		0600	3.9	119
	1404	0.9	27		1348	0.3	9		1415	0.5	15
	2121	3.2	98		2146	3.4	104		2255	3.3	101
<b>6</b> F	0128	2.8	85	<b>21</b> Sa	0051	3.2	98	<b>6</b> Su	0055	3.2	98
	0659	3.7	113		0622	4.1	125		0624	3.8	116
	1445	0.9	27		1436	0.2	6		1455	0.7	21
	2231	3.1	94								
<b>7</b> Sa	0136	2.9	88	<b>22</b> Su	0653	4.1	125	<b>7</b> M	0649	3.7	113
	0720	3.7	113		1530	0.3	9		1538	0.8	24
	1529	0.9	27								
<b>8</b> Su	0743	3.7	113	<b>23</b> M	0729	4.1	125	<b>8</b> Tu	0716	3.6	110
	1622	1.0	30		1631	0.5	15		1627	1.0	30
	●										
<b>9</b> M	0809	3.6	110	<b>24</b> Tu	0813	3.9	119	<b>9</b> W	0746	3.4	104
	1724	1.2	37		1739	0.7	21		1723	1.3	40
<b>10</b> Tu	0843	3.5	107	<b>25</b> W	0919	3.5	107	<b>10</b> Th	0247	3.2	98
	1837	1.3	40		1850	1.0	30		1823	1.5	46
<b>11</b> W	0947	3.3	101	<b>26</b> Th	0332	3.3	101	<b>11</b> F	0245	3.2	98
	1948	1.3	40		0810	3.0	91		0837	2.7	82
					1144	3.2	98		1146	2.8	85
					1959	1.3	40		1923	1.7	52
<b>12</b> Th	0449	3.2	98	<b>27</b> F	0336	3.3	101	<b>12</b> Sa	0251	3.2	98
	0832	3.0	91		0917	2.5	76		0910	2.3	70
	1214	3.2	98		1412	3.0	91		1414	2.8	85
	2047	1.4	43		2058	1.6	49		2018	2.0	61
<b>13</b> F	0436	3.1	94	<b>28</b> Sa	0348	3.4	104	<b>13</b> Su	0300	3.3	101
	0924	2.7	82		1003	2.0	61		0943	1.9	58
	1412	3.1	94		1553	3.1	94		1552	2.9	88
	2135	1.5	46		2148	1.9	58		2107	2.3	70
<b>14</b> Sa	0437	3.1	94	<b>29</b> Su	0404	3.5	107	<b>14</b> M	0313	3.4	104
	1001	2.4	73		1043	1.5	46		1016	1.4	43
	1534	3.2	98		1709	3.2	98		1707	3.1	94
	2215	1.7	52		2230	2.2	67		2149	2.5	76
<b>15</b> Su	0443	3.2	98	<b>30</b> M	0421	3.6	110	<b>15</b> Tu	0328	3.6	110
	1035	2.0	61		1120	1.1	34		1052	0.9	27
	1639	3.3	101		1812	3.3	101		1812	3.3	101
	2250	1.9	58	○	2306	2.5	76	●	2226	2.8	85
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# Yamato Wan, Matsuwa To, Kuril Islands, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0432 Su 1304	ft 4.0 0.3	cm 122 9	h m 0456 M 1316	ft 4.4 -0.1	cm 134 -3	h m 0040 W 1340	ft 2.9 0.9	cm 88 27	h m 0139 Th 1402	ft 2.2 1.3	cm 67 40
2122	3.4	104	2103	3.2	98	2036	3.5	107	1352 2001	2.0 3.5	61 107
0507 M 1336	3.9 0.4	119 12	0028 Tu 0553	3.2 4.2	98 128	0128 Th 0642	2.7 3.5	82 107	0248 Su 0913	1.5 3.0	46 91
2212	3.4	104	1356 2137	0.2 3.4	6 104	1405 2113	1.1 3.3	34 101	1407 2017	2.3 3.6	70 110
0033 Tu 0543	3.3 3.8	101 116	0140 W 0652	3.0 3.8	91 116	0221 F 0733	2.5 3.3	76 101	0340 Sa 0944	1.7 2.9	52 88
1406 2227	0.6 3.3	18 101	1432 2154	0.7 3.4	21 104	1429 2124	1.4 3.3	43 101	1446 O 2118	2.2 3.7	67 113
0129 W 0622	3.2 3.7	98 113	0256 Th 0757	2.6 3.4	79 104	0320 Sa 0836	2.3 3.0	70 91	0447 Su 1133	1.5 2.6	46 79
1436 2241	0.8 3.3	24 101	1505 2214	1.2 3.5	37 107	1450 2138	1.8 3.4	55 104	1446 Tu 2110	2.5 3.9	79 119
0237 Th 0706	3.0 3.4	91 104	0417 F 0915	2.3 2.9	70 88	0426 Su 1004	1.9 2.7	58 82	0600 M 2215	1.3 3.7	40 113
1505 2254	1.1 3.3	34 101	1532 O 2236	1.7 3.6	52 110	1503 2156	2.2 3.6	67 110	0609 W 2153	0.9 4.0	27 122
0356 F 0802	2.8 3.1	85 94	0541 Sa 1105	1.9 2.6	58 79	0539 M 1241	1.6 2.5	49 76	0715 Tu 2256	1.2 3.7	37 113
1533 O 2307	1.4 3.4	43 104	1548 2302	2.1 3.7	64 113	1444 2221	2.4 3.8	73 116	0728 Th 2300	0.7 4.0	21 122
0522 Sa 0928	2.5 2.7	76 82	0701 Su 2332	1.6 3.8	49 116	0654 Tu 2255	1.2 3.9	37 119	0839 F 2352	0.5 3.7	15 113
1559 2323	1.8 3.5	55 107	0808 M 2344	1.2 4.1	37 125	0804 W 2344	0.8 4.1	24 125	0919 Th 2352	0.9 3.7	27 113
0641 Su 1154	2.1 2.5	64 76	0907 Tu 0904	3.9 0.9	119 27	0919 F 1007	0.9 0.8	27 24	0034 Sa 1830	3.9 3.3	119 101
1618 2342	2.2 3.6	67 110	0906 Th 0904	0.4 0.9	12 27	0102 F 1007	3.7 0.8	113 24	0939 Sa 2040	0.4 3.2	119 98
0745 M	1.6	49	0007 Tu 0904	3.9 0.9	119 27	0906 Th 0904	0.4 0.4	12 12	0210 Su 1816	3.9 3.3	119 101
0007 Tu 0840	3.8 1.0	116 30	0048 W 0951	3.9 0.7	119 21	0047 F 1001	4.2 0.1	128 3	0333 Sa 1910	3.9 3.2	119 98
0041 W 0929	4.0 0.5	122 15	0134 Th 1032	3.9 0.5	119 15	0158 Sa 1051	4.3 0.0	131 0	0211 Sa 1910	3.7 3.2	113 98
0122 Th 1017	4.2 0.1	128 3	0222 F 1110	3.9 0.5	119 15	0158 Sa 1051	4.3 0.0	131 0	0311 Sa 1910	3.7 3.2	113 98
0211 F 1104	4.4 -0.2	134 -6	0309 Sa 1144	4.3 0.4	131 12	0309 M 1136	4.3 0.0	131 0	0444 Sa 1910	3.7 3.2	113 98
0304 Sa 1150	4.5 -0.3	137 -9	0308 Sa 1144	3.9 0.4	119 12	0415 M 1219	4.3 0.2	131 6	0444 Sa 1910	3.7 3.2	113 98
0400 Su 1234	4.5 -0.3	137 -9	0352 Su 1216	3.9 0.4	119 12	0518 Tu 1257	4.1 0.5	125 15	0449 Tu 1220	3.7 1.0	113 30
2111 2315	3.5 3.4	107 104	0352 Su 2037	3.9 3.3	119 101	0518 Tu 2004	4.1 3.3	125 101	0449 Tu 1220	3.7 0.9	113 98
0400 Su 1234	4.5 -0.3	137 -9	0434 M 1246	3.9 0.5	119 15	0040 W 0620	2.5 3.9	76 119	0035 Th 1332	2.3 1.4	70 43
2111 2315	3.5 3.4	107 104	0434 M 2045	3.9 3.3	101 101	0535 W 1929	3.6 3.2	110 98	0449 Tu 1332	2.1 1.7	52 64
0400 Su 1234	4.5 -0.3	137 -9	0434 M 2355	3.9 3.1	101 94	0040 W 2018	2.5 3.4	76 104	0035 Th 1938	2.3 3.2	70 98
0515 Tu 1314	3.8 0.7	116 21	0515 Tu 2054	3.8 3.2	116 98	0515 Tu 2054	2.1 3.2	64 101	0115 F 1948	2.1 3.3	64 101
0515 Tu 1314	3.8 0.7	116 21	0515 Tu 2054	3.8 3.2	116 98	0515 Tu 2054	2.1 3.2	64 101	0115 F 1948	2.1 3.3	64 101

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to the chart datum of soundings.

\* Neither a high or low water but an intermediate value to show the period of an approximate stand.

# Yamato Wan, Matsuwa To, Kuril Islands, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0224 M 0959 1320 1910	ft 0.8 3.1 2.9 3.9	cm 24 94 88 119	h m 0313 Tu 1918	ft 0.8 3.7	cm 24 113	h m 0355 1 Th 1937	ft 0.4 3.9	cm 12 119	h m 0407 F 1919	ft 1.0 3.4	cm 30 104
16			16			16			1 Sa		
M 0959			Tu 1937			F 1945			Su 1254		
1320			W 1943			1744			1744		
1910			17 0403			2052			3.1		
●			2 0457			98			94		
2 0317			2 F 2030			2 0514			2029		
Tu 1937			17 0414			1312			2.8		
●			17 0458			1945			85		
3 0419			3 0606			2332			2.9		
W 2012			3 Sa 1500			2.7			88		
18 0502			1942			82			101		
Th 2101			2240			18 0553			1214		
19 0611			3.2			1417			3.3		
F 2051			98			2049			104		
4 0531			4 0715			2320			1936		
Th 2101			1503			2.7			2.4		
19 0611			2.5			82			73		
F 2051			101			107			2302		
5 0650			19 0651			1.9			2.5		
F 2231			M 1426			55			76		
0.8			2109			101			W 0544		
24			70			70			1304		
Sa 2056			19 0747			70			2103		
20 0721			Tu 1436			70			1.4		
Sa 2056			2137			43			43		
20 0721			2.0			18 0435			0.9		
Sa 2056			61			0757			113		
21 0001			2137			2.6			Th 2141		
Su 0822			1.8			79			1326		
21 0001			98			1419			0.9		
Su 0822			43			2212			27		
21 0001			1.4			0.9			20 1419		
Su 0822			43			27			1354		
21 0001			1.4			18 0558			0.5		
Su 0822			43			0849			119		
21 0001			1.4			1446			119		
Su 0822			43			2250			119		
22 0210			1.4			0.5			21 2220		
M 0912			43			15			1354		
22 0210			1.7			18 0435			0.5		
M 0912			52			0757			113		
22 0210			52			2.8			Th 2141		
M 0912			52			79			1326		
22 0210			52			116			0.9		
M 0912			52			27			27		
22 0210			52			18 0659			125		
M 0912			52			0936			3		
22 0210			52			3.2			22 1427		
M 0912			52			98			Sa 2300		
22 0210			52			101			4.1		
M 0912			52			122			1427		
22 0210			52			9			22 1427		
M 0912			52			27			1427		
23 0332			1.5			1.0			1.0		
Tu 0953			46			30			3.0		
23 0332			1.5			91			91		
Tu 0953			46			91			101		
23 0332			1.5			7 W 0454			101		
Tu 0953			46			3.2			101		
23 0332			1.5			98			101		
Tu 0953			46			7 W 0958			101		
23 0332			1.5			2.3			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0332			1.5			113			101		
Tu 0953			46			30			101		
23 0332			1.5			2.7			101		
Tu 0953			46			70			101		
23 0											

# Kamaishi, Japan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0343	4.0	121	16 Tu 0419	3.8	117	1 Th 0454	4.0	121	16 Th 0352	3.7	114
0815	3.1	93	0902	2.8	86	0948	2.6	79	0900	2.3	70
1347	4.7	142	1424	4.4	133	1521	4.7	142	1437	4.3	130
2116 - 0.3	- 9		2143	0.2	6	2232 - 0.3	- 10		2135	0.0	- 1
● 2200 - 0.5	- 15		● 2215	0.1	4	● 2227	0.2	6	● 2212	0.1	3
2 Tu 0431	4.1	126	17 W 0448	3.9	119	2 F 0523	4.0	122	2 Sa 0416	3.8	117
0906	3.1	94	0939	2.7	82	1031	2.3	70	0940	1.9	58
1432	4.8	146	1501	4.4	135	1609	4.6	141	1610	4.3	130
O ○ 2200 - 0.5	- 15		2309 - 0.1	- 3		2255	0.3	10	● 2200	0.6	17
3 W 0513	4.2	127	18 Th 0515	3.9	120	3 Sa 0549	4.0	122	3 Sa 0440	3.9	119
0952	3.0	92	1014	2.6	79	1112	2.0	62	1019	1.5	46
1518	4.9	149	1537	4.4	135	1654	4.4	135	1612	4.4	133
2244 - 0.5	- 14		2245	0.1	4	2343	0.3	8	2246	0.4	11
4 Th 0551	4.1	126	19 F 0543	3.9	120	4 Su 0614	4.0	123	4 Su 0502	4.0	122
1036	2.9	88	1048	2.5	76	1154	1.8	55	M 1140	1.5	46
1604	4.8	147	1612	4.4	134	1739	4.1	126	1726	4.0	122
2325 - 0.3	- 8		2315	0.2	7	2350	0.8	25	2316	0.7	22
5 F 0627	4.1	124	20 Sa 0609	3.9	120	5 M 0014	0.7	22	5 M 0525	4.1	124
1121	2.7	83	1122	2.4	73	0639	4.1	124	Tu 1216	1.4	42
1650	4.6	141	1648	4.3	130	1238	1.7	51	1809	3.8	115
2344	0.4	12	2344	0.4	12	1825	3.7	114	● 2344	1.1	33
6 Sa 0004	0.1	3	21 Su 0636	3.9	119	6 Tu 0043	1.2	36	6 Tu 0548	4.1	125
0700	4.0	123	1159	2.3	69	0706	4.1	124	1212	0.9	28
1208	2.6	78	1725	4.1	125	1327	1.6	49	1820	3.6	111
1737	4.3	131				1915	3.3	102	● 2351	1.6	50
7 Su 0042	0.6	17	22 M 0013	0.7	20	7 W 0111	1.6	50	20 W 0016	1.2	35
0731	4.0	122	0702	3.9	119	0735	4.0	123	0636	3.9	120
1301	2.4	74	1239	2.2	66	1424	1.6	48	1258	1.3	39
1827	3.9	119	1806	3.8	117	2018	3.0	90	1856	3.5	106
8 M 0118	1.0	32	23 Tu 0042	1.0	30	8 Th 0139	2.1	63	21 W 0016	1.2	36
0803	4.0	122	0729	3.9	118	0808	4.0	121	0640	4.0	123
1403	2.3	70	1326	2.1	63	1539	1.6	48	1453	1.1	35
1924	3.4	105	1855	3.5	107	● 2210	2.7	82	● 2128	2.8	86
9 Tu 0154	1.5	47	24 W 0113	1.4	42	9 F 0210	2.5	75	23 F 0109	2.0	62
0838	4.0	122	0758	3.8	117	0850	3.9	118	0728	3.9	119
1520	2.1	65	1425	1.9	59	1709	1.4	44	1348	1.2	36
O ○ 2043	3.0	92	1959	3.2	97				1956	3.1	96
10 W 0235	2.0	61	25 Th 0148	1.8	56	10 M 0135	2.8	85	25 Su 0858	3.7	114
0919	4.0	122	0831	3.8	117	0314	2.8	84	0745	3.7	113
1650	1.9	57	1541	1.7	52	0949	3.7	114	1553	1.3	40
2301	2.8	86	● 2135	2.9	88	1829	1.2	37	● 2130	2.7	83
11 Th 0329	2.4	74	26 F 0229	2.3	70	11 Su 0237	3.1	94	10 Sa 0123	2.5	76
1008	4.0	122	0911	3.9	118	0530	3.0	90	0745	3.7	113
1808	1.5	47	1706	1.3	41	1110	3.7	112	1553	1.3	40
12 F 0119	3.0	91	27 Sa 0016	2.9	89	1928	0.9	28	● 21	2.7	82
0447	2.7	83	0333	2.8	84				0816	3.5	108
1105	4.0	123	1005	3.9	119	1207	3.7	114	1724	0.8	24
1907	1.2	36	1822	0.9	27	2013	0.7	20			
13 Sa 0229	3.3	100	28 Su 0212	3.2	98	12 M 0307	3.3	102	12 Tu 0217	3.0	92
0612	2.9	88	0519	3.1	93	0707	2.9	89	0508	2.9	89
1205	4.1	124	1117	4.0	122	1229	3.7	114	1007	3.3	101
1954	0.9	26	1925	0.4	13				1846	1.1	33
14 Su 0312	3.5	107	29 M 0308	3.5	108	14 W 0358	3.6	111	12 M 0217	3.0	92
0723	2.9	89	0659	3.1	96	0851	2.6	78	0535	3.0	91
1258	4.2	127	1231	4.2	127	1414	4.0	123	1029	3.3	102
2033	0.6	17	2019	0.0	0	2125	0.3	8	1843	0.7	20
15 M 0347	3.7	113	30 Tu 0348	3.8	115	15 W 0422	3.7	114	27 W 0156	3.1	96
0817	2.9	88	0809	3.1	93	0927	2.3	71	0535	3.0	91
1344	4.3	130	1335	4.4	134	1455	4.2	127	1029	3.3	102
2109	0.3	10	2107	- 0.3	- 9	2157	0.2	6	1843	0.7	20
31 W 0423	3.9	119							21	0156	3.1
0903	2.9	87							0535	3.0	91
1431	4.6	139							1029	3.3	102
O ○ 2152	- 0.4	- 12							1843	0.7	20

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kamaishi, Japan, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0350	4.0	121	<b>16</b>	0329	3.9	119	<b>1</b>	0327	4.2	129				
	1001	0.8	25	M	0949	0.6	18	Tu	1015	0.2	6				
	1614	4.1	125		1605	4.0	123		1655	3.9	120				
	2217	1.0	32	●	2159	1.4	42		2219	2.0	62				
<b>2</b> M	0413	4.1	124	<b>17</b>	0351	4.0	123	<b>2</b>	0354	4.3	131				
	1036	0.6	17	Tu	1023	0.3	8	W	1049	0.1	4				
	1655	4.0	122		1649	4.1	124		1735	3.9	118				
	2247	1.3	41		2230	1.6	50		2251	2.2	68				
<b>3</b> Tu	0436	4.2	127	<b>18</b>	0415	4.2	127	<b>3</b>	0421	4.3	131				
	1110	0.4	13	W	1059	0.0	1	Th	1122	0.2	5				
	1736	3.8	117		1733	4.0	121		1815	3.7	114				
	2315	1.6	50		2300	1.9	59		2322	2.4	73				
<b>4</b> W	0501	4.2	127	<b>19</b>	0439	4.2	129	<b>4</b>	0449	4.2	129				
	1145	0.4	12	Th	1137	0.0	-1	F	1156	0.3	9				
	1817	3.6	110		1821	3.8	115		1857	3.6	109				
	2342	1.9	59		2329	2.2	68		2353	2.5	77				
<b>5</b> Th	0526	4.1	126	<b>20</b>	0506	4.2	129	<b>5</b>	0518	4.1	124				
	1221	0.5	15	F	1219	0.0	1	Sa	1232	0.5	16				
	1901	3.4	103		1914	3.5	107		1944	3.4	104				
	2358	2.5	76		2358	2.5	76		20	0520	4.3	132			
<b>6</b> F	0010	2.2	67	<b>21</b>	0536	4.1	126	<b>6</b>	0028	2.7	81				
	0553	4.0	123	Sa	1307	0.2	7	Su	0550	3.9	118				
	1300	0.7	20		2020	3.3	100		1312	0.8	23				
	1953	3.1	96		2042	3.3	100		2042	3.3	100				
<b>7</b> Sa	0038	2.4	74	<b>22</b>	0031	2.7	83	<b>7</b>	0113	2.8	85				
	0622	3.8	117	Su	0611	4.0	121	M	0625	3.6	111				
	1345	0.9	27		1405	0.5	16		1400	1.0	31				
	2106	3.0	90		2151	3.1	95		2155	3.2	98				
<b>8</b> Su	0111	2.6	80	<b>23</b>	0120	2.9	88	<b>8</b>	0227	2.9	87				
	0655	3.6	110	M	0656	3.7	112	Tu	0711	3.3	102				
	1446	1.1	34		1521	0.8	24		1503	1.3	39				
	2318	2.9	88	●	2338	3.1	96		2315	3.2	99				
<b>9</b> M	0217	2.8	86	<b>24</b>	0318	3.0	90	<b>9</b>	0427	2.8	85				
	0739	3.3	102	Tu	0814	3.3	102	W	0831	3.1	93				
	1612	1.3	39		1648	1.0	30		1622	1.4	44				
	20	0018	3.0		20	0018	3.0		20	0528	2.4	72			
<b>10</b> Tu	0102	3.1	93	<b>25</b>	0038	3.3	100	<b>10</b>	0011	3.3	102				
	0457	2.8	86	W	0552	2.7	81	Th	0603	2.5	76				
	0906	3.1	94		1047	3.1	96		1040	3.0	90				
	1741	1.2	38		1805	1.1	33		1738	1.5	47				
<b>11</b> W	0138	3.2	97	<b>26</b>	0114	3.4	105	<b>11</b>	0049	3.5	106				
	0643	2.6	78	Th	0705	2.2	66	F	0657	2.1	63				
	1124	3.0	92		1242	3.3	101		1226	3.1	94				
	1848	1.1	35		1905	1.2	36		1839	1.6	48				
<b>12</b> Th	0203	3.3	102	<b>27</b>	0143	3.6	110	<b>12</b>	0118	3.6	111				
	0734	2.2	67	F	0751	1.6	50	W	0737	1.6	49				
	1253	3.2	98		1352	3.5	108		1335	3.4	103				
	1937	1.0	32		1954	1.3	39		1928	1.6	50				
<b>13</b> F	0225	3.5	107	<b>28</b>	0210	3.8	116	<b>13</b>	0145	3.8	116				
	0811	1.8	55	Sa	0830	1.1	35	M	0813	1.1	33				
	1351	3.5	106		1446	3.8	115		1429	3.7	112				
	2018	1.0	31		2035	1.4	43		2012	1.8	54				
<b>14</b> Sa	0246	3.6	111	<b>29</b>	0236	4.0	122	<b>14</b>	0211	4.0	121				
	0843	1.4	42	Su	0907	0.7	22	W	0848	0.6	19				
	1439	3.7	114		1532	3.9	119		1518	3.9	119				
	2054	1.0	32		2112	1.6	49		2051	2.0	60				
<b>15</b> Su	0308	3.8	115	<b>30</b>	0301	4.1	126	<b>15</b>	0237	4.2	127				
	0916	1.0	30	M	0941	0.4	12	Tu	0925	0.2	6				
	1523	3.9	120		1615	4.0	121		1605	4.1	124				
	2127	1.2	36	○	2147	1.8	55	●	2128	2.2	66				
	31	0322	4.5	136		31	0322	4.5	136		31	0322	4.5	136	
	1031	0.2	5		1031	0.2	5		1732	4.0	122		1732	4.0	122
	1732	4.0	122		2232	2.7	82		2232	2.7	82		2232	2.7	82
	2232	2.7	82		2232	2.7	82		2232	2.7	82		2232	2.7	82

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kamaishi, Japan, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height										
1 Su	0413 4.6 139	16 M	0437 4.9 150	1 W	0519 4.5 136	16 Th	0017 2.0 60	1 Sa	0035 1.8 54	16 Su	0117 1.5 46
1122 0.6 17	1148 0.4 11	1120 1.2 37	0615 4.4 134	1200 4.3 131	1229 1.8 54	0640 4.1 125	1223 2.3 69	0755 3.7 113	1247 3.0 90	0755 3.7 113	
1825 4.1 125	1837 4.3 130	1840 4.3 131	1841 4.6 140	1834 4.5 137	1834 4.5 137	1846 4.6 139	1846 4.6 139	1846 4.6 139	1846 4.6 139	1846 4.6 139	
2329 2.8 86	2349 2.7 82										
2 M	0448 4.5 136	17 Tu	0527 4.7 143	2 Th	0024 2.4 74	17 F	0104 1.9 58	2 Su	0121 1.7 52	17 M	0213 1.7 52
1154 0.8 23	1227 0.8 24	1908 4.3 130	0559 4.3 130	1228 1.5 46	1258 2.2 68	0707 4.0 122	1250 2.7 81	0736 3.8 116	0927 3.5 106	1318 3.2 98	0927 3.5 106
1856 4.0 123			1906 4.3 131	1906 4.3 131	1910 4.6 140	1901 4.5 136	1901 4.5 136	1901 4.5 136	1922 4.3 132	1922 4.3 132	1922 4.3 132
3 Tu	0007 2.8 85	18 W	0039 2.5 76	3 F	0107 2.3 71	18 Sa	0159 1.9 58	3 M	0219 1.7 51	18 Tu	0328 1.8 56
0525 4.3 130	0618 4.3 132	1304 1.3 40	0646 4.0 122	1258 1.9 57	1328 2.7 81	0810 3.6 111	1317 3.1 93	0856 3.5 108	1226 3.5 107	1424 3.5 106	1424 3.5 106
1225 1.0 30	1938 4.3 130		1933 4.3 130			0943 4.5 138	1934 4.4 134	1934 4.4 134	2014 4.1 125		
1928 4.0 122											
4 W	0050 2.8 84	19 Th	0135 2.4 72	4 Sa	0158 2.2 68	19 Su	0306 1.9 59	4 Tu	0338 1.6 50	19 W	0502 1.9 57
0605 4.0 123	0716 3.9 120	1340 1.8 55	0743 3.7 114	1330 2.3 70	2003 4.3 130	0950 3.4 103	1404 3.1 104	1133 3.5 106	1338 3.7 113	1708 3.5 108	1708 3.5 108
1258 1.2 38	2010 4.3 131					2024 4.4 134	2023 4.3 131	2150 4.3 118	2150 4.3 118	2150 4.3 118	
2002 4.0 122											
5 Th	0141 2.7 82	20 F	0241 2.2 68	5 Su	0303 2.1 63	20 M	0430 1.9 58	5 W	0511 1.5 45	20 Th	0622 1.7 53
0653 3.8 115	0828 3.5 108	1419 2.3 70	0903 3.5 106	1408 2.7 83	1239 3.4 104	1239 3.4 104	1512 3.3 102	1356 3.7 114	1408 3.9 119	1850 3.3 101	1850 3.3 101
1334 1.6 48	2047 4.3 132		2039 4.3 130		2120 4.3 130		2120 4.3 130	1605 3.7 112	2348 3.9 119		
2037 4.0 121								2150 4.2 129			
6 F	0244 2.6 78	21 Sa	0359 2.1 63	6 M	0422 1.8 56	21 Tu	0554 1.8 54	6 Th	0632 1.2 36	21 F	0718 1.6 48
0756 3.5 107	1015 3.3 100	1508 2.7 83	1113 3.4 103	1503 3.1 95	1402 3.7 112	1402 3.7 112	1714 3.5 106	1430 4.0 121	1432 4.0 123	1943 3.0 92	1943 3.0 92
1417 1.9 59	2132 4.3 132		2127 4.3 131		2243 4.2 127		2243 4.2 127	1833 3.6 110	2347 4.3 131		
2115 4.0 122											
7 Sa	0359 2.3 71	22 Su	0521 1.8 56	7 Tu	0541 1.5 45	22 W	0700 1.5 47	7 F	0734 0.9 28	22 Sa	0102 4.1 124
0925 3.3 100	1233 3.3 102	1617 3.1 93	1328 3.6 110	1636 3.4 105	1439 3.9 119	1439 3.9 119	1851 3.4 104	1457 4.2 127	1851 3.3 100	0802 1.4 43	1455 4.2 127
1510 2.3 71	2227 4.3 132		2235 4.3 132					1944 3.3 100	2021 2.7 82		
2156 4.0 123											
8 Su	0514 2.0 60	23 M	0630 1.6 48	8 W	0650 1.1 33	23 Th	0010 4.2 129	8 Sa	0111 4.6 139	23 Su	0154 4.3 131
1125 3.3 100	1359 3.6 109	1742 3.2 99	1436 3.9 119	1822 3.6 109	1509 4.1 124	1509 4.1 124	1952 3.2 98	0825 0.7 22	1523 4.3 131	1516 4.3 131	2053 2.4 72
1617 2.7 82	2331 4.3 132		2355 4.5 137				2033 2.9 88			2053 2.4 72	
2243 4.1 126											
9 M	0617 1.5 46	24 Tu	0725 1.3 39	9 Th	0749 0.7 21	24 F	0114 4.4 133	9 Su	0213 4.8 146	24 M	0236 4.5 136
1313 3.5 107	1450 3.8 117	1859 3.3 100	1520 4.1 126	1939 3.5 107	1520 4.1 126	1535 4.2 128	2036 3.0 92	0909 0.7 21	1548 4.4 134	0910 1.3 40	1536 4.4 133
1734 3.0 91								2115 2.5 75		2124 2.0 62	
2334 4.3 130											
10 Tu	0712 1.0 30	25 W	0033 4.4 134	10 F	0106 4.7 143	25 Sa	0203 4.5 138	10 M	0306 5.0 151	25 Tu	0316 4.6 140
1425 3.8 116	0811 1.0 32	1528 4.0 123	0840 0.4 12	1556 4.3 131	0907 1.0 31	1559 4.3 130	2112 2.8 85	0948 0.8 25	1612 4.5 137	0940 1.4 42	1556 4.5 136
1846 3.2 97	2000 3.2 98		2036 3.3 101					2154 2.0 62	2155 1.7 53		
11 W	0027 4.5 136	26 Th	0126 4.5 137	11 Sa	0207 4.9 150	26 Su	0244 4.7 142	11 Tu	0354 5.0 152	26 W	0354 4.7 142
0803 0.5 16	0851 0.9 26	1600 4.2 127	0927 0.2 7	1628 4.4 134	0940 1.0 29	1622 4.3 132	2233 1.7 52	1023 1.1 33	1635 4.6 140	1008 1.5 47	1616 4.6 139
1521 4.1 124	2047 3.1 95		2124 3.0 92					2233 1.7 52		2226 1.5 45	
1948 3.3 100											
12 Th	0119 4.7 142	27 F	0211 4.6 141	12 Su	0301 5.1 155	27 M	0322 4.7 144	12 W	0439 4.9 149	27 Th	0432 4.7 142
0852 0.2 5	0927 0.7 22	1630 4.2 129	1010 0.3 8	1657 4.4 135	1009 1.0 30	1644 4.4 134	1658 4.7 143	1056 1.4 44	1723 4.7 141	1035 1.8 54	1658 4.7 141
1608 4.2 129	2127 3.0 91		2208 2.7 82				2217 2.3 71	1635 4.7 143	2312 1.5 45	2259 1.2 38	
2042 3.3 101											
13 F	0210 4.9 149	28 Sa	0251 4.7 143	13 M	0351 5.1 156	28 Tu	0359 4.8 145	13 Th	0524 4.7 142	28 F	0511 4.6 139
0939 -0.1 -2	1001 0.7 21	1658 4.3 130	1049 0.5 15	1724 4.5 136	1038 1.1 34	1705 4.4 135	2250 2.1 65	1125 1.8 56	1723 4.8 145	1102 2.0 62	1658 4.7 142
1651 4.3 132	2203 2.9 87		2250 2.4 73					2351 1.4 42	2333 1.1 34		
2131 3.2 98											
14 Sa	0259 5.0 153	29 Su	0329 4.7 144	14 Tu	0439 5.0 152	29 W	0436 4.7 143	14 F	0609 4.3 132	29 Sa	0554 4.4 133
1024 -0.1 -3	1033 0.7 22	1724 4.3 131	1125 0.9 26	1750 4.5 137	1105 1.3 40	1727 4.5 136	2322 2.0 60	1153 2.3 69	1748 4.8 145	1128 2.4 72	1720 4.7 142
1729 4.3 132	2237 2.8 84		2333 2.1 65					1815 4.7 143			
2217 3.1 94											
15 Su	0348 5.1 154	30 M	0405 4.7 144	15 W	0527 4.7 144	30 Th	0514 4.6 139	15 Sa	0032 1.4 42	30 Su	0011 1.1 33
1107 0.1 2	1103 0.8 25	1750 4.3 131	1158 1.3 40	1815 4.5 138	1131 1.6 48	1748 4.5 137	2357 1.8 56	0657 4.0 122	1220 2.6 80	0641 4.1 125	1153 2.7 82
1805 4.3 131	2311 2.6 80							1815 4.7 143		1744 4.6 141	
2302 2.9 88											
31 Tu	0442 4.6 141										
1132 1.0 30											
1815 4.3 131											
2346 2.5 77											

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kamaishi, Japan, 2018

Times and Heights of High and Low Waters

October				November				December				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	
1 M 0054	1.1	35	16 Tu 0128	1.4	42	1 Th 0241	1.2	37	1 Sa 0321	1.5	47	
0740	3.8	117	0900	3.6	110	1057	3.7	112	1040	3.8	117	
1218	3.0	92	1302	3.3	101	1430	3.5	106	1618	3.2	97	
1812	4.6	139	1834	4.2	128	1927	3.9	118	2003	3.4	103	
2 Tu 0150	1.3	39	17 W 0226	1.6	50	2 F 0406	1.5	45	2 Sa 0433	1.9	58	
0907	3.6	109	1102	3.6	109	1207	3.8	115	1128	4.0	121	
1244	3.3	101	1422	3.4	105	1720	3.2	99	1814	2.2	67	
1846	4.4	134	1919	3.9	119	2150	3.6	109	2219	3.2	97	
3 W 0306	1.4	43	18 Th 0349	1.8	56	3 Sa 0529	1.6	49	3 M 0011	3.3	102	
1937	4.2	127	1233	3.7	113	1245	3.9	120	0510	2.2	66	
1701	3.4	103	1701	3.4	103	1841	2.7	83	1209	4.1	126	
2050	3.6	109	2050	3.6	109	1851	2.4	73	1908	1.6	50	
4 Th 0443	1.4	44	19 F 0519	1.9	57	4 Su 0010	3.7	112	4 Tu 0135	3.6	109	
1322	3.8	115	1312	3.8	117	0634	1.7	52	0641	2.4	73	
1655	3.6	111	1837	3.1	94	1315	4.1	125	1247	4.3	131	
2136	3.9	120	2315	3.5	107	1928	2.1	65	1952	1.1	35	
5 F 0608	1.3	41	20 Sa 0627	1.8	56	5 M 0129	3.9	120	5 W 0234	3.8	117	
1349	4.0	121	1339	4.0	122	0726	1.8	55	0733	2.6	78	
1850	3.2	99	1924	2.7	82	1343	4.3	131	1323	4.5	137	
2359	4.0	122	2008	1.6	48	2008	1.4	43	2031	0.7	22	
6 Sa 0711	1.2	38	21 Su 0045	3.7	113	6 Tu 0226	4.2	128	6 Th 0322	4.0	123	
1413	4.1	126	0717	1.8	54	0810	2.0	60	0819	2.7	82	
1942	2.8	84	1402	4.1	126	1409	4.5	137	1357	4.6	141	
1959	2.3	69	1959	2.3	69	2046	1.1	33	2108	0.4	13	
7 Su 0121	4.3	130	22 M 0142	3.9	120	7 W 0315	4.4	133	7 Th 0405	4.2	127	
0801	1.2	37	0757	1.7	53	0848	2.2	66	0901	2.8	85	
1436	4.3	131	1423	4.3	130	1436	4.7	142	1431	4.7	144	
2023	2.2	68	2030	1.9	57	2122	0.7	22	2144	0.2	7	
8 M 0220	4.5	138	23 Tu 0228	4.2	128	8 Th 0359	4.4	135	8 Sa 0444	4.2	129	
0843	1.3	39	0833	1.8	54	0924	2.4	72	0940	2.9	87	
1500	4.5	136	1444	4.4	134	1504	4.8	146	1504	4.8	145	
2101	1.7	52	2100	1.4	44	2157	0.5	15	2218	0.2	5	
9 Tu 0310	4.7	143	24 W 0310	4.4	134	9 F 0442	4.4	135	9 Su 0522	4.2	128	
0920	1.5	45	0905	1.9	54	0958	2.6	84	1016	2.9	88	
1523	4.6	140	1506	4.5	138	1531	4.9	148	1537	4.7	144	
2138	1.3	40	2132	1.0	32	2232	0.4	12	2251	0.2	6	
10 W 0356	4.7	144	25 Th 0350	4.5	137	10 Sa 0522	4.4	133	10 M 0558	4.1	126	
0954	1.8	54	0936	2.1	63	1031	2.8	84	1052	2.9	89	
1546	4.7	144	1527	4.6	141	1600	4.9	148	1610	4.6	141	
2214	1.0	30	2204	0.8	23	2306	0.4	13	2304	0.3	10	
11 Th 0439	4.7	142	26 F 0431	4.5	138	11 Su 0603	4.2	128	11 Tu 0634	4.1	124	
1025	2.1	63	1006	2.3	70	1103	2.9	89	1128	3.0	90	
1611	4.8	147	1550	4.7	144	1629	4.8	145	1643	4.5	137	
2250	0.8	25	2238	0.5	16	2341	0.6	17	2357	0.6	17	
12 F 0522	4.5	137	27 Sa 0514	4.5	136	12 M 0646	4.1	124	12 W 0675	4.1	124	
1054	2.4	72	1035	2.6	78	1136	3.1	93	1207	3.0	90	
1636	4.9	148	1615	4.8	146	1659	4.6	140	1717	4.3	130	
2326	0.8	25	2315	0.4	13	2346	0.0	1	1746	4.3	131	
13 Sa 0605	4.3	130	28 Su 0559	4.3	131	13 Th 0016	0.8	24	13 W 0750	0.3	9	
1123	2.7	81	1104	2.8	86	0732	3.9	119	1213	3.2	98	
1702	4.8	147	1641	4.8	146	1730	4.4	133	1736	4.4	135	
2354	0.5	15	2354	0.5	15	1730	4.4	133	1753	4.0	121	
14 Su 0003	0.9	28	29 M 0650	4.1	124	14 W 0055	1.1	33	14 Th 0847	3.8	116	
0651	4.0	123	1133	3.1	93	0827	3.8	115	1316	3.2	97	
1152	2.9	89	1709	4.7	144	1301	3.2	99	1827	4.1	124	
1730	4.7	143	1742	4.5	138	1805	4.1	124	1837	3.6	111	
15 M 0042	1.1	34	30 Tu 0039	0.7	20	15 Th 0140	1.4	42	15 F 0215	1.1	34	
0745	3.8	115	0751	3.8	117	0935	3.7	112	0946	3.8	115	
1223	3.1	95	1205	3.2	99	1416	3.3	100	1453	3.1	94	
1800	4.5	136	1742	4.5	138	1848	3.7	114	1944	3.6	110	
31 W 0132	0.9	28	31 W 0132	0.9	28	13	0030	0.3	9	13 W 0749	3.9	118
0914	3.7	112	0914	3.7	112	0750	3.9	119	1252	3.0	90	
1250	3.4	104	1250	3.4	104	1732	3.2	98	1841	3.9	118	
1822	4.3	130	1822	4.3	130	1730	4.4	133	1841	3.9	118	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yokohama, Japan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0449 M 1013 1543 2241	ft 5.8 3.3 6.1 - 0.3	cm 178 100 185 - 10	h m <b>16</b> Tu 1040 1604 2302	ft 5.5 3.1 5.7 0.4	cm 167 96 173 12	h m <b>1</b> Th 1137 1707 2358	ft 6.0 2.8 6.2 - 0.4	cm 182 85 188 - 11	h m <b>16</b> F 1132 1704 2348	ft 5.6 2.4 5.8 0.3	cm 170 72 177 10
h m 0535 Tu 1102 1626 O 2325	ft 6.1 3.3 6.2 - 0.5	cm 186 100 190 - 16	h m <b>17</b> W 1114 1638 ● 2333	ft 5.6 3.0 5.8 0.3	cm 171 92 177 9	h m <b>2</b> F 1215 1749	ft 5.9 2.5 6.1	cm 181 77 187	h m <b>17</b> Sa 1202 1738	ft 5.6 2.1 5.8	cm 171 65 178
h m 0618 W 1146 1708	ft 6.1 3.2 6.3	cm 187 99 191	h m <b>18</b> Th 1147 1710	ft 5.6 2.9 5.9	cm 172 88 179	h m <b>3</b> Sa 0037 0706 1252 1829	ft - 0.1 5.8 2.3 5.9	cm - 2 178 71 179	h m <b>18</b> Su 0642 1234 1813	ft 0.5 1.9 5.8	cm 14 172 176
h m 0009 Th 0659 1228 1749	ft - 0.5 6.1 3.2 6.2	cm - 15 185 188	h m <b>19</b> F 0004 0647 1219 1742	ft 0.3 5.6 2.8 5.8	cm 9 171 85 178	h m <b>4</b> Su 0112 0734 1329 1910	ft 0.4 5.7 2.2 5.5	cm 13 173 67 167	h m <b>19</b> M 0047 0707 1307 1851	ft 0.7 5.6 1.8 5.6	cm 21 170 170 170
h m 0052 F 0738 1309 1832	ft - 0.2 5.9 3.1 5.9	cm - 6 179 95 179	h m <b>20</b> Sa 0034 0715 1251 1816	ft 0.4 5.6 2.7 5.7	cm 12 170 82 173	h m <b>5</b> M 0145 0801 1408 1954	ft 1.0 5.5 2.2 5.0	cm 31 169 66 152	h m <b>5</b> Tu 0116 0733 1342 1933	ft 1.1 5.5 1.7 5.3	cm 33 168 52 161
h m 0132 Sa 0816 1352 1916	ft 0.3 5.7 3.1 5.4	cm 9 173 93 166	h m <b>21</b> Su 0104 0744 1326 1853	ft 0.6 5.5 2.6 5.4	cm 19 167 80 166	h m <b>6</b> Tu 0215 0828 1452 2044	ft 1.7 5.4 2.2 4.5	cm 51 164 67 136	h m <b>21</b> W 0146 0800 1422 2022	ft 1.6 5.4 1.7 4.9	cm 48 164 52 149
h m 0212 Su 0851 1440 2005	ft 0.9 5.4 3.0 5.0	cm 27 166 92 151	h m <b>22</b> M 0134 0814 1404 1935	ft 0.9 5.4 2.6 5.1	cm 28 164 79 156	h m <b>7</b> W 0246 0857 1548 2152	ft 2.3 5.2 2.3 4.0	cm 70 158 70 122	h m <b>7</b> Th 0217 0829 1512 2125	ft 2.1 5.2 1.7 4.5	cm 65 158 52 136
h m 0251 M 0927 1539 2108	ft 1.6 5.3 3.0 4.4	cm 48 161 90 134	h m <b>23</b> Tu 0206 0847 1451 2027	ft 1.3 5.3 2.6 4.7	cm 41 161 78 144	h m <b>8</b> Th 0320 0932 1713 ○ 2359	ft 2.9 5.0 2.3 3.7	cm 88 152 70 114	h m <b>23</b> F 0254 0904 1623 ○ 2300	ft 2.8 5.0 1.8 4.1	cm 84 152 54 125
h m 0333 Tu 1006 1701 ○ 2241	ft 2.2 5.2 2.8 4.0	cm 68 157 86 122	h m <b>24</b> W 0242 0923 1552 2137	ft 1.9 5.2 2.5 4.3	cm 57 157 75 132	h m <b>9</b> F 0420 1019 1850	ft 3.4 4.8 2.1	cm 104 145 64	h m <b>9</b> F 0348 0951 1801	ft 3.4 4.8 1.6	cm 104 145 50
h m 0426 W 1052 1834	ft 2.8 5.0 2.5	cm 86 153 77	h m <b>25</b> Th 0327 1006 1715 ○ 2315	ft 2.5 5.0 2.3 4.1	cm 75 153 69 125	h m <b>10</b> Sa 0247 0623 1135 2002	ft 4.0 3.7 4.6 1.8	cm 122 113 140 54	h m <b>10</b> Sa 0143 0605 1117 1930	ft 4.2 3.8 4.6 1.2	cm 128 117 139 108
h m 0100 Th 0543 1149 1945	ft 3.9 3.3 5.0 2.1	cm 119 100 152 63	h m <b>26</b> F 0436 1101 1842	ft 3.1 4.9 1.8	cm 94 150 56	h m <b>11</b> Su 0339 0803 1320 2054	ft 4.4 3.7 4.6 1.4	cm 135 112 140 42	h m <b>11</b> Su 0217 0814 1323 2038	ft 4.0 3.7 4.7 0.8	cm 122 117 143 23
h m 0247 F 0710 1257 2035	ft 4.2 3.5 5.0 1.6	cm 129 107 153 49	h m <b>27</b> Sa 0129 0626 1213 1953	ft 4.2 3.5 4.9 1.2	cm 129 107 150 37	h m <b>12</b> M 0411 0907 1431 2136	ft 4.8 3.4 4.9 1.0	cm 146 105 148 31	h m <b>12</b> M 0314 0922 1443 2133	ft 4.4 3.4 5.1 0.3	cm 134 103 155 10
h m 0343 Sa 0821 1359 2117	ft 4.7 3.5 5.1 1.2	cm 142 108 156 37	h m <b>28</b> Su 0309 0804 1334 2051	ft 4.7 3.6 5.1 0.6	cm 144 110 155 21	h m <b>13</b> Tu 0439 0952 1518 2213	ft 5.1 3.2 5.2 0.7	cm 155 97 157 21	h m <b>13</b> W 0434 1008 1538 2221	ft 5.5 3.0 5.5 0.1	cm 167 90 169 2
h m 0421 Su 0917 1449 2154	ft 5.0 3.4 5.3 0.9	cm 153 105 162 26	h m <b>29</b> M 0405 0915 1441 2144	ft 5.2 3.5 5.4 0.1	cm 159 107 165 2	h m <b>14</b> W 0504 1028 1556 2246	ft 5.3 2.9 5.4 0.5	cm 162 88 165 15	h m <b>14</b> W 0410 0939 1507 2149	ft 5.0 2.9 4.9 1.0	cm 153 89 148 32
h m 0453 M 1001 1529 2229	ft 5.3 3.3 5.5 0.6	cm 161 101 168 17	h m <b>30</b> Tu 0449 1010 1536 2232	ft 5.6 3.3 5.8 - 0.3	cm 171 101 176 - 9	h m <b>15</b> Th 0529 1100 1630 2318	ft 5.5 2.6 5.7 0.4	cm 167 80 173 111	h m <b>15</b> Th 0433 1011 1546 2224	ft 5.2 2.5 5.2 0.8	cm 160 77 160 25
h m 0527 W 1056 1623 ○ 2317	ft 5.9 3.1 6.0 - 0.5	cm 179 93 184 - 14	h m <b>31</b> W 0527 1056 1623 ○ 2317	ft 5.9 3.1 6.0 - 0.5	cm 179 93 184 - 14				h m <b>31</b> Sa 0456 1103 1702 ○ 2319	ft 5.8 1.4 6.0 1.0	cm 177 43 182 30

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yokohama, Japan, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0520	5.9	179	<b>16</b>	0500	5.8	178	<b>1</b>	0504	5.9	180
	1136	1.1	33	M	1118	0.8	24	Tu	1143	0.6	18
	1741	6.0	182		1726	6.0	184		1812	5.8	178
	2352	1.3	40	●	2335	1.6	50		2359	2.5	76
<b>2</b> M	0544	5.9	179	<b>17</b>	0525	5.9	180	<b>2</b>	0528	5.9	179
	1207	0.9	27	Tu	1152	0.5	14	W	1214	0.6	17
	1818	5.8	178		1807	6.1	185		1850	5.7	174
<b>3</b> Tu	0023	1.7	52	<b>18</b>	0009	2.0	60	<b>3</b>	0030	2.8	84
	0607	5.8	177	W	0551	5.9	179	<b>18</b>	0554	5.8	176
	1238	0.8	25		1227	0.3	9	F	1245	0.7	20
	1856	5.6	170		1851	5.9	181		1928	5.5	167
<b>4</b> W	0052	2.1	65	<b>19</b>	0042	2.4	72	<b>4</b>	0102	3.0	92
	0629	5.7	174	Th	0618	5.8	176	<b>4</b>	0620	5.6	171
	1309	0.9	27		1304	0.3	10	Sa	1316	0.9	27
	1935	5.3	161		1938	5.6	172		2009	5.2	159
<b>5</b> Th	0121	2.6	78	<b>20</b>	0117	2.8	86	<b>5</b>	0135	3.3	100
	0653	5.5	168	F	0645	5.6	170	<b>5</b>	0648	5.3	163
	1341	1.1	33		1345	0.5	16	Sa	1350	1.2	36
	2018	4.9	150		2032	5.3	161		2055	5.0	151
<b>6</b> F	0150	3.0	90	<b>21</b>	0154	3.3	100	<b>6</b>	0213	3.5	107
	0718	5.2	160	Sa	0715	5.3	162	<b>6</b>	0720	5.0	153
	1417	1.4	42		1434	0.9	26	Su	1430	1.5	47
	2110	4.6	139		2140	4.9	149		2153	4.7	144
<b>7</b> Sa	0223	3.3	102	<b>22</b>	0242	3.7	113	<b>7</b>	0305	3.7	113
	0747	5.0	151	Su	0751	5.0	151	M	0758	4.7	142
	1502	1.7	53		1538	1.3	39		1522	1.9	58
	2225	4.3	130		2312	4.7	142		2308	4.6	140
<b>8</b> Su	0313	3.7	112	<b>23</b>	0411	4.0	121	<b>8</b>	0439	3.8	116
	0822	4.6	139	M	0848	4.5	137	Tu	0858	4.3	130
	1614	2.0	62		1706	1.6	49		1641	2.2	67
	●				●				●		
<b>9</b> M	0036	4.2	128	<b>24</b>	0059	4.7	144	<b>9</b>	0034	4.6	141
	0522	3.9	118	Tu	0653	3.8	115	W	0642	3.6	109
	0921	4.2	127		1119	4.2	128		1052	4.0	122
	1802	2.2	66		1839	1.7	53		1814	2.3	71
<b>10</b> Tu	0215	4.5	136	<b>25</b>	0206	5.0	151	<b>10</b>	0137	4.8	147
	0740	3.6	110	W	0812	3.2	98	Th	0751	3.1	95
	1146	4.0	121		1331	4.4	135		1258	4.2	127
	1929	2.0	62		1952	1.7	52		1928	2.3	70
<b>11</b> W	0256	4.7	144	<b>26</b>	0247	5.2	158	<b>11</b>	0219	5.1	154
	0837	3.2	97	Th	0855	2.6	79	<b>11</b>	0833	2.6	79
	1349	4.2	129		1442	4.9	149		1414	4.6	139
	2028	1.8	55		2048	1.6	50		2023	2.2	67
<b>12</b> Th	0324	5.0	153	<b>27</b>	0319	5.4	165	<b>12</b>	0251	5.3	161
	0913	2.7	82	F	0932	2.0	61	<b>12</b>	0909	2.0	61
	1447	4.7	142		1533	5.3	162	Sa	1507	5.1	154
	2113	1.6	48		2134	1.7	51		2110	2.2	66
<b>13</b> F	0349	5.2	160	<b>28</b>	0347	5.6	172	<b>13</b>	0321	5.5	169
	0945	2.2	67	Sa	1006	1.4	44	W	0943	1.4	43
	1530	5.1	156		1617	5.6	172		1553	5.5	168
	2151	1.4	43		2215	1.8	55		2152	2.2	66
<b>14</b> Sa	0412	5.5	167	<b>29</b>	0413	5.8	176	<b>14</b>	0349	5.8	176
	1015	1.7	52	Su	1040	1.0	31	W	1017	0.8	25
	1609	5.5	169		1657	5.8	178		1637	5.9	180
	2227	1.4	42		2252	2.0	61		2233	2.3	70
<b>15</b> Su	0436	5.7	173	<b>30</b>	0439	5.9	179	<b>15</b>	0418	5.9	181
	1046	1.2	37	M	1112	0.7	22	Tu	1053	0.4	11
	1647	5.9	179		1735	5.9	180		1721	6.1	187
	2301	1.4	44		○	2326	2.2	68	●	2312	2.5
<b>16</b> Sa	0021	3.4	104					<b>16</b>	0012	3.2	97
	0539	6.2	188					F	0528	5.8	178
	1244	0.0	-1						1225	0.7	20
	1939	6.0	184						1917	5.7	173
<b>17</b> Su	0106	3.5	106					<b>17</b>	0046	3.3	100
	0622	6.0	182					Sa	0558	5.7	174
	1330	0.3	9						1258	0.9	26
	2026	5.8	177						1954	5.5	168
<b>18</b> M	0153	3.5	107					<b>18</b>	0121	3.4	103
	0709	5.6	172					Su	0631	5.5	168
	1417	0.8	25						1331	1.1	33
	2112	5.6	170						2034	5.3	162
<b>19</b> Tu	0245	3.5	106					<b>19</b>	0159	3.5	106
	0804	5.2	159					Sa	0706	5.2	159
	1507	1.4	43						1407	1.4	43
	2159	5.4	164						2117	5.2	157
<b>20</b> W	0351	3.4	103					<b>20</b>	0246	3.6	109
	0916	4.8	146					Sa	0748	4.9	149
	1601	2.0	62						1449	1.8	54
	2246	5.3	161						2207	5.0	153
<b>21</b> Th	0514	3.1	96					<b>21</b>	0351	3.6	110
	1051	4.5	137					Sa	0754	4.6	139
	1703	2.6	79						1542	2.1	65
	2335	5.2	160						2303	5.0	151
<b>22</b> F	0636	2.8	85					<b>22</b>	0522	3.4	105
	1240	4.4	135					Sa	1011	4.3	131
	1813	3.0	92						1652	2.5	75
	●								●		
<b>23</b> Sa	0026	5.2	160					<b>23</b>	0001	5.0	153
	0740	2.3	70					Sa	0644	3.1	93
	1413	4.7	142						1157	4.3	130
	1921	3.3	100						1813	2.7	82
<b>24</b> Su	0119	5.3	163					<b>24</b>	0055	5.1	156
	0831	1.8	56					Sa	0741	2.5	77
	1518	5.0	152						1331	4.6	139
	2022	3.4	104						1924	2.8	86
<b>25</b> M	0207	5.5	167					<b>25</b>	0141	5.3	162
	0913	1.4	44					Su	0826	1.9	58
	1607	5.3	162						1442	5.0	153
	2115	3.5	106						2024	2.9	88
<b>26</b> Tu	0251	5.6	171					<b>26</b>	0223	5.5	169
	0952	1.1	34					Sa	0908	1.2	38
	1647	5.6	170						1538	5.5	167
	2202	3.4	105						2117	3.0	91
<b>27</b> W	0330	5.7	175					<b>27</b>	0302	5.8	176
	1028	0.9	27					Sa	0949	0.7	20
	1723	5.8	176						1629	5.9	179
	2243	3.4	104						2206	3.1	94
<b>28</b> Th	0406	5.8	178					<b>28</b>	0330	5.7	175
	1103	0.8	23					Sa	1031	0.2	6
	1756	5.8	178						1717	6.1	187
	2321	3.4	103						2252	3.2	98

# Yokohama, Japan, 2018

Times and Heights of High and Low Waters

July				August				September																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height																																																																																																																																																																																																																																																																																																																																																																																																																																																
h m 0030 0546 1242 1931	ft 3.3 5.9 0.9 5.7	cm 100 179 27 174	h m 0055 0622 1318 1956	ft 3.2 6.2 0.5 6.0	cm 97 189 15 183	h m 0117 0648 1324 1956	ft 2.8 5.8 1.5 5.8	cm 85 176 45 177	h m 0154 0750 1406 2010	ft 2.3 5.6 2.1 5.9	cm 70 172 65 180																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>1</b> Su		<b>16</b> M		<b>1</b> W		<b>16</b> Th		<b>1</b> Sa		<b>16</b> Su																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0030 0546 1242 1931	ft 3.3 5.9 0.9 5.7	cm 100 179 27 174	0055 0622 1318 1956	ft 3.2 6.2 0.5 6.0	cm 97 189 15 183	0117 0648 1324 1956	ft 2.8 5.8 1.5 5.8	cm 85 176 45 177	0203 0807 1400 2006	ft 2.0 5.5 2.7 5.8	cm 62 167 82 176	<b>2</b> M		<b>17</b> Tu		<b>2</b> Th		<b>17</b> F		<b>2</b> Su		<b>17</b> M		0104 0620 1314 2004	ft 3.3 5.7 1.1 5.6	cm 100 174 33 171	0138 0709 1359 2031	ft 3.1 5.9 1.0 5.8	cm 93 180 32 178	0153 0729 1355 2026	ft 2.7 5.5 1.8 5.7	cm 83 169 56 175	0247 0842 1439 2038	ft 2.1 5.2 2.8 5.7	cm 63 158 85 175	<b>3</b> Tu		<b>18</b> W		<b>3</b> F		<b>18</b> Sa		<b>3</b> M		<b>18</b> Tu		0140 0657 1347 2038	ft 3.2 5.5 1.4 5.5	cm 99 168 42 168	0223 0801 1438 2105	ft 3.0 5.5 1.7 5.7	cm 90 167 52 173	0234 0818 1428 2058	ft 2.7 5.2 2.3 5.6	cm 82 159 70 171	0346 0948 1515 2111	ft 2.1 4.7 3.4 5.5	cm 65 144 103 168	<b>4</b> W		<b>19</b> Th		<b>4</b> Sa		<b>19</b> Su		<b>4</b> Tu		<b>19</b> W		0220 0739 1421 2115	ft 3.2 5.2 1.7 5.4	cm 99 159 52 165	0314 0901 1519 2139	ft 2.9 5.0 2.4 5.5	cm 88 153 72 169	0324 0918 1507 2134	ft 2.6 4.9 2.8 5.5	cm 80 150 86 167	0511 1127 1609 2152	ft 2.1 4.5 3.9 5.3	cm 64 136 119 161	<b>5</b> Th		<b>20</b> F		<b>5</b> Su		<b>20</b> M		<b>5</b> W		<b>20</b> Th		0309 0832 1501 2155	ft 3.2 4.9 2.1 5.3	cm 98 149 65 162	0418 1018 1606 2218	ft 2.8 4.6 3.0 5.4	cm 85 140 92 165	0430 1037 1601 2219	ft 2.5 4.7 3.4 5.3	cm 77 142 103 163	0605 1357 1752 2256	ft 2.5 4.6 4.2 5.1	cm 76 139 128 154	<b>6</b> F		<b>21</b> Sa		<b>6</b> M		<b>21</b> Tu		<b>6</b> Th		<b>21</b> F		0413 0941 1551 2240	ft 3.1 4.6 2.6 5.3	cm 95 141 78 161	0537 1203 1710 2305	ft 2.7 4.4 3.5 5.3	cm 81 134 107 162	0551 1225 1730 2320	ft 2.3 4.6 3.9 5.3	cm 69 141 118 161	0725 1511 1938 2128	ft 2.3 4.9 4.2 128	cm 69 150 128 225	<b>7</b> Sa		<b>22</b> Su		<b>7</b> Tu		<b>22</b> W		<b>7</b> F		<b>22</b> Sa		0531 1108 1659 2331	ft 2.9 4.5 3.0 5.3	cm 87 136 92 161	0656 1403 1832	ft 2.4 4.6 3.8	cm 72 139 117	0708 1423 1918	ft 1.8 5.0 4.1	cm 56 151 124	0039 0825 1550 2049	ft 5.0 2.0 5.2 4.0	cm 152 60 160 121	<b>8</b> Su		<b>23</b> M		<b>8</b> W		<b>23</b> Th		<b>8</b> Sa		<b>23</b> Su		0644 1250 1823	ft 2.4 4.6 3.3	cm 73 140 102	0007 0758 1517 1951	ft 5.2 2.0 4.9 3.9	cm 160 62 149 120	0042 0814 1534 2041	ft 5.3 1.3 5.4 4.0	cm 162 40 166 123	0208 0913 1620 2137	ft 5.2 1.7 5.5 3.7	cm 157 51 169 112	<b>9</b> M		<b>24</b> Tu		<b>9</b> Th		<b>24</b> F		<b>9</b> Su		<b>24</b> M		0027 0744 1423 1942	ft 5.3 1.8 5.0 3.5	cm 163 156 151 108	0119 0849 1603 2056	ft 5.2 1.7 5.2 3.9	cm 160 139 160 118	0203 0912 1622 2143	ft 5.5 0.8 5.8 3.8	cm 169 24 178 116	0303 0954 1648 2216	ft 5.4 1.4 5.7 3.3	cm 166 43 175 102	<b>10</b> Tu		<b>25</b> W		<b>10</b> F		<b>25</b> Sa		<b>10</b> M		<b>25</b> Tu		0127 0837 1532 2050	ft 5.5 1.2 5.4 3.6	cm 167 37 165 111	0223 0932 1639 2147	ft 5.4 1.4 5.5 3.7	cm 165 42 169 113	0308 1004 1703 2233	ft 5.9 0.4 6.1 3.5	cm 180 12 187 107	0344 1030 1713 2249	ft 5.7 1.2 5.9 3.1	cm 174 37 180 94	<b>11</b> W		<b>26</b> Th		<b>11</b> Sa		<b>26</b> Su		<b>11</b> Tu		<b>26</b> W		0223 0927 1626 2148	ft 5.7 0.7 5.8 3.6	cm 174 20 178 111	0312 1012 1710 2229	ft 5.6 1.1 5.7 3.5	cm 170 35 175 108	0401 1053 1740 2317	ft 6.3 0.2 6.3 3.2	cm 191 6 192 97	0420 1104 1704 2320	ft 6.0 1.1 6.0 2.8	cm 182 34 183 85	<b>12</b> Th		<b>27</b> F		<b>12</b> Su		<b>27</b> M		<b>12</b> W		<b>27</b> Th		0315 1015 1714 2240	ft 6.0 0.2 6.1 3.6	cm 182 7 187 109	0353 1048 1739 2306	ft 5.8 1.0 5.9 3.3	cm 176 30 179 102	0449 1138 1814 2358	ft 6.5 0.2 6.4 2.9	cm 198 6 194 87	0454 1135 1801 2351	ft 6.1 1.1 6.1 2.6	cm 187 34 185 78	<b>13</b> F		<b>28</b> Sa		<b>13</b> M		<b>28</b> Tu		<b>13</b> Th		<b>28</b> F		0404 1103 1758 ● 2327	ft 6.2 -0.1 6.3 3.5	cm 189 -2 191 106	0429 1122 1807 2339	ft 5.9 0.9 5.9 3.2	cm 181 27 181 97	0534 1219 1846 2333	ft 6.5 0.5 6.3 1.5	cm 199 14 192 45	0528 1204 1825 1915	ft 6.2 1.2 6.1 6.2	cm 189 38 186 185	<b>14</b> Sa		<b>29</b> Su		<b>14</b> Tu		<b>29</b> W		<b>14</b> F		<b>29</b> Sa		0450 1150 1840	ft 6.4 -0.1 6.3	cm 194 -3 191	0503 1154 1834	ft 6.0 0.9 5.9	cm 184 27 181	0037 0618 1257 1915	ft 2.6 6.4 0.9 6.2	cm 79 195 27 189	0022 0603 1233 1848	ft 2.3 6.2 1.4 6.1	cm 71 188 44 185	<b>15</b> Su		<b>30</b> M		<b>15</b> W		<b>30</b> Th		<b>15</b> Sa		<b>30</b> Su		0012 0536 1235 1919	ft 3.3 6.4 0.1 6.2	cm 102 194 2 188	0012 0537 1225 1901	ft 3.0 6.0 1.0 5.9	cm 92 184 30 180	0115 0703 1333 1943	ft 2.4 6.1 1.5 6.1	cm 73 185 45 185	0053 0640 1301 1913	ft 2.2 6.0 1.8 6.0	cm 66 184 54 184			<b>31</b> Tu				<b>31</b> F				<b>31</b> O				0044 0611				0126 0721				0126 0737				2.9 6.0				2.1 5.8				2.1 5.7				88 182				63 176				63 175				1.2 1.2				2.2 2.2				2.2 2.7				36 36				67 67				67 81				5.9 5.9				5.9 5.9				5.9 184				179 179				180 180				180 184	
<b>2</b> M		<b>17</b> Tu		<b>2</b> Th		<b>17</b> F		<b>2</b> Su		<b>17</b> M																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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0140 0657 1347 2038	ft 3.2 5.5 1.4 5.5	cm 99 168 42 168	0223 0801 1438 2105	ft 3.0 5.5 1.7 5.7	cm 90 167 52 173	0234 0818 1428 2058	ft 2.7 5.2 2.3 5.6	cm 82 159 70 171	0346 0948 1515 2111	ft 2.1 4.7 3.4 5.5	cm 65 144 103 168																																																																																																																																																																																																																																																																																																																																																																																																																																																
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0220 0739 1421 2115	ft 3.2 5.2 1.7 5.4	cm 99 159 52 165	0314 0901 1519 2139	ft 2.9 5.0 2.4 5.5	cm 88 153 72 169	0324 0918 1507 2134	ft 2.6 4.9 2.8 5.5	cm 80 150 86 167	0511 1127 1609 2152	ft 2.1 4.5 3.9 5.3	cm 64 136 119 161																																																																																																																																																																																																																																																																																																																																																																																																																																																
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0309 0832 1501 2155	ft 3.2 4.9 2.1 5.3	cm 98 149 65 162	0418 1018 1606 2218	ft 2.8 4.6 3.0 5.4	cm 85 140 92 165	0430 1037 1601 2219	ft 2.5 4.7 3.4 5.3	cm 77 142 103 163	0605 1357 1752 2256	ft 2.5 4.6 4.2 5.1	cm 76 139 128 154																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>6</b> F		<b>21</b> Sa		<b>6</b> M		<b>21</b> Tu		<b>6</b> Th		<b>21</b> F																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0413 0941 1551 2240	ft 3.1 4.6 2.6 5.3	cm 95 141 78 161	0537 1203 1710 2305	ft 2.7 4.4 3.5 5.3	cm 81 134 107 162	0551 1225 1730 2320	ft 2.3 4.6 3.9 5.3	cm 69 141 118 161	0725 1511 1938 2128	ft 2.3 4.9 4.2 128	cm 69 150 128 225																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>7</b> Sa		<b>22</b> Su		<b>7</b> Tu		<b>22</b> W		<b>7</b> F		<b>22</b> Sa																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0531 1108 1659 2331	ft 2.9 4.5 3.0 5.3	cm 87 136 92 161	0656 1403 1832	ft 2.4 4.6 3.8	cm 72 139 117	0708 1423 1918	ft 1.8 5.0 4.1	cm 56 151 124	0039 0825 1550 2049	ft 5.0 2.0 5.2 4.0	cm 152 60 160 121																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>8</b> Su		<b>23</b> M		<b>8</b> W		<b>23</b> Th		<b>8</b> Sa		<b>23</b> Su																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0644 1250 1823	ft 2.4 4.6 3.3	cm 73 140 102	0007 0758 1517 1951	ft 5.2 2.0 4.9 3.9	cm 160 62 149 120	0042 0814 1534 2041	ft 5.3 1.3 5.4 4.0	cm 162 40 166 123	0208 0913 1620 2137	ft 5.2 1.7 5.5 3.7	cm 157 51 169 112																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>9</b> M		<b>24</b> Tu		<b>9</b> Th		<b>24</b> F		<b>9</b> Su		<b>24</b> M																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0027 0744 1423 1942	ft 5.3 1.8 5.0 3.5	cm 163 156 151 108	0119 0849 1603 2056	ft 5.2 1.7 5.2 3.9	cm 160 139 160 118	0203 0912 1622 2143	ft 5.5 0.8 5.8 3.8	cm 169 24 178 116	0303 0954 1648 2216	ft 5.4 1.4 5.7 3.3	cm 166 43 175 102																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>10</b> Tu		<b>25</b> W		<b>10</b> F		<b>25</b> Sa		<b>10</b> M		<b>25</b> Tu																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0127 0837 1532 2050	ft 5.5 1.2 5.4 3.6	cm 167 37 165 111	0223 0932 1639 2147	ft 5.4 1.4 5.5 3.7	cm 165 42 169 113	0308 1004 1703 2233	ft 5.9 0.4 6.1 3.5	cm 180 12 187 107	0344 1030 1713 2249	ft 5.7 1.2 5.9 3.1	cm 174 37 180 94																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>11</b> W		<b>26</b> Th		<b>11</b> Sa		<b>26</b> Su		<b>11</b> Tu		<b>26</b> W																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0223 0927 1626 2148	ft 5.7 0.7 5.8 3.6	cm 174 20 178 111	0312 1012 1710 2229	ft 5.6 1.1 5.7 3.5	cm 170 35 175 108	0401 1053 1740 2317	ft 6.3 0.2 6.3 3.2	cm 191 6 192 97	0420 1104 1704 2320	ft 6.0 1.1 6.0 2.8	cm 182 34 183 85																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>12</b> Th		<b>27</b> F		<b>12</b> Su		<b>27</b> M		<b>12</b> W		<b>27</b> Th																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0315 1015 1714 2240	ft 6.0 0.2 6.1 3.6	cm 182 7 187 109	0353 1048 1739 2306	ft 5.8 1.0 5.9 3.3	cm 176 30 179 102	0449 1138 1814 2358	ft 6.5 0.2 6.4 2.9	cm 198 6 194 87	0454 1135 1801 2351	ft 6.1 1.1 6.1 2.6	cm 187 34 185 78																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>13</b> F		<b>28</b> Sa		<b>13</b> M		<b>28</b> Tu		<b>13</b> Th		<b>28</b> F																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0404 1103 1758 ● 2327	ft 6.2 -0.1 6.3 3.5	cm 189 -2 191 106	0429 1122 1807 2339	ft 5.9 0.9 5.9 3.2	cm 181 27 181 97	0534 1219 1846 2333	ft 6.5 0.5 6.3 1.5	cm 199 14 192 45	0528 1204 1825 1915	ft 6.2 1.2 6.1 6.2	cm 189 38 186 185																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>14</b> Sa		<b>29</b> Su		<b>14</b> Tu		<b>29</b> W		<b>14</b> F		<b>29</b> Sa																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0450 1150 1840	ft 6.4 -0.1 6.3	cm 194 -3 191	0503 1154 1834	ft 6.0 0.9 5.9	cm 184 27 181	0037 0618 1257 1915	ft 2.6 6.4 0.9 6.2	cm 79 195 27 189	0022 0603 1233 1848	ft 2.3 6.2 1.4 6.1	cm 71 188 44 185																																																																																																																																																																																																																																																																																																																																																																																																																																																
<b>15</b> Su		<b>30</b> M		<b>15</b> W		<b>30</b> Th		<b>15</b> Sa		<b>30</b> Su																																																																																																																																																																																																																																																																																																																																																																																																																																																	
0012 0536 1235 1919	ft 3.3 6.4 0.1 6.2	cm 102 194 2 188	0012 0537 1225 1901	ft 3.0 6.0 1.0 5.9	cm 92 184 30 180	0115 0703 1333 1943	ft 2.4 6.1 1.5 6.1	cm 73 185 45 185	0053 0640 1301 1913	ft 2.2 6.0 1.8 6.0	cm 66 184 54 184																																																																																																																																																																																																																																																																																																																																																																																																																																																
		<b>31</b> Tu				<b>31</b> F				<b>31</b> O																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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		5.9 5.9				5.9 5.9				5.9 184																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		179 179				180 180				180 184																																																																																																																																																																																																																																																																																																																																																																																																																																																	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Yokohama, Japan, 2018

Times and Heights of High and Low Waters

October				November				December				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
1 M 0221 0902 1416 1951	1.5 5.2 3.7 5.5	ft ft cm ft cm	47 160 113 169	16 Tu 1017 1506 2005	0250 4.9 4.2 5.1	ft ft cm ft cm	2.1 148 128 155	1 Th 0421 1208 1750 2205	1.9 5.1 4.3 4.6	ft ft cm ft cm	57 155 130 141	
	0319 1026 1507 02031	1.8 5.0 4.2 5.2	55 151 128 159		0356 W 1209 1705 2101	2.4 4.8 4.3 4.7	73 146 132 142		0544 F 1329 1940	2.7 5.2 3.7 114	ft ft cm ft cm	81 155 104 129
	0443 1237 1726 2153	2.0 4.9 4.5 4.9	61 150 137 148		0536 Th 1346 1922 2321	2.6 5.0 4.1 4.4	79 151 124 134		0044 Sa 0716 1417 2030	4.7 2.1 5.5 3.1	ft ft cm ft cm	142 64 168 94
	0623 1417 1952	2.0 5.2 4.2	60 159 127		0705 F 1433 2022	2.5 5.2 3.6	77 159 110		0211 Su 0817 1452 2109	5.1 2.1 5.7 2.4	ft ft cm ft cm	155 64 175 73
5 F 0039 0744 1502 2049	4.8 1.7 5.6 3.6	ft ft cm ft cm	147 53 170 110	20 Sa 0132 0807 1504 2059	0132 2.4 5.4 3.1	ft ft cm ft cm	4.6 72 166 95	5 M 0309 0908 1522 2145	5.5 2.1 6.0 1.8	ft ft cm ft cm	169 64 182 55	
	0213 0844 1536 2130	5.3 1.5 5.9 3.0	161 146 179 91		0235 Su 0853 1530 2131	5.0 2.2 5.7 2.6	152 67 173 80		0357 Tu 0951 1551 2220	5.9 2.2 6.2 1.3	ft ft cm ft cm	181 68 188 39
	0312 0934 1605 2206	5.8 1.3 6.1 2.4	177 41 187 73		0318 M 0932 1553 2201	5.4 2.1 5.9 2.1	165 63 180 64		0440 W 1031 1618 2254	6.2 2.4 6.3 0.9	ft ft cm ft cm	188 73 180 28
	0400 1018 1632 2242	6.2 1.4 6.3 1.9	189 42 192 57		0356 Tu 1007 1616 2231	5.8 2.0 6.1 1.6	177 62 186 50		0521 Th 1107 1644 ● 2327	6.3 2.7 6.3 0.7	ft ft cm ft cm	191 81 193 22
9 Tu 0443 1057 1658 ● 2316	6.5 1.6 6.4 1.4	ft ft cm ft cm	197 48 195 44	24 W 0433 1041 1640 2301	6.1 2.1 6.2 1.2	ft ft cm ft cm	186 89 190 37	9 F 0600 1141 1710 2359	6.2 2.9 6.3 0.7	ft ft cm ft cm	190 89 192 21	
	10 W 0524 1132 1723 2350	6.5 1.9 6.4 1.2	199 58 196 37		0511 Th 1114 1704 ○ 2333	6.3 2.3 6.3 0.9	192 69 193 27		0638 Sa 1214 1736	6.1 3.1 6.2	ft ft cm ft cm	186 96 189 27
	11 Th 0605 1206 1747	6.4 2.3 6.4	195 70 194		0549 F 1146 1729	6.4 2.5	194 77		0630 Su 1205 1729	6.3 3.2 6.3	ft ft cm ft cm	191 99 192 192
	12 F 0023 0645 1237 1811	1.1 6.2 2.7 6.3	34 188 83 191		0507 Sa 0631 1219 1755	0.7 6.3 2.9 6.3	21 192 87 191		0031 Su 0717 1247 1803	0.8 5.9 3.4 6.0	ft ft cm ft cm	24 171 179 184
13 Sa 0055 0726 1308 1836	1.2 5.8 3.1 6.1	ft ft cm ft cm	36 178 96 185	27 Su 0042 0715 1253 1822	0.7 6.1 3.2 6.1	20 195 98 186	0104 M 0758 1320 1832	1.0 5.6 3.6 5.8	ft ft cm ft cm	31 21 197 186		
	0129 0811 1339 1901	1.4 5.5 3.5 5.8	42 167 108 177		0121 M 0806 1329 1851	0.8 5.7 3.6 5.8	24 175 111 178	0104 W 0937 1448 1939	1.7 5.1 122 153	ft ft cm ft cm	51 155 122 167	
	0206 0904 1414 1930	1.7 5.1 3.9 5.5	52 156 118 167		0206 Tu 1097 1412 1924	1.1 5.4 4.0 5.5	33 165 122 167	0303 Th 1046 1614 ● 2032	2.1 5.0 4.1 4.6	ft ft cm ft cm	63 151 125 140	
	31 W 0303 1027 1521 2012	1.5 5.1 4.3 5.1	45 156 131 154		0355 F 1112 1716 2211	1.7 5.2 3.8 4.5	53 158 115 136	0326 Th 1005 1526 2023	1.2 5.3 121 150	ft ft cm ft cm	63 153 108 129	
16 Su 1217 1858	0408 1129 1827 2320	ft ft cm ft cm	76 50 32 123	1 Sa 1217 1858 1959 2123	0411 F 1207 1823 2218	2.4 4.9 3.9 4.2	74 150 118 129	1 Su 1313 1959 2123 1217	2.2 5.3 162 121	ft ft cm ft cm	76 152 80 123	
	0512 1129 1827 2320	ft ft cm ft cm	76 50 32 123		0411 F 1207 1823 2218	2.4 4.9 3.9 4.2	74 150 118 129		0026 Su 1313 1959 2123 1217	4.4 8.3 144 121	ft ft cm ft cm	86 155 80 123
	0512 1129 1827 2320	ft ft cm ft cm	76 50 32 123		0202 M 0738 1358 2044	4.4 8.3 144 121	135 168 160 60		0207 M 1358 2044 2123 1217	4.4 8.3 144 121	ft ft cm ft cm	129 159 61 123
	0408 1129 1827 2320	ft ft cm ft cm	76 50 32 123		0114 Tu 0655 1319 2017	4.2 3.0 5.2 2.0	129 129 159 61		0114 Tu 0655 1319 2017	4.2 3.0 5.2 61	ft ft cm ft cm	129 159 61 123
17 M 1931	0531 1227 2351	ft ft cm ft cm	86 155 80 123	1 Su 1313 1959 2123 1217	0531 M 1358 2044 2123 1217	2.8 2.6 1.3 1.1	86 155 60 123		0234 W 1403 2056 2215 1217	4.7 5.4 1.2 1.1	ft ft cm ft cm	129 159 61 123
	0330 0856 1444 2136	ft ft cm ft cm	157 95 173 22		0357 W 0923 1510 2200	5.5 3.0 5.9 1.0	168 90 179 29		0357 W 0923 1510 2200	5.5 3.0 5.9 1.0	ft ft cm ft cm	157 95 173 22
	0417 0945 1522 2215	ft ft cm ft cm	170 93 181 6		0440 Th 1006 1543 2235	5.8 3.1 6.0 0.6	176 184 184 19		0440 Th 1006 1543 2235	5.8 3.1 6.0 0.6	ft ft cm ft cm	170 93 181 6
	0502 1030 1600 2256	ft ft cm ft cm	181 98 187 -6		0519 F 1045 1614 ● 2308	5.9 3.1 6.1 0.5	181 96 186 14		0519 F 1045 1614 ● 2308	5.9 3.1 6.1 14	ft ft cm ft cm	181 98 187 -6
8 M 1113 1638 2338	0545 1113 1638 2338	ft ft cm ft cm	186 99 191 -12	8 Sa 1122 1644 2341	0504 F 1049 1627 ○ 2312	6.0 3.2 6.3 0.2	182 98 186 7	8 Sa 1122 1644 2341	6.0 3.2 6.3 0.4	ft ft cm ft cm	186 99 191 -12	
	0545 1113 1638 2338	ft ft cm ft cm	186 99 191 -12		0555 Sa 1122 1644 2341	6.0 3.2 6.3 0.4	182 98 186 13		0555 Sa 1122 1644 2341	6.0 3.2 6.3 13	ft ft cm ft cm	186 99 191 -12
	0545 1113 1638 2338	ft ft cm ft cm	186 99 191 -12		0560 Su 1157 1714	5.9 3.3 6.1 6.1	181 100 185 181		0560 Su 1157 1714	5.9 3.3 100 181	ft ft cm ft cm	186 99 191 -12
	0628 1156 1717	ft ft cm ft cm	187 100 184 187		0630 M 0705 1230 1744	6.1 5.8 3.3 5.9	181 177 102 174		0630 M 0705 1230 1744	6.1 5.8 102 174	ft ft cm ft cm	187 100 184 187
25 Tu 1238 1758	0021 0712 1238 1758	-0.4 -0.4 3.3 5.8	-11 -11 101 -3	10 Tu 1304 1815 1841	0013 M 0729 1729	0.5 5.8 3.3 5.7	15 177 102 174	10 Tu 1304 1815 1841	0013 M 0729 1729	0.5 5.8 102 174	ft ft cm ft cm	187 100 184 187
	0105 0756 1322 1841	-0.1 -0.1 3.3 5.8	-3 -3 101 -3		0045 W 0739 1304 1815	0.7 5.6 3.4 5.7	21 172 104 174		0045 W 0739 1304 1815	0.7 5.6 104 174	ft ft cm ft cm	187 100 184 187
	0105 0756 1322 1841	-0.1 -0.1 3.3 5.8	-3 -3 101 -3		0029 W 0756 1322 1841	0.7 5.6 3.4 5.7	21 172 104 174		0029 W 0756 1322 1841	0.7 5.6 104 174	ft ft cm ft cm	187 100 184 187
	0149 0839 1409 1929	0.4 0.5 3.3 5.4	12 171 101 164		0117 W 0816 1341 1848	1.0 5.4 3.5 5.4	29 166 107 165		0117 W 0816 1341 1848	1.0 5.4 107 165	ft ft cm ft cm	12 171 101 164
28 F 1507 2029	0234 0923 1507 2029	1.0 5.4 3.2 4.9	30 164 1423 1929 144	13 Th 0855 1423 1926 2014	0158 W 0903 1416 1922	0.7 5.5 3.9 5.4	21 168 118 154		0158 W 0903 1416 1922	0.7 5.5 109 154	ft ft cm ft cm	30 164 1423 1929 144
	0234 0923 1507 2029	1.0 5.4 3.2 4.9	30 164 1423 1926 144		0150 Th 0855 1423 1926	1.3 5.3 3.6 5.6	39 161 109 154		0150 Th 0855 1423 1926	1.3 5.3 109 154	ft ft cm ft cm	30 164 1423 1929 144
	0234 0923 1507 2029	1.0 5.4 3.2 4.9	30 164 1423 1926 144		0226 F 0940 1521 2014	1.6 5.1 3.6 4.6	50 156 100 141		0226 F 0940 1521 2014	1.6 5.1 100 141	ft ft cm ft cm	30 164 1423 1929 144
	0322 1008 1623 2153	1.7 5.2 3.1 4.4	51 159 156 134		0226 Th 1008 1623 2153	1.6 5.2 3.6 4.4	50 156 100 134		0226 Th 1008 1623 2153	1.6 5.2 100 134	ft ft cm ft cm	30 164 1423 1929 144
31 M 1151 1920	0419 1057 1759 2351	2.3 5.1 2.8 4.1	71 5.1 156 85 126	15 Su 1039 1759 2351 2129	0309 W 1027 1521 2012	2.1 5.0 3.5 4.2	63 153 108 129	15 Su 1039 1759 2351 2129	0309 W 1027 1521 2012	2.1 5.0 108 129	ft ft cm ft cm	71 5.1 156 85 126
	0419 1057 1759 2351	2.3 5.1 2.8 4.1	71 5.1 156 85 126		0355 F 1112 1716 2211	1.7 5.2 3.8 4.5	53 158 115 136		0355 F 1112 1716 2211	1.7 5.2 115 136	ft ft cm ft cm	71 5.1 156 85 126
	0419 1057 1759 2351	2.3 										

# Kobe, Japan, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0009 0.3 -9 0647 4.7 142 1210 2.8 85 1749 4.6 141	<b>16</b> Tu 0054 0.2 5 0734 4.1 125 1238 2.9 88 1802 3.9 119	<b>1</b> Th 0123 -1.0 -30 0752 4.8 146 1325 2.2 68 1916 4.7 144	<b>16</b> F 0130 0.0 1 0755 4.2 128 1324 2.0 62 ● 1911 4.2 127	<b>1</b> Th 0026 -0.4 -11 0652 4.5 138 1232 2.1 63 1823 4.5 138	<b>16</b> F 0037 0.6 19 0657 4.1 126 1237 2.0 60 1824 4.0 123			
	<b>2</b> Tu 0052 -0.8 -23 0728 5.0 151 1254 2.8 84 ○ 1834 4.8 145	<b>17</b> W 0124 0.0 0 0759 4.2 129 1308 2.7 82 ● 1839 4.0 123	<b>2</b> F 0204 -0.9 -26 0827 4.8 145 1407 2.0 62 2000 4.6 141	<b>17</b> Sa 0156 0.0 1 0819 4.3 130 1358 1.8 56 1949 4.3 130	<b>2</b> F 0104 -0.4 -13 0723 4.7 143 1309 1.7 51 ○ 1907 4.8 145	<b>17</b> Sa 0100 0.6 17 0717 4.3 131 1304 1.6 48 ● 1859 4.4 133		
	<b>3</b> W 0136 -1.0 -30 0810 5.1 154 1338 2.7 83 1920 4.8 145	<b>18</b> Th 0152 -0.1 -2 0826 4.3 131 1341 2.6 78 1915 4.1 125	<b>3</b> Sa 0243 -0.5 -15 0904 4.6 140 1450 2.0 60 2045 4.3 132	<b>18</b> Su 0224 0.2 5 0847 4.3 131 1435 1.7 51 2028 4.2 129	<b>3</b> Sa 0141 -0.2 -7 0755 4.7 143 1348 1.4 42 1949 4.7 144	<b>18</b> Su 0126 0.6 17 0740 4.4 135 1337 1.2 37 1937 4.6 140		
	<b>4</b> Th 0220 -0.9 -28 0853 5.0 151 1422 2.7 83 2006 4.6 140	<b>19</b> F 0221 0.0 -1 0854 4.3 131 1416 2.5 75 1953 4.1 124	<b>4</b> Su 0322 0.1 3 0941 4.3 132 1538 2.0 60 2130 3.9 118	<b>19</b> M 0255 0.4 13 0917 4.2 128 1518 1.6 48 2111 4.0 123	<b>4</b> Su 0217 0.1 4 0828 4.6 140 1428 1.2 38 2032 4.5 137	<b>19</b> M 0155 0.7 20 0807 4.5 137 1414 1.0 29 2017 4.7 142		
<b>5</b> F 0305 -0.6 -18 0937 4.7 144 1510 2.8 85 2053 4.2 129	<b>20</b> Sa 0251 0.1 3 0926 4.2 129 1456 2.4 74 2034 3.9 119	<b>5</b> M 0359 0.8 25 1018 4.0 122 1637 2.0 61 2218 3.3 101	<b>20</b> Tu 0329 0.8 25 0951 4.1 124 1607 1.5 46 2159 3.7 114	<b>5</b> M 0252 0.7 22 0900 4.4 133 1512 1.2 38 2115 4.1 124	<b>20</b> Tu 0228 0.9 28 0837 4.4 135 1455 0.8 24 2101 4.5 137			
	<b>6</b> Sa 0349 0.0 -1 1022 4.4 134 1606 2.9 87 2141 3.7 114	<b>21</b> Su 0322 0.4 11 1000 4.1 125 1543 2.4 73 2118 3.7 112	<b>6</b> Tu 0432 1.5 47 1053 3.7 113 1822 2.0 60 2319 2.8 85	<b>21</b> W 0406 1.3 41 1025 3.8 117 1706 1.4 44 2256 3.3 102	<b>6</b> Tu 0324 1.3 41 0930 4.1 124 1600 1.3 41 2201 3.6 109	<b>21</b> W 0304 1.4 42 0909 4.3 130 1541 0.8 24 2150 4.2 128		
	<b>7</b> Su 0434 0.7 20 1111 4.1 124 1838 2.8 85 2236 3.2 98	<b>22</b> M 0357 0.7 21 1037 4.0 121 1641 2.4 72 2207 3.3 102	<b>7</b> W 0452 2.2 67 1122 3.4 105 2015 1.8 54	<b>22</b> Th 0446 2.0 60 1101 3.6 110 1815 1.3 41	<b>7</b> W 0351 2.0 61 0954 3.7 114 1659 1.4 44 2258 3.1 94	<b>22</b> Th 0342 1.9 59 0941 4.0 122 1635 0.8 25 2249 3.8 115		
	<b>8</b> M 0518 1.4 42 1203 3.8 116 2053 2.4 73 2352 2.7 83	<b>23</b> Tu 0434 1.1 35 1118 3.8 116 1756 2.2 68 2307 3.0 92	<b>8</b> Th 1130 3.3 101 2124 1.5 46 ● 1934 1.2 36	<b>23</b> F 0013 3.0 92 0531 2.6 78 1135 3.4 103 ● 1934 1.2 36	<b>8</b> Th 0407 2.5 77 1007 3.5 107 1817 1.5 46	<b>23</b> F 0425 2.6 78 1010 3.7 112 1739 0.9 28		
<b>9</b> Tu 0600 2.1 63 1259 3.6 110 2153 2.0 61 ○	<b>24</b> W 0515 1.7 51 1201 3.6 111 1928 2.0 60	<b>9</b> F 1025 3.3 100 2218 1.2 37	<b>24</b> Sa 0506 3.1 95 0648 3.1 94 1100 3.2 99 2059 0.9 28	<b>9</b> F 0947 3.4 103 1946 1.5 45 ●	<b>24</b> Sa 0014 3.4 104 0519 3.1 96 1013 3.4 104 1853 1.0 30			
	<b>10</b> W 0450 2.7 81 0639 2.6 80 1352 3.5 107 2237 1.6 50	<b>25</b> Th 0029 2.8 85 0604 2.2 67 1246 3.5 107 ● 2044 1.6 48	<b>10</b> Sa 0802 3.4 104 2259 1.0 29	<b>25</b> Su 0600 3.5 108 2211 0.6 17	<b>10</b> Sa 0751 3.4 104 2110 1.4 42	<b>25</b> Su 0443 3.6 111 2023 1.0 30 ●		
	<b>11</b> Th 1438 3.5 106 2306 1.3 40	<b>26</b> F 0354 2.8 85 0718 2.7 82 1337 3.4 105 2142 1.1 33	<b>11</b> Su 0744 3.5 108 2335 0.7 22	<b>26</b> M 0625 3.8 117 1254 3.1 94 1533 3.3 100 2304 0.2 6	<b>11</b> Su 0708 3.5 107 2215 1.2 37	<b>26</b> M 0534 3.9 119 2146 0.9 26		
	<b>12</b> F 0736 3.3 102 0958 3.2 99 1520 3.5 106 2329 1.0 30	<b>27</b> Sa 0559 3.3 100 0902 3.0 92 1437 3.5 106 2232 0.6 17	<b>12</b> M 0658 3.6 111 1151 3.1 94 1636 3.2 97	<b>27</b> Tu 0620 4.1 124 1132 2.9 88 1643 3.7 112 2347 -0.2 -5	<b>12</b> M 0619 3.6 111 2303 1.0 32	<b>27</b> Tu 0556 4.1 124 1250 2.9 87 1540 3.2 98 2242 0.7 22		
<b>13</b> Sa 0748 3.5 108 1057 3.3 101 1603 3.5 107 2355 0.7 21	<b>28</b> Su 0623 3.7 112 1031 3.1 95 1544 3.6 111 2318 0.0 1	<b>13</b> Tu 0008 0.5 14 0658 3.8 116 1207 2.9 87 1721 3.4 104	<b>28</b> W 0628 4.3 131 1158 2.5 77 1736 4.1 126	<b>13</b> Tu 0613 3.8 115 1421 2.8 86 1636 3.0 91 2342 0.9 27	<b>28</b> W 0544 4.2 127 1137 2.7 81 1641 3.6 111 2325 0.6 18			
	<b>14</b> Su 0717 3.7 113 1135 3.2 98 1645 3.6 110	<b>29</b> M 0626 4.1 124 1124 3.0 91 1645 3.9 119	<b>14</b> W 0038 0.3 8 0714 4.0 121 1229 2.6 79 1759 3.7 112	<b>14</b> W 0626 3.9 119 1201 2.6 80 1715 3.3 100	<b>29</b> Th 0554 4.3 132 1146 2.2 67 1729 4.1 126			
	<b>15</b> M 0024 0.4 12 0714 3.9 119 1207 3.1 94 1725 3.7 114	<b>30</b> Tu 0001 -0.5 -14 0647 4.4 134 1205 2.8 84 1740 4.3 130	<b>15</b> Th 0105 0.1 4 0734 4.1 125 1255 2.3 71 1835 3.9 120	<b>15</b> Th 0012 0.8 23 0642 4.0 122 1215 2.3 71 1749 3.6 111	<b>30</b> F 0003 0.5 16 0619 4.5 137 1216 1.7 52 1813 4.5 138			
		<b>31</b> W 0042 -0.8 -25 0718 4.7 142 1245 2.5 76 ○ 1829 4.6 139			<b>31</b> O 0039 0.6 18 0648 4.7 142 1251 1.2 38 ○ 1855 4.8 145			

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kobe, Japan, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
<b>1</b> Su	0114	0.8 25	<b>16</b> M	0054	1.3 41	<b>1</b> Tu	0119	2.2 68	<b>16</b> W	0102	2.4 72
	0719	4.7 143		0659	4.6 141		0711	4.7 142		0654	5.0 151
	1328	0.9 28		1315	0.7 22		1349	0.6 19		1336	0.1 2
	1937	4.8 146		● 1924	4.9 150		2009	4.7 144		2000	5.3 162
<b>2</b> M	0148	1.1 35	<b>17</b> Tu	0127	1.5 45	<b>2</b> W	0152	2.5 76	<b>17</b> Th	0142	2.6 78
	0750	4.6 141		0729	4.7 144		0739	4.5 138		0729	5.0 151
	1407	0.8 24		1353	0.4 12		1428	0.6 19		1421	-0.1 -2
	2019	4.6 141		2007	5.1 154		2053	4.6 139		2049	5.2 160
<b>3</b> Tu	0221	1.6 49	<b>18</b> W	0203	1.7 53	<b>3</b> Th	0224	2.8 85	<b>18</b> F	0225	2.9 88
	0818	4.4 135		0800	4.7 143		0801	4.3 132		0806	4.8 146
	1448	0.8 24		1435	0.2 7		1509	0.8 23		1510	0.0 1
	2102	4.3 132		2053	4.9 150		2142	4.3 132		2144	5.0 152
<b>4</b> W	0251	2.1 64	<b>19</b> Th	0242	2.2 66	<b>4</b> F	0256	3.1 95	<b>19</b> Sa	0313	3.3 100
	0844	4.2 127		0833	4.5 138		0817	4.1 125		0843	4.5 136
	1531	0.9 28		1522	0.3 8		1551	1.0 29		1604	0.3 125
	2149	3.9 120		2145	4.6 141		2241	4.1 125		2248	4.7 142
<b>5</b> Th	0319	2.6 79	<b>20</b> F	0324	2.7 82	<b>5</b> Sa	0333	3.4 103	<b>20</b> W	0413	3.6 111
	0902	3.9 119		0904	4.2 128		0820	3.9 118		0923	4.1 124
	1618	1.1 33		1616	0.5 14		1637	1.2 37		1703	0.7 22
	2249	3.6 109		2250	4.2 129						
<b>6</b> F	0343	3.0 91	<b>21</b> Sa	0415	3.2 98	<b>6</b> Su	0012	3.9 120	<b>21</b> M	0016	4.4 134
	0905	3.7 112		0931	3.8 117		0432	3.6 110		1808	1.2 37
	1713	1.3 39		1718	0.7 22		0718	3.7 113		1726	1.5 45
<b>7</b> Sa	0137	3.4 103	<b>22</b> Su	0032	3.9 120	<b>7</b> M	0224	4.0 121	<b>22</b> Tu	0300	4.4 133
	0404	3.3 101		1829	1.0 31		1821	1.7 52		1020	3.2 99
	0821	3.5 107								1157	3.3 101
	1816	1.4 44								● 1920	1.6 50
<b>8</b> Su	0514	3.6 109	<b>23</b> M	0359	4.1 125	<b>8</b> Tu	0332	4.1 124	<b>23</b> W	0348	4.4 133
	1939	1.6 48		1952	1.2 38		1938	1.9 59		1057	2.9 88
										1408	3.2 99
										2036	2.0 62
<b>9</b> M	0442	3.8 115	<b>24</b> Tu	0449	4.2 128	<b>9</b> W	0412	4.2 127	<b>24</b> Th	0354	4.3 131
	2115	1.6 49		1157	2.9 89		2110	2.1 63		1123	2.6 78
										1533	3.4 105
										2137	2.3 71
<b>10</b> Tu	0506	3.9 119	<b>25</b> W	0503	4.2 129	<b>10</b> Th	0439	4.2 127	<b>25</b> F	0406	4.3 131
	2219	1.6 48		1210	2.7 82		1131	2.7 81		1124	2.3 69
										1551	3.1 94
										2206	2.2 66
<b>11</b> W	0528	4.0 122	<b>26</b> Th	0456	4.3 130	<b>11</b> F	0454	4.2 128	<b>26</b> Sa	0431	4.4 134
	1231	2.7 82		1138	2.4 74		1124	2.4 72		1122	1.8 56
	1621	3.0 91		1633	3.7 113		1634	3.5 106		1717	4.0 123
	2304	1.5 46		2257	1.6 48		2244	2.2 67		2304	2.8 85
<b>12</b> Th	0545	4.0 123	<b>27</b> F	0514	4.4 133	<b>12</b> Sa	0505	4.2 129	<b>27</b> W	0501	4.5 137
	1149	2.5 75		1133	2.0 60		1129	2.0 60		1148	1.4 44
	1658	3.3 101		1720	4.1 125		1713	3.9 119		1801	4.3 132
	2335	1.4 44		2334	1.7 51		2315	2.2 68		2341	2.9 89
<b>13</b> F	0558	4.1 126	<b>28</b> Sa	0541	4.5 138	<b>13</b> W	0523	4.4 134	<b>28</b> M	0533	4.6 140
	1155	2.1 64		1200	1.5 45		1149	1.4 44		1221	1.1 33
	1732	3.8 115		1803	4.4 135		1751	4.4 134		1843	4.6 140
	2359	1.4 43					2348	2.2 68		1911	5.3 162
<b>14</b> Sa	0613	4.3 130	<b>29</b> Su	0010	1.8 55	<b>14</b> M	0549	4.6 141	<b>29</b> Tu	0017	3.0 92
	1214	1.7 51		0611	4.6 141		1219	0.9 27		0605	4.7 142
	1807	4.2 129		1234	1.0 32		1832	4.9 148		1258	0.8 25
				1845	4.7 143					● 1924	4.8 145
<b>15</b> Su	0025	1.3 41	<b>30</b> M	0045	2.0 61	<b>15</b> Tu	0024	2.2 68	<b>30</b> W	0053	3.1 94
	0633	4.5 136		0642	4.7 143		0620	4.8 147		0635	4.7 142
	1242	1.2 36		1311	0.8 23		1256	0.4 12		1335	0.7 21
	1845	4.6 141		● 1927	4.8 145		● 1914	5.2 158		2005	4.8 147
<b>31</b> Th	0127	3.1 96	<b>31</b> Th	0127	3.1 96	<b>31</b> F	0127	3.1 96	<b>30</b> Sa	0145	3.5 106
	0703	4.6 140		0703	4.6 140		1413	0.7 21		0713	4.7 142
							2047	4.8 146		1433	0.9 27
										2110	4.9 150

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kobe, Japan, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su	0223 3.5 106 0748 4.6 140 1507 1.1 33 2148 4.8 147	16 M	0248 3.3 101 0837 5.2 160 1529 0.6 19 2156 5.3 161	1 W	0326 3.2 98 0906 4.7 142 1542 1.8 55 2215 4.9 148	16 Th	0411 2.8 85 1004 4.7 142 1620 2.6 79 2231 4.9 148	1 Sa	0441 2.5 75 1034 4.5 138 1624 3.1 94 2233 4.7 143	16 Su	0600 2.4 72 2116 4.4 134
2 M	0305 3.5 107 0826 4.4 134 1541 1.3 40 2228 4.7 143	17 Tu	0340 3.3 102 0927 4.9 148 1616 1.3 39 2242 5.0 152	2 Th	0420 3.2 97 0954 4.4 134 1618 2.2 67 2252 4.7 144	17 F	0533 2.8 85 1107 4.1 126 1656 3.3 100 2303 4.6 139	2 Su	0547 2.4 73 1146 4.2 129 1713 3.6 111 2308 4.5 137	17 M	0724 2.4 73 1831 4.5 138
3 Tu	0356 3.6 109 0909 4.2 125 1617 1.6 50 2313 4.6 139	18 W	0448 3.3 102 1022 4.4 133 1703 2.0 61 2330 4.7 143	3 F	0528 3.1 93 1050 4.1 126 1659 2.7 82 2332 4.6 140	18 Sa	0727 2.7 81 1536 3.9 119 1717 3.9 118 2323 4.4 133	3 M	0700 2.2 68 1613 4.2 129	18 Tu	0842 2.3 71 1804 4.7 142
4 W	0507 3.6 109 1001 3.9 119 1656 2.0 60	19 Th	0740 3.1 96 1131 3.9 119 1752 2.7 83	4 Sa	0649 2.9 87 1203 3.9 119 1747 3.2 97	19 Su	0841 2.5 75 2048 4.3 131	4 Tu	0818 2.0 62 1717 4.6 141	19 W	0947 2.2 68 1747 4.8 145
5 Th	0002 4.5 136 0805 3.4 103 1105 3.7 112 1738 2.4 72	20 F	0020 4.5 136 0849 2.8 86 1400 3.6 110 1845 3.3 102	5 Su	0013 4.5 136 0800 2.5 77 1353 3.8 117 1850 3.6 111	20 M	0940 2.3 69 1903 4.5 138	5 W	0933 1.7 53 1748 4.9 149	20 Th	1037 2.1 65 1746 4.9 148
6 F	0050 4.4 134 0855 3.1 93 1228 3.5 107 1829 2.8 84	21 Sa	0110 4.3 132 0943 2.5 66 1737 3.9 118 1958 3.8 116	6 M	0058 4.4 134 0901 2.2 66 1718 4.2 128 2019 4.0 121	21 Tu	1028 2.1 63 1907 4.6 141	6 Th	0016 4.2 127 0251 4.3 131 1031 1.4 43 1753 5.1 156 2314 4.0 121 2345 3.6 109	21 F	0153 3.8 116 0422 4.0 121 1117 2.0 61 1801 4.9 150 2345 3.6 109
7 Sa	0133 4.3 132 0927 2.7 82 1417 3.5 108 1933 3.1 96	22 Su	0156 4.3 130 1025 2.2 67 1855 4.2 128 2133 4.1 125	7 Tu	0151 4.4 134 0957 1.7 53 1753 4.6 140 2200 4.1 125	22 W	1108 1.9 57 1830 4.7 144 2333 4.1 126	7 F	0413 4.6 141 1118 1.1 33 1804 5.3 163 2336 3.6 110	22 Sa	0502 4.3 130 1150 1.9 59 1819 5.0 153
8 Su	0213 4.3 132 0953 2.3 69 1607 3.8 117 2048 3.4 105	23 M	0241 4.2 129 1058 1.9 59 1927 4.4 134 2237 4.2 127	8 W	0300 4.5 137 1048 1.3 39 1805 5.0 151 2259 4.0 123	23 Th	0100 4.2 127 0240 4.1 126 0421 4.2 128 1143 1.7 52 1832* 4.9 149	8 Sa	0510 5.1 155 1159 0.9 26 1828 5.6 170	23 Su	0001 3.3 100 0537 4.6 139 1217 1.9 57 1838 5.1 156
9 M	0255 4.4 134 1025 1.8 55 1710 4.3 130 2159 3.6 110	24 Tu	0332 4.3 130 1130 1.7 51 1906 4.5 138 2317 4.1 126	9 Th	0412 4.7 144 1134 0.8 25 1825 5.3 161 2341 3.8 116	24 F	0509 4.4 135 1216 1.5 47 1851 5.0 153	9 Su	0009 3.1 96 0559 5.5 169 1238 0.8 24 1858 5.7 175	24 M	0023 2.9 89 0610 4.9 149 1241 1.8 56 1857 5.2 159
10 Tu	0342 4.6 139 1104 1.2 38 1751 4.7 143 2257 3.7 112	25 W	0424 4.4 133 1202 1.4 44 1854 4.7 144 2351 4.0 121	10 F	0513 5.1 155 1217 0.5 14 1854 5.6 170	25 Sa	0013 3.6 111 0548 4.7 142 1246 1.4 44 1914 5.1 156	10 M	0046 2.7 82 0644 5.8 178 1316 0.9 28 1930 5.8 177	25 Tu	0049 2.6 78 0644 5.2 158 1306 1.8 56 1919 5.3 162
11 W	0431 4.8 146 1146 0.7 22 1829 5.1 156 2346 3.6 110	26 Th	0512 4.5 137 1236 1.2 38 1915 4.9 150	11 Sa	0022 3.5 107 0606 5.5 167 1259 0.2 7 1928 5.7 175	26 Su	0040 3.4 103 0624 4.9 150 1313 1.4 43 1937 5.2 159	11 Tu	0125 2.3 71 0728 5.9 180 1353 1.2 38 2003 5.7 175	26 W	0119 2.2 67 0720 5.4 165 1333 1.9 59 1944 5.4 164
12 Th	0521 5.1 154 1230 0.3 8 1908 5.4 166	27 F	0024 3.8 115 0554 4.7 142 1308 1.1 34 1941 5.1 154	12 Su	0102 3.2 97 0654 5.7 175 1340 0.3 8 2003 5.8 177	27 M	0110 3.1 94 0659 5.1 156 1339 1.4 43 2001 5.3 161	12 W	0206 2.1 65 0812 5.7 175 1430 1.8 66 2037 5.5 169	27 Th	0154 1.9 59 0758 5.5 167 1404 2.1 65 2013 5.3 163
13 F	0031 3.5 106 0611 5.3 162 1314 0.0 -1 ● 1948 5.6 172	28 Sa	0056 3.6 109 0632 4.8 147 1339 1.0 32 2009 5.1 156	13 M	0144 3.0 90 0740 5.8 177 1421 0.6 17 2040 5.7 174	28 Tu	0142 2.9 87 0734 5.2 160 1406 1.5 47 2027 5.3 161	13 Th	0250 2.1 63 0857 5.3 163 1505 2.5 75 2108 5.2 159	28 F	0233 1.7 53 0840 5.4 164 1438 2.5 76 2043 5.2 159
14 Sa	0115 3.4 103 0700 5.5 167 1359 -0.1 -3 2029 5.7 173	29 Su	0129 3.4 104 0709 4.9 150 1409 1.1 34 2039 5.1 156	14 Tu	0228 2.8 86 0826 5.6 171 1501 1.1 34 2117 5.5 167	29 W	0218 2.7 82 0812 5.2 160 1435 1.7 53 2055 5.2 160	14 F	0339 2.2 66 0946 4.8 147 1538 3.1 95 2135 4.9 149	29 Sa	0317 1.7 51 0927 5.2 157 1516 3.0 90 2114 5.0 152
15 Su	0200 3.3 101 0748 5.4 166 1444 0.1 4 2112 5.5 169	30 M	0203 3.3 100 0746 4.9 150 1438 1.2 38 2109 5.1 155	15 W	0315 2.8 85 0913 5.2 158 1541 1.8 55 2154 5.2 157	30 Th	0258 2.6 79 0854 5.1 155 1508 2.1 64 2126 5.1 156	15 Sa	0439 2.3 70 1048 4.3 132 1604 3.7 113 2152 4.6 139	30 Su	0408 1.7 52 1024 4.8 146 1558 3.5 107 2142 4.7 142
		31 Tu	0242 3.2 99 0824 4.8 147 1509 1.5 45 2141 5.0 152			31 F	0345 2.5 77 0940 4.9 148 1544 2.6 78 2159 4.9 150				

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to the chart datum of soundings.

\* See Page 384 for the remaining tides on this day.

# Kobe, Japan, 2018

Times and Heights of High and Low Waters

October				November				December						
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height			
h m 0510 M 1141 1653 2155	ft 1.8 4.5 4.0 4.4	cm 55 136 123 133	h m 0605 Tu 1624 1636	ft 2.1 4.5 3.4	cm 65 136	h m 0711 Th 1618 2332	ft 1.7 4.8 3.4	cm 52 145 104	h m 0711 F 1554 1554	ft 2.2 4.5	cm 68 136			
●				1		16		1		16				
2	0621 Tu ●	1.9 4.6 139	17 W ●	0725 1631 ●	2.3 4.6 141	2 F	0116 0836 1640 2343	3.5 1.9 4.8 3.1	106 57 146 96	17 Sa	0050 0246 0847 1622	2.9 3.0 2.4 4.5	89 90 73 136	
3	0744 W	1.9 4.9 148	18 Th	0851 1646	2.3 4.7	71	3 Sa	0309 0942 1637 2336	3.7 2.0 4.8 2.9	113 60 146 87	18 Su	0359 0950 1640 2328	3.2 2.5 4.4 2.4	98 77 135 74
4	0908 Th	1.8 5.0 152	19 F	0129 0323 0956 1705	3.3 3.4 2.3 4.8	102	4 Su	0410 1030 1651 2319	4.1 2.1 4.9 2.4	124 63 148 72	19 M	0438 1030 1652 2332	3.5 2.6 4.4 2.1	107 79 135 63
5	0017 F	3.7 4.0 123	20 Sa	0019 0413 1042 1721	3.3 3.6 2.3 155	100	5 M	0459 1110 1717 2342	4.5 2.2 5.0 1.8	136 67 152 56	20 Tu	0511 1100 1706 2344	3.9 2.7 4.5 1.6	118 81 138 49
6	0414 Sa	4.4 1.5 47	21 Su	0450 1116 1740 2348	3.9 2.3 4.8 2.7	120	6 Tu	0543 1147 1747	4.8 2.3 5.1	147 71 156	21 W	0545 1130 1728	4.3 2.7 4.7	131 81 143
7	0504 Su	4.9 1.5 45	22 M	0523 1142 1755	4.3 2.3 4.9	131	7 W	0015 0627 1223 1819	1.3 5.1 2.5 5.2	41 155 76 158	22 Th	0008 0621 1203 1757	1.1 4.7 2.6 4.9	33 144 80 149
8	0550 M	5.3 1.5 47	23 Tu	0004 0555 1206 1814	2.3 4.7 2.3 5.0	70	8 Th	0052 0710 1258 ●	1.0 5.2 2.7 5.2	29 159 82 158	23 F	0040 0700 1239 O	0.6 5.1 2.7 5.0	17 154 81 153
9	0029 Tu	2.0 0.6 56	24 W	0028 0630 1233 1837	1.8 5.1 2.3 5.2	56	9 F	0131 0753 1333 1919	0.8 5.2 3.0 5.0	23 159 159 153	24 Sa	0117 0742 1318 1904	0.2 5.3 2.8 5.1	5 161 161 155
10	0107 W	1.6 0.7 49	25 Th	0058 0707 1303 ●	1.4 5.3 2.3 1855	42	10 Sa	0210 0838 1406 1944	0.7 5.1 3.2 4.8	22 154 98 146	25 Su	0159 0828 1359 1940	-0.1 5.3 3.0 5.0	-2 161 161 151
11	0146 Th	1.4 0.800 2.5 1957	26 F	0133 0747 1338 1934	1.0 5.5 2.5 5.3	31	11 Su	0251 0927 1440 2000	0.9 4.8 3.5 4.5	26 146 146 138	26 M	0244 0918 1444 2017	-0.1 5.1 3.2 4.7	-2 156 156 143
12	0228 F	1.4 0.845 3.0 2024	27 Sa	0212 0831 1415 2006	0.8 5.4 2.8 5.2	25	12 M	0334 1024 1516 1952	1.1 4.5 3.8 4.3	33 138 115 130	27 Tu	0334 1015 1537 2055	0.2 4.9 3.6 4.3	5 148 148 109
13	0312 Sa	1.5 0.934 3.5 2044	28 Su	0257 0921 1455 2037	0.8 5.2 3.2 4.9	24	13 Tu	0419 1143 1611 1843	1.4 4.3 4.0 4.1	42 132 122 125	28 W	0428 1123 1653 1841	0.5 4.5 3.8 3.9	16 138 116 118
14	0401 Su	1.7 1.037 3.9 2043	29 M	0347 1020 1543 2104	0.9 4.9 3.7 4.5	28	14 W	0506 1406	1.7 4.3	51 131	29 Th	0528 1353	1.0 4.4	31 133
15	0459 M	1.9 1.344 3.5 1900	30 Tu	0445 1142 1654 1903	1.1 4.6 4.1 4.2	35	15 Th	0600 1516	2.0 4.4	60	30 F	0635 1518 2233	1.5 4.4 2.9	46 133 89
			31 W	0553	1.4 4.6	44	●				31 M	0544 1447 2225	1.9 4.0 2.6	57 121 80

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sakate, Shodo Shima, Japan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0321	- 0.3	- 9	16 Tu 0359	0.1	3	1 Th 0436	- 0.4	- 12	1 Th 0440	0.4	12
1049	5.4	165	Tu 1132	4.9	149	Th 1204	5.5	168	F 1147	4.9	149
1647	2.6	79	Tu 1728	2.6	79	Th 1802	2.5	76	F 1744	2.3	70
2100	3.6	110	Tu 2130	3.3	101	Th 2233	3.8	116	● 2235	3.7	113
2 Tu 0400	- 0.5	- 15	17 W 0424	0.1	3	2 F 0522	- 0.2	- 6	2 Th 0511	0.5	15
1133	5.5	168	W 1155	4.9	149	F 1242	5.4	165	Sa 1207	4.9	149
1733	2.7	82	W 1750	2.6	79	F 1843	2.4	73	Sa 1811	2.1	64
○ 2136	3.7	113	● 2154	3.4	104	W 2330	3.8	116	Th 2316	3.9	119
3 W 0442	- 0.6	- 18	18 Th 0452	0.1	3	3 Sa 0611	0.1	3	3 Th 0514	0.5	15
1219	5.6	171	Th 1218	4.9	149	Sa 1321	5.2	158	Sa 1205	5.1	155
1821	2.8	85	Th 1817	2.5	76	Sa 1928	2.1	64	Su 1806	1.9	58
2220	3.7	113	Th 2231	3.5	107	Su 1844	1.8	55	W 2340	4.3	131
4 Th 0529	- 0.5	- 15	19 F 0527	0.1	3	4 Su 0035	3.9	119	4 M 0007	4.0	122
1307	5.5	168	F 1245	4.9	149	Su 0703	0.5	15	M 0632	0.7	21
1913	2.7	82	F 1851	2.4	73	Su 1400	5.0	152	M 1305	4.8	146
2317	3.6	110	F 2319	3.5	107	Su 2014	1.8	55	W 1923	1.5	46
5 F 0621	- 0.3	- 9	20 Sa 0608	0.2	6	5 M 0145	3.9	119	5 Th 0102	4.1	125
1355	5.4	165	Sa 1318	5.0	152	M 0758	1.0	30	Tu 0721	1.0	30
2008	2.5	76	Sa 1931	2.1	64	M 1439	4.8	146	Tu 1340	4.6	140
6 Sa 0027	3.5	107	21 Su 0015	3.5	107	M 2103	1.4	43	Su 2005	1.2	37
0718	0.1	3	Su 0653	0.3	9	6 Tu 0300	3.9	119	5 M 0035	4.4	134
1443	5.3	162	Su 1354	5.0	152	W 0857	1.4	43	M 0647	1.3	40
2103	2.2	67	Su 2015	1.8	55	Tu 1520	4.5	137	M 1307	4.7	143
7 Su 0147	3.4	104	22 M 0116	3.5	107	W 2154	1.1	34	W 1924	1.4	43
0817	0.5	15	M 0743	0.5	15	6 Tu 0203	4.2	128	6 Tu 0135	4.5	137
1530	5.1	155	M 1432	4.8	146	W 0814	1.3	43	W 0739	1.6	49
2157	1.8	55	M 2100	1.5	46	Tu 1417	4.4	134	Tu 1342	4.5	137
8 M 0315	3.4	104	23 Tu 0221	3.5	107	W 2051	1.0	30	W 2009	1.1	34
0919	1.0	30	Tu 0835	0.8	24	7 Th 0420	3.9	119	21 W 0054	4.8	146
1617	4.8	146	Tu 1512	4.6	140	W 1003	1.9	58	W 0706	1.7	52
2253	1.4	43	Tu 2148	1.3	40	Th 1605	4.1	125	Tu 1247	4.4	134
9 Tu 0449	3.4	104	24 O 0324	3.5	107	W 2249	0.9	27	W 1918	0.8	24
1028	1.5	46	W 0935	1.3	40	8 Th 0547	4.0	122	7 W 0239	4.5	137
1707	4.4	134	W 1554	4.3	131	Th 1122	2.3	70	W 0837	2.0	61
○ 2351	1.1	34	W 2240	1.0	30	W 1658	3.7	113	Th 1421	4.2	128
10 W 0627	3.6	110	25 Th 0456	3.6	110	○ 2349	0.8	24	W 2056	1.0	30
1150	2.0	61	Th 1047	1.8	55	23 Th 0310	4.2	128	22 M 0153	4.9	149
1802	4.1	125	Th 1640	3.9	119	W 0915	1.8	55	Th 0803	2.0	61
○ 2336	0.8	24	Th 1917	3.2	98	Th 1456	4.1	125	W 1324	4.2	128
11 Th 0049	0.8	24	26 F 0634	3.8	116	W 2142	0.8	24	W 2005	0.6	18
0754	4.0	122	F 1216	2.2	67	8 Th 0430	4.2	128	23 M 0259	4.9	149
1321	2.3	70	F 1733	3.6	110	Th 1029	2.2	67	W 0908	2.4	73
1859	3.8	116	W 0828	4.5	137	W 1539	3.7	113	F 1405	3.9	119
12 F 0142	0.5	15	W 1433	2.4	73	○ 2242	0.7	21	W 2059	0.6	18
0901	4.4	134	W 1917	3.2	98	23 Th 0608	4.3	131	9 F 0502	4.5	137
1444	2.4	73	W 0828	4.5	137	W 1207	2.6	76	W 1059	2.5	76
1951	3.5	107	W 1433	2.4	73	W 1633	3.3	101	W 1557	3.5	107
13 Sa 0227	0.3	9	W 1917	3.2	98	W 2351	0.6	18	○ 2249	0.9	27
0952	4.7	143	W 0828	4.5	137	24 Th 0608	4.3	131	24 M 0416	4.8	146
1548	2.4	73	W 1433	2.4	73	W 1207	2.6	76	W 1028	2.7	82
2033	3.3	101	W 1917	3.2	98	W 1633	3.3	101	W 1451	3.6	110
14 Su 0304	0.2	6	W 1650	2.3	70	W 2351	0.6	18	○ 2201	0.6	18
1032	4.9	149	W 1650	2.3	70	W 0715	4.2	128	25 W 0259	4.8	146
1633	2.4	73	W 1650	2.3	70	W 1029	2.2	67	W 0908	2.4	73
2100	3.2	98	W 1650	2.3	70	W 1658	3.7	113	F 1405	3.9	119
○ 29 M 0333	0.2	6	W 1650	2.3	70	○ 2242	0.7	21	W 2059	0.6	18
1105	4.9	149	W 1650	2.3	70	23 Th 0309	- 0.3	- 9	24 M 0416	4.8	146
1705	2.5	76	W 1650	2.3	70	W 1045	5.4	165	W 1028	2.7	82
2116	3.2	98	W 1650	2.3	70	W 1647	2.6	79	W 1451	2.2	67
31 W 0353	0.4	- 12	W 1650	2.3	70	W 1928	3.3	107	W 2045	3.6	110
1125	5.5	168	W 1650	2.3	70	W 2100	3.4	104	W 1557	3.5	107
1724	2.6	79	W 1650	2.3	70	W 2142	3.4	104	W 2045	3.6	110
○ 2144	3.7	113	W 1650	2.3	70	W 2142	3.4	104	W 1557	3.5	107

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sakate, Shodo Shima, Japan, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0504	1.4	43	<b>16</b>	0442	1.7	52	<b>1</b>	0535	2.6	79	
	1120	4.8	146	M	1031	4.5	137	Tu	1046	4.3	131	
	1729	1.4	43		1651	1.2	37		1721	0.9	27	
	2344	4.8	146	●	2315	4.9	149					
<b>2</b> M	0545	1.8	55	<b>17</b>	0520	2.0	61	<b>2</b>	0024	5.2	158	
	1142	4.6	140	Tu	1052	4.4	134	W	0619	2.8	85	
	1800	1.2	37		1720	0.9	27		1109	4.2	128	
					2359	5.2	158		1754	0.8	24	
<b>3</b> Tu	0031	4.9	149	<b>18</b>	0606	2.2	67	<b>3</b>	0107	5.3	162	
	0631	2.1	64	W	1120	4.3	131	Th	0709	2.9	88	
	1208	4.4	134		1757	0.6	18		1142	4.0	122	
	1836	1.0	30						1834	0.7	21	
<b>4</b> W	0121	5.0	152	<b>19</b>	0051	5.3	162	<b>4</b>	0155	5.4	165	
	0722	2.3	70	Th	0700	2.5	76	F	0805	2.9	88	
	1241	4.2	128		1156	4.2	128		1227	3.8	116	
	1918	0.9	27		1842	0.4	12		1920	0.7	21	
<b>5</b> Th	0216	5.0	152	<b>20</b>	0151	5.4	165	<b>5</b>	0246	5.4	165	
	0820	2.5	76	F	0803	2.7	82	Sa	0907	2.8	85	
	1321	4.0	122		1238	4.0	122		1321	3.6	110	
	2004	0.8	24		1933	0.3	9		2011	0.7	21	
<b>6</b> F	0315	5.0	152	<b>21</b>	0256	5.4	165	<b>6</b>	0342	5.4	165	
	0924	2.6	79	Sa	0913	2.8	85	Su	1012	2.6	79	
	1408	3.7	113		1325	3.7	113		1425	3.4	104	
	2055	0.8	24		2030	0.4	12		2108	0.9	27	
<b>7</b> Sa	0420	5.0	152	<b>22</b>	0410	5.3	162	<b>7</b>	0441	5.3	162	
	1038	2.6	79	Su	1036	2.9	88	M	1120	2.5	76	
	1505	3.4	104		1423	3.5	107		1542	3.2	98	
	2154	0.9	27		2136	0.6	18		2210	1.1	34	
<b>8</b> Su	0531	4.9	149	<b>23</b>	0530	5.2	158	<b>8</b>	0544	5.2	158	
	1201	2.5	76	M	1211	2.8	85	Tu	1228	2.3	70	
	1623	3.1	94		1549	3.2	98		1717	3.2	107	
	2301	1.0	30	●	2254	0.9	27		2320	1.3	40	
<b>9</b> M	0644	4.9	149	<b>24</b>	0649	5.2	158	<b>9</b>	0645	5.1	155	
	1324	2.4	73	Tu	1334	2.5	76	W	1327	2.1	101	
	1805	3.1	94		1802	3.2	98		1850	3.3	101	
<b>10</b> Tu	0014	1.1	34	<b>25</b>	0020	1.1	34	<b>10</b>	0031	1.5	46	
	0749	5.0	152	W	0755	5.3	162	Th	0738	5.0	152	
	1425	2.1	64		1430	2.2	67		1413	1.8	55	
	1932	3.2	98		1948	3.5	107		2001	3.6	110	
<b>11</b> W	0123	1.2	37	<b>26</b>	0139	1.3	40	<b>11</b>	0136	1.7	52	
	0840	5.0	152	Th	0846	5.2	158	Sa	0821	4.9	149	
	1507	2.0	61		1510	1.9	58		1447	1.6	49	
	2032	3.5	107		2058	4.0	122		2053	4.0	122	
<b>12</b> Th	0218	1.2	37	<b>27</b>	0243	1.5	46	<b>12</b>	0230	1.8	55	
	0919	5.0	152	F	0925	5.1	155	Sa	0852	4.8	146	
	1536	1.8	55		1541	1.6	49		1512	1.4	43	
	2113	3.8	116		2149	4.4	134		2132	4.4	134	
<b>13</b> F	0302	1.2	37	<b>28</b>	0334	1.7	52	<b>13</b>	0315	2.0	61	
	0947	4.9	149	Sa	0954	4.9	149	W	0913	4.6	140	
	1556	1.7	52		1607	1.3	40		1533	1.2	37	
	2144	4.1	125		2231	4.8	146		2205	4.8	146	
<b>14</b> Sa	0337	1.4	43	<b>29</b>	0418	2.0	61	<b>14</b>	0354	2.2	67	
	1005	4.8	146	Su	1015	4.7	143	M	0928	4.5	137	
	1613	1.6	49		1630	1.2	37		1554	1.0	30	
	2211	4.3	131		2309	5.0	152		2238	5.1	155	
<b>15</b> Su	0409	1.5	46	<b>30</b>	0456	2.3	70	<b>15</b>	0432	2.4	73	
	1018	4.7	143	M	1030	4.5	137	Tu	0943	4.4	134	
	1629	1.4	43		1654	1.0	30		1618	0.7	21	
	2240	4.6	140	○	2346	5.1	155	●	2316	5.4	165	
<b>16</b> Sa	0053	6.1	186						<b>21</b>	0017	5.5	168
	0701	3.5	107						Th	0611	3.3	101
	1050	4.2	128						1018	4.1	125	
	1805	0.3	9						1721	0.7	21	
<b>17</b> Su	0147	6.2	189						<b>22</b>	0133	5.6	171
	0802	3.4	104						Th	0746	3.2	98
	1152	4.1	125						1144	3.9	119	
	1902	0.5	15						1845	0.7	21	
<b>18</b> M	0242	6.1	186						<b>23</b>	0242	3.2	98
	0904	3.2	98						Th	1308	4.0	122
	2003	0.8	24						1936	0.8	24	
<b>19</b> Tu	0336	6.0	183						<b>24</b>	0336	3.0	91
	1004	2.9	88						Th	1312	1.8	55
	1436	3.9	119						1921	3.9	119	
	2107	1.2	37									
<b>20</b> W	0429	5.8	177						<b>25</b>	0523	5.5	168
	1104	2.5	76						M	1204	2.2	67
	1617	3.9	119						1804	4.1	125	
	2217	1.8	55						2336	2.3	70	
<b>21</b> Th	0618	5.2	158						<b>26</b>	0422	3.3	101
	1301	1.8	55						Th	1301	4.4	134
	1939	4.4	134						1759	3.6	110	
									2339	1.9	58	
<b>22</b> F	0101	5.2	158						<b>27</b>	0501	3.4	104
	1353	1.4	43						W	0915	4.2	128
	2053	4.9	149						1604	0.9	27	
									2340	5.8	177	
<b>23</b> Sa	0101	2.7	82						<b>28</b>	0533	3.5	107
	0712	4.9	149						W	0927	4.1	125
	1353	1.4	43						1629	0.9	27	
	2148	5.3	162						O			
<b>24</b> Su	0223	3.0	91						<b>29</b>	0007	5.8	177
	0759	4.6	140						Th	0603	3.6	110
	1436	1.2	37						1659	0.9	27	
	2148	5.3	162									
<b>25</b> M	0330	3.1	94						<b>30</b>	0035	5.8	177
	0836	4.4	134						Th	0637	3.6	110
	1511	1.0	30						1027	4.2	128	
	2233	5.6	171						1735	0.9	27	
<b>26</b> Tu	0422	3.3	101						<b>31</b>	0017	5.5	168
	0901	4.3	131						Th	0611	3.3	101
	1539	0.9	27						1018	4.1	125	
	2309	5.7	174						1721	0.7	21	
<b>27</b> W	0501	3.4	104						<b>28</b>	0533	3.5	107
	0915	4.2	128						W	0927	4.1	125
	1604	0.9	27						1629	0.9	27	
									O			
<b>28</b> Th	0533	3.5	107						<b>29</b>	0007	5.8	177
	0927	4.1	125						Th	0603	3.6	110
	1629	0.9	27						0949	4.2	128	
									1659	0.9	27	

# Sakate, Shodo Shima, Japan, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height										
1 Su	0108 5.8 177	16 M	0128 6.4 195	1 W	0136 6.0 183	16 Th	0212 5.9 180	1 Sa	0152 5.5 168	16 Su	0238 4.9 149
0717 3.4 104	0736 3.5 107	0736 3.5 107	0755 2.9 88	0832 2.6 79	0832 2.6 79	0825 2.1 64	0923 1.9 58	0923 1.9 58	0923 1.9 58	1642 5.7 174	1642 5.7 174
1119 4.2 128	1200 4.6 140	1304 4.7 143	1434 5.3 162	1447 5.5 168	2036 2.6 79	2054 2.9 88	2245 3.6 110	2245 3.6 110	2245 3.6 110	2245 3.6 110	2245 3.6 110
1818 1.0 30	1852 1.0 30	1928 1.7 52	2036 2.6 79	2054 2.9 88	2054 2.9 88	2054 2.9 88	2054 2.9 88	2054 2.9 88	2054 2.9 88	2054 2.9 88	2054 2.9 88
2 M	0144 5.9 180	17 Tu	0215 6.3 192	2 Th	0212 5.9 180	17 F	0253 5.6 171	2 Su	0231 5.2 158	17 M	0333 4.5 137
0802 3.2 98	0829 3.2 98	0838 2.6 79	0923 2.3 70	0923 2.3 70	1552 5.3 162	1559 5.5 168	1800 5.7 174	0913 1.9 58	1559 5.5 168	1800 5.7 174	1800 5.7 174
1220 4.1 125	1317 4.6 140	1406 4.8 146	2142 3.1 94	2142 3.1 94	2142 3.1 94	2203 3.3 101	●	●	●	●	●
1906 1.1 34	1951 1.4 43	2019 2.0 61	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73	2116 2.4 73
3 Tu	0224 5.9 180	18 W	0300 6.1 186	3 F	0250 5.7 174	18 Sa	0337 5.3 162	3 M	0313 4.8 146	18 Tu	0017 3.6 110
0849 2.9 88	0922 2.8 85	1441 4.5 137	1512 4.8 146	1512 4.8 146	1716 5.3 162	1716 5.3 162	1716 5.3 162	1009 1.8 58	1716 5.3 162	1131 1.9 58	1131 1.9 58
1326 4.1 125	2052 1.9 58	2052 1.9 58	2259 3.4 104	2259 3.4 104	2259 3.4 104	2331 3.6 110	●	●	●	●	●
1957 1.2 37	2331 3.0 91	2331 3.0 91	●	●	●	●	●	●	●	●	●
4 W	0305 5.9 180	19 Th	0345 5.8 177	4 Sa	0330 5.4 165	19 Su	0428 4.9 149	4 Tu	0404 4.5 137	19 W	0147 3.4 104
0936 2.6 79	1016 2.4 73	1016 2.4 73	1011 2.1 64	1011 2.1 64	1627 4.9 149	1843 5.5 168	1900 5.7 174	1115 1.7 52	1900 5.7 174	0625 4.1 125	0625 4.1 125
1434 4.1 125	1610 4.6 140	1610 4.6 140	2222 2.9 88	2222 2.9 88	2222 2.9 88	2001 5.7 174	2001 5.7 174	2001 5.7 174	2001 5.7 174	1243 5.9 180	1243 5.9 180
2050 1.5 46	2158 2.4 73	2158 2.4 73	●	●	●	●	●	●	●	●	●
5 Th	0348 5.7 174	20 F	0432 5.5 168	5 Su	0413 5.1 155	20 M	0032 3.7 113	5 W	0114 3.7 113	20 Th	0251 3.2 98
1025 2.4 73	1112 2.1 64	1112 2.1 64	1104 1.9 58	1104 1.9 58	1756 5.0 152	1222 1.8 55	1227 1.6 49	0516 4.3 131	1227 1.6 49	0746 4.1 125	0746 4.1 125
1546 4.1 125	1745 4.7 143	1745 4.7 143	2343 3.3 101	2343 3.3 101	2343 3.3 101	2001 5.7 174	2001 5.7 174	2001 5.7 174	2001 5.7 174	1346 1.8 55	1346 1.8 55
2148 1.9 58	2315 3.0 91	2315 3.0 91	●	●	●	●	●	●	●	2109 6.0 183	2109 6.0 183
6 F	0432 5.4 165	21 Sa	0523 5.1 155	6 M	0502 4.7 143	21 Tu	0209 3.6 110	6 Th	0238 3.6 110	21 F	0333 3.0 91
1116 2.1 64	1211 1.8 55	1211 1.8 55	1202 1.7 52	1202 1.7 52	1926 5.3 162	0651 4.4 143	0645 4.2 128	0645 4.2 128	1335 1.4 43	0842 4.3 131	1437 1.8 55
1708 4.2 128	1917 5.0 152	1917 5.0 152	1926 5.3 162	1926 5.3 162	1926 5.3 162	2102 6.0 183	2102 6.0 183	2102 6.0 183	2102 6.0 183	2148 6.1 186	2148 6.1 186
●	2254 2.3 70	●	●	●	●	●	●	●	●	●	●
7 Sa	0519 5.1 155	22 Su	0045 3.3 101	7 Tu	0116 3.5 107	22 W	0321 3.5 107	7 F	0330 3.5 107	22 Sa	0402 2.9 88
1207 1.9 58	0621 4.8 146	0621 4.8 146	0558 4.5 137	0558 4.5 137	1301 1.5 46	1419 1.7 52	1433 1.3 40	0759 4.4 134	1433 1.3 40	0921 4.5 137	0921 4.5 137
1836 4.4 134	1309 1.6 49	1309 1.6 49	2038 5.8 177	2038 5.8 177	2038 5.8 177	2149 6.2 189	2149 6.2 189	2149 6.2 189	2200 6.5 198	1516 1.8 55	1516 1.8 55
●	2312 5.7 174	●	●	●	●	●	●	●	●	2216 6.0 183	2216 6.0 183
8 Su	0011 2.7 82	23 M	0217 3.5 107	8 W	0239 3.6 110	23 Th	0407 3.4 104	8 Sa	0407 3.4 104	23 Su	0423 2.9 88
0607 4.8 146	0721 4.5 137	0721 4.5 137	0658 4.4 134	0658 4.4 134	1355 1.2 37	2227 6.2 189	2227 6.2 189	0854 4.7 143	2236 6.5 198	0948 4.7 143	0948 4.7 143
1257 1.6 49	1402 1.4 43	1402 1.4 43	2134 6.2 189	2134 6.2 189	2134 6.2 189	●	●	●	●	1548 1.9 58	1548 1.9 58
1955 4.8 146	2132 5.7 174	2132 5.7 174	●	●	●	●	●	●	●	2236 5.8 177	2236 5.8 177
●	●	●	●	●	●	●	●	●	●	●	●
9 M	0131 3.0 91	24 Tu	0331 3.5 107	9 Th	0339 3.6 110	24 F	0438 3.4 104	9 Sa	0437 3.3 101	24 M	0438 2.8 85
0653 4.6 140	0812 4.4 134	0812 4.4 134	0751 4.4 134	0751 4.4 134	1444 1.0 30	1536 1.6 49	1536 1.6 49	0942 5.1 155	1607 1.4 43	1010 4.9 149	1010 4.9 149
1342 1.3 40	1445 1.3 40	1445 1.3 40	2220 6.5 198	2220 6.5 198	2220 6.5 198	2255 6.2 189	2255 6.2 189	2255 6.2 189	2308 6.4 195	2248 5.7 174	2248 5.7 174
2057 5.3 162	2218 6.0 183	2218 6.0 183	●	●	●	●	●	●	●	●	●
10 Tu	0242 3.2 98	25 W	0424 3.5 107	10 F	0422 3.7 113	25 Sa	0458 3.4 104	10 M	0506 3.1 94	25 Tu	0452 2.7 82
0733 4.4 134	0849 4.3 131	0849 4.3 131	0838 4.6 140	0838 4.6 140	1529 0.8 24	1604 1.7 52	1604 1.7 52	0944 4.5 137	2337 6.2 189	1034 5.1 155	1034 5.1 155
1422 1.0 30	1521 1.3 40	1521 1.3 40	2300 6.6 201	2300 6.6 201	2300 6.6 201	2317 6.1 186	2317 6.1 186	2317 6.1 186	●	●	●
2147 5.8 177	2254 6.1 186	2254 6.1 186	●	●	●	●	●	●	●	●	●
11 W	0340 3.4 104	26 Th	0459 3.6 110	11 Sa	0459 3.7 113	26 Tu	0514 3.5 107	11 Tu	0538 2.9 88	26 W	0511 2.5 76
0806 4.4 134	0913 4.2 128	0913 4.2 128	0922 4.8 146	0922 4.8 146	1613 0.8 24	1630 1.8 55	1630 1.8 55	1118 5.5 168	1737 2.0 61	1105 5.3 162	1105 5.3 162
1500 0.7 21	1550 1.3 40	1550 1.3 40	2338 6.6 201	2338 6.6 201	2338 6.6 201	●	●	●	●	1716 2.4 73	1716 2.4 73
2231 6.1 186	2324 6.0 183	2324 6.0 183	●	●	●	●	●	●	●	2318 5.5 168	2318 5.5 168
●	●	●	●	●	●	●	●	●	●	●	●
12 Th	0427 3.5 107	27 F	0524 3.6 110	12 Su	0535 3.7 113	27 M	0530 3.4 104	12 W	0007 6.0 183	27 Th	0536 2.2 67
0838 4.4 134	0929 4.3 131	0929 4.3 131	1011 5.0 152	1011 5.0 152	1659 1.0 30	1659 1.8 55	1659 1.8 55	0614 2.7 82	1214 5.6 171	1145 5.5 168	1145 5.5 168
1538 0.5 15	1616 1.3 40	1616 1.3 40	2348 6.0 183	2348 6.0 183	2348 6.0 183	2350 5.9 180	2350 5.9 180	2350 5.9 180	1826 2.4 73	1756 2.6 79	1756 2.6 79
2313 6.3 192	●	●	●	●	●	●	●	●	●	2344 5.4 165	2344 5.4 165
●	●	●	●	●	●	●	●	●	●	●	●
13 F	0511 3.7 113	28 Sa	0544 3.7 113	13 M	0016 6.5 198	28 Tu	0553 3.2 98	13 Th	0039 5.7 174	28 F	0610 1.9 58
0913 4.5 137	0950 4.4 134	0950 4.4 134	0614 3.5 107	0614 3.5 107	1106 5.1 155	1734 2.0 61	1734 2.0 61	0655 2.4 73	1314 5.7 174	1234 5.7 174	1234 5.7 174
1620 0.4 12	1644 1.3 40	1644 1.3 40	1748 1.3 40	1748 1.3 40	1748 1.3 40	●	●	●	1920 2.8 85	1940 3.0 91	1845 2.8 85
●	2356 6.4 195	●	●	●	●	●	●	●	●	●	●
14 Sa	0556 3.7 113	29 Su	0010 6.0 183	14 Tu	0054 6.3 192	29 W	0012 5.9 180	14 F	0114 5.5 168	29 M	0017 5.2 158
0957 4.6 140	0607 3.6 110	0607 3.6 110	0657 3.3 101	0657 3.3 101	1210 5.2 158	1153 5.2 158	1153 5.2 158	0623 2.9 88	1419 5.7 174	0650 1.7 52	0650 1.7 52
1706 0.5 15	1024 4.5 137	1024 4.5 137	1840 1.7 52	1840 1.7 52	1840 1.7 52	1816 2.1 64	1816 2.1 64	1816 2.1 64	2020 3.1 94	1329 5.8 177	1329 5.8 177
1706 0.5 15	1716 1.4 43	1716 1.4 43	1840 1.7 52	1840 1.7 52	1840 1.7 52	1816 2.1 64	1816 2.1 64	1816 2.1 64	1940 3.0 91	1940 3.0 91	1940 3.0 91
●	●	●	●	●	●	●	●	●	●	●	●
15 Su	0042 6.4 195	30 M	0034 6.0 183	15 W	0132 6.1 186	30 Th	0041 5.8 177	15 Sa	0153 5.2 158	30 Tu	0054 5.0 152
0644 3.7 113	0637 3.5 107	0637 3.5 107	0743 2.9 88	0743 2.9 88	1320 5.2 158	1936 2.2 67	1936 2.2 67	0659 2.6 158	1246 5.3 162	0830 1.9 58	0830 1.9 58
1052 4.6 140	1110 4.6 140	1110 4.6 140	1840 1.7 52	1840 1.7 52	1840 1.7 52	1903 2.3 70	1903 2.3 70	1903 2.3 70	2127 3.4 104	1431 5.8 177	1431 5.8 177
1757 0.7 21	1755 1.4 43	1755 1.4 43	1840 1.7 52	1840 1.7 52	1840 1.7 52	1955 2.6 79	1955 2.6 79	1955 2.6 79	2043 3.2 98	2043 3.2 98	2043 3.2 98
●	●	●	●	●	●	●	●	●	●	●	●
31 Tu	0102 6.0 183	31 W	0714 3.2 98	31 F							

# Sakate, Shodo Shima, Japan, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0136	4.7	143	16 Tu 0242	4.0	122	1 Th 0305	3.6	110	1 Sa 0010	2.3	70
0827	1.4	43	0932	1.5	46	1013	1.1	34	0501	3.2	98
1542	5.8	177	1713	5.7	174	1805	5.6	171	1059	1.4	43
2159	3.5	107	2349	3.2	98	1822	5.2	158	1829	5.0	152
2 Tu 0222	4.4	134	17 W 0405	3.7	113	2 F 0052	2.9	88	0112	1.7	52
0927	1.4	43	1039	1.6	49	0506	3.5	107	0709	3.5	107
1706	5.7	174	1822	5.6	171	1136	1.4	43	1241	1.7	52
● 2332	3.6	110	●			1915	5.5	168	1925	4.8	146
3 W 0321	4.1	125	18 Th 0106	2.9	88	3 Sa 0154	2.5	76	0202	1.3	40
1038	1.5	46	0549	3.6	110	0706	3.7	113	0831	4.1	125
1835	5.8	177	1153	1.8	55	1300	1.6	49	1401	2.0	61
			1925	5.6	171	2010	5.5	168	2012	4.5	137
4 Th 0113	3.5	107	19 F 0206	2.6	79	4 Su 0238	2.1	64	0242	0.9	27
0458	3.9	119	0719	3.8	116	0827	4.2	128	0931	4.6	140
1159	1.6	49	1304	1.8	55	1411	1.8	67	1507	2.2	67
1951	5.9	180	2018	5.6	171	2053	5.4	165	2048	4.3	131
5 F 0224	3.2	98	20 Sa 0249	2.4	73	5 M 0313	1.8	55	0316	0.6	18
0654	4.0	122	0822	4.1	125	0925	4.7	143	1018	4.9	149
1317	1.5	46	1403	1.8	55	1509	2.0	61	1600	2.4	73
2047	6.1	186	2059	5.6	171	2126	5.2	158	2114	4.1	125
6 Sa 0309	3.0	91	21 Su 0320	2.2	67	6 Tu 0342	1.4	43	0345	0.4	12
0815	4.3	131	0907	4.4	134	1011	5.1	155	1058	5.2	158
1422	1.5	46	1450	1.9	58	1557	2.2	67	1644	2.6	79
2130	6.1	186	2129	5.5	168	2150	4.9	149	2130	3.9	119
7 Su 0342	2.7	82	22 M 0342	2.1	64	7 W 0409	1.2	37	0411	0.3	9
0912	4.8	146	0941	4.6	140	1052	5.3	162	1133	5.3	162
1515	1.6	49	1527	2.0	61	1639	2.5	76	1722	2.8	85
2204	6.0	183	2149	5.3	162	2208	4.7	143	● 2144	3.8	116
8 M 0410	2.5	76	23 Tu 0400	1.9	58	8 Th 0434	1.0	30	0431	0.8	24
0959	5.2	158	1008	4.9	149	1131	5.5	168	1030	5.0	152
1601	1.9	58	1559	2.2	67	1720	2.8	85	1620	2.4	73
2230	5.8	177	2200	5.1	155	● 2224	4.5	137	2125	4.2	128
9 Tu 0436	2.2	67	24 W 0415	1.8	55	9 F 0502	0.9	27	0437	0.2	6
1042	5.4	165	1034	5.1	155	1211	5.6	171	1207	5.3	162
1643	2.2	67	1629	2.4	73	1804	3.0	91	1657	2.7	82
● 2253	5.5	168	2210	4.9	149	2244	4.3	131	○ 2141	4.2	128
10 W 0504	2.0	61	25 Th 0433	1.5	46	10 Sa 0534	0.8	24	0430	0.3	9
1126	5.6	171	1103	5.4	165	1254	5.6	171	1227	5.6	171
1726	2.6	79	1703	2.6	79	1854	3.2	98	1832	3.0	91
2314	5.3	162	○ 2226	4.8	146	2314	4.1	125	2207	4.1	125
11 Th 0535	1.8	55	26 F 0458	1.3	40	11 Su 0613	0.7	21	0507	0.2	6
1213	5.7	174	1141	5.6	171	1341	5.6	171	1141	5.4	165
1813	2.9	88	1744	2.8	85	1951	3.1	94	1740	2.8	88
2340	5.1	155	2250	4.7	143	2357	3.9	119	2235	3.6	110
12 F 0611	1.6	49	27 Sa 0531	1.0	30	26 M 0549	0.0	0	0538	-0.4	-12
1305	5.8	177	1227	5.7	174	1321	5.6	171	1315	5.5	168
1906	3.2	98	1834	3.0	91	1933	3.0	91	1923	2.8	85
			2323	4.6	140	2330	3.8	116	2321	3.6	110
13 Sa 0011	4.8	146	28 Su 0612	0.8	24	11 Tu 0627	0.3	9	26 W 0631	-0.3	-9
0653	1.5	46	1322	5.8	177	1402	5.3	162	1406	5.4	165
1401	5.8	177	1934	3.1	94	1951	3.0	91	2022	2.6	79
2006	3.3	101				2357	3.9	119			
14 Su 0052	4.6	140	29 M 0004	4.4	134	13 Tu 0028	3.7	113	27 Th 0030	3.5	107
0740	1.4	43	0701	0.7	21	0751	0.8	24	0729	0.0	0
1501	5.8	177	1424	5.8	177	1527	5.5	168	1458	5.3	162
2113	3.3	101	2042	3.2	98	2159	2.8	85	2121	2.3	70
15 M 0141	4.3	131	30 Tu 0051	4.1	125	15 Th 0323	3.3	101	27 F 0021	3.4	104
0833	1.4	43	0756	0.7	21	0950	1.2	37	0831	0.4	12
1605	5.7	174	1533	5.7	174	1723	5.3	162	1549	5.1	155
2228	3.3	101	2200	3.3	101	●			2221	1.9	58
31 W 0148	3.9	119	31 W 0859	0.9	27				28 F 0150	3.4	104
			1648	5.6	171				0831	0.4	12
			2328	3.2	98				1549	5.1	155

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kure, Japan, 2018

## Times and Heights of High and Low Waters

January					February					March																
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height												
<b>1</b> <i>M</i>	0240	- 0.5	- 14	<b>16</b> <i>Tu</i>	0313	0.6	18	<b>1</b> <i>Th</i>	0405	- 1.4	- 42	<b>16</b> <i>F</i>	0406	0.1	4	<b>1</b> <i>Th</i>	0308	- 0.5	- 14	<b>16</b> <i>F</i>	0311	1.0	29			
	0911	11.8	360		0947	10.7	327		1033	12.2	371		1030	11.0	336		0934	11.7	356		0931	10.8	328			
	1516	2.9	87		1546	3.4	105		1637	2.0	62		1632	2.3	70		1541	1.9	59		1536	2.2	66			
	2101	10.5	320		2123	9.5	291		2228	10.8	330		●	2222	10.2	312		2134	10.7	326		2131	10.2	312		
<b>2</b> <i>Tu</i>	0327	- 1.1	- 33	<b>17</b> <i>W</i>	0347	0.3	9	<b>2</b> <i>F</i>	0448	- 1.4	- 42	<b>17</b> <i>Sa</i>	0439	0.0	- 1	<b>2</b> <i>O</i>	0352	- 0.8	- 25	<b>17</b> <i>Sa</i>	0345	0.5	16			
	1000	12.3	374		1019	10.9	333		1113	12.2	371		1100	11.2	340		1013	11.9	364		1001	11.1	338			
	1604	2.7	83		1618	3.2	97		1718	1.8	54		1703	1.9	59		1619	1.4	42		1606	1.6	48			
	2148	10.6	324		●	2158	9.8	299		2311	10.9	332		2257	10.4	318		●	2216	11.2	340		●	2206	10.8	329
<b>3</b> <i>W</i>	0413	- 1.4	- 42	<b>18</b> <i>Th</i>	0421	0.1	3	<b>3</b> <i>Sa</i>	0529	- 1.0	- 30	<b>18</b> <i>Su</i>	0512	0.0	0	<b>3</b> <i>Sa</i>	0432	- 0.8	- 24	<b>18</b> <i>Su</i>	0418	0.3	10			
	1045	12.4	378		1051	11.0	336		1152	11.9	363		1130	11.2	341		1049	11.9	364		1032	11.3	344			
	1649	2.6	79		1650	3.0	90		1757	1.7	51		1736	1.7	51		1656	1.0	31		1638	1.1	34			
	2235	10.7	326		2233	9.9	303		2353	10.7	325		2332	10.5	320		2257	11.3	344		2241	11.1	339			
<b>4</b> <i>Th</i>	0459	- 1.3	- 41	<b>19</b> <i>F</i>	0454	0.1	2	<b>4</b> <i>Su</i>	0608	- 0.2	- 7	<b>19</b> <i>M</i>	0545	0.3	8	<b>4</b> <i>Su</i>	0510	- 0.4	- 12	<b>19</b> <i>M</i>	0452	0.4	11			
	1130	12.3	375		1122	11.1	337		1228	11.5	349		1201	11.1	338		1123	11.7	356		1103	11.3	345			
	1734	2.6	79		1723	2.8	85		1836	1.8	54		1809	1.5	47		1731	0.9	27		1711	0.8	23			
	2321	10.6	322		2308	9.9	303										2335	11.1	339		2317	11.3	344			
<b>5</b> <i>F</i>	0543	- 0.9	- 28	<b>20</b> <i>Sa</i>	0527	0.2	5	<b>5</b> <i>M</i>	0034	10.2	310	<b>20</b> <i>Tu</i>	0009	10.4	316	<b>5</b> <i>M</i>	0545	0.4	11	<b>20</b> <i>Tu</i>	0527	0.7	20			
	1213	12.0	366		1154	11.0	336		0646	0.8	24		0620	0.8	25		1155	11.3	343		1134	11.2	340			
	1818	2.7	81		1757	2.7	82		1303	10.8	329		1233	10.8	328		1805	1.0	30		1744	0.6	18			
					2344	9.8	300		1915	2.0	61		1844	1.5	46						2355	11.2	341			
<b>6</b> <i>Sa</i>	0006	10.2	311	<b>21</b> <i>Su</i>	0601	0.5	14	<b>6</b> <i>Tu</i>	0117	9.5	290	<b>21</b> <i>W</i>	0048	10.1	307	<b>6</b> <i>Tu</i>	0012	10.7	326	<b>21</b> <i>W</i>	0602	1.3	39			
	0627	- 0.2	- 6		1226	10.9	332		0723	2.0	61		0656	1.6	48		0619	1.3	40		1206	10.8	329			
	1256	11.5	350		1833	2.7	81		1337	10.0	305		1306	10.3	313		1225	10.7	325		1819	0.6	19			
	1903	2.8	86						1955	2.4	73		1922	1.6	50		1838	1.3	39							
<b>7</b> <i>Su</i>	0053	9.7	295	<b>22</b> <i>M</i>	0022	9.6	293	<b>7</b> <i>W</i>	0204	8.7	266	<b>22</b> <i>Th</i>	0132	9.6	293	<b>7</b> <i>W</i>	0050	10.1	307	<b>22</b> <i>Th</i>	0035	10.9	332			
	0710	0.9	26		0637	1.0	29		0803	3.3	100		0737	2.6	79		0652	2.4	73		0640	2.1	64			
	1339	10.8	330		1300	10.6	323		1412	9.2	279		1341	9.6	293		1253	9.9	303		1238	10.2	311			
	1950	3.0	92		1911	2.7	81		2042	2.8	86		2005	1.9	58		1911	1.7	53		1856	0.9	27			
<b>8</b> <i>M</i>	0144	9.0	274	<b>23</b> <i>Tu</i>	0103	9.3	283	<b>8</b> <i>Th</i>	0307	8.0	245	<b>23</b> <i>F</i>	0227	9.1	277	<b>8</b> <i>Th</i>	0130	9.4	285	<b>23</b> <i>F</i>	0119	10.4	316			
	0756	2.0	62		0715	1.6	50		0853	4.5	136		0826	3.7	114		0726	3.5	107		0721	3.1	96			
	1423	10.1	308		1336	10.2	310		1455	8.3	253		1423	8.8	269		1321	9.1	277		1313	9.4	288			
	2043	3.2	99		1953	2.7	82		●	2146	3.2	97		2102	2.2	68		1946	2.3	71		1939	1.4	43		
<b>9</b> <i>Tu</i>	0244	8.3	254	<b>24</b> <i>W</i>	0150	8.9	271	<b>9</b> <i>F</i>	0447	7.7	236	<b>24</b> <i>Sa</i>	0346	8.7	264	<b>9</b> <i>F</i>	0218	8.6	262	<b>24</b> <i>Sa</i>	0213	9.7	296			
	0848	3.2	99		0759	2.5	76		1023	5.3	163		0942	4.7	144		0807	4.6	140		0813	4.2	129			
	1513	9.4	285		1417	9.6	294		1604	7.6	232		1528	8.1	247		1353	8.2	251		1355	8.6	262			
	2148	3.3	102		2043	2.8	84		2317	3.2	98		2225	2.4	72		2030	3.0	91		2033	2.1	63			
<b>10</b> <i>W</i>	0406	7.9	241	<b>25</b> <i>Th</i>	0252	8.5	259	<b>10</b> <i>Sa</i>	0626	8.1	247	<b>25</b> <i>Su</i>	0531	8.8	267	<b>10</b> <i>Sa</i>	0335	8.0	244	<b>25</b> <i>Su</i>	0329	9.1	278			
	0956	4.3	131		0853	3.5	106		1226	5.4	165		1142	5.1	154		0913	5.5	168		0934	5.1	156			
	1615	8.8	267		1508	9.1	276		1743	7.4	226		1709	7.8	237		1442	7.4	225		1504	7.8	237			
	2305	3.2	97		●	2147	2.7	82								2144	3.5	108		2158	2.6	79				
<b>11</b> <i>Th</i>	0541	8.0	245	<b>26</b> <i>F</i>	0417	8.4	255	<b>11</b> <i>Su</i>	0037	2.8	86	<b>26</b> <i>M</i>	0002	2.0	61	<b>11</b> <i>Su</i>	0536	8.0	243	<b>26</b> <i>M</i>	0515	9.1	277			
	1128	4.9	148		1014	4.3	131		0733	8.8	267		0700	9.5	289		1158	5.7	173		1140	5.1	156			
	1727	8.4	257		1617	8.6	262		1340	4.9	149		1314	4.5	136		1634	6.8	208		1702	7.5	229			
					2308	2.3	71		1859	7.7	234		1845	8.2	250		2346	3.6	109		2346	2.5	76			
<b>12</b> <i>F</i>	0015	2.7	83	<b>27</b> <i>Sa</i>	0553	8.8	269	<b>12</b> <i>M</i>	0135	2.2	67	<b>27</b> <i>Tu</i>	0120	1.1	35	<b>12</b> <i>M</i>	0659	8.5	260	<b>27</b> <i>Tu</i>	0643	9.6	294			
	0656	8.6	263		1156	4.6	139		0821	9.4	288		0803	10.4	317		1321	5.0	153		1305	4.3	130			
	1250	4.8	147		1740	8.5	259		1426	4.3	130		1413	3.6	109		1834	7.2	218		1842	8.2	250			
	1832	8.4	257						1953	8.2	251		1954	9.1	276											
<b>13</b> <i>Sa</i>	0111	2.1	65	<b>28</b> <i>Su</i>	0026	1.6	48	<b>13</b> <i>Tu</i>	0221	1.5	47	<b>28</b> <i>W</i>	0219	0.3	8	<b>13</b> <i>Tu</i>	0105	3.0	92	<b>28</b> <i>W</i>	0107	1.8	55			
	0752	9.3	284		0711	9.7	295		0858	10.0	305		1501	3.7	112		1405	4.3	130		1358	3.2	99			
	1350	4.5	137		1318	4.2	128		1501	3.7	112		2036	8.8	269		1936	7.9	241		1948	9.3	282			
	1925	8.6	263		1855	8.8	269		1501	3.7	112		2048	9.9	303											
<b>14</b> <i>Su</i>	0157	1.5	47	<b>29</b> <i>M</i>	0131	0.7	20	<b>14</b> <i>W</i>	0259	1.0	29	<b>29</b> <i>Th</i>	0205	2.3	69	<b>14</b> <i>W</i>	0156	2.3	69	<b>29</b> <i>Th</i>	0205	1.0	32			
	0836	9.9	303		0812	10.6	323		0930	10.5	319		1531	3.1	96		1437	3.5	107		1441	2.3	69			
	1435	4.1	125		1419	3.6	110		1531	3.1	96		2112	9.4	286		2019	8.8	267		2038	10.2	312			
	2009	8.9	272		1958	9.4	285																			
<b>15</b> <i>M</i>	0237	1.0	31	<b>30</b> <i>Tu</i>	0228	- 0.3	- 8	<b>15</b> <i>Th</i>	0333	0.5	14	<b>30</b> <i>F</i>	0236	1.6	48	<b>15</b> <i>Th</i>	0901	10.3	315	<b>30</b> <i>F</i>	0252	0.5	15			
	0914	10.4	317		0904	11.4	347		1000	10.8	329		1601	2.7	82		1506	2.8	86		1519	1.4	44			
	1513	3.7	114		1510	3.0	92		2147	9.9	301		2056	9.5	291		2121	11.0	336							
	2047	9.3	282		2053	10.0	304																			
				<b>31</b> <i>W</i>	0318	- 1.0	- 30																			
					0951	11.9</td																				

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Kure, Japan, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0411	0.4	11	<b>16</b> M	0354	1.1	33	<b>1</b> Tu	0424	2.2	66
	1020	11.6	353		1000	11.3	344		0410	2.2	67
	1630	0.6	17		1610	0.4	13		1005	11.2	341
	2238	11.6	353	●	2222	11.8	360		1622	-0.3	-9
<b>2</b> M	0447	0.8	24	<b>17</b> Tu	0430	1.1	35	<b>2</b> W	0458	2.6	79
	1052	11.4	346		1033	11.3	344		1043	2.5	75
	1703	0.5	14		1645	0.1	2		1701	-0.4	-12
	2315	11.5	349		2301	12.0	366		2329	12.4	378
<b>3</b> Tu	0521	1.4	43	<b>18</b> W	0508	1.5	46	<b>3</b> Th	0530	3.1	94
	1121	11.0	334		1107	11.1	339		1122	10.7	327
	1734	0.6	17		1721	-0.1	-2		1743	-0.1	-4
	2350	11.1	339		2341	11.9	363				
<b>4</b> W	0553	2.2	67	<b>19</b> Th	0546	2.1	64	<b>4</b> F	0004	11.1	337
	1149	10.5	319		1141	10.7	327		0618	3.4	105
	1804	0.9	27		1758	0.1	2		1204	10.2	312
									1827	0.4	12
<b>5</b> Th	0025	10.6	324	<b>20</b> F	0023	11.6	353	<b>5</b> Sa	0039	10.6	324
	0625	3.0	92		0627	2.9	87		0637	4.1	126
	1216	9.8	300		1217	10.1	309		1216	9.3	283
	1834	1.4	42		1838	0.5	16		1837	1.9	58
<b>6</b> F	0101	10.0	305	<b>21</b> Sa	0110	11.0	336	<b>6</b> Su	0117	10.1	308
	0658	3.9	118		0713	3.7	114		0717	4.7	143
	1243	9.1	278		1257	9.4	286		1252	8.6	263
	1905	2.0	62		1923	1.2	38		1914	2.6	79
<b>7</b> Sa	0143	9.4	285	<b>22</b> Su	0206	10.3	315	<b>7</b> M	0204	9.6	292
	0737	4.7	144		0810	4.6	140		0810	5.2	158
	1315	8.3	254		1347	8.6	261		1338	8.0	243
	1942	2.8	84		2021	2.1	64		2002	3.3	102
<b>8</b> Su	0239	8.7	266	<b>23</b> M	0320	9.7	297	<b>8</b> Tu	0309	9.1	278
	0834	5.4	166		0936	5.1	155		0934	5.4	165
	1359	7.5	229		1505	7.9	240		1449	7.4	226
	2035	3.5	108	●	2146	2.8	86	●	2115	4.0	122
<b>9</b> M	0417	8.4	255	<b>24</b> Tu	0453	9.6	293	<b>9</b> W	0435	9.0	274
	1056	5.7	174		1123	4.8	147		1119	5.1	155
	1526	6.9	210		1659	7.8	239		1642	7.4	226
	2219	4.0	123		2325	3.0	90		2258	4.2	127
<b>10</b> Tu	0559	8.6	261	<b>25</b> W	0613	9.9	302	<b>10</b> Th	0552	9.2	281
	1236	5.1	156		1239	3.9	120		1225	4.3	132
	1750	7.1	215		1831	8.6	262		1815	8.1	247
<b>11</b> W	0013	3.8	115	<b>26</b> Th	0045	2.6	79	<b>11</b> F	0022	3.8	117
	0702	9.1	278		0713	10.4	316		0648	9.7	295
	1325	4.3	131		1332	2.9	89		1311	3.4	105
	1905	7.9	241		1933	9.6	292		1913	9.1	278
<b>12</b> Th	0117	3.1	95	<b>27</b> F	0143	2.1	65	<b>12</b> Sa	0120	3.2	99
	0746	9.7	296		0759	10.8	329		0733	10.2	310
	1400	3.4	104		1415	2.0	61		1350	2.5	75
	1952	8.9	271		2021	10.5	320		1959	10.2	310
<b>13</b> F	0202	2.4	72	<b>28</b> Sa	0230	1.8	55	<b>13</b> Su	0207	2.7	83
	0821	10.3	313		0839	11.1	337		0812	10.6	324
	1432	2.6	78		1453	1.3	39		1428	1.5	47
	2031	9.9	301		2104	11.2	341		2041	11.1	338
<b>14</b> Sa	0241	1.7	53	<b>29</b> Su	0311	1.7	52	<b>14</b> M	0249	2.3	70
	0854	10.8	328		0915	11.2	340		0850	11.0	334
	1504	1.7	53		1529	0.8	23		1505	0.7	22
	2108	10.7	326		2143	11.6	353		2122	11.8	360
<b>15</b> Su	0318	1.3	40	<b>30</b> M	0349	1.8	56	<b>15</b> Tu	0329	2.1	65
	0927	11.1	338		0948	11.1	339		0927	11.2	340
	1536	1.0	31		1603	0.5	15		1543	0.1	2
	2145	11.4	347	○	2219	11.7	357	●	2204	12.3	375
<b>31</b> Th	0438	3.5	108	<b>31</b> Th	1021	10.4	318				
					1642	0.8	25				
					2312	11.6	353				

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kure, Japan, 2018

Times and Heights of High and Low Waters

July				August				September									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 0530 Su 1110 1731	ft 4.0 10.3 315 1.4 43	cm 123 315 43	h m <b>16</b> M 0557 1149 1808	ft 3.2 11.3 0.4 11	cm 97 345 11 11	h m <b>1</b> W 0011 0617 1210 1822	ft 11.8 3.4 10.7 2.1	cm 359 105 325 64	h m <b>16</b> Th 0044 0655 1301 1908	ft 12.1 2.7 11.1 2.9	cm 368 81 337 87	h m <b>1</b> Sa 0043 0659 1311 1915	ft 11.3 2.7 10.8 3.8	cm 345 81 330 115	h m <b>16</b> Su 0107 0732 1408 1958	ft 10.2 3.1 9.9 5.7	cm 310 96 302 173
2 M 0002 0605 1146 1805	11.5 4.0 10.1 1.7	351 123 309 53	17 Tu 0035 0641 1236 1852	12.5 3.2 11.0 1.2	382 98 335 38	2 Th 0043 0653 1249 1859	11.5 3.4 10.4 2.7	352 105 317 83	17 F 0119 0736 1349 1950	11.3 3.0 10.3 4.2	345 92 314 127	2 Su 0116 0739 1401 2000	10.7 2.9 10.3 4.8	326 88 315 145	17 M 0140 0817 1525 2111	9.3 3.9 9.3 6.6	282 118 283 200
3 Tu 0036 0641 1225 1841	11.3 4.1 9.9 2.2	345 125 301 67	<b>18</b> W 0117 0727 1325 1937	12.0 3.3 10.5 2.4	366 101 319 72	<b>3</b> F 0116 0731 1332 1939	11.2 3.5 10.1 3.5	341 106 307 107	<b>18</b> Sa 0155 0821 1449 2040	10.4 3.5 9.6 5.4	318 106 293 164	<b>3</b> M 0155 0829 1508 2105	10.0 3.2 9.9 5.7	304 98 302 175	<b>18</b> Tu 0229 0930 1718 2344	8.4 4.5 9.3 6.6	255 137 282 202
4 W 0111 0721 1307 1921	11.1 4.2 9.5 2.8	337 127 291 86	<b>19</b> Th 0200 0816 1420 2026	11.3 3.5 9.8 3.6	345 108 300 110	<b>4</b> Sa 0153 0815 1426 2027	10.7 3.5 9.7 4.4	326 108 297 134	<b>19</b> Su 0237 0920 1618 2202	9.5 4.0 9.2 6.3	291 121 280 193	<b>4</b> Tu 0250 0940 1646 2253	9.3 3.5 9.8 6.2	282 106 300 189	<b>19</b> W 0426 1129 1838	7.8 4.6 9.7	239 139 296
5 Th 0150 0806 1356 2006	10.7 4.2 9.2 3.5	327 129 281 107	<b>20</b> F 0246 0912 1530 2127	10.5 3.7 9.3 4.8	321 114 284 146	<b>5</b> Su 0236 0910 1537 2133	10.1 3.6 9.5 5.2	309 110 290 160	<b>20</b> M 0340 1045 1758	8.8 4.2 9.4	267 128 286	<b>5</b> W 0420 1117 1821	8.8 3.3 10.4	268 101 317	<b>20</b> Th 0104 0622 1247 1932	5.9 8.2 4.1 10.3	181 249 125 315
6 F 0235 0900 1459 ● 2103	10.3 4.2 9.0 4.2	315 128 273 129	<b>21</b> Sa 0341 1022 1700 2250	9.8 3.8 9.2 5.6	300 116 280 170	<b>6</b> M 0334 1022 1710 2310	9.6 3.5 9.7 5.7	292 106 296 174	<b>21</b> Tu 0003 0519 1211 1910	6.5 8.4 4.0 9.9	197 257 121 303	<b>6</b> Th 0039 0604 1243 1931	5.8 9.1 2.6 11.3	176 276 79 344	<b>21</b> F 0149 0724 1340 2011	5.2 8.9 3.4 10.9	157 272 105 332
7 Sa 0328 1004 1620 2219	9.9 4.0 9.0 4.8	303 122 275 146	<b>22</b> Su 0449 1137 1824	9.3 3.6 9.6	284 110 292	<b>7</b> Tu 0454 1144 1834	9.3 3.0 10.4	284 91 317	<b>22</b> W 0122 0641 1315 2002	6.0 8.7 3.4 10.6	182 264 105 323	<b>7</b> F 0144 0722 1348 2023	4.9 9.9 1.7 12.1	148 301 52 369	<b>22</b> Sa 0222 0807 1421 2044	4.4 9.7 2.8 11.4	134 297 85 346
8 Su 0434 1116 1746 2347	9.7 3.5 9.6 5.0	296 106 292 151	<b>23</b> M 0020 0601 1242 1928	5.8 9.2 3.2 10.1	176 279 98 309	<b>8</b> W 0043 0615 1256 1941	5.5 9.5 2.2 11.3	169 289 67 344	<b>23</b> Th 0211 0740 1405 2041	5.3 9.2 2.9 11.1	163 280 87 339	<b>8</b> Sa 0233 0820 1441 2108	3.9 10.9 0.9 12.7	119 331 27 387	<b>23</b> Su 0252 0842 1455 2113	3.7 10.5 2.2 11.7	113 321 68 357
9 M 0543 1222 1856	9.7 2.7 10.4	297 82 317	<b>24</b> Tu 0129 0702 1336 2018	5.5 9.3 2.7 10.7	169 282 83 327	<b>9</b> Th 0151 0725 1358 2037	5.0 10.0 1.3 12.1	151 305 40 369	<b>24</b> F 0248 0824 1445 2115	4.7 9.8 2.3 11.5	144 298 70 352	<b>9</b> Su 0316 0909 1527 2148	3.1 11.7 0.4 13.0	93 357 12 397	<b>24</b> M 0320 0916 1528 2142	3.1 11.2 1.9 12.0	94 341 57 365
10 Tu 0101 0646 1319 1954	4.8 10.0 1.8 11.3	145 304 55 344	<b>25</b> W 0221 0752 1421 2059	5.2 9.5 2.2 11.2	157 291 68 342	<b>10</b> F 0245 0825 1452 2125	4.3 10.7 0.5 12.7	131 326 15 388	<b>25</b> Sa 0319 0901 1520 2145	4.2 10.4 1.9 11.8	128 316 57 360	<b>10</b> M 0355 0953 1609 ● 2226	2.4 12.3 0.3 13.1	72 375 10 398	<b>25</b> Tu 0349 0949 1600 O 2211	2.5 11.7 1.7 12.1	77 356 51 369
11 W 0201 0743 1413 2047	4.4 10.3 0.9 12.1	134 315 28 368	<b>26</b> Th 0302 0835 1501 2135	4.8 9.9 1.8 11.5	145 302 56 352	<b>11</b> Sa 0332 0918 1501 2209	3.6 11.4 1.8 13.1	111 346 -1 399	<b>26</b> Su 0348 0935 1552 ● 2214	3.7 10.9 1.6 12.0	114 331 48 366	<b>11</b> Tu 0433 1035 1649 O 2214	1.9 12.5 0.7 392	58 382 20 392	<b>26</b> W 0419 1023 1633 2241	2.1 12.0 1.7 12.1	63 365 52 369
12 Th 0254 0835 1503 ● 2137	4.0 10.7 0.2 12.6	122 327 7 385	<b>27</b> F 0337 0913 1537 2208	4.4 10.2 1.5 11.7	135 312 47 358	<b>12</b> Su 0415 1006 1626 2251	3.1 11.8 -0.2 13.2	95 361 -6 403	<b>27</b> M 0417 1008 1624 2243	3.3 11.2 1.4 12.1	102 342 44 370	<b>12</b> W 0510 1116 1726 2335	1.7 12.4 1.4 12.4	51 379 42 379	<b>27</b> Th 0451 1058 1706 2312	1.7 12.1 2.0 11.9	53 369 61 364
13 F 0342 0926 1551 ● 2224	3.7 11.1 -0.3 13.0	112 338 -8 395	<b>28</b> Sa 0409 0949 1610 ● 2239	4.1 10.5 1.4 11.9	126 321 42 362	<b>13</b> M 0456 1051 1709 2330	2.7 12.1 0.0 13.1	83 368 1 398	<b>28</b> Tu 0447 1042 1656 2312	3.0 11.5 1.5 12.1	92 349 45 370	<b>13</b> Th 0546 1156 1803 2312	1.7 12.0 2.3 370	52 367 71 354	<b>28</b> F 0523 1134 1741 2343	1.6 12.0 2.5 11.6	48 367 76 354
14 Sa 0428 1015 1638 2309	3.4 11.4 -0.4 13.1	105 346 -12 398	<b>29</b> Su 0440 1023 1643 2309	3.9 10.8 1.3 11.9	119 328 40 363	<b>14</b> Tu 0536 1134 1749	2.5 12.0 0.7 21	76 366 21 51	<b>29</b> W 0518 1117 1728 2342	2.8 11.5 1.7 12.0	84 351 53 367	<b>14</b> F 0007 0621 1236 1838	11.8 2.0 11.5 3.4	360 61 349 105	<b>29</b> Sa 0557 1213 1817	1.6 11.8 3.2	48 359 98
15 Su 0513 1102 1724 2352	3.3 11.5 -0.2 12.9	100 346 -6 393	<b>30</b> M 0512 1058 1715 2340	3.7 10.9 1.4 11.9	113 331 43 362	<b>15</b> W 0007 0616 1217 1829	12.7 2.5 11.6 1.7	386 75 355 51	<b>30</b> Th 0550 1152 1801	2.6 11.4 2.2 1.7	79 348 67 88	<b>15</b> Sa 0038 0656 1318 1915	11.1 2.5 10.7 4.6	337 76 326 140	<b>30</b> Su 0014 0632 1255 1857	1.6 1.8 11.4 4.1	48 55 346 125
			<b>31</b> Tu 0544 1133 1748	3.5 10.8 1.7	108 330 51				<b>31</b> F 0012 0624 1230 1836	11.7 2.6 11.2 2.9	358 78 341 88						

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Kure, Japan, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0047 0.4 317	16 Tu 0100 9.0 275	1 Th 0223 8.5 259	16 F 0229 7.6 231	1 Sa 0352 8.3 252	16 Su 0311 7.6 232						
0712 2.2 68	0729 3.4 105	0902 3.1 96	0853 4.2 129	1009 3.3 101	0916 4.0 122						
1344 10.8 328	1431 9.6 292	1609 10.1 308	1615 9.2 281	1651 10.0 304	1602 9.1 277						
1944 5.1 155	2029 6.2 190	2238 5.4 165	2304 5.3 161	2324 3.8 116	2247 4.1 125						
2 Tu 0126 9.6 293	17 W 0145 8.2 249	2 0410 8.2 251	17 Sa 0426 7.4 227	2 0529 8.7 264	17 M 0449 7.7 236						
0801 2.8 86	0822 4.2 129	1040 3.4 105	1035 4.6 139	1134 3.5 108	1044 4.4 133						
1452 10.2 310	1608 9.2 281	1735 10.3 314	1733 9.4 285	1759 10.1 307	1714 9.1 277						
2054 5.9 181	2252 6.4 194										
3 W 0226 8.8 268	18 Th 0316 7.5 229	3 Sa 0004 4.6 139	18 Su 0011 4.5 138	3 M 0029 2.9 89	18 Tu 0612 8.5 258						
0915 3.4 104	1010 4.8 145	0553 8.8 269	0603 8.1 247	0643 9.4 288	1208 4.3 130						
1630 10.0 304	1743 9.4 286	1208 3.2 97	1203 4.3 131	1246 3.5 106	1815 9.3 284						
2253 6.1 186		1840 10.8 328	1830 9.7 297	1854 10.2 312							
4 Th 0412 8.4 255	19 F 0021 5.7 174	4 Su 0102 3.5 106	19 M 0057 3.6 111	4 Tu 0120 2.0 61	19 W 0047 2.4 74						
1100 3.5 107	0544 5.7 236	0703 9.9 301	0701 9.1 276	0740 10.3 314	0711 9.4 287						
1805 10.4 318	1158 4.5 138	1313 2.7 301	1303 3.8 116	1342 3.3 100	1311 3.9 118						
	1845 9.9 301	1930 11.2 342	1914 10.2 310	1941 10.4 317	1906 9.6 294						
5 F 0030 5.3 163	20 Sa 0110 4.9 148	5 M 0148 2.4 74	20 Tu 0135 2.7 81	5 W 0204 1.2 37	20 Th 0133 1.4 44						
0604 8.9 271	0654 8.6 261	0756 10.9 331	0746 10.0 306	0827 11.0 335	0800 10.4 317						
1230 2.9 89	1301 3.9 120	1404 2.3 70	1349 3.3 100	1429 3.1 96	1402 3.5 106						
1911 11.2 341	1928 10.4 317	2013 11.5 352	1952 10.6 323	2022 10.5 321	1952 10.0 305						
6 Sa 0129 4.2 129	21 Su 0145 4.0 121	6 Tu 0229 1.5 46	21 W 0210 1.7 53	6 Th 0244 0.6 19	21 F 0217 0.5 15						
0717 9.9 303	0740 9.5 290	0841 11.6 355	0826 11.0 334	0909 11.5 349	0845 11.2 342						
1334 2.1 65	1347 3.3 100	1448 2.1 65	1430 2.9 87	1511 3.1 95	1449 3.1 95						
2001 11.8 361	2003 10.9 332	2051 11.7 356	2029 10.9 333	2059 10.5 321	2035 10.3 315						
7 Su 0214 3.1 96	22 M 0216 3.1 95	7 W 0307 0.9 27	22 Th 0246 0.9 27	7 F 0321 0.3 9	22 Sa 0300 -0.3 -8						
0810 11.0 336	0817 10.4 318	0922 12.1 378	0905 11.7 356	0948 11.6 355	0929 11.8 360						
1425 1.5 45	1425 2.7 83	1528 2.2 67	1510 2.6 79	1549 3.2 97	1533 2.9 89						
2043 12.3 376	2035 11.3 345	2126 11.6 354	2105 11.1 339	2134 10.5 319	2119 10.6 322						
8 M 0254 2.2 68	23 Tu 0246 2.3 71	8 Th 0343 0.5 16	23 F 0322 0.2 7	8 Sa 0356 0.2 5	23 Su 0343 -0.8 -25						
0856 11.9 363	0852 11.2 342	1001 12.3 375	0944 12.2 371	1025 11.7 356	1014 12.2 371						
1509 1.1 35	1500 2.3 70	1606 2.5 76	1549 2.6 78	1626 3.3 101	1617 2.8 86						
2121 12.5 382	2106 11.6 354	2200 11.4 348	2141 11.2 341	2207 10.3 315	2202 10.7 325						
9 Tu 0332 1.5 46	24 W 0318 1.6 50	9 F 0417 0.4 13	24 M 0400 -0.2 -7	9 Su 0430 0.2 7	24 M 0426 -1.1 -33						
0938 12.5 380	0927 11.8 361	1039 12.2 373	1025 12.4 378	1100 11.5 352	1058 12.3 375						
1549 1.2 36	1535 2.1 64	1642 2.9 89	1629 2.7 82	1700 3.5 107	1701 2.8 86						
● 2156 12.5 382	2138 11.8 359	2231 11.1 338	2219 11.1 338	2239 10.1 309	2246 10.6 324						
10 W 0408 1.1 33	25 Th 0350 1.0 32	10 Sa 0450 0.6 17	25 Su 0439 -0.4 -12	10 M 0502 0.5 14	25 Tu 0511 -1.0 -32						
1018 12.7 386	1003 12.3 374	1115 11.9 364	1107 12.4 378	1135 11.3 345	1143 12.2 372						
1627 1.6 48	1610 2.1 64	1716 3.4 105	1710 3.0 91	1735 3.7 113	1746 2.9 88						
2230 12.3 374	2210 11.8 359	2301 10.7 325	2257 10.8 330	2311 9.9 301	2332 10.4 318						
11 Th 0443 1.0 29	26 F 0423 0.7 21	11 Su 0521 0.9 27	26 M 0519 -0.3 -9	11 Tu 0533 0.8 25	26 W 0556 -0.7 -20						
1056 12.5 382	1040 12.4 379	1151 11.5 352	1150 12.2 371	1209 11.0 336	1228 11.9 362						
1703 2.2 67	1646 2.4 72	1750 4.0 121	1753 3.4 104	1810 3.9 119	1833 3.1 93						
2302 11.8 361	2243 11.6 353	2330 10.2 310	2338 10.4 317	2344 9.5 289							
12 F 0516 1.0 32	27 Sa 0458 0.5 16	12 M 0552 1.4 42	27 Tu 0602 0.1 4	12 W 0606 1.3 40	27 Th 0019 10.0 306						
1134 12.1 370	1119 12.4 377	1227 11.1 337	1237 11.7 358	1244 10.7 325	0642 0.1 32						
1737 3.0 92	1723 2.8 86	1826 4.5 137	1841 3.9 118	1847 4.1 126	1314 11.4 347						
2332 11.3 344	2316 11.2 342				1922 3.2 98						
13 Sa 0548 1.4 43	28 Su 0534 0.6 18	13 Tu 0001 9.6 292	28 W 0022 9.8 300	13 M 0020 9.0 275	28 F 0110 9.5 290						
1211 11.6 354	1159 12.1 369	0623 2.0 61	0648 0.8 25	0641 1.9 58	0730 1.0 31						
1812 3.9 118	1802 3.5 106	1306 10.5 320	1328 11.2 341	1321 10.2 312	1403 10.8 329						
	2351 10.7 326	1906 5.0 152	1935 4.3 132	1930 4.4 133	2016 3.3 102						
14 Su 0000 10.6 324	29 M 0612 1.0 29	14 W 0035 8.9 272	29 Th 0114 9.2 280	14 F 0103 8.5 259	29 M 0209 8.9 272						
0620 1.9 59	1244 11.6 354	0659 2.8 84	0742 1.7 52	0721 2.6 79	0824 2.2 66						
1250 11.0 334	1846 4.2 129	1351 9.9 303	1427 10.6 324	1404 9.8 299	1456 10.1 309						
1847 4.7 144		1958 5.4 166	2041 4.6 139	2022 4.5 138	2119 3.4 103						
15 M 0028 9.8 300	30 Tu 0029 10.0 305	15 W 0120 8.2 250	30 F 0222 8.6 261	15 M 0157 7.9 242	30 M 0322 8.4 257						
0652 2.7 81	0655 1.6 48	0745 3.5 108	0848 2.6 80	0810 3.3 102	0929 3.2 99						
1333 10.2 312	1335 11.0 335	1452 9.4 288	1536 10.2 310	1457 9.4 286	1558 9.5 291						
1928 5.5 169	1939 5.0 152	2120 5.6 172	2202 4.4 135	2129 4.5 137	2234 3.2 97						
	31 W 0115 9.2 281										
	0748 2.4 72										
	1442 10.4 317										
	2053 5.5 168										

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Moji, Japan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0221 0.6 18	16 Tu 0250 0.2 5	1 Th 0347 -1.3 -40	16 Th 0341 -0.2 -7	1 Th 0249 -0.7 -20	16 F 0245 0.4 13	1 M 0853 6.6 202	16 Tu 0923 6.0 184	1 Th 1023 6.8 207	16 F 1007 6.2 190	16 Th 0925 6.6 202	16 F 0909 6.2 190
1443 1.6 48	1507 1.8 56	1606 0.8 25	1557 1.0 31	1511 0.8 24	1503 1.0 31	1443 1.6 48	1507 1.8 56	1606 0.8 25	1557 1.0 31	1511 0.8 24	1503 1.0 31
2015 6.9 211	2033 6.4 194	2158 7.0 212	2137 6.5 199	2112 6.8 207	2051 6.5 197	2015 6.9 211	2033 6.4 194	2158 7.0 212	2137 6.5 199	2112 6.8 207	2051 6.5 197
2 Tu 0310 -1.1 -33	17 W 0324 -0.1 -2	2 F 0429 -1.3 -40	17 Sa 0412 -0.4 -11	2 Th 0332 -0.9 -28	17 Sa 0318 0.1 3	2 Tu 0946 6.9 209	17 W 0954 6.2 188	2 F 1007 6.2 190	17 F 1002 6.8 208	17 Sa 0938 6.4 196	2 O 1531 1.4 43
O 2104 7.1 215	● 2108 6.5 197	1647 0.7 20	1629 0.8 24	1551 0.4 11	1536 0.6 18	2243 6.9 210	2211 6.6 200	2211 6.6 200	2157 7.0 212	● 2129 6.7 204	2104 7.1 215
3 W 0356 -1.3 -40	18 Th 0357 -0.2 -7	3 Sa 0508 -1.0 -30	18 Su 0444 -0.3 -10	3 Th 0411 -0.9 -27	18 Su 0351 -0.1 -2	3 W 1033 6.9 211	18 Th 1024 6.2 189	3 Sa 1134 6.7 204	18 Sa 1058 6.4 194	3 Th 1005 6.6 201	3 W 1616 1.3 40
1616 7.1 215	1612 1.5 46	1726 0.7 20	1702 0.7 20	1629 0.1 19	1609 0.3 18	2153 7.1 215	2141 6.5 199	2323 6.7 203	2244 6.6 200	2236 6.9 211	2206 6.8 208
4 Th 0441 -1.2 -38	19 F 0429 -0.3 -8	4 Su 0545 -0.5 -14	19 M 0515 -0.1 -3	4 Th 0447 -0.6 -17	19 M 0423 0.0 -1	4 Th 1116 6.9 209	19 F 1052 6.2 189	4 Su 1201 6.5 197	19 F 1118 6.3 193	4 Th 1029 6.7 203	4 Th 2240 6.9 211
1700 1.3 40	1644 1.4 43	1804 0.8 24	1736 0.6 196	1704 0.1 23	1642 0.0 21	2240 6.9 211	2214 6.5 198	2359 6.3 191	2318 6.4 196	2310 6.7 205	2241 6.8 208
5 F 0524 -0.9 -28	20 Sa 0500 -0.2 -6	5 M 0619 0.3 9	20 Tu 0546 0.3 8	5 M 0519 0.0 -1	20 Tu 0456 0.2 6	5 F 1156 6.7 203	20 Sa 1118 6.2 188	5 M 1224 6.2 189	20 Tu 1136 6.3 191	20 Tu 1048 6.7 203	5 F 1743 1.4 43
1743 6.6 202	1718 1.4 43	1841 1.0 32	1811 0.7 22	1737 0.3 28	20 Sa 1717 0.0 0	2326 6.6 202	2247 6.4 195	2354 6.2 188	2340 6.4 194	2315 6.7 204	2326 6.6 202
6 Sa 0606 -0.4 -11	21 Sa 0532 0.0 1	6 Tu 0035 5.8 176	21 W 0619 0.8 25	6 Tu 0549 0.6 19	21 W 0528 0.6 19	6 Sa 1233 6.4 195	21 Sa 1143 6.1 186	6 Tu 1247 5.9 179	21 W 1159 6.1 187	21 W 1105 6.6 201	6 Sa 1826 1.6 49
1826 6.4 195	1753 1.4 44	1921 1.4 43	1850 0.9 27	6 Tu 1137 6.4 195	21 W 1752 0.1 4	1826 1.6 49	2322 6.2 189	1921 1.4 43	1808 0.6 17	2350 6.5 197	1826 1.6 49
7 Su 0012 6.2 189	22 M 0605 0.4 12	7 W 0117 5.2 160	22 Th 0036 5.8 178	7 W 0010 6.0 182	22 Th 0601 1.2 37	7 Su 0647 0.4 11	22 M 1206 6.0 183	7 W 1316 5.5 169	22 W 0617 1.3 41	22 Th 1128 6.4 196	7 Su 1308 6.1 185
1913 1.8 56	1831 1.5 47	2010 1.8 54	1938 1.1 35	7 W 1156 6.1 186	22 Th 1831 0.4 12	1913 1.8 56	2010 1.8 54	1938 1.1 35	1841 1.0 30	22 Th 1201 6.1 187	1913 1.8 56
8 M 0102 5.7 174	23 Tu 0003 5.9 181	8 Th 0213 4.8 145	23 F 0129 5.4 164	8 Th 0042 5.5 168	23 F 0030 6.1 185	8 M 0729 1.1 35	23 Tu 0640 0.9 26	8 Th 1402 5.2 158	23 F 0645 2.0 62	23 F 0638 1.9 58	8 M 1345 5.7 175
2007 2.1 63	1235 5.8 178	2118 2.1 63	2041 1.4 43	8 Th 1315 5.6 170	23 F 1222 5.8 176	2007 2.1 63	1915 1.6 50	2041 1.4 43	1917 1.4 44	23 F 1201 6.1 187	2007 2.1 63
9 Tu 0202 5.2 158	24 W 0052 5.6 171	9 F 0344 4.4 134	24 Sa 0246 4.9 150	9 F 0125 5.0 153	24 Sa 0119 5.6 170	9 Tu 0816 1.9 49	24 W 0720 1.4 43	9 F 1521 4.9 148	24 F 0717 2.7 83	24 F 0722 2.6 79	9 O 2114 2.2 67
1430 5.5 167	1313 5.7 173	2251 2.1 64	2211 1.5 45	24 Sa 1426 5.2 159	24 O 2005 1.9 59	1430 5.5 167	2010 1.7 53	2251 2.1 64	2211 1.5 45	24 O 1245 5.7 173	1430 5.5 167
O 2114 2.2 67	1313 5.7 173	2251 2.1 64	2211 1.5 45	24 Sa 1426 5.2 159	24 O 2005 1.9 59	2114 2.2 67	2010 1.7 53	2251 2.1 64	2211 1.5 45	24 O 2027 1.3 40	2114 2.2 67
10 W 0318 4.8 147	25 Th 0155 5.2 160	10 Sa 0542 4.5 137	25 Su 0451 4.8 147	10 Th 0235 4.6 139	25 Th 0237 5.1 155	10 W 0917 2.6 79	25 Th 0811 2.0 62	10 Sa 1125 3.3 102	25 Th 0808 3.3 102	25 Th 0833 3.2 98	10 W 1531 5.3 162
1531 5.3 162	1406 5.5 167	1659 4.9 148	1622 5.1 155	10 Sa 1356 4.8 147	25 Th 1356 2.3 71	2235 2.1 65	2123 1.7 52	1659 4.9 148	2127 2.3 71	25 Th 1400 5.2 158	2235 2.1 65
2235 2.1 65	● 2123 1.7 52	1810 5.1 156	2346 1.1 34	10 Sa 1356 4.8 147	25 Th 2147 1.6 50	2235 2.1 65	2249 1.4 44	1810 5.1 156	2127 2.3 71	25 Th 2147 1.6 50	2235 2.1 65
11 Th 0451 4.7 143	26 F 0319 5.0 151	11 Su 0013 1.8 54	26 M 0642 5.2 159	11 Th 0446 4.4 135	26 M 0448 5.0 152	1043 3.0 90	26 F 0925 2.6 78	11 Su 0708 4.9 148	26 M 1029 3.6 111	26 M 1043 3.3 102	1043 3.0 90
1643 5.3 161	1521 5.3 163	1250 3.0 91	1232 2.8 84	11 Su 1250 3.0 91	26 M 1621 5.1 154	2349 1.8 54	2249 1.4 44	1250 3.0 91	1607 4.6 140	26 M 1621 5.1 154	2349 1.8 54
2349 1.8 54	2249 1.4 44	1810 5.1 156	2346 1.1 34	11 Su 1803 5.4 166	26 M 2320 2.3 70	2349 1.8 54	2249 1.4 44	1810 5.1 156	2320 2.3 70	26 M 2327 1.5 45	2349 1.8 54
12 F 0622 4.9 150	27 Sa 0506 5.0 152	12 M 0112 1.3 40	27 Tu 0101 0.5 15	12 Th 0632 4.8 145	27 Th 0631 5.4 164	1207 2.9 89	27 Sa 1108 2.8 85	12 M 0759 5.2 160	27 Tu 1229 3.2 84	27 Tu 1225 2.8 84	1207 2.9 89
1747 5.4 166	1651 5.4 166	1340 2.5 77	1338 2.1 64	12 M 1340 2.5 77	27 M 1741 4.8 147	1747 5.4 166	1914 6.2 188	1340 2.5 77	1917 6.0 182	27 M 1741 4.8 147	1747 5.4 166
13 Sa 0048 1.3 41	28 Su 0008 0.9 26	13 Tu 0157 0.9 26	28 W 0200 -0.2 -5	13 Th 0041 1.9 57	28 W 0046 1.0 30	0726 5.2 160	28 Su 0643 5.4 164	13 Tu 0836 5.6 171	28 W 0730 5.2 158	28 W 0734 5.9 180	0726 5.2 160
1308 2.7 81	1238 2.5 77	1419 2.1 63	1428 1.4 42	13 Th 1419 2.1 63	28 W 1321 2.7 81	1308 2.7 81	1809 5.8 176	1419 2.1 63	1841 5.3 161	28 W 1325 2.0 60	1308 2.7 81
1839 5.7 173	1809 5.8 176	1945 5.8 178	2019 6.5 197	13 Th 1945 5.8 178	28 W 1841 5.3 161	1839 5.7 173	2108 6.8 208	2019 6.5 197	1919 6.0 184	28 W 1919 6.0 184	1839 5.7 173
14 Su 0134 0.9 27	29 M 0113 0.2 5	14 W 0234 0.4 12	14 W 0808 5.9 179	14 Th 0132 1.3 41	29 Th 0144 0.5 14	0812 5.6 170	29 M 0755 5.9 179	14 W 1452 1.7 51	14 W 1358 2.1 63	29 W 0820 6.4 194	0812 5.6 170
1354 2.4 72	1343 2.1 64	2024 6.1 187	2024 6.1 187	14 Th 1452 1.7 51	29 Th 1412 1.2 36	1921 5.9 181	1914 6.2 188	2024 6.1 187	1929 5.7 174	29 Th 2017 6.5 199	1921 5.9 181
1432 2.1 64	1436 1.6 48	1525 1.3 40	2101 6.4 194	15 Th 1525 1.3 40	15 Th 0211 0.9 26	1958 6.2 188	2103 6.6 200	1525 1.3 40	2111 6.1 187	15 Th 2104 6.9 209	1958 6.2 188
1958 6.2 188	31 W 0301 -1.0 -32	15 W 0852 6.3 192	15 W 0938 6.1 186	15 Th 0938 6.1 186	15 Th 0231 0.1 2	31 W 0940 6.6 202	15 W 1523 1.1 35	15 W 1523 1.1 35	31 W 1530 0.1 4	31 W 0931 6.9 209	31 W 1530 0.1 4
O 2108 6.8 208	O 2108 6.8 208	O 2108 6.8 208	O 2108 6.8 208	O 2108 6.8 208	O 2108 6.8 208	O 2145 7.0 213	O 2145 7.0 213	O 2145 7.0 213			

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Moji, Japan, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0348	0.0	-1	<b>16</b>	0325	0.6	17	<b>1</b>	0356	1.2	37
	0959	6.9	211	M	0927	6.9	210	Tu	0936	7.0	213
	1605	-0.1	-2		1545	-0.1	-3		1612	0.1	2
	2221	7.0	212	●	2154	7.1	216		2232	6.9	209
<b>2</b> M	0422	0.3	8	<b>17</b>	0401	0.6	18	<b>2</b>	0426	1.5	47
	1020	6.9	209	Tu	0953	7.0	213	W	0957	7.0	212
	1638	-0.1	-3		1621	-0.3	-10		1642	0.2	6
	2252	6.8	207		2233	7.1	217		2300	6.7	204
<b>3</b> Tu	0452	0.7	21	<b>18</b>	0436	0.8	25	<b>3</b>	0455	1.9	57
	1037	6.8	206	W	1016	7.0	213	Th	1021	6.8	208
	1709	0.1	2		1658	-0.4	-11		1712	0.5	14
	2320	6.5	199		2311	7.0	213		2328	6.5	198
<b>4</b> W	0521	1.2	37	<b>19</b>	0512	1.2	38	<b>4</b>	0524	2.3	69
	1055	6.6	202	Th	1040	6.9	210	F	1049	6.6	202
	1738	0.4	12		1737	-0.2	-5		1742	0.8	25
	2347	6.2	190		2349	6.7	205		2358	6.2	190
<b>5</b> Th	0548	1.8	54	<b>20</b>	0549	1.8	54	<b>5</b>	0554	2.7	81
	1117	6.4	194	F	1109	6.7	204	Sa	1121	6.3	193
	1807	0.8	24		1818	0.2	7		1814	1.3	39
<b>6</b> F	0017	5.9	179	<b>21</b>	0031	6.3	192	<b>6</b>	0032	5.9	180
	0616	2.4	72	Sa	0630	2.4	73	Su	0629	3.1	93
	1145	6.0	184		1147	6.3	193		1158	5.9	181
	1840	1.3	39		1906	0.8	24		1852	1.8	54
<b>7</b> Sa	0054	5.4	166	<b>22</b>	0123	5.8	178	<b>7</b>	0118	5.5	169
	0648	2.9	88	Su	0720	3.0	91	M	0715	3.4	104
	1219	5.6	170		1239	5.8	178		1247	5.5	168
	1919	1.8	56		2006	1.4	42		1941	2.3	70
<b>8</b> Su	0147	5.0	153	<b>23</b>	0244	5.4	166	<b>8</b>	0232	5.3	161
	0734	3.4	104	M	0839	3.4	103	Tu	0830	3.7	112
	1308	5.1	155		1410	5.3	163		1414	5.1	156
	●	2018	2.4	72	●	2130	1.8	56		2054	2.7
<b>9</b> M	0337	4.8	145	<b>24</b>	0432	5.4	165	<b>9</b>	0412	5.3	161
	0918	3.8	145	Tu	1034	3.3	101	W	1025	3.5	108
	1507	4.7	143		1624	5.3	162		1605	5.2	157
	2202	2.6	80		2304	1.9	57		2229	2.8	84
<b>10</b> Tu	0527	4.9	150	<b>25</b>	0557	5.7	175	<b>10</b>	0525	5.5	169
	1140	3.5	106	W	1203	2.7	81	Th	1144	3.0	92
	1700	4.9	148		1756	5.7	174		1721	5.5	167
	2345	2.4	74						2349	2.5	77
<b>11</b> W	0634	5.3	161	<b>26</b>	0021	1.6	49	<b>11</b>	0617	5.9	180
	1242	2.9	87	Th	0657	6.1	187	Sa	1237	2.3	71
	1808	5.3	161		1302	1.9	57		1820	5.9	181
					1906	6.2	188				
<b>12</b> Th	0050	2.0	60	<b>27</b>	0120	1.3	39	<b>12</b>	0048	2.1	65
	0719	5.7	174	F	0742	6.5	198	Sa	0659	6.3	192
	1323	2.2	66		1348	1.2	36		1320	1.6	49
	1901	5.8	176		2002	6.6	200		1914	6.4	195
<b>13</b> F	0135	1.5	45	<b>28</b>	0206	1.0	31	<b>13</b>	0135	1.7	53
	0755	6.1	186	Sa	0819	6.8	206	W	0736	6.7	203
	1359	1.5	46		1428	0.6	18		1401	0.9	27
	1947	6.2	190		2047	6.8	208		2005	6.8	207
<b>14</b> Sa	0213	1.0	31	<b>29</b>	0246	1.0	29	<b>14</b>	0218	1.5	45
	0828	6.4	196	Su	0850	6.9	211	M	0811	7.0	212
	1434	0.9	26		1505	0.2	7		1441	0.3	9
	2031	6.6	202		2127	7.0	212		2054	7.1	217
<b>15</b> Su	0250	0.7	21	<b>30</b>	0323	1.0	31	<b>15</b>	0258	1.3	41
	0859	6.7	204	M	0915	7.0	213	Tu	0844	7.2	219
	1509	0.3	10		1540	0.1	2		1521	-0.2	-5
	2114	6.9	211		●	2201	6.9	211		2140	7.3
<b>31</b>	0403	2.2	68	<b>31</b>	0403	2.2	68	<b>14</b>	0320	2.1	63
	0926	7.1	217	Th	0926	7.1	217	W	0831	7.1	215
	1620	0.5	16		1620	0.5	16		1515	0.5	15
									2142	6.9	211
<b>16</b> Sa	0449	2.2	67	<b>31</b>	0403	2.2	68	<b>15</b>	0405	2.1	64
	1020	7.5	230	Th	0926	7.1	217	W	0858	7.1	217
	1716	-0.2	-5		1620	0.5	16		1548	0.4	13
	2349	7.3	222		2213	6.9	210		2213	6.9	208

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Moji, Japan, 2018

Times and Heights of High and Low Waters

July				August				September				
	Time	Height			Time	Height			Time	Height		
	h m	ft cm		h m	ft cm			h m	ft cm			
<b>1</b> <small>Su</small>	0449	2.7 83		<b>16</b> <small>M</small>	0524	2.2 66	<b>1</b> <small>W</small>	0539	2.5 77	<b>16</b> <small>Th</small>	0013	7.5 228
1015	7.2 220			1114	7.7 235	1113	7.3 222	0626	2.0 62	0629	2.1 65	
1706	1.0 32			1748	0.4 12	1751	1.6 49	1230	7.2 219	1216	7.0 214	
2326	6.9 210				2354	7.1 216	1840	2.2 66	1833	2.7 83	1809	2.5 76
<b>2</b> <small>M</small>	0523	2.8 85		<b>17</b> <small>Tu</small>	0017	7.5 228	<b>2</b> <small>Th</small>	0616	2.6 79	<b>2</b> <small>Su</small>	0006	7.1 217
1050	7.1 216			0608	2.3 69	1152	7.1 215	0708	2.4 72	0713	2.4 72	
1739	1.3 40			1203	7.4 226	1824	2.0 62	1312	6.7 203	1305	6.7 203	
2356	6.8 206			1830	1.0 31			1916	3.0 91	1915	3.4 103	
<b>3</b> <small>Tu</small>	0558	2.9 89		<b>18</b> <small>W</small>	0054	7.2 220	<b>3</b> <small>F</small>	0019	7.0 213	<b>3</b> <small>M</small>	0047	6.9 209
1128	6.9 210			0654	2.5 75	0656	2.7 82	0755	2.8 84	0810	2.6 79	
1813	1.6 50			1253	7.0 213	1237	6.8 207	1406	6.2 188	1413	6.2 190	
				1913	1.8 55	1901	2.6 78	1959	3.7 114	2013	4.0 121	
<b>4</b> <small>W</small>	0027	6.6 202		<b>19</b> <small>Th</small>	0129	7.0 212	<b>4</b> <small>Sa</small>	0052	6.9 209	<b>4</b> <small>Tu</small>	0150	6.5 198
0638	3.0 92			0744	2.7 81	0745	2.8 86	0858	3.1 94	0930	2.7 83	
1211	6.6 201			1348	6.5 199	1332	6.5 197	1529	5.8 177	1604	6.1 185	
1850	2.1 63			1958	2.6 80	1946	3.1 95	2107	4.3 132	2155	4.4 133	
<b>5</b> <small>Th</small>	0102	6.5 198		<b>20</b> <small>F</small>	0210	6.7 203	<b>5</b> <small>Su</small>	0137	6.7 203	<b>5</b> <small>W</small>	0339	6.3 193
0726	3.1 96			0843	2.9 88	0847	2.9 87	0302	6.2 189	1104	2.5 76	
1305	6.3 193			1453	6.1 186	1444	6.2 189	1023	3.2 98	1754	6.3 193	
1933	2.5 76			2053	3.3 102	2047	3.6 111	2258	4.5 138	2348	4.1 125	
<b>6</b> <small>F</small>	0146	6.4 194		<b>21</b> <small>Sa</small>	0302	6.5 197	<b>6</b> <small>M</small>	0242	6.5 199	<b>6</b> <small>Th</small>	0523	6.6 202
0825	3.2 93			0955	3.0 90	1006	2.7 83	1147	3.0 90	1224	1.9 59	
1411	6.1 186			1615	5.9 180	1620	6.2 188	1842	6.1 187	1909	6.8 208	
●	2027	3.0 90		2206	3.8 117	2218	4.0 121					
<b>7</b> <small>Sa</small>	0244	6.3 192		<b>22</b> <small>Su</small>	0408	6.4 194	<b>7</b> <small>Tu</small>	0409	6.5 199	<b>7</b> <small>F</small>	0102	3.5 106
0937	3.0 92			1112	2.8 85	1127	2.3 70	0027	4.2 129	0635	3.5 217	
1531	6.0 184			1745	6.0 182	1755	6.4 196	0550	6.4 194	1327	1.3 39	
2137	3.3 100			2332	4.0 121	2355	3.9 118	1251	2.6 80	2006	7.3 223	
<b>8</b> <small>Su</small>	0352	6.4 194		<b>23</b> <small>M</small>	0516	6.4 196	<b>8</b> <small>W</small>	0530	6.8 208	<b>8</b> <small>Sa</small>	0122	3.8 116
1052	2.6 80			1218	2.5 75	1238	1.7 52	0643	6.7 204	0738	7.6 232	
1653	6.2 188			1858	6.2 190	1912	6.8 208	1339	2.2 67	1420	0.7 22	
2301	3.4 104							2015	6.8 208	2052	7.7 235	
<b>9</b> <small>M</small>	0458	6.6 201		<b>24</b> <small>Tu</small>	0043	3.8 116	<b>9</b> <small>Th</small>	0108	3.5 106	<b>9</b> <small>Su</small>	0243	2.1 64
1159	2.0 62			0613	6.6 202	0635	7.2 220	0635	7.1 194	0836	8.0 244	
1811	6.5 198			1312	2.1 64	1339	1.0 32	1339	2.2 67	1506	0.4 12	
				1952	6.5 199	2016	7.3 221	2016	7.1 215	2133	7.9 242	
<b>10</b> <small>Tu</small>	0018	3.3 100		<b>25</b> <small>W</small>	0136	3.5 108	<b>10</b> <small>F</small>	0206	3.0 91	<b>10</b> <small>Sa</small>	0237	3.0 90
0557	6.9 210			0659	6.9 209	0734	7.6 233	0734	7.3 223	0804	7.3 223	
1259	1.4 42			1357	1.7 53	1433	0.5 14	1433	1.5 45	1453	0.4 11	
1920	6.9 209			2034	6.8 207	2110	7.6 232	2110	7.3 221	2118	8.0 245	
<b>11</b> <small>W</small>	0122	3.1 93		<b>26</b> <small>Th</small>	0218	3.2 99	<b>11</b> <small>Sa</small>	0256	2.5 76	<b>11</b> <small>Tu</small>	0309	2.6 79
0650	7.3 221			0739	7.1 216	0833	7.9 242	0840	7.5 230	1013	8.2 249	
1353	0.7 22			1436	1.4 44	1522	0.1 3	1525	1.3 39	1626	0.6 19	
2022	7.2 220			2109	7.0 213	2157	7.9 240	2146	7.4 225	2240	8.0 243	
<b>12</b> <small>Th</small>	0217	2.8 84		<b>27</b> <small>F</small>	0254	3.0 92	<b>12</b> <small>Su</small>	0342	2.1 64	<b>12</b> <small>W</small>	0444	1.2 36
0742	7.5 230			0816	7.3 222	0930	8.1 248	0916	7.7 234	1053	8.0 243	
1444	0.2 6			1512	1.2 38	1607	0.0 0	1556	1.1 35	1702	1.1 34	
2118	7.5 229			2141	7.1 217	2238	7.9 242	2213	7.5 228	2304	7.8 238	
<b>13</b> <small>F</small>	0307	2.5 76		<b>28</b> <small>Sa</small>	0328	2.8 85	<b>13</b> <small>M</small>	0425	1.8 56	<b>13</b> <small>Tu</small>	0520	1.3 39
0834	7.8 237			0851	7.4 227	1022	8.1 248	0952	7.7 235	1129	7.6 232	
1533	-0.1 -4			1545	1.1 33	1648	0.2 6	1626	1.2 36	1735	1.8 54	
●	2209	7.7 234		2211	7.2 219	2314	7.9 241	2238	7.5 229	2324	7.6 231	
<b>14</b> <small>Sa</small>	0354	2.3 70		<b>29</b> <small>Su</small>	0400	2.7 81	<b>14</b> <small>Tu</small>	0506	1.7 53	<b>14</b> <small>W</small>	0445	2.0 60
0929	7.9 241			0927	7.5 229	1108	8.0 243	1026	7.6 233	1806	2.5 76	
1620	-0.2 -7			1617	1.0 32	1727	0.7 20	1657	1.3 41	2343	7.3 222	
2256	7.7 235			2239	7.2 220	2346	7.7 236	2258	7.5 228			
<b>15</b> <small>Su</small>	0439	2.2 67		<b>30</b> <small>M</small>	0433	2.6 78	<b>15</b> <small>W</small>	0546	1.8 55	<b>15</b> <small>Th</small>	0517	1.9 59
1023	7.9 240			1002	7.5 229	1150	7.6 233	1026	7.5 230	1100	7.5 230	
1705	-0.1 -2			1648	1.1 34	1804	1.3 41	1657	1.3 41	1727	1.7 52	
2338	7.6 233			2306	7.2 220			2258	7.5 228	2316	7.4 226	
				<b>31</b> <small>Tu</small>	0505	2.5 77				<b>31</b> <small>F</small>	0552	2.0 61
				1037	7.4 226					1136	7.3 223	
				1719	1.3 40					1759	2.2 66	
				2331	7.2 219					2337	7.3 223	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Moji, Japan, 2018

Times and Heights of High and Low Waters

October					November					December					
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0651	1.8	56	<b>16</b> Tu	0004	6.4	194	<b>1</b> Th	0121	6.0	182	<b>16</b> F	0151	5.3	161
	1251	6.6	201		0711	2.6	79		0850	2.2	67		0833	2.9	87
	1856	3.5	108		1342	5.8	176		1550	5.9	180		1555	5.4	166
					1929	4.2	129	<b>O</b>	2146	3.8	117		2209	3.7	114
<b>2</b> Tu	0015	6.8	206	<b>17</b> W	0057	5.8	178	<b>2</b> F	0337	5.8	176	<b>17</b> Sa	0348	5.2	159
	0747	2.3	69		0811	3.1	95		1022	2.3	71		1007	3.0	92
	1401	6.1	187		1535	5.5	169		1718	6.1	187		1709	5.7	173
<b>O</b>	1959	4.1	125	<b>O</b>	2118	4.5	137		2324	3.2	99		2330	3.2	98
<b>3</b> W	0121	6.3	191	<b>18</b> Th	0259	5.4	166	<b>3</b> Sa	0518	6.1	186	<b>18</b> Su	0508	5.5	167
	0907	2.6	79		0953	3.3	102		1144	2.1	64		1129	2.8	86
	1603	6.0	182		1717	5.7	175		1821	6.5	199		1800	6.0	183
	2152	4.3	132												
<b>4</b> Th	0335	6.0	184	<b>19</b> F	0450	5.6	171	<b>4</b> Su	0030	2.4	74	<b>19</b> M	0023	2.5	77
	1046	2.5	77		1131	3.1	96		0631	6.6	200		0608	5.9	180
	1747	6.3	192		1817	6.1	186		1248	1.8	54		1229	2.5	75
	2343	3.8	117						1909	6.9	211		1841	6.4	194
<b>5</b> F	0525	6.4	195	<b>20</b> Sa	0027	3.5	107	<b>5</b> M	0120	1.6	50	<b>20</b> Tu	0104	1.8	55
	1209	2.1	63		0555	6.0	184		0730	7.0	213		0700	6.3	193
	1854	6.8	207		1233	2.8	84		1339	1.5	45		1315	2.1	64
					1858	6.5	197		1949	7.2	220		1916	6.7	204
<b>6</b> Sa	0051	3.1	93	<b>21</b> Su	0107	2.8	86	<b>6</b> Tu	0203	1.0	29	<b>21</b> W	0143	1.1	33
	0638	7.0	212		0645	6.5	198		0820	7.3	221		0747	6.7	204
	1312	1.5	46		1317	2.3	70		1422	1.3	41		1357	1.8	55
	1943	7.3	221		1932	6.8	208		2023	7.4	225		1949	7.0	213
<b>7</b> Su	0141	2.2	67	<b>22</b> M	0142	2.2	66	<b>7</b> W	0243	0.5	15	<b>22</b> Th	0221	0.5	14
	0739	7.4	227		0728	6.9	210		0904	7.4	225		0833	7.0	214
	1402	1.0	32		1354	1.9	57		1501	1.4	42		1436	1.6	49
	2024	7.6	231		2003	7.1	217		2051	7.4	227		2020	7.2	219
<b>8</b> M	0225	1.5	45	<b>23</b> Tu	0215	1.6	48	<b>8</b> Th	0320	0.2	7	<b>23</b> F	0300	0.0	0
	0831	7.8	238		0810	7.2	220		0943	7.4	225		0916	7.2	219
	1446	0.8	25		1429	1.6	48		1537	1.5	47		1516	1.5	47
	2101	7.8	238		2032	7.3	224	<b>O</b>	2115	7.4	227		2050	7.3	223
<b>9</b> Tu	0305	1.0	29	<b>24</b> W	0249	1.0	32	<b>9</b> F	0355	0.2	6	<b>24</b> Sa	0339	-0.3	-10
	0917	7.9	242		0850	7.4	227		1017	7.3	221		0959	7.3	221
	1525	0.9	26		1503	1.4	43		1610	1.8	56		1555	1.6	50
<b>O</b>	2132	7.9	240		2059	7.5	229		2137	7.3	224		2121	7.3	224
<b>10</b> W	0343	0.7	21	<b>25</b> Th	0324	0.7	20	<b>10</b> Sa	0428	0.3	10	<b>25</b> Su	0419	-0.5	-14
	0958	7.9	241		0929	7.6	231		1048	7.0	214		1041	7.2	219
	1601	1.1	34		1538	1.4	43		1641	2.2	67		1634	1.8	56
	2157	7.8	238		2124	7.6	231		2202	7.2	220		2154	7.3	222
<b>11</b> Th	0419	0.6	19	<b>26</b> F	0359	0.4	12	<b>11</b> Su	0459	0.6	18	<b>26</b> M	0501	-0.3	-10
	1035	7.7	235		1008	7.6	231		1116	6.8	206		1123	7.0	212
	1635	1.5	47		1612	1.6	49		1711	2.6	78		1715	2.1	65
	2217	7.7	234		2146	7.6	231		2231	7.0	213		2232	7.1	215
<b>12</b> F	0452	0.8	24	<b>27</b> Sa	0435	0.3	10	<b>12</b> M	0530	1.0	29	<b>27</b> Tu	0544	0.0	0
	1107	7.4	226		1045	7.4	227		1146	6.5	197		1207	6.7	203
	1706	2.1	64		1647	1.9	58		1742	2.9	89		1759	2.5	76
	2236	7.5	228		2209	7.5	228		2303	6.7	203		2316	6.7	205
<b>13</b> Sa	0524	1.1	33	<b>28</b> Su	0513	0.5	14	<b>13</b> Tu	0602	1.4	43	<b>28</b> W	0631	0.5	15
	1137	7.0	214		1123	7.2	220		1220	6.1	187		1256	6.3	192
	1735	2.7	81		1724	2.4	72		1817	3.3	101		1850	2.8	86
	2259	7.2	220		2238	7.3	222		2341	6.2	190				
<b>14</b> Su	0556	1.5	46	<b>29</b> M	0553	0.8	23	<b>14</b> W	0639	1.9	59	<b>29</b> F	0011	6.3	191
	1208	6.6	202		1203	6.9	209		1304	5.8	177		0724	1.1	34
	1805	3.2	98		1803	2.9	88		1902	3.6	111		1358	6.0	182
	2328	6.8	208		2315	7.0	212						1956	3.1	93
<b>15</b> M	0630	2.0	62	<b>30</b> Tu	0638	1.2	37	<b>15</b> Th	0029	5.7	175	<b>30</b> F	0132	5.8	176
	1245	6.2	189		1252	6.4	195		0725	2.4	74		0828	1.7	52
	1840	3.8	115		1851	3.4	104		1415	5.5	168		1513	5.8	177
								<b>O</b>	2015	3.9	118		2121	3.0	92
				<b>31</b> W	0004	6.5	198								
					0734	1.8	54								
					1403	6.0	183								
					2000	3.8	116								

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sasebo, Japan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0124	- 0.5	- 14	16 Tu 0159	0.5	15	1 Th 0251	- 1.3	- 41	1 Th 0154	- 0.5	- 15
0804	9.1	276	0841	8.0	245	0928	9.4	288	0828	9.1	278
1357	2.5	76	1428	2.9	88	1523	1.7	52	1426	1.7	52
1937	8.9	271	2000	8.0	243	2105	9.2	279	2013	9.0	275
2 Tu 0212	- 1.1	- 33	17 W 0232	0.2	6	2034	- 1.3	- 39	2037	- 0.8	- 23
0854	9.5	289	0911	8.3	252	1007	9.4	288	0904	9.4	286
1447	2.3	71	1500	2.7	82	1603	1.5	46	1504	1.2	36
○ 2024	9.1	277	● 2033	8.2	249	2149	9.1	276	2056	9.3	284
3 W 0259	- 1.4	- 42	18 Th 0304	0.0	1	0415	- 0.9	- 27	0318	0.1	2
0941	9.6	293	0939	8.4	255	1042	9.2	279	1008	8.7	264
1534	2.2	68	1531	2.5	77	1642	1.5	45	1612	1.5	45
2111	9.1	277	2106	8.2	251	2231	8.7	265	2201	8.5	260
4 Th 0346	- 1.3	- 40	19 F 0335	0.0	0	0454	- 0.2	- 5	0421	0.3	10
1027	9.5	289	1008	8.4	255	1114	8.7	266	1035	8.6	261
1619	2.3	69	1603	2.4	74	1720	1.6	49	1645	1.4	42
2157	8.9	270	2139	8.2	250	2313	8.1	246	2237	8.3	254
5 F 0431	- 0.9	- 27	20 Sa 0407	0.1	3	0530	0.8	24	0454	0.8	24
1110	9.1	278	1036	8.3	253	1145	8.2	249	1103	8.3	254
1704	2.4	72	1635	2.4	73	1758	1.9	57	1720	1.4	43
2243	8.4	257	2212	8.0	245	2356	7.3	223	2317	7.9	242
6 Sa 0515	- 0.2	- 6	21 Su 0439	0.4	12	0606	1.8	55	0530	1.5	45
1152	8.6	263	1105	8.1	248	1215	7.6	232	1135	8.0	244
1750	2.6	78	1709	2.4	73	1840	2.2	68	1801	1.6	48
2331	7.8	237	2249	7.7	236						
7 Su 0558	0.8	23	22 M 0513	0.8	25	0045	6.6	200	0005	7.4	225
1232	8.0	245	1137	7.9	241	0643	2.8	85	0610	2.3	70
1838	2.8	85	1747	2.5	75	1248	7.0	214	1212	7.5	230
			2330	7.3	224	1929	2.6	79	1850	1.8	55
8 M 0024	7.1	215	23 Tu 0551	1.4	43	0153	5.9	179	0106	6.8	207
0643	1.7	53	1212	7.6	232	0729	3.7	113	0659	3.2	97
1315	7.5	228	1832	2.5	77	1334	6.5	198	1259	7.0	214
1933	3.0	91				○ 2038	2.9	87	○ 1955	2.0	62
9 Tu 0130	6.4	194	24 W 0021	6.9	210	0346	5.6	170	0237	6.4	194
0733	2.7	83	0635	2.1	64	0845	4.4	134	0812	4.0	123
1405	7.0	214	1255	7.3	222	1449	6.1	187	1414	6.6	200
○ 2040	3.1	93	1928	2.5	77	2213	2.8	85	2124	2.1	63
10 W 0301	5.9	180	25 Th 0129	6.4	196	0539	5.9	179	0438	6.5	198
0837	3.5	107	0730	2.9	88	1054	4.6	139	1014	4.4	133
1506	6.7	204	1352	7.0	213	1628	6.1	186	1603	6.5	198
2200	2.9	87	○ 2038	2.4	74	2334	2.4	72	2259	1.6	49
11 Th 0442	5.9	181	26 F 0302	6.2	190	0641	6.4	196	0606	7.2	218
1001	4.0	121	0846	3.5	108	1216	4.2	127	1159	3.9	120
1614	6.6	202	1506	6.8	208	1740	6.4	196	M 1732	7.0	213
2311	2.4	74	2200	2.0	62				11 0453	5.8	178
12 F 0601	6.3	193	27 Sa 0446	6.5	199	0028	1.8	55	0011	0.9	26
1126	4.0	123	1025	3.8	117	0722	7.0	213	0704	7.9	242
1714	6.8	206	1628	7.0	212	1304	3.7	112	1259	3.2	97
			2317	1.3	40	1831	6.9	210	1835	7.7	236
13 Sa 0005	1.9	58	28 Su 0609	7.2	220	0108	1.2	38	0106	0.1	2
0655	6.8	208	1156	3.6	111	0754	7.5	228	0749	8.6	263
1228	3.8	116	1739	7.4	225	1341	3.2	97	1345	2.4	73
1804	7.1	215				1911	7.4	225	1927	8.5	259
14 Su 0048	1.4	42	29 M 0020	0.5	14	0144	0.8	23	0144	1.8	56
0735	7.3	223	0710	8.0	244	0823	7.9	241	0725	7.4	227
1315	3.5	106	1301	3.1	96	1413	2.7	83	1318	3.1	96
1847	7.4	225	1839	7.9	242	1947	7.8	239	1853	7.3	223
15 M 0125	0.9	27	30 Tu 0115	- 0.4	- 11	0216	0.4	11	0120	1.3	40
0809	7.7	235	0801	8.7	266	0850	8.2	251	0752	7.9	242
1353	3.2	97	1354	2.6	79	1443	2.3	71	1348	2.6	78
1925	7.7	235	1931	8.5	260	2021	8.2	250	1930	7.9	241
			31 W 0205	- 1.0	- 31				0217	0.3	10
			0846	9.2	281				0830	9.3	282
			1440	2.1	64				1439	0.9	26
			○ 2019	9.0	273				2044	9.4	285

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sasebo, Japan, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0255	0.5	14	<b>16</b> M	0230	1.1	35	<b>1</b> Tu	0306	2.1	64	<b>16</b> W	0246	2.2	66
	0859	9.3	282		0832	9.2	280		0850	9.0	274		0833	9.5	289
	1512	0.6	17		1447	0.5	14		1516	0.5	16		1501	- 0.2	- 7
	2122	9.3	284	●	2058	9.5	289		2143	9.1	277		2131	9.9	301
<b>2</b> M	0330	0.9	27	<b>17</b> Tu	0306	1.2	38	<b>2</b> W	0340	2.5	75	<b>17</b> Th	0329	2.4	74
	0927	9.1	278		0902	9.3	283		0918	8.8	268		0911	9.4	287
	1544	0.5	15		1522	0.1	2		1547	0.6	19		1544	- 0.3	- 9
	2159	9.1	277		2139	9.6	292		2218	8.8	268		2219	9.7	297
<b>3</b> Tu	0403	1.4	44	<b>18</b> W	0344	1.5	47	<b>3</b> Th	0412	2.9	89	<b>18</b> F	0414	2.8	86
	0953	8.8	269		0934	9.2	281		0947	8.5	260		0952	9.1	278
	1615	0.6	19		1559	0.0	- 1		1618	0.9	27		1628	- 0.1	- 2
	2234	8.6	263		2221	9.4	286		2252	8.4	257		2309	9.4	285
<b>4</b> W	0435	2.1	64	<b>19</b> Th	0423	2.1	64	<b>4</b> F	0445	3.4	103	<b>19</b> Sa	0501	3.3	102
	1019	8.5	258		1008	8.9	272		1016	8.1	248		1035	8.7	264
	1646	0.9	28		1639	0.1	4		1650	1.3	40		1716	0.5	14
	2309	8.1	247		2308	9.0	273		2329	8.0	243				
<b>5</b> Th	0506	2.8	86	<b>20</b> F	0504	2.8	85	<b>5</b> Sa	0520	3.9	118	<b>20</b> Su	0004	8.8	269
	1045	8.0	244		1044	8.4	257		1048	7.7	235		0553	3.9	118
	1717	1.4	42		1723	0.6	18		1725	1.8	55		1125	8.1	246
	2347	7.5	228									1810	1.2	36	
<b>6</b> F	0538	3.5	107	<b>21</b> Sa	0001	8.3	254	<b>6</b> Su	0011	7.5	228	<b>21</b> M	0106	8.3	253
	1113	7.4	227		0551	3.5	108		0600	4.3	132		0655	4.3	130
	1752	1.9	59		1126	7.8	238		1124	7.2	219		1228	7.4	227
					1815	1.2	37		1807	2.4	73		1912	1.9	59
<b>7</b> Sa	0032	6.9	209	<b>22</b> Su	0106	7.7	235	<b>7</b> M	0106	7.0	214	<b>22</b> Tu	0218	7.9	241
	0616	4.2	127		0650	4.3	130		0654	4.7	144		0815	4.4	135
	1146	6.9	210		1222	7.1	217		1214	6.6	202		1356	7.0	213
	1836	2.5	77		1920	1.9	59		1901	3.0	90		2027	2.6	79
<b>8</b> Su	0140	6.3	193	<b>23</b> M	0234	7.3	222	<b>8</b> Tu	0225	6.8	206	<b>23</b> W	0333	7.8	237
	0712	4.8	145		0820	4.7	142		0822	4.9	150		0945	4.1	126
	1235	6.3	191		1354	6.6	200		1336	6.2	189		1537	7.0	212
	01942	3.1	94	●	2047	2.4	73	●	2020	3.4	103		2148	2.9	89
<b>9</b> M	0337	6.2	188	<b>24</b> Tu	0411	7.3	223	<b>9</b> W	0355	6.8	208	<b>24</b> Th	0437	7.9	241
	0917	5.0	153		1017	4.4	135		1009	4.6	141		1057	3.5	107
	1423	5.8	177		1554	6.6	201		1531	6.2	188		1659	7.3	223
	2133	3.3	101		2222	2.4	74		2155	3.4	104		2259	3.0	92
<b>10</b> Tu	0514	6.5	198	<b>25</b> W	0521	7.7	234	<b>10</b> Th	0459	7.2	219	<b>25</b> F	0527	8.1	248
	1118	4.6	139		1132	3.6	111		1114	4.0	122		1149	2.8	85
	1630	6.0	183		1719	7.2	219		1653	6.7	203		1802	7.8	238
	2307	3.0	92		2333	2.1	65		2305	3.1	96		2357	3.0	91
<b>11</b> W	0605	7.0	213	<b>26</b> Th	0610	8.1	248	<b>11</b> F	0542	7.6	233	<b>26</b> Sa	0607	8.4	256
	1209	3.9	119		1221	2.8	85		1156	3.2	98		1232	2.1	64
	1739	6.6	201		1818	7.9	240		1750	7.3	224		1853	8.3	253
					2357	2.8	85					11	0002	3.4	103
<b>12</b> Th	0002	2.5	77	<b>27</b> F	0027	1.8	56	<b>12</b> Sa	0617	8.1	248	<b>27</b> Tu	0046	3.2	97
	0640	7.5	229		0648	8.5	260		1232	2.4	72		0643	8.6	263
	1243	3.2	97		1301	2.0	60		1835	8.1	247		1310	1.5	47
	1826	7.3	223		1907	8.5	259					1937	8.7	265	
<b>13</b> F	0044	2.0	62	<b>28</b> Sa	0112	1.7	51	<b>13</b> Su	0041	2.5	75	<b>28</b> M	0128	3.0	90
	0709	8.0	245		0722	8.9	270		0649	8.6	263		0716	8.8	268
	1314	2.4	74		1337	1.3	40		1307	1.5	47		1435	1.1	35
	1906	8.0	244		1950	9.0	273		1918	8.8	268		2017	8.9	272
<b>14</b> Sa	0120	1.6	49	<b>29</b> Su	0153	1.6	50	<b>14</b> M	0123	2.2	67	<b>29</b> Tu	0208	3.0	92
	0736	8.5	259		0752	9.0	275		0722	9.1	276		0749	8.9	271
	1344	1.7	52		1411	0.9	26		1343	0.8	23		1419	0.9	27
	1943	8.7	264		2030	9.2	280		2001	9.4	286		2054	9.1	276
<b>15</b> Su	0155	1.3	39	<b>30</b> M	0231	1.8	55	<b>15</b> Tu	0204	2.1	64	<b>30</b> W	0245	3.1	95
	0803	8.9	271		0822	9.1	277		0756	9.4	285		0820	8.9	271
	1415	1.0	31		1444	0.6	17		1421	0.1	4		1452	0.8	26
	2020	9.2	279	○	2108	9.2	281	●	2045	9.7	297		2129	9.1	276
												<b>31</b> Th	0320	3.3	100
												0852	8.8	268	
												1524	0.9	26	
												2203	8.9	272	

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Heights are referred to the chart datum of soundings.

# Sasebo, Japan, 2018

Times and Heights of High and Low Waters

July				August				September							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> Su	0411	3.8	117	<b>16</b> M	0442	3.2	97	<b>1</b> W	0454	3.5	108	<b>16</b> Sa	0537	2.9	88
0941	8.8	268		1024	9.7	296	1035	8.9	271	1142	8.6	263			
1613	1.4	43		1656	0.6	17	1658	2.2	66	1747	3.7	112			
2250	8.9	270		2331	9.8	300	2319	9.0	275	2346	8.8	267			
<b>2</b> M	0445	3.9	120	<b>17</b> Tu	0529	3.3	100	<b>2</b> Th	0530	3.6	109	<b>2</b> Su	0624	3.1	94
1016	8.6	261		1115	9.2	280	1115	8.5	260	1240	8.1	247			
1647	1.7	53		1741	1.4	43	1734	2.7	83	1834	4.5	136			
2323	8.7	264					2352	8.8	268	1239	8.1	248			
<b>3</b> Tu	0521	4.1	124	<b>18</b> W	0013	9.4	285	<b>3</b> F	0612	3.6	111	<b>3</b> M	0031	8.3	253
1053	8.2	251		0617	3.4	105	1202	8.1	248	0724	3.3	101			
1723	2.2	66		1209	8.5	260	1815	3.3	102	1404	7.7	234			
2358	8.4	256		1827	2.4	73				1924	4.9	150			
<b>4</b> W	0603	4.2	127	<b>19</b> Th	0056	8.8	269	<b>4</b> Sa	0032	8.5	259	<b>4</b> Tu	0140	7.8	239
1136	7.8	239		0709	3.6	111	0702	3.7	112	0846	3.4	103			
1802	2.7	81		1312	7.9	240	1304	7.7	235	1556	7.7	235			
				1916	3.4	104	1904	4.0	123	2129	5.6	171			
<b>5</b> Th	0039	8.2	249	<b>20</b> F	0143	8.3	254	<b>5</b> Su	0122	8.2	250	<b>5</b> W	0324	7.7	236
0652	4.2	129		0810	3.8	115	0805	3.6	111	1020	3.0	92			
1229	7.4	227		1432	7.3	224	1427	7.5	228	1727	8.3	252			
1849	3.2	98		● 2015	4.3	131	2011	4.7	143	2318	5.2	160			
<b>6</b> F	0128	8.0	243	<b>21</b> Sa	0238	8.0	243	<b>6</b> M	0229	8.0	244	<b>6</b> Th	0456	8.2	249
0751	4.2	127		0922	3.7	114	0922	3.4	103	1111	2.3	70			
1340	7.2	218		1606	7.2	220	1605	7.6	233	1827	9.0	275			
● 1946	3.7	114		2130	4.9	150	2141	5.1	155						
<b>7</b> Sa	0226	7.9	241	<b>22</b> Su	0343	7.8	237	<b>7</b> Tu	0349	8.1	246	<b>7</b> F	0023	4.6	139
0900	3.9	118		1036	3.5	106	1040	2.8	86	0602	8.9	271			
1506	7.2	218		1729	7.4	227	1731	8.2	250	1233	1.5	46			
2058	4.2	127		2255	5.1	156	2315	5.0	152	1914	9.7	296			
<b>8</b> Su	0330	8.0	243	<b>23</b> M	0447	7.8	239	<b>8</b> W	0504	8.4	257	<b>8</b> Sa	0111	3.7	114
1009	3.3	101		1138	3.1	93	1147	2.0	62	0655	9.7	295			
1631	7.5	230		1830	7.9	240	1835	8.9	272	1323	0.9	27			
2217	4.3	132					1928	9.6	294	1955	10.2	312			
<b>9</b> M	0431	8.2	251	<b>24</b> Tu	0004	5.0	152	<b>9</b> Th	0026	4.6	140	<b>9</b> Su	0154	3.0	91
1110	2.6	78		0541	8.1	246	0606	9.0	274	0743	10.3	313			
1742	8.2	249		1226	2.6	79	1244	1.2	37	1408	0.6	17			
2330	4.3	130		1915	8.3	254	1928	9.6	294	2032	10.6	322			
<b>10</b> Tu	0527	8.6	263	<b>25</b> W	0055	4.7	143	<b>10</b> F	0121	4.0	123	<b>10</b> M	0234	2.4	73
1205	1.7	53		0627	8.4	255	0700	9.6	293	0730	9.1	277			
1842	8.9	270		1306	2.2	66	1335	0.5	16	1358	1.9	57			
				1952	8.7	266	2015	10.2	311	2029	9.4	286			
<b>11</b> W	0033	4.0	123	<b>26</b> Th	0136	4.4	134	<b>11</b> Sa	0210	3.5	106	<b>11</b> Tu	0313	2.0	61
0620	9.1	276		0707	8.7	265	0751	10.1	309	0803	9.4	287			
1256	0.9	28		1343	1.8	55	1423	0.1	3	1429	1.6	50			
1936	9.5	291		2025	9.0	275	● 2059	10.6	322	2055	9.6	292			
<b>12</b> Th	0129	3.8	115	<b>27</b> F	0212	4.1	125	<b>12</b> Su	0254	3.0	92	<b>12</b> W	0253	1.8	56
0710	9.5	290		0744	9.0	274	0838	10.4	318	0836	9.6	294			
1346	0.3	8		1417	1.5	47	1509	0.0	1	1500	1.6	48			
2027	10.0	306		2055	9.3	282	2140	10.7	325	2120	9.7	296			
<b>13</b> F	0220	3.5	107	<b>28</b> Sa	0245	3.9	118	<b>13</b> M	0337	2.7	83	<b>13</b> Tu	0322	3.1	93
0759	9.8	300		0819	9.2	280	0925	10.5	319	0909	9.7	296			
1435	-0.2	-5		1450	1.4	43	1553	0.3	10	1530	1.7	51			
● 2116	10.3	315		● 2124	9.4	285	2218	10.5	320	2146	9.7	297			
<b>14</b> Sa	0309	3.3	101	<b>29</b> Su	0317	3.7	113	<b>14</b> Tu	0419	2.6	79	<b>14</b> W	0352	2.9	87
0847	10.0	306		0853	9.3	283	1011	10.2	310	0942	9.7	295			
1523	-0.3	-8		1522	1.4	42	1634	1.0	30	1601	1.9	59			
2203	10.4	317		2153	9.4	286	2254	10.1	308	2212	9.6	294			
<b>15</b> Su	0356	3.2	97	<b>30</b> M	0349	3.6	110	<b>15</b> W	0500	2.7	81	<b>15</b> Th	0424	2.8	84
0935	10.0	304		0926	9.3	283	1057	9.6	294	1017	9.4	288			
1610	0.0	0		1554	1.5	46	1715	1.9	58	1634	2.4	72			
2248	10.2	311		2221	9.4	285	2328	9.6	292	2240	9.5	289			
				<b>31</b> Tu	0421	3.5	108	<b>31</b> F	0458	2.8	84				
				0959	9.2	279		1056	9.1	278	1708	3.0	90		
				1625	1.8	54		2310	9.2	281					

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Sasebo, Japan, 2018

Times and Heights of High and Low Waters

October				November				December								
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height					
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm					
1 M	0557	2.4	73	16 Tu	0627	3.3	101	1 Th	0110	7.1	217	1 Sa	0118	6.3	192	
1230	8.3	252	Tu	1342	7.2	219	F	0807	2.8	85	16 Su	0800	3.6	109		
1818	4.8	145	1915	5.6	170	○	1530	7.8	237	1600	5.3	213	2220	3.4	105	
2358	8.1	246	○	2133	4.9	150	2154	4.7	144	2220	3.4	105	16 Su	0154	6.0	182
2 Tu	0658	2.9	88	17 W	0028	7.0	212	2 F	0311	7.0	213	2 Su	0425	7.0	212	
1357	7.8	237	W	0736	3.8	117	17 Sa	0942	2.9	88	17 M	0334	6.0	183		
1933	5.4	166	W	1534	7.1	215	F	1646	8.1	247	1612	7.0	214			
○	2122	5.7	173	○	2257	4.2	128	2301	4.1	124	2246	3.0	92			
3 W	0113	7.5	228	18 Th	0223	6.5	199	3 Sa	0445	7.5	229	3 M	0536	7.4	227	
0824	3.2	98	Th	0924	4.0	123	3 Sa	1059	2.6	80	1703	7.3	224			
1551	7.8	237	Th	1659	7.3	224	3 Sa	1738	8.5	260	2335	2.2	67			
2139	5.6	170	Th	2305	5.2	157	3 Sa	2351	3.3	100	1743	8.1	247			
4 Th	0317	7.3	224	19 F	0422	6.8	206	4 Su	0549	8.2	251	4 Tu	0009	1.9	58	
1005	3.0	92	F	1053	3.7	114	4 Su	1157	2.3	70	1142	3.2	97			
1715	8.3	253	F	1747	7.8	238	4 Su	1819	9.0	273	1800	8.1	246			
2317	4.9	150	F	2352	4.5	136	4 Su	1819	9.0	273	1822	8.4	255			
5 F	0454	7.9	240	20 Sa	0527	7.3	224	5 M	0033	2.4	72	5 W	0051	1.2	37	
1122	2.5	75	Sa	1146	3.3	100	5 M	0640	8.9	271	721	8.4	257			
1809	8.9	272	Sa	1820	8.3	252	5 M	1245	2.1	63	1310	2.8	84			
○	1848	8.7	Sa	1848	8.7	265	5 M	1854	9.3	283	1858	8.6	261			
6 Sa	0012	4.0	122	21 Su	0026	3.7	114	6 Tu	0111	1.6	48	6 Th	0129	0.7	22	
0557	8.7	265	Su	0613	8.0	243	6 Tu	0726	9.4	286	0803	8.8	267			
1219	1.8	56	Su	1227	2.9	87	6 Tu	1328	2.0	61	1352	2.8	84			
1850	9.5	290	Su	1848	8.7	265	6 Tu	1927	9.5	289	1933	8.7	264			
7 Su	0055	3.1	94	22 M	0056	3.0	92	7 W	0148	1.0	30	7 F	0204	0.4	11	
0648	9.5	289	M	0650	8.6	262	7 W	0808	9.7	295	0842	8.9	272			
1306	1.4	43	M	1302	2.5	76	7 W	1408	2.1	65	1431	2.8	86			
1927	10.0	304	M	1915	9.1	277	7 W	1959	9.5	291	2006	8.7	265			
8 M	0134	2.3	69	23 Tu	0125	2.3	71	8 Th	0223	0.7	20	8 Sa	0239	0.2	7	
0734	10.1	307	Tu	0725	9.2	279	8 Th	0849	9.7	296	0918	8.9	272			
1349	1.2	37	Tu	1335	2.2	68	8 Th	1446	2.4	73	1508	2.9	89			
2000	10.2	311	Tu	1941	9.4	287	8 Th	2030	9.4	288	2039	8.6	262			
9 Tu	0211	1.6	49	24 F	0154	1.7	52	9 F	0257	0.6	17	9 Su	0312	0.3	8	
0817	10.4	316	F	0800	9.6	293	9 F	0927	9.6	292	0952	8.8	268			
1429	1.3	41	F	1408	2.1	64	9 F	1523	2.8	84	1505	2.5	77			
●	2032	10.3	F	2007	9.6	294	9 F	2100	9.2	281	2046	9.4	285			
10 W	0247	1.2	38	25 Sa	0225	1.1	35	10 Sa	0330	0.7	20	10 M	0345	0.4	13	
0859	10.4	317	Sa	0836	9.9	301	10 Sa	1003	9.3	282	1025	8.6	261			
1507	1.7	53	Sa	1443	2.1	65	10 Sa	1558	3.2	98	1617	3.3	100			
2102	10.1	308	Sa	2036	9.7	297	10 Sa	2130	8.9	270	2144	8.2	249			
11 Th	0322	1.1	34	26 F	0258	0.8	24	11 Su	0403	1.0	29	11 Tu	0418	0.7	22	
0939	10.1	308	F	0914	10.0	304	11 Su	1040	8.8	268	1058	8.2	251			
1544	2.3	70	F	1518	2.4	72	11 Su	1632	3.7	112	1651	3.5	107			
2131	9.8	298	F	2107	9.7	295	11 Su	2201	8.5	258	2218	7.8	238			
12 F	0356	1.2	38	27 Sa	0334	0.6	19	12 M	0402	-0.2	-7	11 W	0442	-0.7	-20	
1018	9.6	294	Sa	0955	9.8	300	12 M	1117	8.3	253	1123	9.0	275			
1618	3.0	92	Sa	1556	2.8	85	12 M	1708	4.1	126	1716	2.7	83			
2200	9.3	284	Sa	2139	9.4	288	12 M	2233	7.9	242	2254	8.3	254			
13 Sa	0429	1.6	49	28 Tu	0412	0.7	22	12 W	0448	0.2	5	27 F	0530	0.0	0	
1057	9.0	275	Tu	1039	9.4	288	12 W	1131	8.9	271	1211	8.5	260			
1653	3.7	114	Tu	1636	3.4	103	12 W	1722	3.6	110	1807	2.9	89			
2228	8.8	268	Tu	2215	9.0	275	12 W	2254	8.2	251	2348	7.7	235			
14 Su	0503	2.1	64	29 M	0455	1.1	33	13 Th	0512	1.9	59	13 W	0452	1.1	35	
1138	8.4	255	M	1130	8.9	272	13 Th	1159	7.8	237	1133	7.9	240			
1728	4.5	136	M	1722	4.0	123	13 Th	1749	4.6	139	1729	3.7	114			
2258	8.2	250	M	2256	8.4	257	13 Th	2310	7.4	225	2254	7.4	225			
15 M	0541	2.7	82	30 Tu	0544	1.6	50	14 Th	0636	1.5	46	27 F	0530	1.1	215	
1228	7.7	235	Tu	1231	8.3	253	14 Th	1407	7.0	213	0715	1.8	56			
1811	5.1	155	Tu	1818	4.7	142	14 Th	2009	5.1	154	1357	7.5	230			
2333	7.6	231	Tu	2347	7.7	236	14 Th	2059	4.0	123	2013	3.1	94			
16 Tu	0645	2.3	69	31 W	0645	2.3	69	15 F	0107	7.0	213	29 M	0053	7.1	215	
1939	5.1	155	W	1354	7.8	239	15 F	0745	2.2	68	0819	2.7	82			
1939	5.1	155	W	1939	5.1	155	15 F	1450	7.6	233	1459	7.2	220			
1939	5.1	155	W	1939	5.1	155	15 F	2059	4.0	123	2131	2.9	88			
1939	5.1	155	W	1939	5.1	155	16 M	0355	6.4	194	31 M	0355	6.4	194		
1939	5.1	155	W	1939	5.1	155	16 M	0936	3.3	101	0936	3.3	101			
1939	5.1	155	W	1939	5.1	155	16 M	1603	7.1	217	1603	7.1	217			
1939	5.1	155	W	1939	5.1	155	16 M	2245	2.4	74	2245	2.4	74			

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Naha, Nansei Shoto, Japan, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0013	-0.4	-13	<b>16</b> Tu	0053	0.2	7	<b>1</b> Th	0138	-1.0	-31	<b>16</b> F	0137	0.0	0
0646	6.1	185	0727	5.5	167	0808	6.3	192	0802	5.8	176	0040	-0.5	-14	
1224	2.1	65	1255	2.3	71	1351	1.6	50	1344	1.7	51	0708	6.2	188	
1816	6.8	206	1840	5.9	181	1943	6.9	209	● 1935	6.2	189	1258	1.5	46	
<b>2</b> Tu	0101	-0.9	-27	<b>17</b> W	0125	0.0	1	<b>2</b> F	0221	-1.0	-29	<b>2</b> F	0122	-0.6	-17
0736	6.3	192	0757	5.6	170	0847	6.3	193	0829	5.9	180	0744	6.4	194	
1313	2.1	64	1327	2.2	67	1434	1.5	45	1416	1.4	44	1338	1.1	34	
○ 1902	6.9	210	● 1913	6.1	185	2028	6.7	205	2009	6.2	190	○ 1936	6.8	206	
<b>3</b> W	0147	-1.1	-33	<b>18</b> Th	0155	-0.1	-2	<b>3</b> Sa	0301	-0.6	-19	<b>18</b> Su	0236	0.1	2
0822	6.4	194	0827	5.6	172	0924	6.2	190	0856	5.9	181	0817	6.4	196	
1400	2.0	62	1359	2.1	64	1516	1.4	43	1449	1.3	40	1417	0.9	27	
1949	6.9	210	1946	6.1	187	2112	6.4	195	2044	6.2	188	2018	6.7	203	
<b>4</b> Th	0233	-1.0	-31	<b>19</b> F	0226	0.0	-1	<b>4</b> Su	0339	-0.1	-3	<b>19</b> M	0306	0.3	9
0907	6.3	192	0856	5.7	173	0959	6.0	184	0924	5.9	181	0849	6.4	195	
1446	2.1	63	1432	2.0	66	1559	1.4	44	1524	1.2	37	1454	0.8	24	
2036	6.7	204	2019	6.1	186	2155	5.9	179	2121	6.0	182	2058	6.4	194	
<b>5</b> F	0319	-0.7	-22	<b>20</b> Sa	0256	0.1	2	<b>5</b> M	0415	0.6	17	<b>20</b> Tu	0337	0.6	19
0951	6.1	186	0926	5.6	172	1033	5.8	177	0954	5.9	179	0919	6.2	190	
1534	2.1	64	1506	2.0	61	1643	1.6	48	1602	1.2	36	1530	0.8	25	
2123	6.3	193	2054	5.9	181	2240	5.3	161	2202	5.6	172	2137	5.9	180	
<b>6</b> Sa	0403	-0.2	-6	<b>21</b> Su	0328	0.3	8	<b>6</b> Tu	0451	1.2	38	<b>21</b> W	0411	1.1	33
1035	5.9	179	0957	5.6	171	1109	5.5	168	1027	5.7	175	0948	6.0	182	
1624	2.2	66	1543	2.0	60	1731	1.8	54	1646	1.2	38	1607	1.0	30	
2212	5.8	178	2131	5.7	174	2331	4.7	143	2249	5.2	159	2217	5.4	164	
<b>7</b> Su	0447	0.5	14	<b>22</b> M	0400	0.6	18	<b>7</b> W	0528	1.9	58	<b>22</b> Th	0448	1.6	50
1119	5.6	172	1030	5.5	169	1147	5.2	158	1105	5.5	168	1017	5.7	173	
1719	2.3	69	1625	2.0	61	1831	1.9	59	1739	1.3	41	1647	1.2	38	
2306	5.2	159	2212	5.4	165				2350	4.8	145	2301	4.8	147	
<b>8</b> M	0532	1.1	35	<b>23</b> Tu	0436	1.0	30	<b>8</b> Th	0040	4.1	126	<b>23</b> F	0535	2.2	68
1206	5.4	164	1107	5.4	165	0615	2.5	76	1154	5.2	160	1048	5.3	162	
1823	2.3	70	1714	2.0	61	1237	4.9	149	1851	1.4	43	1733	1.6	48	
			2302	5.0	153	○ 1950	2.0	61	○			2357	4.3	132	
<b>9</b> Tu	0010	4.7	142	<b>24</b> W	0518	1.4	44	<b>9</b> F	0224	3.9	118	<b>24</b> Sa	0118	4.4	133
0622	1.8	55	1151	5.3	162	0727	3.0	91	1346	4.7	143	1126	4.9	150	
1258	5.2	158	1815	2.0	60	2121	1.8	56	2121	1.3	40	1835	1.8	56	
○ 1939	2.3	69										○			
<b>10</b> W	0135	4.2	129	<b>25</b> Th	0008	4.6	141	<b>10</b> Sa	0415	4.0	123	<b>25</b> Sa	0127	4.0	121
0723	2.3	71	0611	2.0	60	0910	3.1	96	0836	3.1	94	0625	3.2	97	
1358	5.1	155	1246	5.2	159	1509	4.7	143	1437	5.0	153	1224	4.6	139	
2100	2.0	62	○ 1931	1.8	51	2232	1.5	46	2150	0.9	28	2008	2.0	60	
<b>11</b> Th	0314	4.2	127	<b>26</b> F	0139	4.4	134	<b>11</b> Su	0522	4.4	135	<b>11</b> Su	0334	4.0	123
0838	2.7	82	0723	2.5	75	1034	3.0	92	1017	2.9	89	0826	3.4	103	
1501	5.1	155	1354	5.2	158	1618	4.9	148	1603	5.3	163	1406	4.4	133	
2210	1.7	51	2054	1.4	43	2323	1.1	33	2259	0.4	12	2144	1.8	55	
<b>12</b> F	0438	4.4	133	<b>27</b> Sa	0323	4.5	136	<b>26</b> M	0446	4.8	147	<b>12</b> M	0454	4.4	134
0953	2.8	86	0855	2.7	83	1128	2.8	84	1017	2.5	76	1013	3.2	97	
1558	5.2	158	1507	5.3	163	1710	5.2	158	1709	5.8	178	1544	4.5	137	
			2208	0.9	26				2354	-0.1	-4	2249	1.5	45	
<b>13</b> Sa	0535	4.7	143	<b>28</b> Su	0449	4.9	149	<b>13</b> Tu	0002	0.7	22	<b>12</b> Tu	0545	4.4	134
1054	2.8	84	1019	2.7	82	0638	5.1	156	1214	2.0	60	1019	2.9	87	
1647	5.4	164	1615	5.7	173	1208	2.5	75	1804	6.3	192	1558	5.2	158	
2344	0.9	26	2311	0.2	6	1751	5.5	167				2334	1.1	33	
<b>14</b> Su	0619	5.0	153	<b>29</b> M	0552	5.4	164	<b>14</b> W	0036	0.4	12	<b>14</b> W	0608	5.2	157
1142	2.6	80	1125	2.5	76	0707	5.4	165	1242	2.2	66	1149	2.4	72	
1728	5.6	170	1714	6.1	186	1828	5.8	177	1828	5.8	177	1733	5.3	161	
<b>15</b> M	0020	0.5	15	<b>30</b> Tu	0004	-0.4	-13	<b>15</b> Th	0108	0.2	5	<b>15</b> Th	0009	0.8	23
0654	5.3	161	0642	5.8	177	0735	5.6	171	1313	1.9	58	0636	5.5	168	
1221	2.5	76	1219	2.2	67	1902	6.0	184	1902	6.0	184	1222	2.0	60	
1805	5.8	176	1807	6.5	198							1811	5.7	174	
			<b>31</b> W	0053	-0.9	-26						<b>30</b> F	0021	0.2	7
			0727	6.1	187							0712	6.5	197	
			1307	1.9	58							1320	0.7	22	
			○ 1857	6.8	206							○ 1926	6.6	200	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Naha, Nansei Shoto, Japan, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0136	0.4	13	<b>16</b> M	0112	0.9	28	<b>1</b> Tu	0142	1.6	50
	0743	6.5	199		0718	6.5	199		0736	6.5	199
	1355	0.5	15		1332	0.4	11		1406	0.3	10
	2005	6.5	198	●	1943	6.5	199		2029	6.2	188
<b>2</b> M	0209	0.7	22	<b>17</b> Tu	0146	1.0	32	<b>2</b> W	0213	1.9	59
	0811	6.5	198		0748	6.7	203		0804	6.4	196
	1429	0.4	12		1408	0.1	2		1438	0.4	11
	2043	6.3	191		2024	6.5	199		2105	5.9	181
<b>3</b> Tu	0241	1.1	35	<b>18</b> W	0220	1.3	40	<b>3</b> Th	0244	2.2	68
	0839	6.3	193		0819	6.7	203		0832	6.3	191
	1503	0.5	14		1446	-0.1	-2		1510	0.6	17
	2120	5.9	180		2106	6.4	194		2142	5.7	173
<b>4</b> W	0311	1.6	49	<b>19</b> Th	0256	1.7	52	<b>4</b> F	0315	2.5	77
	0906	6.1	186		0853	6.5	199		0902	6.0	183
	1536	0.6	19		1527	0.0	1		1544	0.8	25
	2158	5.5	168		2152	6.0	183		2221	5.4	164
<b>5</b> Th	0340	2.1	63	<b>20</b> F	0335	2.2	66	<b>5</b> Sa	0350	2.9	87
	0934	5.8	178		0930	6.3	191		0933	5.7	174
	1611	0.9	28		1613	0.3	8		1621	1.1	35
	2238	5.1	154		2245	5.6	170		2305	5.1	154
<b>6</b> F	0412	2.5	76	<b>21</b> Sa	0420	2.7	81	<b>6</b> Su	0430	3.1	95
	1004	5.5	167		1013	5.9	179		1010	5.3	163
	1650	1.3	39		1708	0.7	20		1705	1.5	47
	2328	4.7	142		2350	5.2	158		21	0526	3.2
<b>7</b> Sa	0450	2.9	89	<b>7</b> M	0519	3.1	95	<b>21</b> M	0526	3.2	99
	1038	5.1	154		1108	5.4	165		1108	5.7	173
	1740	1.6	50		1816	1.1	33		1805	1.1	35
	2045	2.0	60		2003	4.8	147		2056	5.3	161
<b>8</b> Su	0040	4.3	132	<b>23</b> M	0116	5.0	151	<b>8</b> Tu	0120	4.7	144
	0549	3.3	101		0651	3.4	103		0526	3.4	103
	1127	4.7	142		1231	5.0	153		1056	5.0	151
	1854	2.0	60	●	1942	1.4	42	○	1919	2.2	66
<b>9</b> M	0228	4.3	130	<b>24</b> Tu	0251	5.0	153	<b>9</b> W	0242	4.8	147
	0740	3.5	107		0843	3.2	98		0833	3.4	103
	1257	4.3	132		1419	4.9	150		1353	4.5	137
	2032	2.1	63		2107	1.4	43		2042	2.2	67
<b>10</b> Tu	0358	4.5	138	<b>25</b> W	0401	5.3	163	<b>10</b> Th	0343	5.1	156
	0934	3.3	100		1005	2.7	82		0946	3.0	90
	1455	4.4	133		1549	5.2	158		1523	4.8	145
	2154	1.9	57		2217	1.3	40		2149	2.1	64
<b>11</b> W	0449	4.9	149	<b>26</b> Th	0451	5.7	174	<b>11</b> F	0427	5.5	167
	1037	2.9	87		1101	2.1	63		1036	2.4	73
	1613	4.7	144		1655	5.6	171		1628	5.2	158
	2249	1.6	48		2310	1.2	36		2241	1.9	58
<b>12</b> Th	0524	5.3	161	<b>27</b> F	0530	6.1	185	<b>12</b> Sa	0502	5.9	179
	1118	2.3	71		1145	1.5	45		1116	1.8	54
	1706	5.2	158		1747	6.0	182		1718	5.6	172
	2330	1.3	39		2355	1.1	35		2324	1.8	54
<b>13</b> F	0553	5.7	173	<b>28</b> Sa	0605	6.3	193	<b>13</b> Su	0535	6.2	190
	1153	1.8	55		1223	1.0	30		1153	1.1	35
	1748	5.6	172		1832	6.2	190		1803	6.1	186
	2045	2.0	57		2003	4.8	147		2149	2.1	64
<b>14</b> Sa	0006	1.0	32	<b>29</b> Su	0034	1.2	38	<b>14</b> M	0004	1.7	51
	0621	6.0	183		0637	6.5	198		0608	6.6	200
	1225	1.3	39		1259	0.6	19		1231	0.6	17
	1827	6.1	185		1913	6.3	193		1847	6.4	196
<b>15</b> Su	0039	0.9	28	<b>30</b> M	0109	1.4	43	<b>15</b> Tu	0042	1.7	52
	0649	6.3	192		0707	6.6	200		0641	6.8	208
	1258	0.8	24		1333	0.4	12		1309	0.1	3
	1905	6.4	194	●	1952	6.3	193	●	1930	6.6	202

# Naha, Nansei Shoto, Japan, 2018

Times and Heights of High and Low Waters

July				August				September				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0240	3.1	93	<b>16</b> M	0313	2.7	83	<b>1</b> W	0331	2.8	86	
	0824	6.6	201		0905	7.4	225		0424	2.3	70	
	1506	1.0	31		1544	0.5	14		1028	6.6	200	
	2141	6.2	188		2212	6.9	209		1637	2.2	66	
<b>2</b> M	0315	3.1	94	<b>17</b> Tu	0403	2.7	83	<b>2</b> Th	0410	2.8	86	
	0859	6.5	197		0956	7.0	212		1121	6.0	182	
	1539	1.2	38		1628	1.0	32		1716	2.9	87	
	2215	6.1	185		2255	6.7	203		2329	6.4	194	
<b>3</b> Tu	0354	3.1	96	<b>18</b> W	0455	2.8	84	<b>3</b> F	0454	2.8	86	
	0936	6.2	190		1049	6.4	196		0514	2.5	75	
	1614	1.5	47		1713	1.7	53		1121	6.0	182	
	2251	6.0	182		2340	6.5	197		1620	2.0	61	
<b>4</b> W	0438	3.2	98	<b>19</b> Th	0553	2.8	86	<b>4</b> Sa	0547	2.8	86	
	1018	5.9	181		1149	5.9	179		0016	6.0	184	
	1652	1.9	57		1801	2.4	74		0723	2.8	86	
	2332	5.9	180						1401	5.1	156	
<b>5</b> Th	0529	3.2	99	<b>20</b> F	0028	6.2	190	<b>5</b> Su	0012	6.2	189	
	1108	5.6	172		0701	2.9	87		0653	2.7	83	
	1736	2.3	69		1303	5.4	165		1300	5.4	165	
					1857	3.1	93		1845	3.4	103	
<b>6</b> F	0019	5.9	179	<b>21</b> Sa	0122	6.1	185	<b>6</b> M	0112	6.1	187	
	0632	3.2	97		0817	2.8	84		0105	5.7	177	
	1213	5.3	163		1434	5.2	158		0849	2.8	84	
	1830	2.7	81		2005	3.5	107		1546	5.2	158	
<b>7</b> Sa	0114	5.9	179	<b>22</b> Su	0224	6.0	182	<b>7</b> Tu	0225	6.2	189	
	0743	3.0	90		0932	2.5	77		0929	2.1	63	
	1336	5.2	159		1604	5.2	160		1610	5.7	173	
	1936	3.0	91		2122	3.7	114		2139	3.8	116	
<b>8</b> Su	0213	6.0	183	<b>23</b> M	0327	6.0	183	<b>8</b> W	0337	6.4	196	
	0855	2.6	78		1034	2.2	67		1036	1.5	45	
	1505	5.3	163		1712	5.5	169		1719	6.2	188	
	2051	3.2	97		2231	3.7	114		2251	3.6	110	
<b>9</b> M	0312	6.2	189	<b>24</b> Tu	0423	6.1	187	<b>9</b> Th	0442	6.8	208	
	0959	2.0	60		1123	1.9	57		1134	0.9	27	
	1623	5.7	173		1801	5.8	178		1813	6.6	202	
	2202	3.2	99		2325	3.6	110		2350	3.3	101	
<b>10</b> Tu	0407	6.5	199	<b>25</b> W	0510	6.3	193	<b>10</b> F	0539	7.3	222	
	1055	1.3	40		1204	1.5	47		1225	0.4	13	
	1727	6.1	186		1840	6.1	186		1900	7.0	213	
	2303	3.2	97									
<b>11</b> W	0459	6.9	210	<b>26</b> Th	0008	3.4	105	<b>11</b> Sa	0040	3.0	90	
	1147	0.7	22		0551	6.5	199		0631	7.6	233	
	1822	6.5	199		1240	1.3	39		1312	0.1	4	
	2358	3.1	94		1914	6.3	192		1942	7.3	221	
<b>12</b> Th	0549	7.2	220	<b>27</b> F	0044	3.3	100	<b>12</b> Su	0126	2.6	80	
	1237	0.2	6		0628	6.7	205		0720	7.8	239	
	1912	6.8	208		1313	1.1	34		1357	0.1	4	
					1945	6.5	197		2022	7.3	224	
<b>13</b> F	0048	3.0	90	<b>28</b> Sa	0118	3.1	96	<b>13</b> M	0211	2.4	73	
	0639	7.5	228		0703	6.9	209		0808	7.8	238	
	1325	-0.1	-3		1344	1.0	32		1439	0.4	12	
	1959	7.0	214		2014	6.5	199		2100	7.3	224	
<b>14</b> Sa	0137	2.9	87	<b>29</b> Su	0150	3.0	92	<b>14</b> Tu	0255	2.2	68	
	0727	7.6	233		0736	6.9	211		0854	7.6	231	
	1412	-0.2	-5		1415	1.0	32		1520	0.9	26	
	2045	7.1	216		2043	6.6	200		2137	7.2	219	
<b>15</b> Su	0225	2.8	84	<b>30</b> M	0222	2.9	89	<b>15</b> W	0339	2.2	67	
	0816	7.6	231		0810	6.9	211		0940	7.2	218	
	1458	0.0	1		1445	1.2	36		1558	1.5	45	
	2129	7.0	214		2112	6.6	201		2213	7.0	213	
	31	0255	2.9	87					<b>28</b> F	0342	2.1	65
	Tu	0844	6.8	208					0852	6.9	211	
		1515	1.4	42					1452	2.1	63	
		2141	6.6	200					2056	7.0	212	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Naha, Nansei Shoto, Japan, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0447	1.6	50	16 Tu 0529	2.2	68	1 Th 0659	1.7	53	1 Sa 0118	5.0	152
1115 5.8	176	Tu 1234	5.1	154	1406 5.4	164	F 1421	2.3	71	0751 1.7	53
1648 3.4	105	1749 4.0	121	2000 3.6	110	2022 3.4	105	1439 5.5	168	1439 5.5	168
2248 6.1	187	2317 5.2	158	O				2102 2.6	78	2102 2.6	78
2 Tu 0551	1.9	59	17 W 0642	2.6	78	2 F 0135	5.2	160	2 Su 0254	5.0	152
1236 5.4	165	1415 5.0	152	0827 1.8	56	0821 2.5	75	0905 1.9	59	17 M 0202	4.3
1800 3.9	119	1941 4.1	124	1523 5.6	172	1524 5.2	159	1536 5.7	175	0810 2.4	72
O 2356 5.7	175	O		2129 3.1	95	2135 3.0	92	2207 1.9	59	1458 5.2	159
3 W 0717	2.1	64	18 Th 0052	4.9	148	3 Sa 0313	5.4	166	3 M 0412	5.2	160
1424 5.4	164	0817 2.7	81	0941 1.7	53	0931 2.4	72	1008 2.0	62	18 Tu 0329	4.5
1958 4.1	124	1538 5.2	158	1617 6.0	183	1608 5.5	169	1623 6.0	182	0921 2.4	74
2125 3.8	115	2125 3.8	115	2230 2.4	74	2224 2.5	75	2259 1.3	41	1547 5.5	167
4 Th 0141	5.6	170	19 F 0248	4.9	149	4 Su 0425	5.9	179	4 Tu 0513	5.6	170
0851 2.0	60	0938 2.5	77	1040 1.6	49	0418 5.1	155	1101 2.1	63	19 W 0436	4.9
1553 5.7	175	1629 5.5	168	1700 6.4	194	1024 2.2	68	1704 6.2	189	1020 2.4	72
2140 3.7	112	2225 3.3	101	2317 1.8	54	1644 5.9	179	2342 0.8	25	1630 5.8	177
5 F 0321	5.8	178	20 Sa 0404	5.2	160	5 M 0521	6.3	192	5 W 0603	5.8	178
1007 1.6	50	1033 2.3	69	1128 1.5	47	0507 5.5	168	1146 2.1	64	20 Th 0529	5.3
1650 6.2	189	1704 5.9	179	1737 6.7	203	1107 2.1	63	1742 6.4	194	1110 2.3	70
2245 3.1	94	2305 2.8	85	2358 1.2	36	1716 6.2	189			1710 6.1	187
6 Sa 0433	6.4	194	21 Su 0455	5.7	173	6 Tu 0609	6.6	201	6 Th 0021	0.4	13
1104 1.3	39	1114 2.0	61	1210 1.6	48	0550 5.9	181	0647 6.0	183	21 F 0617	5.8
1733 6.6	202	1734 6.2	189	1811 6.9	209	1145 2.0	60	1226 2.2	66	1156 2.2	67
2333 2.4	73	2338 2.3	69	O		1748 6.5	198	1816 6.4	196	1750 6.5	197
7 Su 0529	6.9	209	22 M 0535	6.1	185	7 W 0036	0.7	22	7 Th 0057	0.2	5
1152 1.0	32	1149 1.8	55	0653 6.7	205	0014 0.7	20	0726 6.1	185	22 Sa 0032	-0.3
1810 7.0	213	1801 6.5	198	1247 1.7	52	0631 6.3	191	1303 2.3	69	0702 6.1	185
O			O	1844 6.9	211	1222 6.9	195	● 1849 6.5	197	1240 2.2	66
8 M 0015	1.8	55	23 Tu 0009	1.7	53	8 Th 0112	0.5	14	8 Sa 0132	0.1	2
0618 7.2	220	0612 6.5	197	0734 6.7	205	0712 6.5	198	0804 6.0	184	23 M 0115	-0.7
1234 1.0	31	1221 1.7	51	1323 1.9	59	1259 2.0	60	1337 2.4	72	0747 6.3	191
1844 7.2	220	1828 6.7	205	● 1915 6.9	210	O 1853 6.9	210	1921 6.4	195	1324 2.1	65
9 Tu 0054	1.3	40	24 W 0040	1.3	39	9 F 0147	0.3	10	9 Su 0205	0.1	2
0702 7.4	225	0648 6.7	205	0813 6.6	200	0754 6.6	200	0839 5.9	181	24 M 0159	-0.9
1312 1.1	35	1252 1.7	51	1356 2.2	68	1337 2.1	64	1411 2.5	76	0833 6.3	192
● 1917 7.3	223	1855 6.9	211	1945 6.8	206	1929 6.9	211	1953 6.3	191	1408 2.2	66
10 W 0132	1.0	30	25 Th 0112	0.9	26	10 Sa 0221	0.4	12	10 M 0238	0.2	6
0744 7.3	224	0725 6.9	210	0851 6.3	192	0208 -0.3	-10	0914 5.8	176	25 Tu 0244	-0.8
1348 1.4	44	1324 1.7	53	1429 2.5	77	0837 6.5	198	1444 2.6	79	0918 6.2	189
1948 7.3	222	O 1924 7.0	214	2015 6.5	199	1416 2.3	71	2007 6.8	208	1455 2.2	68
11 Th 0208	0.9	26	26 F 0145	0.6	17	11 Su 0255	0.6	18	11 Tu 0310	0.4	13
0825 7.1	216	0803 6.9	210	0929 6.0	183	0251 -0.3	-9	0949 5.6	170	26 W 0331	-0.5
1422 1.9	57	1356 1.9	59	1502 2.8	86	M 0924 6.3	191	1519 2.7	83	1005 6.0	184
2018 7.1	217	1954 7.0	214	2045 6.2	190	1459 2.6	78	2059 5.8	177	1545 2.3	71
O			O			2048 6.6	201			2134 6.3	192
12 F 0244	0.9	28	27 Sa 0221	0.4	13	12 M 0330	0.9	27	12 W 0344	0.7	22
0905 6.7	205	0843 6.8	206	1009 5.7	173	0337 0.0	-1	1027 5.3	163	27 Th 0419	-0.1
1455 2.3	71	1431 2.2	68	1538 3.1	94	Tu 1548 2.9	87	1558 2.9	87	1054 5.8	177
2047 6.9	209	2026 6.9	211	2118 5.9	180	2135 6.2	190	2135 5.5	167	1640 2.4	73
13 Sa 0320	1.1	34	28 Su 0301	0.5	14	13 Tu 0407	1.2	38	13 W 0429	0.4	12
0946 6.3	191	0926 6.5	197	1053 5.3	163	1112 5.7	173	1108 5.2	158	1146 5.6	171
1527 2.8	85	1508 2.6	80	1619 3.3	102	1648 3.1	94	1646 3.0	91	1745 2.4	74
2117 6.5	198	2101 6.7	204	2154 5.5	167	2231 5.7	175	2217 5.1	156	2331 5.2	160
14 Su 0357	1.4	43	29 M 0344	0.7	20	14 W 0450	1.6	50	14 F 0502	1.4	44
1029 5.8	177	1015 6.1	186	1149 5.1	154	1217 5.4	166	1157 5.0	153	29 Sa 0604	1.2
1602 3.2	99	1550 3.1	93	1716 3.6	109	1805 3.2	97	1746 3.1	94	1242 5.4	165
2148 6.1	186	2142 6.3	193	2240 5.1	154	2344 5.3	161	2310 4.7	144	●	
15 M 0438	1.8	55	30 Tu 0435	1.0	31	15 Th 0544	2.0	62	15 F 0552	1.8	56
1121 5.3	163	1115 5.7	173	1301 4.9	150	1204 3.6	111	1256 5.0	151	30 Su 0051	4.8
1644 3.6	111	1645 3.4	105	1842 4.7	142	1330 5.4	164	1904 3.0	92	0706 1.8	54
2225 5.6	172	2233 5.9	179	O 2352 4.7	142	O		O		1343 5.3	163
31 W 0538	1.4	43	W 1234 5.4	165						2023 2.1	65
1808 3.7	113	1808 3.7	113							31 M 0225	4.5
2348 5.4	166	2348 5.4	166							0817 2.2	68

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pusan, Korea, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0111 M 0744 1340 2009	ft -0.1 4.0 0.0 3.7	cm -3 122 0 113	h m <b>16</b> Tu 0819 1419 2029	ft 0.4 3.5 0.4 3.3	cm 107 101	h m <b>1</b> Th 0901 1506 2126	ft -0.2 -0.2 4.0	cm -6 -6 122	h m <b>16</b> Th 0904 1503 2118	ft 0.2 0.0 3.7	cm 6 0 113
0111 M 0744 1340 2009	-0.1 4.0 0.0 3.7	122 0 113	<b>16</b> Tu 0819 1419 2029	0.4 3.5 0.4 3.3	107 101	<b>1</b> Th 0901 1506 2126	-0.2 -0.2 4.0	-6 -6 122	<b>16</b> Th 0904 1503 2118	0.2 0.0 3.7	-6 -6 113
0159 Tu 0830 1428 O 2054	-0.2 4.3 -0.1 3.8	-6 131 -3 116	<b>17</b> W 0851 1451 ● 2102	0.3 0.2 3.4	9 6 104	<b>2</b> F 0942 1547 2205	0.2 -0.2 4.0	-6 -6 122	<b>2</b> F 0844 1448 O 2109	-0.2 -0.2 4.1	-6 -6 125
0246 W 0914 1515 2138	-0.2 4.4 -0.1 3.9	-6 134 -3 119	<b>18</b> Th 0922 1521 2136	0.2 0.2 3.5	6 6 107	<b>3</b> Sa 1020 1626 2244	0.2 -0.1 3.9	-6 -3 119	<b>3</b> Sa 0921 1524 2145	-0.3 -0.3 4.2	-9 -9 128
0331 Th 0957 1601 2221	-0.2 4.4 -0.1 3.8	-6 134 -3 116	<b>19</b> F 0909 1550 2208	0.1 0.1 3.5	3 3 107	<b>4</b> Su 1058 1704 2321	0.0 0.1 3.7	0 0 113	<b>4</b> Su 0957 1625 2252	-0.2 0.0 3.7	-6 -6 113
0417 F 1039 1647 2303	0.0 4.2 0.1 3.6	0 128 -3 110	<b>20</b> Sa 1023 1620 2241	0.1 0.1 3.4	3 3 104	<b>5</b> M 1135 1740 2359	0.3 0.3 3.3	9 9 101	<b>5</b> M 1102 1656 2326	0.1 0.1 3.5	-3 -3 107
0505 Sa 1121 1734 2347	0.2 3.9 0.3 3.4	6 119 -9 104	<b>21</b> Su 1053 1651 2315	0.2 0.2 3.3	6 6 101	<b>6</b> Tu 1213 1818	0.6 0.6	18 18	<b>6</b> Tu 1106 1731	0.2 0.3	6 9
0555 Su 1203 1823	0.5 3.6 0.5	15 110 -15	<b>22</b> M 1125 1725 2352	0.3 0.3 3.2	9 9 98	<b>7</b> W 0037 0656 1902	3.0 0.9 0.9	91 27 27	<b>7</b> W 1139 1727	0.5 0.5	15 15
0032 M 0652 1248 1920	3.1 0.8 3.2 0.7	94 24 98 21	<b>23</b> Tu 1200 1806	0.4	12	<b>8</b> Th 0122 0806 ● 2007	2.7 1.2 1.1	82 37 34	<b>23</b> F 0640 1300 ● 1925	3.1 2.8 0.8	94 85 24
0122 Tu 0800 1338 O 2025	2.8 1.0 2.8 0.9	85 30 85 27	<b>24</b> W 0033 0613 1902	3.0 0.6 0.6	91 18 18	<b>9</b> F 0225 0937 2138	2.4 1.3 2.2	73 40 37	<b>9</b> F 0151 0809 2110	2.8 1.1 1.0	85 85 30
0226 W 0915 1440 2134	2.5 1.1 2.5 1.0	76 34 76 30	<b>25</b> Th 0124 0719 ● 2020	2.9 0.8 0.8	88 24 24	<b>10</b> Sa 0443 1102 2301	2.3 1.3 1.2	70 40 37	<b>10</b> Sa 0325 1003 2246	2.7 1.1 0.9	82 82 27
0404 Th 1028 1608 2239	2.4 1.2 2.4 1.0	73 37 73 30	<b>26</b> F 0231 0851 1452 2146	2.7 1.0 2.6 0.8	82 30 79 24	<b>11</b> Su 0615 1209 1818	2.5 1.1 2.4	76 34 73	<b>11</b> Su 0517 1132 1810	2.9 0.8 2.8	88 82 67
0538 F 1132 1734 2334	2.6 1.1 2.5 0.9	79 34 76 27	<b>27</b> Sa 0403 1022 1647 2302	2.8 0.9 2.6 0.6	85 27 85 18	<b>12</b> M 0004 0659 1258 1905	1.0 2.8 0.8 2.7	30 85 98 82	<b>12</b> M 0544 1144 1756 2341	2.4 1.1 2.3 1.1	73 34 70 34
0632 Sa 1225 1832	2.8 0.9 2.8 2.6	85 27 85 79	<b>28</b> Su 0535 1139 1815	3.1 0.7 2.9	94 21 88	<b>13</b> Tu 0049 0734 1335 1942	0.8 3.1 0.6 3.0	24 94 18 91	<b>13</b> Tu 0055 0721 1326 1951	0.3 3.8 0.2 3.6	82 82 66 110
0020 Su 0712 1308 1915	0.7 3.0 0.7 2.9	21 91 21 88	<b>29</b> M 0006 0641 1241 1914	0.4 3.5 0.4 3.3	12 107 12 101	<b>14</b> W 0125 0805 1406 2015	0.5 3.4 0.3 3.3	15 104 9 101	<b>14</b> W 0030 0711 1310 1921	0.9 3.0 0.5 3.0	27 113 15 91
0559 M 0747 1346 1953	0.6 3.3 0.5 3.1	18 101 15 94	<b>30</b> Tu 0102 0733 1335 2002	0.1 3.9 0.1 3.6	3 119 110	<b>15</b> Th 0157 0835 1435 2047	0.3 3.7 0.2 3.5	9 113 6 107	<b>15</b> Th 0106 0742 1341 1953	0.6 3.3 0.3 3.3	18 122 9 101
0152 W 0819 1422 O 2045	0.1 4.2 3.9	-3 128 119	<b>31</b> W 0152 0819 1422 O 2045	0.1 4.2 -0.1 3.9	-3 128 -3 119				<b>31</b> Sa 0208 1422 O 2047	0.1 4.2 -3 125	-3 128 -6 125

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pusan, Korea, 2018

Times and Heights of High and Low Waters

April			May			June					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0244 0.2 -6 0858 4.3 131 1454 -0.2 -6 2121 4.2 128	16 0213 0.1 -3 M 0845 3.9 119 Tu 1435 -0.2 -6 ● 2102 4.1 125	1 Tu 0253 0.1 3 0906 4.0 122 1452 0.0 0 2129 4.1 125	16 W 0227 0.0 0 0858 4.0 122 1446 -0.1 -3 2119 4.4 134	1 F 0337 0.6 18 0954 3.7 113 1525 0.5 15 2214 3.9 119	16 Sa 0343 0.4 12 1010 4.1 125 1600 0.4 12 2231 4.6 140						
	2 M 0318 -0.1 -3 0932 4.2 128 1525 -0.2 -6 2153 4.1 125	17 Tu 0246 -0.1 -3 0918 4.0 122 1507 -0.2 -6 2137 4.2 128	2 W 0325 0.2 6 0940 3.9 119 1521 0.1 3 2201 4.0 122	17 Th 0307 0.0 0 0937 4.0 122 1524 0.0 0 2159 4.3 131	2 Sa 0410 0.7 21 1029 3.5 107 1557 0.6 18 2247 3.8 116						
	3 Tu 0351 0.0 0 1005 4.0 122 1553 0.0 0 2225 3.9 119	18 W 0320 -0.1 -3 0952 3.9 119 1540 -0.1 -3 2212 4.1 125	3 Th 0356 0.3 9 1013 3.7 113 1549 0.3 9 2233 3.8 116	18 F 0348 0.2 6 1018 3.8 116 1604 0.2 6 2240 4.2 128	3 Su 0446 0.8 24 1106 3.3 101 1631 0.8 24 2322 3.5 107						
	4 W 0422 0.2 6 1038 3.7 113 1620 0.2 6 2257 3.7 113	19 Th 0356 0.0 0 1027 3.7 113 1614 0.1 3 2250 3.9 119	4 F 0428 0.5 15 1047 3.4 104 1618 0.5 15 2306 3.5 107	19 Sa 0432 0.4 12 1100 3.6 110 1649 0.5 12 2325 3.9 119	4 M 0526 1.0 30 1146 3.1 94 1709 1.0 30						
<b>5</b> Th 1111 3.4 104 1648 0.4 12 2329 3.3 101	20 F 0435 0.2 6 1105 3.4 104 1652 0.3 9 2332 3.7 113	5 Sa 0502 0.7 21 1124 3.1 94 1649 0.7 21 2341 3.2 98	20 Su 0523 0.7 21 1147 3.3 101 1743 0.8 24	5 Tu 0000 3.3 101 0618 1.1 34 1231 2.9 88 1758 1.2 37	20 W 0054 3.7 113 0734 1.2 37 1332 3.2 98 ● 2012 1.4 43						
	6 F 0526 0.7 21 1145 3.0 91 1716 0.7 21	21 Sa 0519 0.5 15 1148 3.1 94 1738 0.7 21	6 Su 0544 1.0 30 1204 2.8 27 1726 0.9 27	21 M 0014 3.6 110 0629 0.9 27 1242 3.0 91 1902 1.1 34	6 W 0045 3.1 94 0732 1.2 37 1326 2.8 85 1914 1.4 43						
	7 Sa 0004 3.0 91 0608 1.0 30 1224 2.6 79 1751 1.0 30	22 Su 0020 3.3 101 0619 0.9 27 1241 2.7 82 1852 1.0 30	7 M 0021 2.9 88 0652 1.2 37 1254 2.5 76 1821 1.2 37	22 Tu 0111 3.3 101 0759 1.1 34 1354 2.7 82 ● 2040 1.3 40	7 Th 0140 2.9 88 0851 1.2 37 1435 2.7 82 ● 2049 1.4 43						
	8 Su 0045 2.6 79 0732 1.3 40 1316 2.3 70 ● 1853 1.3 40	23 M 0120 3.0 91 0800 1.1 34 1358 2.4 73 ● 2052 1.2 37	8 Tu 0114 2.6 79 0839 1.2 37 1404 2.3 70 ● 2016 1.4 43	23 W 0224 3.0 91 0928 1.1 34 1538 2.7 82 2202 1.2 37	8 F 0255 2.9 88 0956 1.1 34 1557 2.9 88 2205 1.3 40						
<b>9</b> M 0148 2.4 73 0939 1.3 40 1446 2.1 64 2126 1.4 43	24 Tu 0246 2.8 85 0951 1.1 34 1613 2.4 73 2226 1.1 34	9 W 0235 2.5 76 1000 1.1 34 1544 2.4 73 2159 1.3 40	24 Th 0355 3.0 91 1037 1.0 30 1713 2.9 88 2307 1.1 34	9 Sa 0424 3.0 91 1050 0.9 27 1710 3.2 98 2305 1.1 34	24 Su 0539 3.3 101 1142 1.2 37 1829 3.5 107						
	10 Tu 0415 2.3 70 1059 1.1 34 1706 2.2 67 2259 1.2 37	25 W 0435 2.9 88 1108 0.9 27 1745 2.8 85 2333 0.8 24	10 Th 0427 2.6 79 1057 0.9 27 1711 2.6 79 2302 1.1 34	25 F 0515 3.1 94 1130 0.9 27 1810 3.2 98	10 M 0535 3.2 98 1138 0.7 21 1807 3.5 107						
	11 W 0551 2.6 79 1152 0.8 24 1809 2.6 79 2353 0.9 27	26 Th 0550 3.2 98 1202 0.6 18 1835 3.2 98	11 F 0539 2.8 85 1142 0.7 21 1805 3.0 91 2350 0.8 24	26 Sa 0000 0.9 27 0611 3.3 101 1214 0.7 21 1852 3.5 107	11 M 0629 3.5 107 1222 0.5 15 1855 3.9 119						
	12 Th 0634 2.9 88 1231 0.5 15 1849 3.0 91	27 F 0024 0.6 18 0640 3.5 107 1244 0.4 12 1915 3.6 110	12 Sa 0626 3.2 98 1221 0.4 12 1846 3.4 104	27 Su 0044 0.7 21 0655 3.5 107 1250 0.6 18 1928 3.8 116	12 Tu 0043 0.6 18 0716 3.8 116 1305 0.3 9 1939 4.3 131						
<b>13</b> F 0033 0.6 18 0708 3.2 98 1304 0.3 9 1923 3.4 104	28 Sa 0107 0.3 9 0721 3.7 113 1320 0.2 6 1950 3.9 119	13 Su 0031 0.5 15 0705 3.5 107 1257 0.2 6 1925 3.8 116	28 M 0122 0.6 18 0733 3.7 113 1323 0.4 12 2002 4.0 122	13 W 0128 0.4 12 0800 4.0 122 1348 0.2 6 2022 4.5 137	13 Th 0216 0.9 27 0827 3.9 119 1405 0.8 24 ● 2051 4.2 128						
	14 Sa 0107 0.4 12 0741 3.5 107 1334 0.0 0 1956 3.7 113	29 Su 0145 0.2 6 0758 3.9 119 1353 0.1 3 2024 4.0 122	14 M 0110 0.3 9 0743 3.7 113 1333 0.0 0 2003 4.1 125	29 Tu 0158 0.5 15 0809 3.8 116 1354 0.4 12 ● 2035 4.1 125	14 F 0213 0.3 9 0844 4.2 128 1431 0.2 6 ● 2104 4.7 143						
	15 Su 0140 0.1 3 0813 3.8 116 1405 -0.1 -3 2029 4.0 122	30 M 0220 0.1 3 0832 4.0 122 1423 0.0 0 ● 2057 4.1 125	15 Tu 0149 0.1 3 0821 3.9 119 1409 -0.1 -3 ● 2040 4.3 131	30 W 0231 0.5 15 0844 3.8 116 1425 0.4 12 2108 4.1 125	15 F 0258 0.3 9 0927 4.2 128 1515 0.3 9 2147 4.7 143						
	31 Th 0304 0.5 15 0919 3.8 116 1455 0.4 12 2141 4.1 125	31 Th 0304 0.5 15 0919 3.8 116 1455 0.4 12 2141 4.1 125			30 Sa 0322 0.8 24 0937 3.9 119 1509 0.8 24 2156 4.2 128						

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pusan, Korea, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0354	0.9	27	<b>16</b>	0421	0.7	21	<b>1</b>	0433	1.0	30
	1012	3.9	119	M	1042	4.4	134	W	1059	4.1	125
	1541	0.8	24		1640	0.8	24		1628	1.1	34
	2229	4.1	125		2300	4.8	146		2309	4.2	128
<b>2</b> M	0428	0.9	27	<b>17</b>	0508	0.8	24	<b>2</b>	0505	1.1	34
	1048	3.8	116	Tu	1125	4.2	128	Th	1141	4.3	131
	1614	0.9	27		1730	1.0	30		1749	1.3	40
	2302	4.0	122		2343	4.5	137		2356	4.3	131
<b>3</b> Tu	0502	1.0	30	<b>18</b>	0557	1.1	34	<b>3</b>	0543	1.2	37
	1124	3.6	110	W	1210	3.9	119	F	1214	3.8	116
	1650	1.1	34		1826	1.3	40		1748	1.4	43
	2336	3.8	116								
<b>4</b> W	0542	1.1	34	<b>19</b>	0027	4.1	125	<b>4</b>	0021	3.8	116
	1204	3.5	107	Th	0652	1.3	40	Sa	0632	1.4	43
	1732	1.2	37		1259	3.6	110		1300	3.7	113
					1932	1.6	49		1848	1.6	49
<b>5</b> Th	0014	3.6	110	<b>20</b>	0116	3.7	113	<b>5</b>	0109	3.5	107
	0631	1.3	40	F	0757	1.6	49	Su	0744	1.6	49
	1249	3.3	101		1358	3.4	104	O	2014	1.8	55
	1826	1.4	43		2048	1.8	55				
<b>6</b> F	0058	3.4	104	<b>21</b>	0215	3.4	104	<b>6</b>	0217	3.3	101
	0737	1.4	43	Sa	0907	1.7	52	M	1050	1.9	58
	1343	3.2	98		1522	3.2	98		1523	3.5	107
	O	1941	1.6	49	2202	1.8	55		2149	1.7	52
<b>7</b> Sa	0154	3.3	101	<b>22</b>	0334	3.2	98	<b>7</b>	0400	3.3	101
	0851	1.4	43	Su	1015	1.7	52	Tu	1031	1.5	46
	1451	3.2	98		1706	3.3	101		1657	3.7	113
	2107	1.6	49		2309	1.8	55		2307	1.5	46
<b>8</b> Su	0310	3.2	98	<b>23</b>	0506	3.2	98	<b>8</b>	0540	3.6	110
	0959	1.3	40	M	1114	1.6	49	W	1136	1.3	40
	1613	3.4	104		1810	3.5	107		1810	4.1	125
	2223	1.4	43								
<b>9</b> M	0443	3.3	101	<b>24</b>	0005	1.6	49	<b>9</b>	0010	1.3	40
	1100	1.1	34	Tu	0612	3.3	101	Th	0644	3.9	119
	1729	3.7	113		1203	1.5	46		1233	1.0	30
	2327	1.2	37		1854	3.8	116		1905	4.6	140
<b>10</b> Tu	0559	3.6	110	<b>25</b>	0051	1.5	46	<b>10</b>	0104	1.0	30
	1155	0.9	27	W	0658	3.6	110	Sa	0734	4.3	131
	1829	4.1	125		1243	1.4	43		1323	0.8	24
					1931	4.0	122		1952	4.9	149
<b>11</b> W	0023	1.0	30	<b>26</b>	0129	1.3	40	<b>11</b>	0152	0.7	21
	0656	3.9	119	Th	0737	3.8	116	Sa	0819	4.6	140
	1245	0.7	21		1319	1.2	37		1410	0.6	18
	1920	4.5	137		2004	4.2	128		2036	5.2	158
<b>12</b> Th	0114	0.8	24	<b>27</b>	0203	1.1	34	<b>12</b>	0237	0.6	18
	0746	4.2	128	F	0813	4.0	122	M	0890	4.8	146
	1334	0.6	18		1352	1.1	34		1455	0.5	15
	2007	4.8	146		2036	4.4	134		2117	5.3	162
<b>13</b> F	0203	0.6	18	<b>13</b>	0237	0.6	18	<b>28</b>	0308	0.8	24
	0832	4.4	134	Sa	0847	4.1	125	Tu	0930	4.5	137
	1420	0.5	15		1424	1.0	30		1505	0.8	24
	2051	5.0	152		2107	4.5	137		2158	5.2	158
<b>14</b> Sa	0250	0.5	15	<b>29</b>	0305	0.9	27	<b>14</b>	0400	0.6	18
	0916	4.5	137	Su	0920	4.2	128	W	1022	4.8	146
	1507	0.5	15		1454	0.9	27		1621	0.8	24
	2134	5.1	155		2137	4.5	137		2237	5.0	152
<b>15</b> Su	0336	0.5	15	<b>15</b>	0440	0.8	24	<b>30</b>	0402	0.8	24
	0959	4.5	137	F	0953	4.2	128	Tu	1032	4.4	134
	1553	0.6	18		1525	0.9	27		1703	1.0	30
	2217	5.0	152		2208	4.4	134		2317	4.7	143
<b>31</b> Tu	0403	0.9	27	<b>31</b>	0432	0.9	27				
	1026	4.2	128	F	1026	4.2	128		1106	4.2	128
	1556	1.0	30		1556	1.0	30		1639	1.1	34
	2238	4.3	131		2238	4.3	131		2314	4.1	125

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pusan, Korea, 2018

Times and Heights of High and Low Waters

October				November				December									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 1 M 0518 1206 1750	ft 1.1 3.8 1.3	cm 34 116 40	h m 16 Tu 0017 0542 1241 1953	ft 3.0 1.5 3.1 1.7	cm 91 46 94 52	h m 1 Th 0125 0809 1408 2111	ft 2.8 1.4 3.1 1.3	cm 85 43 94 40	h m 16 F 0151 0807 1419 2145	ft 2.4 1.4 2.6 1.1	cm 73 43 79 34	h m 1 Sa 0240 0921 1505 2157	ft 2.6 1.1 2.9 0.9	cm 79 34 88 27	h m 16 Su 0206 0814 1421 2130	ft 2.4 1.1 2.5 0.9	cm 73 34 76 27
2 Tu 0019 0617 1304 ○ 1916	3.3 1.4 3.5 1.6	101 43 107 49	17 W 0114 0703 1350 ○ 2138	2.7 1.7 2.8 1.6	82 52 85 49	2 F 0314 0949 1546 2230	2.7 1.3 3.1 1.1	82 40 94 34	17 Sa 0321 0945 1601 2241	2.4 1.3 2.6 0.9	73 40 79 27	2 Su 0422 1032 1632 2257	2.7 1.0 2.9 0.7	82 30 88 21	17 M 0321 0937 1545 2227	2.5 1.1 2.5 0.7	76 34 76 21
3 W 0129 0817 1426 2123	3.0 1.7 3.3 1.6	91 52 101 49	18 Th 0244 0934 1601 2247	2.5 1.8 2.7 1.4	76 55 82 43	3 Sa 0501 1059 1710 2327	3.0 1.1 3.3 0.8	91 34 101 24	18 Su 0448 1046 1716 2324	2.6 1.1 2.8 0.7	79 34 85 21	3 M 0536 1130 1739 2346	3.0 0.8 3.1 0.6	91 24 94 18	18 Tu 0441 1042 1708 2317	2.7 0.9 2.6 0.5	82 27 79 15
4 Th 0329 1005 1615 2250	2.9 1.5 3.4 1.4	88 46 104 43	19 F 0448 1050 1729 2335	2.6 1.6 3.0 1.2	79 49 91 37	4 Su 0602 1153 1808	3.3 0.8 3.6	101 24 110	19 M 0544 1133 1805	2.9 0.9 3.0	88 27 91	4 Tu 0626 1219 1830	3.3 0.6 3.3	101 18 101	19 W 0545 1136 1809	3.0 0.7 2.9	91 21 88
5 F 0523 1116 1736 2349	3.2 1.2 3.7 1.0	98 37 113 30	20 Sa 0550 1138 1813	3.0 1.3 3.2	91 40 98	5 M 0013 0646 1238 1853	0.5 3.7 0.5 3.9	15 113 15 119	20 Tu 0002 0627 1213 1846	0.5 3.3 0.6 3.3	15 101 18 101	5 W 0028 0707 1302 1913	0.4 3.5 0.4 3.5	12 107 12 107	20 Th 0003 0636 1224 1858	0.3 3.3 0.4 3.2	9 101 12 98
6 Sa 0621 1211 1831	3.7 0.9 4.1	113 125 125	21 Su 0012 0629 1215 1848	0.9 3.3 1.0 3.5	27 101 30 107	6 Tu 0052 0725 1319 1933	0.3 4.0 0.3 4.1	9 122 9 125	21 W 0038 0706 1251 1923	0.3 3.6 0.4 3.5	9 110 12 107	6 Th 0105 0745 1341 1952	0.3 3.8 0.3 3.6	9 116 9 110	21 F 0047 0721 1310 1943	0.1 3.7 0.2 3.4	3 113 6 104
7 Su 0035 0705 1257 1915	0.7 4.1 0.6 4.5	21 27 125 137	22 M 0043 0703 1248 1920	0.6 3.7 0.7 3.8	18 113 113 116	7 W 0128 0801 1357 2011	0.2 4.2 0.2 4.2	6 128 6 128	22 Th 0112 0743 1328 2000	0.1 3.9 0.2 3.7	3 119 6 113	7 F 0139 0820 1418 ● 2029	0.2 3.9 0.3 3.6	6 119 9 110	22 Sa 0129 0804 1354 2025	0.0 4.0 0.0 3.6	0 122 0 110
8 M 0116 0745 1338 1955	0.4 4.4 0.4 4.7	12 134 12 143	23 Tu 0113 0736 1319 1951	0.4 3.9 0.5 4.0	12 119 15 122	8 Th 0201 0836 1433 ● 2047	0.1 4.3 0.2 4.1	3 131 6 125	23 F 0147 0820 1405 ○ 2037	0.0 4.1 0.1 3.8	0 125 3 116	8 Sa 0212 0855 1453 2105	0.2 3.9 0.3 3.6	6 119 9 110	23 Su 0211 0846 1438 ○ 2108	- 0.1 4.2 - 0.1 3.7	- 3 128 - 3 113
9 Tu 0153 0822 1417 ● 2033	0.3 4.6 0.3 4.8	9 140 9 146	24 W 0142 0808 1350 2023	0.3 4.2 0.4 4.1	9 128 12 125	9 F 0233 0911 1508 2122	0.1 4.3 0.3 4.0	3 131 9 122	24 Sa 0223 0858 1444 2116	- 0.1 4.2 0.0 3.8	- 3 128 0 116	9 Su 0244 0929 1528 2141	0.2 3.9 0.3 3.5	6 119 9 107	24 M 0254 0927 1522 2150	- 0.2 4.3 - 0.1 3.7	- 6 131 - 3 113
10 W 0228 0858 1454 2110	0.2 4.7 0.3 4.7	6 143 9 143	25 Th 0212 0841 1422 ○ 2055	0.2 4.3 0.3 4.1	6 131 9 125	10 Sa 0304 0945 1542 2158	0.2 4.1 0.4 3.8	6 125 12 116	25 Su 0300 0937 1524 2155	0.0 4.2 0.1 3.7	0 128 3 113	10 M 0316 1003 1603 2218	0.2 3.8 0.4 3.4	6 116 12 104	25 Tu 0338 1010 1607 2233	- 0.1 4.2 0.0 3.6	- 3 128 0 110
11 Th 0301 0933 1529 2145	0.3 4.7 0.4 4.5	9 143 12 137	26 F 0242 0914 1455 2129	0.1 4.4 0.3 4.1	3 134 9 125	11 Su 0335 1019 1617 2234	0.4 3.9 0.6 3.5	12 119 18 107	26 M 0339 1018 1606 2237	0.1 4.1 0.3 3.5	3 125 9 107	11 Tu 0349 1037 1639 2255	0.4 3.6 0.5 3.2	12 110 15 98	26 W 0424 1053 1655 2317	0.1 4.1 0.2 3.4	3 125 6 104
12 F 0332 1007 1604 2221	0.4 4.5 0.6 4.2	12 137 18 128	27 Sa 0313 0950 1530 2203	0.2 4.3 0.3 3.9	6 131 9 119	12 M 0405 1054 1654 2312	0.6 3.6 0.8 3.2	18 110 24 98	27 Tu 0421 1101 1654 2322	0.3 3.9 0.5 3.3	9 119 15 101	12 W 0422 1112 1718 2334	0.5 3.4 0.6 3.0	15 104 18 91	27 Th 0513 1137 1746 ● 2029	0.3 3.8 0.4 3.0	9 116 12 112
13 Sa 0402 1042 1639 2256	0.6 4.2 0.9 3.8	18 128 27 116	28 Su 0346 1027 1608 2241	0.4 4.2 0.5 3.6	12 128 15 110	13 Tu 0438 1131 1740 2354	0.8 3.3 1.0 2.9	24 101 30 88	28 W 0511 1148 1752 2041	0.6 3.6 0.7 1.0	18 110 21 30	13 M 0459 1148 1805 2041	0.7 3.1 0.8 0.9	21 94 24 27	28 F 0003 0610 1224 1846	3.2 0.6 3.5 0.6	98 18 107 18
14 Su 0432 1117 1718 2334	0.9 3.8 1.2 3.4	27 116 37 104	29 M 0423 1108 1651 2324	0.6 3.9 0.8 3.3	18 119 24 101	14 W 0516 1213 1853 2030	1.1 3.0 1.2 3.7	34 91 37 40	29 Th 0014 0617 1241 1911	3.0 0.9 3.3 0.9	91 27 101 27	14 F 0016 0544 1229 1907	2.7 0.9 2.9 0.9	82 24 88 27	29 Sa 0055 0721 1316 ● 1956	2.9 0.8 3.1 0.8	88 24 94 24
15 M 0504 1155 1809	1.2 3.4 1.5	37 104 46	30 Tu 0507 1155 1746	0.9 3.6 1.1	27 110 34	15 Th 0045 0613 1305 ○ 2030	2.6 1.3 2.7 1.3	79 40 82 40	30 F 0116 0751 1345 ○ 2041	2.7 1.1 3.0 1.0	82 34 91 30	15 M 0105 0646 1317 ○ 2022	2.6 1.0 2.7 0.9	79 30 82 27	30 Su 0158 0841 1419 2110	2.7 1.0 2.8 0.9	82 30 85 27
			31 W 0015 0611 1252 1917	3.0 1.2 3.3 1.3	91 37 101 40									31 M 0323 0957 1539 2218	2.6 1.0 2.7 0.9	79 30 82 27	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Inch'on, Korea, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0403 25.4 M 1012 -0.5 1642 29.1 2255 1.4	ft 774 - 15 887 43	h m 16 0441 23.4 Tu 1047 2.1 1717 26.4 2327 3.8	cm 713 64 805 116	h m 1 Th 0536 26.5 1136 -1.9 1811 30.0	ft 808 - 58 914	h m 16 0544 24.8 F 1143 1.2 1807 27.1	cm 756 37 826	h m 1 Th 0439 25.9 1038 -0.1 1712 29.3	ft 789 - 3 893	h m 16 0443 24.8 F 1044 2.5 1705 26.8	cm 756 76 817
● ● ○ 2342 0.8 24				●				2317 0.9 ● 2358 0.1	27	2314 2.8 3 2345 1.8	85 55
2 0453 26.2 Tu 1100 -1.7 O 1731 30.0 2342 0.8	799 - 52 914 24	17 0522 23.9 W 1125 1.6 1754 26.7	728 49 814	2 0016 0.4 F 0624 26.9 1221 -2.0 1854 29.8	12 820 - 61 908	17 0014 2.5 Sa 0619 25.2 1217 0.7 1839 27.3	76 768 21 832	2 0526 27.2 F 1124 -1.1 1754 29.8	829 - 34 908	17 0519 25.9 Sa 1120 1.4 1737 27.5	789 43 838
3 0543 26.4 W 1147 -2.2 1820 30.2	805 - 67 920	18 0003 3.5 Th 0601 24.1 1201 1.3 1829 26.7	107 735 40 814	3 0057 0.3 Sa 0709 26.8 1304 -1.4 1934 29.1	9 817 - 43 887	18 0045 1.9 Su 0653 25.6 1250 0.4 1909 27.4	58 780 12 835	3 0609 27.9 Sa 1206 -1.2 1832 29.5	850 - 37 899	18 0554 26.8 Su 1154 0.7 1809 27.8	817 21 847
4 0028 0.7 Th 0632 26.3 1232 -2.1 1908 29.9	21 802 - 64 911	19 0036 3.3 F 0638 24.0 1235 1.2 1902 26.6	101 732 811	4 0137 0.6 Su 0751 26.5 1344 -0.3 2011 28.0	18 808 - 9 853	19 0115 1.4 M 0725 25.9 1323 0.3 1938 27.5	43 789 9 838	4 0035 -0.1 Su 0650 28.0 1246 -0.7 1908 28.7	- 3 853 - 21 875	19 0016 1.0 M 0627 27.4 1229 0.3 1840 28.0	30 835 9 853
5 0113 1.0 F 0721 25.9 1317 -1.4 1953 29.1	30 789 - 43 887	20 0109 3.2 Sa 0713 24.0 1309 1.1 1933 26.6	98 732 34 811	5 0214 1.2 M 0830 25.9 1424 1.2 2044 26.7	37 789 37 814	20 0145 1.0 Tu 0756 26.2 1358 0.6 2009 27.3	30 799 18 832	5 0111 0.1 M 0728 27.7 1324 0.3 1941 27.8	3 844 9 847	20 0047 0.3 Tu 0700 27.9 1304 0.3 1912 28.0	9 850 9 853
6 0157 1.6 Sa 0808 25.4 1401 -0.2 2035 27.9	49 774 - 6 850	21 0140 2.9 Su 0746 24.1 1342 1.2 2002 26.5	88 735 37 808	6 0249 2.1 Tu 0907 25.0 1503 3.2 2117 25.1	64 762 98 765	21 0217 0.8 W 0829 26.3 1435 1.5 2042 26.6	24 802 46 811	6 0144 0.7 Tu 0803 27.1 1401 1.7 2012 26.6	21 826 52 811	21 0119 -0.1 W 0734 28.3 1341 0.6 1946 27.6	- 3 863 18 841
7 0239 2.4 Su 0853 24.6 1445 1.5 2114 26.5	73 750 46 808	22 0210 2.7 M 0818 24.1 1416 1.5 2033 26.3	82 735 46 802	7 0325 3.4 W 0945 23.7 1544 5.4 2152 23.3	104 722 165 710	22 0253 1.2 Th 0906 25.9 1516 3.0 2121 25.3	37 789 91 771	7 0216 1.6 W 0836 26.3 1436 3.4 2042 25.3	49 860 104 771	22 0154 -0.1 Th 0809 28.2 1420 1.6 2022 26.8	- 3 860 49 817
8 0322 3.5 M 0937 23.5 1529 3.6 2154 24.7	107 716 110 753	23 0243 2.6 Tu 0852 24.0 1453 2.3 2107 25.6	79 732 70 780	8 0404 4.9 Th 1030 22.3 1634 7.8 O 2237 21.3	149 680 238 649	23 0335 2.3 F 0953 24.8 1609 5.3 O 2212 23.3	70 756 162 710	8 0248 2.8 Th 0909 25.2 1512 5.4 2114 23.7	85 768 165 722	23 0231 0.5 F 0848 27.6 1502 3.3 2103 25.4	15 841 101 774
9 0406 4.8 Tu 1025 22.2 O 2238 22.8	146 677 695	24 0320 2.9 W 0931 23.6 1537 3.7 2148 24.5	88 719 113 747	9 0455 6.6 F 1129 20.9 1746 9.9 2343 19.6	201 637 302 597	24 0430 4.1 Sa 1059 23.3 1723 7.7 2328 21.3	125 716 649	9 0321 4.3 F 0945 23.7 1553 7.6 O 2154 21.9	131 722 668	24 0314 2.0 Sa 0936 26.2 1554 5.7 2155 23.3	61 799 174 710
10 0458 6.0 W 1122 21.0 1724 8.1 2335 21.1	183 640 247 643	25 0406 3.7 Th 1024 22.8 1634 5.6 O 2245 22.9	113 695 171 698	10 0609 7.9 Sa 1253 20.2 1923 10.4	241 616 317	25 0549 5.7 Su 1235 22.5 1904 8.5	174 686 259	10 0401 6.3 Sa 1034 22.0 1652 9.9 2252 19.9	192 671 607	25 0408 4.1 Su 1040 24.3 1707 8.0 O 2311 21.2	125 741 244 646
11 0604 6.9 Th 1235 20.5 1846 9.2	210 625 280	26 0507 4.8 F 1137 22.1 1754 7.3	146 674 223	11 0111 18.9 Su 0737 7.9 1424 21.1 2048 9.2	576 241 643 280	26 0107 20.6 M 0723 5.7 1414 23.6 2035 7.1	628 174 719 216	11 0502 8.3 Su 1150 20.4 1828 11.3	253 622 344	26 0524 6.2 M 1213 23.0 1846 9.0	189 701 274
12 0047 20.1 F 0718 6.9 1355 21.1 2009 8.8	613 210 643 268	27 0003 21.5 Sa 0627 5.3 1307 22.4 1929 7.5	655 162 683 229	12 0235 19.8 M 0851 6.5 1532 22.9 2147 7.2	604 198 698 219	27 0237 21.8 Tu 0844 4.0 1529 25.9 2142 4.7	664 122 789 143	12 0023 18.6 M 0640 9.4 1333 20.4 2012 10.4	567 287 622 317	27 0052 20.4 Tu 0702 6.8 1356 23.5 2019 7.6	622 207 716 232
13 0202 20.3 Sa 0827 5.9 1504 22.7 2115 7.4	619 180 692 226	28 0132 21.4 Su 0750 4.4 1432 24.1 2049 6.0	652 134 735 183	13 0337 21.4 Tu 0946 4.7 1620 24.6 2231 5.4	652 143 750 165	28 0345 24.0 W 0947 1.7 1626 28.0 2233 2.5	732 52 853 76	13 0200 19.1 Tu 0815 8.4 1458 21.9 2121 8.3	582 256 668 253	28 0226 21.8 W 0829 5.3 1513 25.5 2126 5.1	664 162 777 155
14 0306 21.3 Su 0922 4.5 1556 24.3 2206 5.8	649 137 741 177	29 0249 22.6 M 0900 2.5 1539 26.4 2152 3.9	689 76 805 119	14 0425 23.0 W 1029 3.1 1659 25.9 2308 4.0	701 94 789 122			14 0312 21.0 W 0919 6.3 1552 23.9 2206 6.1	640 192 728 186	29 0334 24.3 Th 0933 3.1 1608 27.4 2215 2.7	741 94 835 82
15 0357 22.5 M 1007 3.1 1639 25.6 2248 4.6	686 94 780 140	30 0352 24.2 Tu 0958 0.5 1635 28.4 2245 2.1	738 15 866 64	15 0506 24.1 Th 1107 1.9 1734 26.7 2342 3.1	735 58 814 94			15 0403 23.1 Th 1005 4.2 1631 25.6 2242 4.2	704 128 780 128	30 0426 26.5 F 1024 1.3 1651 28.6 2256 1.1	808 40 872 34
		31 0446 25.6 W 1049 -1.1 1724 29.6	780 - 34 902							31 0510 28.0 Sa 1107 0.3 1729 29.0	853 9 884
		○ 2332 0.9 233	27							○ 2333 0.2 233	6

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Inch'on, Korea, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0549	28.7	875	<b>16</b> M	0524	28.1	856	<b>1</b> Tu	0601	29.0	884
	1148	0.2	6		1129	1.2	37		1147	1.6	49
	1804	28.6	872		1736	27.9	850		1746	27.6	841
		●	2345	0.3	9				2355	-0.5	-15
<b>2</b> M	0008	0.0	0	<b>17</b> Tu	0600	29.0	884	<b>2</b> W	0013	1.1	34
	0627	28.8	878		1207	0.8	24		1230	1.6	49
	1226	0.7	21		1811	28.0	853		1830	27.3	832
	1837	27.9	850			1241	3.2	98			
<b>3</b> Tu	0042	0.4	12	<b>18</b> W	0019	-0.3	-9	<b>3</b> Th	0045	1.7	52
	0702	28.5	869		0637	29.5	899		0702	30.4	927
	1302	1.7	52		1246	0.8	24		1314	2.1	64
	1909	27.0	823		1848	27.8	847		1916	26.8	817
<b>4</b> W	0114	1.0	30	<b>19</b> Th	0055	-0.5	-15	<b>4</b> F	0118	2.5	76
	0735	27.9	850		0715	29.7	905		0742	27.4	835
	1338	2.8	85		1326	1.3	40		1353	5.1	155
	1941	26.0	792		1928	27.3	832		1951	24.4	744
<b>5</b> Th	0145	1.8	55	<b>20</b> F	0134	-0.3	-9	<b>5</b> Sa	0151	3.4	104
	0807	27.2	829		0756	29.4	896		0816	26.6	811
	1412	4.2	128		1408	2.3	70		1428	6.2	189
	2013	25.0	762		2010	26.4	805		2027	23.5	716
<b>6</b> F	0216	2.9	88	<b>21</b> Sa	0215	0.6	18	<b>6</b> Su	0224	4.4	134
	0838	26.2	799		0839	28.6	872		0851	25.6	780
	1447	5.8	177		1454	3.9	119		1505	7.4	226
	2046	23.7	722		2056	25.0	762		2108	22.3	680
<b>7</b> Sa	0248	4.3	131	<b>22</b> Su	0300	2.2	67	<b>21</b> M	0252	2.2	67
	0913	24.9	759		0929	27.1	826		0927	27.8	847
	1525	7.6	232		1547	5.9	180		1541	5.6	171
	2125	22.2	677		2152	23.2	707		2150	23.6	719
<b>8</b> Su	0325	6.1	186	<b>23</b> M	0355	4.3	131	<b>7</b> M	0302	5.8	177
	0956	23.2	707		1032	25.2	768		0932	24.2	738
	1614	9.5	290		1657	7.9	241		1549	8.7	265
	2219	20.4	622		2305	21.5	655		2157	21.0	640
<b>9</b> M	0417	8.1	247	<b>8</b> Tu	0348	7.5	229	<b>23</b> W	0452	6.4	195
	1101	21.4	652		1025	22.8	695		1131	24.5	747
	1734	11.1	338		1650	9.9	302		1757	7.8	238
	2341	19.0	579		●	2305	19.9	607		●	2256
<b>10</b> Tu	0543	9.7	296	<b>24</b> Tu	0508	6.5	198	<b>9</b> W	0455	9.0	274
	1235	20.6	628		1155	23.7	722		1139	21.7	661
	1920	10.9	332		1826	8.7	265		1815	10.3	314
<b>11</b> W	0118	19.1	582	<b>25</b> W	0038	20.9	637	<b>10</b> Th	0029	19.7	600
	0726	9.5	290		0641	7.4	226		0626	9.6	293
	1405	21.5	655		1328	23.6	719		1302	21.7	661
	2038	9.0	274		1954	7.5	229		1936	9.1	277
<b>12</b> Th	0236	20.9	637	<b>11</b> F	0207	22.2	677	<b>25</b> F	0137	22.5	686
	0841	7.6	232		0807	6.5	198		0737	7.7	235
	1507	23.4	713		1444	24.9	759		1402	23.9	728
	2127	6.6	201		2100	5.3	162		2023	5.8	177
<b>13</b> F	0330	23.2	707	<b>12</b> F	0315	24.5	747	<b>11</b> Sa	0147	21.0	640
	0933	5.4	165		0913	4.7	143		0750	8.6	262
	1551	25.2	768		1539	26.4	805		1411	22.9	698
	2205	4.5	137						2036	7.0	213
<b>14</b> Sa	0412	25.3	771	<b>13</b> F	0335	25.4	774	<b>27</b> F	0341	26.2	799
	1014	3.5	107		1004	3.1	94		0940	4.7	143
	1628	26.6	811		1622	27.3	832		1546	26.0	792
	2239	2.7	82		2229	1.6	49		2200	2.7	82
<b>15</b> Su	0449	26.9	820	<b>14</b> M	0448	28.2	860	<b>29</b> O	0416	27.5	838
	1052	2.1	64		1047	2.2	67		1107	3.9	119
	1702	27.5	838		1659	27.6	841		1626	27.0	823
	2311	1.3	40		2305	0.8	24		2237	1.1	34
<b>16</b> Su	0526	28.9	881	<b>15</b> M	0455	29.0	884	<b>30</b> W	0538	28.6	872
	1127	2.0	61		1105	2.0	61		1145	4.0	122
	1733	27.3	832		1705	27.6	841		1740	25.6	780
	2339	0.7	21		●	2315	0.1	3		2347	2.0
<b>17</b> Su	0613	28.4	866	<b>31</b> Th	0613	28.4	866				
	1223	4.4	134		1818	25.0	762				
	1817	2.2	67								

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

## Inch'on, Korea, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0039	3.2	98	<b>16</b> M	0056	-0.4	-12	<b>1</b> W	0130	3.1	94
	0709	27.5	838		0731	30.9	942		0206	2.1	64
	1319	5.4	165		1336	2.2	67		0827	28.6	872
	1921	24.2	738		1948	27.1	826		1432	2.7	82
<b>2</b> M	0115	3.5	107	<b>17</b> Tu	0141	0.4	12	<b>2</b> Th	0203	3.4	104
	0744	27.2	829		0815	30.1	917		0247	4.0	122
	1353	5.5	168		1420	2.7	82		0902	27.0	823
	1958	24.0	732		2035	26.7	814		1509	3.9	119
<b>3</b> Tu	0150	3.8	116	<b>18</b> W	0226	1.9	58	<b>3</b> F	0237	4.1	125
	0817	26.9	820		0857	28.8	878		0329	6.3	192
	1425	5.6	171		1503	3.5	107		0938	25.2	753
	2034	23.8	725		2121	25.9	789		1548	5.5	168
<b>4</b> W	0224	4.3	131	<b>19</b> Th	0312	3.8	116	<b>4</b> Sa	0316	5.2	158
	0849	26.4	805		0937	27.2	829		0418	8.8	268
	1459	5.8	177		1546	4.6	140		1021	23.1	704
	2110	23.5	716		2208	24.8	756		1636	7.3	223
<b>5</b> Th	0302	5.1	155	<b>20</b> F	0401	6.1	186	<b>5</b> Su	0405	6.9	210
	0923	25.7	783		1019	25.3	771		1724	8.8	268
	1536	6.1	186		1634	6.0	183		0524	10.9	332
	2151	23.0	701		2300	23.6	719		1120	21.3	649
<b>6</b> F	0345	6.3	192	<b>21</b> O	0459	8.5	259	<b>6</b> M	0514	8.7	265
	1005	24.8	756		1109	23.3	710		0655	11.9	363
	1622	6.6	201		1732	7.2	219		1744	6.6	201
	2244	22.5	686						1243	20.3	619
<b>7</b> Sa	0441	7.7	235	<b>22</b> Su	0005	22.6	689	<b>7</b> Tu	0024	23.6	719
	1100	23.7	722		0613	10.2	311		0159	22.5	686
	1722	7.0	213		1214	21.8	664		0825	10.9	332
	2352	22.4	683		1843	7.9	241		1410	20.8	634
<b>8</b> Su	0557	8.8	268	<b>23</b> M	0123	22.7	692	<b>8</b> W	0152	24.7	753
	1211	23.0	701		0737	10.5	320		0928	8.9	271
	1835	6.8	207		1329	21.4	652		1517	22.5	686
					1955	7.5	229		2126	6.3	192
<b>9</b> M	0109	23.3	710	<b>24</b> Tu	0238	23.8	725	<b>9</b> Th	0305	26.9	820
	0722	8.6	262		0851	9.4	287		0922	6.4	195
	1327	23.1	704		1439	22.0	671		1519	24.8	756
	1947	5.6	171		2056	6.3	192		2128	2.7	82
<b>10</b> Tu	0221	25.1	765	<b>25</b> W	0336	25.3	771	<b>10</b> F	0404	29.1	887
	0836	7.3	223		0947	7.9	241		1017	4.3	131
	1434	24.1	735		1536	23.2	707		1616	26.5	808
	2049	3.8	116		2146	5.0	152		2221	0.9	27
<b>11</b> W	0321	27.3	832	<b>26</b> Th	0422	26.7	814	<b>11</b> Sa	0455	30.7	936
	0937	5.5	168		1032	6.5	198		1106	2.6	79
	1532	25.4	774		1623	24.2	738		1708	27.7	844
	2144	2.0	61		2230	3.9	119		● 2310	-0.4	-12
<b>12</b> Th	0414	29.2	890	<b>27</b> F	0502	27.6	841	<b>12</b> Su	0542	31.5	960
	1029	3.9	119		1112	5.5	168		1151	1.7	52
	1625	26.4	805		1705	24.9	759		1757	28.3	863
	2234	0.5	15		2309	3.2	98		2357	-0.8	-24
<b>13</b> F	0505	30.5	930	<b>28</b> Sa	0539	28.0	853	<b>13</b> M	0628	31.5	960
	1118	2.8	85		1149	5.0	152		0621	28.5	869
	1717	27.1	826		1746	25.2	768		1844	28.5	869
	● 2322	-0.4	-12		● 2346	2.9	88		1837	26.7	814
<b>14</b> Sa	0554	31.2	951	<b>29</b> Su	0614	28.1	856	<b>14</b> Tu	0041	-0.4	-12
	1206	2.2	67		1224	4.7	143		0711	31.0	945
	1808	27.3	832		1825	25.3	771		1315	1.4	43
									1930	28.3	863
<b>15</b> Su	0009	-0.7	-21	<b>30</b> M	0022	2.9	88	<b>15</b> W	0124	0.5	15
	0643	31.3	954		0649	28.0	853		0750	30.0	914
	1252	2.1	64		1257	4.6	140		1354	1.8	55
	1859	27.3	832		1902	25.3	771		2012	27.8	847
<b>31</b> Tu	0056	2.9	88	<b>31</b> F	0721	27.8	847	<b>31</b> Tu	0140	2.8	85
					1328	4.4	134		0749	27.9	850
					1936	25.2	768		1358	2.6	79
									2010	27.0	823

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Inch'on, Korea, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0236	4.4	134	16 Tu 0312	8.2	250	1 Th 0419	7.5	229	1 Sa 0515	6.7	204
0834	26.0	792	0909	22.4	683	1026	21.9	668	1133	21.4	652
1446	2.7	82	1511	6.4	195	1630	5.7	174	1732	6.4	195
2105	27.0	823	2143	23.6	719	2315	24.1	735	2318	21.4	652
2 Tu 0324	6.3	192	17 W 0401	10.0	305	2054	8.6	262	0008	23.2	707
0922	24.2	738	1003	20.7	631	1156	21.0	640	0635	6.8	207
1536	4.4	134	1601	8.3	253	1758	7.1	216	1257	21.6	658
2204	25.3	771	2247	22.0	671	2318	21.4	652	1859	7.0	213
3 W 0428	8.5	259	18 Th 0517	11.5	351	0046	23.7	722	0127	23.1	704
1031	22.2	677	1122	19.4	591	0714	7.8	238	0750	5.6	171
1644	6.4	195	1722	9.9	302	1328	21.8	664	1416	23.1	704
2330	23.9	728	1929	6.6	201	1930	8.7	265	2017	6.2	189
4 Th 0602	9.8	299	19 F 0016	21.1	643	0208	24.7	753	0234	23.8	725
1209	21.1	643	0701	11.3	344	0828	5.7	174	0850	3.8	116
1819	7.4	226	1258	19.4	591	1444	24.1	735	1518	25.1	765
			1905	9.9	302	2043	4.8	146	2118	4.8	146
5 F 0113	24.0	732	20 Sa 0146	21.9	668	0310	26.3	802	0327	24.7	753
0740	8.8	268	0821	9.4	287	0922	3.2	98	0938	2.1	64
1347	22.1	674	1418	21.1	643	1540	26.5	808	1606	26.8	817
1951	6.3	192	2024	8.2	250	2139	3.0	91	2207	3.6	110
6 Sa 0236	25.9	789	21 Su 0250	23.6	719	0357	27.5	838	0410	25.3	771
0853	6.2	189	0912	7.0	213	1005	1.3	40	1019	1.0	30
1501	24.5	747	1514	23.4	713	1625	28.3	863	1647	27.9	850
2102	4.0	122	2117	6.0	183	2225	1.8	55	2250	3.0	91
7 Su 0336	28.0	853	22 M 0335	25.4	774	0436	28.0	853	0449	25.5	777
0946	3.5	107	0950	4.8	146	1044	0.2	6	1056	0.6	18
1557	27.0	823	1557	25.5	777	1705	29.3	893	1639	27.9	850
2156	1.9	58	2159	4.1	125	2306	1.5	46	2248	2.3	70
8 M 0422	29.5	899	23 Tu 0411	26.8	817	0512	27.8	847	0446	26.7	814
1030	1.4	43	1023	3.0	91	1120	-0.1	-3	1057	0.1	3
1643	28.9	881	1633	27.1	826	1742	29.4	896	1716	28.9	881
2242	0.5	15	2236	2.7	82	2346	1.8	55	2327	1.7	52
9 Tu 0502	30.1	917	24 W 0444	27.6	841	0547	27.1	826	0524	26.9	820
1109	0.2	6	1055	1.7	52	1154	0.2	6	1134	-0.7	-21
1724	29.8	908	1707	28.1	856	1818	29.0	884	1754	29.4	896
● 2324	0.2	6	2312	1.9	58	2008	3.2	98	2060	24.7	753
10 W 0539	29.9	911	25 Th 0516	27.9	850	0023	2.7	82	1213	-1.0	-30
1146	-0.1	-3	1126	0.8	24	0621	26.2	799	1243	1.6	49
1803	30.0	914	1740	28.8	878	1228	0.9	27	1911	26.9	820
			○ 2347	1.6	49	1852	28.2	860	1836	29.5	899
11 Th 0004	0.8	24	26 F 0548	27.9	850	0100	3.7	113	0050	1.7	52
0614	29.0	884	1158	0.3	9	0656	25.2	768	0648	26.3	802
1221	0.2	6	1814	29.1	887	1302	1.8	55	1254	-0.9	-27
1841	29.5	899	2347	1.6	49	1926	27.4	835	1920	29.3	893
12 F 0043	1.9	58	27 Sa 0024	1.7	52	0137	4.8	146	0134	2.3	70
0648	27.8	847	0623	27.6	841	0732	24.2	738	0734	25.7	783
1254	1.0	30	1233	0.0	0	1335	2.8	85	1338	-0.4	-12
1916	28.8	878	1849	29.3	893	2001	26.4	805	2007	28.7	875
13 Sa 0120	3.3	101	28 Su 0102	2.1	64	0137	4.8	146	0157	4.9	149
0721	26.6	811	0700	27.1	826	0810	23.3	710	0757	23.0	701
1327	2.0	61	1309	0.1	3	1410	3.9	119	1353	2.9	88
1950	27.8	847	1928	29.1	887	2037	25.4	774	2021	25.6	780
14 Su 0156	4.8	146	29 M 0142	2.8	85	0251	7.1	216	0157	4.9	149
0755	25.3	771	0740	26.3	802	0851	22.1	674	0819	25.4	774
1400	3.2	98	1349	0.7	21	1447	5.3	162	1416	-0.4	-12
2024	26.6	811	2010	28.5	869	2118	24.1	735	2048	28.2	860
15 M 0233	6.5	198	30 Tu 0226	4.1	125	0334	8.4	256	0210	1.7	52
0823	24.0	732	0824	25.2	768	0939	20.9	637	0836	22.4	683
1433	4.6	140	1432	1.8	55	1532	6.9	210	1429	3.8	116
2100	25.3	771	2058	27.3	832	2209	22.6	689	2057	24.7	753
			31 W 0316	5.7	174	0917	23.6	719	2225	22.4	683
			1524	3.6	110	1524	3.6	110	2225	22.4	683
			2157	25.6	780	2157	25.6	780	31 M 0547	5.9	180

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Namp'O-Hang, Korea, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0215	2.3	70	<b>16</b> Tu	0301	3.2	98	<b>1</b> Th	0346	1.2	37	<b>16</b> F	0348	2.6	79
0823	14.3	436		0914	13.6	415	0957	15.3	466	0959	14.7	448			
1412	0.9	27		1448	2.1	64	1540	0.4	12	1540	1.9	58			
2057	18.9	576		2136	17.6	536	2221	19.9	607	● 2216	17.9	546			
<b>2</b> Tu	0308	1.6	49	<b>17</b> W	0338	2.8	85	<b>2</b> F	0431	0.9	27	<b>2</b> Sa	0418	2.3	70
0916	14.6	445		0947	13.8	421	1041	15.8	482	1026	15.1	460			
1501	0.4	12		1523	1.9	58	1626	0.3	9	1612	1.7	52			
○ 2145	19.7	600	●	2206	17.8	543	2303	19.8	604	2241	18.0	549			
<b>3</b> W	0357	1.1	34	<b>18</b> Th	0410	2.6	79	<b>3</b> Sa	0514	0.8	24	<b>18</b> Su	0447	2.0	61
1004	14.9	454		1016	14.0	427	1123	16.0	488	1053	15.6	475			
1548	0.3	9		1556	1.8	55	1711	0.7	21	1645	1.5	46			
2230	20.0	610		2234	17.9	546	2342	19.2	585	2307	18.0	549			
<b>4</b> Th	0444	1.0	30	<b>19</b> F	0441	2.4	73	<b>4</b> Su	0554	1.0	30	<b>19</b> M	0516	1.7	52
1049	15.0	457		1043	14.3	436	1203	16.0	488	1121	16.1	491			
1634	0.4	12		1628	1.7	52	1756	1.3	40	1719	1.6	49			
2314	19.8	604		2300	17.9	546				2335	17.8	543			
<b>5</b> F	0530	1.2	37	<b>20</b> Sa	0511	2.2	67	<b>5</b> M	0021	18.2	555	<b>20</b> Tu	0547	1.6	49
1134	14.9	454		1111	14.5	442	0635	1.5	46	1154	16.4	500			
1721	0.9	27		1701	1.7	52	1244	15.8	482	1756	1.9	58			
2357	19.2	585		2328	17.9	546	1842	2.3	70						
<b>6</b> Sa	0617	1.5	46	<b>21</b> Su	0543	2.1	64	<b>6</b> Tu	0059	17.0	518	<b>21</b> W	0008	17.4	530
1219	14.7	448		1141	14.8	451	0717	2.1	64	0623	1.6	49			
1810	1.7	52		1736	1.9	558	1327	15.4	469	1231	16.6	506			
				2358	17.7	539	1932	3.3	101	1839	2.5	76			
<b>7</b> Su	0040	18.2	555	<b>22</b> M	0617	2.0	61	<b>7</b> W	0139	15.7	479	<b>22</b> Th	0045	16.7	509
0704	2.0	61		1216	15.0	457	0802	2.8	85	0703	2.0	61			
1307	14.4	439		1815	2.2	67	1415	15.0	457	1315	16.5	503			
1902	2.7	82					2029	4.4	134	1931	3.3	101			
<b>8</b> M	0125	17.0	518	<b>23</b> Tu	0032	17.4	530	<b>8</b> Th	0224	14.3	436	<b>23</b> F	0129	15.6	475
0755	2.5	76		0656	2.1	64	0854	3.5	107	0753	2.6	79			
1359	14.1	430		1257	15.1	460	1512	14.5	442	1408	16.1	491			
2001	3.8	116		1901	2.8	85	● 2134	5.3	162	● 2037	4.3	131			
<b>9</b> Tu	0215	15.6	475	<b>24</b> W	0112	16.7	509	<b>9</b> F	0320	13.1	399	<b>24</b> Sa	0221	14.3	436
0849	3.0	91		0741	2.3	70	0953	4.0	121	0855	3.3	101			
1459	13.8	421		1344	15.1	460	1623	14.2	433	1513	15.6	475			
○ 2108	4.7	143		1957	3.6	110	2247	5.6	171	2158	5.0	152			
<b>10</b> W	0311	14.3	436	<b>25</b> Th	0158	15.7	479	<b>10</b> Sa	0435	12.2	372	<b>25</b> Su	0330	13.1	399
0947	3.4	104		0834	2.7	82	1056	4.3	131	1011	3.8	116			
1611	13.8	421		1440	15.0	457	1747	14.4	439	1639	15.4	469			
2221	5.2	158	●	2106	4.4	134	2358	5.5	168	2325	5.0	152			
<b>11</b> Th	0419	13.3	405	<b>26</b> F	0253	14.6	445	<b>11</b> Su	0606	12.0	366	<b>26</b> M	0506	12.3	375
1047	3.5	107		0937	3.0	91	1159	4.1	125	1131	3.7	113			
1729	14.2	433		1549	14.9	454	1900	15.1	460	1819	16.0	488			
2332	5.2	158		2226	4.8	146									
<b>12</b> F	0538	12.8	390	<b>27</b> Sa	0402	13.5	411	<b>12</b> M	0101	5.0	152	<b>27</b> Tu	0043	4.3	131
1144	3.4	104		1046	3.1	94	0720	12.4	378	0653	12.8	390			
1839	15.0	457		1712	15.3	466	1256	3.7	113	1244	3.0	91			
				2346	4.5	137	1955	16.0	488	1937	17.2	524			
<b>13</b> Sa	0036	4.8	146	<b>28</b> Su	0531	12.8	390	<b>13</b> Tu	0154	4.3	131	<b>28</b> W	0148	3.2	98
0651	12.8	390		1155	2.8	85	0813	13.1	399	0806	14.0	427			
1238	3.1	94		1839	16.2	494	1346	3.2	98	1347	2.1	64			
1935	15.8	482					2039	16.8	512	2036	18.4	561			
<b>14</b> Su	0132	4.2	128	<b>29</b> M	0059	3.8	116	<b>14</b> W	0238	3.6	110	<b>14</b> Th	0119	4.7	143
0749	13.0	396		0702	13.0	396	0855	13.7	418	1428	2.6	79			
1326	2.8	85		1259	2.1	64	2116	17.5	533	2116	17.3	527			
2022	16.6	506		1950	17.5	533									
<b>15</b> M	0220	3.7	113	<b>30</b> Tu	0202	2.8	85	<b>15</b> Th	0316	3.1	94	<b>15</b> F	0206	3.9	119
0835	13.4	408		0813	13.7	418	0930	14.2	433	1506	2.2	67			
1409	2.4	73		1357	1.4	43	2148	17.7	539	2148	17.0	518			
2101	17.2	524		2047	18.7	570									
				<b>31</b> W	0257	1.9	58								
				0909	14.6	445									
				1450	0.8	24									
				○ 2137	19.6	597									

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Namp'O-Hang, Korea, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0344	1.1	34	<b>16</b> M	0315	2.0	61	<b>1</b> Tu	0348	1.6	49	<b>16</b> W	0317	1.7	52
	1008	18.0	549		0939	17.5	533		1021	19.0	579		0949	19.2	585
	1600	1.1	34		1535	2.0	61		1620	2.2	67		1556	2.2	67
	2225	18.4	561	●	2151	17.1	521		2234	16.6	506		2203	16.2	494
<b>2</b> M	0420	1.1	34	<b>17</b> Tu	0347	1.7	52	<b>2</b> W	0421	1.8	55	<b>17</b> Th	0354	1.6	49
	1043	18.4	561		1009	18.2	555		1052	19.0	579		1026	19.7	600
	1639	1.3	40		1611	1.8	55		1656	2.4	73		1639	2.2	67
	2258	17.8	543		2222	17.0	518		2305	16.1	491		2241	16.0	488
<b>3</b> Tu	0453	1.3	40	<b>18</b> W	0419	1.5	46	<b>3</b> Th	0452	2.2	67	<b>18</b> F	0433	1.7	52
	1116	18.4	561		1042	18.7	570		1123	18.8	573		1106	19.9	607
	1717	1.7	52		1649	1.8	55		1732	2.9	88		1723	2.5	76
	2330	17.0	518		2255	16.7	509		2335	15.5	472		2321	15.6	475
<b>4</b> W	0525	1.7	52	<b>19</b> Th	0453	1.5	46	<b>4</b> F	0524	2.6	79	<b>19</b> Sa	0514	2.1	64
	1149	18.2	555		1117	19.0	579		1154	18.4	561		1148	19.6	597
	1754	2.4	73		1730	2.2	67		1809	3.4	104		1811	3.1	94
	2330	16.2	494		2330	16.2	494								
<b>5</b> Th	0001	16.2	494	<b>20</b> F	0530	1.8	55	<b>5</b> Sa	0006	14.9	454	<b>20</b> Su	0006	15.0	457
	0558	2.3	70		1156	18.9	576		0600	3.2	98		0601	2.8	85
	1221	17.8	543		1815	2.8	85		1228	17.9	546		1235	19.0	579
	1834	3.2	98						1850	4.0	122		1906	3.7	113
<b>6</b> F	0033	15.3	466	<b>21</b> Sa	0011	15.4	469	<b>6</b> Su	0042	14.4	439	<b>21</b> M	0057	14.4	439
	0634	3.0	91		0612	2.4	73		0640	3.9	119		0655	3.7	113
	1257	17.2	524		1241	18.4	561		1307	17.3	527		1328	18.1	552
	1918	4.0	122		1908	3.7	113		1938	4.6	140		2009	4.3	131
<b>7</b> Sa	0110	14.4	439	<b>22</b> Su	0058	14.5	442	<b>7</b> M	0125	13.8	421	<b>22</b> Tu	0158	13.8	421
	0717	3.8	116		0704	3.4	104		0730	4.6	140		0803	4.7	143
	1339	16.4	500		1334	17.6	536		1353	16.6	506		1430	17.0	518
	2010	4.9	149		2014	4.5	137		2035	5.1	155		2119	4.7	143
<b>8</b> Su	0154	13.5	411	<b>23</b> M	0156	13.5	411	<b>8</b> Tu	0217	13.3	405	<b>23</b> W	0314	13.5	411
	0809	4.7	143		0810	4.4	134		0831	5.3	162		0923	5.5	168
	1430	15.6	475		1438	16.6	506		1448	15.9	485		1544	16.1	491
	2115	5.6	171	●	2132	5.1	155	○	2140	5.3	162		2230	4.6	140
<b>9</b> M	0252	12.7	387	<b>24</b> Tu	0314	12.8	390	<b>9</b> W	0324	13.1	399	<b>24</b> Th	0445	13.8	421
	0916	5.4	165		0935	5.1	155		0944	5.7	174		1045	5.6	171
	1537	14.9	454		1602	15.8	482		1555	15.3	466		1709	15.7	479
	2227	5.8	177		2254	4.9	149		2245	5.1	155		2335	4.1	125
<b>10</b> Tu	0411	12.3	375	<b>25</b> W	0500	12.9	393	<b>10</b> Th	0444	13.2	402	<b>25</b> F	0610	14.9	454
	1032	5.6	171		1102	5.1	155		1056	5.6	171		1159	5.1	155
	1701	14.7	448		1739	15.8	482		1710	15.2	463		1826	15.7	479
	2336	5.4	165						2344	4.6	140				
<b>11</b> W	0548	12.6	384	<b>26</b> Th	0005	4.2	128	<b>11</b> F	0603	14.0	427	<b>26</b> Sa	0032	3.5	107
	1143	5.2	158		0634	14.0	427		1201	5.1	155		0714	16.2	494
	1822	15.1	460		1218	4.5	137		1821	15.4	469		1302	4.5	137
	2336	5.4	165		1858	16.4	500					1928	15.9	485	
<b>12</b> Th	0035	4.8	146	<b>27</b> F	0104	3.3	101	<b>12</b> Sa	0036	3.9	119	<b>27</b> Tu	0121	3.0	91
	0701	13.5	411		0738	15.6	475		0705	15.2	463		0805	17.5	533
	1243	4.6	140		1321	3.6	110		1257	4.4	134		1356	3.9	119
	1923	15.8	482		1956	17.0	518		1918	15.8	482		2018	16.1	491
<b>13</b> F	0124	3.9	119	<b>28</b> Sa	0153	2.5	76	<b>13</b> Su	0122	3.2	98	<b>28</b> W	0204	2.6	79
	0752	14.6	445		0828	17.0	518		0753	16.4	500		0848	18.4	561
	1334	3.8	116		1415	2.8	85		1347	3.7	113		1443	3.4	104
	2009	16.4	500		2044	17.3	527		2005	16.1	491		2101	16.1	491
<b>14</b> Sa	0205	3.2	98	<b>29</b> Su	0236	1.9	58	<b>14</b> M	0202	2.6	79	<b>29</b> Tu	0243	2.4	73
	0832	15.7	479		0910	18.0	549		0834	17.5	533		0926	18.9	576
	1418	3.0	91		1501	2.3	70		1432	3.0	91		1524	3.2	98
	2047	16.8	512		2125	17.4	530		2047	16.3	497		2139	15.9	485
<b>15</b> Su	0242	2.5	76	<b>30</b> M	0314	1.6	49	<b>15</b> Tu	0240	2.1	64	<b>30</b> W	0319	2.4	73
	0907	16.7	509		0947	18.7	570		0912	18.5	564		1000	19.2	585
	1458	2.4	73		1543	2.1	64		1515	2.5	76		1602	3.2	98
	2120	17.1	521	○	2201	17.1	521	○	2125	16.3	497		2212	15.6	475
<b>31</b> Th	0352	2.6	79	<b>31</b> Th	0352	2.6	79	<b>16</b> F	0352	2.6	79	<b>30</b> Sa	0403	3.3	101
	1031	19.2	585		1031	19.2	585		1637	3.3	101		1043	19.2	585
	1637	3.3	101						1630	2.6	79		1652	4.0	122
	2243	15.3	466						2232	15.8	482		2254	15.2	463

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Namp'O-Hang, Korea, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0436	3.4	104	<b>16</b> M	0458	2.3	70	<b>1</b> W	0524	3.6	110
	1112	19.1	582		1135	20.8	634		0023	17.8	543
	1725	4.0	122		1753	2.9	88		0621	3.5	107
	2323	15.3	466		2357	16.5	503		1240	18.8	573
<b>2</b> M	0510	3.5	107	<b>17</b> Tu	0547	2.9	88	<b>2</b> Th	0004	16.7	509
	1142	19.0	579		1219	20.1	613		0712	4.5	137
	1759	4.0	122		1839	3.2	98		1321	17.5	533
	2355	15.4	469						1940	4.1	125
<b>3</b> Tu	0547	3.8	116	<b>18</b> W	0044	16.4	500	<b>3</b> F	0041	16.9	515
	1214	18.8	573		0639	3.7	113		0155	17.0	518
	1836	4.1	125		1303	19.0	579		0809	5.6	171
					1928	3.7	113		1407	16.1	491
<b>4</b> W	0032	15.5	472	<b>19</b> Th	0134	16.2	494	<b>4</b> Sa	0124	16.9	515
	0628	4.2	128		0736	4.7	143		0251	16.5	503
	1249	18.4	561		1351	17.7	539		0914	6.5	198
	1918	4.2	128		2021	4.2	128		1502	14.8	451
<b>5</b> Th	0113	15.5	472	<b>20</b> F	0231	15.9	485	<b>5</b> Su	0215	16.8	512
	0716	4.8	146		0840	5.7	174		0400	16.1	491
	1330	17.8	543		1444	16.4	500		1026	7.0	213
	2005	4.3	131		2117	4.6	140		1614	13.9	424
<b>6</b> F	0202	15.5	472	<b>21</b> Sa	0336	15.8	482	<b>6</b> M	0316	16.7	509
	0812	5.4	165		0950	6.4	195		0521	16.1	491
	1417	17.1	521		1547	15.2	463		1138	6.9	210
	2058	4.4	134		2217	4.9	149		1744	13.6	415
<b>7</b> Sa	0258	15.6	475	<b>22</b> Su	0452	16.0	488	<b>21</b> Tu	0430	16.8	512
	0919	5.9	180		1102	6.6	201		1110	6.3	192
	1510	16.3	497		1702	14.4	439		1646	14.6	445
	2157	4.4	134		2317	4.9	149		2321	4.6	140
<b>8</b> Su	0403	15.8	482	<b>23</b> M	0607	16.5	503	<b>8</b> W	0555	17.4	530
	1031	6.0	183		1210	6.4	195		1224	5.7	174
	1614	15.5	472		1821	14.2	433		1817	14.4	439
	2257	4.3	131						2339	5.7	174
<b>9</b> M	0516	16.4	500	<b>24</b> Tu	0013	4.8	146	<b>9</b> Th	0027	4.1	125
	1142	5.8	177		0711	17.3	527		0736	18.5	564
	1727	15.0	457		1310	6.0	183		1329	4.8	146
	2356	3.9	119		1927	14.4	439		1936	15.0	457
<b>10</b> Tu	0629	17.3	527	<b>25</b> W	0105	4.5	137	<b>10</b> F	0127	3.4	104
	1247	5.2	158		0803	18.0	549		0816	19.7	600
	1843	14.9	454		1402	5.4	165		1427	3.9	119
					2018	14.8	451		2038	15.8	482
<b>11</b> W	0052	3.4	104	<b>26</b> Th	0152	4.2	128	<b>11</b> Sa	0222	2.6	79
	0734	18.5	564		0846	18.7	570		0908	20.6	628
	1347	4.4	134		1446	4.9	149		1518	3.1	94
	1951	15.2	463		2101	15.1	460		2129	16.7	509
<b>12</b> Th	0144	2.8	85	<b>27</b> F	0233	3.9	119	<b>12</b> Su	0313	2.1	64
	0830	19.6	597		0923	19.1	582		0955	21.2	646
	1441	3.7	113		1524	4.6	140		1604	2.6	79
	2048	15.6	475		2136	15.4	469		2215	17.3	527
<b>13</b> F	0234	2.4	73	<b>28</b> Sa	0311	3.7	113	<b>13</b> M	0401	1.9	58
	0920	20.5	625		0956	19.3	588		1039	21.2	646
	1532	3.1	94		1558	4.3	131		1648	2.4	73
	2138	16.0	488		2207	15.6	475		2259	17.8	543
<b>14</b> Sa	0323	2.1	64	<b>29</b> Su	0345	3.5	107	<b>14</b> Tu	0448	2.1	64
	1007	21.1	643		1025	19.3	588		1120	20.8	634
	1620	2.8	85		1630	4.1	125		1730	2.5	76
	2225	16.3	497		2235	15.9	485		2341	17.9	546
<b>15</b> Su	0410	2.0	61	<b>30</b> M	0418	3.5	107	<b>15</b> W	0534	2.6	79
	1051	21.2	646		1052	19.3	588		1200	20.0	610
	1706	2.7	82		1700	4.0	122		1811	2.9	88
	2311	16.5	503		2303	16.1	491				
<b>31</b> Tu	0450	3.5	107	<b>31</b> F	1119	19.3	588		0538	3.5	107
					1730	3.8	116		1149	18.5	564
					2331	16.4	500		1801	3.2	98

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Namp'O-Hang, Korea, 2018

Times and Heights of High and Low Waters

October				November				December												
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height									
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm									
1 M 0027 0646 1240 1850	18.6 4.2 16.0 3.7	567 128 488 113	16 Tu 0126 0757 1343 1952	17.0 5.4 13.7 5.3	518 165 418 162	1 Th 0200 0851 1431 2050	17.0 5.0 13.0 5.1	518 152 396 155	16 Sa 0232 0923 1510 2126	15.5 5.0 12.6 5.6	472 152 384 171	1 M 0258 0949 1554 2204	15.7 3.9 13.0 5.0	479 119 396 152	16 Su 0240 0928 1524 2143	15.2 3.8 13.2 5.0	463 116 402 152			
2 Tu 0115 0746 1331 1948	18.0 5.1 14.9 4.6	549 155 454 140	17 W 0217 0902 1442 2100	16.1 6.0 12.9 6.0	491 183 393 183	2 F 0315 1014 1607 2222	16.1 5.0 12.8 5.3	491 152 390 162	17 Sa 0338 1028 1630 2240	14.9 4.8 12.8 5.5	454 146 390 168	2 Su 0419 1059 1727 2324	14.9 3.6 13.8 4.7	454 110 421 143	17 M 0339 1028 1636 2254	14.5 3.7 13.5 5.0	442 113 411 152			
3 W 0215 0903 1437 2107	17.3 5.9 13.8 5.3	527 180 421 162	18 Th 0324 1014 1604 2217	15.4 6.1 12.6 6.2	469 186 384 189	3 Sa 0449 1129 1751 2343	15.7 4.4 13.7 4.7	479 131 418 143	18 Su 0452 1127 1749 2346	14.6 4.3 13.6 5.0	445 131 415 152	3 M 0545 1201 1842	14.7 2.9 15.2	448 88 463	18 Tu 0447 1122 1738 2329	15.1 5.7 13.1 5.7	460 174 404 174	18 W 0558 1218 1853 2359	13.8 2.7 15.4 4.5	427 101 436 137
4 Th 0332 1030 1611 2236	16.6 5.9 13.2 5.5	506 180 402 168	19 F 0447 1122 1738 2329	15.1 5.7 13.1 5.7	460 174 399 174	4 Su 0617 1231 1905	16.1 3.4 15.3	491 466	19 M 0603 1219 1851	14.7 3.6 14.7	448 110 448	4 Tu 0034 0656 1254 1940	4.0 14.9 2.3 16.5	122 70 503	19 W 0558 1218 1853 2359	13.8 2.7 15.4 4.5	421 82 469			
5 F 0510 1150 1801 2357	16.5 5.2 13.8 4.8	503 158 421 146	20 Sa 0606 1220 1848	15.5 5.0 14.1	472 152 430	5 M 0051 0723 1324 1959	3.7 16.7 2.4 16.8	113 509 73 512	20 Tu 0042 0701 1305 1939	4.3 15.0 2.8 15.9	131 457 85 485	5 W 0132 0753 1341 2027	3.2 15.1 1.7 17.7	98 52 539	20 Th 0058 0702 1306 1945	3.8 13.9 2.1 16.6	116 424 506			
6 Sa 0640 1256 1920	17.3 4.1 15.2	527 125 463	21 Su 0029 0706 1308 1938	5.0 16.1 4.1 15.2	152 125 463	6 Tu 0148 0815 1409 2045	2.8 17.1 1.7 18.1	85 521 52 552	21 W 0132 0749 1345 2019	3.5 15.3 2.2 16.9	107 67 515	6 Th 0223 0841 1424 2108	2.6 15.2 1.4 18.4	79 43 561	21 F 0150 0757 1351 2031	3.1 14.1 1.6 17.6	94 430 536			
7 Su 0104 0745 1349	3.7 18.2 13.0	113 555 91	22 M 0120 0752 1348 2018	4.2 16.6 3.4 16.2	128 506 510 494	7 W 0238 0900 1450 2125	2.1 17.2 1.2 18.9	64 524 37 576	22 Th 0216 0830 1422 2056	2.8 15.5 1.7 17.8	85 472 52 543	7 F 0308 0922 1502 2145	2.2 15.1 1.3 18.7	67 570	22 Sa 0238 0844 1433 2114	2.4 14.3 1.1 18.5	73 436 564			
8 M 0201 0836 1436	2.7 18.9 2.1	82 576 64	23 Tu 0203 0831 1424 2052	3.4 16.9 2.7 17.1	104 515 521 521	8 Th 0322 0940 1527 2202	1.8 17.0 1.1 19.3	55 518 34 588	23 F 0257 0907 1458 2131	2.3 15.5 1.3 18.5	70 472 40 564	8 Sa 0348 0959 1538 2219	2.1 14.9 1.4 18.7	64 454 570	23 M 0324 0928 1515 2155	1.9 14.5 0.8 19.2	58 442 585			
9 Tu 0251 0921 1517	1.9 19.2 1.6	58 585 49	24 W 0242 0904 1456 2122	2.9 17.1 2.3 17.8	88 521 70 543	9 F 0403 1016 1602 2236	1.8 16.5 1.3 19.3	55 503 40 588	24 Sa 0337 0942 1602 2205	1.9 15.4 1.3 19.0	58 466 34 579	9 Su 0425 1032 1611 2250	2.1 14.6 1.6 18.6	64 445 567	24 M 0408 1010 1557 2236	1.6 14.6 0.6 19.4	49 445 591			
10 W 0336 1001 1555	1.6 19.0 1.4	49 579 43	25 Th 0318 0933 1527 2151	2.5 17.0 2.0 18.4	76 518 61 561	10 Sa 0441 1049 1635 2308	2.0 15.9 1.7 19.0	61 579	25 Su 0417 1017 1609 2242	1.8 15.3 1.1 19.3	55 466 34 588	10 M 0500 1013 1609 2321	2.3 14.3 1.1 18.2	70 555	25 Tu 0452 1052 1640 2317	1.5 14.6 0.8 19.3	46 445 588			
11 Th 0418 1037 1630	1.7 18.4 1.6	52 561 49	26 F 0353 1002 1557 2221	2.3 16.8 1.8 18.9	70 512 512 576	11 Su 0518 1121 1708 2341	2.5 15.2 2.2 18.5	76 463 67 564	26 M 0458 1055 1648 2321	2.0 15.0 1.3 19.1	61 457 40 582	11 Tu 0535 1133 1719 2352	2.6 14.1 2.3 17.8	79 543	26 W 0537 1135 1726 2176	1.6 14.5 1.2 17.2	49 442 37			
12 F 0458 1112 1705	2.1 17.6 2.1	64 536 64	27 Sa 0428 1032 1629 2253	2.2 16.6 1.7 19.1	67 506 52 582	12 M 0555 1154 1744 2122	3.1 14.6 2.9 5.8	94 445 88 88	27 Tu 0542 1136 1731 2175	2.3 14.5 1.8 2.7	70 442 82 82	27 Th 0001 0625 1223 1816	18.8 2.0 14.3 2.0	573 61 436 61						
13 Sa 0538 1145 1739	2.8 16.6 2.7	85 506 82	28 Su 0506 1105 1703 2329	2.4 16.1 1.9 19.1	73 491 582	13 Tu 0015 0636 1230 1824	17.8 3.7 14.0 3.6	543 113 582 110	28 W 0005 0632 1224 1820	18.7 2.8 14.0 2.7	570 85 82 82	13 M 0027 0652 1245 1840	17.3 3.2 13.6 3.3	527 98 415 101	28 F 0047 0717 1315 1914	18.0 2.4 14.0 3.0	549 73 427 91			
14 Su 0006 0619 1219	18.6 3.6 15.6	567 110 475	29 M 0547 1142 1742 2013	2.9 15.5 2.4 5.1	88 472 73 155	14 W 0053 0723 1312 1912	17.1 4.3 13.4 4.4	521 131 104 134	29 Th 0054 0729 1319 1921	17.9 3.4 13.4 3.7	546 104 107 113	14 F 0105 0738 1329 1931	16.7 3.5 13.4 4.0	509 107 122 122	29 Sa 0138 0814 1415 2022	16.8 2.8 13.7 4.0	512 85 418 122			
15 M 0043 0704 1257	17.9 4.5 14.6	546 137 445	30 Tu 0011 0636 1227 1829	18.7 3.6 14.7 3.2	570 110 418 98	15 Th 0138 0819 1404 2013	16.3 4.8 12.9 5.1	497 119 408 155	30 F 0150 0837 1427 2038	16.8 3.9 13.0 4.6	512 119 408 140	15 Sa 0149 0830 1422 2033	16.0 3.7 13.2 4.7	488 113 402 143	30 M 0235 0917 1527 2259	15.5 3.2 13.7 4.9	472 98 418 149			
31 W 0100 0736 1321	18.0 4.4 13.8	549 134 421	31 Tu 0100 0736 1321 1929	18.0 4.4 13.8 4.2	549 134 421 128															

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dalian, China, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0302 0.3 29	0302 1.0 29	16 Tu 0402 1.6 44	0402 1.4 44	1 Th 0431 0.4 11	0431 0.4 11	16 F 0443 1.1 34	0443 1.1 34	1 Th 0333 0.8 25	0333 0.8 25	16 F 0344 1.5 45	0344 1.5 45
0843 7.5 228	0843 7.5 228	0937 6.9 210	0937 6.9 210	1010 7.9 240	1010 7.9 240	1024 7.6 231	1024 7.6 231	0916 7.8 237	0916 7.8 237	0931 7.7 236	0931 7.7 236
1453 - 0.5 - 15	1453 - 0.5 - 15	1538 0.5 16	1538 0.5 16	1620 - 0.9 - 28	1620 - 0.9 - 28	1628 0.3 9	1628 0.3 9	1525 - 0.2 - 6	1525 - 0.2 - 6	1535 1.0 29	1535 1.0 29
2116 10.2 311	2116 10.2 311	2205 9.1 278	2205 9.1 278	2241 10.4 318	2241 10.4 318	2244 9.3 283	2244 9.3 283	2146 10.0 304	2146 10.0 304	2150 9.1 276	2150 9.1 276
2 Tu 0353 0.6 18	0353 0.6 18	17 W 0435 1.3 39	0435 1.3 39	2 F 0514 0.2 5	0514 0.2 5	17 Sa 0509 0.9 28	0509 0.9 28	2 F 0415 0.4 13	0415 0.4 13	17 Sa 0411 1.1 35	0411 1.1 35
0932 7.7 234	0932 7.7 234	1010 7.1 217	1010 7.1 217	1054 8.2 250	1054 8.2 250	1054 7.8 239	1054 7.8 239	0959 8.4 255	0959 8.4 255	1002 8.2 251	1002 8.2 251
1542 - 0.8 - 25	1542 - 0.8 - 25	1612 0.3 10	1612 0.3 10	1706 - 0.9 - 28	1706 - 0.9 - 28	1700 0.2 7	1700 0.2 7	1611 - 0.5 - 14	1611 - 0.5 - 14	1609 0.7 20	1609 0.7 20
○ 2204 10.6 324	○ 2204 10.6 324	● 2235 9.3 283	● 2235 9.3 283	2323 10.3 314	2323 10.3 314	2312 9.3 284	2312 9.3 284	○ 2226 10.0 305	○ 2226 10.0 305	● 2218 9.2 280	● 2218 9.2 280
3 W 0442 0.4 11	0442 0.4 11	18 Th 0505 1.2 36	0505 1.2 36	3 Sa 0555 0.1 2	0555 0.1 2	18 Su 0537 0.7 22	0537 0.7 22	3 Sa 0453 0.2 6	0453 0.2 6	18 Su 0438 0.9 26	0438 0.9 26
1020 7.8 239	1020 7.8 239	1042 7.3 222	1042 7.3 222	1138 8.4 246	1138 8.4 246	1125 8.1 246	1125 8.1 246	1040 8.8 268	1040 8.8 268	1031 8.6 263	1031 8.6 263
1629 - 1.0 - 31	1629 - 1.0 - 31	1644 0.2 6	1644 0.2 6	1751 - 0.7 - 20	1751 - 0.7 - 20	1733 0.2 7	1733 0.2 7	1654 - 0.5 - 14	1654 - 0.5 - 14	1642 0.5 16	1642 0.5 16
2250 10.8 328	2250 10.8 328	2303 9.4 287	2303 9.4 287	2341 9.3 283	2341 9.3 283	2304 9.9 301	2304 9.9 301	2246 9.3 282	2246 9.3 282		
4 Th 0529 0.3 8	0529 0.3 8	19 F 0534 1.1 33	0534 1.1 33	4 Su 0005 10.0 304	0005 10.0 304	19 M 0606 0.5 16	0606 0.5 16	4 Su 0529 0.1 2	0529 0.1 2	19 M 0505 0.6 19	0505 0.6 19
1106 7.9 241	1106 7.9 241	1113 7.4 225	1113 7.4 225	0636 0.1 2	0636 0.1 2	1158 8.3 252	1158 8.3 252	1120 9.0 275	1120 9.0 275	1102 9.0 273	1102 9.0 273
1716 - 1.0 - 29	1716 - 1.0 - 29	1716 0.2 5	1716 0.2 5	1223 8.4 255	1223 8.4 255	1808 0.3 10	1808 0.3 10	1736 - 0.2 - 7	1736 - 0.2 - 7	1716 0.5 15	1716 0.5 15
2337 10.7 325	2337 10.7 325	2332 9.4 287	2332 9.4 287	1836 - 0.2 - 7	1836 - 0.2 - 7	2341 9.6 293	2341 9.6 293	2317 9.2 281	2317 9.2 281		
5 F 0616 0.3 8	0616 0.3 8	20 Sa 0603 1.0 30	0603 1.0 30	5 M 0046 9.5 289	0046 9.5 289	20 Tu 0013 9.2 280	0013 9.2 280	5 M 0605 0.1 2	0605 0.1 2	20 Tu 0536 0.4 12	0536 0.4 12
1154 7.9 241	1154 7.9 241	1145 7.5 228	1145 7.5 228	0716 0.2 5	0716 0.2 5	1234 8.4 257	1234 8.4 257	1200 9.1 278	1200 9.1 278	1135 9.3 283	1135 9.3 283
1804 - 0.7 - 21	1804 - 0.7 - 21	1749 0.2 7	1749 0.2 7	1309 8.3 252	1309 8.3 252	1846 0.5 16	1846 0.5 16	1817 0.1 4	1817 0.1 4	1752 0.5 16	1752 0.5 16
6 Sa 0024 10.3 314	0024 10.3 314	21 Su 0003 9.4 286	0003 9.4 286	6 Tu 0129 8.9 270	0129 8.9 270	21 W 0049 8.9 272	0049 8.9 272	6 Tu 0019 9.2 280	0019 9.2 280	21 W 0609 0.2 7	0609 0.2 7
0703 0.3 10	0703 0.3 10	0634 0.9 27	0634 0.9 27	0757 0.4 27	0757 0.4 27	1314 8.5 259	1314 8.5 259	0640 0.2 5	0640 0.2 5	1212 9.5 290	1212 9.5 290
1243 7.8 238	1243 7.8 238	1219 7.5 229	1219 7.5 229	2011 1.1 35	2011 1.1 35	1929 0.9 26	1929 0.9 26	1241 9.1 276	1241 9.1 276	1832 0.7 21	1832 0.7 21
1853 - 0.2 - 6	1853 - 0.2 - 6	1824 0.4 12	1824 0.4 12			1859 0.7 20	1859 0.7 20				
7 Su 0112 9.7 297	0112 9.7 297	22 M 0036 9.2 281	0036 9.2 281	7 W 0212 8.1 246	0212 8.1 246	22 Th 0129 8.5 259	0129 8.5 259	7 W 0057 8.7 264	0057 8.7 264	22 Th 0028 8.9 270	0028 8.9 270
0750 0.5 14	0750 0.5 14	0708 0.8 23	0708 0.8 23	0839 0.7 21	0839 0.7 21	1400 8.5 259	1400 8.5 259	0716 0.4 11	0716 0.4 11	0645 0.2 5	0645 0.2 5
1336 7.6 232	1336 7.6 232	1257 7.5 230	1257 7.5 230	2106 1.9 59	2106 1.9 59	2019 1.3 41	2019 1.3 41	1324 8.8 269	1324 8.8 269	1252 9.6 293	1252 9.6 293
1945 0.5 15	1945 0.5 15	1903 0.7 20	1903 0.7 20			1943 1.3 40	1943 1.3 40			1917 1.0 31	1917 1.0 31
8 M 0201 9.0 275	0201 9.0 275	23 Tu 0113 8.9 272	0113 8.9 272	8 Th 0301 7.2 220	0301 7.2 220	23 F 0214 7.9 241	0214 7.9 241	8 Th 0136 8.0 244	0136 8.0 244	23 F 0109 8.4 256	0109 8.4 256
0838 0.7 20	0838 0.7 20	0745 0.7 20	0745 0.7 20	0926 1.1 35	0926 1.1 35	1556 7.4 225	1556 7.4 225	0752 0.8 23	0752 0.8 23	0726 0.3 9	0726 0.3 9
1434 7.4 225	1434 7.4 225	1340 7.5 229	1340 7.5 229	2214 2.6 80	2214 2.6 80	2214 1.9 59	2214 1.9 59	1410 8.5 259	1410 8.5 259	1339 9.5 291	1339 9.5 291
2041 1.2 38	2041 1.2 38	1947 1.0 31	1947 1.0 31			2031 2.0 61	2031 2.0 61	2009 1.5 46	2009 1.5 46		
9 Tu 0254 8.2 250	0254 8.2 250	24 W 0154 8.5 259	0154 8.5 259	9 F 0359 6.4 195	0359 6.4 195	24 Sa 0310 7.1 217	0310 7.1 217	9 F 0219 7.3 221	0219 7.3 221	24 Sa 0156 7.8 237	0156 7.8 237
0930 0.9 28	0930 0.9 28	0827 0.7 20	0827 0.7 20	1023 1.6 49	1023 1.6 49	1607 8.2 249	1607 8.2 249	1502 8.0 245	1502 8.0 245	0812 1.2 38	0812 1.2 38
1540 7.2 218	1540 7.2 218	1429 7.5 228	1429 7.5 228	2341 3.0 92	2341 3.0 92	2241 2.4 74	2241 2.4 74	2130 2.7 83	2130 2.7 83	1435 9.2 281	1435 9.2 281
○ 2147 2.0 61	○ 2147 2.0 61	2039 1.5 45	2039 1.5 45					○ 2112 2.1 65	○ 2112 2.1 65		
10 W 0353 7.4 225	0353 7.4 225	25 Th 0242 7.9 241	0242 7.9 241	10 Sa 0516 5.8 177	0516 5.8 177	25 Su 0424 6.4 196	0424 6.4 196	10 M 0310 6.5 197	0310 6.5 197	25 Su 0254 7.1 215	0254 7.1 215
1027 1.2 36	1027 1.2 36	0915 0.8 23	0915 0.8 23	1134 1.9 58	1134 1.9 58	1044 1.1 35	1044 1.1 35	0919 1.9 57	0919 1.9 57	0909 1.1 35	0909 1.1 35
1655 7.1 216	1655 7.1 216	1530 7.4 227	1530 7.4 227	1831 7.3 222	1831 7.3 222	1732 8.2 250	1732 8.2 250	1606 7.6 231	1606 7.6 231	1547 8.8 268	1547 8.8 268
2304 2.5 76	2304 2.5 76	○ 2143 2.0 60	○ 2143 2.0 60			2250 3.2 99	2250 3.2 99	2235 2.6 79	2235 2.6 79		
11 Th 0500 6.7 204	0500 6.7 204	26 F 0341 7.3 221	0341 7.3 221	11 Su 0644 5.6 172	0644 5.6 172	26 M 0019 2.5 75	0019 2.5 75	11 Su 0419 5.8 177	0419 5.8 177	26 M 0413 6.4 196	0413 6.4 196
1130 1.3 41	1130 1.3 41	1643 7.6 231	1643 7.6 231	1248 1.9 59	1248 1.9 59	1210 1.2 36	1210 1.2 36	1026 2.4 74	1026 2.4 74	1025 1.7 51	1025 1.7 51
1810 7.3 221	1810 7.3 221	2303 2.3 69	2303 2.3 69	1942 7.7 234	1942 7.7 234	1856 8.6 262	1856 8.6 262	1728 7.3 224	1728 7.3 224	1715 8.6 261	1715 8.6 261
12 F 0029 2.7 81	0029 2.7 81	27 Sa 0456 6.7 204	0456 6.7 204	12 M 0220 2.5 76	0220 2.5 76	27 Tu 0143 2.0 61	0143 2.0 61	12 M 0027 3.3 100	0027 3.3 100	27 Tu 0011 2.6 79	0011 2.6 79
0613 6.3 191	0613 6.3 191	1121 0.9 243	1121 0.9 243	0753 5.9 181	0753 5.9 181	0723 6.5 197	0723 6.5 197	0559 5.5 169	0559 5.5 169	0553 6.3 193	0553 6.3 193
1233 1.4 42	1233 1.4 42	1800 8.0 243	1800 8.0 243	1352 1.6 50	1352 1.6 50	1329 0.8 24	1329 0.8 24	1157 2.7 81	1157 2.7 81	1159 1.8 55	1159 1.8 55
1917 7.6 232	1917 7.6 232			2035 8.1 248	2035 8.1 248	2006 9.2 279	2006 9.2 279	1855 7.5 229	1855 7.5 229	1845 8.7 265	1845 8.7 265
13 Sa 0144 2.4 74	0144 2.4 74	28 Su 0033 2.2 66	0033 2.2 66	13 Tu 0307 2.0 61	0307 2.0 61	28 W 0245 1.4 42	0245 1.4 42	13 Tu 0146 2.9 89	0146 2.9 89	28 W 0131 2.1 64	0131 2.1 64
0720 6.2 189	0720 6.2 189	0616 6.5 197	0616 6.5 197	0842 6.4 195	0842 6.4 195	1441 1.2 37	1441 1.2 37	0724 5.9 180	0724 5.9 180	0719 6.9 210	0719 6.9 210
1332 1.2 38	1332 1.2 38	1234 0.7 20	1234 0.7 20	2115 8.6 262	2115 8.6 262	1432 0.3 8	1432 0.3 8	1316 2.4 73	1316 2.4 73	1322 1.4 44	1322 1.4 44
2012 8.1 246	2012 8.1 246	1912 8.6 262	1912 8.6 262	2104 9.0 273	2104 9.0 273	2101 9.6 294	2101 9.6 294	2000 8.0 243	2000 8.0 243	1955 9.1 277	1955 9.1 277
14 Su 0240 2.1 63	0240 2.1 63	29 M 0151 1.7 53	0151 1.7 53	14 W 0344 1.6 49	0344 1.6 49			14 W 0237 2.4 72	0237 2.4 72	29 Th 0228 1.5 46	0228 1.5 46
0815 6.3 193	0815 6.3 193	0730 6.6 202	0730 6.6 202	0921 6.9 209	0921 6.9 209	1521 0.8 25	1521 0.8 25	1414 1.9 57	1414 1.9 57	1425 0.9 28	1425 0.9 28
1421 1.0 31	1421 1.0 31	1341 0.2 7	1341 0.2 7	2148 9.0 273	2148 9.0 273	2045 8.4 257	2045 8.4 257	2047 9.4 287	2047 9.4 287		
2057 8.5 259	2057 8.5 259	2014 9.3 284	2014 9.3 284				</td				

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Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0426	0.5	14	<b>16</b>	0401	0.9	28	<b>1</b> Tu	0430	0.9	26
	1022	9.4	288	M	1004	9.5	290	W	1039	10.2	312
	1641	0.3	10		1621	1.0	30		1705	1.4	42
	2241	9.4	287	●	2219	9.2	279		2252	8.8	268
<b>2</b> M	0500	0.4	11	<b>17</b>	0432	0.7	20	<b>2</b> W	0502	0.9	27
	1059	9.7	296	Tu	1037	10.0	304	Th	1115	10.3	315
	1720	0.5	15		1659	0.9	27		1743	1.6	48
	2316	9.2	280		2253	9.1	278		2328	8.6	262
<b>3</b> Tu	0532	0.4	11	<b>18</b>	0506	0.4	13	<b>3</b> Th	0535	1.0	31
	1137	9.8	299	W	1113	10.3	315	F	1150	10.4	316
	1759	0.8	25		1739	0.9	28		1822	1.8	56
	2352	8.9	270		2330	9.0	274		18	0521	0.5
<b>4</b> W	0605	0.5	14	<b>19</b>	0542	0.3	9	<b>4</b>	0005	8.3	254
	1215	9.8	298	Th	1152	10.6	323	F	0608	1.2	36
	1839	1.2	37		1823	1.1	33		1227	10.2	312
									1901	2.1	65
<b>5</b> Th	0029	8.5	258	<b>20</b>	0011	8.7	266	<b>5</b>	0043	8.0	245
	0639	0.7	21	F	0622	0.3	10	Sa	0643	1.5	45
	1253	9.6	293		1236	10.6	324		1304	10.0	305
	1920	1.7	51		1912	1.4	42		1942	2.5	76
<b>6</b> F	0107	8.0	243	<b>21</b>	0056	8.3	253	<b>6</b>	0123	7.7	234
	0714	1.0	32	Sa	0707	0.6	17	Su	0719	1.9	58
	1334	9.3	284		1326	10.4	318		1345	9.6	293
	2004	2.2	67		2007	1.8	56		2027	2.9	87
<b>7</b> Sa	0148	7.4	225	<b>22</b>	0148	7.8	237	<b>7</b>	0207	7.3	221
	0750	1.5	47	Su	0757	1.0	31	M	0801	2.4	73
	1418	8.9	270		1424	10.0	304		1432	9.1	278
	2055	2.8	85		2112	2.3	70		2120	3.2	97
<b>8</b> Su	0234	6.8	206	<b>23</b>	0251	7.2	220	<b>8</b>	0302	6.9	210
	0833	2.2	66	M	0858	1.6	50	Tu	0851	3.0	90
	1512	8.3	253		1537	9.4	286		1532	8.6	262
	● 2202	3.3	100	●	2231	2.6	79	○	2227	3.4	103
<b>9</b> M	0336	6.2	189	<b>24</b>	0413	6.9	210	<b>9</b>	0414	6.7	203
	0928	2.8	85	Tu	1018	2.2	68	W	1002	3.4	105
	1624	7.8	239		1703	9.0	273		1645	8.2	251
	2326	3.5	106		2354	2.5	77		2338	3.3	101
<b>10</b> Tu	0504	5.9	181	<b>25</b>	0550	7.1	215	<b>10</b>	0542	6.9	209
	1057	3.2	97	W	1151	2.4	72	Th	1135	3.5	108
	1751	7.7	235		1826	8.9	270		1802	8.1	248
									1254	2.8	85
<b>11</b> W	0048	3.2	99	<b>26</b>	0105	2.1	65	<b>11</b>	0040	3.0	90
	0641	6.2	190	Th	0708	7.7	235	Sa	0654	7.5	228
	1229	3.1	93		1312	2.1	64		1250	3.2	98
	1908	7.9	242		1933	9.0	274		1906	8.3	253
<b>12</b> Th	0148	2.8	84	<b>27</b>	0201	1.7	52	<b>12</b>	0130	2.5	75
	0742	6.9	211	F	0804	8.5	259	W	0744	8.3	252
	1338	2.6	78		1414	1.7	51		1349	2.7	83
	2001	8.3	254		2024	9.1	277		1955	8.6	261
<b>13</b> F	0229	2.2	67	<b>28</b>	0245	1.3	40	<b>13</b>	0213	1.8	54
	0826	7.7	234	Sa	0849	9.2	279	W	0830	9.7	295
	1428	2.0	61		1504	1.3	41		1450	2.3	70
	2041	8.7	265		2105	9.2	279		2040	8.7	265
<b>14</b> Sa	0302	1.7	52	<b>29</b>	0323	1.0	32	<b>14</b>	0249	1.5	45
	0901	8.4	256	Su	0928	9.7	295	W	0901	9.7	297
	1509	1.5	47		1547	1.2	37		1519	1.8	55
	2115	9.0	273		2142	9.1	277		2114	9.0	274
<b>15</b> Su	0332	1.3	39	<b>30</b>	0357	0.9	28	<b>15</b>	0324	1.1	34
	0933	9.0	274	M	1004	10.0	305	Tu	0936	10.4	316
	1545	1.2	37		1627	1.2	38		1601	1.5	47
	2147	9.1	277	○	2217	9.0	273	●	2152	9.1	276

# Dalian, China, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
<b>1</b> Su	0526 1148 1824	2.0 11.0 2.8	ft 335 86	<b>16</b> M	0546 1208 1845	0.9 12.1 1.8	ft 28 370 56	<b>1</b> W	0015 0617 1231 1900	9.3 2.2 10.9 2.5	ft 282 68 331 77	<b>16</b> Th	0054 0708 1314 1942	10.3 1.8 10.8 1.7	ft 313 55 330 53	<b>1</b> Sa	0100 0715 1314 1936	10.0 2.5 10.0 1.9	ft 305 76 304 57	<b>16</b> Su	0159 0825 1409 2023	10.1 3.1 8.6 2.3	ft 307 93 263 69
<b>2</b> M	0003 0600 1221 1857	8.7 2.1 10.9 2.8	ft 265 64 332 86	<b>17</b> Tu	0027 0636 1255 1931	9.6 1.2 11.7 1.9	ft 293 38 357 57	<b>2</b> Th	0050 0654 1304 1933	9.3 2.5 10.6 2.4	ft 284 75 323 73	<b>17</b> F	0144 0759 1359 2025	10.1 2.5 10.1 2.0	ft 308 76 307 61	<b>2</b> Su	0143 0801 1356 2018	10.0 2.9 9.4 2.0	ft 305 88 287 61	<b>17</b> M	0253 0925 1501 2112	9.6 3.7 7.8 2.9	ft 293 114 239 88
<b>3</b> Tu	0039 0636 1255 1931	8.7 2.3 10.7 2.8	ft 264 69 327 85	<b>18</b> W	0118 0728 1344 2018	9.6 1.8 11.1 2.0	ft 293 85 339 60	<b>3</b> F	0130 0735 1342 2011	9.4 2.8 10.2 2.4	ft 285 85 312 72	<b>18</b> Sa	0238 0854 1447 2111	9.8 3.2 9.2 2.4	ft 300 99 281 73	<b>3</b> M	0234 0858 1446 2109	9.9 3.4 8.7 2.3	ft 302 103 265 70	<b>18</b> Tu	0358 1042 1610 2220	9.1 4.2 7.2 3.4	ft 278 128 218 105
<b>4</b> W	0117 0715 1332 2008	8.6 2.6 10.4 2.8	ft 263 78 317 85	<b>19</b> Th	0214 0823 1435 2108	9.5 2.4 10.4 2.2	ft 290 74 316 66	<b>4</b> Sa	0215 0823 1425 2055	9.4 3.2 9.7 2.4	ft 285 97 296 74	<b>19</b> Su	0340 1000 1544 2206	9.5 3.9 8.4 2.9	ft 290 120 255 88	<b>4</b> Tu	0338 1012 1554 2214	9.7 3.8 8.0 2.6	ft 297 117 244 79	<b>19</b> W	0517 1212 1746 2346	8.8 4.3 6.9 3.7	ft 268 131 210 113
<b>5</b> Th	0200 0758 1414 2050	8.5 3.0 10.0 2.8	ft 260 90 304 85	<b>20</b> F	0316 0924 1530 2201	9.4 3.1 9.5 2.4	ft 285 96 291 74	<b>5</b> Su	0308 0920 1517 2146	9.4 3.6 9.1 2.6	ft 285 111 276 78	<b>20</b> M	0450 1122 1655 2314	9.3 4.4 7.7 3.3	ft 283 134 234 100	<b>5</b> W	0459 1147 1722 2337	9.7 4.0 7.6 2.7	ft 296 121 231 82	<b>20</b> Th	0642 1330 1911	8.9 3.9 7.2	ft 270 120 219
<b>6</b> F	0251 0850 1502 ●	8.5 3.4 9.5 2.8	ft 259 104 289 85	<b>21</b> Sa	0424 1036 1631 2259	9.3 3.8 8.8 2.7	ft 282 115 267 82	<b>6</b> M	0413 1033 1623 2248	9.4 4.0 8.4 2.7	ft 286 122 257 81	<b>21</b> Tu	0608 1250 1823	9.2 4.4 7.4	ft 281 135 225	<b>6</b> Th	0625 1315 1854	10.0 3.6 7.8	ft 304 109 237	<b>21</b> F	0104 0748 1423 2007	3.5 9.2 3.4 7.8	ft 106 281 104 237
<b>7</b> Sa	0351 0953 1600 2233	8.6 3.8 9.0 2.8	ft 261 115 273 85	<b>22</b> Su	0536 1157 1741	9.3 4.1 8.1	ft 283 126 248	<b>7</b> Tu	0528 1200 1742 2359	9.6 4.1 8.1 2.6	ft 294 124 246 79	<b>22</b> W	0028 0724 1402 1937	3.4 9.5 4.1 7.6	ft 105 289 124 231	<b>7</b> F	0059 0740 1421 2003	2.4 10.5 2.9 8.4	ft 72 321 88 256	<b>22</b> Sa	0205 0835 1502 2048	3.0 9.6 2.9 8.4	ft 90 294 88 257
<b>8</b> Su	0500 1109 1708 2335	8.8 3.9 8.6 2.7	ft 269 120 261 81	<b>23</b> M	0001 0647 1316 1854	2.9 9.5 4.1 7.9	ft 88 290 125 240	<b>8</b> W	0642 1323 1902	10.2 3.7 8.1	ft 310 114 246	<b>23</b> Th	0135 0823 1454 2031	3.2 9.9 3.6 8.0	ft 99 301 110 244	<b>8</b> Sa	0207 0838 1511 2055	1.8 11.1 2.3 9.1	ft 55 337 69 278	<b>23</b> Su	0250 0911 1533 2122	2.4 10.0 2.5 9.0	ft 74 304 75 273
<b>9</b> M	0608 1228 1818	9.3 3.8 8.4	ft 284 116 255	<b>24</b> Tu	0104 0751 1422 1957	2.9 9.8 3.8 7.9	ft 89 300 116 241	<b>9</b> Th	0111 0750 1431 2009	2.2 10.8 3.2 8.4	ft 68 330 97 257	<b>24</b> F	0229 0906 1534 2111	2.9 10.3 3.2 8.5	ft 87 314 98 258	<b>9</b> Sa	0303 0926 1554 2140	1.2 11.4 1.8 9.8	ft 38 348 54 298	<b>24</b> M	0327 0941 1601 2153	2.0 10.2 2.1 9.4	ft 61 310 65 287
<b>10</b> Tu	0036 0709 1338 1924	2.4 10.0 3.4 8.4	ft 73 305 104 257	<b>25</b> W	0200 0843 1512 2047	2.8 10.2 3.5 8.1	ft 85 312 106 248	<b>10</b> F	0214 0847 1525 2104	1.8 11.5 2.6 9.0	ft 54 323 323 273	<b>25</b> Sa	0312 0941 1606 2146	2.5 10.6 2.9 8.9	ft 75 271 88 271	<b>25</b> Tu	0351 1007 1633 2221	0.9 11.5 1.4 10.2	ft 27 351 44 297	<b>25</b> O	0400 1009 1627 2222	1.8 10.2 1.9 9.7	ft 54 312 57 297
<b>11</b> W	0133 0805 1440 2022	2.0 10.8 3.0 8.6	ft 61 328 90 263	<b>26</b> Th	0248 0924 1554 2128	2.6 10.6 3.2 8.4	ft 79 322 98 257	<b>11</b> Sa	0309 0938 1613 2152	1.3 11.9 2.2 9.4	ft 39 364 66 288	<b>26</b> Su	0348 1011 1635 2217	2.2 10.8 2.7 9.2	ft 66 329 81 281	<b>11</b> Tu	0436 1046 1711 2302	0.8 11.4 1.2 10.5	ft 24 347 38 321	<b>26</b> W	0432 1036 1654 2251	1.6 10.2 1.6 10.0	ft 50 311 50 305
<b>12</b> Th	0228 0856 1534 2114	1.6 11.5 2.5 8.9	ft 48 349 77 271	<b>27</b> F	0328 1000 1629 2204	2.4 10.8 3.0 8.7	ft 72 330 92 266	<b>12</b> Su	0400 1023 1656 2237	0.9 12.2 1.9 9.8	ft 28 371 57 300	<b>27</b> W	0421 1039 1702 2247	2.0 10.9 2.5 9.5	ft 60 331 76 289	<b>12</b> M	0519 1124 1748 2344	0.9 11.1 1.2 10.7	ft 28 338 36 325	<b>27</b> Th	0505 1105 1722 2322	1.6 10.1 1.5 10.2	ft 50 308 45 312
<b>13</b> F	0319 0945 1624 ●	1.2 12.0 2.2 9.2	ft 36 365 68 279	<b>28</b> Sa	0404 1031 1701 2237	2.2 11.0 2.9 8.9	ft 67 335 89 272	<b>13</b> M	0448 1107 1738 2322	0.8 12.1 1.7 10.1	ft 25 370 51 309	<b>28</b> Tu	0453 1106 1729 2318	1.9 10.8 2.3 9.6	ft 58 330 71 294	<b>13</b> Th	0603 1203 1825 1941	1.3 10.7 1.2 54	ft 39 325 38 294	<b>28</b> F	0539 1136 1753 2356	1.7 9.9 1.3 10.4	ft 51 303 40 317
<b>14</b> Sa	0408 1033 1712 2250	0.9 12.3 2.0 9.4	ft 27 374 62 286	<b>29</b> Su	0437 1101 1730 2309	2.1 11.1 2.8 9.1	ft 63 338 86 277	<b>14</b> Tu	0534 1149 1819	0.9 11.9 1.6	ft 28 362 49	<b>29</b> W	0525 1134 1756 2349	1.9 10.7 2.2 9.8	ft 59 327 66 299	<b>14</b> F	0026 0647 1243 1902	10.6 1.8 10.1 1.4	ft 324 54 308 44	<b>29</b> Sa	0617 1211 1827	1.8 9.7 1.2	ft 56 295 38
<b>15</b> Su	0457 1120 1759 2337	0.8 12.3 1.9 9.5	ft 24 376 58 291	<b>30</b> M	0510 1130 1759 2341	2.0 11.1 2.8 9.2	ft 62 338 84 280	<b>15</b> W	0007 0621 1231 1900	10.3 1.3 11.4 1.6	ft 313 39 348 49	<b>30</b> Th	0558 1204 1826	2.0 10.6 2.0	ft 62 323 61	<b>15</b> Sa	0111 0734 1324 1941	10.4 2.4 9.4 1.8	ft 318 73 287 54	<b>30</b> Su	0034 0659 1250 1906	10.5 2.1 9.3 1.3	ft 320 63 283 40
				<b>31</b> Tu	0543 1159 1828	2.1 11.0 2.6	ft 64 336 80					<b>31</b> F	0023 0634 1237 1859	9.9 2.2 10.3 1.9	ft 303 67 315 57								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Dalian, China, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0118 M 0748 1334 1950	ft 10.5 2.5 8.7 1.6	cm 319 75 265 48	h m 0208 Tu 0851 1425 2025	ft 9.5 3.2 7.3 2.6	cm 290 97 222 79	h m 0301 Th 0958 1537 O 2142	ft 9.6 2.6 6.9 2.2	cm 292 78 211 67	h m 0316 F 1015 1559 2147	ft 8.2 3.0 6.2 3.1	cm 251 90 190 95
h m 0209 Tu 0848 1428 O 2043	ft 10.2 3.0 8.0 2.0	cm 311 90 244 61	h m 0304 W 0958 1528 O 2123	ft 8.9 3.6 6.7 3.2	cm 272 110 205 98	h m 0425 F 1120 1713 2315	ft 9.1 2.5 7.0 2.4	cm 277 76 212 73	h m 0428 Sa 1125 1728 2321	ft 7.8 2.8 6.4 3.2	cm 237 86 194 99
h m 0315 W 1005 1541 2153	ft 9.8 3.4 7.4 2.5	cm 298 103 225 76	h m 0416 Th 1118 1656 2253	ft 8.4 3.7 6.5 3.6	cm 256 114 197 110	h m 0551 Sa 1234 1838	ft 8.9 2.1 6.3 7.6	cm 271 231 231 231	h m 0545 Su 1227 1843	ft 7.6 2.5 7.0	cm 231 75 212
h m 0441 Th 1138 1718 2326	ft 9.5 3.4 7.2 2.7	cm 289 103 218 81	h m 0541 F 1235 1830	ft 8.2 3.5 6.8	cm 250 107 206	h m 0040 Su 0702 1333 1939	ft 2.1 9.0 1.5 8.4	cm 64 273 46 256	h m 0039 M 0651 1318 1934	ft 3.0 7.7 2.0 7.7	cm 90 234 60 235
h m 0612 F 1300 1851	ft 9.5 2.9 7.6	cm 290 89 232	h m 0021 Sa 0656 1335 1932	ft 3.5 8.3 9.0	cm 106 254 226	h m 0147 M 0757 1420 2026	ft 1.6 9.1 1.0 9.2	cm 49 277 31 279	h m 0139 Tu 0741 1359 2015	ft 2.4 7.9 1.4 8.4	cm 74 240 43 257
h m 0052 Sa 0727 1402 1955	ft 2.3 9.9 2.3 8.4	cm 70 301 69 257	h m 0129 Su 0749 1417 2016	ft 3.0 8.7 2.4	cm 90 264 74 248	h m 0241 Tu 0841 1500 2107	ft 1.2 9.2 0.7 9.7	cm 36 279 20 297	h m 0227 W 0822 1435 2049	ft 1.9 8.1 1.0 9.1	cm 58 247 29 278
h m 0200 Su 0822 1449 2043	ft 1.7 10.2 1.6 9.3	cm 52 312 50 282	h m 0220 M 0830 1451 2052	ft 2.4 9.0 1.9 8.8	cm 73 274 58 269	h m 0326 W 0920 1537 2145	ft 1.0 9.1 0.4 10.1	cm 29 277 13 308	h m 0308 Th 0858 1509 2123	ft 1.4 8.3 0.5 9.7	cm 44 252 16 296
h m 0253 M 0906 1529 2124	ft 1.1 10.4 1.2 9.9	cm 35 318 36 302	h m 0300 Tu 0904 1520 2123	ft 1.9 9.2 1.5 9.4	cm 58 280 45 286	h m 0408 Th 0956 1611 ● 2221	ft 0.9 8.9 0.3 10.3	cm 28 272 10 315	h m 0347 F 0934 1544 O 2157	ft 1.1 8.3 0.2 10.2	cm 35 254 6 311
h m 0340 Tu 0945 1605 ● 2203	ft 0.9 10.4 0.9 10.4	cm 26 318 27 316	h m 0336 W 0934 1548 2153	ft 1.6 9.3 1.1 9.8	cm 48 283 35 299	h m 0448 F 1033 1645 2258	ft 1.0 8.7 0.4 10.4	cm 31 265 11 317	h m 0426 Sa 1011 1620 2234	ft 1.0 8.3 0.0 10.6	cm 29 253 -1 322
h m 0422 W 1021 1640 ● 2241	ft 0.8 10.2 0.8 10.6	cm 25 312 23 324	h m 0410 Th 1005 1618 O 2223	ft 1.3 9.3 0.9 10.2	cm 41 283 27 310	h m 0528 Sa 1110 1719 2334	ft 1.2 8.4 0.5 10.3	cm 38 257 15 315	h m 0508 Su 1050 1659 2314	ft 0.9 8.2 -0.2 10.8	cm 27 250 -5 329
h m 0503 Th 1057 1715 2319	ft 1.0 9.9 0.8 10.7	cm 29 303 23 326	h m 0445 F 1037 1649 2256	ft 1.2 9.2 0.7 10.5	cm 38 281 21 320	h m 0608 Su 1148 1753	ft 1.5 8.1 0.7 10.5	cm 45 248 22 320	h m 0553 M 1133 1741 2359	ft 1.0 8.0 -0.2 10.8	cm 29 245 -5 329
h m 0544 F 1134 1750 2359	ft 1.3 9.6 0.9 10.6	cm 39 292 26 324	h m 0522 Sa 1111 1723 2332	ft 1.3 9.1 0.6	cm 39 276 17 326	h m 0012 M 0649 1227 1829	ft 10.2 1.8 7.8 1.0	cm 310 55 237 32	h m 0642 Tu 1219 1827	ft 1.1 7.7 0.1 2.1	cm 33 236 2 216
h m 0626 Sa 1213 1825	ft 1.7 9.1 2.7	cm 51 277 81	h m 0603 Su 1149 1800	ft 1.4 0.5	cm 42 268 16	h m 0050 Tu 0732 1308 1906	ft 9.8 2.1 7.3 1.5	cm 300 65 224 45	h m 0048 W 0735 1311 1918	ft 10.5 1.3 0.5 1.5	cm 320 39 15 15
h m 0039 Su 0710 1253 1901	ft 10.4 2.1 8.6 1.4	cm 318 65 261 44	h m 0013 M 0649 1232 1842	ft 10.8 1.6 8.4 0.7	cm 328 49 256 21	h m 0131 W 0817 1353 1948	ft 9.4 2.5 6.9 2.0	cm 286 75 211 62	h m 0143 Th 0833 1411 2017	ft 10.0 1.5 7.1 1.1	cm 305 45 216 34
h m 0122 M 0758 1336 1940	ft 10.0 2.7 7.9 2.0	cm 306 81 242 60	h m 0100 Tu 0741 1321 1930	ft 10.6 1.9 7.9 1.0	cm 323 59 241 32	h m 0218 Th 0910 1447 ● 2037	ft 8.8 2.8 6.5 2.6	cm 269 85 198 79	h m 0247 F 0938 1525 O 2129	ft 9.3 1.6 6.9 1.7	cm 284 49 209 53
h m 0154 W 0843 1420 2027	ft 10.2 2.3 7.3 1.6	cm 310 70 224 49	h m 0154 W 0843 1420 2027	ft 10.2 2.3 7.3 1.6	cm 310 70 224 49						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qinhuangdao, China, 2018

Times and Heights of High and Low Waters

January					February					March														
	Time	Height			Time	Height			Time	Height			Time	Height										
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm									
<b>1</b> M	0607 1700	3.6 0.1	110 4		<b>16</b> Tu	0655 1736	3.4 0.3	105 8	<b>1</b> Th	0716 1817	3.9 0.0	120 -1	<b>16</b> F	0134 0336 0756 ● 1823	2.7 2.6 3.4 0.7	83 79 104 21	<b>1</b> Th	0610 1712	3.9 0.4	118 13	<b>16</b> F	0652 1715	3.4 1.2	105 36
<b>2</b> Tu	0647 1748	3.9 -0.1	118 -4		<b>17</b> W	0728 1814	3.5 0.3	106 9	<b>2</b> F	0818 1858	3.8 0.2	115 5	<b>17</b> Sa	0203 0431 0838 1852	2.9 2.5 3.3 0.9	87 77 101 27	<b>2</b> F	0730 1752	3.6 0.7	111 20	<b>17</b> Sa	0100 0345 0756 ● 1743	3.0 2.7 3.3 1.4	92 81 100 43
O					●								O											
<b>3</b> W	0731 1833	4.0 -0.2	123 -7		<b>18</b> Th	0804 1851	3.5 0.3	107 10	<b>3</b> Sa	0916 1934	3.6 0.5	109 14	<b>18</b> Su	0235 0523 0917 1914	3.0 2.5 3.2 1.0	90 97 97 32	<b>3</b> Sa	0153 0420 0836 1829	3.0 2.6 3.4 1.0	92 80 104 30	<b>18</b> Su	0131 0442 0843 1806	3.1 2.5 3.1 1.6	95 75 96 50
<b>4</b> Th	0821 1917	4.1 -0.2	125 -6		<b>19</b> F	0841 1924	3.5 0.4	107 13	<b>4</b> Su	0333 0554 1007 2006	2.8 2.5 3.3 0.8	86 75 100 24	<b>19</b> M	0310 0615 0958 1929	3.0 2.4 3.0 1.2	91 72 92 38	<b>4</b> Su	0228 0521 0928 1901	3.0 2.4 3.2 1.3	92 73 97 41	<b>19</b> M	0206 0536 0926 1824	3.2 2.3 3.0 1.9	97 70 91 57
<b>5</b> F	0913 1959	4.0 0.0	122 -1		<b>20</b> Sa	0302 0513 0918 1952	2.8 2.5 3.4 0.6	85 77 105 17	<b>5</b> M	0406 0655 1057 2031	2.8 2.3 3.0 1.1	84 69 90 34	<b>20</b> Tu	0345 0709 1044 1942	3.0 2.2 2.8 1.4	91 67 86 43	<b>5</b> M	0301 0620 1017 1926	3.0 2.2 2.9 1.7	91 67 89 51	<b>20</b> Tu	0242 0628 1011 1839	3.2 2.1 2.8 2.1	97 64 86 63
<b>6</b> Sa	1005 2036	3.8 0.2	115 7		<b>21</b> Su	0336 0558 0956 2013	2.8 2.5 3.3 0.7	86 77 102 20	<b>6</b> Tu	0435 0802 1147 2042	2.7 2.1 2.6 1.4	83 63 79 42	<b>21</b> W	0420 0804 1136 1957	2.9 2.0 2.6 1.6	88 61 79 48	<b>6</b> Tu	0332 0716 1106 1933	2.9 2.0 2.7 1.9	89 60 81 59	<b>21</b> W	0717 1544 1855 2301	1.9 3.1 2.3 3.2	57 96 69 98
<b>7</b> Su	1055 2110	3.4 0.5	105 16		<b>22</b> M	0412 0648 1037 2028	2.9 2.5 3.1 0.8	87 75 96 24	<b>7</b> W	0455 0912 1237 2038	2.7 1.8 2.2 1.6	82 56 67 48	<b>22</b> Th	0038 0900 1233 2018	2.7 1.7 2.3 1.8	82 53 70 54	<b>7</b> W	0357 0809 1634 1930	2.9 1.7 2.7 2.1	87 53 81 65	<b>22</b> Th	0807 1628 1915 2331	1.6 3.1 2.5 3.5	49 95 76 108
<b>8</b> M	0515 0737 1143 2137	2.7 2.4 3.0 0.9	81 74 92 26		<b>23</b> Tu	0448 0748 1121 2040	2.8 2.4 2.9 1.0	86 72 88 29	<b>8</b> Th	0220 1023 1329 1608	2.8 1.6 1.8 1.6	86 48 55 50	<b>23</b> F	0108 1000 1333 1548	3.1 1.4 1.9 1.7	93 44 59 53	<b>8</b> Th	0020 0901 1715 1939	3.2 1.5 2.5 2.2	97 46 76 68	<b>23</b> F	0857 1719 1938	1.3 3.0 2.7	41 91 82
<b>9</b> Tu	0543 0902 1229 2156	2.6 2.2 2.5 1.1	79 68 77 35		<b>24</b> W	0523 0857 1211 2059	2.7 2.2 2.6 1.1	83 66 78 34	<b>9</b> F	0247 1205	3.1 1.3	94 41	<b>24</b> Sa	0145 1110	3.4 1.2	104 36	<b>9</b> F	0049 0954	3.4 1.3	105 41	<b>24</b> Sa	0010 0951	3.9 1.1	119 34
<b>10</b> W	0552 1048 1310 2200	2.6 2.0 2.0 1.4	80 60 62 44		<b>25</b> Th	0555 1010 1311 2126	2.6 1.9 2.1 1.4	80 57 65 42	<b>10</b> Sa	0313 1359	3.3 1.0	101 31	<b>25</b> Su	0229 1252	3.7 0.9	113 27	<b>10</b> Sa	0120 1056	3.7 1.2	112 38	<b>25</b> Su	0055 1053	4.2 1.0	128 30
<b>11</b> Th	0459 1758	2.8 1.4	84 42		<b>26</b> F	0251 1134 1422 1735	2.7 1.5 1.7 1.4	83 47 51 42	<b>11</b> Su	0344 1507	3.4 0.8	105 23	<b>26</b> M	0318 1426	3.9 0.6	120 17	<b>11</b> Su	0156 1227	3.8 1.1	117 35	<b>26</b> M	0146 1217	4.4 0.9	133 28
<b>12</b> F	0514 1500	3.0 1.1	91 33		<b>27</b> Sa	0323 1336	3.1 1.1	93 34	<b>12</b> M	0423 1553	3.5 0.6	108 17	<b>27</b> Tu	0411 1535	4.0 0.4	123 11	<b>12</b> M	0239 1405	3.9 1.0	118 32	<b>27</b> Tu	0242 1349	4.3 0.9	132 27
<b>13</b> Sa	0542 1537	3.1 0.7	96 22		<b>28</b> Su	0401 1457	3.4 0.6	103 19	<b>13</b> Tu	0509 1635	3.5 0.5	108 14	<b>28</b> W	0508 1627	4.0 0.3	122 9	<b>13</b> Tu	0329 1515	3.8 1.0	117 29	<b>28</b> W	0345 1502	4.1 0.9	126 28
<b>14</b> Su	0609 1617	3.3 0.5	100 15		<b>29</b> M	0445 1557	3.7 0.2	112 7	<b>14</b> W	0602 1714	3.5 0.5	108 14					<b>14</b> W	0426 1602	3.7 1.0	114 29	<b>29</b> Th	0458 1556	3.9 1.1	118 33
<b>15</b> M	0631 1657	3.4 0.3	103 10		<b>30</b> Tu	0531 1647	3.9 0.0	118 -1	<b>15</b> Th	0702 1750	3.5 0.6	106 17					<b>15</b> Th	0531 1641	3.6 1.0	110 31	<b>30</b> F	0013 0226 0630 1640	3.2 3.0 3.6 1.3	97 91 109 40
					<b>31</b> W	0621 1733	4.0 -0.1	121 -4									<b>31</b> O	0045 1719	3.2 1.6	97 50		0344 0749	2.7 3.3	82 102

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Qinhuangdao, China, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0120	3.2	98	<b>16</b> M	0056	3.3	102	<b>1</b> Tu	0545	1.8	56	
	0448	2.4	73		0452	2.3	70		1407	3.9	120	
	0846	3.1	95		1328	3.5	107		1709	3.3	101	
	1752	2.0	61	●	1707	2.6	78		2112	4.0	123	
<b>2</b> M	0155	3.2	97	<b>17</b> Tu	0542	2.0	62	<b>2</b> W	0629	1.6	50	
	0543	2.1	65		1408	3.7	113		1445	4.0	121	
	1424	3.5	106		1728	2.8	85		1719	3.5	107	
	1817	2.4	72		2120	3.5	108		2133	4.3	130	
<b>3</b> Tu	2157	3.1	96	<b>18</b> W	0630	1.8	54	<b>3</b> Th	0711	1.5	46	
	0632	1.9	57		1448	3.9	118		1521	3.9	120	
	1502	3.5	106		1749	3.1	93		1740	3.6	110	
	1825	2.7	81		2138	3.8	117		2156	4.5	137	
<b>4</b> W	2223	3.4	104	<b>4</b> F	0718	1.5	46	<b>18</b> F	0714	1.2	37	
	0718	1.7	51		1531	3.9	119		1522	4.5	137	
	1539	3.4	103		1810	3.3	100		1727	4.2	127	
	1825	2.8	86		2206	4.2	128		2130	5.2	159	
<b>5</b> Th	2247	3.7	113	<b>19</b> Sa	0718	1.5	46	<b>19</b> Sa	0800	1.0	32	
	0802	1.5	45		1531	3.9	119		2216	5.4	165	
	1615	3.3	100	<b>20</b> F	0805	1.3	39	<b>4</b> M	0752	1.4	43	
	1841	3.0	90		1618	3.8	117		1555	3.9	119	
<b>6</b> F	2313	3.9	120		1834	3.4	105		1804	3.7	112	
	0846	1.3	41	<b>21</b> Sa	0853	1.1	33	<b>6</b> Su	0913	1.4	42	
	1652	3.2	97		2329	4.8	146		2339	4.8	147	
	1859	3.0	91					<b>21</b> M	0932	1.1	34	
<b>7</b> Sa	2344	4.2	127						2356	5.2	160	
	0930	1.3	39	<b>22</b> Su	0943	1.0	31	<b>6</b> W	1001	1.9	59	
	0943	1.0	31		0954	1.5	45	<b>22</b> Tu	1019	1.4	42	
	1020	1.3	39		1038	1.0	32		1019	1.4	42	
<b>8</b> Su	●			<b>7</b> M	0954	1.5	45	<b>7</b> Th	0028	4.7	144	
	0021	4.3	131	<b>23</b> M	0019	4.9	148		1028	2.2	67	
	1020	1.3	39		1038	1.0	32		1859	4.2	127	
	●			<b>8</b> Tu	0021	4.8	145	<b>7</b> O	2148	4.1	125	
<b>9</b> M	0103	4.3	132	<b>24</b> Tu	0113	4.8	145	<b>22</b> F	0144	4.2	128	
	1120	1.3	41		1144	1.2	38		1103	2.8	84	
	●			<b>9</b> W	0104	4.6	139		1844	4.3	131	
	0103	4.3	132		1127	1.8	56	<b>23</b> Sa	0038	3.5	107	
<b>10</b> Tu	24	0113	4.8	145	<b>24</b> Th	0153	4.4	133		0308	3.6	110
	0149	4.3	130		1144	1.2	38		0633	3.2	97	
	1245	1.4	44	<b>25</b> W	0213	4.4	135		1731	4.6	139	
	0213	4.4	135		1302	1.5	45	<b>24</b> Su	0216	3.0	90	
<b>11</b> W	<b>25</b> F	0213	4.4	135	<b>10</b> Th	0152	4.2	129		1802	4.8	147
	0241	4.1	124		1227	2.1	64	<b>10</b> Tu	0733	3.1	93	
	1405	1.5	47	<b>25</b> F	0003	3.6	110		1819	4.3	132	
	0329	4.0	122		0322	3.8	116	<b>25</b> M	0314	2.4	74	
<b>12</b> Th	<b>26</b> Th	0329	4.0	122	<b>11</b> F	0253	3.8	116		1837	5.1	155
	0344	3.8	116		1327	2.4	101	<b>26</b> Tu	0313	2.7	83	
	1506	1.6	50		2206	3.6	110		1835	4.6	139	
	0505	3.6	109	<b>12</b> Sa	0202	3.3	101	<b>26</b> W	0402	2.0	61	
<b>13</b> F	1510	2.0	62		0444	3.4	104		1941	5.4	164	
	2329	3.4	104		1416	2.6	80	<b>12</b> Tu	0400	2.3	69	
	0128	3.2	99		2244	3.6	109		1853	4.9	148	
	0505	3.6	109	<b>27</b> F	0202	3.3	101	<b>27</b> W	0447	1.7	53	
<b>14</b> Sa	1510	2.0	62		1147	3.3	102		1941	5.4	164	
	2329	3.4	104	<b>28</b> Sa	0312	2.9	87	<b>13</b> W	0448	1.8	55	
	0645	3.3	100		1556	2.4	72		1911	5.2	158	
	1548	1.8	55		1953	3.3	100	<b>13</b> Th	0529	1.6	49	
<b>15</b> Su	2350	3.2	99		1147	3.3	102		2010	5.5	167	
	0507	3.5	108	<b>28</b> Sa	0303	2.8	86	<b>13</b> O	0448	1.8	55	
	1548	1.8	55		0645	3.3	100		1944	4.5	137	
	2350	3.2	99	<b>29</b> Su	0407	2.4	73	<b>14</b> Th	0456	1.8	56	
<b>16</b> Sa	0643	3.3	101		1244	3.6	111		1315	4.2	127	
	1619	2.0	62		1632	2.7	82	<b>29</b> F	0610	1.5	47	
	0407	2.4	73		2021	3.5	108		1539	3.9	118	
	1619	2.0	62	<b>30</b> M	0459	2.1	63	<b>14</b> O	2011	4.7	143	
<b>17</b> Su	0020	3.3	100		1327	3.8	117		2011	4.7	143	
	0357	2.6	79		1658	3.1	93	<b>15</b> Tu	0453	2.1	63	
	0753	3.1	96		1603	3.4	105		1311	4.0	123	
	1645	2.3	70	<b>30</b> O	2048	3.8	116		1604	4.1	124	
<b>18</b> M	0020	3.3	100		●	2009	4.2	129		2035	4.9	148
	0357	2.6	79		2048	3.8	116	<b>31</b> Th	0621	1.5	47	
	0753	3.1	96						1432	4.4	133	
	1645	2.3	70	<b>30</b> O					1632	4.2	127	
<b>19</b> W	0020	3.3	100						2056	5.0	153	
	0357	2.6	79									
	0753	3.1	96									
	1645	2.3	70									

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qinhuangdao, China, 2018

Times and Heights of High and Low Waters

July				August				September															
	Time	Height			Time	Height			Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0728 2146	1.6 5.6	50 170	<b>16</b> M	0736 2207	1.4 5.9	42 180	<b>1</b> W	0807 1603 1903 2256	2.3 4.8 4.4 5.1	71 146 135 156	<b>16</b> Th	0817 1622 2008 2354	2.7 4.6 3.8 4.6	82 140 115 139	<b>1</b> Sa	0746 1231 2055	3.2 4.4 3.2	98 135 98	<b>16</b> Su	0508 1238 2148	3.9 4.9 2.3	118 150 71
<b>2</b> M	0804 2221	1.7 5.5	53 168	<b>17</b> Tu	0815 1629 1836 2259	1.7 4.8 4.6 5.5	51 147 141 169	<b>2</b> Th	0825 1633 2002 2336	2.6 4.8 4.3 4.8	78 145 130 146	<b>17</b> F	0838 1644 2110	3.1 4.5 3.4	94 138 105	<b>2</b> Su	0034 0756 1257 2149	3.9 3.4 4.8 2.9	119 104 145 89	<b>17</b> M	1311 2248	5.1 2.2	156 67
<b>3</b> Tu	0836 1635 1836 2256	1.9 4.7 4.6 5.3	58 143 140 163	<b>18</b> W	0850 1702 1951 2351	2.0 4.7 4.4 5.1	62 143 133 155	<b>3</b> F	0837 1702 2104	2.8 4.7 4.0	85 143 122	<b>18</b> Sa	0045 0842 1348 2213	4.1 3.4 4.8 3.1	125 103 147 95	<b>3</b> M	0605 0806 1329 2252	3.7 3.6 5.1 2.6	114 110 155 79	<b>18</b> Tu	1348	5.2	159
<b>4</b> W	0902 1707 1938 2333	2.1 4.7 4.5 5.1	64 142 138 155	<b>19</b> Th	0920 1730 2112	2.5 4.6 4.1	75 141 124	<b>4</b> Sa	0023 0846 1727 2208	4.4 3.1 4.6 3.7	135 93 140 112	<b>19</b> Su	0140 0357 1425 2330	3.6 3.4 5.1 2.8	110 105 156 86	<b>4</b> Tu	1409	5.4	165	<b>19</b> W	0010 1430	2.1 5.2	158
<b>5</b> Th	0922 1737 2053	2.4 4.6 4.4	72 141 133	<b>20</b> F	0044 0944 1744 2233	4.6 2.9 4.6 3.7	139 88 140 113	<b>5</b> Su	0117 0856 1436 2322	4.0 3.3 4.9 3.3	122 101 148 100	<b>20</b> M	1502	5.3	163	<b>5</b> W	0022 1457	2.3 5.6	69 171	<b>20</b> Th	0140 1522	2.0 5.1	62 155
<b>6</b> F	0013 0936 1805 ●	4.7 2.6 4.6 2.2	143 80 139 125	<b>21</b> Sa	0141 0958 1550	4.0 3.3 4.8	121 100 147	<b>6</b> M	0222 0507 1506	3.5 3.3 5.2	107 100 158	<b>21</b> Tu	0107 1542	2.5 5.5	77 167	<b>6</b> Th	0157 1552	1.9 5.7	59 174	<b>21</b> F	0254 1633	1.9 4.9	59 149
<b>7</b> Sa	0058 0950 1820	4.2 2.9 4.5	129 89 138	<b>22</b> Su	0017 0254 0531 1627	3.3 3.4 3.2 5.1	100 104 99 156	<b>7</b> Tu	0108 1543	2.8 5.5	86 168	<b>22</b> W	0229 1630	2.2 5.5	67 169	<b>7</b> F	0309 1655	1.6 5.6	50 172	<b>22</b> Sa	0345 1810	1.9 4.7	58 144
<b>8</b> Su	0616 1633	3.2 4.7	97 143	<b>23</b> M	0152 1706	2.8 5.4	84 164	<b>8</b> W	0231 1628	2.3 5.8	70 177	<b>23</b> Th	0328 1736	2.0 5.5	60 168	<b>8</b> Sa	0404 1814	1.5 5.5	46 167	<b>23</b> Su	0426 1921	2.0 4.6	60 139
<b>9</b> M	0159 0412 0624 1650	3.1 3.2 3.1 5.0	96 98 94 152	<b>24</b> Tu	0259 1747	2.3 5.5	70 169	<b>9</b> Th	0334 1718	1.8 6.0	55 183	<b>24</b> F	0415 1849	1.8 5.5	56 167	<b>9</b> Su	0450 1937	1.6 5.3	48 161	<b>24</b> M	0502 1259 1550 2013	2.1 4.0 3.6 4.4	65 121 111 133
<b>10</b> Tu	0257 1717	2.6 5.3	78 163	<b>25</b> W	0349 1831	2.0 5.6	60 172	<b>10</b> F	0425 1816	1.5 6.1	45 186	<b>25</b> Sa	0456 1943	1.8 5.4	55 165	<b>10</b> M	0531 1339 1616 ●	1.8 4.4 4.0 5.0	54 135 123 153	<b>25</b> Tu	0533 1321 1647 2057	2.4 4.0 3.4 4.2	72 122 103 127
<b>11</b> W	0350 1751	2.0 5.7	62 173	<b>26</b> Th	0434 1915	1.8 5.7	54 174	<b>11</b> Sa	0512 1927	1.3 6.1	40 185	<b>26</b> Su	0534 2028	1.9 5.3	58 162	<b>11</b> Tu	0609 1412 1721 2127	2.1 4.4 3.7 4.7	64 133 113 144	<b>26</b> W	0557 1350 1739 2137	2.6 4.1 3.1 3.9	80 124 96 120
<b>12</b> Th	0439 1834	1.6 5.9	48 181	<b>27</b> F	0516 1956	1.7 5.7	51 174	<b>12</b> Su	0555 2031	1.3 5.9	41 181	<b>27</b> M	0610 1405 1635 2108	2.1 4.5 4.2 5.2	63 137 129 157	<b>12</b> W	0644 1445 1820 2216	2.5 4.3 3.4 4.4	76 131 104 135	<b>27</b> Th	0615 1423 1827 2218	2.9 4.1 2.9 3.7	87 124 89 114
<b>13</b> F	0526 1923	1.3 6.1	39 187	<b>28</b> Sa	0556 2035	1.7 5.7	51 174	<b>13</b> M	0636 1447 1652 2124	1.6 4.8 4.6 5.7	48 147 141 174	<b>28</b> Tu	0641 1430 1730 2144	2.3 4.5 4.1 5.0	70 138 125 151	<b>13</b> Th	0713 1517 1913 2305	2.9 4.2 3.1 4.1	88 129 94 124	<b>28</b> F	0028 0247 0628 1035	3.4 4.1 3.1 4.0	105 124 94 122
<b>14</b> Sa	0612 2020	1.1 6.2	35 189	<b>29</b> Su	0634 2111	1.8 5.6	54 172	<b>14</b> Tu	0714 1520 1758 2215	1.9 4.8 4.4 5.4	58 145 133 164	<b>29</b> W	0707 1458 1823 2221	2.6 4.6 3.9 4.7	78 139 120 144	<b>14</b> F	0126 0342 0731 1134	3.6 4.3 3.2 4.3	111 131 99 132	<b>29</b> Sa	0325 0639 1055 1958	4.0 3.2 4.2 2.4	123 129 104 74
<b>15</b> Su	0655 2115	1.2 6.1	36 187	<b>30</b> M	0709 1507 1717 2146	1.9 4.8 4.6 5.5	58 145 140 168	<b>15</b> W	0748 1552 1904 2304	2.3 4.7 4.1 5.0	70 142 124 152	<b>30</b> Th	0725 1529 1914 2301	2.8 4.6 3.7 4.5	85 139 114 136	<b>15</b> Sa	0423 0730 1207 2055	4.1 3.5 4.7 2.5	124 107 142 77	<b>30</b> Su	0406 0651 1119 2045	4.0 3.4 4.5 2.2	121 104 138 66
				<b>31</b> Tu	0740 1534 1809 2220	2.1 4.8 4.6 5.3	64 146 139 163		<b>31</b> F	0738 1600 2004 2346	3.0 4.5 3.5 4.2	92 136 107 128											

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qinhuangdao, China, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0454 3.9 118	16 Tu 1207 4.8 146	1 Th 1242 4.7 144	16 F 1235 3.9 120	1 Sa 1306 3.4 105	16 Su 0623 2.7 83	0709 3.6 109	Tu 2215 1.5 46	2317 1.0 31	2334 1.0 31	0834 2.7 81	0834 2.7 81
1152 4.9 148	17 W 1246 4.8 145	2 F 1338 4.4 133	17 Sa 1310 3.6 110	2 Su 0855 2.8 85	17 M 0649 2.7 83	2134 1.9 58	W 2315 1.6 49	2315 1.2 38	1412 2.9 87	1226 3.0 91	2215 1.1 34
●	●	●	●	●	●	2 Tu 1233 5.1 156	18 Th 1328 4.6 140	3 Sa 0031 1.2 37	3 M 0027 1.4 43	18 Tu 0659 2.7 83	18 W 1930 1.5 45
3 W 1321 5.2 160	19 F 0036 1.7 51	4 Su 0141 1.4 44	19 M 0059 1.7 52	4 Tu 0118 1.8 54	19 W 0614 2.8 86	2347 1.6 49	1417 4.3 132	1045 3.2 99	0957 2.9 89	0626 2.9 87	1927 1.6 50
4 Th 1416 5.2 158	20 Sa 0152 1.8 54	5 M 0239 1.7 53	20 Tu 0142 1.9 59	5 W 0200 2.1 64	20 Th 0615 3.0 92	1520 5.0 151	1518 4.0 122	1110 3.2 97	0749 3.0 90	0654 3.1 95	1558 1.0 32
5 F 0118 1.5 47	21 Su 0252 1.9 57	6 Tu 0327 2.0 62	21 W 0217 2.2 66	6 Th 0017 2.6 79	21 F 0621 3.2 99	1520 5.0 151	1708 3.6 111	0734 3.1 93	0730 3.1 94	0231 2.4 73	1640 0.7 20
6 Sa 0233 1.5 47	22 M 0334 2.0 62	7 W 0026 3.2 97	22 Th 0018 2.7 81	7 F 0752 3.5 107	22 Sa 0637 3.5 108	1639 4.6 141	1145 3.4 104	0405 2.4 72	0250 2.4 72	1730 0.6 17	1724 0.3 9
7 Su 0330 1.6 50	23 Tu 0406 2.3 69	8 Th 0111 3.3 102	23 F 0055 2.9 89	8 Sa 0815 3.7 112	23 M 0710 3.8 117	1201 3.9 118	1205 3.4 104	0431 2.7 82	0322 2.6 78	1809 0.0 1	1809 0.0 1
1411 3.7 114	24 W 0404 2.3 76	9 F 0154 3.4 105	24 Sa 0134 3.1 96	9 Su 0833 3.8 115	24 M 0751 4.1 125	1818 4.3 131	1509 3.1 94	0441 3.0 90	0353 2.8 84	1854 0.4 12	1854 -0.1 -4
● 2033 3.7 114	25 Th 0446 2.7 83	● O 1736 1.4 42	25 Sa 0153 3.1 95	25 Su 0853 3.7 113	25 M 0751 4.1 125	2305 3.2 98	1843 3.4 103	0830 3.6 109	0808 3.7 113	1817 0.8 23	1854 -0.1 -4
10 W 0124 4.0 121	26 Th 0446 2.7 83	10 Sa 0234 3.4 105	26 Su 0215 3.3 102	10 M 0858 3.9 118	26 Tu 0837 4.2 129	0532 2.5 77	0856 3.5 108	0450 3.1 95	0424 3.0 90	0424 3.0 90	1937 -0.2 -5
0912 3.5 108	O 1739 2.0 62	● O 1739 2.0 62	10 Sa 0919 4.0 121	10 Su 0828 4.0 122	10 M 1935 0.4 12	1735 2.5 77	1824 1.8 54	0919 4.0 121	0902 4.0 122	0902 4.0 122	1935 0.4 12
11 Th 0207 4.1 124	26 F 0502 2.9 89	11 Su 0941 4.2 127	26 M 0904 4.3 131	11 Tu 0931 3.9 120	26 W 0926 4.2 129	0600 2.9 88	0913 3.7 114	1945 0.9 27	1947 0.3 10	0913 0.4 12	2019 -0.1 -3
0941 3.8 116	27 Sa 0519 3.1 94	12 M 1008 4.3 131	27 Tu 0947 4.5 136	12 W 1008 3.9 120	27 Th 1017 4.0 123	1824 2.2 67	0929 4.0 121	2027 0.9 26	2031 0.2 7	2049 0.5 14	2058 0.1 13
1824 2.2 67	27 W 0519 3.1 94	12 M 1008 4.3 131	27 Tu 0947 4.5 136	12 W 1008 3.9 120	27 Th 1017 4.0 123	0248 4.0 123	0929 4.0 121	2027 0.9 26	2031 0.2 7	2049 0.5 14	2058 0.1 13
12 F 0615 3.2 98	28 Su 0311 3.8 115	13 Tu 1041 4.4 133	28 W 1034 4.5 137	13 Th 1045 3.8 117	28 F 1108 3.7 113	1009 4.1 125	0540 3.2 99	2107 0.9 26	2115 0.3 8	2121 0.6 17	2134 0.4 12
1911 2.0 60	28 W 0311 3.8 115	13 Tu 1041 4.4 133	28 W 1034 4.5 137	13 Th 1045 3.8 117	28 F 1108 3.7 113	1023 4.3 132	0951 4.3 130	2107 0.9 26	2115 0.3 8	2121 0.6 17	2134 0.4 12
13 Sa 0328 3.9 120	29 M 0355 3.7 114	14 W 1118 4.3 132	29 Th 1123 4.3 132	14 F 1121 3.6 111	29 M 1159 3.2 98	0612 3.4 104	1023 4.6 139	2148 0.9 28	2200 0.4 13	2148 0.7 22	2207 0.7 22
1036 4.3 132	29 M 0604 3.4 103	14 W 1118 4.3 132	29 Th 1123 4.3 132	14 F 1121 3.6 111	29 M 1159 3.2 98	1956 1.7 53	2038 1.0 32	2148 0.9 28	2200 0.4 13	2148 0.7 22	2207 0.7 22
1102 4.6 139	30 Tu 1105 4.8 146	15 Th 1157 4.2 128	30 F 1214 4.0 121	15 M 1156 3.4 103	30 M 0625 2.6 80	2040 1.6 48	2125 0.9 28	2230 1.0 32	2245 0.7 21	1251 2.7 81	2235 1.1 33
15 M 1132 4.7 144	30 Tu 1105 4.8 146	15 Th 1157 4.2 128	30 F 1214 4.0 121	15 M 1156 3.4 103	30 M 0625 2.6 80	2125 1.5 46	2125 0.9 28	2230 1.0 32	2245 0.7 21	1251 2.7 81	2235 1.1 33
31 W 1151 4.9 148	31 W 1151 4.9 148	● O 2217 0.9 28	● O 2217 0.9 28	● O 2217 0.9 28	31 M 0646 2.6 79	2217 0.9 28	2217 0.9 28	2217 0.9 28	2217 0.9 28	1134 2.0 62	1350 2.1 63
2229 1.5 45					31 M 1134 2.0 62					2229 1.5 45	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Tanggu (Xingang), China, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0155	10.6	323	16 Tu 0307	10.6	323	1 Th 0335	11.2	342	16 Th 0354	11.0	336
0817 4.7	142		0910 5.1	154		0955 4.8	147		0856 5.1	155	
1326 10.7	325		1433 10.1	307		1500 10.8	329		1410 10.7	327	
2048 1.0	30		2138 1.6	49		2224 0.7	20		2125 1.3	40	
●			●			●			●		
2 Tu 0249	11.0	336	17 W 0340	10.8	330	2 F 0417	11.4	346	2 Sa 0424	11.1	338
0912 4.7	143		0947 4.9	149		1044 4.5	137		1041 4.3	131	
1414 10.8	328		1508 10.2	310		1550 11.0	334		1602 10.6	323	
○ 2142 0.7	20		● 2214 1.6	49		2310 0.8	24		2302 2.0	60	
3 W 0340	11.3	343	18 Th 0412	10.9	333	3 Sa 0458	11.4	347	18 Su 0452	11.1	338
1004 4.8	145		1021 4.8	145		1128 4.2	127		1115 4.0	123	
1501 10.8	330		1539 10.3	313		1638 11.0	336		1633 10.6	324	
2232 0.5	16		2248 1.7	51		2352 1.1	33		2333 2.1	64	
4 Th 0427	11.4	347	19 F 0443	11.0	334	4 Su 0537	11.4	347	19 M 0518	11.1	338
1053 4.8	145		1055 4.7	142		1210 3.8	117		1149 3.8	116	
1549 10.8	330		1609 10.3	315		1726 11.0	336		1706 10.7	325	
2320 0.6	18		2318 1.8	55					● 2334 1.9	58	
5 F 0513	11.4	348	20 Sa 0513	11.0	334	5 M 0032	1.5	46	5 M 0509	11.5	350
1140 4.7	144		1129 4.6	139		0616 11.4	346		1149 3.2	99	
1639 10.8	329		1640 10.3	315		1251 3.5	108		1715 11.5	349	
2348 1.9	57		1814 10.9	331		1814 10.9	331		1742 10.8	328	
6 Sa 0006	0.8	25	21 Su 0543	11.0	334	6 Tu 0110	2.1	63	6 Tu 0009	2.4	72
0558 11.4	347		1204 4.4	134		0656 11.3	344		0543 11.5	350	
1227 4.5	138		1713 10.3	315		1333 3.3	101		1226 3.0	92	
1731 10.7	326		1905 10.6	322		1905 10.6	322		1758 11.3	345	
7 Su 0050	1.2	36	22 M 0017	2.0	60	7 W 0147	2.7	83	7 W 0043	2.9	88
0644 11.3	345		0613 11.0	335		0736 11.2	340		0617 11.5	350	
1314 4.3	131		1240 4.2	127		1416 3.2	97		1302 2.9	85	
1826 10.5	320		1750 10.3	313		● 2001 10.1	309		1843 11.1	339	
8 M 0134	1.7	52	23 Tu 0049	2.1	64	8 Th 0225	3.6	109	8 Th 0115	3.5	107
0731 11.2	341		0645 11.0	336		0818 10.9	331		0651 11.4	346	
1403 4.0	123		1318 3.9	118		1504 3.2	97		1421 2.6	80	
1927 10.1	309		1833 10.2	310		2104 9.6	294		● 2008 10.3	315	
9 Tu 0219	2.4	73	24 W 0125	2.4	73	9 F 0310	4.6	139	9 F 0149	4.3	130
0819 11.0	335		0719 11.0	336		0904 10.4	318		0725 11.1	338	
1456 3.8	116		1400 3.5	108		1602 3.2	99		1419 2.9	88	
○ 2035 9.7	297		1923 10.0	304		2220 9.3	282		● 2027 10.4	316	
10 W 0307	3.2	99	25 Th 0206	2.9	89	10 M 0408	5.5	168	10 M 0330	5.3	161
0910 10.7	327		0759 10.9	333		0959 9.9	302		0859 10.6	323	
1555 3.6	110		1448 3.2	98		1710 3.3	100		1627 2.7	82	
2149 9.3	284		● 2025 9.6	294		2347 9.2	281		2252 9.7	295	
11 Th 0403	4.1	126	26 F 0255	3.7	112	11 Su 0530	6.2	188	11 Su 0451	6.1	185
1007 10.4	317		0846 10.7	326		1109 9.5	291		1009 10.2	310	
1700 3.3	102		1547 3.0	90		1830 3.1	94		1750 2.6	78	
2310 9.2	279		2143 9.4	286					● 2255 9.6	294	
12 F 0511	4.9	149	27 Sa 0358	4.5	137	12 M 0108	9.6	293	12 Tu 0027	10.0	304
1108 10.1	309		0942 10.4	318		0656 6.2	190		0633 6.3	191	
1811 3.0	91		1656 2.7	82		1224 9.5	289		1139 10.0	305	
1917 2.5	76		2313 9.4	286		1940 2.7	81		1919 2.2	66	
13 Sa 0029	9.3	284	28 Su 0515	5.2	159	13 Tu 0205	10.2	310	13 W 0143	10.6	322
0627 5.3	162		1046 10.2	312		0802 5.9	179		0755 5.8	176	
1208 10.0	304		1812 2.3	69		1328 9.7	296		1304 10.3	313	
1917 2.5	76					2035 2.3	69		2028 1.6	50	
14 Su 0137	9.7	297	29 M 0036	9.8	298	14 W 0247	10.6	323	14 Tu 0024	9.8	299
0733 5.4	164		0645 5.5	168		0850 5.4	164		0611 6.8	208	
1303 9.9	302		1158 10.2	311		1419 10.1	307		1139 9.4	285	
2011 2.0	62		1930 1.7	51		2119 2.0	60		1857 3.5	108	
15 M 0228	10.2	312	30 Tu 0147	10.3	315	15 Th 0322	10.9	332	15 W 0130	10.2	312
0827 5.2	160		0801 5.4	165		0930 5.0	151		0731 6.3	192	
1351 10.0	304		1306 10.3	315		1458 10.4	316		1300 9.7	296	
2057 1.7	53		2037 1.1	34		2157 1.8	56		2003 3.1	95	
16 W 0246	10.9	331	31 W 0902	5.1	156				● 2051 2.7	83	
1405 10.6	322		1405 10.6	322					● 2109 2.3	69	
○ 2134 0.8	23		○ 2134 0.8	23					● 2155 2.4	72	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Tanggu (Xingang), China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
<b>1</b> Su	0333	11.7	357	<b>16</b>	0313	11.6	353	<b>1</b>	0332	11.8	360
	1012	3.3	101	M	0951	3.3	100	Tu	1027	2.7	83
	1544	11.8	360		1530	11.6	355		1610	12.1	370
	2235	2.7	81	●	2211	3.5	108		2247	4.4	135
<b>2</b> M	0405	11.6	355	<b>17</b>	0340	11.5	352	<b>2</b>	0402	11.7	357
	1050	3.1	93	Tu	1028	2.9	88	W	1102	2.7	82
	1622	11.8	360		1606	11.8	361		1646	12.2	371
	2311	3.1	95		2249	3.8	116		2320	4.9	148
<b>3</b> Tu	0436	11.6	354	<b>18</b>	0407	11.5	350	<b>3</b>	0431	11.6	355
	1126	2.9	88	W	1105	2.6	80	Th	1135	2.7	82
	1701	11.8	359		1644	12.0	366		1724	12.3	374
	2344	3.6	109		2326	4.1	126		2351	5.2	159
<b>4</b> W	0507	11.6	353	<b>19</b>	0435	11.5	350	<b>4</b>	0500	11.6	354
	1200	2.8	84	Th	1143	2.4	73	F	1207	2.7	83
	1740	11.7	358		1724	12.1	370		1802	12.3	376
									Sa	1209	2.0
<b>5</b> Th	0016	4.1	124	<b>20</b>	0004	4.6	139	<b>5</b>	0022	5.6	170
	0537	11.6	353	F	0507	11.6	353	Sa	0531	11.5	352
	1233	2.7	81		1222	2.2	68		1239	2.8	85
	1822	11.7	357		1809	12.2	371		1843	12.3	375
<b>6</b> F	0046	4.6	139	<b>21</b>	0043	5.1	154	<b>6</b>	0055	5.9	180
	0608	11.5	358	Sa	0544	11.6	358	Su	0605	11.4	348
	1307	2.7	81		1304	2.2	66		1313	3.0	91
	1906	11.6	353		1900	12.0	367		1927	12.1	368
<b>7</b> Sa	0119	5.1	156	<b>22</b>	0126	5.6	171	<b>7</b>	0131	6.3	191
	0640	11.3	343	Su	0626	11.5	352	M	0643	11.2	340
	1342	2.9	87		1352	2.3	71		1351	3.3	102
	1955	11.3	343		1958	11.8	359		2016	11.7	357
<b>8</b> Su	0155	5.8	176	<b>23</b>	0218	6.2	188	<b>8</b>	0215	6.6	201
	0716	10.9	332	M	0718	11.2	342	Tu	0728	10.8	328
	1424	3.2	98		1449	2.7	83		1438	3.9	118
	2051	10.8	330	●	2106	11.5	349		2112	11.3	344
<b>9</b> M	0240	6.4	196	<b>24</b>	0326	6.6	200	<b>9</b>	0312	6.8	208
	0801	10.3	315	Tu	0827	10.7	325	W	0829	10.2	311
	1517	3.7	114		1559	3.2	98		1536	4.4	134
	2200	10.4	317		2228	11.3	343		2219	11.0	336
<b>10</b> Tu	0343	6.9	211	<b>25</b>	0451	6.5	198	<b>10</b>	0428	6.8	206
	0906	9.8	298	W	1005	10.3	313	Th	0956	9.8	300
	1628	4.2	129		1720	3.6	109		1647	4.8	146
	2324	10.3	313		2351	11.4	346		2330	11.1	337
<b>11</b> W	0517	7.0	213	<b>26</b>	0617	5.8	178	<b>11</b>	0549	6.2	189
	1047	9.5	289	Th	1150	10.5	320	Sa	1133	10.0	304
	1754	4.4	133		1844	3.6	111		1804	4.9	149
									Sa	0657	4.4
<b>12</b> Th	0037	10.5	321	<b>27</b>	0054	11.6	355	<b>12</b>	0027	11.3	345
	0647	6.4	195	F	0727	4.9	148	Sa	0658	5.3	161
	1221	9.8	298		1307	11.1	338		1244	10.5	321
	1912	4.1	125		1951	3.5	107		1914	4.8	145
<b>13</b> F	0129	10.9	333	<b>28</b>	0144	11.8	361	<b>13</b>	0112	11.6	353
	0747	5.5	167	Sa	0821	3.9	120	W	0750	4.3	131
	1325	10.4	316		1405	11.7	356		1339	11.2	342
	2008	3.7	114		2046	3.5	106		2009	4.6	140
<b>14</b> Sa	0209	11.3	345	<b>29</b>	0224	11.9	364	<b>14</b>	0150	11.8	359
	0833	4.6	140	Su	0908	3.2	99	W	0925	2.7	82
	1413	10.9	333		1452	12.0	366		1425	11.8	360
	2053	3.5	106		2131	3.7	112		2057	4.5	138
<b>15</b> Su	0243	11.5	352	<b>30</b>	0300	11.9	363	<b>15</b>	0224	11.8	361
	0913	3.8	117	M	0949	2.9	88	Tu	0918	2.9	87
	1454	11.4	346		1533	12.1	370		1507	12.3	374
	2133	3.4	104	○	2211	4.0	123	●	2142	4.7	142
<b>31</b>	0332	11.9	362					<b>31</b>	0332	11.9	362
								Th	1040	2.7	82
									1633	12.7	388
									2258	5.9	180

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Tanggu (Xingang), China, 2018

Times and Heights of High and Low Waters

July				August				September								
	Time	Height			Time	Height			Time	Height						
	h m	ft	cm		h m	ft	cm		h m	ft	cm					
<b>1</b> Su	0415	12.2	371	<b>16</b> M	0423	13.0	396	<b>1</b> W	0001	5.9	181	<b>16</b> Sa	0046	4.3	132	
	1131	3.0	92		1149	1.8	56		0512	12.7	386		0612	12.9	392	
	1726	13.3	406		1741	13.9	424		1216	3.4	105		1256	4.5	136	
	2345	6.5	198			1805	13.5	410		1835	13.7	418		1827	13.2	402
<b>2</b> M	0449	12.2	373	<b>17</b> Tu	0014	6.0	183	<b>2</b> Th	0036	5.7	174	<b>2</b> Su	0122	4.0	122	
	1203	3.1	96		0514	13.0	396		0548	12.6	384		0656	12.8	389	
	1800	13.3	405		1234	2.2	67		1246	3.7	113		1334	5.1	154	
					1825	13.8	422		1835	13.4	409		1900	13.1	400	
<b>3</b> Tu	0019	6.5	197	<b>18</b> W	0100	5.6	172	<b>3</b> F	0112	5.4	164	<b>3</b> M	0202	4.2	128	
	0524	12.2	373		0608	12.9	394		0628	12.5	381		0749	12.5	380	
	1234	3.3	101		1318	2.7	83		1319	4.1	125		1416	5.0	151	
	1834	13.2	403		1909	13.7	419		1907	13.4	407		1957	13.3	404	
<b>4</b> W	0056	6.4	194	<b>19</b> Th	0147	5.3	161	<b>4</b> Sa	0150	5.1	154	<b>4</b> Tu	0251	3.8	115	
	0602	12.1	370		0706	12.7	387		0714	12.3	375		0856	12.0	367	
	1306	3.5	108		1403	3.4	105		1356	4.7	142		1501	6.0	183	
	1910	13.1	400		1955	13.5	413		1942	13.2	403		2042	12.8	389	
<b>5</b> Th	0135	6.2	188	<b>20</b> F	0236	5.0	151	<b>5</b> Su	0232	4.7	144	<b>5</b> W	0356	3.9	118	
	0645	11.9	363		0809	12.3	376		0810	12.0	367		1020	11.7	358	
	1341	3.9	119		1450	4.4	133		1440	5.4	166		1623	7.5	230	
	1948	13.0	396		2043	13.3	404		2023	13.0	395		2139	12.0	365	
<b>6</b> F	0218	5.9	180	<b>21</b> Sa	0330	4.7	144	<b>6</b> M	0324	4.5	136	<b>6</b> Th	0515	3.8	117	
	0735	11.6	362		0919	11.9	364		0920	11.7	358		1154	11.9	364	
	1422	4.4	135		1542	5.4	165		1536	6.3	193		1801	7.8	237	
	2029	12.8	390		2135	12.9	393		2114	12.6	385		2306	11.7	357	
<b>7</b> Sa	0308	5.6	170	<b>22</b> Su	0429	4.5	138	<b>7</b> Tu	0427	4.2	128	<b>7</b> F	0643	3.4	105	
	0837	11.2	342		1037	11.6	355		1045	11.7	356		1313	12.5	382	
	1512	5.1	156		1644	6.4	196		1647	7.2	218		1929	7.3	221	
	2116	12.6	383		2233	12.5	380		2215	12.3	376					
<b>8</b> Su	0405	5.1	156	<b>23</b> M	0536	4.3	131	<b>8</b> W	0540	3.9	118	<b>8</b> Sa	0001	11.5	351	
	0955	11.1	338		1200	11.7	357		1211	12.0	366		0718	4.0	122	
	1613	5.9	179		1759	7.1	217		1816	7.6	231		1347	12.5	381	
	2209	12.3	376		2336	12.2	371		2327	12.2	372		1952	7.6	231	
<b>9</b> M	0508	4.6	139	<b>24</b> Tu	0646	3.9	119	<b>9</b> Th	0658	3.3	101	<b>9</b> Su	0110	11.7	357	
	1120	11.3	345		1314	12.1	369		1325	12.7	386		0818	3.6	109	
	1725	6.5	197		1913	7.3	224		1939	7.4	227		1432	12.9	394	
	2308	12.2	373									2044	7.0	212		
<b>10</b> Tu	0615	3.9	119	<b>25</b> W	0036	12.0	367	<b>10</b> F	0040	12.4	377	<b>10</b> M	0241	13.1	398	
	1234	11.9	363		0748	3.5	106		0810	2.7	81		0949	2.2	67	
	1846	6.8	206		1412	12.7	386		1426	13.3	405		1536	13.6	415	
					2015	7.3	221		2043	7.0	213		2210	4.8	146	
<b>11</b> W	0008	12.3	374	<b>26</b> Th	0132	12.0	367	<b>11</b> Sa	0144	12.7	387	<b>11</b> Tu	0329	13.4	408	
	0722	3.2	98		0841	3.1	94		0910	2.1	64		1034	2.3	71	
	1338	12.6	383		1456	13.1	399		1516	13.7	419		1612	13.5	413	
	1956	6.8	207		2105	7.0	213		2138	6.5	198		2252	4.3	130	
<b>12</b> Th	0103	12.4	378	<b>27</b> F	0219	12.2	372	<b>12</b> Su	0240	13.0	397	<b>12</b> W	0414	13.5	412	
	0824	2.6	78		0926	2.9	88		1003	1.8	56		1115	2.7	83	
	1435	13.2	401		1531	13.4	408		1559	14.0	426		1647	13.4	409	
	2055	6.7	204		2146	6.7	204		2227	6.0	182		2332	3.9	119	
<b>13</b> F	0154	12.6	384	<b>28</b> Sa	0259	12.4	378	<b>13</b> M	0332	13.3	406	<b>13</b> W	0355	12.9	392	
	0921	2.1	63		1006	2.9	87		1051	1.9	57		1154	3.3	100	
	1526	13.6	414		1603	13.5	412		1639	14.0	426		1638	13.4	408	
	2149	6.6	201		2222	6.5	197		2313	5.5	168		2307	5.2	158	
<b>14</b> Sa	0244	12.8	389	<b>29</b> Su	0334	12.6	383	<b>14</b> Tu	0420	13.5	410	<b>14</b> F	0426	12.9	392	
	1013	1.8	54		1042	2.9	89		1135	2.1	65		1125	3.4	104	
	1613	13.8	421		1634	13.5	413		1718	13.9	424		1705	13.3	406	
	2239	6.5	198		2255	6.3	192		2355	5.1	155		2340	4.9	150	
<b>15</b> Su	0333	12.9	393	<b>30</b> M	0406	12.7	386	<b>15</b> W	0508	13.5	412	<b>15</b> Th	0459	12.9	392	
	1102	1.7	52		1115	3.1	94		1216	2.6	80		1155	3.7	112	
	1658	13.9	424		1705	13.5	412		1756	13.8	421		1731	13.3	404	
	2328	6.3	192		2329	6.1	187									
				<b>31</b> Tu	0438	12.7	387	<b>31</b> F	0013	4.6	141	<b>31</b> F	0534	12.9	392	
					1146	3.2	99		1125	4.0	122		1226	4.0	122	
					1735	13.5	411		1805	13.2	403		1757	13.2	403	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Tanggu (Xingang), China, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<b>1</b> M 0057 3.0 92 0642 12.7 387 1315 5.4 165 1824 12.5 382	h m ft cm	<b>16</b> Tu 0130 3.1 93 0740 12.0 367 1345 6.3 192 1859 11.5 349	h m ft cm	<b>1</b> Th 0215 2.6 78 0832 11.6 354 1451 6.4 196 <b>O</b> 1949 10.7 326	h m ft cm	<b>16</b> F 0219 3.4 105 0852 10.8 329 1452 6.3 193 2010 9.6 293	h m ft cm	<b>1</b> Sa 0307 2.6 79 0922 11.1 338 1559 5.1 156 2121 9.7 295	h m ft cm	<b>16</b> Su 0227 3.2 99 0856 10.4 317 1515 5.1 156 2042 8.9 271	
	0138 3.0 91 0736 12.4 377 <b>O</b> 1907 12.2 373	17 W 0211 3.5 106 0836 11.6 353 1430 6.9 210 <b>O</b> 1946 10.8 330	0322 3.1 93 0947 11.4 346 1614 6.4 196 2121 10.2 310	0439 3.4 105 1111 11.4 346 1741 5.8 176 2310 10.2 312	0315 4.0 122 0957 10.5 320 1608 6.2 190 2137 9.2 279	0415 3.2 97 1033 11.0 334 1712 4.4 135 2257 9.7 297	0415 3.2 97 1033 11.0 334 1712 4.4 135 2257 9.7 297	0321 3.8 116 0951 10.2 312 1623 4.7 143 2210 8.7 264			
	0229 3.2 97 0842 11.9 364 1454 6.9 209 2002 11.7 357	<b>18</b> Th 0303 4.0 123 0942 11.1 339 1536 7.3 223 2054 10.2 311	0424 4.4 135 1107 10.4 318 1732 5.7 173 2316 9.2 280	0531 3.6 111 1139 11.0 335 1824 3.5 108	0426 4.3 131 1049 10.2 310 1732 4.0 122 2335 8.9 272						
	0335 3.5 107 1004 11.6 354 1616 7.3 222 2121 11.1 339	<b>19</b> F 0413 4.6 139 1103 10.9 333 1710 7.3 222 2237 9.9 301	0604 3.5 108 1219 11.6 354 1856 4.7 143	0542 4.6 139 1206 10.6 324 1842 4.7 144	0017 10.1 309 0645 3.8 117 1233 11.1 337 1926 2.7 81	0539 4.6 141 1144 10.2 312 1835 3.1 96					
<b>5</b> F 0457 3.7 113 1137 11.7 357 1755 7.1 217 2306 10.9 333	20 Sa 0539 4.7 144 1215 11.1 338 1837 6.6 200	<b>5</b> M 0033 10.8 330 0718 3.4 103 1312 11.8 361 1953 3.6 109	0028 9.6 294 0653 4.4 135 1251 10.9 332 1934 3.7 112	0122 10.6 322 0745 4.0 121 1320 11.1 338 2017 2.0 60	0041 9.5 290 0654 4.7 143 1232 10.3 315 1931 2.3 71						
	0627 3.5 107 1251 12.2 371 1917 6.1 187	<b>21</b> Su 0008 10.2 310 0657 4.5 137 1308 11.5 349 1936 5.5 169	0136 11.5 349 0816 3.3 100 1355 11.9 364 2042 2.7 83	0123 10.3 313 0748 4.2 129 1330 11.1 338 2017 2.8 85	0216 10.9 331 0836 4.1 126 1401 11.1 337 2103 1.6 48	0137 10.2 310 0754 4.6 140 1315 10.5 319 2022 1.6 50					
	0038 11.5 349 0742 3.1 94 1346 12.6 384 2016 5.0 153	<b>22</b> M 0112 10.7 327 0753 4.1 125 1349 11.8 359 2020 4.5 138	0227 11.8 361 0904 3.4 103 1433 11.9 364 2125 2.2 68	0209 10.9 331 0834 4.1 124 1403 11.2 341 2057 2.1 65	0301 11.1 337 0921 4.4 133 1437 10.9 333 <b>O</b> 2144 1.5 45	0226 10.7 327 0845 4.6 139 1355 10.6 323 2110 1.2 36					
	0145 12.1 370 0840 2.8 84 1429 12.8 391 2105 4.0 123	<b>23</b> Tu 0201 11.3 344 0837 3.8 116 1423 12.0 366 2058 3.7 113	0310 12.0 365 0946 3.7 112 1507 11.8 360 <b>O</b> 2205 2.0 62	0249 11.3 344 0917 4.1 124 1435 11.2 341 2137 1.7 53	0340 11.2 340 1000 4.6 141 1510 10.8 328 2223 1.5 47	0312 11.1 338 0933 4.7 142 1433 10.7 326 <b>O</b> 2158 0.9 28					
<b>9</b> Tu 0237 12.7 386 0929 2.7 83 1506 12.9 392 <b>O</b> 2149 3.4 103	<b>24</b> W 0240 11.7 357 0915 3.7 113 1452 12.1 368 2134 3.1 94	<b>9</b> F 0349 11.9 364 1024 4.1 125 1538 11.6 355 2243 2.0 61	0328 11.6 353 0958 4.2 129 1505 11.2 340 2218 1.5 46	0415 11.2 342 1035 4.9 149 1541 10.6 324 2257 1.7 52	0357 11.3 344 1019 4.8 146 1514 10.8 328 2245 0.8 24						
	0321 12.9 393 1012 3.0 91 1540 12.7 388 2229 3.0 92	<b>25</b> W 0316 12.0 366 0952 3.8 115 1519 12.0 366 <b>O</b> 2209 2.7 82	0427 11.9 363 1059 4.6 139 1607 11.5 350 2318 2.1 64	0408 11.7 358 1039 4.5 138 1537 11.1 339 2259 1.4 43	0450 11.3 344 1108 5.1 155 1612 10.6 322 2330 1.9 57	0442 11.4 347 1106 4.9 150 1557 10.8 328 2332 0.8 24					
	0402 12.9 393 1051 3.4 105 1612 12.6 384 2307 2.8 86	<b>26</b> Th 0350 12.2 371 1028 4.0 121 1545 11.9 362 2245 2.5 75	0505 11.9 362 1132 5.0 151 1638 11.4 346 2351 2.2 67	0450 11.8 359 1120 4.9 148 1613 11.1 339 2341 1.3 41	0525 11.3 345 1140 5.2 158 1644 10.5 321	0528 11.4 348 1153 5.0 152 1645 10.7 327					
	0442 12.8 390 1127 4.0 122 1643 12.5 380 2343 2.8 84	<b>27</b> F 0425 12.3 374 1104 4.3 130 1612 11.8 360 2321 2.3 70	0544 11.9 362 1204 5.3 162 1709 11.2 342	0535 11.7 358 1203 5.2 158 1653 11.1 338	0002 2.0 62 0602 11.3 344 1213 5.2 160 1720 10.5 319	0018 0.9 28 0616 11.4 347 1242 4.9 149 1739 10.6 323					
<b>13</b> Sa 1201 4.6 139 1715 12.3 376	<b>28</b> Su 0502 12.3 376 1141 4.7 142 1642 11.8 359 2358 2.2 66	<b>13</b> Tu 0024 2.3 71 0625 11.8 360 1237 5.6 171 1744 11.0 336	0026 1.4 43 0625 11.7 356 1249 5.4 166 1741 10.9 332	0033 2.2 67 0641 11.2 340 1249 5.3 162 1759 10.3 313	0105 1.2 36 0704 11.3 344 1333 4.7 143 1838 10.3 315						
	0018 2.7 83 0605 12.5 382 1234 5.1 156 1747 12.2 371	<b>29</b> M 0544 12.3 376 1218 5.1 155 1716 11.8 359	0057 2.6 78 0709 11.6 353 1314 5.9 180 1823 10.7 326	0535 11.7 358 1203 5.2 158 1653 11.1 338 2138 10.5 321	0106 2.4 74 0722 10.9 333 1330 5.3 163 1842 9.9 303	0154 1.7 51 0755 11.2 340 1429 4.4 133 <b>O</b> 1947 10.0 304					
	0053 2.8 86 0651 12.3 376 1307 5.7 174 1821 11.9 362	<b>30</b> Tu 0038 2.1 65 0632 12.2 372 1259 5.6 170 1756 11.7 356	0135 3.0 90 0758 11.2 342 1356 6.2 188 <b>O</b> 1909 10.2 312	0206 2.0 62 0818 11.3 344 1446 5.5 168 <b>O</b> 1949 10.0 306	0143 2.8 85 0807 10.7 325 1417 5.3 162 <b>O</b> 1934 9.4 287	0246 2.4 72 0849 11.0 334 1529 3.9 120 2106 9.6 294					
	0122 2.3 69 0727 11.9 364 1347 6.1 185 1845 11.3 345	<b>31</b> W 0122 2.3 69 0727 11.9 364 1347 6.1 185 1845 11.3 345				0343 3.2 97 0947 10.7 327 1634 3.5 107 2229 9.4 288					

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yantai, China, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0250 0.5 15	ft cm	16 0351 0.8 24	ft cm	1 Th 0418 -0.1 -2	ft cm	16 0434 0.7 20	ft cm	1 Th 0321 0.3 10	ft cm	16 0336 1.0 31	ft cm
0854 7.0 212	Tu 0956 6.5 199	1028 7.3 224	F 1038 7.0 213	0933 7.2 220	F 1523 1.3 39	16 0943 7.1 216		1523 1.3 39		1536 1.7 53	
1451 1.1 33	Tu 1543 1.8 54	1617 0.9 27	F 1627 1.4 43	2142 8.0 245		2149 7.5 229				2149 7.5 229	
2109 8.1 247	Tu 2154 7.4 225	2237 8.3 254	● 2243 7.6 233								
2 Tu 0341 0.2 5	17 0425 0.7 21	2 0500 -0.2 -5	17 0500 0.6 19	2 0402 0.1 4	17 0403 0.9 27						
0946 7.2 220	W 1027 6.7 204	1112 7.5 229	Sa 1106 7.2 218	1016 7.6 231	Sa 1012 7.4 225						
1540 1.0 29	W 1614 1.6 49	1702 0.8 24	1656 1.2 37	1606 1.0 30	O 1606 1.4 43						
○ 2158 8.4 255	● 2227 7.5 230	2321 8.4 255	2314 7.7 235	2225 8.2 251	● 2222 7.7 234						
3 W 0428 0.0 -1	18 0456 0.7 20	3 Sa 0540 -0.1 -4	18 0527 0.6 18	3 Sa 0439 0.1 2	18 0429 0.8 25						
1035 7.4 226	Th 1057 6.8 208	1155 7.6 232	Su 1135 7.3 222	1054 7.8 238	Su 1040 7.6 232						
1627 0.9 27	Th 1643 1.5 45	1745 0.8 24	1728 1.1 33	1647 0.8 24	Su 1636 1.2 36						
2245 8.5 259	Th 2259 7.6 233		2345 7.7 234	2306 8.3 253	2252 7.8 238						
4 Th 0514 -0.1 -3	19 0525 0.7 20	4 Su 0004 8.2 251	19 0555 0.5 16	4 Su 0516 0.1 4	19 0457 0.8 23						
1123 7.5 228	F 1126 6.9 210	0620 0.0 0	M 1205 7.4 226	1132 7.9 242	M 1109 7.8 238						
1714 0.9 28	F 1713 1.4 42	1236 7.6 232	M 1803 1.0 30	1727 0.7 22	M 1709 1.0 30						
2332 8.5 259	F 2331 7.7 234	1829 0.9 27		2345 8.2 249	F 2323 7.8 239						
5 F 0600 -0.1 -2	20 0553 0.6 19	5 M 0046 7.9 242	20 0016 7.6 233	5 M 0552 0.3 8	20 0527 0.7 21						
1212 7.5 228	Sa 1157 7.0 212	0659 0.2 7	Tu 0627 0.5 15	1208 8.0 243	Sa 1140 8.0 244						
1801 1.0 31	Sa 1746 1.3 41	1318 7.5 228	Tu 1239 7.5 229	1807 0.8 24	Tu 1745 0.9 26						
6 Sa 0019 8.3 253	21 0003 7.6 232	6 Tu 0129 7.5 229	21 0052 7.5 229	6 Tu 0023 7.9 242	21 0600 0.7 21						
0644 0.1 2	Su 0622 0.6 18	0740 0.6 18	W 0701 0.5 16	0628 0.5 16	W 1215 8.1 248						
1300 7.4 225	Su 1229 7.0 213	1402 7.3 222	1316 7.5 229	1245 7.9 240	Su 1825 0.8 25						
1849 1.2 37	Su 1821 1.3 40	2003 1.4 42	1924 1.0 31	1850 1.0 29							
7 Su 0106 8.0 243	22 0036 7.5 228	7 W 0214 6.9 211	22 0133 7.3 221	7 W 0102 7.6 231	22 0034 7.8 237						
0729 0.3 9	M 0654 0.6 18	0822 1.0 32	Th 0740 0.8 23	0705 0.9 26	Th 0636 0.8 24						
1350 7.2 220	M 1304 7.0 214	1448 7.0 212	1359 7.4 227	1324 7.7 234	Th 1253 8.2 249						
1940 1.5 45	M 1901 1.3 41	● 2058 1.7 53	2012 1.2 36	1934 1.2 37	Th 1908 0.9 26						
8 M 0155 7.4 227	23 0112 7.3 221	8 Th 0305 6.3 192	23 0222 6.9 209	8 Th 0143 7.1 217	23 0117 7.5 230						
0815 0.6 19	Tu 0730 0.7 20	0910 1.6 50	F 0825 1.1 35	0743 1.3 41	F 0716 1.1 33						
1441 7.0 213	Tu 1344 7.0 213	1539 6.6 200	F 1449 7.2 220	1404 7.3 224	F 1336 8.0 244						
2036 1.8 55	Tu 1945 1.4 44	2207 2.0 62	● 2110 1.5 45	2022 1.5 47	● 1957 1.1 33						
9 Tu 0247 6.9 209	24 0154 7.0 212	9 F 0405 5.7 174	24 0321 6.4 194	9 F 0229 6.6 200	24 0207 7.2 218						
0906 1.1 205	W 0810 0.8 25	1013 2.3 69	Sa 0921 1.7 51	0824 1.9 59	Sa 0803 1.6 48						
1536 6.7 205	W 1430 6.9 210	1641 6.2 189	Sa 1550 6.9 211	1447 6.9 210	Sa 1425 7.7 234						
○ 2142 2.1 63	W 2036 1.6 49	2335 2.2 66	2231 1.7 52	2121 2.0 60	○ 2056 1.4 43						
10 W 0346 6.2 190	25 0245 6.6 200	10 Sa 0528 5.3 162	25 0438 5.9 181	10 Sa 0323 6.0 182	25 0309 6.7 203						
1006 1.6 48	Th 0857 1.1 34	1135 2.7 81	Su 1038 2.2 67	0916 2.6 79	Su 0902 2.2 67						
1638 6.5 198	Th 1524 6.8 206	1800 6.0 183	Su 1705 6.7 204	1538 6.4 195	Su 1525 7.2 220						
2306 2.2 66	Th 2139 1.7 53			2238 2.3 69	Su 2216 1.7 52						
11 Th 0459 5.7 175	26 0348 6.1 187	11 M 0056 2.0 60	26 0009 1.6 49	1036 3.1 168	26 0429 6.2 190						
1119 2.0 60	F 0956 1.5 45	0702 5.3 163	M 0611 5.8 178	1647 6.0 183	M 1026 2.7 83						
1747 6.4 195	F 1628 6.7 203	1258 2.8 84	1211 2.4 72		M 1643 6.8 208						
	F 2302 1.8 54	1916 6.2 188	1832 6.8 206		M 2354 1.7 52						
12 F 0026 2.0 62	27 0504 5.9 179	12 M 0202 1.6 49	27 0129 1.2 37	0436 5.5 168							
0623 5.5 169	Sa 1110 1.8 54	0813 5.7 174	Tu 0736 6.2 189	0429 6.2 190							
1231 2.2 66	Sa 1741 6.7 204	1403 2.6 78	1332 2.1 65	M 1206 2.8 86							
1854 6.4 196		2014 6.5 198	1950 7.2 218	Tu 1820 6.8 207							
13 Sa 0132 1.7 52	28 0028 1.5 45	13 Tu 0252 1.2 37	28 W 0232 0.7 22	0436 5.5 168							
0738 5.7 173	Su 0626 5.9 179	0902 6.1 187	W 0842 6.7 205	0429 6.2 190							
1334 2.2 67	Su 1229 1.8 56	1450 2.2 68	1434 1.7 52	M 1026 2.8 86							
1951 6.6 202	Su 1854 7.0 212	2059 6.9 210	2051 7.6 233	Tu 1820 6.8 207							
14 Su 0227 1.3 41	29 0140 1.0 32	14 W 0332 0.9 27	13 W 0232 0.7 22	0436 5.5 168							
0836 6.0 182	M 0742 6.2 189	0938 6.5 198	W 0842 6.7 205	0429 6.2 190							
1426 2.1 64	M 1340 1.7 51	1527 1.9 58	1434 1.7 52	M 1026 2.8 86							
2039 6.9 210	M 2000 7.3 224	2137 7.2 220	2051 7.6 233	Tu 1820 6.8 207							
15 M 0312 1.0 31	30 0241 0.6 17	15 Th 0405 0.7 22	13 W 0232 0.7 22	0436 5.5 168							
0920 6.3 191	Tu 0847 6.6 202	1010 6.8 206	W 0842 6.7 205	0429 6.2 190							
1508 1.9 59	Tu 1440 1.4 42	1558 1.6 50	1504 2.1 65	M 1026 2.8 86							
2118 7.2 218	Tu 2058 7.8 237	2211 7.5 228	2114 7.2 219	Tu 1820 6.8 207							
16 W 0333 0.2 5	31 0333 0.2 5										
W 0941 7.0 214	W 1531 1.1 33										
○ 2150 8.1 248	○ 2209 8.1 248										

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yantai, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0415	0.6	19	<b>16</b> M	0354	1.2	38	<b>1</b> Tu	0423	1.6	48
	1031	8.2	250		1009	8.2	249		1039	8.6	262
	1630	1.0	30		1613	1.2	37		1651	1.2	38
	2247	8.2	249	●	2226	8.0	243		2304	8.0	245
<b>2</b> M	0449	0.7	22	<b>17</b> Tu	0425	1.1	35	<b>2</b> W	0457	1.7	53
	1105	8.3	253		1041	8.4	256		1112	8.6	262
	1708	0.9	28		1649	1.0	31		1730	1.3	39
	2323	8.1	246		2300	8.1	246		2339	7.9	242
<b>3</b> Tu	0523	0.9	27	<b>18</b> W	0459	1.1	34	<b>3</b> Th	0531	1.9	59
	1139	8.3	254		1115	8.6	263		1146	8.6	261
	1747	1.0	29		1728	0.9	27		1809	1.4	42
	2359	7.9	241		2338	8.1	247				
<b>4</b> W	0558	1.1	35	<b>19</b> Th	0536	1.2	36	<b>4</b> F	0016	7.8	239
	1214	8.3	252		1152	8.7	266		0605	2.2	66
	1828	1.1	33		1811	0.9	26		1221	8.4	257
									1848	1.5	47
<b>5</b> Th	0037	7.7	234	<b>20</b> F	0019	8.1	246	<b>5</b> Sa	0054	7.7	234
	0632	1.4	44		0616	1.3	52		0639	2.5	75
	1249	8.1	247		1233	8.7	266		1256	8.2	250
	1909	1.3	39		1857	0.9	28		1929	1.7	53
<b>6</b> F	0116	7.3	224	<b>21</b> Sa	0107	7.8	239	<b>6</b> Su	0136	7.4	227
	0708	1.9	57		0701	1.7	52		0716	2.8	86
	1326	7.8	238		1319	8.5	259		1333	7.9	240
	1953	1.6	48		1949	1.1	34		2011	2.0	60
<b>7</b> Sa	0200	7.0	212	<b>22</b> Su	0202	7.5	229	<b>7</b> M	0223	7.1	217
	0745	2.4	72		0752	2.2	67		0800	3.2	99
	1405	7.4	225		1411	8.1	247		1415	7.4	227
	2043	1.9	59		2049	1.4	44		2101	2.3	69
<b>8</b> Su	0251	6.5	198	<b>23</b> M	0308	7.1	217	<b>8</b> Tu	0320	6.8	208
	0832	3.0	90		0857	2.8	84		0901	3.6	110
	1450	6.9	210		1513	7.6	231		1507	7.0	213
	2146	2.3	69	●	2204	1.7	53	●	2201	2.5	77
<b>9</b> M	0356	6.1	185	<b>24</b> Tu	0427	6.9	209	<b>9</b> W	0430	6.6	202
	0944	3.4	105		1024	3.1	95		1022	3.8	116
	1548	6.4	195		1632	7.1	217		1618	6.6	201
	2303	2.5	75		2334	1.9	57		2312	2.7	81
<b>10</b> Tu	0522	5.9	180	<b>25</b> W	0553	6.9	211	<b>10</b> Th	0545	6.7	204
	1114	3.7	112		1201	3.1	93		1143	3.7	112
	1715	6.1	186		1807	7.0	214		1748	6.5	199
<b>11</b> W	0024	2.4	73	<b>26</b> Th	0050	1.7	53	<b>11</b> F	0021	2.6	79
	0646	6.1	187		0706	7.3	222		0650	7.0	214
	1243	3.4	105		1318	2.7	81		1256	3.2	98
	1851	6.3	191		1923	7.3	222		1903	6.8	207
<b>12</b> Th	0131	2.1	65	<b>27</b> F	0149	1.5	47	<b>12</b> Sa	0119	2.4	73
	0746	6.6	200		0804	7.7	235		0741	7.5	228
	1349	3.0	93		1413	2.2	66		1350	2.7	81
	1954	6.7	204		2023	7.6	233		1958	7.2	220
<b>13</b> F	0219	1.8	55	<b>28</b> Sa	0235	1.4	43	<b>13</b> Su	0204	2.2	66
	0830	7.1	215		0850	8.1	246		0822	7.9	241
	1432	2.4	73		1457	1.7	53		1432	2.1	64
	2041	7.2	218		2110	7.9	241		2043	7.6	232
<b>14</b> Sa	0255	1.5	47	<b>29</b> Su	0314	1.4	42	<b>14</b> M	0242	2.0	60
	0906	7.5	228		0929	8.3	254		0900	8.3	254
	1507	1.9	58		1535	1.4	44		1511	1.6	50
	2119	7.5	230		2151	8.0	245		2122	7.9	242
<b>15</b> Su	0325	1.4	42	<b>30</b> M	0349	1.4	44	<b>15</b> Tu	0319	1.8	55
	0938	7.8	239		1005	8.5	259		0936	8.7	265
	1539	1.5	46		1613	1.3	39		1550	1.3	40
	2154	7.8	237	●	2229	8.1	246	●	2201	8.2	250
<b>31</b> Th	0437	2.6	79	<b>31</b> Th	1050	8.8	268				
					1716	1.7	51				
					2324	8.1	247				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yantai, China, 2018

Times and Heights of High and Low Waters

July				August				September									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 1 Su 0528 1140 1811	ft 3.2 9.1 2.0	cm 98 276 61	h m 16 M 0544 1201 1825	ft 2.6 10.0 1.2	cm 79 305 36	h m 1 W 0026 0615 1229 1845	ft 8.8 3.1 9.2 2.1	cm 268 93 279 64	h m 16 Th 0103 0700 1314 1924	ft 9.5 2.5 9.5 1.8	cm 289 75 289 55	h m 1 Sa 0102 0709 1318 1923	ft 9.1 2.5 8.8 2.2	cm 277 76 268 68	h m 16 Su 0150 0812 1418 2017	ft 8.9 2.6 8.1 3.1	cm 270 78 246 93
2 M 0018 0600 1214 1842	8.4 3.2 9.0 2.0	257 98 275 62	17 Tu 0045 0632 1248 1910	9.3 2.7 9.8 1.4	282 81 298 42	2 Th 0059 0651 1304 1917	8.8 3.0 9.0 2.2	268 92 273 66	17 F 0147 0749 1400 2008	9.3 2.7 8.9 2.3	283 81 272 70	2 Su 0141 0754 1403 2005	9.0 2.6 8.5 2.6	274 78 258 79	17 M 0234 0912 1513 2114	8.4 2.9 7.5 3.7	255 88 228 112
3 Tu 0052 0635 1249 1914	8.4 3.2 8.9 2.1	256 99 270 64	18 W 0132 0722 1337 1955	9.2 2.8 9.4 1.7	280 85 287 51	3 F 0134 0732 1342 1954	8.8 3.0 8.7 2.3	268 92 265 71	18 Sa 0232 0843 1450 2056	9.0 3.0 8.3 2.9	274 90 253 89	3 M 0226 0848 1458 2057	8.8 2.8 8.0 3.1	269 84 243 94	18 Tu 0326 1026 1626 2232	7.8 3.2 7.0 4.2	239 97 213 128
4 W 0129 0714 1327 1949	8.3 3.3 8.6 2.2	254 101 262 68	19 Th 0221 0816 1427 2043	9.1 3.0 8.9 2.1	276 91 270 65	4 Sa 0214 0819 1428 2036	8.7 3.1 8.3 2.6	266 94 254 80	19 Su 0321 0950 1549 2157	8.6 3.2 7.6 3.6	261 99 233 109	4 Tu 0321 1001 1609 2208	8.5 3.0 7.5 3.6	259 90 229 110	19 W 0433 1147 1803 2358	7.3 3.2 6.8 4.4	224 99 208 134
5 Th 0209 0759 1408 2029	8.3 3.4 8.3 2.4	252 104 252 74	20 F 0313 0917 1523 2137	8.8 3.2 8.3 2.7	269 98 252 82	5 Su 0301 0916 1524 2128	8.6 3.2 7.9 3.1	262 97 241 93	20 M 0419 1112 1708 2315	8.1 3.4 7.2 4.1	248 103 219 125	5 W 0430 1135 1741 2338	8.2 2.9 7.3 3.8	251 89 223 117	20 Th 0611 1305 1923	7.2 3.0 7.1	220 92 217
6 F 0254 0851 1459 2115	8.1 3.5 7.9 2.7	248 107 240 82	21 Sa 0409 1033 1629 2244	8.5 3.3 7.7 3.2	260 102 234 99	6 M 0357 1029 1634 2235	8.4 3.2 7.5 3.4	257 99 230 105	21 Tu 0534 1231 1843	7.8 3.3 7.1	239 101 217	6 Th 0557 1258 1910	8.2 2.6 7.6	249 78 232	21 F 0119 0727 1405 2019	4.2 7.5 2.6 7.6	127 229 80 231
7 Sa 0347 0955 1601 2212	8.1 3.5 7.5 3.0	246 107 229 91	22 Su 0512 1153 1749 2357	8.3 3.3 7.3 3.7	253 101 223 112	7 Tu 0505 1155 1757 2354	8.4 3.1 7.4 3.6	255 93 227 111	22 W 0037 0654 1342 1958	4.3 7.8 3.0 7.4	132 239 219 226	7 F 0103 0720 1407 2019	3.7 8.5 2.0 8.2	112 259 62 249	22 Sa 0216 0820 1449 2059	3.7 7.9 2.2 8.0	113 242 68 244
8 Su 0448 1111 1714 2318	8.1 3.4 7.3 3.2	246 103 224 97	23 M 0621 1304 1912	8.2 3.1 7.3	250 95 224	8 W 0619 1311 1919	8.5 2.7 7.7	259 81 235	23 Th 0148 0757 1437 2052	4.2 8.1 2.6 7.8	129 247 79 239	8 Sa 0211 0826 1459 2112	3.2 9.0 1.6 8.7	98 275 48 265	23 Tu 0256 0902 1525 2132	3.2 8.4 2.0 8.3	98 255 60 254
9 M 0551 1225 1828	8.2 3.0 7.4	251 92 227	24 Tu 0108 0725 1406 2020	3.9 8.3 2.8 7.6	118 252 85 232	9 Th 0109 0731 1417 2028	3.6 8.8 2.1 8.2	110 269 65 250	24 F 0241 0846 1520 2131	3.9 8.5 2.3 8.2	120 258 69 251	9 Su 0303 0919 1543 2156	2.7 9.5 1.3 9.1	83 289 39 278	24 M 0329 0938 1554 2201	2.8 8.7 1.9 8.6	85 265 57 262
10 Tu 0026 0653 1329 1936	3.2 8.5 2.5 7.8	99 260 77 237	25 W 0208 0819 1457 2112	3.9 8.5 2.5 7.9	118 258 75 242	10 F 0216 0833 1512 2125	3.3 9.3 1.7 8.7	102 283 51 265	25 Sa 0321 0926 1555 2203	3.6 8.8 2.0 8.5	109 269 62 259	10 Tu 0348 1005 1621 2236	2.3 9.7 1.1 9.4	71 297 35 286	25 W 0358 1011 1620 2229	2.5 8.9 1.8 8.8	75 270 56 267
11 W 0129 0751 1427 2037	3.2 8.9 2.1 8.2	97 272 63 249	26 Th 0257 0904 1539 2152	3.8 8.7 2.2 8.2	115 265 67 251	11 Sa 0311 0928 1559 2213	3.0 9.7 1.3 9.1	92 296 41 277	26 Su 0353 1001 1626 2232	3.3 9.1 2.0 8.7	100 277 60 265	11 Tu 0429 1047 1659 2314	2.1 9.8 1.2 9.5	63 300 36 290	26 W 0427 1041 1646 2258	2.2 8.9 1.8 8.9	67 272 55 271
12 Th 0226 0845 1520 2132	3.0 9.3 1.6 8.6	92 284 50 261	27 F 0337 0943 1616 2226	3.6 8.9 2.1 8.4	110 272 63 257	12 Su 0400 1017 1642 2257	2.7 10.0 1.2 9.4	82 305 36 285	27 M 0422 1034 1653 2300	3.0 9.3 2.0 8.8	92 282 60 269	12 W 0510 1127 1736 2352	1.9 9.7 1.3 9.5	59 297 41 290	27 Th 0458 1111 1714 2327	2.0 8.9 1.8 9.0	62 272 55 275
13 F 0319 0936 1609 2222	2.9 9.7 1.3 8.9	87 295 41 271	28 Sa 0411 1018 1649 2256	3.5 9.1 2.0 8.6	106 278 61 262	13 M 0445 1102 1723 2339	2.5 10.1 1.1 9.5	76 309 35 289	28 Tu 0451 1105 1719 2328	2.8 9.3 2.0 8.9	86 283 61 272	13 Th 0552 1207 1813 2382	1.9 9.5 1.6 9.1	58 289 48 277	28 F 0532 1142 1745 2359	1.9 8.9 1.8 9.1	58 270 55 277
14 Sa 0408 1026 1656 2310	2.7 9.9 1.2 9.1	82 303 36 277	29 Su 0441 1051 1719 2326	3.3 9.3 2.0 8.7	101 282 62 265	14 Tu 0529 1146 1803 2184	2.4 10.1 1.2 1.5	72 308 38 45	29 W 0521 1136 1745 2357	2.7 9.3 2.0 9.0	82 282 61 274	14 F 0030 0636 1248 1852	9.4 2.0 9.1 1.9	288 62 278 59	29 Sa 0609 1217 1819	1.8 8.8 1.9	56 267 57
15 Su 0456 1114 1741 2357	2.6 10.0 1.1 9.2	80 306 35 281	30 M 0511 1124 1747 2355	3.2 9.3 2.1 8.8	98 284 63 267	15 W 0021 0614 1230 1843	9.5 2.4 9.9 1.5	291 72 301 45	30 Th 0553 1207 1814 2184	2.6 9.2 2.0 9.1	78 279 61 274	15 Sa 0110 0722 1331 1932	9.2 2.2 8.7 2.4	281 68 264 74	30 W 0034 0650 1257 1857	9.1 1.9 8.6 2.1	277 57 261 64
31 Tu 0541 1157 1815	3.1 9.3 2.1	95 283 63	31 F 0028 0629 1240 1847	9.1 2.5 9.0 2.1	276 76 275 63				31 F 0028 0629 1240 1847	9.1 2.5 9.0 2.1	276 76 275 63						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Yantai, China, 2018

Times and Heights of High and Low Waters

October					November					December																	
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
<b>1</b> M	0114 0736 1344 1942	9.0 2.0 8.2 2.5	ft 61 250 77	<b>16</b> Tu 1440 2033	0153 0836 7.2 3.5	8.0 2.4 2.2 106	ft 73 220 106	<b>1</b> Th 2149	0241 0931 7.0 3.2	7.8 1.9 214 97	ft 57 214 97	<b>16</b> Sa 2211	0253 0949 6.7 70	6.7 2.3 193 107	ft 70 193 107	<b>1</b> Sa 2303	0340 1024 7.0 2.6	7.0 1.4 209 78	ft 43 209 78	<b>16</b> Su 1618 2221	0311 1618 6.2 2.8	6.2 1.8 188 85	cm 56 188 85				
<b>2</b> Tu	0200 0832 1442 O	8.7 2.2 7.7 3.1	ft 68 235 93	<b>17</b> W 0938 1545 O	0239 1545 7.5 82 120	7.5 6.8 206 3.9	ft 82 214 120	<b>2</b> F 1058 1719 2326	0356 1058 7.3 2.0 60	7.3 2.4 214 96	ft 73 193 103	<b>17</b> Sa 1729 2333	0403 1208 6.3 2.3 71	6.3 2.4 193 103	ft 73 193 103	<b>2</b> Su 1803	0503 1142 6.6 1.5	6.6 2.0 202 46	ft 214 1904	<b>17</b> M 1725 2341	0422 1047 5.8 2.0	5.8 2.0 178 61	cm 191 78				
<b>3</b> W	0256 0945 1558 2156	8.2 2.5 7.3 3.5	ft 76 222 108	<b>18</b> Th 1051 1710 2310	0338 1710 7.0 6.6 200	7.0 6.6 214 4.1	ft 88 200 124	<b>3</b> Sa 1218 1835	0530 1835 7.1 1.8 216	7.1 2.3 216 223	ft 71 202	<b>18</b> Su 1835	0533 1208 6.1 2.3 71	6.1 2.3 186 202	ft 71	<b>3</b> M 1247 1904	0025 1247 2.2 1.5	2.2 45	ft 223	<b>18</b> Tu 1153 1826	0540 1153 5.7 2.0	5.7 2.0 175 61	cm 199				
<b>4</b> Th	0409 1119 1733 2334	7.8 2.5 7.2 3.6	ft 77 111 218 111	<b>19</b> F 1209 1832	0505 6.7	6.6 205	ft 86	<b>4</b> Su 0653	0048 7.3	2.7 223	ft 83	<b>19</b> M 1307 1936	0047 7.0	2.9 193	ft 89	<b>4</b> Tu 1927	0127 7.0	1.8 207	ft 54	<b>19</b> W 1253 1919	0049 6.9	2.1 211	ft 64	W 1919	0650 6.9	6.0 211	cm 182
<b>5</b> F	0545 1243 1858	7.6 2.2 7.5	ft 68 229	<b>20</b> Sa 0641 1317	0034 2.5	3.9 77	ft 206	<b>5</b> M 1411	0148 1.3	2.2 41	ft 66	<b>20</b> Tu 1353	0141 1.9	2.3 57	ft 71	<b>5</b> W 2009	0217 7.4	1.3 227	ft 40	<b>20</b> Th 1344	0144 7.3	1.5 224	ft 47	W 2005	0746 7.3	6.3 224	cm 192
<b>6</b> Sa	0100 0711 1349 2002	3.3 8.0 1.8 8.0	ft 101 243 54 245	<b>21</b> Su 0744 1407	0139 7.2	3.3 67	ft 102	<b>6</b> Tu 1452	0235 1.2	1.6 38	ft 50	<b>21</b> W 1430	0223 1.6	1.8 50	ft 54	<b>6</b> Th 2046	0302 7.8	1.0 239	ft 31	<b>21</b> F 2122	0232 8.0	1.0 243	ft 32	F 2049	0835 7.7	6.7 236	cm 32
<b>7</b> Su	0203 0814 1439 2051	2.7 8.5 1.4 8.6	ft 83 258 43 261	<b>22</b> M 1444 2053	0224 7.6	2.7 232	ft 83	<b>7</b> W 1529	0316 1.2	1.3 38	ft 39	<b>22</b> Th 2121	0300 8.1	1.3 44	ft 40	<b>7</b> F 2159	0343 8.0	0.8 245	ft 25	<b>22</b> Sa 2131	0316 8.1	0.7 246	ft 20	Sa 2131	0920 8.1	7.0 246	cm 213
<b>8</b> M	0251 0905 1519 2133	2.2 8.9 1.2 8.9	ft 66 270 37 271	<b>23</b> Tu 1515	0259 1.7	2.2 53	ft 68	<b>8</b> Th 1605	0355 1.3	1.1 41	ft 33	<b>23</b> F 1539	0337 1.3	1.0 40	ft 30	<b>8</b> Sa 2234	0422 8.0	0.8 245	ft 24	<b>23</b> Su 2214	0400 8.3	0.4 254	ft 12	M 2258	1048 8.5	7.3 258	cm 220
<b>9</b> Tu	0332 0948 1556 ●	1.8 9.1 1.2 9.1	ft 54 277 36 278	<b>24</b> W 0942 1543	0330 1.6	1.8 50	ft 55	<b>9</b> F 1640	0434 1.5	1.0 46	ft 31	<b>24</b> Sa 2232	0415 8.7	0.8 264	ft 23	<b>9</b> Su 2308	0501 8.6	0.8 244	ft 25	<b>24</b> M 2258	0445 8.5	0.2 258	ft 7	W 2258	1048 8.5	7.3 258	cm 33
<b>10</b> W	0412 1027 1631 2246	1.5 9.1 1.2 9.2	ft 46 277 38 281	<b>25</b> Th 1612	0402 1.6	1.5 48	ft 46	<b>10</b> Sa 2226	0514 8.7	1.0 266	ft 32	<b>25</b> Su 2329	0456 8.5	0.7 260	ft 20	<b>10</b> M 2311	0539 8.7	0.9 264	ft 27	<b>25</b> Tu 2344	0530 8.4	0.1 257	ft 4	Tu 2344	1135 8.4	7.4 257	cm 226
<b>11</b> Th	0451 1105 1707 2321	1.4 9.0 1.4 9.2	ft 43 274 43 281	<b>26</b> F 1643	0435 1.5	1.3 46	ft 41	<b>11</b> Su 2257	0555 8.9	1.2 270	ft 36	<b>26</b> M 2354	0540 8.6	0.6 263	ft 18	<b>11</b> Tu 1804	0617 8.9	1.0 263	ft 30	<b>26</b> W 1815	0615 8.2	0.1 28	ft 4	W 1815	1224 8.2	7.4 28	cm 225
<b>12</b> F	0531 1143 1743 2358	1.4 8.8 1.7 9.1	ft 44 267 51 277	<b>27</b> Sa 1717	0512 1.5	1.2 47	ft 37	<b>12</b> M 1237	0005 7.5	8.4 230	ft 255	<b>27</b> Tu 1829	0626 2.2	0.6 68	ft 19	<b>12</b> W 1840	0018 2.1	7.8 64	ft 237	<b>27</b> Th 1906	0032 1.4	8.3 44	ft 252	W 1906	0702 1.4	0.2 44	cm 222
<b>13</b> Sa	0613 1222 1820	1.6 8.5 2.0	ft 48 259 61	<b>28</b> Su 1756	0552 1.7	1.2 51	ft 36	<b>13</b> Tu 1908	0041 2.6	8.1 79	ft 246	<b>28</b> W 1918	0041 2.0	8.4 60	ft 256	<b>13</b> Th 1920	0054 2.3	7.5 71	ft 229	<b>28</b> F 2001	0122 1.7	7.9 52	ft 241	F 2001	0750 1.7	0.4 52	cm 217
<b>14</b> Su	0034 0657 1303 1859	8.9 1.8 8.1 2.4	ft 270 54 248 74	<b>29</b> M 1241	0010 1.2	8.9 38	ft 271	<b>14</b> W 1838	0119 1.9	7.7 59	ft 235	<b>29</b> Th 1953	0132 3.0	8.0 91	ft 244	<b>14</b> F 2007	0133 2.6	7.2 78	ft 218	<b>29</b> Sa 2104	0216 2.0	7.4 60	ft 226	W 2104	0842 2.0	0.7 60	cm 212
<b>15</b> M	0112 0744 1347 1941	8.5 2.1 7.7 2.9	ft 259 63 234 89	<b>30</b> Tu 1333	0053 7.8	8.7 237	ft 265	<b>15</b> Th 1927	0202 2.3	7.3 71	ft 221	<b>30</b> F 2053	0231 3.3	7.5 102	ft 228	<b>15</b> Sa 2132	0217 2.6	6.7 79	ft 204	<b>30</b> Su 2223	0316 2.1	6.9 64	ft 209	M 2351	1052 2.0	1.4 60	cm 205
				<b>31</b> W	0143 0822 1435	8.3 1.6 7.3	ft 254 49 224									<b>31</b> M	0426 1052	6.3 1.4	193 44								
					2028	2.8	86										1721	1721	6.7	205							

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qingdao (Da Gang), China, 2018

Times and Heights of High and Low Waters

January				February				March			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0311	12.9	392	<b>16</b> Tu	0400	11.5	351	<b>1</b> Th	0434	13.6	415
	1019	-0.1	-3		1102	1.1	34		1146	-1.2	-36
	1558	13.4	408		1647	12.0	367		1717	14.1	430
	2244	2.2	67		2317	3.3	102		●		
<b>2</b> Tu	0357	13.4	407	<b>17</b> W	0431	11.9	362	<b>2</b> F	0007	1.7	51
	1109	-0.8	-24		1137	0.9	26		0518	14.0	426
	1644	13.9	425		1717	12.3	376		1230	-1.2	-38
	○	2333	1.9	58	●	2352	3.1	94		1757	14.2
<b>3</b> W	0443	13.7	418	<b>18</b> Th	0502	12.2	372	<b>3</b> Sa	0050	1.5	45
	1157	-1.2	-36		1210	0.7	22		0601	14.0	427
	1729	14.2	433		1745	12.5	382		1312	-1.0	-29
									1837	13.9	425
<b>4</b> Th	0019	1.8	55	<b>19</b> F	0025	2.9	88	<b>4</b> Su	0131	1.5	45
	0528	13.8	422		0533	12.5	380		0645	13.6	416
	1243	-1.2	-38		1241	0.7	21		1352	-0.3	-10
	1813	14.2	432		1814	12.6	385		1917	13.5	411
<b>5</b> F	0105	1.8	56	<b>20</b> Sa	0057	2.7	83	<b>5</b> M	0212	1.7	51
	0614	13.7	417		0606	12.6	383		0729	13.0	396
	1328	-1.0	-30		1312	0.7	22		1432	0.6	17
	1858	13.8	421		1844	12.7	386		2000	12.8	389
<b>6</b> Sa	0150	2.1	63	<b>21</b> Su	0130	2.7	81	<b>6</b> Tu	0254	2.1	63
	0701	13.2	403		0641	12.5	382		0817	12.1	368
	1414	-0.4	-12		1344	0.9	26		1514	1.7	51
	1944	13.3	404		1916	12.6	384		2045	11.9	364
<b>7</b> Su	0237	2.4	73	<b>22</b> M	0206	2.6	80	<b>21</b> W	0222	1.7	53
	0751	12.5	380		0719	12.3	375		0740	12.8	389
	1500	0.5	15		1419	1.1	34		1436	1.4	43
	2034	12.5	382		1952	12.4	379		2000	12.8	389
<b>8</b> M	0328	2.8	86	<b>23</b> Tu	0245	2.7	82	<b>7</b> W	0341	2.6	79
	0846	11.5	352		0802	11.9	362		0912	11.0	336
	1549	1.5	46		1458	1.5	46		1559	2.9	87
	2130	11.7	358		2033	12.2	371		●	2137	11.1
<b>9</b> Tu	0424	3.2	97	<b>24</b> W	0330	2.8	84	<b>8</b> Th	0434	3.1	95
	0952	10.7	329		0851	11.4	346		1023	10.1	309
	1643	2.6	80		1543	2.1	64		1653	4.0	121
	○	2236	11.1	338		2121	11.8	359		2245	10.3
<b>10</b> W	0529	3.4	104	<b>25</b> Th	0422	2.8	85	<b>9</b> F	0539	3.5	106
	1115	10.0	306		0952	10.8	330		1200	9.7	295
	1746	3.6	109		1638	2.8	86		1802	4.9	148
	2352	10.7	326		●	2220	11.4	346			
<b>11</b> Th	0642	3.3	102	<b>26</b> F	0525	2.8	84	<b>10</b> Sa	0010	9.9	302
	1243	9.9	302		1109	10.5	320		0657	3.5	107
	1859	4.2	128		1746	3.5	106		1329	9.8	300
					2332	11.1	337		1925	5.2	159
<b>12</b> F	0101	10.6	323	<b>27</b> Sa	0639	2.4	74	<b>11</b> Su	0123	9.9	303
	0752	3.0	92		1237	10.7	325		0812	3.1	96
	1357	10.2	311		1907	3.8	117		1434	10.4	316
	2011	4.4	134						2041	5.1	154
<b>13</b> Sa	0157	10.7	325	<b>28</b> Su	0050	11.2	340	<b>12</b> M	0024	10.8	329
	0852	2.5	76		0756	1.8	55		0735	1.9	59
	1454	10.7	325		1357	11.3	345		1349	11.4	347
	2111	4.3	130		2028	3.7	112		2017	4.3	131
<b>14</b> Su	0245	10.9	332	<b>13</b> Tu	0306	10.7	327	<b>13</b> W	0146	11.3	344
	0941	1.9	59		1001	1.9	59		0955	0.3	9
	1538	11.2	341		1559	11.6	353		1541	13.1	400
	2159	4.0	121		2222	4.0	122		2223	2.8	84
<b>15</b> M	0325	11.2	341	<b>14</b> W	0343	11.3	345	<b>14</b> W	0237	10.5	321
	1024	1.5	45		0906	0.9	27		0929	2.5	77
	1614	11.6	355		1500	12.2	372		1630	12.1	368
	2241	3.7	112		2136	3.2	97		2300	3.4	104
<b>31</b> W	0348	13.1	398	<b>15</b> Th	0416	11.9	363	<b>15</b> Th	0319	11.3	345
	1059	-0.8	-23		1006	0.0	-1		1119	1.0	30
	1635	13.7	418		1551	13.1	399		1658	12.5	380
	○	2322	2.0	62	2233	2.6	79		2334	2.9	88

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qingdao (Da Gang), China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0449 1151 1710	14.1 0.5 14.1	429 15 430	<b>16</b> M	0433 1129 1649 ●	13.6 1.4 13.8 2348	416 44 422 1.1	<b>1</b> Tu	0510 1202 1716	13.9 2.3 13.7	425 69 417
<b>2</b> M	0008 0527 1226 1744	1.0 14.2 0.9 14.0	31 432 26 426	<b>17</b> Tu	0508 1205 1719	14.1 1.4 14.1	431 42 429	<b>2</b> W	0019 0547 1237 1748	1.1 13.8 2.7 13.5	35 422 81 410
<b>3</b> Tu	0043 0605 1301 1817	1.0 14.0 1.4 13.6	29 426 43 415	<b>18</b> W	0024 0545 1242 1753	0.7 14.4 1.5 14.1	21 440 46 430	<b>3</b> Th	0053 0624 1311 1820	1.3 13.6 3.2 13.1	40 414 97 398
<b>4</b> W	0117 0644 1335 1851	1.1 13.5 2.1 13.1	34 412 64 399	<b>19</b> Th	0101 0625 1322 1831	0.5 14.4 1.9 13.9	15 440 58 423	<b>4</b> F	0127 0703 1346 1853	1.6 13.2 3.8 12.5	49 402 381 382
<b>5</b> Th	0153 0724 1411 1925	1.5 12.9 3.0 12.4	45 392 90 377	<b>20</b> F	0142 0710 1405 1913	0.6 14.1 2.6 13.4	17 431 78 408	<b>5</b> Sa	0202 0746 1425 1929	2.0 12.7 4.5 11.9	62 386 137 364
<b>6</b> F	0230 0809 1450 2003	2.0 12.1 3.9 11.6	62 368 119 353	<b>21</b> Sa	0228 0801 1454 2001	0.9 13.5 3.4 12.6	26 412 105 384	<b>6</b> Su	0240 0835 1508 2012	2.6 12.1 5.2 11.3	78 368 158 343
<b>7</b> Sa	0311 0904 1535 2047	2.7 11.3 4.9 10.7	81 344 149 327	<b>22</b> Su	0320 0903 1553 2102	1.3 12.7 4.3 11.7	41 388 388 357	<b>7</b> M	0324 0936 1602 2107	3.1 11.5 5.8 10.6	95 352 176 323
<b>8</b> Su	0359 1021 1634 ●	3.3 10.7 5.7 10.0	100 325 174 304	<b>23</b> M	0424 1024 1709 ●	1.9 12.1 5.0 11.0	58 369 151 336	<b>8</b> Tu	0417 1052 1710 ●	3.6 11.2 6.0 10.1	110 342 184 309
<b>9</b> M	0502 1158 1753 2331	3.8 10.5 6.1 9.6	116 320 187 293	<b>24</b> Tu	0541 1202 1836	2.3 12.0 4.9	70 366 150	<b>9</b> W	0521 1210 1825 2358	4.0 11.3 5.8 10.2	121 343 343 310
<b>10</b> Tu	0618 1314 1919	4.0 10.8 5.9	121 329 180	<b>25</b> W	0001 0702 1320 1955	10.9 2.3 12.4 4.3	333 71 377 131	<b>10</b> Th	0634 1311 1936	4.1 11.6 5.2	124 354 157
<b>11</b> W	0057 0738 1410 2029	9.9 3.7 11.3 5.2	301 114 345 158	<b>26</b> Th	0122 0815 1416 2058	11.5 2.1 12.9 3.4	349 64 392 103	<b>25</b> F	0102 0746 1344 2031	11.6 3.0 12.9 3.3	355 92 394 100
<b>12</b> Th	0158 0843 1451 2120	10.5 3.2 11.9 4.2	321 98 364 129	<b>27</b> F	0223 0916 1459 2148	12.2 1.8 13.3 2.5	372 56 405 77	<b>12</b> Sa	0206 0843 1437 2120	11.5 3.5 12.7 3.2	349 106 386 97
<b>13</b> F	0246 0933 1524 2201	11.4 2.6 12.5 3.3	347 80 381 100	<b>28</b> Sa	0312 1006 1536 2231	13.0 1.7 13.6 1.8	395 52 414 56	<b>28</b> M	0251 0934 1511 2202	12.4 3.0 13.2 2.2	377 92 403 68
<b>14</b> Sa	0324 1015 1553 2238	12.2 2.1 13.0 2.4	373 64 397 73	<b>29</b> Su	0354 1049 1611 2309	13.5 1.7 13.7 1.4	412 53 419 42	<b>29</b> M	0332 1019 1544 2242	13.2 2.6 13.7 1.4	403 79 418 43
<b>15</b> Su	0400 1053 1620 2313	13.0 1.7 13.5 1.6	396 52 411 50	<b>15</b> M	0433 1127 1644 ●	13.8 1.9 13.8 1.1	422 59 420 35	<b>30</b> W	0410 1101 1618 ●	14.0 2.3 14.1 0.8	427 70 430 23
								<b>31</b> Th	0457 1104 1651 ●	13.7 3.4 13.4 0.8	419 104 109 23
									0533 1216 1723	13.8 3.8 13.3	420 116 404

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qingdao (Da Gang), China, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
<b>1</b> Su	0049	2.0	60	<b>16</b> M	0108	-0.1	-4	<b>1</b> W	0134	2.3	70
	0628	13.9	424		0637	15.7	478		0704	14.1	430
	1309	4.7	144		1333	3.3	102		1357	4.3	132
	1810	13.4	407		1837	14.9	455		1904	13.7	419
<b>2</b> M	0122	2.1	65	<b>17</b> Tu	0154	0.3	9	<b>2</b> Th	0207	2.6	80
	0701	13.8	420		0722	15.2	464		0737	13.9	425
	1344	4.8	147		1420	3.5	107		1433	4.3	131
	1846	13.2	402		1926	14.4	438		1944	13.4	408
<b>3</b> Tu	0156	2.4	73	<b>18</b> W	0240	1.0	32	<b>3</b> F	0244	3.1	93
	0737	13.5	413		0810	14.6	444		0815	13.7	418
	1421	5.0	151		1509	3.7	114		1515	4.3	131
	1926	12.9	393		2020	13.5	413		2031	12.9	393
<b>4</b> W	0231	2.8	84	<b>19</b> Th	0329	2.1	63	<b>4</b> Sa	0326	3.6	110
	0815	13.3	405		0903	13.8	421		0859	13.4	407
	1502	5.0	153		1604	4.0	122		1603	4.3	130
	2011	12.5	380		2121	12.7	387		2128	12.4	378
<b>5</b> Th	0311	3.2	97	<b>20</b> F	0422	3.2	98	<b>5</b> Su	0416	4.3	132
	0858	13.0	397		1004	13.1	399		0952	12.9	394
	1549	5.1	154		1705	4.2	128		1701	4.1	126
	2103	12.0	365		2239	12.0	365		2240	12.1	368
<b>6</b> F	0356	3.7	112	<b>21</b> Sa	0523	4.3	131	<b>6</b> M	0519	5.0	153
	0948	12.8	389		1117	12.6	383		1059	12.6	385
	1643	4.9	150		1812	4.2	128		1809	3.8	116
	2206	11.6	353						1148	4.4	134
<b>7</b> Sa	0450	4.2	128	<b>22</b> Su	0011	11.7	358	<b>7</b> Tu	0007	12.2	372
	1047	12.6	384		0632	5.2	157		0636	5.4	166
	1744	4.6	139		1229	12.3	375		1214	12.6	385
	2322	11.5	352		1921	3.9	120		1923	3.2	98
<b>8</b> Su	0555	4.6	141	<b>23</b> M	0132	12.0	365	<b>8</b> W	0129	12.8	391
	1152	12.6	384		0744	5.6	170		0757	5.4	166
	1850	4.0	121		1330	12.3	374		1326	13.0	397
					2024	3.5	107		2034	2.3	71
<b>9</b> M	0039	11.9	364	<b>24</b> Tu	0234	12.4	379	<b>9</b> Th	0235	13.7	419
	0707	4.9	148		0849	5.7	173		0908	5.0	153
	1255	12.9	392		1421	12.4	378		1427	13.7	417
	1955	3.2	97		2118	3.1	93		2137	1.4	42
<b>10</b> Tu	0148	12.7	388	<b>25</b> W	0322	12.9	394	<b>10</b> F	0328	14.7	447
	0819	4.8	145		0943	5.5	169		1008	4.4	135
	1352	13.3	404		1505	12.6	384		1520	14.4	440
	2055	2.3	69		2205	2.6	79		2232	0.6	17
<b>11</b> W	0246	13.6	416	<b>26</b> Th	0402	13.4	409	<b>11</b> Sa	0414	15.4	469
	0923	4.5	136		1028	5.3	162		1100	3.8	116
	1443	13.8	420		1542	12.9	393		1608	15.1	461
	2152	1.3	41		2246	2.3	69		2322	0.0	0
<b>12</b> Th	0338	14.5	443	<b>27</b> F	0435	13.8	420	<b>12</b> Su	0456	15.8	483
	1020	4.1	124		1107	5.1	154		1147	3.3	100
	1532	14.3	437		1616	13.3	404		1231	3.0	90
	2244	0.6	18		2324	2.0	62		1737	15.7	480
<b>13</b> F	0425	15.3	465	<b>28</b> Sa	0506	14.0	428	<b>13</b> M	0008	-0.2	-6
	1111	3.7	113		1143	4.8	147		0536	16.0	488
	1619	14.8	452		1648	13.6	414		1231	3.0	90
	● 2334	0.0	1		2359	1.9	59		1737	15.7	480
<b>14</b> Sa	0509	15.7	478	<b>29</b> Su	0536	14.2	432	<b>14</b> Tu	0051	0.0	0
	1200	3.4	105		1217	4.6	141		0615	15.8	483
	1704	15.1	461		1720	13.8	422		1313	2.8	86
									1821	15.5	473
<b>15</b> Su	0021	-0.2	-7	<b>30</b> M	0032	2.0	60	<b>15</b> W	0133	0.6	17
	0553	15.8	483		0604	14.2	434		0656	15.4	469
	1246	3.3	102		1250	4.5	136		1355	2.9	88
	1750	15.2	463		1752	14.0	426		1906	14.9	455
				<b>31</b> Tu	0103	2.1	64				
					0633	14.2	433				
					1322	4.4	133				
					1827	13.9	425				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Qingdao (Da Gang), China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0242	3.8	117	<b>16</b> Tu	0327	5.5	167	<b>1</b> Th	0434	5.1	156
	0751	13.3	404		0836	11.2	341		0944	11.2	341
	1508	2.6	80		1551	3.8	116		1705	2.5	76
	2042	13.1	398		2214	11.4	346	<b>O</b>	2322	12.1	369
<b>2</b> Tu	0334	4.7	144	<b>17</b> W	0429	6.3	191	<b>2</b> F	0601	5.1	156
	0845	12.4	379		0950	10.4	317		1123	11.0	335
	1606	3.0	90		1656	4.3	131		1827	2.5	77
	2157	12.4	377	<b>O</b>	2349	11.2	342				
<b>3</b> W	0443	5.5	169	<b>18</b> Th	0550	6.6	200	<b>3</b> Sa	0045	12.4	379
	0957	11.7	357		1132	10.1	309		0724	4.5	136
	1721	3.1	95		1814	4.4	135		1249	11.5	350
	2340	12.2	372						1944	2.2	68
<b>4</b> Th	0612	5.8	177	<b>19</b> F	0059	11.5	351	<b>4</b> Su	0145	13.0	396
	1135	11.5	351		0715	6.2	190		0829	3.4	105
	1847	2.9	88		1248	10.5	319		1354	12.2	373
					1931	4.2	127		2047	1.9	57
<b>5</b> F	0108	12.8	389	<b>20</b> Sa	0153	12.0	365	<b>5</b> M	0231	13.5	410
	0740	5.3	161		0820	5.4	165		0922	2.4	74
	1303	12.1	368		1345	11.1	338		1446	13.0	397
	2006	2.2	68		2033	3.6	111		2141	1.6	50
<b>6</b> Sa	0210	13.5	412	<b>21</b> Su	0234	12.5	381	<b>6</b> Tu	0310	13.8	421
	0848	4.3	132		0909	4.5	136		1007	1.6	49
	1408	13.0	395		1432	11.8	361		1530	13.6	416
	2109	1.5	45		2121	3.1	95		2226	1.6	49
<b>7</b> Su	0256	14.2	434	<b>22</b> M	0307	13.0	395	<b>7</b> W	0347	14.0	427
	0942	3.3	100		0949	3.5	107		1048	1.0	32
	1459	13.9	424		1510	12.6	388		1611	14.0	427
	2202	1.0	29		2202	2.7	81		2307	1.8	54
<b>8</b> M	0336	14.8	450	<b>23</b> Tu	0336	13.4	408	<b>8</b> Th	0421	14.0	428
	1028	2.4	72		1025	2.7	82		1126	0.8	24
	1544	14.7	447		1545	13.3	405		1649	14.1	431
	2248	0.8	23		2239	2.3	71	<b>O</b>	2344	2.1	63
<b>9</b> Tu	0412	15.1	459	<b>24</b> W	0403	13.7	419	<b>9</b> F	0455	13.9	424
	1109	1.7	53		1059	2.0	61		1202	0.8	23
	1625	15.1	460		1617	13.8	422		1727	14.0	427
	2329	0.9	27		2313	2.1	65				
<b>10</b> W	0446	15.1	460	<b>25</b> Th	0430	14.0	428	<b>10</b> Sa	0020	2.5	76
	1148	1.3	41		1132	1.5	46		0529	13.6	415
	1704	15.2	464		1650	14.2	434		1237	1.0	30
				<b>O</b>	2347	2.1	63		1806	13.7	417
<b>11</b> Th	0007	1.3	39	<b>26</b> F	0459	14.2	433	<b>11</b> Su	0056	3.0	92
	0521	14.9	455		1205	1.2	36		0603	13.2	401
	1224	1.3	39		1725	14.5	441		1313	1.3	41
	1743	15.0	457						1846	13.2	402
<b>12</b> F	0044	1.9	57	<b>27</b> Sa	0023	2.2	66	<b>12</b> M	0132	3.6	111
	0555	14.5	442		0531	14.2	433		0638	12.6	383
	1301	1.4	44		1241	1.0	31		1350	1.8	56
	1823	14.5	441		1803	14.5	442		1930	12.6	383
<b>13</b> Sa	0120	2.6	80	<b>28</b> Su	0100	2.5	75	<b>13</b> Tu	0211	4.3	132
	0630	13.9	423		0606	14.0	427		0715	11.8	361
	1338	1.9	57		1320	1.0	32		1429	2.4	74
	1905	13.7	418		1845	14.2	434		2020	11.9	363
<b>14</b> Su	0158	3.5	107	<b>29</b> M	0141	3.0	92	<b>14</b> W	0255	5.0	153
	0707	13.1	398		0646	13.5	413		0759	11.1	337
	1417	2.5	75		1403	1.3	39		1512	3.0	92
	1952	12.9	392		1934	13.7	417		2121	11.3	345
<b>15</b> M	0239	4.5	137	<b>30</b> Tu	0228	3.7	114	<b>15</b> Th	0347	5.6	170
	0747	12.1	370		0732	12.8	391		0856	10.3	314
	1500	3.1	95		1452	1.7	51		1604	3.6	109
	2050	12.0	365		2031	13.0	395	<b>O</b>	2237	11.0	334
<b>31</b> W	0323	4.5	138	<b>31</b> W	0323	4.5	138				
	0828	12.0	365		0828	12.0	365				
	1552	2.1	65		1552	2.1	65				
	2146	12.3	374		2146	12.3	374				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

Lianyun Gang, China, 2018

## Times and Heights of High and Low Waters

January					February					March													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
<b>1</b> <i>M</i>	0447 1157 1739	15.8 0.6 16.7	483 18 508	<b>16</b> <i>Tu</i>	0018 0540 1241 1832	4.6 14.3 1.9 15.2	139 436 59 463	<b>1</b> <i>Th</i>	0104 0611 1332 1903	2.8 16.6 -0.5 17.4	85 507 -16 531	<b>16</b> <i>F</i>	0111 0628 1330 ● 1911	3.6 15.3 1.5 15.8	110 465 46 482	<b>1</b> <i>Th</i>	0003 0516 1231 1806	3.5 15.8 0.2 17.0	106 483 7 519	<b>16</b> <i>F</i>	0010 0533 1227 1815	4.1 14.8 2.2 15.8	124 451 66 481
<b>2</b> <i>Tu</i>	0020 0535 1250 ● 1827	2.9 16.4 -0.1 17.3	89 500 -2 526	<b>17</b> <i>W</i>	0054 0613 1315 ● 1904	4.2 14.7 1.7 15.5	127 448 52 472	<b>2</b> <i>F</i>	0152 0656 1418 1944	2.4 17.0 -0.6 17.5	73 518 -17 532	<b>17</b> <i>Sa</i>	0145 0658 1400 1936	3.2 15.7 1.4 16.0	97 478 42 487	<b>2</b> <i>F</i>	0055 0602 1319 ● 1845	2.7 16.6 -0.1 17.4	82 507 -2 529	<b>17</b> <i>Sa</i>	0047 0606 1303 ● 1840	3.3 15.5 1.8 16.1	100 473 54 491
<b>3</b> <i>W</i>	0112 0620 1340 1914	2.7 16.8 -0.4 17.6	81 512 -13 535	<b>18</b> <i>Th</i>	0128 0644 1347 1934	3.8 15.1 1.6 15.6	117 460 48 477	<b>3</b> <i>Sa</i>	0236 0740 1459 2024	2.3 17.0 -0.2 17.2	69 518 -6 524	<b>18</b> <i>Su</i>	0217 0729 1429 2002	2.9 15.9 1.4 16.1	89 486 42 491	<b>3</b> <i>Sa</i>	0138 0644 1401 1921	2.2 17.1 0.0 17.4	67 520 -1 529	<b>18</b> <i>Su</i>	0122 0637 1336 1904	2.7 16.1 1.6 16.4	82 490 49 499
<b>4</b> <i>Th</i>	0201 0706 1428 2000	2.6 16.9 -0.5 17.5	78 515 -14 533	<b>19</b> <i>F</i>	0201 0715 1417 2003	3.6 15.4 1.5 15.7	111 468 47 478	<b>4</b> <i>Su</i>	0317 0825 1538 2105	2.3 16.6 0.5 16.7	71 507 14 508	<b>19</b> <i>M</i>	0248 0802 1458 2030	2.8 16.0 1.5 16.2	86 489 46 494	<b>4</b> <i>Su</i>	0217 0725 1438 1956	1.9 17.2 0.5 17.2	59 523 14 523	<b>19</b> <i>M</i>	0155 0709 1407 1930	2.3 16.4 1.6 16.6	71 501 49 506
<b>5</b> <i>F</i>	0248 0752 1515 2047	2.7 16.7 -0.2 17.1	81 509 -5 522	<b>20</b> <i>Sa</i>	0233 0747 1446 2031	3.5 15.5 1.6 15.7	108 472 49 478	<b>5</b> <i>M</i>	0357 0912 1616 2147	2.6 15.9 1.4 15.9	78 486 42 486	<b>20</b> <i>Tu</i>	0321 0839 1530 2103	2.8 16.0 1.8 16.1	85 487 54 492	<b>5</b> <i>M</i>	0253 0806 1511 2032	1.9 16.9 1.1 16.7	59 514 35 509	<b>20</b> <i>Tu</i>	0227 0743 1439 1959	2.1 16.7 1.7 16.7	65 508 53 509
<b>6</b> <i>Sa</i>	0336 0841 1600 2135	2.9 16.2 0.5 16.5	89 493 -14 504	<b>21</b> <i>Su</i>	0306 0821 1516 2102	3.5 15.4 1.7 15.6	108 470 52 476	<b>6</b> <i>Tu</i>	0440 1003 1656 2233	3.0 15.0 2.5 15.1	91 458 75 460	<b>21</b> <i>W</i>	0357 0922 1608 2142	2.8 15.7 2.2 15.9	85 479 67 484	<b>6</b> <i>Tu</i>	0328 0849 1545 2110	2.1 16.3 2.0 16.1	65 497 61 490	<b>21</b> <i>W</i>	0300 0821 1513 2034	2.1 16.7 2.1 16.6	63 509 63 506
<b>7</b> <i>Su</i>	0424 0933 1646 2226	3.3 15.4 1.3 15.8	100 469 40 482	<b>22</b> <i>M</i>	0341 0859 1549 2136	3.6 15.2 1.9 15.5	110 463 59 473	<b>7</b> <i>W</i>	0527 1101 1741 ● 2324	3.5 14.0 3.7 14.1	106 427 112 431	<b>22</b> <i>Th</i>	0439 1012 1652 2228	2.9 15.3 2.9 15.4	88 465 88 468	<b>7</b> <i>W</i>	0404 0935 1620 2150	2.5 15.5 3.0 15.2	77 472 91 464	<b>22</b> <i>Th</i>	0336 0906 1552 2114	2.1 16.5 2.6 16.2	63 502 80 494
<b>8</b> <i>M</i>	0515 1032 1734 2321	3.7 14.5 2.4 15.0	112 441 72 457	<b>23</b> <i>Tu</i>	0420 0943 1628 2216	3.7 14.8 2.3 15.3	112 452 70 466	<b>8</b> <i>Th</i>	0620 1211 1833	4.0 13.1 4.9	121 399 149	<b>23</b> <i>F</i>	0529 1113 1746 ● 2325	3.1 14.6 3.8 14.6	93 445 116 446	<b>8</b> <i>Th</i>	0445 1028 1700 2234	3.1 14.5 4.1 14.3	94 443 126 435	<b>23</b> <i>F</i>	0419 0958 1638 2202	2.2 16.0 3.4 15.5	68 487 105 473
<b>9</b> <i>Tu</i>	0611 1140 1827	4.0 13.5 3.4	122 413 105	<b>24</b> <i>W</i>	0506 1035 1714 2304	3.8 14.3 2.9 14.9	115 436 87 454	<b>9</b> <i>F</i>	0024 0722 1333 1938	13.3 4.4 12.5 5.8	404 133 382 178	<b>24</b> <i>Sa</i>	0632 1229 1855	3.2 14.0 4.8	98 428 145	<b>9</b> <i>F</i>	0531 1130 1748 ● 2325	3.7 13.6 5.3 13.3	113 414 162 404	<b>24</b> <i>Sa</i>	0510 1102 1735 ● 2301	2.5 15.3 4.5 14.6	77 466 136 445
<b>10</b> <i>W</i>	0022 0713 1259 1927	14.2 4.2 12.9 4.5	434 129 394 136	<b>25</b> <i>Th</i>	0600 1137 1810	3.8 13.8 3.6	116 421 109	<b>10</b> <i>Sa</i>	0135 0834 1454 2056	12.6 4.4 12.6 6.3	384 134 384 192	<b>25</b> <i>Su</i>	0035 0748 1357 2020	13.9 3.1 13.9 5.3	425 96 425 161	<b>10</b> <i>Sa</i>	0627 1246 1849	4.3 12.9 6.3	132 393 193	<b>25</b> <i>Su</i>	0615 1220 1848	2.9 14.7 5.3	88 447 163 163
<b>11</b> <i>Th</i>	0129 0820 1419 2035	13.6 4.2 12.8 5.2	416 127 389 157	<b>26</b> <i>F</i>	0002 0704 1252 1918	14.4 3.7 13.5 4.3	440 112 412 130	<b>11</b> <i>Su</i>	0249 0945 1604 2209	12.4 4.1 13.2 6.1	379 124 401 187	<b>26</b> <i>M</i>	0156 0910 1522 2147	13.7 2.7 14.5 5.1	417 82 443 155	<b>11</b> <i>Su</i>	0031 0734 1411 2007	12.4 4.7 12.7 6.9	377 144 388 210	<b>26</b> <i>M</i>	0015 0733 1348 2016	13.8 3.1 14.5 5.7	420 93 443 173
<b>12</b> <i>F</i>	0235 0927 1530 2144	13.4 3.8 13.0 5.4	408 117 397 165	<b>27</b> <i>Sa</i>	0110 0816 1415 2037	14.1 3.3 13.7 4.6	430 100 417 141	<b>12</b> <i>M</i>	0353 1046 1657 2309	12.7 3.5 13.9 5.6	387 106 423 170	<b>27</b> <i>Tu</i>	0316 1028 1629 2302	14.1 1.8 15.5 4.4	429 56 472 133	<b>12</b> <i>M</i>	0152 0851 1527 2129	12.0 4.7 13.2 6.7	365 142 401 204	<b>27</b> <i>Tu</i>	0142 0856 1511 2141	13.5 2.8 15.0 5.2	411 85 457 159
<b>13</b> <i>Sa</i>	0334 1027 1629 2245	13.4 3.3 13.6 5.3	408 101 414 161	<b>28</b> <i>Su</i>	0223 0931 1533 2158	14.1 2.6 14.4 4.5	430 78 440 137	<b>13</b> <i>Tu</i>	0442 1136 1739 2356	13.3 2.8 14.6 4.9	405 86 446 148	<b>28</b> <i>W</i>	0422 1134 1722 1844	14.9 1.0 29 15.6	455 29 499 475	<b>13</b> <i>Tu</i>	0311 1002 1625 2236	12.2 4.2 13.9 5.9	373 127 423 181	<b>28</b> <i>W</i>	0306 1013 1615 2253	13.9 2.2 15.8 4.3	425 66 481 130
<b>14</b> <i>Su</i>	0423 1118 1717 2336	13.6 2.8 14.2 5.0	414 84 433 151	<b>29</b> <i>M</i>	0332 1042 1637 2310	14.5 1.6 15.4 4.0	443 49 470 121	<b>14</b> <i>W</i>	0522 1219 1814 1844	14.0 2.2 15.2 15.6	426 68 463 475	<b>29</b> <i>Th</i>	0411 1219 1814 1844	13.0 2.2 15.2 15.6	396 105 447 466	<b>14</b> <i>W</i>	0413 1118 1710 2327	14.9 1.5 16.5 5.0	454 46 502 152				
<b>15</b> <i>M</i>	0504 1202 1757	13.9 2.3 14.8	424 70 450	<b>30</b> <i>Tu</i>	0432 1145 1732	15.3 0.7 16.4	465 20 499	<b>15</b> <i>Th</i>	0036 0556 1256 1844	4.2 14.7 1.8 15.6	127 448 54 475	<b>15</b> <i>Th</i>	0456 0516 1256 1745	13.9 3.5 54 15.3	424 83 466 466	<b>30</b> <i>F</i>	0506 1213 1746	15.8 1.1 16.9	483 33 516				
				<b>31</b> <i>W</i>	0011 0524 1241 ● 1819	3.3 16.0 -0.1 17.1	101 489 -3 520					<b>31</b> <i>Sa</i>	0038 0550 1259 ● 1821		2.5 16.6 1.0 522								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Lianyun Gang, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0118	2.0	61	<b>16</b> M	0053	2.3	69	<b>1</b> Tu	0126	1.9	58
	0630	17.0	517		0614	16.4	501		0653	16.9	514
	1338	1.2	37		1306	2.2	67		1345	3.1	94
	1854	17.1	522	●	1829	16.7	509		1858	16.5	503
<b>2</b> M	0153	1.8	55	<b>17</b> Tu	0128	1.8	55	<b>2</b> W	0158	2.0	60
	0708	17.1	520		0648	17.0	517		0731	16.8	511
	1412	1.7	51		1342	2.2	66		1415	3.5	107
	1927	16.9	516		1858	17.0	517		1930	16.2	495
<b>3</b> Tu	0226	1.8	55	<b>18</b> W	0203	1.6	48	<b>3</b> Th	0229	2.2	66
	0747	16.9	514		0726	17.3	527		0811	16.5	504
	1443	2.3	69		1419	2.3	71		1447	4.0	122
	2000	16.6	505		1931	17.0	519		2003	15.8	482
<b>4</b> W	0258	2.0	62	<b>19</b> Th	0240	1.5	45	<b>4</b> F	0302	2.5	76
	0828	16.4	501		0808	17.4	529		0853	16.1	492
	1514	3.0	90		1458	2.7	82		1521	4.6	139
	2034	16.0	488		2010	16.8	512		2038	15.3	466
<b>5</b> Th	0331	2.4	73	<b>20</b> F	0320	1.5	47	<b>5</b> Sa	0336	2.9	89
	0912	15.8	482		0856	17.1	522		0939	15.7	478
	1548	3.8	115		1541	3.3	101		1559	5.2	159
	2111	15.3	466		2054	16.3	497		2118	14.6	446
<b>6</b> F	0408	2.9	88	<b>21</b> Sa	0406	1.8	54	<b>6</b> Su	0414	3.4	104
	1002	15.1	460		0952	16.6	507		1030	15.1	461
	1626	4.7	143		1632	4.1	126		1643	5.9	180
	2151	14.4	439		2145	15.5	473		2203	13.9	424
<b>7</b> Sa	0449	3.5	107	<b>22</b> Su	0500	2.2	67	<b>7</b> M	0457	3.9	120
	1058	14.3	437		1058	16.0	487		1125	14.6	445
	1712	5.7	173		1733	5.0	153		1737	6.5	199
	2238	13.5	411		2248	14.6	445		2259	13.2	402
<b>8</b> Su	0538	4.2	127	<b>23</b> M	0606	2.7	81	<b>8</b> Tu	0550	4.5	136
	1204	13.7	417		1214	15.5	471		1228	14.2	432
	1810	6.6	200		1849	5.6	171		1843	6.8	208
	● 2338	12.6	384	●				●			
<b>9</b> M	0638	4.7	143	<b>24</b> Tu	0007	13.8	422	<b>9</b> W	0009	12.7	387
	1321	13.3	406		0722	3.0	91		0654	4.9	148
	1924	7.1	215		1336	15.3	467		1336	14.0	428
					2011	5.6	170		1957	6.6	202
<b>10</b> Tu	0056	12.1	369	<b>25</b> W	0134	13.7	417	<b>10</b> Th	0127	12.7	386
	0750	4.9	150		0840	3.0	91		0804	4.9	150
	1437	13.5	411		1451	15.6	475		1440	14.3	436
	2045	6.8	208		2129	4.9	149		2105	5.9	179
<b>11</b> W	0220	12.2	372	<b>26</b> Th	0256	14.2	432	<b>11</b> F	0241	13.2	401
	0905	4.7	142		0952	2.8	84		0911	4.7	143
	1540	14.0	427		1552	16.0	489		1532	14.8	451
	2154	6.0	184		2234	3.9	120		2203	4.8	147
<b>12</b> Th	0330	12.9	394	<b>27</b> F	0401	15.0	457	<b>12</b> Sa	0341	14.0	428
	1009	4.1	125		1055	2.5	76		1011	4.2	129
	1628	14.7	448		1640	16.4	501		1614	15.4	469
	2249	5.0	151						2253	3.7	114
<b>13</b> F	0422	13.9	425	<b>28</b> Sa	0453	15.8	482	<b>13</b> Su	0429	15.1	460
	1103	3.4	105		1149	2.4	72		1104	3.7	114
	1705	15.4	468		1719	16.7	508		1649	16.0	488
	2335	3.9	118						2337	2.8	84
<b>14</b> Sa	0504	14.9	455	<b>29</b> Su	0013	2.4	73	<b>14</b> M	0511	16.0	489
	1148	2.9	88		0536	16.4	500		1151	3.3	101
	1735	15.9	485		1234	2.4	74		1722	16.5	503
					1754	16.7	509				
<b>15</b> Su	0015	3.0	90	<b>30</b> M	0052	2.0	62	<b>15</b> Tu	0019	2.0	61
	0540	15.7	480		0616	16.8	511		0550	16.9	515
	1229	2.5	75		1312	2.7	83		1236	3.0	92
	1802	16.3	498		1826	16.7	508	●	1755	16.9	516
<b>16</b> Sa	0210	0.8	23	<b>31</b> Th	0134	2.3	71	<b>16</b> F	0206	2.5	76
	0750	18.6	566		0718	16.8	511		0757	16.7	509
	1436	3.9	120		1352	4.6	141		1425	4.9	149
	1939	17.4	529		1904	15.9	486		1938	15.7	534
<b>17</b> Su	0259	0.9	26	<b>17</b> M	0237	2.7	83	<b>17</b> Tu	0841	18.4	560
	0841	18.4	560		0836	16.5	504		1527	4.2	129
	1527	4.2	129		1459	5.2	158		2029	17.0	517
	2228	15.6	475		2013	15.5	471				
<b>18</b> M	0350	1.2	36	<b>18</b> F	0444	1.8	54	<b>18</b> Tu	1033	17.5	532
	0935	18.0	548		1000	15.9	484		1182	5.0	152
	1622	4.6	140		1618	5.9	181		1720	4.9	148
	2125	16.3	498		2040	14.6	445		2228	15.6	475
<b>19</b> Tu	0440	1.8	54	<b>19</b> W	0425	3.7	114	<b>19</b> W	0540	2.5	77
	1033	17.5	532		0947	17.3	527		1134	16.9	515
	1822	5.0	152		1628	4.6	139		2340	15.0	456
	2340	15.0	456		2135	15.7	479				
<b>20</b> W	0540	2.5	77	<b>20</b> F	0425	3.7	114	<b>20</b> O	0540	2.5	77
	1134	16.9	515		1046	15.5	471		1822	5.0	152
	1822	5.0	152		1707	6.3	191		2340	15.0	456
	2340	15.0	456		2227	14.1	429				
<b>21</b> Th	0640	3.3	102	<b>21</b> W	0512	4.2	127	<b>21</b> O	0640	3.3	102
	1238	16.4	499		1136	15.1	460		1238	16.4	499
	1927	4.9	148		1804	6.4	195		1927	4.9	148
	2228	13.6	415		2328	13.6	415		2228	13.6	415
<b>22</b> F	0058	14.7	447	<b>22</b> O	0606	4.6	141	<b>22</b> W	0058	14.7	447
	0743	4.1	126		1231	14.9	453		0743	4.1	126
	1342	16.0	487		1842	5.4	164		1342	16.0	487
	2032	4.5	137		2358	14.3	436		2032	4.5	137
<b>23</b> Sa	0215	14.7	449	<b>23</b> F	0038	13.4	409	<b>23</b> W	0215	14.7	449
	0848	4.8	145		0709	5.0	151		0848	4.8	145
	1442	15.7	480		1329	14.9	453		1442	15.7	480
	2133	4.0	122		2013	5.6	171		2133	4.0	122
<b>24</b> Su	0323	15.1	460	<b>24</b> M	0120	14.1	431	<b>24</b> W	0323	15.1	460
	0952	5.2	157		0815	3.4	104		0952	5.2	157
	1536	15.6	477		1421	15.9	486		1536	15.6	477
	2228	3.5	106		2105	4.6	139		2228	3.5	106
<b>25</b> M	0421	15.6	475	<b>25</b> W	0239	14.5	441	<b>25</b> O	0421	15.6	475
	1049	5.3	162		0923	3.6	111		0920	4.9	150
	1622	15.6	476		1520	16.0	488		1517	15.6	474
	2317	3.1	93		2206	3.8	115		2208	3.7	113
<b>26</b> Tu	0510	16.0	489	<b>26</b> O	0353	15.4	468	<b>26</b> W	0510	16.0	489
	1139	5.4	165								

# Lianyun Gang, China, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0219	2.9	88	<b>16</b> M	0249	0.7	22	<b>1</b> W	0304	3.2	98
	0817	16.9	515		0825	18.8	574		0400	2.3	71
	1440	5.5	167		1516	4.2	127	Th	0927	17.7	541
	1953	15.9	486		2017	17.7	539		1626	4.1	124
<b>2</b> M	0251	3.1	93	<b>17</b> Tu	0338	1.1	35	<b>2</b> Th	0336	3.5	106
	0852	16.7	510		0913	18.4	561		0443	3.4	104
	1516	5.6	171		1606	4.3	132	F	1015	16.9	516
	2030	15.8	481		2109	17.1	521		1714	4.4	135
<b>3</b> Tu	0324	3.2	99	<b>18</b> W	0425	1.9	57	<b>3</b> F	0413	3.9	119
	0928	16.5	502		1003	17.8	543		0529	4.6	141
	1554	5.7	175		1657	4.5	137	Sa	1108	16.0	488
	2111	15.5	472		2208	16.3	498		1808	4.8	146
<b>4</b> W	0400	3.5	108	<b>19</b> Th	0514	2.8	86	<b>4</b> Sa	0456	4.4	135
	1005	16.2	494		1057	17.1	521		0623	5.8	178
	1637	5.9	179		1752	4.7	143	Su	1208	15.2	462
	2157	15.1	459		2314	15.6	475		1909	5.1	154
<b>5</b> Th	0440	4.0	121	<b>20</b> F	0607	3.9	120	<b>5</b> Su	0548	5.1	155
	1046	15.9	486		1155	16.4	499		0115	14.7	449
	1726	5.9	180		1850	4.8	146	M	0728	6.9	209
	2250	14.6	446						1315	14.5	443
<b>6</b> F	0528	4.4	135	<b>21</b> Sa	0029	15.0	458	<b>21</b> Tu	0231	14.7	449
	1133	15.7	479		0705	5.0	153		0842	7.4	222
	1823	5.7	175		1257	15.7	479		1424	14.2	434
	2353	14.4	438		1953	4.8	145		2124	4.8	146
<b>7</b> Sa	0623	5.0	151	<b>22</b> Su	0146	14.8	451	<b>22</b> W	0340	15.2	462
	1226	15.6	474		0809	5.9	180		0953	7.3	223
	1923	5.3	162		1400	15.3	465		1527	14.4	438
					2057	4.5	137		2224	4.3	131
<b>8</b> Su	0103	14.4	439	<b>23</b> M	0259	15.0	456	<b>23</b> W	0302	15.9	485
	0727	5.4	164		0917	6.4	196		0924	6.2	188
	1325	15.5	473		1501	15.0	458		1454	15.9	484
	2025	4.6	141		2157	4.1	126		2204	3.0	90
<b>9</b> M	0215	14.9	453	<b>24</b> Tu	0403	15.4	469	<b>9</b> Th	0409	16.9	514
	0837	5.5	169		1020	6.6	200		1035	5.8	176
	1425	15.7	479		1555	15.0	458		1557	16.5	503
	2127	3.8	115		2251	3.7	113		2308	2.0	61
<b>10</b> Tu	0322	15.7	478	<b>25</b> W	0456	15.9	485	<b>10</b> F	0505	17.8	544
	0946	5.4	166		1115	6.4	196		1138	5.2	158
	1522	16.1	491		1640	15.2	463		1653	17.3	526
	2226	2.8	86		2338	3.3	102				
<b>11</b> W	0422	16.7	509	<b>26</b> Th	0540	16.4	501	<b>11</b> Sa	0006	1.2	37
	1051	5.1	156		1201	6.2	189		0554	18.6	567
	1616	16.6	507		1720	15.5	472		1235	4.6	140
	2323	1.9	59					F	1743	17.9	547
<b>12</b> Th	0516	17.7	539	<b>27</b> F	0020	3.1	94	<b>12</b> Su	0100	0.8	23
	1150	4.7	144		0618	16.8	513		0639	19.0	580
	1706	17.2	524		1240	5.9	180		1326	4.1	126
					1755	15.8	483		1829	18.4	561
<b>13</b> F	0017	1.2	38	<b>28</b> Sa	0057	2.9	89	<b>13</b> M	0149	0.6	19
	0605	18.4	562		0651	17.1	521		0721	19.1	583
	1245	4.4	134		1316	5.6	172		1413	3.8	117
	● 1753	17.7	539		1828	16.2	494		1915	18.5	564
<b>14</b> Sa	0110	0.8	23	<b>29</b> Su	0131	2.9	87	<b>28</b> Tu	0143	2.9	87
	0653	18.9	575		0723	17.2	524		0723	17.3	526
	1337	4.2	128		1349	5.4	166		1402	4.6	141
	1840	18.0	548		1901	16.5	502		1913	17.1	520
<b>15</b> Su	0200	0.6	18	<b>30</b> M	0203	2.9	88	<b>30</b> W	0243	3.2	98
	0739	19.0	579		0753	17.2	523		0802	18.4	562
	1427	4.1	126		1422	5.3	162		1541	3.8	117
	1928	18.0	548		1934	16.6	505		2049	17.7	538
	31	0233	3.0	92				<b>31</b> F	0314	3.5	107
	Tu	0822	17.1	520					0844	17.1	521
		1456	5.3	161					1540	4.5	137
		2008	16.5	504					2103	16.7	508

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Lianyun Gang, China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0414	4.7	144	<b>16</b> Tu	0503	6.4	195	<b>1</b> Th	0615	6.0	182
	0934	16.1	490		1027	13.9	424		0627	6.8	207
	1642	3.7	113		1730	4.8	146		1157	12.4	378
	2235	16.0	488		2357	14.4	440	<b>O</b>	1847	3.3	102
<b>2</b> Tu	0508	5.6	170	<b>17</b> W	0603	7.2	220	<b>2</b> F	0102	15.4	470
	1030	15.3	466		1133	13.1	398		0738	5.9	181
	1744	3.9	120		1832	5.3	161		1258	13.7	419
	2351	15.6	474	<b>O</b>					2006	3.3	101
<b>3</b> W	0619	6.3	193	<b>18</b> Th	0112	14.2	432	<b>3</b> Sa	0218	15.7	478
	1143	14.6	444		0719	7.6	231		0857	5.2	159
	1900	4.0	121		1253	12.6	385		1422	14.2	433
					1945	5.4	166		2119	3.0	92
<b>4</b> Th	0117	15.5	472	<b>19</b> F	0224	14.3	436	<b>4</b> Su	0321	16.2	493
	0745	6.6	201		0839	7.3	221		1004	4.1	126
	1309	14.3	436		1413	12.8	391		1531	15.1	460
	2022	3.6	110		2058	5.2	158		2224	2.7	81
<b>5</b> F	0238	15.9	486	<b>20</b> Sa	0324	14.8	450	<b>5</b> M	0412	16.6	507
	0910	6.1	186		0946	6.4	195		1100	3.1	94
	1432	14.8	451		1518	13.5	412		1626	16.0	487
	2139	3.0	90		2159	4.6	141		2321	2.4	74
<b>6</b> Sa	0344	16.7	510	<b>21</b> Su	0411	15.3	467	<b>6</b> Tu	0453	16.9	516
	1021	5.1	155		1037	5.3	162		1148	2.3	69
	1541	15.7	479		1609	14.4	440		1712	16.7	508
	2244	2.2	68		2250	4.0	123				
<b>7</b> Su	0435	17.5	532	<b>22</b> M	0449	15.8	483	<b>7</b> W	0009	2.4	74
	1119	4.0	122		1121	4.3	130		0530	17.0	519
	1636	16.7	510		1651	15.4	468		1230	1.8	55
	2341	1.7	52		2333	3.5	108		1753	17.0	519
<b>8</b> M	0518	17.9	547	<b>23</b> Tu	0520	16.3	496	<b>8</b> Th	0051	2.7	81
	1208	3.1	95		1159	3.4	103		0604	17.0	517
	1722	17.6	535		1727	16.1	490		1308	1.6	50
				<b>O</b>	1832	17.1	522		1832	17.1	522
<b>9</b> Tu	0030	1.5	47	<b>24</b> W	0012	3.2	97	<b>9</b> F	0127	3.1	93
	0555	18.1	553		0547	16.6	505		0637	16.8	511
	1252	2.5	77		1236	2.8	84		1342	1.7	53
	●	1805	18.0		1759	16.6	507		1912	17.0	518
<b>10</b> W	0113	1.7	53	<b>25</b> Th	0049	3.0	92	<b>10</b> Sa	0200	3.5	107
	0629	18.1	551		0612	16.8	512		0710	16.4	501
	1330	2.3	69		1310	2.4	72		1415	2.0	61
	1845	18.1	551		1832	17.0	519		1952	16.7	508
<b>11</b> Th	0151	2.2	68	<b>26</b> F	0124	3.0	92	<b>11</b> Su	0233	4.0	123
	0703	17.8	543		0638	17.0	517		0745	15.9	486
	1406	2.3	70		1344	2.2	67		1449	2.4	73
	1925	17.8	544		1907	17.3	526		2035	16.2	493
<b>12</b> F	0226	2.9	88	<b>27</b> Sa	0158	3.1	96	<b>12</b> M	0307	4.6	140
	0737	17.4	529		0709	17.0	517		0821	15.3	467
	1441	2.5	77		1418	2.2	66		1523	2.9	88
	2007	17.3	528		1946	17.3	527		2122	15.6	476
<b>13</b> Sa	0259	3.7	112	<b>28</b> Su	0235	3.5	106	<b>13</b> Tu	0344	5.2	160
	0813	16.7	509		0744	16.8	512		0902	14.6	444
	1517	3.0	90		1455	2.2	68		1601	3.4	105
	2054	16.6	506		2030	17.1	521		2213	15.0	457
<b>14</b> Su	0335	4.5	138	<b>29</b> M	0316	4.0	121	<b>14</b> W	0428	5.9	180
	0852	15.8	483		0825	16.4	499		0948	13.7	419
	1555	3.5	106		1538	2.4	74		1645	4.0	122
	2146	15.8	482		2122	16.6	507		2310	14.4	439
<b>15</b> M	0415	5.4	166	<b>30</b> Tu	0403	4.7	142	<b>15</b> Th	0522	6.5	198
	0935	14.9	454		0914	15.6	477		1046	13.0	395
	1639	4.1	126		1629	2.8	84		1736	4.6	139
	2247	15.0	458		2225	16.0	489	<b>O</b>			
<b>31</b> W	0501	5.4	165	<b>31</b> W	0501	5.4	165		1013	14.8	450
					1013	14.8	450		1732	3.1	95
					1732	3.1	95		2340	15.6	474

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wusong (Shanghai), China, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0658 M 1155 1949	ft 1.2 12.0 1.7	cm 37 367 51	h m <b>16</b> 0012 Tu 0735 1236 2021	ft 8.7 1.2 10.7 2.0	cm 264 37 327 61	h m <b>1</b> 0104 Th 0841 1322 2141	ft 10.0 0.6 12.5 0.7	cm 305 17 381 21	h m <b>16</b> 0104 F 0837 1323 2105	ft 9.7 1.0 11.3 1.9	cm 295 32 345 57
h m 0014 Tu 0752 1230 O 2048	ft 10.3 0.9 12.8 1.2	cm 313 28 390 37	h m <b>17</b> 0048 W 0812 1314 ● 2048	ft 9.1 1.2 11.1 1.9	cm 278 37 339 58	h m <b>2</b> 0149 F 0936 1413 2233	ft 10.3 0.3 12.5 0.7	cm 314 8 380 22	h m <b>17</b> 0135 Sa 0908 1356 2141	ft 10.1 1.3 11.4 1.6	cm 307 39 347 48
h m 0104 W 0845 1323 2144	ft 10.5 0.6 13.1 0.8	cm 319 32 399 25	h m <b>18</b> 0120 Th 0846 1341 2134	ft 9.5 1.0 11.3 1.8	cm 289 32 344 54	h m <b>3</b> 0230 Sa 1017 1450 2251	ft 10.5 0.7 12.1 1.0	cm 320 22 369 31	h m <b>18</b> 0210 Su 0942 1424 2215	ft 10.3 1.2 11.5 1.8	cm 315 36 351 54
h m 0152 Th 0936 1416 2239	ft 10.5 0.5 13.0 0.8	cm 319 14 395 25	h m <b>19</b> 0154 F 0930 1416 2154	ft 9.6 1.0 11.4 2.0	cm 294 30 347 60	h m <b>4</b> 0315 Su 1045 1526 2336	ft 10.3 0.9 11.7 1.0	cm 315 26 357 29	h m <b>19</b> 0239 M 1013 1456 2241	ft 10.4 1.5 11.3 1.4	cm 318 45 343 44
h m 0238 F 1017 1504 2309	ft 10.2 1.0 12.5 1.5	cm 312 30 381 45	h m <b>20</b> 0225 Sa 0948 1443 2235	ft 9.7 1.2 11.2 1.7	cm 296 38 342 52	h m <b>5</b> 0355 M 1120 1609 2352	ft 9.9 1.4 10.8 1.4	cm 303 44 329 42	h m <b>20</b> 0313 Tu 1041 1524 2309	ft 10.4 1.5 11.0 1.6	cm 318 45 336 50
h m 0325 Sa 1050 1544 2347	ft 9.9 1.2 11.8 1.3	cm 303 36 361 41	h m <b>21</b> 0259 Su 1020 1516 2257	ft 9.6 1.6 11.1 1.8	cm 292 48 337 54	h m <b>6</b> 0433 Tu 1144 1644	ft 9.4 1.9 9.7	cm 286 58 296	h m <b>21</b> 0346 W 1109 1600 2339	ft 10.3 1.9 10.4 1.6	cm 313 59 316 50
h m 0415 Su 1134 1630	ft 9.4 1.6 11.0	cm 287 49 336	h m <b>22</b> 0331 M 1045 1546 2336	ft 9.4 1.7 10.7 1.6	cm 287 51 326 50	h m <b>7</b> 0025 W 0517 1215 ● 1725	ft 1.8 8.7 2.6 8.5	cm 54 266 79 260	h m <b>22</b> 0425 Th 1143 1638 ● 1730	ft 10.0 2.3 9.5	cm 305 70 291
h m 0033 M 0506 1200 1719	ft 1.5 8.8 2.3 9.9	cm 47 269 71 302	h m <b>23</b> 0411 Tu 1118 1622 ● 1707	ft 9.2 2.1 10.2 9.5	cm 281 64 311 289	h m <b>8</b> 0047 Th 0608 1300 1817	ft 2.1 8.0 3.2 7.3	cm 64 243 97 224	h m <b>23</b> 0006 F 0514 1230 ● 1730	ft 2.1 9.5 2.9 8.5	cm 63 289 89 259
h m 0104 Tu 0603 1250 ● 1813	ft 1.9 8.2 2.9 8.8	cm 59 251 88 267	h m <b>24</b> 0004 W 0455 1151 1707	ft 1.8 9.0 2.5 9.5	cm 56 273 76 289	h m <b>9</b> 0131 F 0716 1426 1935	ft 2.6 7.4 3.6 6.4	cm 79 227 109 196	h m <b>24</b> 0049 Sa 0619 1340 1847	ft 2.5 8.9 3.5 7.5	cm 77 272 107 228
h m 0150 W 0710 1400 ● 1803	ft 2.2 7.8 3.3 8.7	cm 66 238 102 265	h m <b>25</b> 0046 Th 0550 1247 ● 1803	ft 2.0 8.7 3.0 8.7	cm 61 265 92 265	h m <b>10</b> 0236 Sa 0849 1610 2114	ft 2.9 7.4 3.4 6.2	cm 89 225 103 189	h m <b>25</b> 0155 Su 0752 1533 2034	ft 3.0 8.6 3.5 7.1	cm 92 263 108 216
h m 0247 Th 0827 1531 2038	ft 2.3 7.7 3.4 7.2	cm 70 235 103 220	h m <b>26</b> 0138 F 0701 1406 1919	ft 2.3 8.5 3.5 8.0	cm 69 260 106 244	h m <b>11</b> 0403 Su 1009 1732 2229	ft 2.9 8.0 2.8 6.7	cm 88 243 85 204	h m <b>26</b> 0338 M 0931 1715 2213	ft 3.1 9.1 3.0 7.6	cm 93 278 90 232
h m 0354 F 0943 1652 2152	ft 2.3 8.1 3.0 7.2	cm 70 247 92 220	h m <b>27</b> 0247 Sa 0824 1547 2050	ft 2.4 8.8 3.4 7.8	cm 74 267 103 237	h m <b>12</b> 0519 M 1102 1830 2318	ft 2.5 8.9 2.3 7.5	cm 76 270 229 229	h m <b>27</b> 0514 Tu 1046 1836 2319	ft 2.6 10.1 2.1 8.6	cm 78 307 63 263
h m 0458 Sa 1040 1756 2250	ft 2.1 8.8 2.6 7.6	cm 64 268 78 231	h m <b>28</b> 0409 Su 0947 1723 2212	ft 2.3 9.4 2.9 8.2	cm 71 288 89 249	h m <b>13</b> 0618 Tu 1143 1913 2357	ft 2.0 9.7 2.1 8.3	cm 62 295 63 254	h m <b>28</b> 0635 W 1141 1940	ft 1.8 11.0 1.4	cm 54 335 43
h m 0554 Su 1125 1850 2334	ft 1.8 9.5 2.2 8.1	cm 56 291 66 247	h m <b>29</b> 0534 M 1055 1840 2317	ft 1.9 10.4 2.2 8.8	cm 57 317 66 269	h m <b>14</b> 0706 W 1220 1951	ft 1.6 10.4 1.9	cm 50 317 57	h m <b>29</b> 0543 W 1111 1841 2332	ft 2.8 9.5 2.2 8.6	cm 84 291 66 261
h m 0645 M 1205 1938	ft 1.5 10.2 1.9	cm 46 311 58	h m <b>30</b> 0642 Tu 1150 1944	ft 1.4 11.3 1.6	cm 42 343 49	h m <b>15</b> 0029 Th 0750 1252 2036	ft 9.1 1.3 10.9 1.7	cm 277 40 332 51	h m <b>30</b> 0732 F 1211 1930	ft 2.2 10.4 1.8	cm 66 316 56
h m 0013 W 0744 1232 ● 2044	ft 9.5 1.0 11.9 1.1	cm 289 29 363 33	h m <b>31</b> 0013 W 0744 1232 ● 2044	ft 9.5 1.0 11.9 1.1	cm 289 29 363 33				h m <b>31</b> 0031 Sa 0828 1248 ● 2045	ft 11.0 1.4 11.8 1.0	cm 335 44 361 32

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wusong (Shanghai), China, 2018

Times and Heights of High and Low Waters

April				May				June						
	Time	Height			Time	Height			Time	Height				
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm			
<b>1</b> Su	0115	11.5 351	<b>16</b> M	0036	11.9 363	<b>1</b> Tu	0120	12.3 374	<b>16</b> W	0038	13.4 407	<b>1</b> F	0157	12.7 386
	0854	1.3 41		0834	1.6 49		0905	2.1 64		0845	1.8 55		0946	2.4 74
	1323	12.0 365		1254	12.0 367		1328	11.5 349		1304	12.2 373		1412	10.8 329
	2133	0.9 28		● 2043	1.6 49		2110	2.0 61		2046	2.0 60		2134	2.6 79
<b>2</b> M	0148	11.6 354	<b>17</b> Tu	0116	12.6 384	<b>2</b> W	0151	12.2 372	<b>17</b> Th	0121	13.9 425	<b>2</b> Sa	0225	12.6 383
	0937	1.2 37		0907	2.0 61		0940	2.0 60		0940	1.4 43		1023	2.8 84
	1402	11.6 353		1324	12.3 374		1403	11.1 339		1338	12.0 367		1444	10.4 317
	2146	1.3 40		2131	1.4 42		2137	2.0 60		2134	1.7 52		2149	3.0 90
<b>3</b> Tu	0221	11.7 357	<b>18</b> W	0145	12.8 390	<b>3</b> Th	0221	12.2 372	<b>18</b> F	0206	13.8 422	<b>3</b> Su	0256	12.2 372
	0959	1.8 55		0943	1.6 49		1004	2.4 73		1016	2.3 70		1046	2.8 84
	1428	11.2 342		1405	12.0 365		1430	10.6 324		1421	11.7 358		1518	9.9 303
	2212	1.8 54		2146	1.7 51		2150	2.4 73		2156	2.2 68		2213	3.3 101
<b>4</b> W	0251	11.4 347	<b>19</b> Th	0222	13.1 398	<b>4</b> F	0248	11.9 362	<b>19</b> Sa	0237	13.5 413	<b>4</b> M	0327	11.7 358
	1035	1.8 56		1033	1.6 49		1038	2.3 71		1049	2.1 64		1119	3.1 94
	1501	10.6 322		1436	11.5 349		1505	10.0 306		1509	11.0 335		1557	9.4 286
	2234	1.8 55		2228	2.1 63		2209	2.8 84		2235	2.5 76		2238	3.6 111
<b>5</b> Th	0320	11.1 338	<b>20</b> F	0302	12.7 387	<b>5</b> Sa	0318	11.5 350	<b>20</b> Su	0326	13.1 399	<b>5</b> Tu	0403	11.1 339
	1050	2.3 70		1051	2.2 67		1100	2.8 84		1138	2.4 72		1152	3.3 100
	1529	9.8 298		1518	10.8 328		1538	9.2 281		1600	10.1 309		1642	8.9 270
	2241	2.3 69		2243	2.2 68		2229	3.1 95		2258	3.2 98		2308	4.2 127
<b>6</b> F	0348	10.5 320	<b>21</b> Sa	0338	12.1 370	<b>6</b> Su	0349	10.8 330	<b>21</b> M	0419	12.1 370	<b>6</b> W	0447	10.4 318
	1125	2.7 83		1136	2.5 76		1138	3.0 92		1228	3.1 93		1238	3.6 109
	1604	8.8 267		1604	9.7 296		1618	8.4 256		1701	9.3 282		1739	8.5 260
	2253	2.8 85		2308	2.9 89		2244	3.6 110		2347	3.8 116		2358	4.7 143
<b>7</b> Sa	0421	9.8 299	<b>22</b> Su	0427	11.3 345	<b>7</b> M	0427	10.1 307	<b>22</b> Tu	0521	11.1 339	<b>7</b> Th	0546	9.8 300
	1152	3.1 95		1222	3.2 97		1217	3.5 107		1327	3.3 102		1336	3.8 116
	1646	7.6 233		1704	8.5 260		1712	7.6 232		1819	8.7 264		1852	8.6 261
	2311	3.3 102		2346	3.6 110		2316	4.2 128		●			●	
<b>8</b> Su	0505	9.0 273	<b>23</b> M	0532	10.3 313	<b>8</b> Tu	0522	9.3 284	<b>23</b> W	0102	4.4 134	<b>8</b> F	0125	5.0 153
	1247	3.6 110		1334	3.5 108		1320	3.8 117		0643	10.2 312		0702	9.5 289
	1747	6.7 203		1829	7.6 233		1827	7.2 219		1442	3.3 101		1442	3.8 117
	● 2344	4.0 123		●			●			1956	8.7 265		2009	9.1 278
<b>9</b> M	0615	8.2 250	<b>24</b> Tu	0104	4.3 132	<b>9</b> W	0031	4.8 146	<b>24</b> Th	0246	4.4 134	<b>9</b> Sa	0300	4.9 148
	1419	3.8 117		0708	9.5 291		0646	8.8 268		0812	9.9 302		0821	9.6 292
	1930	6.2 188		1512	3.4 105		1441	3.8 116		1558	3.1 94		1549	3.7 112
	2029	7.7 235		2029	7.7 235		2008	7.4 227		2117	9.4 287		2115	10.1 308
<b>10</b> Tu	0127	4.6 140	<b>25</b> W	0311	4.3 130	<b>10</b> Th	0232	4.9 150	<b>25</b> F	0422	3.9 118	<b>10</b> Su	0429	4.3 132
	0807	8.0 245		0851	9.6 294		0819	8.9 272		0928	10.1 307		0929	10.1 307
	1556	3.5 107		1643	2.8 86		1555	3.5 108		1704	2.8 84		1652	3.4 103
	2125	6.8 206		2157	8.7 265		2122	8.4 256		2216	10.3 315		2209	11.3 343
<b>11</b> W	0343	4.3 132	<b>26</b> Th	0449	3.4 105	<b>11</b> F	0403	4.4 134	<b>26</b> Sa	0536	3.1 95	<b>11</b> M	0538	3.6 109
	0933	8.6 263		1006	10.3 313		0929	9.5 291		1026	10.4 317		1024	10.7 326
	1702	3.0 92		1750	2.2 68		1656	3.1 96		1800	2.5 75		1750	3.0 92
	2221	7.9 240		2250	9.9 301		2212	9.6 293		2304	11.2 340		2255	12.3 376
<b>12</b> Th	0459	3.6 111	<b>27</b> F	0601	2.7 82	<b>12</b> Sa	0514	3.7 113	<b>27</b> Su	0636	2.6 78	<b>12</b> Tu	0641	2.9 89
	1026	9.5 291		1100	10.9 333		1021	10.4 316		1114	10.7 327		1113	11.3 344
	1754	2.6 79		1845	1.8 54		1749	2.8 85		1847	2.2 68		1845	2.7 81
	2300	9.1 277		2329	10.9 333		2252	10.8 329		2341	11.8 359		2332	13.2 403
<b>13</b> F	0557	3.0 91	<b>28</b> Sa	0702	2.2 66	<b>13</b> Su	0617	3.1 95	<b>28</b> M	0732	2.2 68	<b>13</b> W	0741	2.3 69
	1108	10.4 318		1141	11.3 345		1105	11.1 339		1156	10.9 333		1159	11.7 357
	1842	2.2 67		1937	1.4 43		1841	2.4 74		1934	2.1 63		1938	2.3 69
	2331	10.2 311		●			2328	11.9 364		●			●	
<b>14</b> Sa	0650	2.5 75	<b>29</b> Su	0013	11.6 354	<b>14</b> M	0713	2.7 82	<b>29</b> Tu	0020	12.3 375	<b>14</b> O	0020	14.0 428
	1143	11.2 341		0748	1.8 56		1143	11.7 356		0805	2.4 74		0840	1.8 54
	1933	1.9 57		1221	11.6 354		1933	2.0 61		1230	11.1 339		1239	11.9 364
	2014	1.8 54		2014	1.6 49		●	2003		●	2032	1.9 59	●	
<b>15</b> Su	0008	11.2 341	<b>30</b> M	0044	11.9 364	<b>15</b> Tu	0011	12.8 390	<b>30</b> W	0054	12.5 381	<b>15</b> F	0108	14.3 436
	0741	2.0 61		0837	1.6 49		0757	2.3 71		0842	2.2 68		0933	1.7 53
	1219	11.8 360		1259	11.5 351		1221	12.2 371		1308	11.1 339		1323	12.1 369
	2005	2.0 61		○	2042	1.6 49	●	2014	2.2 68	2038	2.3 70	2108	2.4 72	
<b>16</b> Su	0138	14.3 436	<b>31</b> Th	0124	12.7 388	<b>16</b> F	0124	12.7 388	<b>31</b> W	0928	2.6 79	<b>16</b> Sa	0131	13.1 398
	0959	2.2 66		1339	11.0 335		1339	11.0 335		1308	11.1 335		0937	2.5 77
	1413	11.8 361		2146	2.4 72		2101	2.6 80						

# Wusong (Shanghai), China, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0209	13.0	396	<b>16</b> M	0218	14.8	450	<b>1</b> W	0239	13.0	396
	0957	2.9	88		1044	1.6	48		1132	2.9	87
	1424	11.0	334		1450	12.0	366		1506	11.5	350
	2139	3.0	92		2228	2.7	83		2219	3.6	109
<b>2</b> M	0234	12.8	390	<b>17</b> Tu	0308	14.1	431	<b>2</b> Th	0312	12.7	386
	1036	2.8	85		1132	2.0	62		1057	3.1	96
	1459	10.7	326		1533	11.7	358		1537	11.4	346
	2158	3.4	103		2258	3.0	92		2243	3.7	114
<b>3</b> Tu	0308	12.5	380	<b>18</b> W	0350	13.3	406	<b>3</b> F	0342	12.1	370
	1056	3.1	93		1152	2.6	78		1134	3.2	97
	1531	10.4	317		1624	11.4	348		1617	11.2	342
	2234	3.5	108		2339	3.5	107		2323	4.2	129
<b>4</b> W	0337	12.0	366	<b>19</b> Th	0436	12.3	374	<b>4</b> Sa	0421	11.4	347
	1133	3.1	95		1236	2.9	87		1158	3.6	109
	1611	10.1	309		1719	10.9	331		1704	11.0	335
	2255	4.0	122								
<b>5</b> Th	0415	11.5	349	<b>20</b> F	0022	4.2	129	<b>5</b> Su	0004	4.8	145
	1201	3.4	104		0528	11.0	336		0511	10.5	319
	1657	9.9	302		1309	3.4	104		1242	3.9	120
	2341	4.4	134		1819	10.3	314		1805	10.8	328
<b>6</b> F	0500	10.8	329	<b>21</b> Sa	0123	4.8	145	<b>6</b> M	0119	5.2	158
	1244	3.6	111		0630	9.7	297		0620	9.5	290
	1753	9.8	299		1357	3.8	116		1340	4.3	131
	○				1931	10.0	304		1924	10.8	329
<b>7</b> Sa	0041	4.9	148	<b>22</b> Su	0250	4.9	149	<b>7</b> Tu	0300	5.2	157
	0559	10.1	308		0750	8.9	270		0755	9.0	275
	1338	3.9	118		1501	4.0	123		1501	4.4	135
	1901	10.0	305		2054	10.1	308		2053	11.4	346
<b>8</b> Su	0203	5.1	155	<b>23</b> M	0424	4.5	138	<b>8</b> W	0440	4.5	136
	0714	9.6	294		0916	8.6	261		0926	9.3	283
	1442	4.0	122		1616	4.0	123		1634	4.0	123
	2016	10.6	322		2203	10.7	326		2205	12.3	376
<b>9</b> M	0340	4.8	145	<b>24</b> Tu	0539	3.8	116	<b>9</b> Th	0557	3.6	110
	0837	9.6	292		1025	8.9	271		1036	10.1	307
	1554	3.9	118		1723	3.8	116		1746	3.5	107
	2125	11.5	349		2254	11.5	349		2303	13.3	406
<b>10</b> Tu	0501	4.2	127	<b>25</b> W	0638	3.2	97	<b>10</b> F	0705	3.0	90
	0949	10.0	305		1116	9.5	289		1128	11.1	337
	1704	3.6	109		1815	3.5	107		1852	3.0	91
	2224	12.5	381		2334	12.2	371		2349	14.1	430
<b>11</b> W	0618	3.5	107	<b>26</b> Th	0731	2.7	83	<b>11</b> Sa	0801	2.4	73
	1048	10.6	323		1156	10.1	308		1217	11.9	362
	1810	3.2	98		1858	3.2	98		1950	2.6	79
	2317	13.4	409		●				●		
<b>12</b> Th	0731	2.6	80	<b>27</b> F	0012	12.8	389	<b>12</b> Su	0025	14.9	454
	1138	11.2	342		0800	2.8	85		0852	1.8	55
	1910	2.9	87		1227	10.7	327		1306	12.4	378
					1943	3.0	90		2042	2.3	69
<b>13</b> F	0006	14.1	430	<b>28</b> Sa	0040	13.1	400	<b>13</b> M	0117	15.1	460
	0831	2.1	65		0841	2.6	78		0946	1.3	39
	1225	11.8	359		1303	11.2	340		1346	12.6	385
	●	2.6	79		●	2025	3.1	93		2134	2.0
<b>14</b> Sa	0042	14.5	442	<b>29</b> Su	0116	13.4	408	<b>14</b> Tu	0206	14.7	448
	0905	2.3	69		0909	3.0	91		1035	1.7	51
	1315	12.1	369		1330	11.5	349		1425	12.9	393
	2052	2.4	73		2050	3.0	90		2213	2.7	81
<b>15</b> Su	0124	15.0	457	<b>30</b> M	0141	13.3	406	<b>15</b> W	0235	14.1	429
	0952	1.8	54		0941	2.8	84		1049	2.2	66
	1404	12.1	370		1404	11.6	353		1514	12.6	384
	2139	2.3	70		2131	2.9	89		2242	2.9	89
<b>31</b> Tu	0215	13.3	405	<b>31</b> F	0215	13.3	405	<b>31</b> Tu	0239	13.0	395
	1004	3.1	95		1044	3.1	95		1036	2.8	85
	1431	11.5	352		1431	11.5	352		1507	12.5	382
	2146	3.2	99		2146	3.2	99		2236	3.4	103

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wusong (Shanghai), China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0328	11.1	338	<b>16</b> Tu	0414	8.5	258	<b>1</b> Th	0046	3.8	116
	1046	3.3	102		1033	4.1	126		0537	8.0	245
	1556	12.4	377		1629	10.2	311		1156	4.7	142
	2337	4.0	121					<b>O</b>	1811	10.2	311
<b>2</b> Tu	0417	9.8	299	<b>17</b> W	0024	4.4	134	<b>2</b> F	0226	3.8	117
	1108	4.1	124		0515	7.3	221		0741	7.8	238
	1651	11.4	347		1055	4.9	150		1412	5.0	152
				<b>O</b>	1738	9.2	280		2004	10.0	306
<b>3</b> W	0039	4.6	141	<b>18</b> Th	0203	4.6	139	<b>3</b> Sa	0401	3.2	98
	0528	8.5	258		0717	6.6	202		0923	8.8	269
	1157	4.9	150		1235	5.7	174		1607	4.1	126
	1818	10.5	320		1943	8.8	269		2128	10.6	324
<b>4</b> Th	0233	4.7	143	<b>19</b> F	0346	4.1	125	<b>4</b> Su	0520	2.5	77
	0738	7.8	239		0930	7.3	224		1020	10.2	312
	1410	5.4	164		1532	5.3	163		1731	3.0	92
	2021	10.5	320		2117	9.4	287		2225	11.4	347
<b>5</b> F	0424	3.9	120	<b>20</b> Sa	0450	3.5	106	<b>5</b> M	0626	2.0	60
	0937	8.8	267		1017	8.6	262		1105	11.4	347
	1616	4.6	140		1644	4.4	135		1835	2.2	66
	2146	11.5	349		2209	10.3	315		2312	11.9	363
<b>6</b> Sa	0542	2.9	88	<b>21</b> Su	0540	2.9	89	<b>6</b> Tu	0705	1.6	50
	1035	10.2	311		1046	9.9	302		1132	12.2	373
	1738	3.4	105		1741	3.6	109		1936	1.5	45
	2242	12.5	380		2247	11.2	342		2350	12.1	368
<b>7</b> Su	0643	2.0	62	<b>22</b> M	0631	2.4	74	<b>21</b> W	0629	2.1	65
	1118	11.6	355		1114	11.1	339		1115	11.7	356
	1842	2.6	79		1834	2.9	87		1847	2.4	72
	2323	13.4	408		2320	12.0	366		2323	11.3	345
<b>8</b> M	0741	1.2	37	<b>23</b> Tu	0701	2.4	72	<b>21</b> Th	0024	12.2	372
	1156	12.5	382		1139	12.1	369		1132	12.2	373
	1939	1.9	57		1931	2.2	67		1936	1.5	45
					2350	12.5	380	<b>O</b>	2044	1.7	51
<b>9</b> Tu	0009	13.7	417	<b>24</b> W	0741	1.9	57	<b>9</b> F	0105	11.8	361
	0833	1.1	35		1214	13.0	396		0845	1.5	47
	1224	13.5	410		1956	2.3	71		1323	13.1	400
		2037	1.2						2133	1.7	53
<b>10</b> W	0032	13.5	412	<b>25</b> Th	0020	13.0	395	<b>10</b> Sa	0134	11.4	347
	0845	1.5	45		0831	1.6	48		0913	2.0	62
	1312	13.5	413		1230	13.5	410		1358	12.8	389
	2100	2.2	67		2042	1.6	50		2145	2.2	67
<b>11</b> Th	0118	13.5	410	<b>26</b> F	0055	12.8	391	<b>11</b> Su	0210	10.9	331
	0934	1.4	43		0843	1.8	55		0935	2.1	63
	1330	13.6	416		1317	14.0	426		1425	12.5	381
	2139	1.9	57		2133	1.6	50		2220	2.6	79
<b>12</b> F	0155	12.7	386	<b>27</b> Sa	0123	12.8	390	<b>12</b> M	0241	10.1	308
	0940	2.0	60		0930	1.6	55		0945	2.5	77
	1417	13.3	405		1340	13.8	422		1456	11.9	363
	2159	2.7	81		2147	1.9	59		2244	2.7	82
<b>13</b> Sa	0225	12.0	365	<b>28</b> Su	0204	12.2	372	<b>13</b> Tu	0316	9.3	282
	0953	2.6	79		0942	2.0	62		0958	3.0	91
	1444	12.7	388		1422	13.9	423		1527	11.2	341
	2236	2.8	85		2236	2.1	64		2318	3.1	95
<b>14</b> Su	0300	11.0	334	<b>29</b> M	0239	11.4	348	<b>14</b> W	0357	8.3	253
	1013	3.1	93		1005	2.6	79		1020	3.5	106
	1517	12.1	370		1503	13.2	402		1606	10.3	314
	2254	3.3	102		2255	2.9	87		2358	3.5	106
<b>15</b> M	0333	9.7	297	<b>30</b> Tu	0322	10.4	317	<b>15</b> Th	0450	7.4	226
	1024	3.5	108		1035	3.0	91		1045	4.1	125
	1548	11.3	343		1545	12.3	376		1658	9.4	286
	2332	3.9	118		2341	3.3	100	<b>O</b>			
<b>31</b> W	0417	9.2	279	<b>31</b> W	0417	9.2	279	<b>16</b> Su	0119	2.9	88
	1055	3.8	117		1055	3.8	117		0629	7.3	222
	1643	11.2	342		1643	11.2	342		1249	4.0	122
									1839	8.5	258

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Zhongjun, Changjiang Approach, China, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 0504 M 1028 1800 2242	ft 1.6 13.6 2.2 11.7	cm 49 414 67 356	h m 0539 Tu 1109 1831 2309	ft 1.7 12.4 2.3 10.7	cm 53 379 71 327	h m 0648 Th 1158 1945	ft 0.9 14.0 1.1	cm 26 426 33	h m 0641 F 1156 1924	ft 1.3 12.8 2.1	cm 40 391 63	
1 M				16				16		1 Th		
1117 1856 O 2330	14.2 1.8 11.9	433 54 362	1142 1901 ● 2344	12.7 2.4 11.1	388 72 337	0011 F 0741 1239 2036	11.8 0.5 14.0 0.9	361 16 427 28	0001 Sa 0720 1225 1950	11.6 1.4 13.0 1.8	355 42 397 56	
2 Tu	0601 1117 ○ 1856	1.2 14.2 1.8	17 W	0621 1142 ● 2344	1.6 12.7 11.1	48 388 337	0011 F 0741 1239 2036	11.8 0.5 14.0 0.9	361 16 427 28	0642 F 1143 1936	0.9 13.6 0.8	28 416 23
3 W	0651 1204 1949	0.9 14.5 1.4	18 Th	0653 1214 1939	1.3 13.0 2.2	41 395 67	0055 Sa 0830 1318 2100	12.0 0.6 13.8 1.3	365 17 420 41	0033 Su 0748 1255 2029	11.9 1.3 13.0 1.9	362 41 396 58
4 Th	0015 0741 1248 2040	11.9 0.8 14.4 1.3	19 F	0015 0733 1245 2007	11.3 1.2 13.0 2.4	344 38 395 72	0134 Su 0852 1355 2136	11.8 1.2 13.2 1.4	360 36 401 44	0104 M 0824 1321 2047	12.0 1.7 12.9 1.7	367 51 392 53
5 F	0100 0828 1329 2120	11.7 1.2 14.1 1.9	20 Sa	0048 0755 1314 2040	11.4 1.5 12.9 2.2	346 47 393 66	0211 M 0929 1428 2154	11.5 1.9 12.3 1.9	349 57 375 59	0135 Tu 0846 1350 2115	12.0 1.9 12.5 2.0	366 57 382 60
6 Sa	0147 0855 1414 2151	11.4 1.5 13.4 2.0	21 Su	0119 0831 1342 2105	11.3 1.7 12.7 2.3	343 53 387 71	0251 Tu 0949 1503 2219	10.9 2.6 11.3 2.4	332 78 344 74	0208 W 0916 1419 2141	11.9 2.4 12.0 2.1	362 74 366 63
7 Su	0231 0935 1456 2232	10.8 2.2 12.5 2.3	22 M	0153 0850 1411 2138	11.1 2.2 12.4 2.3	338 68 377 69	0331 W 1023 1540 ● 2246	10.2 3.4 10.1 3.0	311 105 309 90	0246 Th 0946 1456 2208	11.5 3.0 11.2 2.6	352 90 341 80
8 M	0321 1008 1541 2304	10.2 3.1 11.4 2.8	23 Tu	0228 0925 1445 2207	10.9 2.8 11.9 2.6	331 84 362 78	0422 Th 1106 1630 2326	9.5 4.3 11.0 3.6	290 130 274 110	0333 F 1033 1545 ● 2248	11.0 3.7 10.1 3.2	336 114 308 98
9 Tu	0419 1056 1633 ● 2351	9.6 3.9 10.3 3.1	24 W	0313 0957 1526 2246	10.5 3.3 11.2 2.8	321 102 340 86	0532 F 1231 1746	9.0 4.8 147 8.0	273 147 245	0440 Sa 1141 1658 2354	10.4 4.5 137 3.8	318 137 274 117
10 W	0528 1208 1739	9.2 4.6 9.4	25 Th	0409 1051 1620 ● 2339	10.2 4.0 10.3 3.1	311 123 315 96	0035 Sa 0710 1416 1926	4.0 4.6 123 7.7	123 141 236	0615 Su 1334 1416 2047	10.1 4.6 120	308 141 256
11 Th	0051 0653 1340 1857	3.3 9.2 4.6 8.8	26 F	0521 1210 1736	10.0 4.6 9.5	305 140 291	0208 Su 0833 1538 2047	4.0 9.6 122 3.9	122 293 119	0141 M 0759 1520 2032	3.9 10.6 120 8.2	120 322 117 270
12 F	0200 0809 1502 2011	3.3 9.7 4.2 8.8	27 Sa	0049 0651 1353 1908	3.3 10.2 4.5 9.3	101 311 318 282	0327 M 0929 1636 2139	3.5 3.2 106 9.0	106 321 347 274	0320 Tu 0916 1640 2143	3.3 11.6 8.8	101 353 383 300
13 Sa	0305 0908 1607 2109	3.1 10.4 3.5 9.2	28 Su	0214 0817 1530 2034	3.2 10.9 3.8 9.5	93 333 117 290	0426 Tu 1012 1725 2218	2.8 2.7 8.8 9.8	86 347 83 300	0438 W 1013 1744 2234	2.3 1.8 10.8	71 383 56 330
14 Su	0402 0953 1659 2155	2.7 11.2 3.0 9.7	29 M	0336 0925 1646 2142	2.6 11.9 3.0 10.2	81 363 90 310	0515 W 1049 1803 2254	2.2 12.0 7.2 10.6	67 367 72 323	0352 W 0942 1843 2328	3.5 11.1 6.2 11.2	106 338 82 341
15 M	0451 1032 1745 2234	2.2 11.9 2.6 10.2	30 Tu	0446 1022 1752 2238	1.9 12.9 2.2 10.9	67 392 66 332	0558 Th 1122 1843 2328	1.7 12.6 6.2 11.2	52 383 62 341	0446 Th 1019 1843 2232	2.7 11.9 10.8	82 363 67 329
			31 W	0550 1112 1851 ● 2327	1.3 13.6 1.5 11.5	41 414 47 349						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Zhongjun, Changjiang Approach, China, 2018

Times and Heights of High and Low Waters

April				May				June															
	Time	Height			Time	Height			Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0710 1156 1938	1.2 13.3 0.8	38 404 24	<b>16</b> M ●	0637 1128 1852 2350	1.6 13.1 1.5 13.5	49 400 47 413	<b>1</b> Tu	0722 1200 1927	1.8 12.5 1.7	56 381 51	<b>16</b> W	0651 1138 1855	1.8 12.9 1.6	54 394 50	<b>1</b> F	0031 0754 1241 1939	13.7 2.2 11.6 2.3	417 67 355 70	<b>16</b> Sa	0026 0812 1244 1952	15.4 1.7 12.5 1.9	468 53 380 57
<b>2</b> M	0017 0744 1229 1957	13.0 1.2 12.9 1.2	395 37 394 38	<b>17</b> Tu	0720 1202 1934	1.8 13.2 1.3	54 401 39	<b>2</b> W	0024 0746 1231 1943	13.4 1.8 12.1 1.8	407 56 370 54	<b>17</b> Th	0003 0740 1214 1937	14.7 1.5 12.8 1.5	447 46 390 45	<b>2</b> Sa	0102 0831 1312 1958	13.6 2.3 11.3 2.7	414 70 344 83	<b>17</b> Su	0110 0851 1327 2036	15.2 1.6 12.1 2.1	462 50 369 65
<b>3</b> Tu	0051 0813 1258 2027	12.9 1.7 12.5 1.6	393 52 380 49	<b>18</b> W	0023 0749 1236 1955	13.9 1.7 12.9 1.6	425 51 394 48	<b>3</b> Th	0055 0818 1301 2002	13.3 2.2 11.7 2.2	404 68 357 68	<b>18</b> F	0041 0829 1254 2005	14.8 2.0 12.4 1.9	450 60 379 59	<b>3</b> Su	0131 0855 1347 2029	13.3 2.7 10.8 3.2	405 81 329 98	<b>18</b> M	0154 0939 1416 2112	14.7 1.8 11.6 2.9	447 56 354 87
<b>4</b> W	0119 0839 1325 2038	12.7 1.9 11.8 1.8	388 59 361 56	<b>19</b> Th	0058 0834 1307 2031	14.0 1.7 12.5 1.7	428 52 381 51	<b>4</b> F	0122 0843 1330 2023	13.1 2.4 11.1 2.7	398 73 337 82	<b>19</b> Sa	0121 0854 1336 2039	14.6 2.1 11.8 2.3	446 63 359 70	<b>4</b> M	0204 0930 1424 2048	12.9 3.0 10.3 3.7	392 91 313 113	<b>19</b> Tu	0241 1022 1512 2155	13.9 2.5 11.1 3.5	424 75 338 107
<b>5</b> Th	0148 0900 1354 2050	12.4 2.5 11.1 2.4	377 76 337 74	<b>20</b> F	0132 0858 1345 2048	13.8 2.3 11.8 2.3	422 71 359 69	<b>5</b> Sa	0152 0911 1404 2040	12.7 2.9 10.3 3.2	387 88 315 97	<b>20</b> Su	0204 0939 1423 2111	14.1 2.4 11.0 3.1	430 73 335 93	<b>5</b> Tu	0239 1003 1510 2127	12.3 3.4 9.7 4.4	374 104 297 134	<b>20</b> W	0334 1105 1617 2256	12.9 2.8 10.6 4.3	394 86 324 130
<b>6</b> F	0216 0931 1425 2104	11.9 3.0 10.1 3.1	363 91 308 95	<b>21</b> Sa	0213 0937 1426 2116	13.4 2.8 10.8 3.0	408 84 329 92	<b>6</b> Su	0224 0945 1445 2100	12.1 3.3 9.4 3.9	369 102 288 119	<b>21</b> M	0253 1031 1523 2156	13.3 2.9 10.2 3.8	405 88 310 117	<b>6</b> W	0322 1049 1608 2215	11.6 3.8 9.4 5.0	354 115 286 153	<b>21</b> Th	0435 1202 1733	11.9 3.1 10.4	363 95 318
<b>7</b> Sa	0250 1002 1505 2124	11.2 3.7 9.0 3.9	342 113 275 118	<b>22</b> Su	0300 1025 1523 2154	12.6 3.5 9.7 3.9	384 107 295 119	<b>7</b> M	0304 1031 1538 2137	11.4 3.9 8.7 4.7	347 120 264 143	<b>22</b> Tu	0354 1132 1642 2310	12.3 3.3 9.5 4.6	376 102 291 140	<b>7</b> Th	0420 1148 1721 2338	11.0 4.0 9.4 5.4	335 121 287 164	<b>22</b> F	0016 0546 1306 1855	4.7 11.1 3.3 10.7	144 337 100 327
<b>8</b> Su	0334 1056 1605 ●	10.4 4.4 8.0 4.8	317 134 243 145	<b>23</b> M	0404 1137 1649 ●	11.6 4.0 8.7 4.8	354 122 266 145	<b>8</b> Tu	0400 1137 1657 ●	10.6 4.3 8.2 5.4	323 132 249 165	<b>23</b> W	0511 1245 1817	11.5 3.4 9.6	351 104 293	<b>8</b> F	0533 1254 1839	10.6 4.0 10.0	323 121 304	<b>23</b> Sa	0144 0701 1413 2004	4.6 10.6 3.2 11.4	139 323 97 346
<b>9</b> M	0448 1231 1749 2339	9.6 4.7 7.4 5.4	294 144 225 166	<b>24</b> Tu	0536 1314 1846	10.9 3.9 8.7	332 120 265	<b>9</b> W	0522 1257 1834	10.1 4.3 8.4	307 131 256	<b>24</b> Th	0052 0637 1402 1941	4.7 11.1 3.1 10.3	143 339 94 315	<b>9</b> Sa	0112 0650 1359 1946	5.2 10.6 3.7 11.0	158 324 112 334	<b>24</b> Su	0300 0809 1513 2100	4.0 10.6 3.0 12.1	123 322 91 369
<b>10</b> Tu	0638 1408 1946	9.4 4.3 7.9	288 131 240	<b>25</b> W	0117 0717 1445 2017	4.8 11.0 3.1 9.7	146 334 295 295	<b>10</b> Th	0045 0652 1409 1951	5.5 10.2 3.9 9.4	168 310 285 285	<b>25</b> F	0229 0751 1509 2042	4.1 11.2 2.6 11.4	126 342 80 346	<b>10</b> Su	0235 0757 1500 2041	4.5 11.0 3.2 12.1	136 335 98 368	<b>25</b> M	0404 0906 1605 2146	3.3 10.8 2.8 12.8	102 328 84 389
<b>11</b> W	0156 0804 1515 2047	5.1 10.1 3.6 9.0	156 307 110 273	<b>26</b> Th	0255 0831 1553 2114	3.8 11.5 2.3 10.9	117 352 71 333	<b>11</b> F	0218 0801 1507 2042	4.9 10.7 3.3 10.5	148 327 102 320	<b>26</b> Sa	0340 0850 1605 2130	3.2 11.5 2.2 12.2	99 351 68 373	<b>11</b> M	0342 0853 1556 2129	3.6 11.5 2.8 13.2	110 350 84 401	<b>26</b> Tu	0458 0954 1651 2226	2.8 11.1 2.6 13.3	85 337 78 406
<b>12</b> Th	0312 0859 1605 2126	4.2 10.9 3.0 10.2	129 333 90 310	<b>27</b> F	0409 0926 1650 2200	2.9 12.2 1.7 12.0	88 372 52 365	<b>12</b> Sa	0327 0853 1558 2124	4.0 11.4 2.8 11.7	121 348 85 357	<b>27</b> Su	0440 0939 1653 2213	2.6 11.8 2.0 12.9	79 359 60 393	<b>12</b> Tu	0443 0944 1649 2215	2.8 12.0 2.3 14.1	86 365 70 429	<b>27</b> W	0545 1036 1737 2303	2.3 11.4 2.3 13.7	71 346 71 417
<b>13</b> F	0409 0941 1651 2203	3.3 11.7 2.4 11.3	102 357 73 343	<b>28</b> Sa	0510 1011 1742 2240	2.2 12.6 1.3 12.7	66 385 39 387	<b>13</b> Tu	0425 0938 1647 2205	3.1 12.0 2.3 12.8	96 367 70 389	<b>28</b> W	0534 1021 1738 2252	2.1 11.9 1.8 13.3	64 364 54 405	<b>13</b> Th	0541 1030 1742 2300	2.2 12.3 1.9 14.7	67 376 58 449	<b>28</b> O	0633 1112 1812 2337	2.0 11.6 2.4 13.9	62 353 72 424
<b>14</b> Sa	0500 1018 1737 2238	2.6 12.4 1.9 12.2	79 378 59 372	<b>29</b> Su	0558 1051 1830 2317	1.7 12.8 1.4 13.2	53 389 43 401	<b>14</b> M	0519 1018 1737 2244	2.5 12.5 1.9 13.6	77 382 57 415	<b>29</b> Th	0615 1100 1813 2327	2.1 12.0 2.0 13.5	65 367 60 413	<b>14</b> O	0639 1113 1835 2343	1.6 12.6 1.6 15.2	50 384 48 462	<b>29</b> F	0701 1148 1845	2.2 11.7 2.3	67 358 69
<b>15</b> Su	0548 1055 1821 2313	2.0 12.9 1.8 13.0	62 392 56 396	<b>30</b> M	0642 1127 1851 ●	1.5 12.7 1.3 13.3	46 387 41 406	<b>15</b> Tu	0606 1058 1825 ●	2.1 12.9 1.8 14.3	64 392 56 435	<b>30</b> W	0649 1136 1844	2.0 12.0 1.9	60 365 59	<b>15</b> O	0734 1157 1919	1.3 12.7 1.8	41 386 56	<b>30</b> F	0011 0738 1219 1919	14.0 2.1 11.8 2.4	428 63 359 74
												<b>31</b> Th	0001 0731 1208 1913	13.7 1.9 11.9 2.2	417 58 362 67								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Zhongjun, Changjiang Approach, China, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0041	14.0	426	<b>16</b> M	0055	15.5	473	<b>1</b> W	0113	14.0	427
	0806	2.4	73		0845	1.1	35		0840	2.3	70
	1253	11.7	357		1313	12.7	388		1329	12.4	377
	1944	2.6	78		2033	1.8	55		2027	3.0	92
<b>2</b> M	0111	13.8	421	<b>17</b> Tu	0137	15.0	458	<b>2</b> Th	0141	13.6	416
	0839	2.4	73		0932	1.4	43		0903	2.6	79
	1324	11.5	351		1400	12.5	380		1404	12.2	373
	2010	3.0	90		2104	2.5	77		2050	3.4	103
<b>3</b> Tu	0140	13.5	411	<b>18</b> W	0220	14.2	434	<b>3</b> F	0211	13.2	401
	0904	2.7	83		0954	2.1	63		0935	2.8	85
	1400	11.3	343		1449	12.0	367		1443	12.0	367
	2038	3.3	101		2143	3.2	98		2130	3.9	120
<b>4</b> W	0211	13.1	399	<b>19</b> Th	0303	13.2	402	<b>4</b> Sa	0248	12.4	378
	0937	2.9	87		1033	2.5	77		1003	3.3	100
	1438	10.9	333		1542	11.5	351		1531	11.8	360
	2108	3.9	119		2230	4.1	124		2212	4.7	143
<b>5</b> Th	0246	12.5	382	<b>20</b> F	0351	12.0	365	<b>5</b> Su	0335	11.5	350
	1009	3.2	99		1110	3.2	97		1046	3.8	115
	1523	10.7	327		1644	11.0	336		1635	11.6	354
	2149	4.5	136		2331	4.9	149		2326	5.3	162
<b>6</b> F	0330	11.9	362	<b>21</b> Sa	0450	10.8	328	<b>6</b> M	0443	10.5	321
	1051	3.5	108		1200	3.7	113		1147	4.3	130
	1621	10.6	324		1800	10.8	329		1800	11.7	356
	●	2249	5.0	153							
<b>7</b> Sa	0427	11.2	340	<b>22</b> Su	0053	5.2	159	<b>7</b> Tu	0104	5.3	163
	1146	3.8	116		0606	9.8	300		0616	9.9	303
	1731	10.8	329		1306	4.0	123		1313	4.4	133
					1921	11.1	337		1928	12.3	374
<b>8</b> Su	0012	5.3	162	<b>23</b> M	0225	4.8	147	<b>8</b> W	0242	4.5	138
	0540	10.6	324		0730	9.5	290		0751	10.1	308
	1251	3.9	119		1421	4.0	123		1440	3.8	117
	1850	11.4	347		2030	11.7	357		2040	13.3	405
<b>9</b> M	0145	5.0	151	<b>24</b> Tu	0338	4.0	121	<b>9</b> Th	0359	3.4	104
	0700	10.5	320		0842	9.8	294		0903	10.9	331
	1402	3.7	112		1526	3.7	113		1551	3.1	95
	2000	12.3	376		2122	12.5	381		2138	14.3	436
<b>10</b> Tu	0305	4.2	127	<b>25</b> W	0436	3.1	96	<b>10</b> F	0508	2.4	74
	0813	10.8	329		0935	10.3	315		0959	11.7	358
	1511	3.2	99		1619	3.3	100		1657	2.4	74
	2100	13.4	407		2204	13.2	403		2227	15.2	462
<b>11</b> W	0418	3.3	100	<b>26</b> Th	0526	2.7	81	<b>11</b> Sa	0610	1.7	53
	0914	11.3	345		1015	10.9	333		1048	12.5	382
	1615	2.8	84		1703	2.9	87		1758	1.9	58
	2153	14.3	435		2241	13.8	420		●	2312	15.6
<b>12</b> Th	0528	2.5	77	<b>27</b> F	0602	2.3	70	<b>12</b> Su	0659	1.2	38
	1007	11.9	362		1053	11.5	350		1134	13.1	398
	1716	2.3	70		1745	2.5	75		1850	1.5	46
	2241	15.0	458		2315	14.1	431		2354	15.8	481
<b>13</b> F	0631	1.6	49	<b>28</b> Sa	0641	2.0	62	<b>13</b> M	0747	0.8	25
	1057	12.4	377		1124	11.9	363		1213	13.4	409
	1811	2.0	60		1831	2.2	66		1939	1.3	41
	●	2326	15.5	473		●	2347	14.3	436		
<b>14</b> Sa	0720	1.6	50	<b>29</b> Tu	0716	2.3	69	<b>14</b> W	0034	15.5	473
	1146	12.7	387		1157	12.2	373		0836	0.8	25
	1858	1.7	52		1855	2.3	69		1256	13.5	412
									2022	1.9	58
<b>15</b> Su	0012	15.6	477	<b>30</b> M	0017	14.3	437	<b>15</b> W	0114	15.0	456
	0758	1.3	41		0744	2.1	65		0853	1.6	48
	1231	12.8	389		1227	12.4	377		1337	13.3	404
	1945	1.6	50		1933	2.3	69		2047	2.4	72
<b>31</b> Tu	0045	14.2	433	<b>31</b> F	0813	2.4	72		0836	2.2	67
									1259	12.4	379
									1953	2.6	79

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Zhongjun, Changjiang Approach, China, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0152	12.0	367	16 Tu 0232	9.5	290	1 Th 0359	9.1	277	1 Sa 0427	8.0	243
0847	3.2	98	0841	4.5	137	1011	5.2	159	0013	3.6	111
1426	13.4	408	1500	11.4	347	1650	11.5	350	0540	9.2	280
2139	4.2	127	2229	5.2	157	1658	10.0	306	1211	4.9	148
2 Tu 0239	10.8	329	17 W 0330	8.3	253	0033	4.5	137	1806	11.0	336
0918	4.2	127	0908	5.5	168	0606	8.8	269	16 0454	8.6	262
1524	12.4	379	1612	10.4	317	1231	5.5	169	1059	5.1	156
● 2243	5.0	153	○			1840	11.4	347	1708	9.9	303
3 W 0351	9.4	288	18 Th 0013	5.4	166	0210	3.7	112	0136	3.2	98
1012	5.2	160	0531	7.6	232	0753	9.9	302	0715	9.9	302
1657	11.6	353	1045	6.5	199	1422	4.6	140	1354	4.4	133
1821	10.0	306	2000	12.0	367	2000	12.0	367	1223	6.0	184
4 Th 0038	5.2	159	19 F 0200	4.8	147	0325	2.7	81	1837	10.0	305
0602	8.8	267	0758	8.3	254	0850	11.4	347	0126	2.9	88
1231	5.8	176	1348	6.1	185	1539	3.3	100	2117	11.6	353
1857	11.7	356	1952	10.7	326	2056	12.8	390	2036	11.3	343
5 F 0229	4.2	128	20 Sa 0301	3.9	120	0430	1.7	52	0345	2.0	62
0806	9.7	295	0846	9.6	294	0930	12.7	386	0913	12.0	367
1431	4.7	144	1459	4.9	149	1643	2.3	70	1623	2.9	88
2020	12.7	386	2042	11.6	354	2141	13.3	405	2116	11.9	364
6 Sa 0344	2.9	87	21 Su 0347	3.1	96	0520	1.5	45	0439	1.6	49
0905	11.2	341	0915	11.0	335	1011	13.7	417	0910	11.8	359
1546	3.4	103	1551	3.8	115	1739	1.6	49	1604	3.4	103
2115	13.7	419	2119	12.5	380	2220	13.5	411	2116	11.9	364
7 Su 0446	1.8	55	22 M 0433	2.5	75	0553	1.2	36	0341	2.8	84
0948	12.6	384	0944	12.2	372	1049	14.1	431	0957	12.8	390
1652	2.3	70	1640	2.9	87	1832	1.3	40	1717	2.4	74
2159	14.5	442	2152	13.1	400	2257	13.4	408	2201	11.8	359
8 M 0543	1.0	31	23 Tu 0510	2.2	66	0636	1.0	30	1035	13.2	403
1024	13.7	418	1012	13.3	404	1123	14.3	437	1759	2.2	66
1748	1.6	48	1731	2.1	64	1854	1.8	55	2242	11.8	359
2239	14.8	452	2223	13.6	415	● 2333	13.0	396	2317	11.7	356
9 Tu 0636	0.6	17	24 W 0545	1.7	53	0654	1.5	45	0557	1.5	46
1103	14.4	438	1044	14.1	429	1159	14.2	433	1113	13.5	411
1840	1.0	31	1808	2.0	62	1935	1.9	57	1841	2.0	62
● 2315	14.7	448	2255	13.9	423	○ 2307	13.0	395	● 2317	11.7	356
10 W 0657	1.2	36	25 Th 0633	1.3	41	0637	1.1	35	0532	1.4	44
1140	14.6	444	1115	14.7	447	0724	1.9	59	1046	13.8	421
1924	1.6	50	1844	1.7	53	1228	14.0	427	1824	2.4	72
2351	14.3	435	○ 2326	13.8	422	1953	2.5	75	2254	11.9	364
11 Th 0736	1.0	32	26 F 0652	1.6	49	0003	12.5	382	0636	1.4	44
1214	14.5	442	1149	15.0	457	0724	1.9	59	1127	14.4	438
1943	1.8	55	1932	1.6	49	0741	1.5	45	1907	2.1	65
○ 2357	13.6	416	2357	13.6	416	1255	14.8	450	○ 2340	12.0	367
12 F 0023	13.6	414	27 Sa 0732	1.4	43	0751	2.7	81	0022	11.2	342
0746	1.7	53	1221	15.1	460	1328	13.2	401	0731	1.8	55
1247	14.2	432	1951	2.2	66	2049	3.3	100	1252	13.2	403
2009	2.5	75	○ 2357	13.6	416	2010	11.2	342	2016	2.8	84
13 Sa 0053	12.8	390	28 Su 0031	13.2	401	0137	10.4	316	1054	10.9	331
0800	2.3	71	0745	1.9	58	0809	3.2	99	0747	2.2	66
1316	13.7	419	1257	14.9	453	1400	12.5	380	1321	12.9	394
2036	2.9	87	2034	2.4	73	2124	3.9	118	2044	2.9	89
14 Su 0121	11.8	361	29 M 0104	12.4	379	0215	9.5	289	0126	10.4	316
0816	3.0	90	0810	2.5	76	0831	3.9	120	0857	1.9	59
1345	13.1	400	1334	14.3	437	1438	11.6	354	1425	13.5	412
2058	3.6	110	2059	3.2	97	2206	4.4	134	2114	3.2	99
15 M 0154	10.8	328	30 Tu 0146	11.4	348	0103	11.2	342	0155	11.2	341
0830	3.6	111	0836	3.1	94	0540	8.6	262	0857	1.9	59
1418	12.4	377	1419	13.5	412	1532	10.7	327	1425	13.5	412
2134	4.4	133	2143	3.8	117	2312	4.8	146	2202	2.4	74
16 W 0239	10.2	312	31 W 0907	4.1	125	0239	10.2	312	0247	10.6	323
1519	12.4	379	1519	12.4	379	○ 2329	4.0	122	0941	2.6	78
2250	4.5	136	2250	4.5	136	○			1516	12.6	384

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Ch'ang Chiang Approach, China, 2018

Times and Heights of High and Low Waters

January				February				March			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0300	3.0	91	<b>16</b> Tu	0335	4.0	122	<b>1</b> Th	0426	2.0	61
	0918	15.7	479		0949	14.7	448		0426	3.5	107
	1550	4.2	128		1620	5.0	152	F	1035	15.3	466
	2123	13.5	411		2149	12.7	387		1701	4.1	125
<b>2</b> Tu	0348	2.4	73	<b>17</b> W	0409	3.7	113		2241	13.7	418
	1005	16.4	500		1023	15.1	460	<b>17</b> Sa	0458	3.2	98
	1638	3.7	113	F	1652	4.7	143		1105	15.5	472
	○	2209	13.7	418		2330	14.2	433		1730	3.8
<b>3</b> W	0434	2.0	61	<b>18</b> Th	0442	3.5	107	<b>18</b> Sa	0530	3.1	94
	1050	16.7	509		1054	15.3	466		1134	15.5	472
	1723	3.5	107	F	1723	4.6	140	Su	1759	3.7	113
	2254	13.8	421		2255	13.1	399		2343	14.2	433
<b>4</b> Th	0519	2.0	61	<b>19</b> F	0513	3.5	107	<b>19</b> M	0602	3.2	98
	1134	16.7	509		1125	15.3	466		1202	15.3	466
	1807	3.5	107	F	1753	4.5	137		1829	3.7	113
	2338	13.7	418		2326	13.2	402				
<b>5</b> F	0603	2.3	70	<b>20</b> Sa	0544	3.5	107	<b>5</b> M	0050	13.7	418
	1216	16.3	497		1154	15.2	463		0015	14.2	433
	1850	3.8	116	F	1823	4.5	137	Tu	0636	3.6	110
					2358	13.2	402		1232	14.8	451
<b>6</b> Sa	0023	13.3	405	<b>21</b> Su	0616	3.7	113	<b>6</b> Tu	0132	13.2	402
	0646	3.0	91		1224	15.0	457		0750	4.7	143
	1259	15.6	475	F	1854	4.6	140		1347	13.6	415
	1934	4.3	131			2020	4.7	143		1936	4.2
<b>7</b> Su	0109	12.9	393	<b>22</b> M	0030	13.1	399	<b>7</b> W	0218	12.5	381
	0731	4.0	122		0650	4.1	125		0832	5.9	180
	1342	14.6	445	F	1255	14.5	442	F	1427	12.5	381
	2019	4.8	146		1928	4.8	146	○	2101	5.4	165
<b>8</b> M	0201	12.3	375	<b>23</b> Tu	0108	12.8	390	<b>8</b> Th	0315	11.8	360
	0818	5.1	155		0727	4.7	143		0925	7.0	213
	1429	13.6	415	F	1331	13.9	424	F	1517	11.5	351
	2108	5.4	165		2006	5.0	152		2153	6.1	186
<b>9</b> Tu	0303	11.7	357	<b>24</b> W	0153	12.5	381	<b>9</b> F	0431	11.4	347
	0913	6.2	189		0813	5.4	165		1043	7.7	235
	1523	12.6	384	F	1414	13.1	399		1630	10.7	326
	○	2206	5.8		2053	5.3	162		2307	6.5	198
<b>10</b> W	0420	11.4	347	<b>25</b> Th	0253	12.1	369	<b>10</b> Sa	0601	11.5	351
	1024	7.0	213		0911	6.2	189		1237	7.8	238
	1629	11.9	363	F	1511	12.2	372	F	1801	10.5	320
	2314	6.0	183		2153	5.6	171			2140	6.9
<b>11</b> Th	0543	11.6	354	<b>26</b> F	0416	11.9	363	<b>11</b> M	0036	6.4	195
	1155	7.4	226		1033	6.9	210		0716	12.1	369
	1742	11.5	351	F	1631	11.5	351		1359	7.2	219
					2311	5.6	171		1917	10.8	329
<b>12</b> F	0025	5.8	177	<b>27</b> Sa	0552	12.2	372	<b>26</b> M	0110	5.8	177
	0654	12.1	369		1218	6.9	210		0659	12.9	393
	1319	7.1	216	F	1802	11.3	344		1340	6.5	198
	1848	11.4	347						1913	11.2	341
<b>13</b> Sa	0126	5.4	165	<b>28</b> Su	0036	5.2	158	<b>13</b> Tu	0236	5.2	158
	0749	12.8	390		0714	13.1	399		0853	13.7	418
	1420	6.6	201	F	1347	6.2	189	F	1527	5.7	174
	1944	11.7	357		1920	11.7	357		2057	12.1	369
<b>14</b> Su	0215	4.9	149	<b>29</b> M	0149	4.4	134	<b>14</b> W	0316	4.5	137
	0834	13.5	411		0817	14.2	433		0930	14.4	439
	1506	6.0	183	F	1451	5.2	158		1600	5.1	155
	2031	12.0	366		2023	12.3	375		2135	12.7	387
<b>15</b> M	0257	4.4	134	<b>30</b> Tu	0248	3.4	104	<b>15</b> Th	0352	3.9	119
	0913	14.2	433		0910	15.3	466		1004	15.0	457
	1545	5.4	165	F	1543	4.3	131		1631	4.5	137
	2111	12.4	378		2116	13.0	396		2209	13.3	405
<b>31</b> O	0339	2.6	79	<b>31</b> W	0958	16.1	491				
					1629	3.6	110				
				F	2204	13.6	415				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Ch'ang Chiang Approach, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0441	2.9	88	<b>16</b> M	0417	3.6	110	<b>1</b> Tu	0459	4.1	125
	1035	15.7	479		1009	15.3	466		1037	14.6	445
	1701	2.7	82		1631	3.1	94		1703	3.2	98
	2255	15.5	472		● 2230	15.9	485		2306	15.9	485
<b>2</b> M	0518	3.1	94	<b>17</b> Tu	0455	3.4	104	<b>2</b> W	0534	4.4	134
	1107	15.4	469		1042	15.3	466		1108	14.2	433
	1733	2.8	85		1705	2.9	88		1732	3.6	110
	2329	15.6	475		2306	16.2	494		2337	15.7	479
<b>3</b> Tu	0553	3.6	110	<b>18</b> W	0533	3.5	107	<b>3</b> Th	0606	4.9	149
	1137	14.8	451		1115	15.0	457		1138	13.6	415
	1802	3.2	98		1739	2.9	88		1759	4.1	125
					2342	16.2	494				
<b>4</b> W	0001	15.3	466	<b>19</b> Th	0612	3.9	119	<b>4</b> F	0008	15.3	466
	0626	4.3	131		1150	14.4	439		0638	5.5	168
	1206	14.1	430		1815	3.2	98		1207	13.0	396
	1830	3.8	116						1826	4.7	143
<b>5</b> Th	0032	14.8	451	<b>20</b> F	0021	15.9	485	<b>5</b> Sa	0040	14.7	448
	0658	5.1	155		0654	4.5	137		0711	6.2	189
	1234	13.3	405		1227	13.7	418		1237	12.4	378
	1856	4.5	137		1853	3.8	116		1854	5.4	165
<b>6</b> F	0105	14.1	430	<b>21</b> Sa	0104	15.2	463	<b>6</b> Su	0114	14.1	430
	0730	6.0	183		0742	5.4	165		0747	6.8	207
	1303	12.4	378		1308	12.7	387		1311	11.7	357
	1924	5.3	162		1938	4.6	140		1927	6.1	186
<b>7</b> Sa	0141	13.4	408	<b>22</b> Su	0156	14.4	439	<b>7</b> M	0156	13.4	408
	0807	6.9	210		0840	6.4	195		0832	7.4	226
	1336	11.5	351		1402	11.7	357		1357	11.1	338
	1956	6.1	186		2034	5.6	171		2011	6.9	210
<b>8</b> Su	0228	12.6	384	<b>23</b> M	0307	13.5	411	<b>8</b> Tu	0253	12.8	390
	0857	7.7	235		0958	7.1	216		0935	7.8	238
	1424	10.7	326		1526	10.9	332		1515	10.6	323
	● 2043	7.0	213		● 2154	6.5	198		● 2118	7.5	229
<b>9</b> M	0343	12.0	366	<b>24</b> Tu	0445	13.0	396	<b>9</b> W	0418	12.4	378
	1020	8.2	250		1137	7.1	216		1101	7.8	238
	1603	10.1	308		1728	10.9	332		1709	10.8	329
	2205	7.6	232		2338	6.7	204		2253	7.8	238
<b>10</b> Tu	0528	11.9	363	<b>25</b> W	0618	13.3	405	<b>10</b> Th	0544	12.6	384
	1221	8.0	244		1301	6.3	192		1223	7.2	219
	1807	10.4	317		1858	11.8	360		1830	11.6	354
<b>11</b> W	0004	7.5	229	<b>26</b> Th	0106	6.1	186	<b>11</b> F	0027	7.3	223
	0648	12.4	378		0724	13.9	424		0648	13.1	399
	1333	7.2	219		1358	5.3	162		1320	6.3	192
	1918	11.4	347		1957	13.0	396		1926	12.7	387
<b>12</b> Th	0125	6.8	207	<b>27</b> F	0209	5.3	162	<b>12</b> F	0134	6.5	198
	0742	13.2	402		0813	14.4	439		0737	13.7	418
	1416	6.2	189		1443	4.4	134		1405	5.4	165
	2006	12.5	381		2043	14.1	430		2010	13.8	421
<b>13</b> F	0218	5.8	177	<b>28</b> Sa	0259	4.6	140	<b>13</b> Su	0226	5.6	171
	0824	14.0	427		0854	14.8	451		0820	14.2	433
	1452	5.2	158		1522	3.7	113		1445	4.5	137
	2045	13.5	411		2122	14.9	454		2051	14.9	454
<b>14</b> Sa	0300	4.9	149	<b>29</b> Su	0343	4.1	125	<b>14</b> M	0312	4.8	146
	0901	14.6	445		0931	14.9	454		0900	14.6	445
	1525	4.3	131		1558	3.2	98		1524	3.7	113
	2121	14.5	442		2159	15.5	472		2130	15.8	482
<b>15</b> Su	0339	4.2	128	<b>30</b> M	0422	4.0	122	<b>15</b> Tu	0355	4.3	131
	0935	15.1	460		1005	14.9	454		0939	14.8	451
	1558	3.6	110		1631	3.1	94		1602	3.1	94
	2156	15.3	466		● 2233	15.8	482		● 2210	16.4	500
<b>31</b> Th	0517	5.2	158	<b>31</b> Th	0517	5.2	158	<b>16</b> F	0404	5.1	155
	1044	13.6	415		1044	13.6	415		1011	13.8	421
	1706	4.0	122		1706	4.0	122		1636	3.8	116
	2317	15.8	482						2245	15.9	485
<b>17</b> Su	0006	16.9	515	<b>31</b> Th	0517	5.2	158	<b>17</b> Su	0622	5.8	177
	0644	4.7	143		1147	13.0	396		1147	13.0	396
	1212	13.7	418		1805	4.9	149		1751	3.2	98
	1837	3.7	113								
<b>18</b> M	0053	16.4	500	<b>18</b> M	0131	14.2	433	<b>18</b> M	0131	14.2	433
	0732	5.1	155		0740	5.5	168		0740	5.5	168
	1302	13.2	402		1305	12.7	387		1305	12.7	387
	1925	4.5	137		1932	4.7	143		1951	6.6	201
<b>19</b> Tu	0142	15.6	475	<b>19</b> Tu	0142	15.6	475	<b>19</b> Tu	0142	15.6	475
	0824	5.6	171		0838	6.2	189		0838	6.2	189
	1635	12.7	387		1404	12.0	366		1404	11.4	347
	2021	7.2	219		2029	5.6	171		2046	7.2	219
<b>20</b> W	0238	14.7	448	<b>20</b> W	0258	14.1	430	<b>20</b> W	0318	13.2	402
	0921	6.1	186		0946	6.6	201		1000	7.3	223
	1511	12.3	375		1527	11.4	347		1604	11.4	347
	2121	6.5	198		● 2142	6.5	198		● 2158	7.6	232
<b>21</b> Th	0341	13.9	424	<b>21</b> Th	0343	12.9	393	<b>21</b> Th	0343	12.9	393
	1025	6.3	192		1110	7.0	213		1110	7.0	213
	1635	12.2	372		1731	11.9	363		1731	11.9	363
	2237	7.2	219		2325	7.6	232		1901	13.3	405
<b>22</b> F	0345	13.0	405	<b>22</b> F	0455	13.0	396	<b>22</b> F	0545	13.0	396
	1067	13.0	406		1222	5.6	171		1217	6.4	195
	1333	5.3	162		1839	12.9	393		1839	12.9	393
	1953	14.1	430								
<b>23</b> Sa	0002	7.4	226	<b>23</b> Sa	0059	13.0	396	<b>23</b> Sa	0059	13.0	396
	0559	13.0	396		0913	14.2	433		1238	5.8	177
	1238	5.8	177		1538	3.4	104		1538	3.4	104
	1901	13.3	405		2153	15.7	479				

# Ch'ang Chiang Approach, China, 2018

Times and Heights of High and Low Waters

July				August				September									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 0606 Su 1133 1749	ft 5.8 13.3 4.9	cm 177 405 149	h m 0630 M 1204 1827	ft 4.4 14.4 3.6	cm 134 439 110	h m 0010 W 0641 1219 1836	ft 15.9 5.5 14.1 5.3	cm 485 168 430 162	h m 0051 Th 0724 1315 1935	ft 16.0 4.7 14.7 5.5	cm 488 143 448 168	h m 0042 Sa 0712 1308 1931	ft 15.1 5.3 14.7 6.2	cm 460 162 448 189	h m 0124 16 0755 1410 2033	ft 13.5 6.0 13.8 7.9	cm 411 183 421 241
<b>1</b> Su		<b>16</b> M		<b>1</b> W		<b>16</b> Th		<b>1</b> Sa		<b>16</b> Su							
0003 0636 1205 1820	15.7 5.9 13.1 5.2	0038 0714 1251 1912	16.8 4.7 14.1 4.4	0040 0711 1254 1911	15.5 5.6 13.9 5.8	0129 0803 1402 2020	15.0 5.3 14.0 6.7	0116 0750 1354 2020	14.3 5.7 14.2 7.2	0116 0750 1354 2020	12.4 6.9 13.0 8.8	0124 0835 1511 2137	13.5 210 396 268				
<b>2</b> M		<b>17</b> Tu		<b>2</b> Th		<b>17</b> F		<b>2</b> Su		<b>17</b> M							
0034 0708 1239 1853	15.4 6.1 13.0 5.7	0121 0758 1342 1959	16.0 5.1 13.7 5.4	0112 0746 1334 1952	15.0 5.9 13.7 6.4	0209 0845 1458 2113	13.8 6.0 13.4 7.8	0200 0838 1459 2129	13.3 6.3 13.6 8.0	0200 0838 1459 2129	11.4 7.7 384 277	0302 0933 1643 2329	11.4 235 384 277				
<b>3</b> Tu		<b>18</b> W		<b>3</b> F		<b>18</b> Sa		<b>3</b> M		<b>18</b> Tu							
0107 0743 1318 1931	15.0 6.3 12.7 6.2	0206 0845 1440 2052	15.0 5.6 13.2 6.5	0150 0827 1426 2043	14.3 6.1 13.3 7.2	0257 0936 1612 2229	12.7 6.8 12.9 8.7	0303 0946 1636 2313	12.3 6.8 13.3 8.5	0303 0946 1636 2313	10.9 8.1 393 247	0453 1111 1819	10.9 8.1 393				
<b>4</b> W		<b>19</b> Th		<b>4</b> Sa		<b>19</b> Su		<b>4</b> Tu		<b>19</b> W							
0144 0822 1405 2017	14.5 6.5 12.5 6.7	0256 0937 1549 2156	14.0 6.1 12.8 7.5	0238 0918 1537 2153	13.5 6.4 13.1 7.9	0407 1044 1740	11.9 7.3 12.9	0448 1122 1819	11.7 7.0 13.8	0448 1122 1819	8.6 11.3 238	0116 0637 1251 1923	8.6 344 238 415				
<b>5</b> Th		<b>20</b> F		<b>5</b> Su		<b>20</b> M		<b>5</b> W		<b>20</b> Th							
0230 0910 1509 ● 2116	13.9 6.7 12.3 7.3	0356 1038 1709 2319	13.1 6.4 12.8 8.1	0346 1026 1708 2329	12.7 6.6 13.2 8.1	0015 0538 1211 1857	8.8 11.5 7.3 13.3	0101 0634 1256 1934	7.9 357 6.4 454	0101 0634 1256 1934	7.7 325 12.2 442	0208 0739 1352 2008	7.7 325 12.2 442				
<b>6</b> F		<b>21</b> Sa		<b>6</b> M		<b>21</b> Tu		<b>6</b> Th		<b>21</b> F							
0329 1008 1630 2232	13.3 6.7 12.4 7.7	0506 1147 1824	12.4 6.5 13.2	0515 1148 1835	12.2 6.5 13.9	0141 0658 1325 1953	8.3 11.8 6.9 14.1	0211 0747 1406 2030	6.8 393 5.3 485	0211 0747 1406 2030	6.8 393 162 485	0245 0822 1436 2045	6.8 399 6.2 463				
<b>7</b> Sa		<b>22</b> Su		<b>7</b> Tu		<b>22</b> W		<b>7</b> F		<b>22</b> Sa							
0442 1117 1752	12.9 6.5 13.0	0048 0617 1255 1926	8.1 12.2 6.3 13.8	0107 0641 1309 1944	7.7 12.4 5.8 14.9	0234 0756 1418 2037	7.6 12.3 6.4 14.8	0302 0842 1500 2116	5.6 427 4.4 512	0302 0842 1500 2116	6.0 427 5.5 482	0316 0859 1513 2118	6.0 427 5.5 482				
<b>8</b> Su		<b>23</b> M		<b>8</b> W		<b>23</b> Th		<b>8</b> Sa		<b>23</b> Su							
0001 0558 1227 1901	7.6 12.8 6.0 13.9	0158 0720 1352 2016	7.7 12.3 5.9 14.4	0220 0751 1415 2041	6.8 13.0 5.0 16.0	0313 0842 1500 2114	6.8 13.0 5.7 15.5	0346 0842 1500 2114	4.7 454 3.6 527	0346 0929 1548 2157	4.7 454 110 527	0345 0932 1547 2149	5.3 451 4.9 494				
<b>10</b> Tu		<b>25</b> W		<b>10</b> F		<b>25</b> Sa		<b>10</b> M		<b>25</b> Tu							
0124 0705 1332 1959	7.1 13.0 5.2 15.0	0250 0811 1439 2058	7.1 12.6 5.5 15.0	0315 0847 1510 2130	5.8 13.7 4.1 16.9	0346 0920 1537 2147	6.2 13.7 5.2 16.0	0426 0920 1537 2147	4.0 418 158 488	0426 1011 1632 2235	4.0 15.7 3.3 17.4	0414 1003 1620 2218	4.7 469 4.5 497				
<b>11</b> W		<b>26</b> Th		<b>11</b> Sa		<b>26</b> Su		<b>11</b> O		<b>26</b> W							
0230 0803 1429 2052	6.3 13.4 4.4 16.0	0332 0856 1519 2135	6.6 13.0 5.2 15.6	0403 0937 1559 ● 2215	5.0 14.4 3.4 17.5	0417 0954 1559 2218	5.6 14.3 4.8 16.3	0504 1051 1713 2311	3.6 16.1 3.4 521	0442 1034 1713 2247	4.3 15.8 104 497	0442 1034 1713 2247	4.3 15.8 131 497				
<b>12</b> Th		<b>27</b> F		<b>12</b> Su		<b>27</b> M		<b>12</b> W		<b>27</b> Th							
0325 0856 1521 2140	5.5 13.8 3.7 16.8	0409 0935 1556 2210	6.1 13.4 4.9 15.9	0447 1024 1645 2257	4.3 15.0 3.1 17.7	0446 1027 1643 2248	5.2 14.7 4.6 16.5	0540 1130 1753 2345	3.5 16.2 3.8 16.5	0511 1105 1726 2316	4.1 16.1 4.4 488	0511 1105 1726 2316	4.1 16.1 4.4 488				
<b>13</b> F		<b>28</b> Sa		<b>13</b> M		<b>28</b> Tu		<b>13</b> Th		<b>28</b> F							
0415 0945 1610 ● 2227	4.9 14.2 3.2 17.3	0442 1012 1630 ● 2242	5.8 13.7 4.7 16.2	0528 1107 1729 2337	4.0 15.3 3.1 17.5	0514 1057 1714 2316	5.0 15.0 4.5 16.4	0615 1208 1831 2343	3.8 15.9 4.6 500	0615 1208 1831 2343	3.8 15.9 4.6 500	0540 1136 1800 2345	4.1 16.1 4.7 472				
<b>14</b> Sa		<b>29</b> Su		<b>14</b> Tu		<b>29</b> W		<b>14</b> F		<b>29</b> Sa							
0502 1032 1656 ● 2312	4.5 14.4 3.0 17.5	0513 1045 1702 2313	5.6 13.9 4.7 16.3	0608 1150 1811	4.0 15.4 3.6 110	0542 1127 1745 2343	4.8 15.2 4.6 16.2	0018 1157 1817 1851	15.7 15.2 5.0 5.5	0018 1157 1817 1851	15.7 15.2 4.4 174	0611 1210 1836	4.3 15.9 162				
<b>15</b> Su		<b>30</b> M		<b>15</b> W		<b>30</b> Th		<b>15</b> F		<b>30</b> Sa							
0547 1118 1742 2355	4.3 14.5 3.1 17.3	0543 1117 1733 2342	5.5 14.1 4.8 16.2	0014 0646 1232 0646	16.9 4.2 15.1 4.4	0610 1157 1817 1851	4.8 15.2 5.0 4.4	0050 0721 1325 1848	14.6 5.1 14.6 6.8	0050 0721 1325 1948	14.6 5.1 445 207	0016 0644 1248 1918	14.8 4.7 15.4 6.1				
		<b>31</b> Tu				<b>31</b> F				<b>31</b> F							
		0612 1148 1804	5.5 14.1 5.0		168 430 152	0640 1127 1745	4.82 15.2 4.6	0640 1157 1817 1851	5.0 15.2 4.6 5.5	0640 1157 1817 1851	5.0 15.2 4.6 168						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Ch'ang Chiang Approach, China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0051	13.9	424	<b>16</b> Tu	0122	12.1	369	<b>1</b> Th	0236	11.4	347
	0722	5.3	162		0746	6.7	204		0911	6.6	201
	1334	14.7	448		1420	13.3	405		1600	13.5	411
	2009	7.1	216		2054	8.4	256	<b>O</b>	2254	7.6	232
<b>2</b> Tu	0135	12.9	393	<b>17</b> W	0210	11.2	341	<b>2</b> F	0437	11.1	338
	0811	6.1	186		0834	7.6	232		1050	7.0	213
	1437	13.9	424		1536	12.6	384		1740	13.6	415
<b>O</b>	2121	8.0	244	<b>O</b>	2223	8.9	271				
<b>3</b> W	0240	11.8	360	<b>18</b> Th	0353	10.6	323	<b>3</b> Sa	0025	6.9	210
	0922	6.9	210		0957	8.2	250		0623	11.8	360
	1616	13.4	408		1720	12.6	384		1227	6.6	201
	2308	8.3	253						1853	14.1	430
<b>4</b> Th	0440	11.2	341	<b>19</b> F	0020	8.6	262	<b>4</b> Su	0129	5.9	180
	1106	7.2	219		0559	10.9	332		0729	13.0	396
	1805	13.8	421		1153	8.2	250		1338	5.8	177
					1836	13.1	399		1946	14.7	448
<b>5</b> F	0051	7.6	232	<b>20</b> Sa	0125	7.7	235	<b>5</b> M	0217	4.8	146
	0634	11.9	363		0708	11.9	363		0818	14.2	433
	1245	6.6	201		1312	7.4	226		1432	5.0	152
	1919	14.7	448		1927	13.8	421		2029	15.1	460
<b>6</b> Sa	0156	6.4	195	<b>21</b> Su	0204	6.7	204	<b>6</b> Tu	0258	3.9	119
	0743	13.0	396		0753	12.9	393		0900	15.2	463
	1355	5.6	171		1402	6.6	201		1518	4.4	134
	2012	15.6	475		2007	14.5	442		2108	15.3	466
<b>7</b> Su	0243	5.2	158	<b>22</b> M	0237	5.8	177	<b>7</b> W	0335	3.3	101
	0833	14.3	436		0830	14.0	427		0938	15.9	485
	1448	4.6	140		1443	5.7	174		1600	4.2	128
	2055	16.2	494		2043	15.1	460		2143	15.3	466
<b>8</b> M	0324	4.2	128	<b>23</b> Tu	0308	4.9	149	<b>8</b> Th	0411	3.0	91
	0916	15.3	466		0905	14.9	454		1014	16.3	497
	1534	3.9	119		1520	5.0	152		1639	4.2	128
	2134	16.6	506		2116	15.5	472	<b>O</b>	2217	15.0	457
<b>9</b> Tu	0401	3.5	107	<b>24</b> W	0339	4.2	128	<b>9</b> F	0444	3.0	91
	0955	16.1	491		0938	15.7	479		1048	16.3	497
	1616	3.7	113		1557	4.5	137		1716	4.5	137
<b>O</b>	2210	16.6	506		2148	15.7	479		2250	14.6	445
<b>10</b> W	0437	3.2	98	<b>25</b> Th	0410	3.7	113	<b>10</b> Sa	0516	3.4	104
	1033	16.5	503		1011	16.2	494		1122	16.1	491
	1656	3.7	113		1633	4.2	128		1752	5.0	152
	2243	16.3	497		2219	15.6	475		2321	14.0	427
<b>11</b> Th	0511	3.2	98	<b>26</b> F	0442	3.4	104	<b>11</b> Su	0546	3.9	119
	1108	16.5	503		1044	16.5	503		1155	15.7	479
	1733	4.2	128		1709	4.2	128		1826	5.6	171
	2316	15.7	479		2251	15.4	469		2352	13.3	405
<b>12</b> F	0543	3.5	107	<b>27</b> Sa	0515	3.4	104	<b>12</b> M	0614	4.6	140
	1143	16.2	494		1119	16.6	506		1228	15.1	460
	1809	4.9	149		1747	4.5	137		1900	6.3	192
	2347	14.9	454		2324	14.9	454				
<b>13</b> Sa	0614	4.1	125	<b>28</b> Su	0549	3.6	110	<b>13</b> Tu	0023	12.6	384
	1217	15.7	479		1156	16.3	497		0643	5.3	162
	1845	5.7	174		1828	5.1	155		1303	14.4	439
					2359	14.2	433		1937	7.0	213
<b>14</b> Su	0017	14.0	427	<b>29</b> M	0626	4.1	125	<b>14</b> W	0056	11.9	363
	0643	4.9	149		1236	15.8	482		0715	6.1	186
	1252	15.0	457		1912	5.9	180		1344	13.6	415
	1920	6.7	204						2022	7.6	232
<b>15</b> M	0048	13.1	399	<b>30</b> Tu	0037	13.3	405	<b>15</b> Th	0140	11.2	341
	0713	5.8	177		0708	4.8	146		0757	6.9	210
	1331	14.1	430		1324	15.0	457		1439	12.9	393
	2000	7.6	232		2007	6.8	207	<b>O</b>	2123	8.0	244
				<b>31</b> W	0125	12.3	375		0759	5.7	174
					1427	14.1	430		2118	7.5	229

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kanmen, China, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
1 M	0144	0.8	23	16 Tu	0230	2.4	73	1 Th	0310	-0.7	-20	16 F	0317	1.6	49
M	0812	19.3	588	Tu	0857	17.7	540	Th	0939	20.1	613	F	0941	18.3	559
1409	4.0	121		1449	5.2	158		1533	3.0	91		1534	3.8	117	
2008	18.4	562		2042	16.7	510		2137	18.9	575	●	2132	17.6	536	
2 Tu	0232	-0.2	-6	17 W	0302	1.9	59	2 F	0353	-0.7	-21	17 Sa	0347	1.4	42
901	20.0	611		W	0930	18.1	551	F	1021	20.1	613	Sa	1010	18.5	564
1457	3.6	109		1521	4.8	147		1615	2.8	84		1604	3.4	104	
O	2055	18.8	572	●	2114	17.0	519		2222	18.8	574		2204	17.8	543
3 W	0318	-0.7	-21	18 Th	0333	1.6	50	3 Sa	0434	-0.2	-6	18 Su	0418	1.4	43
W	0949	20.3	620	Th	1001	18.3	557	Sa	1102	19.8	602	Su	1039	18.4	562
1542	3.4	105		1551	4.6	139		1655	2.8	86		1634	3.1	96	
2143	18.8	574		2146	17.2	524		2306	18.4	562		2237	17.8	544	
4 Th	0403	-0.7	-21	19 F	0404	1.6	48	4 Su	0514	0.8	23	19 M	0449	1.7	52
Th	1036	20.2	617	F	1032	18.3	557	Su	1140	19.1	581	M	1108	18.3	557
1627	3.5	107		1622	4.4	134		1735	3.1	96		1707	3.0	60	
2230	18.6	566		2218	17.2	525		2350	17.7	540		2313	17.7	539	
5 F	0448	-0.2	-5	20 Sa	0435	1.7	52	5 M	0553	2.0	62	5 Tu	0521	2.2	67
F	1122	19.8	603	Sa	1103	18.1	553	M	1218	18.1	553	M	1139	17.9	547
1712	3.8	116		Sa	1654	4.3	132	1816	3.7	113	Tu	1741	3.1	93	
2319	18.0	550		Sa	2252	17.1	522		2352	17.3	527		2326	18.1	552
6 Sa	0532	0.8	25	21 Su	0507	2.0	62	6 Tu	0036	16.8	511	6 Tu	0526	2.6	78
Sa	1207	19.1	581	Su	1135	17.9	545	Tu	0634	3.6	109	W	1213	17.4	531
1759	4.3	130		Su	1728	4.4	133		1258	17.1	520	W	1820	3.3	101
				Su	2329	16.8	513		1901	4.5	136				
7 Su	0010	17.3	526	22 M	0541	2.6	78	7 W	0127	15.6	477	22 Th	0038	16.7	508
Su	0618	2.1	65	M	1209	17.5	534	W	0719	5.2	158	W	0637	4.0	123
1253	18.2	554		M	1805	4.5	137	●	1341	15.9	485	Th	1253	16.7	509
1849	4.9	148		●	1954	5.3	162		1906	3.8	115	●	1906	3.8	115
8 M	0105	16.3	497	23 Tu	0010	16.4	499	8 Th	0227	14.6	445	8 F	0135	15.9	485
M	0708	3.7	112	Tu	0619	3.3	101	Th	0815	6.7	204	F	0727	5.3	163
1342	17.2	523		Tu	1247	17.1	520		1435	14.8	451		1345	15.8	481
1947	5.4	166		Tu	1848	4.7	143		2104	6.0	182	●	2006	4.4	134
9 Tu	0206	15.3	467	24 W	0100	15.8	423	9 F	0343	13.9	423	9 F	0249	15.2	464
Tu	0805	5.2	158	W	0702	4.2	129	F	0935	7.8	237	F	0835	6.6	202
1436	16.2	493		W	1331	16.5	502		1544	14.0	426	Sa	1454	15.0	456
O	2055	5.8	178	W	1939	5.0	151		2229	6.1	186		2132	4.7	144
10 W	0318	14.6	445	25 Th	0201	15.2	464	10 Sa	0509	13.9	424	10 Sa	0418	15.1	461
W	0916	6.4	196	Th	0756	5.3	162	Sa	1109	8.0	244	Sa	1015	7.3	221
1537	15.4	470		Th	1427	15.9	485		1705	13.8	420	Sa	1624	14.7	449
2211	5.8	178		Th	2046	5.1	155		2351	5.6	170	Sa	2307	4.2	128
11 Th	0437	14.4	440	26 F	0317	14.9	454	11 Su	0622	14.6	446	11 Su	0545	15.9	486
Th	1036	7.1	215	F	0907	6.2	190	Su	1225	7.5	229	M	1152	6.7	203
1645	15.1	459		F	1535	15.5	472	Su	1816	14.2	434	Th	1749	15.4	468
2325	5.4	165		F	2209	4.7	144								
12 F	0551	14.8	452	27 Sa	0442	15.2	463	12 M	0051	4.6	141	12 Tu	0025	3.0	90
F	1150	7.1	215	Sa	1038	6.6	201	M	0718	15.6	476	Tu	0655	17.3	526
1750	15.1	460		Sa	1650	15.6	474		1318	6.7	203		1301	5.4	166
				Sa	2329	3.8	115		1909	15.0	456		1857	16.5	504
13 Sa	0025	4.7	142	28 Su	0601	16.2	494	13 Tu	0136	3.6	111	13 W	0124	1.6	48
Sa	0652	15.6	475	Su	1202	6.1	187	Tu	0801	16.6	506	W	0751	18.5	565
1249	6.7	203		Su	1801	16.1	491		1359	5.8	177		1353	4.2	127
1845	15.5	471							1951	15.8	481		1954	17.7	540
14 Su	0114	3.8	116	29 M	0036	2.4	74	14 W	0213	2.8	84	14 Tu	0107	4.4	135
Su	0740	16.4	500	M	0706	17.5	534	W	0837	17.4	531	W	0730	16.3	497
1336	6.1	187		M	1307	5.2	160		1433	5.0	153		1333	5.8	177
1930	15.9	485		M	1904	17.0	517		2027	16.5	504		1926	15.5	473
15 M	0154	3.1	93	30 Tu	0134	1.0	32	15 Th	0246	2.1	63	15 Th	0147	3.4	103
M	0821	17.1	522	Tu	0802	18.7	571	Th	0910	18.0	549	Th	0807	17.3	526
1415	5.6	171		Tu	1402	4.3	131		1504	4.4	133		1408	4.7	144
2008	16.3	498		Tu	1959	17.8	544		2100	17.1	522		2004	16.6	506
31 W	0224	0.0	-1	31 O	0224	19.7	599					31 O	0239	1.1	33
W	0852	19.7	599	O	1449	3.5	107					Sa	0855	19.4	590
O	2049	18.5	565	O	2049	18.5	565					O	1458	2.0	60
												O	2112	19.1	582

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kanmen, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0317	1.2	37	<b>16</b> M	0258	2.2	66	<b>1</b> Tu	0329	3.1	94
	0930	19.2	586		0904	18.7	569		0308	2.8	85
	1533	1.6	49		1514	1.4	44		0905	18.6	566
	2151	19.1	583	●	2125	19.1	583		1526	0.2	6
<b>2</b> M	0352	1.7	52	<b>17</b> Tu	0332	2.1	64	<b>2</b> W	0402	3.6	110
	1002	18.8	574		0935	18.7	571		0942	18.4	562
	1606	1.6	48		1548	0.9	28		1606	0.0	1
	2227	18.8	574		2203	19.3	589		2232	19.7	600
<b>3</b> Tu	0426	2.5	75	<b>18</b> W	0406	2.4	72	<b>3</b> Th	0435	4.2	128
	1032	18.2	556		1007	18.5	565		1023	18.0	105
	1639	1.8	56		1624	0.7	22		1648	0.3	9
	2302	18.3	558		2243	19.2	586		2319	19.3	588
<b>4</b> W	0459	3.4	103	<b>19</b> Th	0443	2.9	89	<b>4</b> F	0508	4.9	149
	1102	17.6	536		1042	18.1	552		1108	16.6	505
	1712	2.3	71		1701	0.9	28		1720	2.7	82
	2338	17.6	537		2326	18.8	573		2352	17.2	524
<b>5</b> Th	0532	4.4	134	<b>20</b> F	0523	3.8	115	<b>5</b> Sa	0543	5.7	173
	1133	16.8	511		1121	17.5	532		0602	5.0	152
	1746	3.1	93		1743	1.5	46		1200	16.6	506
									1826	2.0	62
<b>6</b> F	0017	16.8	511	<b>21</b> Sa	0015	18.1	551	<b>6</b> Su	0034	16.4	501
	0607	5.5	169		0608	4.9	148		0700	5.8	177
	1207	15.8	482		1207	16.5	504		1304	15.7	479
	1823	4.0	123		1832	2.5	76		1926	3.2	99
<b>7</b> Sa	0103	15.8	481	<b>22</b> Su	0115	17.2	523	<b>7</b> M	0123	15.6	477
	0649	6.8	206		0703	6.1	185		0715	7.4	225
	1248	14.7	449		1305	15.5	471		1304	14.2	432
	1909	5.2	157		1934	3.7	112		1931	5.5	168
<b>8</b> Su	0159	14.8	451	<b>23</b> M	0227	16.4	499	<b>8</b> Tu	0225	15.0	457
	0747	7.9	240		0820	7.0	214		0831	7.9	242
	1341	13.7	417		1428	14.6	444		1414	13.5	410
	2015	6.2	189	●	2057	4.6	140	●	2047	6.3	192
<b>9</b> M	0314	14.2	432	<b>24</b> Tu	0348	16.1	491	<b>9</b> W	0337	14.8	450
	0923	8.5	259		1002	7.0	214		0958	7.8	237
	1504	12.9	394		1607	14.6	444		1545	13.4	408
	2151	6.7	203		2232	4.6	141		2214	6.4	194
<b>10</b> Tu	0443	14.2	434	<b>25</b> W	0507	16.5	504	<b>10</b> Th	0450	15.1	460
	1057	8.1	248		1125	6.0	184		1110	6.9	210
	1646	13.1	400		1731	15.5	471		1707	14.1	431
	2319	6.2	190		2349	4.0	122		2326	5.8	177
<b>11</b> W	0554	15.0	458	<b>26</b> Th	0612	17.3	528	<b>11</b> F	0548	15.8	483
	1207	7.1	215		1227	4.7	143		1206	5.6	172
	1759	14.1	431		1836	16.6	507		1808	15.4	469
									1249	3.5	107
<b>12</b> Th	0023	5.2	160	<b>27</b> F	0048	3.2	99	<b>12</b> Sa	0023	4.9	150
	0645	16.0	489		0705	18.0	550		0635	16.7	510
	1255	5.7	175		1316	3.4	105		1251	4.2	129
	1851	15.4	470		1930	17.7	540		1857	16.7	509
<b>13</b> F	0109	4.2	127	<b>28</b> Sa	0136	2.7	83	<b>13</b> Su	0109	4.1	124
	0726	17.0	519		0749	18.5	563		0715	17.5	534
	1333	4.5	136		1357	2.5	76		1331	2.9	88
	1934	16.7	509		2015	18.4	562		1941	17.9	546
<b>14</b> Sa	0148	3.2	99	<b>29</b> Su	0217	2.6	78	<b>14</b> M	0150	3.3	102
	0801	17.8	543		0826	18.5	565		0752	18.1	552
	1407	3.2	99		1434	1.9	57		1410	1.7	51
	2012	17.8	542		2055	18.8	573		2023	18.8	574
<b>15</b> Su	0223	2.6	78	<b>15</b> M	0250	2.9	89	<b>29</b> F	0249	3.5	107
	0833	18.4	560		0900	18.4	560		0832	17.5	532
	1441	2.2	68		1509	1.6	48		1447	1.9	57
	2049	18.6	567	○	2132	18.8	574	○	2115	18.4	561
<b>16</b> Sa	0418	3.7	112	<b>30</b> W	0308	4.3	130	<b>16</b> F	0334	3.5	106
	1012	18.2	556		0926	18.4	562		0926	18.4	562
	1639	-0.2	-5		1554	1.8	55		1553	-0.4	-13
	2313	19.8	603		2223	18.2	555		2223	20.1	612
<b>17</b> Su	0505	4.0	123	<b>31</b> Th	0342	4.5	137	<b>17</b> M	0934	17.1	520
	1102	17.8	543		1554	1.8	55		1554	1.8	55
	1726	0.5	16		2223	20.1	612		2223	18.2	556

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kanmen, China, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0432	5.1	156	<b>16</b> M	0453	3.5	107	<b>1</b> W	0517	4.7	143
	1018	16.9	514		1055	18.7	569		1217	18.2	555
	1644	2.3	69		1713	0.4	11		1817	3.6	109
	2312	18.0	549		2346	19.9	606		2350	18.1	551
<b>2</b> M	0505	5.2	160	<b>17</b> Tu	0539	3.8	116	<b>2</b> Th	0552	4.8	146
	1052	16.7	509		1147	18.1	553		0642	4.3	130
	1718	2.7	82		1759	1.5	46		1309	17.2	523
	2346	17.7	539						1903	5.2	160
<b>3</b> Tu	0541	5.5	167	<b>18</b> W	0032	19.1	583	<b>3</b> F	0024	17.7	538
	1130	16.4	499		0627	4.2	129		0121	17.2	523
	1754	3.3	101		1243	17.4	530		0733	5.2	157
					1847	3.0	90		1409	16.1	491
<b>4</b> W	0022	17.3	526	<b>19</b> Th	0119	18.2	554	<b>4</b> Sa	0104	17.1	522
	0621	5.8	176		0720	4.8	145		0717	5.2	159
	1213	15.9	486		1343	16.5	504		0839	5.9	181
	1834	4.1	124		1941	4.5	138		1522	15.4	468
<b>5</b> Th	0103	16.8	512	<b>20</b> F	0211	17.2	524	<b>5</b> Su	0154	16.5	504
	0706	6.0	183		0821	5.3	161		0815	5.4	165
	1305	15.5	471		1450	15.8	482		1442	15.7	479
	1920	4.9	150		2044	5.9	181		2037	6.7	204
<b>6</b> F	0150	16.3	498	<b>21</b> Sa	0309	16.3	497	<b>6</b> M	0256	16.0	488
	0801	6.1	187		0931	5.5	169		0930	5.3	162
	1409	15.1	460		1605	15.4	470		1603	15.8	482
	●	2016	5.7		2200	6.9	211		2201	7.2	220
<b>7</b> Sa	0246	16.0	489	<b>22</b> Su	0414	15.7	479	<b>7</b> Tu	0409	15.9	484
	0909	6.0	182		1044	5.4	166		1050	4.6	141
	1522	15.1	459		1721	15.6	475		1725	16.6	506
	2125	6.3	191		2317	7.2	220		2327	7.0	212
<b>8</b> Su	0347	15.9	486	<b>23</b> M	0522	15.5	473	<b>8</b> W	0524	16.3	497
	1020	5.3	162		1152	5.0	151		1202	3.4	104
	1638	15.6	474		1827	16.2	493		1834	17.9	545
	2243	6.3	193						1315	4.3	132
<b>9</b> M	0451	16.2	494	<b>24</b> Tu	0023	7.0	214	<b>9</b> Th	0037	6.1	186
	1125	4.2	129		0623	15.7	479		0631	17.2	523
	1749	16.6	505		1248	4.2	129		1303	2.0	62
	2353	5.9	181		1921	16.9	516		1933	19.2	586
<b>10</b> Tu	0551	16.7	509	<b>25</b> W	0116	6.5	199	<b>10</b> F	0134	5.1	155
	1224	2.9	89		0713	16.1	491		0728	18.2	554
	1850	17.8	542		1334	3.5	107		1356	0.8	23
					2005	17.6	537		2024	20.3	619
<b>11</b> W	0053	5.3	161	<b>26</b> Th	0159	6.0	184	<b>11</b> Sa	0224	4.1	125
	0646	17.4	529		0754	16.5	504		0820	19.1	581
	1318	1.6	49		1414	2.9	88		1445	-0.1	-2
	1945	19.0	578		2043	18.2	554		2111	21.0	639
<b>12</b> Th	0146	4.6	140	<b>27</b> F	0236	5.6	170	<b>12</b> Su	0310	3.4	103
	0738	18.0	549		0830	16.9	516		0909	19.6	598
	1409	0.5	14		1449	2.4	73		1529	-0.4	-11
	2036	19.9	606		2117	18.6	566		2156	21.2	645
<b>13</b> F	0236	4.0	122	<b>28</b> Sa	0310	5.2	158	<b>13</b> M	0352	2.9	89
	0828	18.5	565		0901	17.3	526		0956	19.8	604
	1456	-0.3	-9		1522	2.1	65		1612	-0.1	-2
	●	2125	20.4		2149	18.7	571		2238	20.9	637
<b>14</b> Sa	0322	3.6	111	<b>29</b> Su	0342	4.9	150	<b>14</b> Tu	0434	2.8	86
	0917	18.9	575		0932	17.5	534		1043	19.6	598
	1543	-0.6	-18		1554	2.1	63		1653	0.8	24
	2213	20.6	628		2219	18.8	572		2318	20.3	619
<b>15</b> Su	0408	3.5	106	<b>30</b> M	0413	4.7	144	<b>15</b> W	0515	3.1	93
	1006	18.9	576		1004	17.7	538		1129	19.1	581
	1628	-0.4	-11		1625	2.2	67		1734	2.0	62
	2300	20.4	622		2248	18.7	569		2357	19.4	592
<b>31</b> Tu	0444	4.7	142	<b>31</b> F	1037	17.6	537		1131	18.2	555
					1657	2.6	78		1738	3.9	120
					2318	18.4	561		2347	18.3	557

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

Kanmen, China, 2018

## Times and Heights of High and Low Waters

October					November					December				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time
h m 1 M 0616 3.7 112	ft cm 1250 17.7 539	h m 16 Tu 0034 15.8 481	ft cm 1347 15.9 485	h m 1 Th 0145 15.5 472	ft cm 0814 5.1 156	h m 16 F 0159 14.0 427	ft cm 1509 16.9 516	h m 1 Sa 0308 15.3 467	ft cm 0827 6.9 211	h m 16 Su 0923 5.1 156	ft cm 1518 15.3 467	h m 16 M 0229 14.0 428	ft cm 1556 17.1 521	h m 16 Tu 0837 6.5 199
1840 6.6 200		1347 8.8 267		2120 7.9 240		2144 8.4 257		1556 6.1 187		1520 15.4 469		2147 7.1 216		1520 15.4 469
12 Tu 0045 16.7 509		17 W 0129 14.6 446		2034 15.2 463		0329 13.8 420		0432 15.7 478		0432 15.7 478		0349 14.1 429		0957 6.8 207
1359 4.6 140		1500 15.2 464		0951 5.4 164		0956 7.1 217		1044 5.2 159		1044 5.2 159		1057 6.8 207		1624 15.5 473
1945 7.8 238		2113 9.3 283		1629 17.3 526		1632 15.6 474		1704 17.3 528		1704 17.3 528		1624 15.5 473		2254 6.2 188
1 W 0152 15.6 477		18 Th 0253 13.8 422		0454 15.9 486		0455 14.4 440		0544 16.5 504		0544 16.5 504		0505 14.8 450		1109 6.5 199
0828 5.4 166		0938 7.4 225		1114 4.8 146		1109 6.7 203		1151 5.0 152		1151 5.0 152		1109 6.5 199		1723 16.0 487
1524 16.5 504		1626 15.3 466		1739 18.1 551		1733 16.2 495		1803 17.7 540		1803 17.7 540		1723 16.0 487		2350 4.9 150
2126 8.4 255		2245 8.8 269		2357 5.4 166		2352 6.3 192						1814 16.7 508		
4 Th 0330 15.2 464		19 F 0435 14.0 427		0604 17.3 526		0557 15.6 475		0025 3.9 118		0644 17.5 533		0608 15.9 484		1208 5.9 181
1009 5.4 165		1103 7.0 213		1217 4.0 121		1206 5.9 180		1246 4.7 143		1821 17.1 521		1208 5.9 181		1814 16.7 508
1653 17.1 521		1738 16.0 489		1834 19.0 578		1821 17.1 521		1852 18.0 550						
2307 7.6 231		2352 7.7 235												
5 F 0506 16.0 487		20 Sa 0548 15.0 458		0048 4.0 122		0037 4.9 150		0111 2.9 88		0646 16.9 515		0039 3.5 108		0700 17.1 522
1134 4.5 136		1206 6.1 186		0700 18.5 564		1252 5.1 155		0734 18.3 557		1322 4.5 137		0700 17.1 522		1259 5.2 160
1804 18.3 558		1830 17.1 520		1308 3.3 102		1901 17.9 545		1332 4.5 137		1936 18.2 555		1259 5.2 160		1900 17.3 528
6 Sa 0016 6.1 185		21 Su 0039 6.4 195		0132 2.8 86		0115 3.6 110		0153 2.2 67		0729 18.1 551		0123 2.2 68		0747 18.3 557
0617 17.4 530		0639 16.3 498		0748 19.5 593		1331 4.4 134		0818 18.8 572		1414 4.5 137		0123 2.2 68		1345 4.6 141
1237 3.2 97		1253 5.1 156		1351 3.1 93		1937 18.5 563		2014 18.2 554		1451 4.6 140		0123 2.2 68		1943 17.9 545
1900 19.6 597		1910 18.0 549		2000 19.8 604										
7 Su 0109 4.5 137		22 M 0117 5.1 156		0211 2.0 62		0152 2.4 74		0230 1.8 55		0809 19.0 580		0206 1.1 33		0833 19.2 585
0714 18.9 575		0721 17.6 536		0831 19.9 608		1331 3.1 96		0858 19.0 578		1409 3.9 119		0206 1.1 33		1428 4.2 127
1328 2.2 66		1330 4.2 129		1431 3.1 96		1937 18.9 576		2049 18.0 549		2012 18.9 576		0206 1.1 33		2025 18.3 558
1946 20.5 624		1944 18.8 572		2037 19.7 600										
8 M 0153 3.2 97		23 Tu 0150 4.0 121		0247 1.6 50		0228 1.5 45		0306 1.7 51		0849 19.7 601		0249 0.2 7		0918 19.8 604
0802 19.9 608		0758 18.6 568		0911 20.0 610		1446 3.7 112		0935 18.9 577		1446 3.7 112		0249 0.2 7		1511 3.9 119
1412 1.7 51		1405 3.6 110		1507 3.5 108		2047 19.0 580		1526 4.8 147		2122 17.8 542		0249 0.2 7		2108 18.5 564
2027 20.9 637		2015 19.3 588		2110 19.3 589										
9 Tu 0232 2.3 70		24 W 0222 3.0 91		0322 1.6 49		0304 0.8 25		0339 1.7 53		0929 20.0 611		0332 -0.2 -6		1003 20.0 611
0846 20.5 626		0833 19.4 592		0948 19.8 604		1524 3.7 113		1010 18.7 571		1559 5.1 155		0332 -0.2 -6		1554 3.9 118
1451 1.7 52		1437 3.2 99		1542 4.1 125		2123 19.0 578		2154 17.5 533		2154 17.5 533		0332 -0.2 -6		2152 18.5 563
2104 20.8 635		2046 19.6 597		2142 18.8 574										
10 W 0309 1.8 55		25 Th 0254 2.2 68		0356 1.8 56		0342 0.6 17		0412 2.0 61		1011 20.1 612		0415 -0.2 -6		1049 19.9 607
0926 20.6 629		0908 19.9 606		1024 19.4 590		1024 20.1 612		1045 18.4 562		1603 4.0 123		0415 -0.2 -6		1638 4.1 124
1529 2.2 67		1510 3.2 97		1615 4.8 145		2201 18.7 569		1632 5.4 164		2226 17.1 522		0415 -0.2 -6		2239 18.2 555
2138 20.4 622		2115 19.6 598		2214 18.2 556										
11 Th 0345 1.7 53		26 F 0326 1.7 52		0429 2.3 70		0423 0.7 20		0446 2.4 74		1055 19.8 603		0500 0.3 8		1137 19.5 595
1005 20.3 620		0944 20.1 612		1101 18.8 572		1644 4.6 139		1120 18.0 549		1644 4.6 139		0500 0.3 8		1725 4.4 134
1604 3.0 92		1543 3.4 103		1649 5.5 167		2244 18.1 553		1706 5.8 176		2301 16.6 507		0500 0.3 8		2329 17.7 539
2210 19.8 602		2146 19.4 592		2246 17.6 535										
12 F 0419 2.0 62		27 Sa 0400 1.5 46		0429 2.3 70		0423 0.7 20		0446 2.4 74		1137 19.5 595		0547 1.1 35		1226 18.9 576
1043 19.8 602		1021 20.0 609		1139 18.0 550		1055 19.8 603		1157 17.5 533		1730 5.3 161		0547 1.1 35		1816 4.9 149
1639 4.0 123		1617 3.8 117		1724 6.3 191		1644 4.6 139		1743 6.3 191		2331 17.4 530		0547 1.1 35		2329 17.7 539
2242 19.0 578		2219 19.0 580		2322 16.7 510										
13 Sa 0454 2.6 80		28 Su 0436 1.6 49		0539 3.9 118		0554 2.1 65		0556 3.9 118		1238 16.8 513		0025 16.9 516		0638 2.4 72
1122 19.0 578		1102 19.6 597		1221 17.3 526		1238 18.5 563		1238 16.8 513		1826 6.8 207		0025 16.9 516		1319 18.1 552
1714 5.2 157		1655 4.6 139		1804 7.2 218		1824 6.1 186		1826 6.8 207		1914 5.3 163		0025 16.9 516		1914 5.3 163
2316 18.0 549		2256 18.4 561												
14 Su 0529 3.4 105		29 M 0516 2.1 64		0002 15.8 482		0029 16.5 503		0023 15.3 466		0650 3.3 100		0129 16.1 492		0736 3.7 114
1203 18.0 548		1148 19.0 578		0620 4.9 150		1339 17.7 540		1324 16.2 493		1932 6.7 205		0129 16.1 492		1415 17.3 528
1750 6.4 194		1737 5.5 169		1309 16.4 500		1339 17.7 540		1919 7.3 221				0129 16.1 492		2023 5.6 172
2352 16.9 516		2338 17.5 534		1855 8.0 244										
15 M 0608 4.6 139		30 Tu 0601 3.0 91		0051 14.9 453		0142 15.7 478		0118 14.5 443		0712 6.0 184		0242 15.5 472		0844 5.0 153
1250 16.9 516		1242 18.1 552		0712 6.0 184		1408 15.7 478		0730 5.7 175		1446 17.2 525		0242 15.5 472		1516 16.6 507
1833 7.6 232		1828 6.7 203		1408 8.6 262		2059 6.8 208		0209 7.4 227				0209 7.4 227		2140 5.5 169
1319 5.2 157		31 W 0031 16.5 502		0658 4.1 125		1350 17.3 527						0400 15.2 464		1004 5.9 179
1914 5.3 163		0658 4.1 125		1350 17.3 527		1938 7.7 234						1004 5.9 179		1622 16.2 495

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Xiamen, China, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
1 M	0505	1.2	37	16	0556	2.6	78	1 Th	0001	19.4	591	16	0021	17.8	544
M	1133	19.8	603	Tu	1219	18.1	552	F	0637	0.1	3	F	0646	2.0	61
1738	4.8	147		1819	5.9	180	Th	1305	20.4	622	Sa	1306	18.7	569	
2318	19.4	592		2359	17.7	538	●	1906	4.1	125	●	1905	4.8	145	
2 Tu	0556	0.4	11	17 W	0633	2.2	66	2 F	0052	19.8	602	2 Sa	0055	18.2	556
O	1225	20.4	623	W	1254	18.5	564	F	0722	0.2	5	Sa	0718	2.0	62
1831	4.6	139		1853	5.6	170	1350	20.4	623	●	1338	18.8	574		
●							1953	3.8	115	1939	4.4	134			
3 W	0007	19.8	602	18 Th	0035	17.9	546	3 Sa	0141	19.8	602	3 Sa	0048	19.7	601
F	0647	-0.1	-2	Th	0703	2.0	61	Sa	0806	0.6	17	Sa	0750	0.9	26
1314	20.8	633		1327	18.6	568	1432	20.1	614	Su	1406	18.8	574		
1919	4.5	138		1928	5.4	166	2039	3.6	111	2009	4.2	128			
4 Th	0057	19.8	605	19 F	0106	18.0	549	4 Su	0227	19.4	590	4 M	0203	18.5	564
F	0735	0.0	-1	F	0737	2.0	60	Su	0851	1.3	40	M	0823	2.5	76
1402	20.7	631		1357	18.7	571	1509	19.7	599	1437	18.8	573			
2007	4.4	135		1957	5.2	160	2119	3.8	115	2043	3.9	118			
5 F	0147	19.7	599	20 Sa	0141	18.0	550	5 M	0311	18.8	574	5 M	0133	19.8	604
F	0822	0.4	13	Sa	0807	2.2	66	M	0935	2.4	73	Su	0750	1.4	42
1449	20.3	619		1428	18.6	567	1547	19.0	579	1406	19.8	602			
2055	4.4	135		2033	5.1	155	2201	3.9	119	2012	3.0	91			
6 Sa	0237	19.2	585	21 Su	0213	17.9	546	6 Tu	0358	18.0	548	6 Tu	0254	19.1	581
Sa	0908	1.1	34	Su	0841	2.4	73	Tu	1013	3.7	113	W	0935	3.5	106
1534	19.7	601		1458	18.6	566	1624	18.1	553	1541	18.5	565			
2145	4.6	139		2103	5.0	152	2247	4.3	130	2157	3.6	109			
7 Su	0328	18.4	562	22 M	0250	17.8	542	7 W	0447	16.9	516	7 W	0318	18.2	555
Su	0956	2.1	65	M	0914	2.9	89	W	1056	5.0	152	W	0905	3.2	97
1617	19.0	579		1532	18.4	561	Th	1705	17.2	525	Tu	1511	18.7	569	
2236	4.8	146		2143	4.8	147	●	2337	4.8	147	2131	3.1	96		
8 M	0421	17.6	535	23 Tu	0332	17.5	532	8 Th	0542	15.8	482	8 Th	0415	17.3	527
M	1046	3.4	104	Tu	0952	3.4	105	W	1147	6.3	191	W	1023	5.4	164
1704	18.2	555		1607	18.2	554	Th	1753	16.2	495	F	1705	17.4	531	
2327	5.1	156		2225	4.9	148	●	2342	3.9	120	●	2249	4.2	129	
9 Tu	0519	16.6	506	24 W	0417	17.0	518	9 F	0033	5.3	163	9 Sa	0601	16.4	501
Tu	1139	4.8	145	W	1038	4.2	129	M	0650	14.9	455	Sa	1207	6.4	196
1754	17.4	530		1650	17.8	544	1250	7.4	225	1807	16.7	508			
●				2312	4.8	147	1855	15.4	470						
10 W	0025	5.3	163	25 Th	0514	16.5	503	10 Sa	0142	5.6	170	25 Su	0052	4.1	126
W	0626	15.7	480	Th	1131	5.2	157	Sa	0810	14.6	446	Su	0725	16.0	489
1237	6.0	182		1741	17.4	531	1407	7.9	242	1330	7.1	216			
1852	16.7	509					2008	15.0	488	1925	16.2	495			
11 Th	0130	5.4	165	26 F	0013	4.7	144	11 Su	0256	5.3	161	11 Su	0043	5.6	172
Th	0741	15.3	467	F	0624	16.1	491	Su	0929	15.1	460	M	0214	3.9	118
1345	6.8	208		1235	6.0	184	1528	7.8	237	1458	6.9	211			
1955	16.3	497		1843	17.1	521	2119	15.3	466	2049	16.5	504			
12 F	0238	5.1	156	27 Sa	0124	4.4	135	12 M	0400	4.5	138	12 M	0201	5.8	176
F	0857	15.5	472	Sa	0746	16.2	493	M	1032	16.0	487	M	0844	14.6	445
1456	7.1	217		1351	6.6	200	1631	7.1	217	1616	6.1	185			
2058	16.2	495					2217	15.9	485	2203	17.4	530			
13 Sa	0340	4.6	139	28 Tu	0239	3.6	111	13 Th	0451	3.6	111	13 W	0341	5.2	159
Sa	1003	16.1	491	Tu	0908	16.9	515	W	1119	16.9	516	Tu	0954	15.5	471
1601	7.0	213		1511	6.5	198	1718	6.4	195	1717	5.0	152			
2154	16.5	503		2103	17.4	530	2304	16.6	507	2305	18.4	561			
14 Su	0434	3.8	117	29 F	0349	2.6	79	14 W	0535	2.9	88	14 W	0416	4.3	132
Su	1057	16.9	514	F	1021	18.0	548	W	1159	17.8	542	W	1048	16.5	503
1656	6.6	201		1625	5.9	181	1758	5.7	174	2345	17.4	529			
2243	16.9	515		2209	18.0	550									
15 M	0517	3.2	97	30 Th	0451	1.4	44	15 Th	0610	2.4	72	15 Th	0503	3.4	105
M	1142	17.6	536	Tu	1123	19.1	583	W	1236	18.3	559	W	1130	17.5	532
1742	6.2	188		1727	5.2	160	1836	5.2	157						
2324	17.3	526		2308	18.8	573									
31 W	0546	0.6	17	31 O	0546	0.6	17					31 Sa	0608	1.8	55
W	1217	19.9	608	W	1217	19.9	608					Sa	1229	19.5	593
1818	4.6	140		1818	4.6	140					O	1836	2.8	84	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Xiamen, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0040	19.6	597	<b>16</b>	0021	18.8	574	<b>1</b>	0107	19.2	584
	0652	2.1	63	M	0632	3.0	90	<b>W</b>	0711	4.0	122
	1304	19.4	592		1239	18.9	575		1309	18.2	556
	1912	2.5	77	●	1847	2.4	72		1926	2.2	66
<b>2</b> M	0121	19.6	597	<b>17</b>	0101	19.4	591	<b>2</b>	0145	19.0	579
	0733	2.6	80	Tu	0707	3.2	97	<b>W</b>	0747	4.5	136
	1339	19.1	582		1310	18.9	577		1341	17.9	547
	1948	2.4	72		1924	2.0	60		1957	2.2	66
<b>3</b> Tu	0159	19.4	592	<b>18</b>	0141	19.7	599	<b>3</b>	0220	18.6	567
	0806	3.4	103	W	0747	3.5	106	<b>F</b>	0822	5.0	153
	1408	18.6	568		1345	18.9	577		1409	17.5	534
	2024	2.5	76		1959	1.6	50		2034	2.3	70
<b>4</b> W	0237	19.0	578	<b>19</b>	0221	19.6	597	<b>4</b>	0255	18.2	556
	0843	4.1	124	Th	0830	4.0	121	<b>F</b>	0854	5.4	165
	1439	18.2	552		1419	18.7	569		1442	17.2	523
	2056	2.7	81		2042	1.5	45		2105	2.6	80
<b>5</b> Th	0312	18.3	559	<b>20</b>	0304	19.4	590	<b>5</b>	0331	17.7	538
	0917	4.9	150	F	0908	4.6	141	<b>Sa</b>	0933	5.9	179
	1508	17.6	535		1458	18.3	558		1514	16.5	504
	2135	3.0	92		2126	1.8	55		2143	3.1	93
<b>6</b> F	0351	17.6	536	<b>21</b>	0352	18.8	573	<b>6</b>	0409	17.0	518
	0953	5.6	172	Sa	0957	5.2	160	<b>Su</b>	1009	6.4	196
	1543	16.8	513		1544	17.7	538		1553	15.9	484
	2210	3.6	111		2214	2.2	68		2225	3.8	115
<b>7</b> Sa	0433	16.6	506	<b>22</b>	0447	17.9	547	<b>7</b>	0455	16.2	495
	1035	6.5	199	Su	1054	6.0	183	<b>M</b>	1056	6.9	211
	1620	15.8	483		1639	16.8	511		1640	15.1	459
	2254	4.4	134		2313	3.0	90		2311	4.5	137
<b>8</b> Su	0522	15.6	475	<b>23</b>	0553	17.1	521	<b>8</b>	0549	15.6	475
	1124	7.4	227	M	1201	6.6	200	<b>Tu</b>	1155	7.3	223
	1709	14.9	453		1748	15.9	485		1741	14.3	437
	●	2351	5.2	158	●				●		
<b>9</b> M	0628	14.8	452	<b>24</b>	0026	3.6	110	<b>9</b>	0012	5.2	157
	1232	8.0	244	Tu	0710	16.7	509	<b>W</b>	0655	15.3	465
	1819	14.0	428		1324	6.6	201		1306	7.3	223
					1913	15.6	475		1858	14.1	429
<b>10</b> Tu	0102	5.7	173	<b>25</b>	0146	3.8	116	<b>10</b>	0124	5.4	165
	0749	14.7	447	W	0830	16.9	516	<b>Th</b>	0804	15.5	471
	1356	8.0	243		1445	5.8	176		1420	6.7	205
	1947	13.9	424		2041	16.1	490		2018	14.5	443
<b>11</b> W	0222	5.6	170	<b>26</b>	0303	3.6	109	<b>11</b>	0236	5.2	158
	0903	15.2	464	Th	0939	17.6	537	<b>Sa</b>	0906	16.1	491
	1513	7.2	220		1551	4.7	142		1522	5.7	173
	2106	14.6	446		2153	17.1	520		2127	15.6	474
<b>12</b> Th	0332	4.9	149	<b>27</b>	0408	3.2	97	<b>12</b>	0338	4.7	143
	1001	16.2	493	F	1035	18.3	558	<b>Sa</b>	0959	17.0	517
	1610	6.1	185		1647	3.6	109		1612	4.4	135
	2207	15.7	480		2253	18.1	551		2224	16.8	512
<b>13</b> F	0425	4.1	126	<b>28</b>	0502	3.0	91	<b>13</b>	0432	4.2	127
	1049	17.2	524	Sa	1121	18.7	569	<b>Tu</b>	1045	17.7	541
	1656	4.9	149		1734	2.8	85		1657	3.2	99
	2257	17.0	518		2344	18.8	573		2312	18.0	549
<b>14</b> Sa	0509	3.5	106	<b>29</b>	0551	3.1	93	<b>14</b>	0517	3.9	119
	1129	17.9	547	Su	1201	18.8	573	<b>M</b>	1126	18.3	557
	1737	3.9	118		1812	2.4	73		1740	2.3	69
	2342	18.1	551						2359	19.0	579
<b>15</b> Su	0551	3.1	93	<b>30</b>	0028	19.1	582	<b>15</b>	0601	3.7	114
	1204	18.5	565	M	0636	3.4	104	<b>W</b>	1203	18.7	570
	1811	3.1	94		1238	18.6	567		1819	1.6	48
				○	1850	2.1	65	●	1843	0.3	10

# Xiamen, China, 2018

Times and Heights of High and Low Waters

July				August				September							
	Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> Su	0224	18.3	557	<b>16</b> M	0246	20.8	634	<b>1</b> W	0302	18.6	567	<b>16</b> Sa	0331	18.9	576
	0820	5.7	173		0845	4.1	124		0901	5.0	151		0945	3.8	116
	1405	17.2	523		1438	19.4	592		1458	17.8	544		1556	19.3	588
	2028	2.2	67		2056	0.4	11		2113	3.0	92		2206	3.2	99
<b>2</b> M	0257	18.2	554	<b>17</b> Tu	0332	20.4	622	<b>2</b> Th	0335	18.4	561	<b>17</b> F	0421	19.2	584
	0852	5.6	170		0936	3.9	120		0939	4.8	146		1040	3.6	111
	1441	17.1	520		1530	19.1	582		1537	17.7	539		1646	18.3	559
	2059	2.4	74		2146	1.2	37		2149	3.5	107		2253	4.5	138
<b>3</b> Tu	0330	17.9	546	<b>18</b> W	0416	19.8	604	<b>3</b> F	0407	18.2	554	<b>18</b> Sa	0502	18.2	556
	0930	5.6	170		1023	4.0	122		1016	4.8	145		1127	4.2	129
	1517	16.8	511		1622	18.5	563		1618	17.3	528		1739	17.3	526
	2137	2.9	88		2238	2.3	71		2231	4.2	129		2344	5.8	178
<b>4</b> W	0404	17.7	538	<b>19</b> Th	0502	19.1	582	<b>4</b> Sa	0446	17.9	545	<b>19</b> Su	0549	17.2	524
	1005	5.6	171		1114	4.1	124		1100	4.6	141		1220	4.8	145
	1558	16.5	502		1717	17.7	540		1708	17.0	517		1842	16.3	496
	2215	3.5	107		2329	3.6	111		2317	5.1	155				
<b>5</b> Th	0444	17.3	528	<b>20</b> F	0551	18.2	556	<b>5</b> Su	0532	17.5	533	<b>20</b> M	0043	7.0	213
	1050	5.5	169		1208	4.2	128		1154	4.5	138		0647	16.2	495
	1646	16.1	491		1818	16.9	515		1809	16.6	507		1324	5.1	156
	2259	4.1	126									1955	15.7	480	
<b>6</b> F	0527	17.0	517	<b>21</b> Sa	0024	4.9	149	<b>6</b> M	0014	5.9	180	<b>21</b> Tu	0154	7.7	234
	1141	5.4	166		0643	17.4	530		0626	17.1	520		0755	15.7	478
	1742	15.8	481		1308	4.4	133		1257	4.4	133		1436	5.1	155
	2352	4.8	147		1926	16.3	496		1923	16.5	504		2111	15.9	486
<b>7</b> Sa	0617	16.8	511	<b>22</b> Su	0127	5.9	180	<b>7</b> Tu	0126	6.5	199	<b>22</b> W	0311	7.7	234
	1238	5.2	158		0742	16.7	510		0732	16.9	516		0907	15.7	480
	1848	15.7	479		1413	4.4	133		1407	3.9	118		1543	4.6	140
					2038	16.1	491		2043	17.1	520		2216	16.7	508
<b>8</b> Su	0053	5.4	165	<b>23</b> M	0236	6.5	198	<b>8</b> W	0244	6.6	201	<b>23</b> Th	0417	7.2	218
	0714	16.7	509		0845	16.4	499		0843	17.2	523		1009	16.3	496
	1341	4.7	142		1516	4.1	125		1519	3.0	92		1638	3.9	118
	2000	16.1	490		2147	16.4	501		2158	18.1	552		2308	17.6	535
<b>9</b> M	0201	5.8	176	<b>24</b> Tu	0344	6.6	201	<b>9</b> Th	0358	6.2	188	<b>24</b> F	0508	6.5	197
	0815	16.9	515		0946	16.4	500		0952	17.8	542		1059	17.0	519
	1445	3.8	115		1614	3.6	110		1624	1.9	59		1723	3.2	99
	2111	16.9	515		2247	17.1	520		2303	19.3	589		2352	18.3	559
<b>10</b> Tu	0311	5.8	176	<b>25</b> W	0444	6.4	195	<b>10</b> F	0503	5.4	166	<b>25</b> M	0551	5.8	176
	0917	17.3	528		1040	16.7	509		1054	18.7	569		1142	17.7	541
	1546	2.7	83		1704	3.1	93		1721	1.0	29		1801	2.7	82
	2218	18.0	549		2337	17.7	540								
<b>11</b> W	0416	5.5	168	<b>26</b> Th	0535	6.1	186	<b>11</b> Sa	0000	20.4	621	<b>26</b> Su	0028	18.9	575
	1015	17.9	545		1126	17.0	518		0559	4.7	142		0629	5.3	162
	1643	1.6	50		1748	2.6	78		1151	19.5	595		1219	18.3	558
	2318	19.2	584						1814	0.3	9		1839	2.4	74
<b>12</b> Th	0517	5.2	158	<b>27</b> F	0019	18.2	555	<b>12</b> Su	0052	21.1	642	<b>27</b> W	0100	19.3	587
	1110	18.5	563		0614	5.8	178		0650	4.1	124		0659	4.9	148
	1737	0.7	22		1204	17.4	530		1244	20.1	614		1254	18.8	572
					1827	2.3	69		1903	0.1	2		1911	2.4	74
<b>13</b> F	0014	20.1	612	<b>28</b> Sa	0056	18.6	567	<b>13</b> M	0139	21.3	648	<b>28</b> Tu	0132	19.4	590
	0612	4.8	146		0651	5.5	169		0738	3.6	110		0834	4.5	138
	1203	19.0	579		1242	17.7	540		1334	20.4	622		1329	18.9	577
	● 1828	0.2	5		1900	2.1	63		1952	0.3	10		1945	2.6	78
<b>14</b> Sa	0107	20.7	631	<b>29</b> Su	0131	18.8	572	<b>14</b> Tu	0222	21.1	642	<b>29</b> W	0200	19.4	590
	0704	4.5	137		0727	5.4	165		0823	3.5	106		0802	4.3	132
	1255	19.4	590		1315	17.8	544		1421	20.3	619		1401	19.1	581
	1917	-0.2	-5		1935	2.0	62		2039	1.0	31		2016	3.0	90
<b>15</b> Su	0158	20.9	638	<b>30</b> M	0201	18.8	574	<b>15</b> W	0302	20.7	630	<b>30</b> Th	0230	19.3	587
	0755	4.2	129		0756	5.2	159		0905	3.3	100		0836	4.1	124
	1347	19.5	595		1349	18.0	549		1508	20.0	609		1437	19.0	580
	2006	-0.1	-3		2006	2.3	69		2123	2.1	64		2049	3.4	103
<b>31</b> Tu	0233	18.7	571	<b>31</b> F	0832	5.0	153	<b>16</b> Sa	0335	19.1	582	<b>31</b> F	0258	19.1	583
					1423	17.9	546		0907	3.9	120		0907	3.9	120
					2040	2.5	76		1511	18.9	575		1511	18.9	575
									2124	4.0	123				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Xiamen, China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0331	18.8	574	<b>16</b> Tu	0402	17.1	520	<b>1</b> Th	0459	17.0	519
	1000	3.2	98		1043	4.8	145		0509	15.2	464
	1619	18.7	571		1704	16.8	513	<b>F</b>	1145	4.2	127
	2232	6.1	187		2310	7.9	240		1820	17.7	538
<b>2</b> Tu	0415	18.0	550	<b>17</b> W	0452	16.0	487	<b>2</b> F	0040	7.3	221
	1053	3.7	114		1136	5.7	174		0622	16.4	501
	1718	17.9	546		1807	16.0	487		1303	4.7	142
	●	2331	7.1	215		1941	17.7	540		1933	16.1
<b>3</b> W	0514	17.2	524	<b>18</b> Th	0016	8.5	260	<b>3</b> Sa	0203	6.7	203
	1159	4.3	132		0600	15.1	459		0752	16.7	510
	1836	17.3	528		1245	6.4	194		1426	4.5	138
					1924	15.7	479		2053	18.3	559
<b>4</b> Th	0048	7.6	231	<b>19</b> F	0139	8.5	260	<b>4</b> Su	0317	5.4	166
	0635	16.6	506		0728	14.8	451		0910	17.7	538
	1321	4.6	140		1403	6.4	196		1536	4.0	122
	2002	17.5	532		2040	16.1	492		2153	19.2	584
<b>5</b> F	0217	7.3	222	<b>20</b> Sa	0257	7.8	237	<b>5</b> M	0415	4.1	125
	0804	16.8	512		0848	15.4	470		1014	18.8	573
	1445	4.0	123		1514	5.9	179		1635	3.6	110
	2120	18.3	559		2140	17.0	519		2243	19.8	602
<b>6</b> Sa	0337	6.0	184	<b>21</b> Su	0356	6.6	201	<b>6</b> Tu	0504	3.0	91
	0925	17.8	542		0950	16.5	504		1108	19.8	602
	1556	3.1	96		1609	5.1	155		1724	3.6	109
	2223	19.5	593		2226	17.9	547		2324	20.0	609
<b>7</b> Su	0438	4.7	142	<b>22</b> M	0443	5.3	163	<b>7</b> W	0549	2.3	70
	1031	19.1	583		1040	17.7	541		1155	20.3	618
	1654	2.4	73		1656	4.4	133		1806	3.8	115
	2314	20.3	620		2305	18.8	573				
<b>8</b> M	0528	3.6	109	<b>23</b> Tu	0521	4.4	133	<b>8</b> Th	0001	20.0	609
	1124	20.2	615		1121	18.8	573		0629	2.1	65
	1744	2.1	63		1738	3.9	118		1238	20.4	622
	2357	20.8	634		2340	19.4	592	●	1849	4.2	127
<b>9</b> Tu	0609	2.7	83	<b>24</b> W	0556	3.4	104	<b>9</b> F	0036	19.7	601
	1211	20.9	636		1159	19.7	599		0703	2.0	61
	1830	2.3	69		1813	3.8	115		1316	20.2	616
	●								1928	4.9	148
<b>10</b> W	0037	20.8	634	<b>25</b> Th	0011	19.8	602	<b>10</b> Sa	0107	19.3	589
	0651	2.3	69		0632	2.8	84		0741	2.1	64
	1256	21.1	642		1238	20.2	615		1353	19.8	605
	1910	2.9	87	○	1849	3.8	115		2000	5.3	162
<b>11</b> Th	0110	20.5	625	<b>26</b> F	0043	19.9	607	<b>11</b> Su	0140	19.0	578
	0732	2.2	67		0703	2.3	71		0812	2.5	75
	1338	20.9	636		1314	20.4	622		1430	19.3	588
	1950	3.5	108		1928	4.2	127		2038	5.8	176
<b>12</b> F	0144	20.1	612	<b>27</b> Sa	0113	19.8	605	<b>12</b> M	0211	18.4	562
	0805	2.4	73		0740	2.0	61		0848	2.8	85
	1416	20.3	620		1352	20.5	624		1505	18.8	572
	2031	4.4	134		2002	4.5	138		2111	6.3	193
<b>13</b> Sa	0215	19.5	593	<b>28</b> Su	0147	19.7	601	<b>13</b> Tu	0247	17.8	544
	0844	2.6	80		0815	2.0	62		0925	3.5	106
	1455	19.7	601		1433	20.2	617		1544	18.0	550
	2103	5.3	161		2044	5.0	152		2151	6.8	208
<b>14</b> Su	0248	18.9	575	<b>29</b> M	0223	19.3	589	<b>14</b> W	0326	17.0	519
	0919	3.2	99		0856	2.1	64		1003	4.2	129
	1534	18.8	574		1515	19.8	603		1627	17.3	526
	2143	6.1	185		2130	5.7	175		2238	7.4	226
<b>15</b> M	0323	18.0	548	<b>30</b> Tu	0303	18.8	572	<b>15</b> Th	0410	16.1	491
	0957	3.9	118		0944	2.6	79		1050	5.1	156
	1615	17.8	544		1606	19.1	581		1718	16.5	504
	2223	7.1	215		2217	6.5	197	●	2333	7.9	242
<b>31</b> M	0354	18.0	548	<b>31</b> W	0354	18.0	548				
	1039	3.3	102		1039	3.3	102				
	1706	18.2	556		1706	18.2	556				
	2321	7.1	216		2321	7.1	216				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shantou, China, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0514 1.2 37	16 0622 1.4 42	1 Th 0651 0.7 20	16 0136 5.4 166	1 Th 0550 1.0 31	16 0046 5.3 162	M 1327 6.9 210	Tu 1433 6.4 195	F 1504 6.9 211	F 1404 6.6 202	F 1804 4.1 124	F 0608 1.8 55
1715 4.5 136	1826 4.6 139	1854 4.3 130	1510 6.4 194	1 Th 1510 6.4 194	1 Th 1409 6.2 189	1715 4.5 136	1826 4.6 139	1854 4.3 130	1848 4.1 124	1804 4.1 124	1821 3.9 119
2203 6.3 192	2248 5.5 169	2318 6.1 187	● 1912 4.1 125	● 1912 4.1 125	● 1849 3.6 111	2203 6.3 192	2248 5.5 169	2318 6.1 187	1849 3.6 111	1804 4.1 124	1821 3.9 119
2 Tu 0604 0.9 27	17 W 0657 1.3 39	2 F 0742 0.8 24	2 0213 5.5 169	2 Th 0039 5.6 172	17 Sa 0140 5.6 172	2 Tu 1419 7.1 217	W 1502 6.5 199	F 1945 4.0 122	F 1448 6.7 204	Sa 1436 6.2 190	○ 1849 3.6 111
1807 4.6 140	1900 4.5 138	1941 3.9 119	○ 2316 5.6 170	○ 1850 3.7 114	○ 1850 3.7 114	1807 4.6 140	1900 4.5 138	1941 3.9 119	1849 3.6 111	1804 4.1 124	1821 3.9 119
○ 2248 6.4 194	● 2316 5.6 170	● 1941 3.9 119	● 1850 3.7 114	● 1850 3.7 114	● 1850 3.7 114	○ 2248 6.4 194	● 2316 5.6 170	● 1941 3.9 119	● 1849 3.6 111	● 1849 3.6 111	● 1849 3.6 111
3 W 0657 0.7 21	18 Th 0730 1.3 39	3 Sa 0012 6.0 183	18 0251 5.7 174	3 Th 0202 5.8 178	18 Su 0217 5.8 178	3 W 1510 7.3 221	Th 1530 6.6 200	Sa 1628 6.8 208	Sa 1525 6.6 200	Su 1458 6.2 189	18 0217 5.8 178
1901 4.6 141	1929 4.4 135	2038 3.7 113	18 0251 5.7 174	18 0251 5.7 174	18 0251 5.7 174	1901 4.6 141	1929 4.4 135	2038 3.7 113	18 0251 5.7 174	18 0251 5.7 174	18 0251 5.7 174
2334 6.4 194	● 2316 5.6 170	● 1941 3.9 119	● 1850 3.7 114	● 1850 3.7 114	● 1850 3.7 114	2334 6.4 194	● 2316 5.6 170	● 1941 3.9 119	● 1849 3.6 111	● 1849 3.6 111	● 1849 3.6 111
4 Th 0746 0.7 21	19 F 0150 5.6 170	4 Su 0343 5.9 179	19 0335 5.8 177	4 Th 0259 6.0 184	19 M 0255 6.1 186	4 Th 1559 7.3 222	F 0801 1.3 41	Su 0912 1.4 43	Su 0807 1.7 53	M 0749 2.4 72	4 Th 1559 7.3 222
1949 4.5 138	1957 6.6 200	1704 6.7 204	19 0335 5.8 177	19 0335 5.8 177	19 0335 5.8 177	1949 4.5 138	1957 4.3 132	2128 3.3 101	2019 3.0 91	M 1519 6.1 187	4 Th 1559 7.3 222
1957 4.3 132	2032 4.1 126	2226 3.0 91	2128 3.3 101	2128 3.3 101	2128 3.3 101	2032 4.1 126	2226 3.0 91	2226 3.0 91	2105 2.6 79	1952 3.0 90	4 Th 1559 7.3 222
5 F 0026 6.3 193	20 Sa 0242 5.6 172	5 M 0441 5.8 177	20 0411 5.8 177	5 M 0351 6.1 187	20 Tu 0336 6.2 190	5 F 0842 0.8 25	Sa 0834 1.4 44	Tu 0917 2.2 66	Tu 0848 2.1 64	Tu 0820 2.6 80	5 F 0842 0.8 25
1647 7.3 221	1622 6.6 200	1739 6.5 198	20 0411 5.8 177	20 0411 5.8 177	20 0411 5.8 177	1647 7.3 221	2032 4.1 126	2226 3.0 91	2105 2.6 79	1545 6.1 186	5 F 0842 0.8 25
2048 4.3 132	● 2109 3.9 119	2323 2.7 82	21 0459 5.8 178	6 Tu 0438 6.1 186	21 W 0415 6.3 193	2048 4.3 132	● 2109 3.9 119	2323 2.7 82	2151 2.3 69	2110 2.1 63	2048 4.3 132
2150 4.1 124	● 2109 3.9 119	● 2323 2.7 82	21 0459 5.8 178	6 Tu 0438 6.1 186	21 W 0415 6.3 193	2150 4.1 124	● 2109 3.9 119	● 2323 2.7 82	2151 2.3 69	2110 2.1 63	2150 4.1 124
6 Sa 0124 6.1 187	21 Su 0331 5.6 172	6 Tu 0534 5.6 172	21 W 0459 5.8 178	6 Tu 0438 6.1 186	21 W 0415 6.3 193	6 Sa 0928 1.1 34	Su 0906 1.6 48	Tu 1038 2.2 68	Tu 0930 2.5 72	W 0856 2.9 87	6 Sa 0928 1.1 34
1732 7.1 217	1651 6.6 200	1810 6.2 190	21 W 0459 5.8 178	6 Tu 0438 6.1 186	21 W 0415 6.3 193	1732 7.1 217	2109 3.9 119	2323 2.7 82	2151 2.3 69	1608 6.0 184	6 Sa 0928 1.1 34
2150 4.1 124	● 2109 3.9 119	● 2323 2.7 82	21 W 0459 5.8 178	6 Tu 0438 6.1 186	21 W 0415 6.3 193	2150 4.1 124	● 2109 3.9 119	● 2323 2.7 82	2151 2.3 69	2110 2.1 63	2150 4.1 124
7 Su 0230 5.8 178	22 M 0401 5.5 169	7 W 0625 5.4 164	22 Th 0551 5.7 175	7 W 0521 6.0 182	22 Th 0502 6.4 194	1019 1.5 45	M 0942 1.8 54	W 1116 2.7 82	W 1007 2.8 86	W 0937 3.1 94	1019 1.5 45
1813 6.9 211	1719 6.5 199	1839 6.0 182	22 Th 0551 5.7 175	7 W 0521 6.0 182	22 Th 0502 6.4 194	2250 3.7 113	2155 3.6 111	● 2312 2.1 65	● 2241 2.1 63	Th 0937 3.1 94	2250 3.7 113
2250 3.7 113	● 2155 3.6 111	● 2312 2.1 65	22 Th 0551 5.7 175	7 W 0521 6.0 182	22 Th 0502 6.4 194	● 2155 3.6 113	● 2312 2.1 65	● 2312 2.1 65	● 2241 2.1 63	Th 0937 3.1 94	2250 3.7 113
8 M 0534 5.6 171	23 Tu 0451 5.5 168	8 Th 0019 2.4 74	23 F 0649 5.6 172	8 Th 0607 5.8 177	23 F 0551 6.3 193	1102 2.0 60	Tu 1018 2.0 61	Th 1203 3.2 98	Th 1045 3.2 97	F 1657 5.8 178	1102 2.0 60
1854 6.7 204	Tu 1753 6.5 198	1903 5.7 174	23 F 0649 5.6 172	8 Th 0607 5.8 177	23 F 0551 6.3 193	2247 3.3 101	2247 3.3 101	1903 5.7 174	1744 5.7 174	F 2250 1.4 44	2247 3.3 101
2247 3.3 101	● 2342 3.0 91	● 1903 5.7 174	23 F 0649 5.6 172	8 Th 0607 5.8 177	23 F 0551 6.3 193	● 2342 3.0 91	● 1903 5.7 174	● 1903 5.7 174	2333 2.0 60	F 2250 1.4 44	● 2342 3.0 91
9 Tu 0000 3.4 104	24 W 0548 5.4 164	9 F 0125 2.3 69	24 Sa 0012 1.9 57	9 F 0655 5.5 168	24 Sa 0647 6.2 188	0640 5.3 163	W 1059 2.3 71	Sa 1217 3.6 110	Sa 1125 3.6 109	W 2349 1.4 42	0640 5.3 163
1153 2.5 75	1826 6.4 194	1302 3.7 114	24 Sa 0012 1.9 57	9 F 0655 5.5 168	24 Sa 0647 6.2 188	● 1935 6.4 196	2342 3.0 91	1934 5.5 167	1831 5.8 177	● 2349 1.4 42	● 1935 6.4 196
● 1935 6.4 196	● 2342 3.0 91	● 1934 5.5 167	24 Sa 0012 1.9 57	9 F 0655 5.5 168	24 Sa 0647 6.2 188	● 1935 6.4 196	● 2342 3.0 91	● 1934 5.5 167	● 1831 5.8 177	● 2349 1.4 42	● 1935 6.4 196
10 W 0105 3.0 92	25 Th 0654 5.2 160	10 Sa 0229 2.1 64	25 Su 0120 1.6 50	10 Th 0032 2.0 60	25 Su 0754 5.2 160	0755 5.1 155	Th 1146 2.8 85	Sa 1019 4.9 150	Sa 0924 5.5 168	W 1213 4.0 123	0105 3.0 92
1245 3.1 93	Th 1900 6.2 190	1409 4.2 127	25 Su 0120 1.6 50	10 Th 0032 2.0 60	25 Su 0754 5.2 160	2014 6.1 187	● 2001 5.3 162	2001 5.3 162	1326 4.1 125	1216 4.0 121	1245 3.1 93
2014 6.1 187	● 2001 5.3 162	● 2001 5.3 162	25 Su 0120 1.6 50	10 Th 0032 2.0 60	25 Su 0754 5.2 160	● 2001 5.3 162	● 2001 5.3 162	● 2001 5.3 162	1821 5.3 162	1821 5.3 162	2014 6.1 187
11 Th 0215 2.7 82	26 F 0048 2.6 79	11 Su 0333 1.9 58	26 M 0236 1.4 44	11 Th 0134 2.0 60	26 M 0914 5.9 180	0931 5.0 152	W 0814 5.2 158	Su 1152 5.2 159	Su 1095 5.7 175	M 1333 4.3 132	0215 2.7 82
1347 3.6 109	1242 3.3 100	1536 4.5 136	26 M 0236 1.4 44	11 Th 0134 2.0 60	26 M 0914 5.9 180	2052 5.9 179	1936 6.0 184	2033 5.2 159	1451 4.4 134	1327 4.3 132	1347 3.6 109
2052 5.9 179	● 1936 6.0 184	● 2033 5.2 159	26 M 0236 1.4 44	11 Th 0134 2.0 60	26 M 0914 5.9 180	● 1936 6.0 184	● 2033 5.2 159	● 1451 4.4 134	1845 5.2 157	1845 5.2 157	2052 5.9 179
12 F 0316 2.3 71	27 Sa 0157 2.1 65	12 M 0431 1.7 53	27 Tu 0348 1.2 37	12 M 0238 2.0 61	27 Tu 1040 6.0 184	0945 5.2 157	W 0945 5.3 163	1254 5.6 171	1059 5.2 160	Tu 1457 4.0 133	0316 2.3 71
1457 4.0 123	1344 3.8 116	1655 4.5 138	27 Tu 0348 1.2 37	12 M 0238 2.0 61	27 Tu 1040 6.0 184	2133 5.7 174	2001 5.9 180	2111 5.2 159	1608 4.5 138	1501 4.5 138	1457 4.0 123
2133 5.7 174	● 2001 5.9 180	● 2111 5.2 159	27 Tu 0348 1.2 37	12 M 0238 2.0 61	27 Tu 1040 6.0 184	● 2133 5.7 174	● 2001 5.9 180	● 2111 5.2 159	1934 5.0 153	1934 5.0 153	2133 5.7 174
13 Sa 0413 2.0 62	28 Su 0301 1.7 51	13 Tu 0520 1.5 47	28 W 0454 1.0 32	13 Th 0344 2.0 60	28 W 1152 6.2 190	1215 5.5 168	Su 1110 5.7 174	1339 5.9 181	1313 6.4 196	W 1152 6.2 190	0413 2.0 62
1608 4.3 132	1457 4.2 128	1743 4.5 136	28 W 0454 1.0 32	13 Th 0344 2.0 60	28 W 1152 6.2 190	2159 5.6 170	2018 5.9 179	2149 5.2 160	2129 5.8 176	1631 4.5 138	1608 4.3 132
2159 5.6 170	● 2018 5.9 179	● 2149 5.2 160	28 W 0454 1.0 32	13 Th 0344 2.0 60	28 W 1152 6.2 190	● 2159 5.6 170	● 2018 5.9 179	● 2149 5.2 160	2034 5.0 152	2040 5.4 165	● 2159 5.6 170
14 Su 0502 1.7 53	29 M 0405 1.2 37	14 W 0601 1.4 43	14 W 1413 6.2 189	14 Th 0444 1.9 57	29 Th 1252 6.4 195	1312 5.9 179	W 1222 6.1 187	1817 4.4 133	1258 5.9 179	1710 3.8 117	0502 1.7 53
1707 4.5 136	1609 4.4 134	1445 6.3 193	14 W 1413 6.2 189	14 Th 0444 1.9 57	29 Th 1252 6.4 195	2210 5.5 168	2052 5.9 181	2137 6.0 184	1720 4.3 132	1720 4.3 132	1707 4.5 136
2210 5.5 168	● 2052 5.9 181	● 2137 6.0 184	14 W 1413 6.2 189	14 Th 0444 1.9 57	29 Th 1252 6.4 195	● 2210 5.5 168	● 2052 5.9 181	● 2137 6.0 184	2129 5.1 155	2129 5.1 155	2210 5.5 168
15 M 0545 1.5 46	30 Tu 0503 0.9 27	15 Th 0033 5.3 161	15 W 0637 1.4 42	15 Th 0530 1.8 55	30 Th 1254 6.4 195	1357 6.2 189	W 1323 6.5 199	1711 4.5 137	1445 6.3 193	1341 6.5 197	0545 1.5 46
1752 4.5 138	Tu 1711 4.5 137	1846 4.3 130	15 Th 0033 5.3 161	15 Th 0530 1.8 55	30 Th 1254 6.4 195	2219 5.5 169	2137 6.0 184	1846 4.3 130	1846 4.3 130	1753 4.1 126	1753 4.1 126
2219 5.5 169	● 2137 6.0 184	● 1846 4.3 130	15 Th 0033 5.3 161	15 Th 0530 1.8 55	30 Th 1254 6.4 195	● 2219 5.5 169	● 2137 6.0 184	● 1846 4.3 130	1846 4.3 130	1753 4.1 126	1753 4.1 126
31 W 0558 0.7 20	31 W 1416 6.8 207					1319 6.2 189	W 1416 6.8 207	1804 4.4 134	1804 4.4 134	1804 4.4 134	1319 6.2 189
1804 4.4 134	○ 2226 6.1 187					1419 6.1 187	○ 2226 6.1 187	● 2226 6.1 187	● 2		

# Shantou, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0221	6.1	186	<b>16</b> M	0210	6.2	189	<b>1</b> Tu	0305	6.4	196
	0707	2.3	70		0649	2.8	86		0732	3.4	104
	1451	6.2	189		1412	5.9	181		1441	5.6	170
	1922	2.7	82	●	1856	2.6	79		1950	1.7	52
<b>2</b> M	0305	6.3	193	<b>17</b> Tu	0251	6.5	197	<b>2</b> W	0345	6.5	199
	0747	2.7	81		0723	3.1	95		0809	3.6	111
	1518	6.0	183		1440	5.9	179		1500	5.4	166
	2001	2.3	71		1933	2.2	66		2025	1.5	46
<b>3</b> Tu	0348	6.4	196	<b>18</b> W	0333	6.7	203	<b>3</b> Th	0423	6.5	199
	0826	3.0	91		0802	3.4	103		0850	3.8	116
	1547	5.9	179		1500	5.8	176		1535	5.4	165
	2042	2.0	61		2013	1.7	52		2104	1.3	40
<b>4</b> W	0429	6.4	196	<b>19</b> Th	0416	6.8	206	<b>4</b> F	0500	6.5	199
	0903	3.2	99		0842	3.6	109		0924	3.9	119
	1609	5.7	174		1535	5.7	175		1552	5.3	163
	2125	1.7	53		2057	1.3	39		2145	1.2	38
<b>5</b> Th	0510	6.4	194	<b>20</b> F	0503	6.8	207	<b>5</b> Sa	0538	6.4	196
	0940	3.4	105		0924	3.7	114		1004	4.0	121
	1639	5.6	172		1548	5.6	172		1623	5.3	161
	2206	1.6	48		2148	1.0	31		2227	1.2	38
<b>6</b> F	0550	6.2	189	<b>21</b> Sa	0554	6.7	205	<b>6</b> Su	0616	6.3	192
	1021	3.6	113		1013	3.9	119		1045	4.1	124
	1654	5.5	168		1547	5.6	172		1639	5.2	159
	2251	1.6	48		2242	1.0	29		2309	1.4	42
<b>7</b> Sa	0632	6.0	183	<b>22</b> Su	0651	6.6	201	<b>7</b> M	0658	6.1	185
	1101	3.9	119		1111	4.1	124		1137	4.2	127
	1713	5.4	164		1624	5.6	172		1702	5.1	155
	2342	1.7	51		2346	1.0	32		2359	1.6	50
<b>8</b> Su	0722	5.7	175	<b>23</b> M	0755	6.4	195	<b>8</b> Tu	0747	5.9	180
	1152	4.2	127		1224	4.2	128		1242	4.2	128
	1734	5.2	160		1718	5.5	168		1740	4.9	150
	●			●				●			
<b>9</b> M	0041	1.8	56	<b>24</b> Tu	0051	1.3	40	<b>9</b> W	0056	1.9	59
	0825	5.5	169		0905	6.3	191		0848	5.8	177
	1308	4.4	133		1345	4.2	127		1358	4.2	127
	1759	5.1	154		1822	5.3	163		1842	4.8	145
<b>10</b> Tu	0145	2.0	62	<b>25</b> W	0205	1.6	49	<b>10</b> Th	0158	2.2	68
	0945	5.5	168		1018	6.3	191		0952	5.8	176
	1429	4.5	136		1502	4.0	121		1504	3.9	120
	1854	4.9	149		1942	5.2	157		2105	4.7	143
<b>11</b> W	0249	2.2	67	<b>26</b> Th	0318	1.9	57	<b>11</b> F	0302	2.5	76
	1100	5.7	173		1125	6.3	191		1050	5.8	178
	1552	4.3	132		1609	3.6	109		1601	3.6	110
	2022	4.9	148		2316	5.2	159		2305	5.0	153
<b>12</b> Th	0355	2.3	69	<b>27</b> F	0426	2.1	65	<b>12</b> Sa	0402	2.7	81
	1157	5.9	179		1219	6.2	190		1140	5.9	179
	1645	4.1	124		1702	3.1	95		1645	3.2	97
	2333	5.1	155						1231	5.7	173
<b>13</b> F	0449	2.3	70	<b>28</b> Sa	0041	5.7	173	<b>13</b> Su	0018	5.5	167
	1244	6.0	183		0522	2.4	73		0454	2.9	87
	1720	3.7	114		1305	6.1	186		1220	5.8	177
					1749	2.7	82		1721	2.7	83
<b>14</b> Sa	0040	5.5	167	<b>29</b> Su	0139	6.0	184	<b>14</b> M	0112	6.0	182
	0532	2.4	73		0611	2.8	84		0539	3.1	95
	1319	6.0	184		1343	5.9	181		1252	5.7	175
	1752	3.4	104		1830	2.3	71		1800	2.2	68
<b>15</b> Su	0132	5.9	179	<b>30</b> M	0226	6.2	190	<b>15</b> Tu	0159	6.4	194
	0611	2.6	78		0653	3.1	94		0620	3.4	103
	1349	6.0	184		1410	5.7	174		1325	5.6	170
	1822	3.0	92	○	1910	2.0	61	●	1839	1.7	53
<b>31</b> 0345 6.5 197 <b>Th</b> 0802 4.0 121 <b>1432</b> 5.2 157 <b>2016</b> 1.1 33											

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shantou, China, 2018

Times and Heights of High and Low Waters

July				August				September					
	Time	Height			Time	Height			Time	Height			
1 Su	0446 6.5 198 0858 4.1 124 1256 5.2 157 2114 0.9 28	0502 7.2 218 0906 3.9 118 1313 5.8 178 2139 0.5 15	16 M	0511 6.5 198 0932 3.7 113 1639 5.6 170 2154 1.7 52	W Th	0511 6.5 198 1017 2.8 84 1750 6.1 187 2241 2.3 69	16 Th	0546 6.8 206 1017 2.8 84 1750 6.1 187 2241 2.3 69	1 Sa	0510 6.6 200 1005 2.7 83 1750 6.4 196 2225 3.2 98	16 Su	0536 6.3 193 1111 2.2 68 1854 6.5 198 2319 4.2 127	
2 M	0515 6.4 196 0931 4.0 121 1328 5.1 156 2151 1.0 32	0549 7.1 215 1000 3.5 108 1412 5.6 172 2223 0.9 26	17 Tu	0537 6.4 196 1009 3.4 104 1717 5.5 169 2228 2.0 61	2 Th	0619 6.5 197 1111 2.5 75 1841 6.0 183 2323 2.8 85	17 F	0619 6.5 197 1111 2.5 75 1841 6.0 183 2323 2.8 85	2 Su	0538 6.5 197 1054 2.4 74 1841 6.4 195 2312 3.6 109	17 M	0553 6.1 187 1209 2.3 70 1949 6.2 190 O	
3 Tu	0544 6.4 194 1007 3.8 117 1638 5.1 156 2224 1.2 38	0632 6.9 209 1056 3.1 94 1756 5.4 166 2315 1.3 40	18 W	0603 6.3 193 1053 3.1 96 1804 5.5 169 2307 2.4 72	3 F	0645 6.2 188 1206 2.3 69 1938 5.8 177 O	18 Sa	0556 6.3 192 1151 2.2 67 1946 6.3 193 O	18 M	0018 4.6 139 0620 5.9 181 1315 2.4 74 2102 6.1 185	18 Tu		
4 W	0615 6.3 191 1048 3.7 113 1718 5.0 153 2302 1.5 46	0709 6.5 199 1151 2.8 84 1901 5.3 163	19 Th	0632 6.2 189 1140 2.8 86 1902 5.5 167 2350 2.8 85	4 Sa	0011 3.3 101 0703 5.9 180 1305 2.1 65 2047 5.6 171	19 Su	0006 4.0 123 0617 6.2 188 1256 2.0 61 2102 6.3 192	19 Tu	0140 4.9 148 0657 5.7 174 1419 2.5 77 2232 6.1 187	19 W		
5 Th	0646 6.2 188 1132 3.5 107 1804 5.0 151 2345 1.8 56	0003 1.8 56 0746 6.2 189 1253 2.4 73 2011 5.2 159	20 F	0003 1.8 56 0746 6.2 189 1253 2.4 73 2011 5.2 159	5 Su	0658 6.0 184 1233 2.5 77 2012 5.4 166 O	20 M	0110 3.9 118 0730 5.7 173 1412 2.1 63 2210 5.6 170	5 W	0115 4.5 136 0647 6.1 185 1406 1.9 57 2229 6.5 197	20 Th	0302 5.0 153 0756 5.6 170 1526 2.6 79 2345 6.4 194	
6 F	0720 6.0 184 1224 3.2 99 1912 4.9 148 O	0057 2.5 77 0823 5.8 178 1354 2.2 66 2133 5.2 157	21 Sa	0057 2.5 77 0823 5.8 178 1354 2.2 66 2133 5.2 157	6 M	0044 3.3 100 0725 5.8 178 1337 2.2 66 2134 5.6 170	21 Tu	0223 4.3 131 0758 5.5 166 1514 2.0 61 2339 5.8 176	6 Th	0235 4.8 145 0732 6.0 183 1519 1.7 52 2348 6.8 208	21 F	0423 5.0 151 0924 5.5 169 1626 2.6 78	21 Sa
7 Sa	0029 2.3 70 0757 5.9 179 1325 3.0 90 2039 4.9 149	0159 3.1 94 0850 5.6 170 1459 1.9 57 2257 5.2 160	22 Su	0159 3.1 94 0850 5.6 170 1459 1.9 57 2257 5.2 160	7 Tu	0148 3.8 116 0743 5.7 174 1445 1.8 54 2301 5.9 179	22 W	0347 4.6 140 0836 5.4 164 1618 1.9 58	7 F	0354 4.8 146 0827 6.0 184 1628 1.6 48	22 Sa	0038 6.7 203 0510 4.8 145 1144 5.8 176 1713 2.5 77	22 Tu
8 Su	0125 2.8 85 0836 5.7 175 1425 2.5 77 2206 5.1 156	0305 3.6 110 0913 5.3 163 1601 1.6 50	23 M	0259 4.2 128 0802 5.7 173 1551 1.4 42	8 W	0259 4.2 128 0802 5.7 173 1551 1.4 42	23 Th	0047 6.1 187 0501 4.6 141 0918 5.4 164 1713 1.8 55	8 Sa	0052 7.2 218 0457 4.6 141 0924 6.2 188 1727 1.5 46	23 Su	0119 6.9 209 0541 4.5 138 1250 6.1 186 1752 2.6 78	23 Tu
9 M	0231 3.3 100 0909 5.5 169 1522 2.0 62 2329 5.5 168	0016 5.5 169 0419 4.0 121 0920 5.2 160 1658 1.4 44	24 Tu	0017 6.3 193 0413 4.4 135 0838 5.7 175 1653 1.0 32	9 Th	0017 6.3 193 0413 4.4 135 0838 5.7 175 1653 1.0 32	24 F	0137 6.4 196 0551 4.6 168 1003 5.4 166 1758 1.7 52	9 Sa	0147 7.4 225 0550 4.3 132 1020 6.3 191 1817 1.6 48	24 M	0153 7.0 213 0609 4.3 130 1340 6.5 197 1825 2.7 81	24 Tu
10 Tu	0337 3.7 112 0915 5.4 166 1620 1.5 46	0121 5.9 180 0526 4.2 127 0942 5.2 159 1748 1.2 38	25 W	0121 6.8 206 0517 4.5 137 0926 5.9 180 1751 0.8 23	10 F	0121 6.8 206 0517 4.5 137 0926 5.9 180 1751 0.8 23	25 Sa	0215 6.7 204 0625 4.4 135 1301 5.5 169 1836 1.7 56	10 M	0234 7.4 227 0632 4.0 122 1406 6.5 199 1904 1.8 56	25 Tu	0220 7.0 213 0636 4.0 122 1415 6.7 205 1859 2.9 87	25 O
11 W	0039 6.0 184 0441 4.0 121 0910 5.5 168 1715 1.0 30	0211 6.3 191 0618 4.2 128 1014 5.2 160 1832 1.1 34	26 Th	0217 7.1 217 0613 4.4 134 1020 6.0 184 ● 1845 0.7 20	11 Sa	0217 7.1 217 0613 4.4 134 1020 6.0 184 ● 1845 0.7 20	26 Su	0249 6.9 209 0656 4.3 131 1355 5.8 176 ● 1910 1.7 53	11 Tu	0311 7.3 224 0718 3.6 110 1500 6.8 207 1950 2.2 67	26 W	0244 7.0 213 0703 3.7 113 1451 7.0 213 1929 3.1 96	26 Tu
12 Th	0140 6.5 198 0539 4.2 127 0947 5.6 171 1809 0.6 18	0253 6.5 198 0659 4.2 129 1051 5.3 161 1908 1.1 33	27 F	0307 7.3 222 0703 4.2 129 1114 6.1 187 1937 0.8 23	12 Su	0307 7.3 222 0703 4.2 129 1114 6.1 187 1937 0.8 23	27 M	0315 6.9 209 0721 4.2 127 1440 6.0 184 1944 1.9 58	12 W	0346 7.2 218 0803 3.2 98 1550 7.0 212 2033 2.7 81	27 Th	0303 6.9 211 0730 3.4 104 1525 7.1 217 2001 3.4 104	27 Tu
13 F	0235 6.8 208 0632 4.3 130 1032 5.7 175 ● 1902 0.3 10	0326 6.6 201 0730 4.2 129 1121 5.3 163 ● 1944 1.1 34	28 Sa	0353 7.3 223 0751 3.9 120 1208 6.1 186 2021 1.0 31	13 M	0353 7.3 223 0751 3.9 120 1208 6.1 186 2021 1.0 31	28 Tu	0340 6.8 208 0751 4.0 121 1510 6.2 188 2011 2.2 66	13 Th	0418 6.9 210 0850 2.9 87 1637 7.0 214 2112 3.1 93	28 F	0327 6.8 208 0806 3.0 91 1602 7.3 221 2034 3.7 112	28 Tu
14 Sa	0326 7.0 214 0725 4.2 129 1123 5.8 178 1954 0.2 7	0355 6.7 203 0802 4.2 127 1202 5.3 163 2016 1.2 36	29 Su	0435 7.2 220 0841 3.6 109 1559 6.1 186 2110 1.4 42	14 Tu	0435 7.2 220 0841 3.6 109 1559 6.1 186 2110 1.4 42	29 W	0401 6.8 206 0817 3.7 114 1547 6.3 193 2044 2.4 72	14 F	0447 6.7 204 0935 2.5 77 1722 6.9 211 2156 3.4 104	29 Sa	0350 6.8 208 0844 2.6 80 1644 7.3 223 2109 3.9 118	29 Tu
15 Su	0415 7.1 217 0817 4.1 126 1217 5.9 180 2045 0.3 10	0422 6.6 202 0828 4.0 123 1527 5.4 165 2050 1.3 40	30 M	0511 7.0 213 0927 3.1 96 1657 6.2 188 2155 1.7 53	15 W	0511 7.0 213 0927 3.1 96 1657 6.2 188 2155 1.7 53	30 Th	0422 6.7 204 0851 3.4 104 1624 6.4 194 2113 2.6 80	15 Sa	0510 6.5 198 1020 2.3 70 1808 6.8 206 2235 3.8 116	30 Su	0414 6.7 204 0928 2.3 69 1730 7.3 223 2151 4.1 125	30 Tu
			31 Tu	0447 6.6 200 0901 3.9 118 1556 5.5 168 2120 1.5 46			31 F	0447 6.7 203 0925 3.1 94 1704 6.5 197 2149 2.9 87					

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shantou, China, 2018

Times and Heights of High and Low Waters

October				November				December									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 0441 M 1015 1822 2236	ft 6.7 2.0 7.2 4.4	cm 203 62 219 135	h m 0457 Tu 1115 1901 2330	ft 6.3 2.3 6.8 5.0	cm 191 71 207 151	h m 0500 Th 1156 2009 O	ft 6.4 2.0 7.3 222	cm 196 62 83 203	h m 0013 F 0537 1219 2005	ft 5.0 5.7 2.7 6.7	cm 152 174 83 203	h m 0050 Sa 1247 2051	ft 4.5 2.4 7.2	cm 136 72 218	h m 0040 Su 0625 1224 1959	ft 4.4 5.2 2.8 6.5	cm 133 158 86 197
2 0456 Tu 1115 O 2332	6.5 2.0 4.7	199 60 144	17 0531 W 1213 O	6.1 2.6 79	185 79 200	2 0059 F 0607 1308 2122	5.0 6.2 2.4 7.3	151 189 72 222	17 0127 Sa 0645 1318 2104	4.9 5.4 3.1 6.6	148 166 93 202	2 0202 Su 0841 1353 2148	4.0 5.7 2.9 7.0	122 173 87 214	17 0146 M 0802 1317 2046	4.1 5.1 3.2 6.4	124 154 98 196
3 0528 W 1221 2031	6.4 2.0 6.9	196 62 210	18 0054 Th 0610 1317 2110	5.1 5.8 2.8 6.5	156 178 86 198	3 0215 Sa 0736 1421 2230	4.7 6.0 2.6 7.3	144 183 80 223	18 0243 Su 0848 1421 2201	4.6 5.4 3.3 6.7	141 164 102 204	3 0307 M 1027 1456 2241	3.5 5.8 3.3 6.9	107 178 101 209	18 0242 Tu 0949 1419 2135	3.6 5.2 3.6 6.4	110 160 110 194
4 0058 Th 0618 1338 2155	4.9 6.3 2.2	150 191 66	19 0215 F 0719 1422 2223	5.1 5.6 3.0 6.6	156 171 92 201	4 0322 Su 1035 1531 2329	4.3 6.2 2.9 7.3	131 189 89 222	19 0336 M 1038 1520 2250	4.2 5.7 3.6 6.7	129 174 109 205	4 0402 Tu 1145 1557 2330	2.9 6.2 3.7 6.6	89 190 114 202	19 0330 W 1107 1518 2214	3.1 3.9 6.3	95 173 192
5 0217 F 0724 1452 2309	5.0 6.2 2.2	152 188 67	20 0329 Sa 0934 1527 2320	5.0 5.6 3.1	151 171 96	5 0416 M 1153 1628	3.8 6.6 3.2	116 201 97	20 0414 Tu 1146 1611 2335	3.8 6.2 6.8	115 188 206	5 0452 W 1247 1650 2358	2.4 6.6 6.4	74 201 195	20 0415 Th 1209 1610 2246	2.6 6.2 6.2	78 189 190
6 0337 Sa 0845 1600	4.8 6.1 2.3	146 186 69	21 0422 Su 1117 1620	4.7 5.9 3.2	142 180 98	6 0016 Tu 0503 1254 1714	7.2 3.3 7.0 3.5	218 100 214 108	21 0448 W 1239 1652	3.3 6.7 4.0	101 103 121	6 0538 Th 1338 1733	2.1 6.9 4.4	63 209 134	21 0457 F 1302 1658 2254	2.0 6.7 4.5	61 203 188
7 0012 Su 0435 1152 1658	7.4 4.4 6.4	226 135 196	22 0006 M 0456 1222 1703	6.9 4.3 6.3	210 131 193	7 0054 W 0545 1345 1757	7.0 2.9 7.3 3.9	214 87 223 119	22 0004 Th 0520 1323 1726	6.7 2.8 7.1 4.2	204 85 216 128	7 0037 F 0617 1420 1816	6.3 1.8 7.0 4.6	191 56 214 141	22 0538 Sa 1351 1738 2230	1.5 4.7 6.3	46 214 191
8 0103 M 0524 1303 1747	7.5 4.0 6.8 2.7	228 121 208 81	23 0045 Tu 0524 1308 1737	7.0 3.9 3.5	213 119 106	8 0131 Th 0626 1430 1835	6.8 2.5 4.3	208 76 131	23 0039 F 0555 1403 1806	6.7 2.4 4.5	203 72 136	8 0053 Sa 0657 1458 1855	6.1 1.6 4.8	187 50 145	23 0624 Su 1437 1822 2312	1.2 4.8 6.3	36 220 193
9 0147 Tu 0606 1358 ● 1830	7.4 3.5 7.2 3.0	226 107 219 92	24 0114 W 0552 1349 1810	7.0 3.5 7.2	212 108 113	9 0152 F 0704 1508 1913	6.7 2.2 7.5	203 67 229	24 0058 Sa 0632 1445 1839	6.6 2.0 7.6	200 60 232	9 0134 Su 0733 1536 1932	6.1 1.5 4.8	187 47 147	24 0709 M 1521 1910	0.9 7.3 4.8	28 223 146
10 0221 W 0648 1445 1909	7.2 3.1 7.4 3.4	218 96 227 104	25 0142 Th 0623 1425 1842	7.0 3.1 7.4	212 96 122	10 0223 Sa 0748 1546 1952	6.5 2.0 4.7	198 61 144	25 0135 Su 0716 1529 1922	6.6 1.6 4.8	200 49 146	10 0150 M 0810 1610 2008	6.0 1.5 4.8	184 46 147	25 0001 Tu 0757 1608 2002	6.4 7.3 4.8	195 224 145
11 0250 Th 0728 1528 1949	7.0 2.7 7.5 3.8	213 83 229 116	26 0201 F 0655 1502 1916	6.9 2.8 7.6	210 84 129	11 0245 Su 0825 1625 2030	6.5 1.9 7.4	197 59 227	26 0135 M 0759 1614 2013	6.5 1.4 4.9	199 42 149	11 0237 Tu 0851 1645 2049	6.0 1.5 4.8	184 47 146	26 0055 W 0850 1657 2102	6.4 7.3 4.7	194 223 142
12 0314 F 0812 1609 2027	6.8 2.4 7.5 4.1	206 74 229 125	27 0233 Sa 0734 1542 1953	6.8 2.4 4.4	208 72 135	12 0317 M 0906 1704 2110	6.3 1.9 4.9	193 58 149	27 0131 Tu 0850 1702 2106	6.5 1.3 4.9	199 39 150	12 0310 W 0927 1719 2131	5.9 1.7 4.7	181 51 144	27 0156 Th 0940 1747 2204	6.2 7.3 4.4	190 221 133
13 0345 Sa 0854 1650 2109	6.7 2.2 7.4 4.3	203 68 227 132	28 0251 Su 0813 1625 2030	6.8 2.1 7.8	206 63 141	13 0344 Tu 0953 1742 2158	6.3 2.0 7.5	192 60 151	28 0227 W 0946 1755 2215	6.5 1.3 4.9	198 41 150	13 0346 Th 1007 1755 2224	5.8 1.8 4.7	178 56 142	28 0306 F 1036 1837 2313	6.0 7.1 4.1	183 217 125
14 0405 Su 0939 1732 2148	6.5 2.1 7.3 4.6	198 65 222 139	29 0328 M 0901 1712 2122	6.7 1.8 7.7	203 55 145	14 0417 W 1034 1824 2301	6.1 2.2 5.0	187 66 152	29 0329 Th 1039 1852 2324	6.4 1.6 4.7	194 49 144	14 0433 F 1047 1832 2331	5.7 2.1 4.5	173 64 138	29 0530 Sa 1123 1924 ●	5.7 6.9 5.7	174 210 125
15 0436 M 1025 1815 2229	6.4 2.2 7.1 4.7	196 66 215 144	30 0338 Tu 0952 1803 2222	6.7 1.7 7.6	203 53 150	15 0450 Th 1122 1911	5.9 2.4 6.8	181 74 207	30 0440 F 1145 1951	6.1 1.9 7.3	186 59 222	15 0517 Sa 1133 1913	5.4 2.4 6.6	165 74 201	30 0027 Su 0656 1222 2009	3.6 5.4 6.7	111 165 203
31 0410 W 1052 1902 2328	6.6 1.8 7.4 5.0	200 56 226 152	31 0410 W 1052 1902 2328	6.6 1.8 7.4 5.0	200 56 226 152							31 0138 M 0839 1323 2054	3.1 5.3 6.4	96 162 195			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# PengHu (Ma-Kung Kang), Pescadores, 2018

Times and Heights of High and Low Waters

January			February			March					
Time	Height		Time	Height		Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> M 0344 2.2 68 1043 2.2 68 1606 3.2 99 2223 2.8 85	0344 - 5.8 - 177		<b>16</b> Tu 0434 1.5 47 1133 1.5 47 1646 3.0 90 2250 1.8 56	0434 - 5.1 - 156		<b>16</b> Th 0525 2.3 70 1213 2.3 70 1742 3.5 108 2355 3.0 91	0520 - 4.8 - 147		<b>16</b> Th 0418 2.2 67 1114 2.2 67 1647 3.5 108 2300 2.8 85	0418 - 4.6 - 139	
	1043 2.2 68			1133 1.5 47			1212 1.7 53			1115 1.6 50	
	1606 3.2 99			1646 3.0 90			1740 3.6 110			1649 3.8 115	
	2223 2.8 85			2250 1.8 56			2353 2.1 65			2304 2.0 61	
<b>2</b> Tu 0438 2.4 74 1136 2.4 74 1702 3.2 98 O 2313 3.0 91	0438 - 6.0 - 184		<b>17</b> W 0505 1.6 50 1204 1.6 50 1722 3.1 95 ● 2324 1.9 59	0505 - 5.1 - 156		<b>17</b> Sa 0625 2.4 72 1256 2.4 72 1826 3.8 116	0559 - 4.7 - 144		<b>2</b> F 0517 2.4 72 1156 2.4 72 1735 3.9 120 ○ 2349 3.0 92	0517 - 5.3 - 163	
	1136 2.4 74			1204 1.6 50			1240 1.8 55			1144 1.8 56	
	1702 3.2 98			1722 3.1 95			1812 3.8 115			1723 4.0 122	
	O 2313 3.0 91			● 2324 1.9 59			● 2353 2.1 65			● 2343 2.3 70	
<b>3</b> W 0536 2.5 76 1225 2.5 76 1755 3.3 100	0536 - 6.1 - 185		<b>18</b> Th 0539 1.7 53 1232 1.7 53 1757 3.3 100	0539 - 5.1 - 156		<b>18</b> Sa 0043 2.4 74 0714 5.5 - 167 1337 2.4 72 1909 4.0 123	0030 2.3 69		<b>3</b> Sa 0615 2.5 75 1235 2.5 75 1818 4.3 130	0541 - 4.4 - 133	
	1225 2.5 76			1232 1.7 53			0636 - 4.6 - 140			1212 2.0 60	
	1755 3.3 100			1757 3.3 100			1310 1.9 58			1754 4.2 - 128	
							1843 3.9 - 120				
<b>4</b> Th 0003 3.1 93 0637 6.0 - 192 1311 2.4 74 1842 3.4 - 104	0003 3.1 93		<b>19</b> F 0000 2.0 62 0616 5.1 - 155 1302 1.8 54 1831 3.4 - 104	0000 2.0 62		<b>19</b> M 0128 2.8 85 0753 5.2 - 159 1417 2.3 71 1953 4.2 - 127	0108 2.3 71		<b>4</b> Su 0034 3.0 92 0659 4.9 - 149 1311 2.5 75 1858 4.5 - 138	0020 2.5 76	
	0637 6.0 - 192			0616 5.1 - 155			0710 4.5 - 136			0620 4.2 - 129	
	1311 2.4 74			1302 1.8 54			1342 2.0 61			1243 2.1 65	
	1842 3.4 - 104			1831 3.4 - 104			1915 4.1 - 124			1825 4.4 - 134	
<b>5</b> F 0051 3.0 92 0731 5.8 - 178 1357 2.3 71 1927 3.5 - 108	0051 3.0 92		<b>20</b> Sa 0038 2.1 64 0654 5.0 - 152 1333 1.8 55 1905 3.5 - 108	0038 2.1 64		<b>20</b> M 0214 2.4 74 0828 4.8 - 147 1457 2.3 69 2042 4.2 - 129	0147 2.3 69		<b>5</b> M 0117 2.8 85 0732 4.6 - 139 1347 2.4 73 1939 4.6 - 141	0058 2.6 78	
	0731 5.8 - 178			0654 5.0 - 152			0742 4.3 - 131			0655 4.1 - 124	
	1357 2.3 71			1333 1.8 55			1417 2.1 64			1315 2.3 69	
	1927 3.5 - 108			1905 3.5 - 108			1952 4.2 - 127			1859 4.5 - 138	
<b>6</b> Sa 0139 2.8 85 0816 5.6 - 171 1443 2.3 69 2013 3.6 - 110	0139 2.8 85		<b>21</b> Su 0117 2.1 64 0730 4.8 - 147 1408 1.8 56 1940 3.6 - 111	0117 2.1 64		<b>21</b> W 0229 2.1 64 0814 4.1 - 124 1455 2.1 65 2036 4.2 - 129	0159 2.4 74		<b>21</b> Tu 0137 2.5 76 0727 3.8 - 117 1422 2.2 68 2024 4.7 - 142	0137 2.5 76	
	0816 5.6 - 171			0730 4.8 - 147			0804 4.2 - 128			0727 3.8 - 117	
	1443 2.3 69			1408 1.8 56			1455 2.1 65			1351 2.3 71	
	2013 3.6 - 110			1940 3.6 - 111			2036 4.2 - 129			1939 4.6 - 140	
<b>7</b> Su 0228 2.4 73 0856 5.3 - 161 1530 2.2 67 2105 3.6 - 111	0228 2.4 73		<b>22</b> M 0158 2.0 61 0805 4.7 - 142 1445 1.9 57 2018 3.7 - 113	0158 2.0 61		<b>22</b> W 0359 1.4 43 0950 3.8 - 116 1624 1.8 55 ● 2251 4.2 - 128	0317 1.8 55		<b>7</b> W 0243 2.0 61 0836 3.8 - 116 1457 2.0 60 2115 4.6 - 140	0220 2.3 69	
	0856 5.3 - 161			0805 4.7 - 142			0852 3.7 - 114			0802 3.6 - 109	
	1530 2.2 67			1445 1.9 57			1537 2.1 63			1429 2.3 70	
	2105 3.6 - 111			2018 3.7 - 113			2130 4.3 - 130			2028 4.6 - 141	
<b>8</b> M 0322 1.9 57 0939 4.8 - 147 1620 2.1 64 2212 3.7 - 112	0322 1.9 57		<b>23</b> Tu 0242 1.8 54 0840 4.4 - 135 1525 1.9 59 2102 3.8 - 115	0242 1.8 54		<b>23</b> Th 0505 1.0 29 1057 3.2 - 98 1715 1.5 45	0413 1.5 46		<b>8</b> Th 0331 1.5 46 0918 3.3 - 102 1625 1.9 57 ● 2238 4.3 - 132	0309 2.0 60	
	0939 4.8 - 147			0840 4.4 - 135			0940 3.3 - 100			0843 3.2 - 98	
	1620 2.1 64			1525 1.9 59			1625 1.9 57			1512 2.1 64	
	2212 3.7 - 112			2102 3.8 - 115			● 2238 4.3 - 132			2129 4.6 - 139	
<b>9</b> Tu 0427 1.4 42 1031 4.3 - 130 1713 2.0 60 O 2334 3.8 - 116	0427 1.4 42		<b>24</b> W 0332 1.5 46 0918 4.1 - 126 1608 1.9 59 2155 3.9 - 118	0332 1.5 46		<b>24</b> F 0520 1.2 37 0617 0.7 20 1219 2.8 - 86 1818 1.2 36	0520 1.2 37		<b>9</b> F 0428 1.0 32 1015 2.9 - 87 1618 1.2 38 ● 2313 4.4 - 134	0405 1.6 49	
	1031 4.3 - 130			0918 4.1 - 126			1105 2.8 - 84			0939 2.8 - 85	
	1713 2.0 60			1608 1.9 59			1725 1.6 48			1602 1.7 53	
	O 2334 3.8 - 116			2155 3.9 - 118			1818 1.2 36			2240 4.5 - 138	
<b>10</b> W 0542 1.0 31 1143 3.7 - 113 1811 1.8 55	0542 1.0 31		<b>10</b> Th 0431 1.3 39 1007 3.7 - 113 1657 1.9 57 ● 2301 4.1 - 124	0431 1.3 39		<b>10</b> Sa 0104 4.4 - 135 0732 0.6 17 1322 2.7 - 81 1924 1.0 32	0104 4.4 - 135		<b>10</b> Sa 0534 0.7 21 1134 2.5 - 76 1714 0.9 26	0512 1.3 39	
	1143 3.7 - 113			1007 3.7 - 113			0638 1.0 31			1111 2.4 - 74	
	1811 1.8 55			1657 1.9 57			1245 2.6 - 79			1707 1.4 42	
				● 2301 4.1 - 124			1842 1.4 44			2357 4.5 - 138	
<b>11</b> Th 0046 4.1 - 125 0655 0.9 27 1256 3.3 - 101 1912 1.7 52	0046 4.1 - 125		<b>11</b> F 0540 1.1 33 1125 3.2 - 99 1757 1.8 54	0540 1.1 33		<b>11</b> M 0158 4.6 - 140 0848 0.7 20 1414 2.7 - 81 2021 1.1 34	0158 4.6 - 140		<b>11</b> M 0016 4.4 - 134 0651 0.5 14 1246 2.4 - 73 1832 0.6 19	0632 1.1 33	
	0655 0.9 27			1125 3.2 - 99			0804 1.1 33			1240 2.4 - 73	
	1256 3.3 - 101			1757 1.8 54			1354 2.7 - 81			1834 1.2 37	
	1912 1.7 52						1959 1.6 48				
<b>12</b> F 0147 4.5 - 136 0804 0.9 27 1353 3.1 - 94 2007 1.6 50	0147 4.5 - 136		<b>12</b> Sa 0021 4.4 - 134 0656 1.0 32 1256 3.0 - 92 1906 1.7 53	0021 4.4 - 134		<b>12</b> Tu 0245 4.8 - 145 0951 0.9 28 1501 2.8 - 84 2111 1.2 38	0224 5.1 - 155		<b>12</b> M 0115 4.5 - 136 0815 0.5 16 1344 2.5 - 77 1947 0.7 21	0112 4.7 - 144	
	0804 0.9 27			0656 1.0 32			0925 1.4 44			0800 1.2 37	
	1353 3.1 - 94			1256 3.0 - 92			1454 2.9 - 88			1350 2.7 - 81	
	2007 1.6 50			1906 1.7 53			2106 2.0 60			1954 1.5 45	
<b>13</b> Sa 0238 4.8 - 145 0911 1.0 31 1441 2.9 - 89 2055 1.6 50	0238 4.8 - 145		<b>13</b> Su 0133 4.9 - 148 0815 1.2 36 1402 3.0 - 90 2013 1.9 58	0133 4.9 - 148		<b>13</b> Tu 0327 4.9 - 148 1038 1.2 37 1546 2.9 - 89 2155 1.4 44	0327 4.9 - 148		<b>13</b> M 0208 4.5 - 138 0922 0.8 25 1436 2.8 - 85 2206 2.4 74	0216 4.9 - 150	
	0911 1.0 31			0815 1.2 36			1026 1.9 57			0913 1.6 50	
	1441 2.9 - 89			1402 3.0 - 90			1552 3.2 - 97			1453 3.1 - 93	
	2055 1.6 50			2013 1.9 58			2206 2.4 74			2101 1.9 59	
<b>14</b> Su 0322 5.0 - 151 1010 1.2 37 1525 2.8 - 86 2138 1.7 51	0322 5.0 - 151		<b>14</b> M 0234 5.3 - 162 0930 1.5 46 1459 3.0 - 91 2114 2.2 66	0234 5.3 - 162		<b>14</b> W 0405 4.9 - 149 1114 1.4 44 1628 3.1 - 96 2236 1.7 51	0405 4.9 - 149		<b>14</b> Th 0254 4.6 - 140 1045 1.4 44 1609 3.4 - 105 2211 1.9 58	0254 4.6 - 140	
	1010 1.2 37			0930 1.5 46			1114 1.4 44			1008 2.1 63	
	1525 2.8 - 86			1459 3.0 - 91			1628 3.1 - 96			1553 3.5 - 108	
	2138 1.7 51			2114 2.2 66			2236 1.7 51			2200 2.4 73	
<b>15</b> M 0400 5.1 - 154 1056 1.4 43 1607 2.9 - 87 2215 1.7 53	0400 5.1 - 154		<b>15</b> Tu 0330 5.6 - 172								

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Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 1 Su 0602 - 4.5 - 138 1209 2.6 78 1818 - 4.8 - 145	ft cm - 4.5 - 138 2.6 78 - 4.8 - 145	h m 16 M 0516 - 4.0 - 123 1139 2.2 67 1737 - 4.8 - 145	ft cm - 4.0 - 123 2.2 67 - 4.8 - 145	h m 1 Tu 0013 2.6 78 0625 - 3.6 - 109 1212 2.4 72 1847 - 5.2 - 159	ft cm 2.6 78 - 3.6 - 109 2.4 72 - 5.2 - 159	h m 16 W 0538 - 3.4 - 105 1142 2.6 79 1804 - 5.5 - 167	ft cm - 3.4 - 105 2.6 79 - 5.5 - 167	h m 1 F 0114 2.0 60 0656 - 2.9 - 88 1240 1.9 57 1926 - 5.2 - 157	ft cm 2.0 60 - 2.9 - 88 1.9 57 - 5.2 - 157	h m 16 Sa 0112 2.6 78 0702 - 3.1 - 93 1251 2.8 86 1947 - 5.8 - 178	ft cm 2.6 78 - 3.1 - 93 2.8 86 - 5.8 - 178
●		●		●		●		●		●	
2 M 0024 2.9 87 0643 - 4.2 - 128 1242 2.5 75 1855 - 4.9 - 150	ft cm 2.9 87 - 4.2 - 128 2.5 75 - 4.9 - 150	17 Tu 0006 2.6 79 0601 - 3.8 - 117 1212 2.4 73 1814 - 5.0 - 151	ft cm 2.6 79 - 3.8 - 117 2.4 73 - 5.0 - 151	2 W 0052 2.4 73 0654 - 3.3 - 102 1242 2.2 66 1919 - 5.2 - 158	ft cm 2.4 73 - 3.3 - 102 2.2 66 - 5.2 - 158	17 Th 0035 2.6 80 0629 - 3.3 - 100 1222 2.7 81 1859 - 5.6 - 170	ft cm 2.6 80 - 3.3 - 100 2.7 81 - 5.6 - 170	2 S 0147 1.8 56 0726 - 2.9 - 88 1311 1.8 54 1958 - 5.2 - 157	ft cm 1.8 56 - 2.9 - 88 1.8 54 - 5.2 - 157	17 Su 0201 2.4 74 0747 - 3.1 - 93 1340 2.7 82 2035 - 5.7 - 174	ft cm 2.4 74 - 3.1 - 93 2.7 82 - 5.7 - 174
3 Tu 0104 2.7 81 0713 - 3.9 - 119 1315 2.3 71 1931 - 5.0 - 151	ft cm 2.7 81 - 3.9 - 119 2.3 71 - 5.0 - 151	18 W 0046 2.7 81 0642 - 3.6 - 111 1248 2.5 77 1857 - 5.1 - 154	ft cm 2.7 81 - 3.6 - 111 2.5 77 - 5.1 - 154	3 Th 0128 2.1 65 0720 - 3.2 - 97 1311 2.0 60 1951 - 5.1 - 156	ft cm 2.1 65 - 3.2 - 97 2.0 60 - 5.1 - 156	18 F 0120 2.5 77 0715 - 3.1 - 95 1305 2.6 80 1954 - 5.6 - 170	ft cm 2.5 77 - 3.1 - 95 2.6 80 - 5.6 - 170	3 S 0222 1.7 52 0800 - 2.9 - 88 1346 1.6 50 2033 - 5.1 - 154	ft cm 1.7 52 - 2.9 - 88 1.6 50 - 5.1 - 154	18 M 0251 2.3 71 0833 - 3.1 - 93 1430 2.4 74 2120 - 5.5 - 167	ft cm 2.3 71 - 3.1 - 93 2.4 74 - 5.5 - 167
4 W 0143 2.3 71 0741 - 3.6 - 110 1346 2.1 64 2009 - 5.0 - 151	ft cm 2.3 71 - 3.6 - 110 2.1 64 - 5.0 - 151	19 Th 0128 2.6 78 0721 - 3.4 - 104 1326 2.5 77 1948 - 5.1 - 155	ft cm 2.6 78 - 3.4 - 104 2.5 77 - 5.1 - 155	4 F 0204 1.9 57 0750 - 3.1 - 93 1340 1.8 54 2026 - 5.1 - 155	ft cm 1.9 57 - 3.1 - 93 1.8 54 - 5.1 - 155	19 Sa 0208 2.3 71 0759 - 3.0 - 91 1351 2.5 75 2046 - 5.5 - 168	ft cm 2.3 71 - 3.0 - 91 2.5 75 - 5.5 - 168	4 M 0300 1.6 48 0839 - 2.8 - 86 1426 1.4 42 2112 - 4.9 - 148	ft cm 1.6 48 - 2.8 - 86 1.4 42 - 4.9 - 148	19 Tu 0343 2.3 69 0926 - 3.1 - 94 1526 2.1 63 2207 - 5.2 - 157	ft cm 2.3 69 - 3.1 - 94 2.1 63 - 5.2 - 157
5 Th 0223 2.0 60 0813 - 3.3 - 102 1417 1.8 56 2051 - 4.9 - 148	ft cm 2.0 60 - 3.3 - 102 1.8 56 - 4.9 - 148	20 F 0214 2.3 71 0802 - 3.1 - 96 1407 2.4 72 2044 - 5.1 - 154	ft cm 2.3 71 - 3.1 - 96 2.4 72 - 5.1 - 154	5 Sa 0243 1.6 49 0825 - 2.9 - 88 1413 1.5 47 2105 - 5.0 - 152	ft cm 1.6 49 - 2.9 - 88 1.5 47 - 5.0 - 152	20 Su 0300 2.1 64 0846 - 2.8 - 86 1441 2.2 66 2135 - 5.3 - 163	ft cm 2.1 64 - 2.8 - 86 2.2 66 - 5.3 - 163	5 Tu 0343 1.4 44 0926 - 2.8 - 85 1513 1.0 32 2155 - 4.6 - 139	ft cm 1.4 44 - 2.8 - 85 1.0 32 - 4.6 - 139	20 W 0437 2.2 68 1035 - 3.1 - 96 1633 1.7 51 2302 - 4.7 - 144	ft cm 2.2 68 - 3.1 - 96 1.7 51 - 4.7 - 144
6 F 0306 1.6 48 0851 - 3.1 - 93 1451 1.5 47 2137 - 4.8 - 145	ft cm 1.6 48 - 3.1 - 93 1.5 47 - 4.8 - 145	21 Sa 0304 2.0 61 0848 - 2.9 - 87 1453 2.1 63 2140 - 5.0 - 151	ft cm 2.0 61 - 2.9 - 87 2.1 63 - 5.0 - 151	6 Su 0326 1.3 41 0909 - 2.7 - 82 1452 1.2 37 2149 - 4.8 - 147	ft cm 1.3 41 - 2.7 - 82 1.2 37 - 4.8 - 147	21 M 0358 1.9 57 0942 - 2.7 - 82 1538 1.8 54 2229 - 5.2 - 157	ft cm 1.9 57 - 2.7 - 82 1.8 54 - 5.2 - 157	6 W 0429 1.3 39 1021 - 2.8 - 84 1612 0.7 22 2246 - 4.1 - 126	ft cm 1.3 39 - 2.8 - 84 0.7 22 - 4.1 - 126	21 Th 0535 2.2 68 1155 - 3.4 - 104 1750 1.4 44	ft cm 2.2 68 - 3.4 - 104 1.4 44
7 Sa 0355 1.2 36 0940 - 2.7 - 82 1529 1.2 36 2229 - 4.6 - 141	ft cm 1.2 36 - 2.7 - 82 1.2 36 - 4.6 - 141	22 Su 0402 1.7 51 0948 - 2.6 - 78 1548 1.7 51 2240 - 4.8 - 147	ft cm 1.7 51 - 2.6 - 78 1.7 51 - 4.8 - 147	7 M 0415 1.1 34 1002 - 2.5 - 77 1540 0.9 26 2239 - 4.6 - 139	ft cm 1.1 34 - 2.5 - 77 0.9 26 - 4.6 - 139	22 Tu 0500 1.8 54 1056 - 2.7 - 82 1649 1.4 43 2331 - 4.9 - 149	ft cm 1.8 54 - 2.7 - 82 1.4 43 - 4.9 - 149	7 Th 0521 1.2 36 1129 - 2.9 - 88 1728 0.5 15 2349 - 3.8 - 115	ft cm 1.2 36 - 2.9 - 88 0.5 15 - 3.8 - 115	22 F 0009 - 4.3 - 131 0635 2.3 69 1306 - 3.8 - 117 1902 1.4 43	ft cm - 4.3 - 131 2.3 69 - 3.8 - 117 1.4 43
8 Su 0451 0.9 26 1045 - 2.4 - 73 1619 0.8 23 0236 - 4.5 - 136	ft cm 0.9 26 - 2.4 - 73 0.8 23 - 4.5 - 136	23 M 0509 1.4 44 1108 - 2.4 - 73 1659 1.3 39 02349 - 4.8 - 145	ft cm 1.4 44 - 2.4 - 73 1.3 39 - 4.8 - 145	8 Tu 0512 0.9 27 1110 - 2.5 - 76 1645 0.5 14 02338 - 4.3 - 130	ft cm 0.9 27 - 2.5 - 76 0.5 14 - 4.3 - 130	23 W 0608 1.8 55 1220 - 2.9 - 89 1813 1.3 40	ft cm 1.8 55 - 2.9 - 89 1.3 40	8 F 0620 1.2 36 1240 - 3.2 - 98 1848 0.6 17	ft cm 1.2 36 - 3.2 - 98 0.6 17	23 Sa 0114 - 3.9 - 120 0733 2.3 70 1407 - 4.3 - 132 2010 1.5 45	ft cm - 3.9 - 120 2.3 70 - 4.3 - 132 1.5 45
9 M 0601 0.6 18 1201 - 2.3 - 71 1733 0.4 13	ft cm 0.6 18 - 2.3 - 71 0.4 13	24 Tu 0627 1.4 42 1233 - 2.5 - 72 1827 1.2 37	ft cm 1.4 42 - 2.5 - 72 1.2 37	9 W 0620 0.8 24 1224 - 2.7 - 82 1819 0.3 9	ft cm 0.8 24 - 2.7 - 82 0.3 9	24 Th 0039 - 4.7 - 143 0715 2.0 60 1332 - 3.4 - 104 1927 1.4 44	ft cm - 4.7 - 143 2.0 60 - 3.4 - 104 1.4 44	9 Sa 0056 - 3.6 - 109 0721 1.3 40 1340 - 3.7 - 112 1955 0.8 25	ft cm - 3.6 - 109 1.3 40 - 3.7 - 112 0.8 25	24 Su 0211 - 3.6 - 109 0828 2.3 70 1503 - 4.8 - 145 2115 1.6 50	ft cm - 3.6 - 109 2.3 70 - 4.8 - 145 1.6 50
10 Tu 0029 - 4.4 - 133 0725 0.6 18 1309 - 2.6 - 78 1908 0.4 12	ft cm - 4.4 - 133 0.6 18 - 2.6 - 78 0.4 12	25 W 0100 - 4.8 - 146 0745 1.6 48 1346 - 3.0 - 90 1945 1.5 45	ft cm - 4.8 - 146 1.6 48 - 3.0 - 90 1.5 45	10 Th 0044 - 4.1 - 124 0731 0.9 27 1330 - 3.1 - 94 1938 0.5 16	ft cm - 4.1 - 124 0.9 27 - 3.1 - 94 0.5 16	25 F 0141 - 4.5 - 138 0814 2.2 67 1435 - 4.0 - 122 2032 1.7 52	ft cm - 4.5 - 138 2.2 67 - 4.0 - 122 1.7 52	10 Su 0151 - 3.5 - 107 0814 1.6 48 1430 - 4.2 - 129 2055 1.2 37	ft cm - 3.5 - 107 1.6 48 - 4.2 - 129 1.2 37	25 M 0304 - 3.2 - 99 0917 2.3 70 1554 - 5.1 - 154 2216 1.8 56	ft cm - 3.2 - 99 2.3 70 - 5.1 - 154 1.8 56
11 W 0128 - 4.3 - 132 0836 0.8 24 1407 - 2.9 - 89 2018 0.7 21	ft cm - 4.3 - 132 0.8 24 - 2.9 - 89 0.7 21	26 Th 0202 - 4.8 - 147 0849 1.9 59 1450 - 3.5 - 106 2050 1.9 57	ft cm - 4.8 - 147 1.9 59 - 3.5 - 106 1.9 57	11 F 0142 - 4.0 - 122 0827 1.1 34 1424 - 3.5 - 108 2038 0.9 28	ft cm - 4.0 - 122 1.1 34 - 3.5 - 108 0.9 28	26 Sa 0235 - 4.3 - 130 0905 2.4 73 1532 - 4.6 - 139 2133 1.9 59	ft cm - 4.3 - 130 2.4 73 - 4.6 - 139 1.9 59	11 M 0240 - 3.4 - 104 0902 1.9 57 1517 - 4.8 - 145 2153 1.7 51	ft cm - 3.4 - 104 1.9 57 - 4.8 - 145 1.7 51	26 Tu 0358 - 3.0 - 91 1002 2.2 68 1641 - 5.2 - 158 2308 2.0 61	ft cm - 3.0 - 91 2.2 68 - 5.2 - 158 2.0 61
12 Th 0220 - 4.3 - 132 0926 1.1 34 1459 - 3.3 - 102 2113 1.1 34	ft cm - 4.3 - 132 1.1 34 - 3.3 - 102 1.1 34	27 F 0257 - 4.8 - 145 0940 2.3 70 1550 - 4.1 - 124 2148 2.2 68	ft cm - 4.8 - 145 2.3 70 - 4.1 - 124 2.2 68	12 F 0231 - 4.0 - 121 0911 1.4 44 1511 - 4.0 - 123 2131 1.4 42	ft cm - 4.0 - 121 1.4 44 - 4.0 - 123 1.4 42	27 Su 0328 - 3.9 - 120 0951 2.5 76 1624 - 5.0 - 153 2230 2.2 66	ft cm - 3.9 - 120 2.5 76 - 5.0 - 153 2.2 66	12 Tu 0328 - 3.3 - 101 0947 2.2 67 1602 - 5.2 - 160 2247 2.1 64	ft cm - 3.3 - 101 2.2 67 - 5.2 - 160 2.1 64	27 W 0451 - 2.8 - 86 1041 2.1 65 1723 - 5.2 - 158 2350 2.0 62	ft cm - 2.8 - 86 2.1 65 - 5.2 - 158 2.0 62
13 F 0306 - 4.3 - 131 1004 1.4 44 1545 - 3.8 - 115 2202 1.6 48	ft cm - 4.3 - 131 1.4 44 - 3.8 - 115 1.6 48	28 Th 0350 - 4.5 - 138 1024 2.5 77 1643 - 4.6 - 140 2242 2.5 77	ft cm - 4.5 - 138 2.5 77 - 4.6 - 140 2.5 77	13 M 0315 - 3.9 - 119 0950 1.8 55 1554 - 4.5 - 138 2221 1.8 56	ft cm - 3.9 - 119 1.8 55 - 4.5 - 138 1.8 56	28 W 0423 - 3.6 - 109 1032 2.5 75 1711 - 5.2 - 160 2319 2.3 69	ft cm - 3.6 - 109 2.5 75 - 5.2 - 160 2.3 69	13 Tu 0420 - 3.2 - 97 1031 2.5 76 1651 - 5.6 - 170 2337 2.4 74	ft cm - 3.2 - 97 2.5 76 - 5.6 - 170 2.4 74	28 O 0533 - 2.7 - 83 1117 2.0 62 1759 - 5.1 - 155	ft cm - 2.7 - 83 2.0 62 - 5.1 - 155
14 Sa 0349 - 4.3 - 130 1036 1.7 52 1626 - 4.2 - 127 2245 2.0 61	ft cm - 4.3 - 130 1.7 52 - 4.2 - 127 2.0 61	29 F 0446 - 4.2 - 128 1103 2.6 79 1730 - 5.0 - 152 2330 2.6 80	ft cm - 4.2 - 128 2.6 79 - 5.0 - 152 2.6 80	14 M 0359 - 3.8 - 116 1026 2.1 64 1634 - 5.0 - 151 2307 2.3 69	ft cm - 3.8 - 116 2.1 64 - 5.0 - 151 2.3 69	29 Th 0519 - 3.3 - 100 1109 2.3 71 1752 - 5.3 - 162 02351 2.5 77	ft cm - 3.3 - 100 2.3 71 - 5.3 - 162 2.5 77	14 Tu 0517 - 3.1 - 93 1116 2.7 82 1748 - 5.8 - 176 ● 2351 2.5 77	ft cm - 3.1 - 93 2.7 82 - 5.8 - 176 2.5 77	29 F 0026 2.0 62 0605 - 2.7 - 83 1148 2.0 60 1829 - 5.0 - 153	ft cm 2.0 62 - 2.7 - 83 2.0 60 - 5.0 - 153
15 Su 0432 - 4.2 - 127 1107 2.0 60 1702 - 4.5 - 137 2326 2.4 72	ft cm - 4.2 - 127 2.0 60 - 4.5 - 137 2.4 72	30 W 0543 - 3.9 - 118 1139 2.5 77 1811 - 5.2 - 158 ● 02351 2.5 77	ft cm - 3.9 - 118 2.5 77 - 5.2 - 158 2.5 77	15 M 0446 - 3.6 - 111 1103 2.4 73 1716 - 5.3 - 161 ● 2351 2.5 77	ft cm - 3.6 - 111 2.4 73 - 5.3 - 161 2.5 77	31 Th 0002 2.2 - 68 0601 - 3.1 - 93 1143 2.2 - 66 1828 - 5.3 - 161	ft cm 2.2 - 68 3.1 - 93 2.2 - 66 5.3 - 161	15 F 0025 2.6 - 78 0614 - 3.0 - 92 1203 2.8 - 86 1851 - 5.8 - 178	ft cm 2.6 - 78 3.0 - 92 2.8 - 86 5.8 - 178	30 Sa 0058 2.0 - 60 0632 - 2.8 - 85 1219 1.9 - 59 1858 - 5.0 - 152	ft cm 2.0 - 60 2.8 - 85 1.9 - 59 5.0 - 152

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# PengHu (Ma-Kung Kang), Pescadores, 2018

Times and Heights of High and Low Waters

July			August			September					
Time	Height		Time	Height		Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> Su 0129 - 2.9 - 88 0702 - 2.9 - 88 1251 - 1.9 - 59 1930 - 5.0 - 151	1.9 59		<b>16</b> M 0146 - 2.7 - 82 0729 - 3.3 - 102 1329 - 3.1 - 96 2018 - 5.5 - 169	2.7 82		<b>1</b> W 0205 - 2.2 - 66 0742 - 3.3 - 100 1353 - 2.3 - 70 2010 - 4.2 - 128	2.2 66		<b>1</b> Sa 0243 - 3.0 - 92 0842 - 4.1 - 124 1450 - 2.9 - 87 2105 - 4.2 - 127	3.0 92	
<b>2</b> M 0200 - 1.9 - 58 0734 - 3.0 - 91 1328 - 1.9 - 57 2004 - 4.9 - 148	1.9 58		<b>17</b> Tu 0231 - 2.7 - 82 0814 - 3.5 - 106 1418 - 2.9 - 88 2057 - 5.2 - 159	2.7 82		<b>2</b> Th 0238 - 2.2 - 66 0818 - 3.3 - 102 1435 - 2.1 - 65 2042 - 3.9 - 119	2.2 66		<b>2</b> Su 0324 - 2.9 - 87 0938 - 4.1 - 125 1544 - 2.4 - 72 2148 - 3.6 - 109	2.9 87	
<b>3</b> Tu 0234 - 1.8 - 56 0811 - 3.1 - 93 1408 - 1.7 - 53 2040 - 4.6 - 141	1.8 56		<b>18</b> W 0317 - 2.7 - 82 0905 - 3.6 - 109 1510 - 2.5 - 76 2138 - 4.8 - 146	2.7 82		<b>3</b> F 0314 - 2.2 - 66 0858 - 3.4 - 103 1521 - 1.9 - 57 2115 - 3.5 - 108	2.2 66		<b>3</b> M 0400 - 2.4 - 72 1014 - 3.8 - 116 1647 - 1.9 - 57 2249 - 3.0 - 91	2.4 72	
<b>4</b> W 0311 - 1.8 - 55 0851 - 3.1 - 93 1453 - 1.5 - 46 2116 - 4.3 - 131	1.8 55		<b>19</b> Th 0404 - 2.6 - 80 1008 - 3.6 - 111 1611 - 2.0 - 62 2226 - 4.2 - 129	2.6 80		<b>4</b> Sa 0353 - 2.2 - 66 0946 - 3.4 - 105 1614 - 1.6 - 49 2157 - 3.1 - 95	2.2 66		<b>4</b> Su 0459 - 2.2 - 68 1146 - 4.1 - 126 1756 - 1.5 - 46	2.1 63	
<b>5</b> Th 0350 - 1.7 - 53 0937 - 3.1 - 94 1545 - 1.2 - 37 2156 - 3.9 - 119	1.7 53		<b>20</b> F 0454 - 2.5 - 77 1121 - 3.8 - 116 1720 - 1.6 - 50 2332 - 3.6 - 111	2.5 77		<b>5</b> Su 0437 - 2.1 - 64 1046 - 3.6 - 109 1717 - 1.4 - 42 2305 - 2.7 - 81	2.1 64		<b>5</b> M 0006 - 2.6 - 78 0601 - 1.9 - 58 1248 - 4.2 - 128 1911 - 1.3 - 39	2.0 62	
<b>6</b> F 0433 - 1.7 - 51 1033 - 3.1 - 96 1646 - 1.0 - 30 O 2247 - 3.5 - 106	1.7 51		<b>21</b> Sa 0549 - 2.3 - 71 1229 - 4.1 - 124 1832 - 1.4 - 43	2.3 71		<b>6</b> M 0530 - 2.0 - 60 1201 - 3.8 - 116 1829 - 1.3 - 39	2.3 71		<b>6</b> Tu 0111 - 2.3 - 71 0709 - 1.7 - 52 1347 - 4.3 - 131 2030 - 1.3 - 41	2.1 64	
<b>7</b> Sa 0522 - 1.6 - 50 1139 - 3.4 - 103 1757 - 0.9 - 27	1.6 50		<b>22</b> Su 0043 - 3.2 - 97 0650 - 2.2 - 66 1331 - 4.4 - 133 1943 - 1.3 - 41	3.2 97		<b>7</b> Tu 0039 - 2.4 - 73 0636 - 1.9 - 57 1314 - 4.2 - 128 1948 - 1.3 - 41	2.4 73		<b>7</b> W 0207 - 2.3 - 70 0812 - 1.7 - 52 1439 - 4.4 - 134 2140 - 1.6 - 49	2.4 72	
<b>8</b> Su 0001 - 3.1 - 95 0619 - 1.6 - 50 1249 - 3.7 - 114 1908 - 1.0 - 29	3.1 95		<b>8</b> M 0144 - 2.9 - 88 0750 - 2.0 - 62 1427 - 4.6 - 141 2055 - 1.4 - 44	2.9 88		<b>8</b> W 0147 - 2.4 - 72 0747 - 2.0 - 60 1417 - 4.6 - 141 2108 - 1.6 - 50	2.4 72		<b>8</b> Th 0259 - 2.4 - 72 0906 - 1.8 - 55 1525 - 4.5 - 136 2231 - 1.9 - 58	2.7 83	
<b>9</b> M 0112 - 3.0 - 90 0721 - 1.7 - 53 1349 - 4.3 - 130 2019 - 1.2 - 36	3.0 90		<b>9</b> Tu 0238 - 2.7 - 82 0844 - 2.0 - 61 1519 - 4.8 - 146 2202 - 1.7 - 51	2.7 82		<b>9</b> Sa 0246 - 2.5 - 75 0852 - 2.3 - 69 1514 - 5.0 - 153 2217 - 2.1 - 65	2.5 75		<b>9</b> F 0348 - 2.5 - 77 0954 - 2.0 - 61 1606 - 4.5 - 136 2310 - 2.1 - 64	3.1 96	
<b>10</b> Tu 0209 - 2.9 - 87 0819 - 2.0 - 60 1442 - 4.8 - 146 2128 - 1.6 - 48	2.9 87		<b>10</b> W 0330 - 2.6 - 78 0933 - 2.0 - 61 1605 - 4.9 - 148 2254 - 1.9 - 58	2.6 78		<b>10</b> F 0344 - 2.6 - 80 0952 - 2.7 - 82 1612 - 5.3 - 161 2312 - 2.5 - 77	2.6 80		<b>10</b> Sa 0433 - 2.8 - 84 1037 - 2.2 - 67 1646 - 4.4 - 134 2341 - 2.3 - 69	3.6 110	
<b>11</b> W 0303 - 2.8 - 86 0914 - 2.2 - 68 1535 - 5.2 - 160 2230 - 2.0 - 62	2.8 86		<b>11</b> Th 0420 - 2.6 - 78 1017 - 2.0 - 62 1646 - 4.8 - 147 2335 - 2.0 - 62	2.6 78		<b>11</b> Sa 0443 - 2.9 - 87 1049 - 3.1 - 96 1715 - 5.4 - 165 2359 - 2.8 - 86	2.9 87		<b>11</b> O 0510 - 3.0 - 91 1115 - 2.4 - 74 1725 - 4.3 - 132 ● 2359 - 2.8 - 86	3.2 97	
<b>12</b> Th 0400 - 2.8 - 85 1007 - 2.5 - 77 1630 - 5.5 - 169 2325 - 2.4 - 74	2.8 85		<b>12</b> F 0504 - 2.6 - 80 1055 - 2.1 - 63 1723 - 4.8 - 145	2.6 80		<b>12</b> Su 0537 - 3.2 - 97 1141 - 3.5 - 107 1821 - 5.4 - 165	3.2 97		<b>12</b> W 0010 - 2.3 - 71 0543 - 3.2 - 98 1151 - 2.7 - 81 1804 - 4.2 - 129	3.2 99	
<b>13</b> F 0500 - 2.9 - 87 1059 - 2.8 - 86 1732 - 5.7 - 174	2.9 87		<b>13</b> ● 0008 - 2.1 - 65 0538 - 2.8 - 84 1130 - 2.1 - 65 ○ 1757 - 4.7 - 143	2.1 65		<b>13</b> M 0042 - 3.0 - 90 0624 - 3.5 - 107 1230 - 3.7 - 112 1915 - 5.3 - 161	3.0 90		<b>13</b> Tu 0036 - 2.4 - 73 0613 - 3.4 - 104 1226 - 2.8 - 86 1841 - 4.1 - 126	3.2 99	
<b>14</b> Sa 0014 - 2.6 - 80 0556 - 3.0 - 91 1151 - 3.1 - 94 1838 - 5.8 - 176	2.6 80		<b>14</b> Su 0038 - 2.1 - 65 0608 - 2.9 - 89 1204 - 2.2 - 68 1831 - 4.6 - 141	2.1 65		<b>14</b> W 0123 - 3.0 - 92 0708 - 3.8 - 115 1316 - 3.6 - 110 1955 - 5.0 - 153	2.5 75		<b>14</b> F 0103 - 2.5 - 75 0643 - 3.5 - 108 1301 - 2.9 - 89 1914 - 4.0 - 121	3.1 95	
<b>15</b> Su 0101 - 2.7 - 82 0645 - 3.2 - 97 1240 - 3.2 - 98 1934 - 5.7 - 175	2.7 82		<b>15</b> M 0106 - 2.2 - 66 0638 - 3.1 - 94 1239 - 2.3 - 71 1905 - 4.6 - 139	2.2 66		<b>15</b> W 0203 - 3.1 - 93 0753 - 4.0 - 121 1402 - 3.3 - 101 2029 - 4.6 - 141	2.5 77		<b>15</b> Th 0132 - 2.5 - 77 0714 - 3.6 - 111 1337 - 2.9 - 87 1943 - 3.7 - 114	2.9 88	
			<b>16</b> Tu 0134 - 2.2 - 66 0709 - 3.2 - 98 1315 - 2.4 - 72 1938 - 4.4 - 134	2.2 66		<b>16</b> F 0204 - 2.6 - 78 0747 - 3.7 - 113 1417 - 2.7 - 82 2012 - 3.5 - 106	2.6 78		<b>16</b> Sa 0242 - 2.9 - 88 0907 - 4.5 - 136 1516 - 2.5 - 76 2110 - 3.1 - 94	2.9 87	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# PengHu (Ma-Kung Kang), Pescadores, 2018

Times and Heights of High and Low Waters

October			November			December		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0246 2.7 83	0412 1.9 59		<b>16</b> Tu 0314 1.9 59	0414 1.0 30		<b>1</b> Sa 0518 1.6 48	0446 0.7 22	
0859 - 4.2 - 128	1008 - 4.4 - 135		Th 1632 1.6 48	1059 - 4.5 - 137		F 1104 - 4.2 - 128	1105 - 3.8 - 117	
1536 2.3 71	1738 1.8 56		O 2335 2.2 - 66	1745 1.2 37		Sa 1827 2.1 64	1740 1.3 40	
2111 - 2.5 - 75	2343 2.5 - 76			2343 2.5 - 76			2354 3.2 - 99	
<b>2</b> Tu 0332 2.4 74	<b>17</b> W 0401 1.5 45		<b>2</b> F 0535 1.7 51	<b>17</b> Sa 1209 0.7 21		<b>2</b> Su 0036 - 3.0 - 92	<b>17</b> M 0608 0.6 18	
1002 - 4.1 - 126	1103 - 4.2 - 129		1856 1.9 58	1212 - 4.5 - 136		0640 1.6 48	1216 - 3.5 - 108	
1636 2.0 61	1737 1.2 38			1855 1.2 37		1253 - 4.4 - 133	1840 1.3 41	
O 2224 - 2.1 - 63	O 2330 - 2.0 - 62					1930 2.3 69		
<b>3</b> W 0429 2.0 62	<b>18</b> Th 0509 1.1 33		<b>3</b> Sa 0056 - 2.5 - 76	<b>18</b> Su 0709 0.8 25		<b>3</b> M 0146 - 3.6 - 110	<b>18</b> Tu 0103 3.7 - 112	
1115 - 4.1 - 125	1204 - 4.1 - 124		0701 1.8 55	1313 - 3.8 - 115		0750 1.7 53	0721 0.8 23	
1748 1.7 53	1856 1.2 - 36		1321 - 4.5 - 137	1956 1.4 43		1353 - 4.1 - 126	1320 - 3.4 - 103	
2357 - 1.9 - 59			2007 2.2 68			2026 2.5 76	1938 1.5 47	
<b>4</b> Th 0548 1.8 54	<b>19</b> F 0042 - 2.2 - 66		<b>4</b> Su 0204 - 3.0 - 92	<b>19</b> M 0155 - 3.4 - 103		<b>4</b> Tu 0244 - 4.3 - 130	<b>19</b> W 0158 - 4.2 - 128	
1232 - 4.2 - 128	0645 1.0 - 29		0811 2.2 67	0813 1.1 35		0854 2.0 61	0823 1.0 31	
1914 1.7 52	1306 - 4.0 - 121		1419 - 4.5 - 138	1406 - 3.7 - 113		1444 - 3.8 - 117	1411 - 3.3 - 102	
	2010 1.3 41		2103 2.6 80	2043 1.7 53		2114 2.7 81	2029 1.8 56	
<b>5</b> F 0113 - 2.2 - 66	<b>20</b> Sa 0144 - 2.6 - 78		<b>5</b> M 0303 - 3.7 - 112	<b>20</b> Tu 0244 - 3.9 - 119		<b>5</b> W 0336 - 4.8 - 147	<b>20</b> Th 0245 - 4.7 - 144	
0716 1.9 59	0759 1.2 37		0913 2.6 80	0907 1.5 47		0954 2.2 68	0922 1.4 43	
1342 - 4.5 - 136	1400 - 4.0 - 121		1510 - 4.4 - 134	1450 - 3.7 - 112		1533 - 3.5 - 107	1456 - 3.3 - 100	
2036 2.0 62	2103 1.6 50		2150 2.9 89	2123 2.1 63		2157 2.7 83	2114 2.2 66	
<b>6</b> Sa 0218 - 2.6 - 79	<b>21</b> Su 0238 - 3.0 - 92		<b>6</b> Tu 0356 - 4.3 - 131	<b>21</b> W 0327 - 4.4 - 135		<b>6</b> Th 0423 - 5.2 - 159	<b>21</b> F 0327 - 5.2 - 160	
0828 2.4 73	0856 1.6 49		1009 3.0 90	0957 2.0 60		1047 2.4 73	1016 1.8 56	
1441 - 4.7 - 142	1447 - 3.9 - 120		1558 - 4.1 - 124	1532 - 3.6 - 110		1620 - 3.2 - 98	1542 - 3.2 - 98	
2136 2.5 76	2143 1.9 59		2231 3.1 94	2200 2.4 73		2237 2.7 81	2158 2.5 75	
<b>7</b> Su 0317 - 3.1 - 95	<b>22</b> M 0325 - 3.5 - 107		<b>7</b> W 0444 - 4.8 - 146	<b>22</b> Th 0405 - 4.9 - 148		<b>7</b> ● 0505 - 5.4 - 164	<b>22</b> Sa 0410 - 5.6 - 171	
0930 3.0 90	0945 2.0 62		1101 3.1 96	1042 2.4 72		1134 2.4 74	1106 2.2 66	
1535 - 4.7 - 144	1530 - 3.9 - 119		1647 - 3.7 - 113	1614 - 3.5 - 106		1706 - 3.0 - 91	1631 - 3.1 - 96	
2224 2.9 89	2217 2.2 68		2309 3.1 95	2235 2.7 81		2313 2.6 78	2243 2.7 82	
<b>8</b> M 0412 - 3.7 - 112	<b>23</b> Tu 0406 - 3.9 - 120		<b>8</b> Th 0527 - 5.1 - 156	<b>23</b> F 0441 - 5.2 - 159		<b>8</b> ○ 0543 - 5.4 - 164	<b>23</b> Sa 0456 - 5.8 - 178	
1025 3.4 104	1029 2.5 75		1146 3.1 96	1126 2.7 81		1214 2.3 70	1153 2.4 73	
1628 - 4.6 - 140	1611 - 3.8 - 117		1734 - 3.4 - 104	1658 - 3.3 - 101		1744 - 2.9 - 88	1722 - 3.1 - 95	
2305 3.2 97	2247 2.5 76		● 2344 3.0 92	2312 2.9 88		2346 2.4 74	2329 2.9 87	
<b>9</b> Tu 0501 - 4.2 - 128	<b>24</b> W 0442 - 4.3 - 131		<b>9</b> F 0606 - 5.2 - 160	<b>24</b> Sa 0520 - 5.4 - 166		<b>9</b> ● 0615 - 5.3 - 162	<b>24</b> M 0549 - 5.9 - 179	
1116 3.7 113	1109 2.8 86		1228 3.0 92	1208 2.8 85		1250 2.1 65	1239 2.4 74	
1722 - 4.3 - 131	1652 - 3.7 - 113		1814 3.2 - 97	1744 3.1 - 96		1817 2.9 - 88	1812 3.1 - 96	
● 2343 3.3 100	2318 2.7 83			2351 3.0 92				
<b>10</b> W 0546 - 4.6 - 140	<b>25</b> Th 0515 - 4.6 - 139		<b>10</b> Sa 0017 2.9 88	<b>25</b> Su 0605 - 5.5 - 168		<b>10</b> M 0017 2.3 69	<b>25</b> Tu 0016 3.0 90	
1201 3.7 114	1147 3.1 93		0643 - 5.2 - 159	1251 2.8 85		0647 - 5.2 - 160	0649 - 5.8 - 178	
1811 - 4.0 - 121	1733 - 3.5 - 108		1306 2.8 84	1830 3.1 - 93		1324 2.0 60	1326 2.4 72	
O 2349 2.9 88	1848 - 3.0 - 92		1848 - 3.0 - 92			1850 3.0 - 90	1859 3.2 - 97	
<b>11</b> Th 0019 3.3 100	<b>26</b> F 0548 - 4.8 - 145		<b>11</b> Su 0049 2.7 81	<b>26</b> M 0032 3.0 92		<b>11</b> Tu 0047 2.1 65	<b>26</b> W 0104 2.9 88	
0628 - 4.8 - 147	1225 3.1 96		0720 - 5.2 - 157	0659 - 5.5 - 168		0721 - 5.2 - 159	0745 - 5.7 - 175	
1244 3.6 109	1813 - 3.3 - 102		1344 2.4 74	1336 2.6 80		1358 1.8 56	1414 2.3 69	
1849 - 3.7 - 112			1921 - 2.9 - 89	1915 - 3.0 - 90		1926 - 3.0 - 91	1944 3.2 - 98	
<b>12</b> F 0053 3.2 97	<b>27</b> Sa 0022 3.0 92		<b>12</b> M 0120 2.4 74	<b>27</b> Tu 0117 2.9 89		<b>12</b> W 0121 2.0 61	<b>27</b> Th 0154 2.7 82	
0708 - 4.9 - 150	0624 - 4.9 - 148		0758 - 5.1 - 154	0755 - 5.4 - 165		0758 - 5.2 - 157	0833 - 5.5 - 169	
1325 3.3 100	1305 3.1 94		1422 2.1 65	1424 2.4 73		1434 1.7 52	1504 2.2 67	
1922 - 3.4 - 103	1851 - 3.1 - 96		1958 - 2.8 - 86	2000 - 2.8 - 86		2005 - 3.0 - 91	2033 - 3.2 - 99	
<b>13</b> Sa 0126 3.0 91	<b>28</b> Su 0058 3.1 93		<b>13</b> Tu 0153 2.2 66	<b>28</b> W 0204 2.7 81		<b>13</b> ● 0200 1.8 54	<b>28</b> F 0246 2.3 71	
0750 - 4.9 - 149	0708 - 4.9 - 149		0838 - 5.0 - 151	0848 - 5.3 - 161		0838 - 5.0 - 152	0918 - 5.2 - 160	
1405 2.9 87	1347 2.9 88		1504 1.8 56	1517 2.2 66		1514 1.6 49	1555 2.2 66	
1956 - 3.1 - 95	1930 - 2.9 - 89		2039 - 2.7 - 81	2050 - 2.7 - 83		2049 - 3.0 - 91	2130 - 3.2 - 99	
<b>14</b> Su 0200 2.7 83	<b>29</b> M 0138 3.0 90		<b>14</b> W 0921 4.8 - 146	<b>29</b> Th 0257 2.3 70		<b>14</b> F 0921 4.7 - 144	<b>29</b> Sa 0345 1.9 57	
0833 - 4.8 - 145	0800 - 4.9 - 148		1433 2.6 80	1551 1.6 48		1558 1.5 45	1650 2.1 65	
1449 2.4 73	2012 - 2.7 - 82		2129 - 2.5 - 76	2151 - 2.6 - 80		2140 - 3.0 - 90	2244 - 3.3 - 102	
2033 - 2.8 - 86								
<b>15</b> M 0235 2.4 72	<b>30</b> Tu 0221 2.7 83		<b>15</b> Th 0316 1.4 43	<b>30</b> F 0359 1.9 57		<b>15</b> Sa 0338 1.0 32	<b>30</b> Su 0457 1.5 45	
0919 - 4.6 - 141	0856 - 4.8 - 145		1008 - 4.5 - 138	1036 - 4.8 - 147		1007 - 4.3 - 131	1107 - 4.4 - 133	
1536 2.0 60	1526 2.3 70		1644 1.3 41	1719 2.0 61		1646 1.3 41	1748 2.1 65	
2118 - 2.5 - 76	2104 - 2.4 - 74		O 2230 - 2.4 - 73	O 2310 - 2.7 - 81		O 2242 - 3.0 - 92		
	<b>31</b> W 0311 2.3 71						<b>31</b> M 0010 3.6 - 111	
	0954 - 4.6 - 141						0615 1.3 39	
	1627 2.0 61						1222 - 3.9 - 119	
	2210 - 2.2 - 67						1848 2.1 65	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Keelung (Chi-lung Chiang), Taiwan, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	
1 M 0146 0.1 33	-2.4	-72	16 Tu 0236 0.2 21	-2.0	-60	1 Th 0255 1.0 34	-2.6	-78	1 Th 0318 1.1 34	-1.8	-55	
1416 -0.1 -4	-0.1	-4	1606 0.1 26	-0.1	-4	1539 0.4 11	-0.4	-11	F 1611 0.4 12	-0.4	-12	
1930 0.8 23	0.8	23	2014 0.2 6	0.2	6	2104 0.8 25	0.8	25	● 2133 0.4 12	0.4	12	
2 Tu 0225 1.2 36	-2.6	-79	17 W 0304 0.7 21	-2.0	-61	2 F 0341 1.0 32	-2.4	-74	2 F 0244 1.0 32	-2.1	-64	
1503 -0.1 -3	-0.1	-3	1056 0.2 5	0.2	5	1135 0.5 16	-0.5	-16	17 Sa 1123 0.7 21	-1.7	-53	
○ 2011 0.8 25	0.8	25	1626 0.8 24	0.8	24	2202 0.5 14	0.5	14	1524 0.6 19	-0.6	-17	
3 W 0306 1.2 37	-2.7	-82	18 Th 0335 1.0 21	-2.0	-62	3 Sa 1221 1.0 30	-2.2	-66	3 Sa 1102 1.0 29	-1.9	-58	
1106 1.2 37	1.2	37	1127 0.7 21	0.7	21	1719 0.7 20	-0.7	-20	Su 1702 0.7 22	-1.6	-49	
1553 -0.1 -3	-0.1	-3	1648 0.2 7	0.2	7	2307 0.7 21	0.7	21	2302 0.5 14	0.5	14	
2102 0.8 25	0.8	25	2128 0.2 7	0.2	7	18	0430 1.0 30	-1.6	-49	18 Su 1550 0.8 25	-1.2	-38
4 Th 0353 1.2 37	-2.6	-80	19 F 0411 1.0 21	-2.0	-61	4 Su 1305 0.9 28	-1.8	-55	4 Su 1160 1.0 25	-1.6	-48	
1158 1.2 37	1.2	37	1200 0.7 21	0.7	21	1827 0.8 25	-0.8	-25	M 1226 0.7 20	-1.4	-44	
1648 -0.2 -5	-0.2	-5	1718 0.3 10	0.3	10	1741 0.9 14	-0.9	-14	1741 0.8 25	-1.0	-30	
2200 0.8 23	0.8	23	2212 0.2 7	0.2	7	2357 0.5 14	0.5	14	2316 0.8 24	0.8	24	
5 F 0446 1.2 36	-2.4	-74	20 Sa 0451 0.7 22	-1.9	-58	5 M 0026 0.5 15	0.5	15	5 M 1219 0.7 22	-1.2	-37	
1250 1.2 36	1.2	36	1235 0.7 22	0.7	22	0622 1.4 42	-1.4	-42	1741 1.1 34	-1.1	-34	
1755 -0.3 -8	-0.3	-8	1758 0.5 14	0.5	14	1347 0.8 25	-0.8	-25	1126 0.7 21	-0.7	-21	
2307 0.7 20	0.7	20	2301 0.2 6	0.2	6	1941 1.0 29	-1.0	-29	1652 1.2 37	-1.2	-27	
6 Sa 0546 1.1 35	-2.1	-64	21 Su 0536 0.7 22	-1.7	-53	6 Tu 0153 0.3 10	0.3	10	5 0500 1.2 37	-0.9	-28	
1341 1.1 35	1.1	35	1311 0.7 22	0.7	22	0728 1.0 29	-1.0	-29	M 1259 0.6 19	-0.6	-38	
1916 -0.4 -13	-0.4	-13	1848 0.6 18	0.6	18	1429 0.7 21	-0.7	-21	Tu 1832 1.0 31	-1.0	-31	
2359 0.2 5	0.2	5	2051 1.1 34	1.1	34	1931 1.1 35	-1.1	-35	1741 1.1 34	-1.1	-34	
7 Su 0025 1.1 33	0.5	14	22 M 0624 0.7 22	-1.5	-47	7 W 0320 0.3 8	0.3	8	6 0027 0.7 20	0.7	20	
0650 -1.7 -52	-1.7	-52	1347 0.7 22	0.7	22	0900 0.6 17	-0.6	-17	W 0645 1.0 30	-0.8	-25	
1430 1.1 33	1.1	33	1941 0.7 22	0.7	22	1512 0.5 16	-0.5	-16	Tu 1333 0.6 18	-0.6	-18	
2034 -0.6 -19	-0.6	-19	2200 1.3 39	1.3	39	2200 1.3 39	-1.3	-39	1254 0.6 19	-0.6	-19	
8 M 0201 1.0 29	0.3	9	23 Tu 0111 0.7 20	0.1	4	8 Th 0455 0.3 10	0.3	10	1845 1.2 37	-1.2	-22	
0800 -1.3 -39	-1.3	-39	0717 1.3 40	-1.3	-40	1053 0.4 11	-0.4	-11	21 W 1159 0.7 20	-0.7	-22	
1519 1.0 29	1.0	29	1423 0.7 20	0.7	20	1601 0.4 12	0.4	12	W 1739 1.3 40	-1.3	-40	
2146 -0.9 -26	-0.9	-26	2033 0.9 27	0.9	27	2308 1.4 43	-1.4	-43	2200 1.3 39	-1.3	-39	
9 Tu 0339 1.0 25	0.2	7	24 F 0229 1.0 32	0.1	3	9 F 0636 0.5 14	0.5	14	7 0141 0.6 17	0.6	17	
0929 -0.9 -27	-0.9	-27	0817 1.0 32	-1.0	-32	1210 0.3 8	-0.3	-8	W 0701 0.5 15	-0.5	-15	
1612 0.8 25	0.8	25	1501 0.6 19	0.6	19	1703 0.3 8	0.3	8	Th 1408 0.5 15	0.5	15	
○ 2257 -1.1 -34	-1.1	-34	2126 1.1 33	-1.1	-33	2308 1.4 44	-1.4	-44	○ 2136 1.4 44	-1.4	-44	
10 W 0514 1.0 19	0.3	9	25 Th 0348 1.0 20	0.2	5	10 Sa 0002 0.6 18	-1.6	-48	23 M 0328 0.4 13	0.4	13	
1104 -0.6 -19	-0.6	-19	0929 0.8 24	-0.8	-24	0742 0.6 19	-0.6	-19	23 F 0909 0.4 13	-0.4	-13	
1708 0.7 20	0.7	20	1539 0.6 17	0.6	17	1311 0.2 7	-0.2	-7	8 Th 1445 0.5 15	0.5	15	
2356 -1.3 -41	-1.3	-41	2223 1.3 40	-1.3	-40	1800 0.2 7	0.2	7	○ 2136 1.4 44	-1.4	-44	
11 Th 0645 1.2 13	0.4	13	26 F 0515 0.6 18	0.3	9	11 Su 0043 0.7 22	-1.7	-51	10 0557 0.6 19	0.6	19	
1216 -0.4 -13	-0.4	-13	1043 0.6 18	0.6	18	0827 0.7 22	-0.7	-22	Sa 1157 0.1 33	-0.1	-33	
1800 0.5 16	0.5	16	1620 0.5 15	0.5	15	1403 0.2 6	-0.2	-6	1539 0.2 6	-0.2	-6	
2319 1.6 49	1.6	49	2319 1.6 49	-1.6	-49	1842 0.2 6	0.2	6	2303 1.4 43	-1.4	-43	
12 F 0042 1.0 18	-1.5	-47	27 Sa 0639 0.5 15	0.5	15	10 0631 0.7 22	0.7	22	10 0451 0.9 28	0.9	28	
0757 0.6 18	0.6	18	1148 0.4 12	-0.4	-12	0742 0.6 19	-0.6	-19	Su 1054 0.0 1	0.0	1	
1317 -0.3 -9	-0.3	-9	1704 0.5 15	0.5	15	1311 0.2 7	-0.2	-7	1455 0.5 14	0.5	14	
1842 0.4 12	0.4	12	2319 1.6 49	-1.6	-49	1842 0.2 6	0.2	6	2216 1.5 46	-1.5	-46	
13 Sa 0117 1.0 21	-1.7	-52	28 Su 0009 0.7 22	-1.9	-58	11 0733 1.0 29	-1.7	-51	26 0614 1.1 33	1.1	33	
0849 0.7 21	0.7	21	0743 0.7 22	0.7	22	1251 0.1 4	-0.1	-4	M 1200 0.0 1	0.0	1	
1414 -0.2 -6	-0.2	-6	1243 0.3 8	-0.3	-8	1739 0.5 14	-0.5	-14	1619 0.4 13	0.4	13	
1911 0.3 8	0.3	8	1750 0.5 15	0.5	15	1311 0.2 7	-0.2	-7	2330 1.6 48	-1.6	-48	
14 Su 0146 1.0 22	-1.8	-55	29 M 0052 1.0 29	-2.2	-67	13 0148 1.0 23	-1.8	-55	12 0743 0.8 25	0.8	25	
0928 0.7 22	0.7	22	0834 1.0 29	-0.8	-29	0930 0.8 23	-0.8	-23	M 1336 0.2 5	-0.2	-5	
1505 -0.1 -4	-0.1	-4	1331 0.2 6	-0.2	-6	1515 0.2 6	-0.2	-6	1815 0.2 7	0.2	7	
1928 0.2 6	0.2	6	1836 0.6 18	0.6	18	1945 0.3 8	0.3	8	1406 0.4 13	0.4	13	
15 M 0212 1.0 21	-1.9	-57	10 0132 1.1 33	-2.4	-74	1934 0.7 22	-0.7	-22	1944 0.4 13	0.4	13	
1000 0.7 22	0.7	22	0919 1.1 33	-1.1	-33	13 0122 1.1 35	-2.2	-66	1902 0.3 10	0.3	10	
1541 -0.1 -3	-0.1	-3	1415 0.2 6	-0.2	-6	1414 0.3 8	-0.3	-8	1903 0.8 23	0.8	23	
1946 0.2 6	0.2	6	1922 0.7 21	0.7	21	1944 0.4 13	0.4	13	1956 0.9 27	0.9	27	
31 W 0213 1.1 34	-2.6	-78	15 0247 1.0 22	-1.8	-56	14 0118 1.1 34	-1.5	-47	29 0113 1.2 38	-1.6	-50	
1457 -0.3 -8	-0.3	-8	0919 0.7 22	-1.1	-33	1024 0.7 22	-0.7	-22	W 0845 0.9 28	0.9	28	
○ 2012 0.8 24	0.8	24	1415 0.2 6	-0.2	-6	1555 0.3 9	-0.3	-9	1440 0.2 7	-0.2	-7	
31 O 0213 1.0 31	-2.6	-78	1922 0.7 21	0.7	21	2054 0.4 11	0.4	11	1944 0.4 13	0.4	13	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Keelung (Chi-lung Chiang), Taiwan, 2018

Times and Heights of High and Low Waters

April				May				June											
	Time	Height			Time	Height			Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Su	0311	-1.1	-34	<b>16</b>	0304	-0.7	-20	<b>1</b>	0345	0.0	-1	<b>16</b>	0309	0.1	3				
	1018	0.8	25	M	0930	0.9	26	Tu	0913	0.7	20	W	0843	1.0	32				
	1539	-1.1	-33		1512	-1.1	-34		1544	-1.4	-42		1513	-1.6	-50				
	2229	1.0	31	●	2217	1.2	37		2326	1.2	36		2256	1.6	48				
<b>2</b> M	0353	-0.8	-24	<b>17</b>	0338	-0.5	-15	<b>2</b>	0436	0.2	5	<b>17</b>	0351	0.3	8				
	1043	0.7	21	Tu	0950	0.8	25	W	0927	0.6	18	Th	0906	1.1	33				
	1615	-1.2	-38		1541	-1.3	-41		1620	-1.4	-44		1552	-1.8	-54				
	2324	1.0	29		2300	1.3	39					2349	1.6	49					
<b>3</b> Tu	0440	-0.5	-15	<b>18</b>	0416	-0.3	-9	<b>3</b>	0013	1.1	35	<b>18</b>	0443	0.4	13				
	1107	0.6	18	W	1014	0.8	25	Th	0536	0.3	8	F	0942	1.1	33				
	1658	-1.3	-41		1617	-1.5	-47		0953	0.5	16		1640	-1.8	-54				
					2352	1.3	39		1703	-1.4	-44								
<b>4</b> W	0023	0.9	27	<b>19</b>	0502	-0.1	-3	<b>4</b>	0103	1.1	34	<b>19</b>	0050	1.6	50				
	0537	-0.2	-7	Th	1044	0.8	25	F	0644	0.3	9	Sa	0554	0.5	16				
	1137	0.5	15		1037	0.5	14		1036	1.0	31		1159	0.5	16				
	1749	-1.4	-42		1703	-1.6	-49		1755	-1.4	-42		1739	-1.6	-50				
<b>5</b> Th	0124	0.9	26	<b>20</b>	0053	1.3	39	<b>5</b>	0152	1.1	34	<b>20</b>	0154	1.6	50				
	0649	0.0	-1	F	0603	0.1	4	Sa	0801	0.3	9	Su	0740	0.6	17				
	1215	0.4	12		1126	0.8	24		1144	0.4	13		1150	0.9	28				
	1847	-1.4	-42		1802	-1.6	-48		1852	-1.3	-39		1850	-1.4	-43				
<b>6</b> F	0225	0.8	25	<b>21</b>	0200	1.3	39	<b>6</b>	0243	1.1	35	<b>21</b>	0257	1.6	50				
	0825	0.1	3	Sa	0739	0.3	9	Su	0920	0.3	8	M	0914	0.4	13				
	1257	0.3	10		1221	0.7	22		1247	0.4	11		1313	0.8	24				
	1946	-1.3	-40		1913	-1.5	-45		1949	-1.1	-35		2006	-1.1	-35				
<b>7</b> Sa	0329	0.8	25	<b>22</b>	0312	1.3	40	<b>7</b>	0335	1.2	36	<b>22</b>	0401	1.6	50				
	1015	0.1	3	Su	0932	0.3	9	M	1027	0.2	5	Tu	1025	0.2	7				
	1344	0.3	8		1325	0.6	19		1355	0.3	9		1454	0.7	22				
	2044	-1.2	-38		2028	-1.3	-41		2048	-1.0	-30	○	2130	-0.9	-28				
<b>8</b> Su	0442	0.9	26	<b>23</b>	0431	1.3	41	<b>8</b>	0431	1.2	37	<b>23</b>	0506	1.6	50				
	1128	0.0	1	M	1051	0.2	5	Tu	1121	0.0	1		1124	0.0	-1				
	1440	0.2	7		1445	0.5	16		1526	0.3	9	W	1651	0.8	25				
	2149	-1.2	-36	○	2152	-1.2	-38	○	2154	-0.9	-26		2257	-0.7	-22				
<b>9</b> M	0551	1.0	29	<b>24</b>	0544	1.4	43	<b>9</b>	0527	1.2	38	<b>24</b>	0603	1.6	50				
	1217	0.0	-1	Tu	1150	0.0	0	W	1205	-0.1	-3	Th	1216	-0.3	-8				
	1607	0.2	6		1646	0.6	18		1716	0.4	13		1748	0.8	24				
	2258	-1.1	-35		2314	-1.2	-36		2303	-0.7	-22		2316	-0.3	-8				
<b>10</b> Tu	0641	1.0	31	<b>25</b>	0641	1.5	45	<b>10</b>	0615	1.2	38	<b>25</b>	0002	-0.5	-16				
	1257	-0.1	-4	W	1237	-0.2	-6	Th	1240	-0.2	-7	F	0650	1.5	45				
	1748	0.3	9		1813	0.8	24		1824	0.6	19		1300	-0.5	-16				
	2356	-1.1	-35						1919	1.1	34		1943	1.2	37				
<b>11</b> W	0719	1.1	33	<b>26</b>	0014	-1.1	-34	<b>11</b>	0000	-0.6	-19	<b>10</b>	0007	-0.1	-3	<b>25</b>	0148	0.5	14
	1331	-0.2	-7	Th	0726	1.4	44	F	0653	1.2	37	Su	0625	1.2	38	M	0725	1.1	33
	1847	0.5	14		1318	-0.4	-12		1309	-0.4	-13		1246	-0.7	-21		1350	-0.9	-28
					1915	1.0	29		1917	0.8	25		2031	1.4	43		2123	1.4	44
<b>12</b> Th	0042	-1.1	-33	<b>27</b>	0103	-1.0	-30	<b>12</b>	0046	-0.5	-16	<b>10</b>	0125	0.3	8	<b>26</b>	0248	0.6	19
	0752	1.1	33	F	0805	1.3	40	Sa	0725	1.2	36	Su	0800	1.1	33	Tu	0732	0.9	28
	1358	-0.3	-10		1352	-0.6	-18		1331	-0.6	-18		1405	-0.9	-28		1415	-1.0	-30
	1936	0.6	19		2011	1.1	33		2004	1.0	32		2114	1.3	40		2207	1.4	44
<b>13</b> F	0122	-1.0	-31	<b>28</b>	0145	-0.8	-24	<b>13</b>	0124	-0.4	-12	<b>28</b>	0230	0.2	6	<b>27</b>	0347	0.8	23
	0821	1.0	32	Sa	0838	1.1	34	Su	0750	1.1	33	M	0815	0.9	27	W	0724	0.9	27
	1418	-0.5	-14		1421	-0.8	-25		1351	-0.8	-25		1429	-1.1	-33		1437	-1.1	-33
	2019	0.8	24		2103	1.1	35		2047	1.2	38		2201	1.3	41		2245	1.4	43
<b>14</b> Sa	0158	-0.9	-28	<b>29</b>	0224	-0.5	-16	<b>14</b>	0159	-0.2	-7	<b>29</b>	0319	0.4	12	<b>14</b>	0243	0.6	18
	0848	1.0	30	Su	0904	0.9	28	M	0810	1.0	32	Tu	0803	0.8	23	F	0807	0.9	27
	1434	-0.6	-19		1447	-1.0	-31		1412	-1.1	-34		1452	-1.2	-37		1533	-1.2	-36
	2059	1.0	29		2152	1.2	36		2128	1.4	43	○	2243	1.3	41	●	2252	1.8	54
<b>15</b> Su	0231	-0.8	-24	<b>30</b>	0303	-0.3	-8	<b>15</b>	0233	-0.1	-2	<b>30</b>	0409	0.5	16	<b>15</b>	0330	0.7	21
	0910	0.9	28	M	0914	0.8	23	Tu	0826	1.0	31	W	0806	0.7	22	F	0828	1.4	42
	1450	-0.9	-26		1514	-1.2	-37		1440	-1.4	-43		1518	-1.3	-40		1536	-1.8	-56
	2138	1.1	34	○	2239	1.2	36	●	2209	1.5	46		2323	1.3	40		2346	1.8	55
												<b>31</b>	0452	0.6	17				
												Th	0822	0.7	22				
												Th	1551	-1.4	-42				
																<b>30</b>	0500	0.8	23
																Sa	0847	0.9	28
																	1611	-1.2	-36

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Keelung (Chi-lung Chiang), Taiwan, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0026	1.4	42	<b>16</b>	0028	1.9	57	<b>1</b>	0103	1.4	44
	0536	0.7	20	M	0506	0.6	19	W	0621	0.4	11
	0937	0.9	27		1031	1.6	48		1141	1.1	33
	1655	-1.1	-34		1717	-1.3	-39		1816	-0.6	-19
<b>2</b> M	0101	1.4	43	<b>17</b>	0118	1.8	56	<b>2</b>	0136	1.4	44
	0629	0.6	17	Tu	0623	0.5	15	F	0715	0.2	6
	1035	0.9	26		1148	1.4	44		1251	1.0	32
	1745	-1.0	-31		1822	-1.0	-29		1907	-0.4	-13
<b>3</b> Tu	0137	1.5	45	<b>18</b>	0205	1.8	56	<b>3</b>	0209	1.4	44
	0726	0.5	18	W	0749	0.3	9	F	0807	0.0	1
	1140	0.8	24		1319	1.3	39		1403	1.0	32
	1837	-0.9	-26		1931	-0.6	-17		2002	-0.2	-7
<b>4</b> W	0213	1.5	46	<b>19</b>	0252	1.8	54	<b>4</b>	0243	1.4	43
	0819	0.3	9	Th	0903	0.1	2	Sa	0857	-0.1	-4
	1300	0.8	23		1455	1.2	36		1513	1.1	33
	1931	-0.7	-20		2052	-0.2	-5		2103	0.0	1
<b>5</b> Th	0250	1.5	46	<b>20</b>	0341	1.7	51	<b>5</b>	0318	1.4	42
	0907	0.1	4	F	1013	-0.2	-6	Su	0948	-0.3	-10
	1425	0.8	23		1626	1.2	36	O	2209	0.1	4
	2029	-0.4	-13		2346	0.4	11		2311	0.5	14
<b>6</b> F	0328	1.5	45	<b>21</b>	0435	1.5	47	<b>6</b>	0353	1.3	41
	0955	0.0	-1	Sa	1120	-0.4	-13	M	1043	-0.6	-17
	1546	0.8	25		1800	1.2	38		1754	1.2	38
	O	2132	-0.2	-6		2346	0.4	11		2311	0.5
<b>7</b> Sa	0408	1.4	44	<b>22</b>	0531	1.4	42	<b>7</b>	0430	1.3	40
	1042	-0.2	-7	Su	1215	-0.6	-19	Tu	1137	-0.8	-25
	1702	1.0	29		1926	1.4	42		1912	1.4	43
	2236	0.0	0								
<b>8</b> Su	0447	1.4	42	<b>23</b>	0050	0.5	16	<b>8</b>	0005	0.6	19
	1127	-0.5	-15	M	0620	1.2	38	W	0511	1.3	41
	1817	1.1	34		1258	-0.8	-23		1225	-1.1	-33
	2331	0.2	6		2030	1.5	45		2009	1.6	49
<b>9</b> M	0523	1.3	41	<b>24</b>	0150	0.7	21	<b>9</b>	0053	0.8	23
	1208	-0.8	-23	Tu	0657	1.1	34	F	0557	1.4	43
	1923	1.3	40		1332	-0.9	-26		1308	-1.3	-40
					2120	1.5	46		2058	1.7	53
<b>10</b> Tu	0017	0.4	12	<b>25</b>	0249	0.8	24	<b>10</b>	0138	0.8	24
	0553	1.3	40	W	0715	1.0	32	F	0647	1.5	47
	1245	-1.0	-32		1400	-0.9	-27		1350	-1.5	-45
	2019	1.5	46		2201	1.5	45		2143	1.8	55
<b>11</b> W	0059	0.6	18	<b>26</b>	0335	0.9	26	<b>11</b>	0220	0.8	23
	0619	1.4	42	Th	0723	1.0	31	Sa	0739	1.7	51
	1321	-1.3	-41		1425	-0.9	-28		1432	-1.5	-47
	2109	1.6	50		2235	1.4	43		2228	1.8	55
<b>12</b> Th	0141	0.7	22	<b>27</b>	0357	0.9	26	<b>12</b>	0303	0.6	19
	0650	1.4	44	F	0746	1.0	32	Su	0834	1.8	54
	1400	-1.6	-48		1452	-1.0	-30		1518	-1.4	-44
	2156	1.8	54		2304	1.4	42		2314	1.8	54
<b>13</b> F	0226	0.8	25	<b>28</b>	0407	0.8	25	<b>13</b>	0349	0.5	14
	0732	1.5	47	Sa	0820	1.1	33	M	0934	1.8	54
	1441	-1.7	-52		1522	-1.0	-30		1608	-1.2	-38
	O	2245	1.8	56		2332	1.3	41		2347	1.3
<b>14</b> Sa	0315	0.8	24	<b>29</b>	0421	0.8	23	<b>14</b>	0000	1.7	53
	0824	1.6	49	Su	0901	1.1	34	F	0440	0.3	9
	1526	-1.7	-52		1558	-1.0	-29		1040	-1.7	-52
	2337	1.8	56						1704	-1.0	-29
<b>15</b> Su	0406	0.7	22	<b>30</b>	0001	1.4	42	<b>15</b>	0045	1.7	52
	0923	1.6	50	M	0449	0.6	19	W	0545	0.1	4
	1618	-1.5	-47		0949	1.1	34		1158	1.6	48
					1640	-0.9	-27		1806	-0.6	-18
	<b>31</b>	0031	1.4	43				<b>16</b>	0049	1.3	39
	Tu	0531	0.5	15				Sa	0610	-0.2	-5
		1041	1.1	34					1247	1.3	40
		1727	-0.8	-24					1846	-0.2	-5

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Keelung (Chi-lung Chiang), Taiwan, 2018

Times and Heights of High and Low Waters

October				November				December																
	Time	Height			Time	Height			Time	Height														
	h m	ft	cm		h m	ft	cm		h m	ft	cm													
<b>1</b> M	0057 0719 1451 2100	1.0 -1.0 1.4 0.5	.31 -29 44 14		<b>16</b> Tu W O	0138 0830 1623 2315	0.6 -1.0 1.3 0.3	.18 -32 41 9	<b>1</b> Th F O	0207 1705 2321	0.6 1.6 0.1	.19 -39 48 3	<b>16</b> Sa Su	0309 1011 1728 2347	0.1 -1.2 1.2 -0.6	.4 -33 36 -19	<b>16</b> Su M	0416 0953 1648 2336	0.0 -1.0 0.9 -0.9	-1 -30 26 -26				
<b>2</b> Tu	0138 0825 1608 O	1.0 -1.0 1.5 0.5	.29 -30 45 15		<b>17</b> W 1727	0234 0932	0.5 -1.0	.16 -29	<b>2</b> F	0347 1806	0.6 1.6	.18 -49	<b>17</b> Sa	0459 1755	0.2 1.2	.6 -28 36	<b>2</b> Su	0533 1819	0.5 1.2	.16 -31 38	<b>17</b> M	0536 1103 1734	0.2 -0.8 0.8	-5 -25 24
<b>3</b> W	0228 0935 1731 2330	0.9 -1.0 1.6 0.4	.28 -31 48 13		<b>18</b> Th	0002 0359 1038 1818	0.2 0.5 -0.9 1.4	.6 15 -27 42	<b>3</b> Sa	0010 0534 1139 1854	-0.1 0.8 -1.1 1.6	.4 -23 -34 48	<b>18</b> Su	0034 0611 1144 1835	-0.5 0.4 -0.8 1.1	.15 -12 -24 34	<b>18</b> Tu	0015 0642 1200 1813	-1.1 0.4 -0.7 0.7	-33 11 -20 22				
<b>4</b> Th	0339 1050 1837	0.9 -1.0 1.7	.27 -32 51		<b>19</b> F	0043 0535 1137 1859	0.1 0.6 -0.8 1.4	.3 18 -25 43	<b>4</b> Su	0053 0643 1233 1935	-0.4 0.9 -1.0 1.4	.11 -28 -31 44	<b>19</b> M	0105 0708 1234 1909	-0.7 0.6 -0.7 1.0	.21 -18 -20 32	<b>19</b> W	0047 0738 1247 1845	-1.3 0.6 -0.5 0.7	-41 18 -15 20				
<b>5</b> F	0022 0516 1154 1927	0.3 1.0 -1.1 1.7	.10 30 -34 53		<b>20</b> Sa	0118 0635 1226 1933	0.0 0.7 -0.8 1.4	.1 21 -24 42	<b>5</b> M	0130 0744 1318 2010	-0.6 1.1 -0.8 1.3	.19 -33 -25 39	<b>20</b> Tu	0131 0759 1317 1937	-0.9 0.8 -0.5 1.0	.28 -24 -16 29	<b>20</b> Th	0115 0827 1328 1909	-1.6 0.8 -0.3 0.6	-49 24 -9 18				
<b>6</b> Sa	0104 0632 1245 2008	0.2 1.1 -1.1 1.7	.6 35 -35 52		<b>21</b> Su	0148 0727 1308 2003	-0.2 0.9 -0.7 1.3	.5 26 -21 40	<b>6</b> Tu	0203 0840 1401 2039	-0.9 1.2 -0.6 1.1	.28 -37 -17 33	<b>21</b> W	0153 0843 1356 2001	-1.1 1.0 -0.4 0.9	.34 -29 -11 26	<b>21</b> Th	0142 0911 1406 1930	-1.9 1.0 -0.1 0.6	-57 29 -4 18				
<b>7</b> Su	0140 0729 1329 2046	0.0 1.3 -1.1 1.6	.1 40 -33 49		<b>22</b> M	0212 0813 1347 2030	-0.3 1.0 -0.6 1.2	.10 30 -37 37	<b>7</b> W	0233 0934 1445 2057	-1.2 1.3 -0.3 0.9	.36 -39 -27 27	<b>22</b> Th	0214 0925 1432 2020	-1.4 1.1 -0.2 0.8	.42 -34 -6 24	<b>22</b> Sa	0211 0954 1558 2015	-2.2 1.1 0.1 0.4	-66 33 0 20				
<b>8</b> M	0212 0823 1410 2120	-0.2 1.4 -0.9 1.4	.7 44 -28 44		<b>23</b> Tu	0232 0856 1425 2055	-0.5 1.1 -0.5 1.1	.15 34 -14 33	<b>8</b> Th	0303 1026 1535 2106	-1.4 1.3 -0.0 0.8	.44 -40 -1 23	<b>23</b> Sa	0237 1006 1508 2037	-1.6 1.2 -0.1 0.8	.50 -37 -1 23	<b>23</b> Su	0244 1039 1526 2022	-2.4 1.1 0.1 0.7	-73 35 2 22				
<b>9</b> Tu	0244 0918 1452 ●	-0.5 1.5 -0.7 1.3	.15 47 -21 39		<b>24</b> W	0248 0936 1502 2116	-0.7 1.2 -0.3 1.0	.22 38 -9 30	<b>9</b> F	0335 1117 1636 2122	-1.6 1.3 0.2 0.6	.49 -40 -5 19	<b>9</b> Sa	0306 1049 1548 2056	-1.9 1.3 0.1 0.8	.58 -39 -3 24	<b>24</b> M	0347 1157 1731 2103	-2.0 1.0 0.1 0.3	.62 -30 4 9	<b>24</b> W	0322 1128 1613 2106	-2.5 1.2 0.1 0.8	-77 36 3 23
<b>10</b> W	0319 1014 1538 2220	-0.8 1.5 -0.4 1.1	.23 47 -11 35		<b>25</b> Th	0308 1016 1539 2137	-1.0 1.3 -0.2 0.9	.29 41 -5 28	<b>10</b> Sa	0412 1208 1744 2150	-1.7 1.3 0.3 0.5	.52 -39 -8 16	<b>10</b> Su	0341 1138 1636 2125	-2.1 1.3 0.2 0.8	.63 -41 -7 24	<b>25</b> M	0425 1239 1815 2146	-2.0 0.9 0.1 0.3	.61 -28 8 8	<b>25</b> Tu	0407 1220 1708 2203	-2.5 1.2 0.1 0.7	-76 37 2 22
<b>11</b> Th	0357 1112 1633 2249	-1.0 1.5 -0.1 1.0	.30 47 -2 31		<b>26</b> F	0333 1057 1618 2159	-1.2 1.4 0.0 0.9	.36 43 0 27	<b>11</b> Su	0455 1300 1853 2234	-1.7 1.2 0.3 0.5	.52 -37 9 14	<b>11</b> M	0423 1234 1739 2210	-2.1 1.4 0.3 0.7	.65 -42 9 22	<b>26</b> W	0501 1313 1821 2311	-2.3 1.2 0.0 0.6	-71 37 -1 19				
<b>12</b> F	0441 1213 1742 2324	-1.1 1.5 0.2 0.9	.35 45 6 27		<b>27</b> Sa	0406 1145 1704 2226	-1.4 1.4 0.2 0.9	.43 44 5 27	<b>12</b> M	0546 1351 2006 2334	-1.6 1.2 0.3 0.4	.50 -37 8 11	<b>12</b> Tu	0516 1332 1909 2314	-2.1 1.4 0.3 0.6	.63 -42 9 19	<b>27</b> W	0600 1359 2006 2343	-1.8 0.9 -0.1 0.1	.55 -37 -4 2	<b>27</b> Th	0602 1404 1947 2203	-2.1 1.2 -0.2 0.7	-63 37 -6 22
<b>13</b> Sa	0534 1315 1904	-1.2 1.4 0.4	.36 44 11		<b>28</b> Su	0447 1240 1804 2302	-1.5 1.5 0.3 0.9	.46 45 9 26	<b>13</b> Tu	0641 1440 2120	-1.5 1.2 0.2	.46 -36 5	<b>13</b> W	0620 1430 2039	-1.9 1.4 0.2	.58 -42 5	<b>28</b> F	0652 1438 2103	-1.6 1.0 -0.3	.50 -29 -8	<b>28</b> M	0031 0710 1455 2103	0.5 -1.7 1.1 -0.5	15 -53 35 -14
<b>14</b> Su	0006 0633 1416 2036	0.8 -1.2 1.4 0.4	.24 -36 42 13		<b>29</b> M	0539 1341 1930 2352	-1.5 1.5 0.4 0.8	.47 45 13 24	<b>14</b> W	0034 0736 1529 2222	0.3 -1.4 1.2 0.0	.8 -42 36 1	<b>14</b> Th	0033 0731 1529 2150	0.5 -1.7 1.4 -0.1	.16 -51 42 -2	<b>29</b> F	0208 0824 1547 2212	0.4 -1.4 1.1 -0.8	11 -42 33 -23				
<b>15</b> M	0051 0732 1518 2213	0.7 -1.1 1.4 0.4	.21 -34 42 11		<b>30</b> Tu	0644 1446 2106	-1.5 1.5 0.4	.45 46 12	<b>15</b> Th	0140 0832 1619 2313	0.2 -1.2 1.2 -0.1	.5 -38 36 -4	<b>15</b> F	0204 0846 1629 2252	0.4 -1.4 1.4 -0.3	.12 -43 42 -10	<b>30</b> Sa	0233 0844 1602 2249	-0.1 -1.2 0.9 -0.7	.3 -37 28 -20	<b>30</b> Su	0354 0954 1644 2318	0.3 -1.0 1.0 -1.0	10 -31 30 -32
					<b>31</b> W	0054 0754 1554 2221	0.7 -1.4 1.5 0.3	.21 -42 47 8								<b>31</b> M	0529 1119 1644 1739	0.4 -0.8 1.0 0.9	.13 -23 30 -26					

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Huangpu, China, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
1 M	0705	0.2	6	16	0749	0.5	16	1 Th	0003	9.9	302	16	0016	9.1	277
M	1253	6.8	206	Tu	1347	6.0	182	F	0845	-0.1	-4	F	0832	0.8	24
	1754	2.6	79		1831	2.8	85		1423	6.9	210		1408	6.5	197
	2318	9.8	300		2355	9.1	276	●	1937	2.3	70	●	1934	2.3	69
2 Tu	0759	-0.1	-3	17 W	0822	0.7	20	2 F	0053	9.8	300	2 F	0002	9.7	295
O	1347	6.9	210		1412	6.1	186		0929	0.3	8	Sa	0854	0.9	28
	1844	2.6	80		1901	2.8	84		1502	7.1	215		1431	6.6	201
●									2020	2.2	68		2005	2.1	65
3 W	0004	10.1	308	18 Th	0027	9.2	279	3 Sa	0140	9.5	290	18 Su	0128	8.9	271
	0853	-0.2	-6		0851	0.7	21		0956	0.4	12		0918	1.0	32
	1438	7.0	212		1440	6.2	188		1538	7.1	217		1451	6.8	206
	1937	2.7	81		1935	2.7	81		2058	2.1	64		2043	1.9	59
4 Th	0052	10.1	308	19 F	0102	9.1	277	4 Su	0225	9.0	273	19 M	0207	8.6	262
	0943	-0.1	-3		0918	0.8	25		1033	0.6	17		0943	1.0	31
	1524	7.0	213		1505	6.2	190		1607	7.1	216		1510	6.9	211
	2019	2.8	86		2007	2.7	81		2145	2.2	66		2128	1.9	59
5 F	0138	9.8	300	20 Sa	0135	8.9	271	5 M	0312	8.2	249	5 Tu	0247	8.2	250
	1023	0.3	14		0945	0.8	25		1055	0.9	27		1003	1.1	34
	1609	7.0	212		1534	6.3	191		1636	7.0	212		1528	7.1	216
	2101	2.9	89		2041	2.7	81		2238	2.5	75		2207	1.9	59
6 Sa	0224	9.4	285	21 Su	0210	8.6	263	6 Tu	0400	7.2	220	6 W	0332	7.6	232
	1058	0.5	14		1008	0.9	26		1123	1.3	39		1037	1.3	39
	1654	6.9	210		1559	6.3	193		1701	6.8	207		1549	7.3	221
	2150	3.1	94		2123	2.7	83		2336	2.8	85		2306	1.9	59
7 Su	0315	8.6	261	22 M	0248	8.2	250	7 W	0456	6.2	188	7 Th	0425	6.9	211
	1138	0.8	23		1037	0.9	27		1156	1.8	56		1102	1.7	52
	1737	6.8	206		1628	6.4	194		1736	6.6	202	●	1618	7.4	226
	2248	3.3	102		2206	2.9	87	●				2315	2.0	61	
8 M	0411	7.6	232	23 Tu	0331	7.6	233	8 Th	0058	2.9	87	8 Th	0440	6.1	187
	1213	1.2	36		1103	1.0	32		0616	5.2	157		1057	2.5	75
	1821	6.7	203		1656	6.5	197		1239	2.6	79		1619	7.3	222
	2305	2.9	89		2305	2.9	89		1830	6.5	199	●	1706	7.5	228
9 Tu	0002	3.6	110	24 W	0427	6.9	211	9 F	0239	2.5	77	9 Sa	0143	1.8	55
	0518	6.5	199		1140	1.4	42		0838	4.5	138		0707	5.4	166
	1253	1.6	48		1729	6.6	201		1334	3.3	101		1235	3.2	98
●	1914	6.7	203						1943	6.7	203		1816	7.5	230
10 W	0141	3.5	107	25 Th	0028	2.9	89	10 Sa	0407	1.9	58	10 Sa	0309	1.4	44
	0657	5.5	168		0540	6.2	188		1053	4.7	143		0908	5.2	160
	1345	2.1	63		1221	1.9	57		1456	3.7	113		1352	3.8	117
	2010	6.8	208	●	1817	6.8	208		2050	7.0	214		1949	7.8	239
11 Th	0327	2.9	88	26 F	0201	2.5	77	11 Su	0515	1.3	39	11 Su	0436	0.9	28
	0910	5.0	152		0715	5.5	169		1157	5.2	158		1045	5.0	151
	1445	2.5	76		1314	2.5	75		1606	3.7	113		1531	3.9	120
	2059	7.2	219		1919	7.3	221		2143	7.6	231		2111	8.4	257
12 F	0446	2.1	63	27 Sa	0331	1.8	56	12 M	0606	0.8	25	12 M	0423	1.5	47
	1052	5.1	154		0906	5.3	162		1231	5.6	170		1134	5.5	168
	1545	2.8	84		1426	2.9	89		1657	3.5	107		1537	4.4	135
	2139	7.6	232		2025	7.8	239		2225	8.1	248		2059	7.3	222
13 Sa	0547	1.3	41	28 W	0450	1.0	32	13 Tu	0650	0.6	18	28 W	0648	0.2	6
	1157	5.3	163		1046	5.5	169		1259	5.9	181		1238	6.7	205
	1637	2.9	88		1541	3.1	96		1741	3.2	97		1750	3.0	91
	2215	8.1	246		2125	8.5	260		2304	8.6	263		2311	9.5	291
14 Su	0636	0.8	25	29 M	0559	0.4	13	14 W	0730	0.6	18	14 W	0608	1.0	31
	1242	5.6	172		1157	6.0	182		1322	6.1	187		1218	6.4	195
	1718	3.0	91		1648	3.1	95		1821	2.9	89		1726	3.4	105
	2249	8.5	259		2220	9.2	280		2340	8.9	272		2239	8.4	257
15 M	0713	0.6	19	30 Tu	0700	0.0	0	15 Th	0758	0.7	21	15 Th	0648	1.0	29
	1315	5.8	178		1254	6.4	195		1347	6.3	193		1240	6.7	204
	1752	2.9	89		1748	2.9	89		1854	2.6	78		1805	2.9	88
	2321	8.9	270		2313	9.7	295					2319	8.8	269	
●				31 W	0755	-0.2	-5					31 O	0738	1.0	29
					1342	6.7	204						1300	8.0	245
					1843	2.6	79						1929	1.9	57

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Huangpu, China, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0045	9.0	273	<b>16</b>	0023	8.7	265	<b>1</b>	0126	7.8	237
	0804	1.1	35	M	0735	1.6	49	Tu	0749	1.8	55
	1324	8.2	251		1244	8.5	259		1301	9.1	277
	2005	1.6	48	●	1957	1.3	39		2047	1.3	41
<b>2</b> M	0130	8.5	260	<b>17</b>	0109	8.6	261	<b>2</b>	0208	7.4	226
	0837	1.3	39	Tu	0757	1.7	52	W	0822	2.2	67
	1348	8.4	257		1307	8.9	271		1326	9.2	280
	2050	1.4	43		2046	1.0	30		2129	1.3	40
<b>3</b> Tu	0215	8.1	246	<b>18</b>	0156	8.3	254	<b>3</b>	0249	7.1	215
	0857	1.5	46	W	0837	1.7	53	Th	0846	2.4	74
	1410	8.5	260		1333	9.2	281		1354	9.2	280
	2137	1.3	41		2136	0.8	24		2205	1.2	37
<b>4</b> W	0257	7.5	229	<b>19</b>	0245	8.0	243	<b>4</b>	0329	6.7	203
	0932	1.8	56	Th	0900	2.2	66	F	0909	3.0	90
	1432	8.5	259		1402	9.5	289		1421	9.1	277
	2218	1.4	43		2226	0.8	23		2242	1.2	36
<b>5</b> Th	0340	6.9	210	<b>20</b>	0337	7.5	228	<b>5</b>	0411	6.3	191
	0949	2.4	73	F	0941	2.5	77	Sa	0937	3.4	104
	1458	8.4	257		1435	9.5	291		1454	8.8	268
	2303	1.4	44		2314	0.7	22		2322	1.3	40
<b>6</b> F	0425	6.2	189	<b>21</b>	0434	6.9	211	<b>6</b>	0503	5.9	179
	1014	3.1	95	Sa	1006	3.3	101	Su	1005	4.1	124
	1526	8.2	249		1517	9.4	285		1531	8.4	255
	2345	1.6	48					M	0551	6.6	202
<b>7</b> Sa	0523	5.5	169	<b>22</b>	0010	0.9	27	<b>21</b>	0005	0.8	23
	1035	3.8	116	Su	0547	6.4	194	W	0620	5.6	171
	1606	7.8	237		1050	4.0	122		1044	4.6	141
					1614	8.9	271		1624	7.8	239
<b>8</b> Su	0041	1.7	53	<b>23</b>	0117	1.1	35	<b>8</b>	0057	1.8	54
	0713	5.1	155	M	0724	6.1	187	Tu	0813	5.7	174
	1110	4.6	139		1200	4.6	141		1213	5.0	153
	●	1704	7.3	223	●	1738	8.3	254	●	1739	7.4
<b>9</b> M	0153	1.9	58	<b>24</b>	0235	1.3	39	<b>9</b>	0204	1.9	59
	0952	5.4	164	Tu	0902	6.5	197	W	0923	6.2	188
	1258	5.1	154		1352	4.7	144		1401	4.8	147
	1833	7.1	215		1919	8.1	247		1906	7.3	221
<b>10</b> Tu	0314	1.8	56	<b>25</b>	0348	1.2	38	<b>10</b>	0311	1.9	59
	1042	5.9	181	W	1004	7.1	215	Th	0958	6.7	204
	1454	4.9	148		1532	4.1	126		1521	4.2	127
	2004	7.2	220		2048	8.2	251		2024	7.4	225
<b>11</b> W	0423	1.7	51	<b>26</b>	0447	1.1	35	<b>11</b>	0405	1.9	57
	1105	6.5	197	Th	1046	7.6	232	Sa	1021	7.2	220
	1604	4.2	129		1641	3.3	101		1622	3.4	103
	2113	7.7	234		2159	8.4	256		2129	7.7	234
<b>12</b> Th	0513	1.5	46	<b>27</b>	0537	1.1	35	<b>12</b>	0450	1.8	56
	1124	6.9	211	F	1117	8.0	245	Sa	1042	7.7	236
	1656	3.5	107		1740	2.6	79		1718	2.6	80
	2207	8.2	249		2300	8.4	257		2226	7.9	242
<b>13</b> F	0553	1.4	44	<b>28</b>	0612	1.3	40	<b>13</b>	0534	1.8	54
	1144	7.3	223	Sa	1145	8.4	256	W	1103	8.3	253
	1745	2.8	84		1834	2.1	63		1809	2.0	60
	2254	8.5	260		2353	8.3	253		2319	8.1	246
<b>14</b> Sa	0633	1.5	45	<b>29</b>	0648	1.4	42	<b>14</b>	0606	1.9	57
	1203	7.7	235	Su	1210	8.7	265	W	0642	2.1	64
	1834	2.1	65		1917	1.8	55		1157	9.2	281
	2339	8.7	265		●	2000	1.5	47	●	1957	1.4
<b>15</b> Su	0658	1.5	47	<b>30</b>	0042	8.1	246	<b>15</b>	0124	7.0	212
	1221	8.1	247	M	0722	1.7	52	W	0646	1.8	56
	1912	1.7	53		1235	8.9	271		1157	9.4	285
					●	2000	1.5	47	●	1950	1.0
<b>16</b> Sa	0251	7.3	221	<b>31</b>	0203	6.8	207	<b>16</b>	0241	6.6	202
	0816	3.0	90	Th	0742	2.6	79	W	0810	2.9	88
	1326	10.5	320		1257	9.5	289		1326	9.3	282
	2215	0.4	13		2114	1.3	39		2147	1.2	37

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Huangpu, China, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su	0301 6.5 197	16 M	0330 7.3 224	1 W	0328 7.0 212	16 Th	0358 8.0 245	1 Sa	0318 8.2 250	16 Su	0400 8.4 256
0824 3.1 95	0856 2.7 82	0931 2.8 84	1032 2.4 73	1053 2.3 69	1207 2.4 72						
1343 9.4 286	1412 10.2 312	1441 8.9 271	1546 8.5 258	1601 7.8 239	1734 6.3 192						
2200 1.3 40	2249 0.7 20	2231 1.4 44	2313 1.7 52	2248 2.4 72	2324 4.0 121						
2 M	0335 6.5 197	17 Tu	0413 7.4 226	2 Th	0353 7.1 215	17 F	0426 8.0 243	2 Su	0350 8.3 253	17 M	0444 8.0 244
0854 3.2 98	0949 2.7 82	1004 2.9 87	1125 2.7 81	1151 2.3 69	1311 2.5 75						
1416 9.2 280	1505 9.7 295	1521 8.5 258	1640 7.5 228	1701 7.2 218	1928 5.7 174						
2233 1.3 39	2330 1.0 32	2256 1.6 48	2347 2.3 69	2319 3.1 93	●						
3 Tu	0409 6.4 196	18 W	0455 7.4 226	3 F	0419 7.2 219	18 Sa	0504 7.8 238	3 M	0430 8.4 255	18 Tu	0005 4.8 145
0937 3.3 101	1043 2.9 88	1059 2.9 88	1233 2.8 85	1750 6.5 198	1432 2.4 74						
1455 8.8 269	1559 8.9 270	1611 7.9 240	1750 6.5 198	●	2155 5.9 180						
2302 1.3 41	2358 1.3 39	2331 1.8 56	●	●	●						
4 W	0447 6.4 196	19 Th	0534 7.4 225	4 Sa	0450 7.3 223	19 Su	0022 3.0 91	4 Tu	0003 3.8 115	19 W	0149 5.2 160
1019 3.5 108	1146 3.1 95	1207 2.9 89	0553 7.6 233	0533 8.4 255	0718 7.5 230						
1538 8.4 255	1658 7.9 240	1711 7.2 220	1354 2.7 83	1422 2.0 61	1553 2.2 66						
2337 1.4 44	●	●	1930 5.7 174	2007 6.2 190	2259 6.5 198						
5 Th	0526 6.5 197	20 F	0039 1.6 50	5 Su	0007 2.3 69	20 M	0113 3.7 112	5 W	0112 4.4 135	20 Th	0326 5.1 154
1114 3.6 111	0615 7.4 225	0615 7.4 225	0530 7.5 230	1330 2.7 83	0700 7.6 231	0659 8.5 259	0839 7.8 239	1655 1.9 57	2328 7.0 213	●	
1629 7.8 238	1259 3.2 99	●	1827 6.6 201	1519 2.4 74	2145 5.6 170	1548 1.6 50	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
6 F	0015 1.7 51	21 Sa	0121 2.1 64	6 M	0055 2.8 85	21 Tu	0229 4.2 128	6 Th	0248 4.6 141	21 F	0426 4.6 140
0610 6.6 202	0706 7.4 227	0706 7.4 227	0627 7.9 240	1448 2.3 70	0812 7.8 237	0825 9.0 274	0938 8.3 254	1743 1.7 51	2352 7.4 225	●	
1226 3.6 110	1435 3.0 92	1435 3.0 92	2002 6.2 190	2309 5.9 181	1639 2.0 60	1703 1.3 39	●	●	●	●	
●	1735 7.3 221	1948 6.1 185	●	●	●	2301 7.1 215	●	●	●	●	
7 Sa	0059 2.0 60	22 Su	0215 2.6 80	7 Tu	0156 3.3 101	22 W	0345 4.3 130	7 F	0414 4.3 131	22 Sa	0512 4.0 122
0658 7.0 212	0803 7.7 234	0803 7.7 234	0735 8.3 254	1605 1.7 53	0914 8.2 250	0936 9.6 294	1023 8.9 270	1806 1.0 31	2351 7.6 231	●	
1351 3.3 100	1555 2.5 77	1555 2.5 77	2136 6.3 191	2136 6.3 191	1740 1.6 48	●	●	●	●	●	
1854 6.8 207	2136 5.7 175	●	●	●	2354 6.4 194	●	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
8 Su	0150 2.3 69	23 M	0313 3.1 93	8 W	0307 3.6 111	23 Th	0443 4.1 124	8 Sa	0522 3.7 112	23 Su	0012 7.7 234
0744 7.4 227	0857 8.0 244	0857 8.0 244	0842 9.0 273	1718 1.2 37	1004 8.7 265	1004 8.7 265	1035 10.2 310	1859 0.9 28	0553 3.4 103	0553 3.4 103	
1513 2.7 83	1706 1.9 59	1706 1.9 59	2257 6.6 200	2257 6.6 200	1829 1.4 44	●	●	●	●	1105 9.2 281	
2019 6.5 199	2302 5.8 177	●	●	●	●	●	●	●	●	1854 1.7 51	
●	●	●	●	●	●	●	●	●	●	●	
9 M	0248 2.5 77	24 Tu	0409 3.3 100	9 Th	0417 3.7 113	24 F	0023 6.7 205	9 Su	0032 8.0 243	24 M	0032 7.9 241
0829 8.1 248	0945 8.4 257	0945 8.4 257	0944 9.6 294	1825 0.9 26	1825 0.9 26	0533 3.7 114	0618 3.1 93	0618 3.1 93	0638 2.8 86	0638 2.8 86	
1631 2.0 60	1803 1.5 46	1803 1.5 46	2359 7.0 212	2359 7.0 212	1046 9.2 279	1046 9.2 279	1128 10.4 317	1947 1.0 30	1144 9.4 286	1144 9.4 286	
2142 6.5 199	2359 6.0 184	●	●	●	1903 1.4 42	●	●	●	●	1927 1.9 58	
●	●	●	●	●	●	●	●	●	●	●	
10 Tu	0346 2.7 83	25 W	0459 3.4 103	10 F	0523 3.5 108	25 Sa	0049 7.0 213	10 M	0107 8.3 253	25 Tu	0051 8.1 248
0916 8.9 270	1026 8.9 270	1026 8.9 270	1040 10.2 311	1921 0.7 20	0608 3.4 105	0608 3.4 105	0706 2.5 75	1220 10.3 315	0710 2.5 77	0710 2.5 77	
1738 1.3 40	1852 1.2 38	1852 1.2 38	1921 0.7 20	●	1122 9.5 289	1122 9.5 289	1220 10.3 315	2027 1.4 42	1222 9.4 286	1222 9.4 286	
2255 6.7 204	●	●	●	●	1940 1.4 43	●	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
11 W	0443 2.8 86	26 Th	0041 6.2 190	11 Sa	0052 7.3 222	26 Su	0111 7.2 218	11 Tu	0139 8.5 260	26 W	0108 8.3 254
1004 9.5 291	0544 3.3 101	0544 3.3 101	0621 3.2 98	1132 10.6 322	0646 3.1 93	1200 9.6 294	0754 2.0 61	1311 10.0 305	0750 2.1 64	0750 2.1 64	
1839 0.8 25	1105 9.2 281	1105 9.2 281	1132 10.6 322	●	2010 0.6 19	2007 1.5 47	2053 1.4 44	●	●	1303 9.2 281	
2359 6.9 210	1935 1.2 36	●	●	●	●	●	●	●	●	2014 2.2 66	
●	●	●	●	●	●	●	●	●	●	●	
12 Th	0539 2.9 88	27 F	0112 6.4 196	12 Su	0137 7.5 230	27 M	0134 7.3 223	12 W	0207 8.7 265	27 Th	0126 8.6 262
1052 10.1 307	0625 3.3 100	0625 3.3 100	0711 2.8 86	1224 10.7 325	0731 2.8 84	1236 9.6 293	0844 1.8 55	1401 9.5 289	0835 1.9 58	0835 1.9 58	
1937 0.5 16	1142 9.5 289	1142 9.5 289	2057 0.7 21	2057 0.7 21	2038 1.6 50	2038 1.6 50	2130 1.6 49	●	●	1344 9.0 273	
●	●	●	●	●	●	●	●	●	●	2043 2.1 64	
●	●	●	●	●	●	●	●	●	●	●	
13 F	0058 7.1 215	28 Sa	0142 6.6 200	13 M	0218 7.8 237	28 Tu	0156 7.5 228	13 Th	0234 8.8 267	28 F	0146 8.8 269
0632 2.9 88	0657 3.1 95	0657 3.1 95	0800 2.4 74	1315 10.5 319	1315 9.5 289	0757 2.6 78	0933 1.9 58	1449 8.8 268	0909 1.8 55	0909 1.8 55	
1141 10.4 318	1216 9.6 293	1216 9.6 293	2142 0.9 26	2142 0.9 26	2059 1.7 52	2152 1.9 57	2152 1.9 57	●	●	1425 8.7 264	
●	2040 1.3 41	●	●	●	●	●	●	●	●	2103 2.4 73	
●	●	●	●	●	●	●	●	●	●	●	
14 Sa	0152 7.2 219	29 Su	0207 6.7 204	14 Tu	0255 7.9 242	29 W	0216 7.6 233	14 F	0259 8.8 267	29 Sa	0207 9.1 276
0718 3.0 90	0737 2.9 89	0737 2.9 89	0851 2.2 67	1406 10.0 305	1406 10.0 305	1351 9.2 281	1536 8.0 244	1536 8.0 244	1511 8.2 250	0958 1.6 50	
1230 10.6 323	1253 9.6 292	1253 9.6 292	2210 1.2 37	2210 1.2 37	2128 1.8 56	2220 2.5 75	●	●	●	2140 2.6 79	
2116 0.5 15	2107 1.5 45	●	●	●	●	●	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
15 Su	0243 7.3 222	30 M	0235 6.8 207	15 W	0329 8.0 244	30 Th	0236 7.8 238	15 Sa	0324 8.7 264	30 Su	0231 9.2 281
0805 2.8 86	0808 2.9 89	0808 2.9 89	0941 2.2 66	1456 9.3 284	1456 9.3 284	0916 2.4 72	1428 8.9 271	1428 8.9 271	1511 8.2 250	0958 1.6 49	
1321 10.6 322	1327 9.4 288	1327 9.4 288	2243 1.3 41	2243 1.3 41	2150 1.8 55	2249 3.1 94	2249 3.1 94	●	●	2140 2.6 79	
2202 0.5 16	2137 1.4 44	●	●	●	●	●	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
31 Tu	0301 6.9 210	31 F	0256 8.0 244	31 W	0256 8.0 244	31 Th	0256 8.0 244	31 Sa	0256 8.0 244	31 Su	0207 9.1 276
0845 2.8 85	1404 9.3 282	1404 9.3 282	0959 2.2 68	1512 8.4 257	1512 8.4 257	1512 8.4 257	1512 8.4 257	1620 7.7 234	1047 1.6 49	1047 1.6 49	
2202 1.4 44	2202 1.4 44	●	●	●	●	●	●	●	●	●	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Huangpu, China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0306	9.3	282	<b>16</b> Tu	0346	8.4	255	<b>1</b> Th	0443	8.6	261
	1144	1.6	49		1226	2.1	65	<b>16</b> F	0507	7.2	219
	1705	7.0	214		1912	5.9	179		1350	1.7	51
	2238	3.9	120		2257	5.3	163		2034	7.0	212
<b>2</b> Tu	0352	9.0	275	<b>17</b> W	0442	7.8	237	<b>2</b> F	0111	5.4	165
	1249	1.7	53		1334	2.3	71		0628	8.1	247
	1832	6.5	198		2137	6.2	190		1503	1.7	51
	● 2328	4.8	146		○				2142	7.6	231
<b>3</b> W	0459	8.7	264	<b>18</b> Th	0108	5.8	176	<b>3</b> Sa	0253	4.8	145
	1406	1.8	56		0612	7.3	223		0813	8.1	247
	2028	6.5	199		1451	2.3	71		1603	1.6	48
					2225	6.9	209		2225	8.2	250
<b>4</b> Th	0101	5.3	161	<b>19</b> F	0257	5.4	165	<b>4</b> Su	0411	3.8	117
	0640	8.4	257		0750	7.3	223		0938	8.3	252
	1532	1.7	51		1557	2.1	65		1651	1.5	45
	2159	7.1	217		2251	7.4	225		2257	8.7	265
<b>5</b> F	0253	5.1	154	<b>20</b> Sa	0401	4.7	143	<b>5</b> M	0514	3.0	90
	0819	8.8	267		0904	7.7	234		1051	8.4	256
	1643	1.4	44		1645	2.0	60		1736	1.5	45
	2251	7.8	237		2310	7.8	238		2324	9.0	275
<b>6</b> Sa	0416	4.3	131	<b>21</b> Su	0450	3.9	119	<b>6</b> Tu	0607	2.3	69
	0934	9.3	283		1000	8.1	247		1152	8.4	256
	1741	1.3	39		1726	1.9	59		1810	1.7	52
	2329	8.3	254		2330	8.1	248		2348	9.3	284
<b>7</b> Su	0519	3.4	104	<b>22</b> M	0536	3.1	96	<b>7</b> W	0657	1.8	54
	1036	9.6	292		1049	8.5	258		1245	8.3	252
	1828	1.4	44		1754	1.9	59		1846	1.8	55
					2347	8.4	257				
<b>8</b> M	0001	8.7	266	<b>23</b> Tu	0617	2.6	78	<b>8</b> Th	0011	9.5	290
	0611	2.7	81		1135	8.6	263		0747	1.5	45
	1132	9.6	294		1834	2.0	60		1332	8.0	244
	1857	1.5	46						● 1922	2.3	70
<b>9</b> Tu	0028	9.0	274	<b>24</b> W	0003	8.8	267	<b>9</b> F	0036	9.6	294
	0659	2.1	63		0658	2.0	60		0834	1.3	31
	1225	9.4	288		1219	8.7	264		1412	7.7	234
	● 1937	1.6	49		1854	2.1	65		1946	2.5	77
<b>10</b> W	0055	9.2	281	<b>25</b> Th	0020	9.1	276	<b>10</b> Sa	0103	9.7	295
	0749	1.7	52		0744	1.6	49		0912	1.2	38
	1316	9.1	277		1303	8.6	262		1453	7.3	224
	2001	1.9	57		○ 1932	2.2	67		2019	3.1	93
<b>11</b> Th	0119	9.4	285	<b>26</b> F	0041	9.4	286	<b>11</b> Su	0128	9.6	293
	0838	1.6	50		0829	1.5	45		0949	1.2	36
	1405	8.6	263		1347	8.4	257		1533	7.0	212
	2039	2.0	62		1952	2.5	75		2039	3.4	104
<b>12</b> F	0144	9.4	287	<b>27</b> Sa	0104	9.6	294	<b>12</b> M	0159	9.4	287
	0920	1.7	51		0908	1.2	36		1029	1.3	40
	1450	8.1	247		1433	8.2	249		1613	6.6	200
	2059	2.6	78		2034	2.7	81		2105	4.0	122
<b>13</b> Sa	0208	9.4	286	<b>28</b> Tu	0128	9.8	300	<b>13</b> W	0228	9.0	275
	1005	1.6	50		0954	1.0	31		1102	1.5	45
	1536	7.5	229		1520	7.8	237		1706	6.2	188
	2136	3.1	93		2051	3.2	97		2133	4.6	141
<b>14</b> Su	0234	9.2	280	<b>29</b> M	0200	9.9	302	<b>14</b> W	0306	8.5	259
	1048	1.7	51		1045	1.0	29		1140	1.7	52
	1621	6.9	209		1612	7.3	223		1828	5.9	181
	2148	3.8	116		2130	3.8	115		2223	5.2	160
<b>15</b> M	0307	8.9	271	<b>30</b> Tu	0238	9.7	296	<b>15</b> Th	0354	7.8	239
	1136	1.8	56		1138	1.1	35		1235	2.0	60
	1720	6.2	190		1718	6.9	209		2025	6.2	188
	2221	4.6	140		2203	4.5	138		○		
<b>31</b> W	0327	9.3	282	<b>31</b> W	1239	1.4	44				
					1853	6.6	202				
					2307	5.2	159				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Hong Kong, China, 2018

January					February					March											
Time		Height			Time		Height			Time		Height			Time		Height				
	h m	ft	cm			h m	ft	cm			h m	ft	cm			h m	ft	cm			
<b>1</b> M	0242	1.4	42		<b>16</b> Tu	0347	1.7	52	<b>1</b> Th	0406	0.6	19	<b>16</b> F	0411	1.5	47	<b>1</b> Th	0304	1.0	29	
	0919	4.9	149			1019	4.4	133		1053	4.8	146		1038	4.7	144		0948	4.9	148	
	1329	3.5	106			1354	3.6	109		1505	3.1	94		1512	3.1	94		1416	3.0	92	
	2048	8.1	247			2057	7.3	221		2213	8.1	247		●	2151	7.1	216		2116	7.6	232
<b>2</b> Tu	0330	0.9	28		<b>17</b> W	0413	1.6	48	<b>2</b> F	0446	0.7	22	<b>17</b> Sa	0433	1.6	49	<b>2</b> F	0341	1.0	29	
	1016	4.9	150			1047	4.5	136		1133	4.9	150		1104	4.9	150		1019	5.1	156	
	1417	3.5	107			1433	3.5	108		1554	3.0	91		1552	3.0	90		1505	2.7	81	
	2134	8.4	255			●	2129	7.3	224		2259	7.8	239		2229	7.0	214		2205	7.5	229
<b>3</b> W	0417	0.7	21		<b>18</b> Tn	0439	1.5	47	<b>3</b> Sa	0524	1.0	31	<b>18</b> Su	0457	1.7	52	<b>3</b> Sa	0416	1.1	35	
	1111	4.9	150			1115	4.6	139		1213	5.1	154		1134	5.1	155		1050	5.3	163	
	1506	3.5	108			1512	3.5	107		1642	3.0	91		1633	2.9	88		1552	2.4	74	
	2221	8.4	257			2202	7.3	224		2344	7.3	224		2308	6.8	207		2251	7.2	220	
<b>4</b> Th	0504	0.7	22		<b>19</b> F	0504	1.6	48	<b>4</b> Su	0601	1.5	45	<b>19</b> M	0524	1.9	58	<b>4</b> Su	0449	1.5	45	
	1203	4.9	150			1146	4.6	141		1253	5.2	158		1206	5.2	160		1121	5.5	169	
	1555	3.6	110			1552	3.5	107		1729	3.1	95		1716	2.9	88		1637	2.4	72	
	2307	8.3	252			2235	7.3	221						2347	6.4	196		2335	6.7	205	
<b>5</b> F	0551	1.0	29		<b>20</b> Sa	0529	1.7	51	<b>5</b> M	0027	6.7	203	<b>20</b> Tu	0554	2.1	65	<b>5</b> M	0522	1.9	58	
	1253	5.0	151			1222	4.7	144		0636	2.0	60		1241	5.4	164		1152	5.7	174	
	1644	3.7	113			1633	3.6	109		1334	5.3	161		1802	3.0	90		1723	2.5	75	
	2353	7.8	238			2308	7.1	215		1819	3.3	102							2348	6.1	185
<b>6</b> Sa	0637	1.3	41		<b>21</b> Su	0557	1.8	56	<b>6</b> Tu	0109	5.9	179	<b>21</b> W	0030	6.0	182	<b>6</b> Tu	0017	6.1	186	
	1341	5.0	153			1303	4.8	147		0709	2.5	75		0625	2.5	75		0553	2.4	73	
	1734	3.9	119			1718	3.7	112		1419	5.4	164		1317	5.5	168		1222	5.8	176	
						2342	6.7	205		1915	3.6	110		1854	3.0	92		1809	2.7	81	
<b>7</b> Su	0038	7.2	219		<b>22</b> M	0627	2.0	62	<b>7</b> W	0155	5.1	155	<b>22</b> Th	0118	5.4	164	<b>7</b> W	0059	5.4	165	
	0723	1.8	56			1349	5.0	151		0741	2.9	89		0659	2.8	85		0622	2.9	87	
	1431	5.1	156			1806	3.8	115		1508	5.5	167		1358	5.6	172		1252	5.8	176	
	1827	4.1	126						<b>○</b>	2046	3.8	115		2000	3.1	94		1901	2.9	89	
<b>8</b> M	0124	6.4	195		<b>23</b> Tu	0020	6.3	191	<b>8</b> Th	0314	4.4	134	<b>23</b> F	0222	4.8	145	<b>8</b> Th	0148	4.8	145	
	0809	2.3	71			0701	2.3	69		0812	3.3	100		0734	3.2	97		0648	3.3	100	
	1522	5.3	161			1439	5.1	156		1600	5.6	170		1455	5.8	178		1325	5.8	176	
	1931	4.3	132			1900	3.9	118		2343	3.5	108		2147	3.0	91		2009	3.1	96	
<b>9</b> Tu	0218	5.6	170		<b>24</b> W	0107	5.7	175	<b>9</b> F	0503	3.9	120	<b>24</b> Sa	0422	4.3	130	<b>9</b> F	0310	4.2	129	
	0856	2.8	84			0737	2.6	78		0846	3.6	109		0814	3.5	107		0700	3.7	114	
	1616	5.5	168			1530	5.3	162		1655	5.7	175		1618	6.1	185		1410	5.7	174	
	2156	4.4	133			2009	3.9	119						2325	2.6	79		2226	3.1	96	
<b>10</b> W	0354	4.9	148		<b>25</b> Th	0208	5.1	156	<b>10</b> Sa	0134	3.0	92	<b>25</b> Su	0556	4.1	126	<b>10</b> Sa	0506	3.9	120	
	0943	3.1	95			0817	2.9	87		0708	3.8	117		0910	3.8	116		0719	3.9	118	
	1710	5.8	176			1622	5.6	172		0937	3.8	115		1727	6.4	196		1517	5.7	174	
						●	2210	3.7	113		1748	6.0	182						2305	2.1	65
<b>11</b> Th	0016	3.9	119		<b>26</b> F	0352	4.6	139	<b>11</b> Su	0210	2.5	77	<b>26</b> M	0042	2.0	62	<b>11</b> Su	0019	2.9	87	
	0528	4.4	133			0903	3.1	96		0849	4.0	121		0726	4.2	128		1629	5.8	176	
	1031	3.4	103			1712	6.0	184		1054	3.8	117		1034	3.9	119					
	1758	6.0	184			2345	3.1	94		1836	6.2	189		1831	6.8	208					
<b>12</b> F	0154	3.3	101		<b>27</b> Sa	0552	4.3	131	<b>12</b> M	0238	2.1	65	<b>27</b> Tu	0139	1.5	46	<b>12</b> M	0116	2.5	76	
	0653	4.2	127			0959	3.4	103		0920	4.1	125		0838	4.4	134		1730	5.9	181	
	1117	3.5	107			1803	6.5	198		1207	3.8	116		1211	3.8	115		1811	6.6	201	
	1840	6.3	193							1919	6.5	197		1930	7.2	220					
<b>13</b> Sa	0226	2.8	84		<b>28</b> Su	0054	2.4	72	<b>13</b> Tu	0303	1.8	56	<b>28</b> W	0225	1.1	35	<b>13</b> Tu	0153	2.2	67	
	0815	4.1	126			0710	4.3	130		0942	4.2	129		0915	4.6	141		0903	4.4	134	
	1200	3.6	110			1103	3.5	108		1304	3.6	111		1321	3.4	104		1200	4.1	125	
	1918	6.6	201			1854	7.0	214		1958	6.7	205		2025	7.5	229		1827	6.1	187	
<b>14</b> Su	0254	2.3	70		<b>29</b> M	0150	1.7	51	<b>14</b> W	0327	1.7	51	<b>29</b> W	0222	2.0	60	<b>14</b> W	0154	1.4	44	
	0913	4.2	128			0818	4.4	133		1000	4.4	133		0838	4.4	134		0848	5.1	155	
	1239	3.6	111			1210	3.5	108		1350	3.5	106		1321	3.4	104		1325	3.3	101	
	1953	6.9	209			1945	7.5	229		2036	6.9	211		2025	7.5	229		1920	6.4	194	
<b>15</b> M	0320	2.0	60		<b>30</b> Tu	0239	1.1	34	<b>15</b> Th	0350	1.6	48	<b>15</b> Th	0247	1.8	56	<b>15</b> Th	0242	1.8	55	
	0950	4.3	130			0919	4.5	137		1018	4.5	138		1413	3.2	99		0924	4.7	144	
	1317	3.6	110			1315	3.4	105		1432	3.3	100		2114	7.1	215		1416	2.8	84	
	2025	7.1	216			2036	7.9	241						2008	6.6	200		2108	6.9	210	
					<b>31</b> W	0324	0.8	23							<b>31</b> O	0307	1.5	47			
						1009	4.6	141							<b>31</b> Sa	0937	5.7	174			
						1413	3.2	99							<b>31</b> O	1503	2.3	71			
						2125	8.1	247							<b>31</b> O	2158	6.7	205			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Hong Kong, China, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0340	1.8	54	<b>16</b> M	0315	2.3	71	<b>1</b> Tu	0337	2.7	83	
	1005	6.0	183	0938	6.3	191	0947	6.7	204	0308	3.0	90
	1547	2.0	62	1540	1.9	59	1625	1.6	49	0913	7.2	220
	2244	6.4	195	● 2210	6.1	186	2328	5.2	159	1616	1.0	30
<b>2</b> M	0413	2.1	65	<b>17</b> Tu	0345	2.5	77	<b>2</b> W	0408	3.1	94	
	1033	6.2	189	1005	6.6	200	0957	6.8	208	0343	3.2	98
	1631	1.9	58	1622	1.6	49	1708	1.6	48	0913	7.5	229
	2328	6.0	182	2257	5.9	179	2354	5.0	152	1704	0.8	24
<b>3</b> Tu	0444	2.5	77	<b>18</b> W	0416	2.8	85	<b>3</b> Th	0015	4.9	149	
	1058	6.3	193	1032	6.8	208	0437	3.4	105	0421	3.5	107
	1715	2.0	60	1708	1.4	43	0951	6.9	210	0945	7.6	232
	2347	5.6	170	1752	1.7	51	1755	0.8	24	1755	0.8	24
<b>4</b> W	0011	5.5	167	<b>19</b> Th	0449	3.1	96	<b>4</b> F	0108	4.6	140	
	0513	3.0	90	1052	7.0	213	0504	3.7	114	0109	4.8	145
	1121	6.4	195	1757	1.4	43	1021	6.9	209	0500	3.8	116
	1801	2.1	64	1837	1.8	56	1851	1.0	29	1031	7.5	230
<b>5</b> Th	0057	5.0	152	<b>20</b> F	0045	5.2	157	<b>5</b> Sa	0210	4.4	133	
	0541	3.4	103	0523	3.5	107	0529	4.0	123	0219	4.6	140
	1140	6.4	194	1049	7.1	215	1059	6.7	205	0544	4.1	124
	1849	2.3	71	1853	1.5	46	1928	2.0	62	1200	7.3	222
<b>6</b> F	0158	4.5	138	<b>21</b> Sa	0205	4.8	145	<b>6</b> Su	1145	6.5	199	
	0605	3.7	114	0559	3.9	118	2025	2.2	67	0332	4.6	139
	1202	6.3	192	1143	7.0	212	0635	4.3	132	0635	4.3	132
	1947	2.6	78	2002	1.7	51	1303	6.9	210	1303	6.9	210
<b>7</b> Sa	0320	4.2	128	<b>22</b> Su	0328	4.5	138	<b>7</b> M	1241	6.3	191	
	0623	4.0	123	0639	4.2	129	2132	2.3	71	0531	4.8	145
	1241	6.1	187	1305	6.8	206	1414	6.4	196	0737	4.5	137
	2107	2.7	82	2123	1.8	55	● 2206	1.7	53	1412	5.6	171
<b>8</b> Su	1336	6.0	182	<b>23</b> M	1424	6.5	198	<b>8</b> Tu	1345	6.0	182	
	2253	2.6	80	2239	1.8	56	2241	2.4	72	0610	5.0	153
	●	●	●	●	●	●	●	●	0916	4.5	137	
	1455	5.8	178	<b>24</b> Tu	1631	6.3	192	<b>9</b> W	1506	5.7	174	
<b>9</b> M	0714	4.8	147	2343	1.8	56	0714	4.8	147	1740	5.6	172
	0934	4.7	143	1618	6.0	182	1506	5.7	174	2353	2.1	65
	1506	5.7	174	2303	1.9	59	1740	4.1	125	1755	5.0	152
	2338	2.4	72	1903	6.1	187	2353	2.1	65	1714	5.0	152
<b>10</b> Tu	0006	2.5	75	<b>25</b> W	0727	5.0	153	<b>10</b> Th	0728	5.0	152	
	1622	5.8	176	1110	4.4	133	1119	4.4	134	0704	5.6	170
	1832	6.2	189	1754	6.2	189	1634	5.5	169	1220	3.5	108
	1903	6.1	187	1905	5.5	167	1852	5.4	164	1852	5.4	164
<b>11</b> W	0052	2.3	70	<b>26</b> Th	0035	1.8	56	<b>11</b> F	0022	2.4	72	
	0821	4.8	146	0749	5.3	161	0733	5.2	159	0037	2.3	71
	1148	4.4	133	1226	3.8	115	1227	3.9	118	0731	5.9	180
	1730	5.8	178	1903	6.1	187	1750	5.5	167	1318	2.9	89
<b>12</b> Th	0127	2.2	67	<b>27</b> F	0117	1.9	57	<b>12</b> Sa	0057	2.4	73	
	0830	5.0	159	0809	5.6	170	0741	5.6	170	0758	6.2	190
	1250	3.9	119	1323	3.1	96	1318	3.2	99	1408	2.4	72
	1833	5.9	181	2005	6.1	185	1905	5.5	167	2100	5.0	153
<b>13</b> F	0155	2.1	65	<b>13</b> Sa	0130	2.5	75	<b>28</b> M	0057	2.4	73	
	0834	5.2	158	0833	5.9	181	0801	6.0	182	0825	6.5	198
	1337	3.4	104	1412	2.6	78	1403	2.6	79	1453	1.9	58
	1935	6.1	185	2101	5.9	181	2010	5.5	168	2159	4.9	148
<b>14</b> Sa	0221	2.1	65	<b>14</b> Su	0230	2.2	66	<b>29</b> Tu	0202	2.6	78	
	0848	5.5	168	0859	6.2	190	0826	6.4	196	0848	6.8	206
	1418	2.9	88	1458	2.1	63	1446	1.9	59	1537	1.6	48
	2031	6.2	188	2153	5.8	176	2107	5.5	167	● 2251	4.7	144
<b>15</b> Su	0247	2.2	67	<b>15</b> M	0234	2.7	83	<b>30</b> W	0301	3.2	97	
	0911	5.9	179	0925	6.5	198	0853	6.9	209	0842	6.9	211
	1459	2.4	72	1542	1.7	53	1530	1.4	42	1619	1.4	42
	2122	6.2	188	● 2242	5.5	168	● 2200	5.4	165	2338	4.6	140
<b>16</b> Sa	0304	2.4	74	<b>16</b> F	0315	3.4	104	<b>31</b> Th	0333	3.4	104	
	0912	5.9	179	0926	6.5	198	0848	7.1	216	0848	7.1	216
	1459	2.4	72	1542	1.7	53	1700	1.3	40	1700	1.3	40
	2122	6.2	188	● 2242	5.5	168	● 2200	5.4	165	31	0333	3.4

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Hong Kong, China, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0052 0415 0945 1802	4.2 3.7 7.2 1.4	129 114 218 43	16 M 0047 0441 1126 1821	4.7 3.4 7.7 0.8	143 104 236 25	1 W 0054 0524 1107 1830	4.7 3.6 6.7 2.1	144 111 205 63	16 Th 0122 0615 1305 1859	5.6 3.2 6.3 2.5	172 99 191 77
2 M 0130 0454 1025 1838	4.3 3.8 7.0 1.6	130 117 213 49	17 Tu 0133 0532 1216 1906	4.8 3.5 7.2 1.3	147 106 220 39	2 Th 0126 0609 1153 1900	4.9 3.7 6.3 2.3	149 112 193 71	17 F 0206 0714 1411 1935	5.8 3.4 5.5 3.1	176 105 167 93
3 Tu 0210 0536 1108 1915	4.3 4.0 6.7 1.8	131 121 205 55	18 W 0220 0626 1308 1951	5.0 3.6 6.5 1.8	152 110 199 55	3 F 0208 0701 1243 1932	5.1 3.7 5.8 2.7	155 114 178 81	18 Sa 0253 0838 1536 0210	5.9 3.6 4.8 3.5	180 109 147 108
4 W 0251 0623 1154 1953	4.4 4.1 6.4 2.0	135 124 195 62	19 Th 0308 0729 1417 2036	5.2 3.7 5.7 2.3	158 114 175 71	4 Sa 0254 0806 1342 2006	5.3 3.7 5.3 3.0	162 113 161 91	19 Su 0342 1028 1710 2048	6.0 3.5 4.4 3.9	183 106 134 119
5 Th 0333 0717 1245 2033	4.6 4.1 6.0 2.3	141 126 182 70	20 F 0358 0859 1552 2122	5.4 3.8 5.1 2.8	165 115 154 85	5 Su 0340 0940 1502 2045	5.6 3.5 4.7 3.3	171 108 144 101	20 M 0434 1209 1921 2138	6.1 3.1 4.3 4.2	187 95 131 127
6 F 0413 0830 1345 2115	4.9 4.1 5.4 2.5	149 126 166 77	21 Sa 0447 1042 1715 2209	5.7 3.6 4.5 3.1	173 109 137 96	6 M 0426 1107 1718 2132	6.0 3.1 4.4 3.6	182 134 134 109	21 Tu 0524 1322 2042 2248	6.3 2.7 4.4 4.3	192 192 134 130
7 Sa 0450 1008 1502 2159	5.2 3.9 5.0 2.8	158 118 151 85	22 Su 0534 1210 1842 2258	5.9 3.1 4.2 3.4	181 96 109 104	7 Tu 0512 1219 1843 2232	6.4 2.5 4.3 3.8	196 75 194 116	22 W 0609 1404 2121	6.5 2.3 4.5	197 59 138
8 Su 0525 1129 1702 2245	5.6 3.3 4.6 3.0	171 102 139 92	23 M 0616 1322 2023 2347	6.2 2.6 4.1 3.6	188 80 126 110	8 W 0559 1320 1957 2340	6.9 1.8 4.4 3.9	210 55 134 118	23 Th 0001 0650 1436 2149	4.3 6.7 2.1 4.6	130 204 63 141
9 M 0558 1236 1839 2332	6.1 2.7 4.4 3.2	185 81 135 98	24 Tu 0654 1413 2127	6.4 2.2 4.2	195 67 127	9 Th 0652 1413 2111	7.4 1.2 4.5	225 38 138	24 F 0059 0726 1506 2212	4.1 6.9 1.9 4.7	125 210 58 144
10 Tu 0631 1332 1949	6.6 1.9 4.4	201 58 134	25 W 0034 0726 1452 2210	3.7 6.6 1.8 4.2	112 202 56 129	10 F 0053 0750 1501 2204	3.8 7.8 0.9 4.7	116 238 26 143	10 M 0146 0802 1533 2229	3.9 7.1 1.8 4.9	120 215 56 148
11 W 0022 0705 1423 2053	3.3 7.1 1.2 4.4	102 217 38 134	26 Th 0119 0751 1527 2244	3.7 6.8 1.6 4.3	112 208 48 131	11 Sa 0156 0847 1545 ● 2245	3.6 8.1 0.7 4.9	110 246 20 149	26 Su 0228 0840 1559 ○ 2240	3.7 7.2 1.9 5.0	114 219 57 152
12 Th 0113 0745 1513 2202	3.4 7.6 0.7 4.5	105 231 22 136	27 F 0201 0808 1600 2314	3.7 7.0 1.4 4.3	112 214 44 132	12 Su 0251 0941 1626 2324	3.4 8.2 0.7 5.1	103 249 220 155	27 M 0309 0919 1625 2251	3.5 7.2 2.0 5.2	108 220 60 158
13 F 0206 0841 1601 ● 2308	3.4 7.9 0.4 4.5	105 241 12 138	28 Sa 0242 0833 1631 ○ 2341	3.6 7.2 1.4 4.4	110 218 43 134	13 M 0342 1033 1706	3.2 8.0 1.0 4.4	97 244 30 165	28 Tu 0348 0959 1649 2313	3.4 7.2 2.1 5.4	104 218 65 165
14 Sa 0258 0940 1648 2359	3.4 8.1 0.3 4.6	105 247 10 140	29 Su 0322 0907 1701	3.6 7.2 1.5	109 220 45	14 Tu 0002 0432 1124 1745	5.3 3.1 7.6 1.4	161 94 232 43	29 W 0428 1041 1715 2341	3.3 7.0 2.4 5.6	101 212 72 171
15 Su 0350 1034 1735	3.4 8.0 0.5	104 245 14	30 M 0005 0401 0945 1731	4.5 3.6 7.2 1.6	137 109 218 49	15 W 0041 0522 1213 1822	5.4 3.1 7.0 1.9	166 94 213 59	30 Th 0509 1124 1742	3.3 6.7 2.6	100 203 80
			31 Tu 0027 0442 1025 1800	4.6 3.6 7.0 1.8	140 109 213 55	31 F 0011 0554 1209 1811	5.8 3.3 6.3 3.0	177 100 191 90			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Hong Kong, China, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0023 7.1 215 0734 2.9 88 1434 5.2 158 1829 4.5 136	h m ft cm 0043 7.0 212 0918 3.2 99	16 Tu 0150 7.2 220 1010 2.5 77	1 F 0132 6.5 198 1038 3.1 94	1 Sa 0312 6.5 198 1010 2.6 78 1759 5.8 177 2239 5.0 151	h m ft cm 0132 6.5 198 1035 2.6 78 1759 5.8 177 2239 5.0 151	16 Su 0146 5.8 178 0948 3.0 91 1748 5.5 167 2228 4.9 149					
2 Tu 0105 7.1 215 0904 2.9 88 1612 5.0 151 O 1904 4.8 146	17 W 0329 7.0 212 1051 3.2 97	2 F 0329 7.0 212 1116 2.5 76 1904 5.7 175 2230 5.3 161	17 Sa 0250 6.1 187 1128 3.1 95 1910 5.7 174 2322 5.2 157	2 Su 0501 6.0 184 1126 2.8 84 1833 6.2 189	2 M 0501 6.0 184 1126 2.8 84 1833 6.2 189	17 M 0315 5.3 163 1036 3.1 95 1812 5.9 179					
3 W 0209 7.0 214 1033 2.7 83	18 Th 0240 6.5 199 1153 3.1 94	3 Sa 0517 6.8 207 1208 2.5 76 1920 6.0 184 2359 4.7 143	18 Su 0424 5.9 179 1205 3.1 95 1918 6.0 183	3 M 0003 4.3 131 0621 5.8 176 1209 3.0 90 1906 6.6 202	3 Tu 0003 4.3 131 0621 5.8 176 1209 3.0 90 1906 6.6 202	18 Tu 0001 4.3 132 0511 5.0 153 1118 3.2 99 1841 6.3 191					
4 Th 0351 7.1 215 1146 2.5 75 1943 5.3 162 2155 5.2 157	19 F 0405 6.4 195 1237 3.0 91	4 Su 0632 6.7 205 1250 2.6 78 1943 6.4 195	19 M 0027 4.6 141 0550 5.8 176 1235 3.2 97 1932 6.3 193	4 Tu 0105 3.6 110 0731 5.6 170 1248 3.1 96 1939 7.0 213	4 W 0105 3.6 110 0641 5.6 150 1155 3.3 102 1912 6.7 205	19 W 0056 3.6 110 0641 4.9 150 1155 3.3 102 1912 6.7 205					
5 F 0530 7.2 219 1242 2.2 67 2004 5.6 170 2351 4.8 146	20 Sa 0518 6.4 194 1310 2.9 89	5 M 0100 4.0 122 0738 6.7 203 1328 2.7 82 2011 6.8 207	20 Tu 0112 4.0 122 0706 5.8 176 1303 3.2 99 1954 6.7 205	5 W 0155 3.0 90 0833 5.4 165 1324 3.3 101 2012 7.3 224	5 Th 0155 3.0 90 0833 5.4 165 1324 3.3 101 2012 7.3 224	20 Th 0140 2.9 88 0748 5.0 151 1231 3.4 105 1946 7.2 219					
6 Sa 0641 7.3 224 1327 2.1 63 2023 5.8 178	21 Su 0042 4.7 143 0626 6.4 196 1337 2.9 88 2022 6.0 184	6 Tu 0150 3.3 102 0836 6.6 200 1403 2.9 88 2041 7.2 219	21 W 0152 3.3 102 0806 5.8 177 1330 3.3 102 2021 7.1 217	6 Th 0241 2.4 74 0928 5.3 162 1357 3.5 107 2045 7.6 232	6 F 0241 2.4 74 0928 5.3 162 1357 3.5 107 2045 7.6 232	21 F 0221 2.2 67 0844 5.0 152 1307 3.5 108 2021 7.6 233					
7 Su 0058 4.2 128 0744 7.5 228 1405 2.0 62 2048 6.2 189	22 M 0125 4.2 128 0729 6.5 199	7 W 0237 2.8 84 0929 6.4 195 1436 3.1 96 2112 7.5 228	22 Th 0231 2.7 83 0858 5.8 178 1359 3.5 106 2051 7.5 229	7 F 0324 2.0 62 1017 5.2 158 1428 3.7 113 2117 7.7 236	7 Sa 0303 1.6 48 0937 5.0 153 1345 3.6 110 2059 8.0 244	22 Sa 0303 1.6 48 0937 5.0 153 1345 3.6 110 2059 8.0 244					
8 M 0151 3.6 110 0841 7.5 229 1441 2.2 66 2116 6.5 199	23 Tu 0204 3.7 112 0823 6.6 201	8 Th 0322 2.4 72 1018 6.2 188 1508 3.4 105 2142 7.7 234	23 F 0310 2.2 66 0947 5.8 177 1430 3.6 110 2122 7.8 239	8 Sa 0405 1.8 56 1101 5.1 154 1456 3.9 118 2146 7.8 238	8 M 0346 1.1 35 1029 5.0 153 1425 3.7 112 2142 8.3 252	23 M 0346 1.1 35 1029 5.0 153 1425 3.7 112 2142 8.3 252					
9 Tu 0240 3.1 93 0934 7.4 225 1516 2.4 74 ● 2146 6.9 210	24 W 0242 3.2 97 0911 6.6 201	9 F 0406 2.2 66 1105 5.9 179 1538 3.8 115 2211 7.8 237	24 Sa 0351 1.7 53 1035 5.7 175 1501 3.8 116 2155 8.1 247	9 Su 0445 1.8 54 1144 4.9 150 1521 4.0 123 2212 7.7 236	9 M 0431 0.9 28 1124 5.0 152 1508 3.8 115 2227 8.4 255	24 M 0431 0.9 28 1124 5.0 152 1508 3.8 115 2227 8.4 255					
10 W 0327 2.7 82 1024 7.1 216 1549 2.8 85 2217 7.2 218	25 Th 0321 2.8 84 0957 6.6 200	10 Sa 0449 2.1 65 1152 5.6 170 1604 4.1 125 2238 7.7 236	25 Su 0435 1.5 46 1127 5.6 170 1533 4.0 123 2230 8.2 250	10 M 0523 1.8 56 1227 4.8 147 1541 4.2 128 2234 7.6 232	10 Tu 0518 0.9 27 1221 5.0 151 1557 3.9 119 2313 8.2 251	25 Tu 0518 0.9 27 1221 5.0 151 1557 3.9 119 2313 8.2 251					
11 Th 0412 2.5 76 1112 6.7 204 1620 3.2 98 2247 7.3 222	26 F 0401 2.4 73 1042 6.4 195	11 Su 0533 2.3 69 1241 5.3 161 1626 4.4 135 2257 7.6 232	26 M 0522 1.4 44 1226 5.3 163 1607 4.3 131 2311 8.1 248	11 Tu 0601 2.0 61 1313 4.8 145 1557 4.4 133 2253 7.4 226	11 W 0607 1.1 33 1316 5.0 151 1650 4.1 124 2359 7.9 241	26 W 0607 1.1 33 1316 5.0 151 1650 4.1 124 2359 7.9 241					
12 F 0458 2.5 76 1159 6.2 189 1650 3.7 112 2316 7.3 224	27 Sa 0444 2.2 67 1130 6.1 187	12 M 0619 2.5 75 1337 5.0 153 1630 4.7 142 2307 7.4 226	27 Tu 0616 1.6 48 1333 5.2 158 1643 4.6 139 2357 7.9 242	12 W 0640 2.2 67 1404 4.7 144 1610 4.5 138 2323 7.1 217	12 Th 0659 1.4 43 1411 5.0 153 1745 4.2 129	27 Th 0659 1.4 43 1411 5.0 153 1745 4.2 129					
13 Sa 0546 2.6 80 1251 5.7 173 1717 4.1 126 2343 7.3 222	28 Su 0530 2.1 65 1222 5.8 177	13 Tu 0710 2.7 82 2342 7.2 218	28 W 0717 1.8 55 1440 5.1 156 1738 4.8 147	13 Th 0720 2.4 74	13 F 0048 7.3 224 0754 1.8 55 1506 5.2 157 1845 4.4 135	28 F 0048 7.3 224 0754 1.8 55 1506 5.2 157 1845 4.4 135					
14 Su 0637 2.9 87 1352 5.2 159 1740 4.5 138	29 M 0621 2.2 67 1328 5.4 166	14 W 0811 2.9 88	29 Th 0047 7.5 230 0829 2.1 64 1549 5.2 159 1843 5.1 154	14 F 0001 6.8 206 0805 2.6 80	14 Sa 0142 6.6 202 0849 2.3 69 1601 5.4 165 ● 2000 4.6 139	29 Sa 0142 6.6 202 0849 2.3 69 1601 5.4 165 ● 2000 4.6 139					
15 M 0010 7.1 217 0741 3.1 95 1508 4.9 150 1739 4.8 147	30 Tu 0725 2.4 72 1449 5.2 159	15 Th 0033 6.9 209 0927 3.0 92	30 F 0146 7.1 215 0936 2.3 71 1708 5.4 166 ● 2003 5.2 158	15 Sa 0047 6.3 193 0855 2.8 86 1744 5.2 158 ● 1951 5.1 154	30 Su 0257 5.8 178 0942 2.7 81 1655 5.7 175 2230 4.4 133	30 M 0443 5.2 158 1033 3.0 91 1745 6.1 186					
		31 W 0041 7.5 228 0850 2.5 76				31 M 0443 5.2 158 1033 3.0 91 1745 6.1 186					

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Haikou, China, 2018

Times and Heights of High and Low Waters

January					February					March													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	0510 1512	7.2 1.4	220 42	<b>16</b> Tu	0654 1642	7.2 1.6	219 50	<b>1</b> Th	0743 1726	7.8 0.6	239 17	<b>16</b> F	0015 0234 0812 ● 1701	5.7 5.5 7.1 1.6	174 167 217 49	<b>1</b> Th	0644 1632	7.4 1.0	225 32	<b>16</b> F	0200 0713 1559 2310	5.4 6.7 2.0 5.6	165 204 170 170
<b>2</b> Tu	0623 1613	7.7 0.8	235 25	<b>17</b> W	0742 1711	7.3 1.5	224 47	<b>2</b> F	0839 1754	7.9 0.7	240 22	<b>17</b> Sa	0029 0310 0852 1719	5.6 5.2 7.1 1.6	170 158 216 50	<b>2</b> F	0752 1653	7.5 1.2	229 36	<b>17</b> Sa	0229 0811 1619 ● 2309	5.0 6.8 2.1 5.4	152 207 63 164
O				●								O											
<b>3</b> W	0732 1712	8.0 0.5	245 16	<b>18</b> Th	0823 1725	7.4 1.5	225 47	<b>3</b> Sa	0930 1817	7.7 1.1	236 35	<b>18</b> Su	0038 0346 0932 1742	5.4 4.8 7.1 1.8	164 147 215 56	<b>3</b> Sa	0025 0244 0857 1713	5.5 5.2 7.5 1.5	167 158 229 47	<b>18</b> Su	0302 0908 1641 2303	4.5 6.9 2.3 5.2	136 210 70 160
<b>4</b> Th	0830 1803	8.2 0.6	250 17	<b>19</b> F	0857 1741	7.3 1.6	223 48	<b>4</b> Su	1019 1840	7.4 1.8	226 54	<b>19</b> M	0035 0423 1018 1804	5.2 4.4 7.0 2.2	158 135 212 67	<b>4</b> Su	0009 0327 1000 1733	5.1 4.4 7.4 2.1	154 135 225 65	<b>19</b> M	0340 1003 1703 2259	3.9 7.0 2.7 5.2	119 214 83 159
<b>5</b> F	0918 1844	8.1 0.9	247 26	<b>20</b> Sa	0925 1805	7.2 1.6	219 50	<b>5</b> M	0141 0452 1110 1901	4.8 4.4 7.0 2.5	147 135 212 77	<b>20</b> Tu	0031 0503 1110 1822	5.1 4.1 6.8 2.7	155 124 208 83	<b>5</b> M	0413 1058 1752 2336	3.7 7.1 2.8 5.0	113 217 86 153	<b>20</b> Tu	0421 1056 1720 2250	3.3 7.0 3.3 5.4	102 214 100 164
Sa	0956 1918	7.8 1.3	239 41	<b>21</b> Su	0215 0424 0949 1833	5.6 5.4 7.1 1.8	171 164 215 55	<b>6</b> Tu	0114 0543 1203 1916	4.8 4.0 6.4 3.3	147 121 194 100	<b>21</b> W	0026 0546 1208 1838	5.1 3.7 6.6 3.3	154 112 200 102	<b>6</b> Tu	0501 1149 1807 2328	3.1 6.7 3.5 5.4	96 205 108 165	<b>21</b> W	0505 1149 1735 2245	2.8 6.9 3.9 5.7	86 209 120 175
<b>7</b> Su	1028 1949	7.4 2.0	225 61	<b>22</b> M	0235 0459 1022 1901	5.4 5.2 6.9 2.1	164 158 209 65	<b>7</b> W	0101 0642 1258 1922	5.1 3.7 5.7 3.9	156 113 174 119	<b>22</b> Th	0011 0636 1308 1851	5.3 3.3 6.1 4.0	162 102 122 122	<b>7</b> W	0552 1236 1815 2327	2.8 6.2 4.1 5.9	86 197 139 192	<b>22</b> Th	0551 1245 1750 2250	2.4 6.5 4.6 6.3	72 197 139 192
M	1103 2017	6.8 2.7	208 83	<b>23</b> Tu	0235 0538 1109 1926	5.2 5.0 6.6 2.6	158 151 201 80	<b>8</b> Th	0055 0758 1357 1905	5.6 3.5 5.0 4.3	170 108 152 130	<b>23</b> F	0007 0734 1419 ● 1849	5.8 3.0 5.4 4.6	176 92 164 140	<b>8</b> Th	0646 1325 1812 2336	2.7 5.5 4.5 6.3	81 169 137 193	<b>23</b> F	0639 1354 1756 2257	2.1 5.8 5.1 6.8	63 178 156 207
Tu	0410 0615 1152 2040	5.0 4.9 6.1 3.4	152 150 186 105	<b>24</b> W	0219 0625 1212 1946	5.1 4.7 6.2 3.2	154 142 189 98	<b>9</b> F	0104 0937	6.0 3.4	183 104 185 104	<b>24</b> Sa	0011 0843	6.3 2.8	193 85	<b>9</b> F	0744 1428 1745 ● 2358	2.7 4.9 4.6 6.6	82 148 141 202	<b>24</b> Sa	0731 1354 1756 ● 2358	2.0 5.8 5.1 6.6	60 178 156 207
W	0312 0801 1306 2054	5.1 4.7 5.3 4.1	156 142 161 125	<b>25</b> Th	0204 0732 1328 ● 2000	5.1 4.4 5.6 3.9	156 133 171 119	<b>10</b> Sa	0128 1144	6.3 3.1	193 96	<b>25</b> Su	0024 1011	6.8 2.6	207 79	<b>10</b> Sa	0845	2.8	86	<b>25</b> Su	0829 2331	2.1 7.3	63 223
Th	0258 1030	5.5 4.2	167 128	<b>26</b> F	0145 0915 1517 1940	5.4 3.9 5.0 4.5	166 119 151 138	<b>11</b> Su	0221 1422	6.5 2.7	199 82	<b>26</b> M	0050 1353	7.1 2.2	216 68	<b>11</b> Su	0030 0959	6.7 3.0	204 90	<b>26</b> M	0949 2357	2.3 7.2	70 220
F	0307 1226	5.9 3.5	181 107	<b>27</b> Sa	0147 1108	6.0 3.2	183 99	<b>12</b> M	0413 1536	6.6 2.2	202 67	<b>27</b> Tu	0126 1516	7.1 1.6	217 49	<b>12</b> M	0121 1423	6.6 2.7	202 83	<b>27</b> Tu	1353	2.1	64
Sa	0343 1350	6.3 2.8	193 86	<b>28</b> Su	0204 1305	6.6 2.5	201 77	<b>13</b> Tu	0536 1619	6.8 1.9	208 57	<b>28</b> W	0527 1602	7.2 1.2	220 36	<b>13</b> Tu	0347 1515	6.5 2.4	199 73	<b>28</b> W	0034 1447	6.9 1.8	210 56
<b>14</b> Su	0447 1458	6.7 2.3	203 70	<b>29</b> M	0245 1446	7.0 1.7	214 53	<b>14</b> W	0636 1645	7.0 1.7	213 52					<b>14</b> W	0508 1541 2309	6.6 2.2 5.9	200 67 180	<b>29</b> Th	0528 1518 2259	6.9 1.8 5.9	209 177 179
<b>15</b> M	0556 1557	6.9 1.9	211 57	<b>30</b> Tu	0510 1557	7.3 1.1	223 33	<b>15</b> Th	0727 1653	7.1 1.6	216 50					<b>15</b> Th	0134 0613 1549 2306	5.8 6.6 2.1 5.8	177 202 64 176	<b>30</b> F	0112 0657 1540 2246	5.7 6.9 2.0 5.4	173 211 60 165
				<b>31</b> W	0640 1649	7.6 0.7	233 20									<b>31</b> O	0156 0820 1601 2222	4.9 7.0 2.3 5.2	148 214 71 157				

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Haikou, China, 2018

Times and Heights of High and Low Waters

April				May				June						
	Time	Height		Time	Height		Time	Height		Time	Height			
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm			
<b>1</b> Su	0242	4.0 122	<b>16</b> M	0255	3.6 110	<b>1</b> Tu	0334	2.1 65	<b>16</b> W	0336	1.8 54	<b>1</b> F	0515	1.2 36
	0932	7.1 216		0930	6.7 205		1054	6.5 198		1102	6.5 197		2122	7.4 227
	1622	2.9 87		1553	3.4 105		1542	4.7 144		1511	5.3 163		Sa	2119 8.2 250
	2210	5.2 158		● 2126	5.5 167		2048	6.4 194		2009	6.8 206			
<b>2</b> M	0329	3.2 97	<b>17</b> Tu	0337	2.9 87	<b>2</b> W	0423	1.6 50	<b>17</b> Th	0423	1.1 33	<b>2</b> Sa	0554	1.3 39
	1031	7.1 215		1026	6.9 210		1148	6.3 193		1230	6.5 197		2200	7.4 227
	1642	3.5 106		1611	4.1 124		1559	5.2 157		1533	5.9 180		Su	2205 8.1 248
	2205	5.4 166		2121	5.8 177		2106	6.8 206		2039	7.3 223			
<b>3</b> Tu	0417	2.5 77	<b>18</b> W	0422	2.1 65	<b>3</b> Th	0510	1.4 43	<b>18</b> F	0512	0.7 21	<b>3</b> Su	0628	1.5 45
	1122	6.9 209		1122	6.9 209		1249	6.0 184		2117	7.7 236		2234	7.3 223
	1658	4.1 126		1628	4.7 144		1613	5.4 165					M	2246 7.9 240
	2205	5.9 179		2126	6.3 192		2132	7.1 215						
<b>4</b> W	0506	2.1 64	<b>19</b> Th	0507	1.6 48	<b>4</b> F	0553	1.4 44	<b>19</b> Sa	0602	0.6 18	<b>4</b> M	0703	1.7 52
	1210	6.5 197		1226	6.6 200		1410	5.7 175		2201	7.9 241		2301	7.1 215
	1710	4.7 142		1646	5.3 162		1619	5.6 170					Tu	2325 7.4 225
	2212	6.3 193		2141	6.9 209		2206	7.2 220						
<b>5</b> Th	0554	1.9 59	<b>20</b> F	0554	1.3 39	<b>5</b> Sa	0632	1.6 49	<b>20</b> Su	0656	0.8 24	<b>5</b> Tu	0745	2.0 60
	1301	6.0 182		1403	6.2 188		2242	7.3 221		2242	7.8 239		2321	6.7 205
	1716	5.0 152		1658	5.8 176								W	●
	2228	6.7 205		2201	7.3 223									
<b>6</b> F	0641	2.0 60	<b>21</b> Sa	0642	1.2 37	<b>6</b> Su	0707	1.8 56	<b>21</b> M	0758	1.2 36	<b>6</b> W	0838	2.2 68
	1415	5.4 165		2222	7.5 230		2316	7.1 216		2318	7.5 230		2342	6.4 195
	1710	5.2 157											Th	0934 6.8 207
	2254	7.0 212												
<b>7</b> Sa	0724	2.1 65	<b>22</b> Su	0734	1.4 43	<b>7</b> M	0744	2.1 65	<b>22</b> Tu	0913	1.6 50	<b>7</b> Th	0938	2.5 77
	2326	7.0 213		2239	7.6 231		2341	6.8 208		2352	7.1 217			
													F	0115 6.0 184
														1012 3.1 96
														1723 5.1 154
														2146 4.5 137
<b>8</b> Su	0804	2.4 73	<b>23</b> M	0838	1.8 55	<b>8</b> Tu	0837	2.4 74	<b>23</b> W	1035	2.1 64	<b>8</b> F	0029	6.0 183
	2359	6.9 209		2300	7.4 225		2323	6.5 199					1036	2.9 87
													1923	5.5 168
													2251	5.3 162
														2333 3.7 114
<b>9</b> M	0849	2.7 81	<b>24</b> Tu	1138	2.2 66	<b>9</b> W	1018	2.7 82	<b>24</b> Th	0056	6.5 199	<b>9</b> Sa	0207	5.5 168
				2336	7.0 213		2157	6.2 190		1134	2.6 78		1125	3.2 99
													1853	5.4 165
														2401 5.1 154
														Su 1111 4.5 136
														1705 5.9 180
<b>10</b> Tu	0022	6.6 201	<b>25</b> W	1302	2.2 67	<b>10</b> Th	1159	2.8 85	<b>25</b> F	0303	5.9 180	<b>10</b> Su	0005	4.6 139
	1304	2.9 87					2100	6.0 182		1215	3.1 93		0510	5.2 160
	2300	6.3 193								1933	5.3 162		1202	3.8 116
										2349	4.7 142		1822	5.5 167
														1733 6.4 196
<b>11</b> W	1351	2.7 82	<b>26</b> Th	0319	6.5 198	<b>11</b> F	1250	2.9 88	<b>26</b> Sa	0630	5.7 173	<b>11</b> M	0101	3.6 111
	2212	6.1 187		1342	2.4 72		2041	5.8 176		1249	3.6 110		0730	5.4 164
				2138	5.8 177				1906	5.4 166		1233	4.5 136	
													1810	5.8 178
														202 2.2 67
<b>12</b> Th	0121	5.9 181	<b>27</b> F	0010	5.6 171	<b>12</b> Sa	0054	5.2 157	<b>27</b> Su	0056	3.7 113	<b>12</b> Tu	0153	2.7 81
	0425	6.1 187		0542	6.3 192		0524	5.6 171		0811	5.7 175		0921	5.6 172
	1413	2.6 79		1410	2.7 81		1329	3.1 94		1319	4.2 128		1300	5.1 156
	2157	5.9 181		2111	5.4 166		2025	5.6 170		1904	5.8 178		1821	6.4 195
<b>13</b> F	0128	5.5 169	<b>28</b> Sa	0103	4.7 144	<b>13</b> Su	0126	4.4 135	<b>28</b> M	0156	2.8 85	<b>13</b> W	0245	1.7 53
	0547	6.1 186		0735	6.4 194		0725	5.8 177		0928	5.8 177		1105	6.0 182
	1436	2.6 78		1435	3.1 95		1402	3.5 107		1346	4.7 144		1330	5.7 175
	2153	5.7 174		2044	5.4 164		2005	5.5 169		1914	6.3 191		1852	7.1 215
<b>14</b> Sa	0146	5.0 153	<b>29</b> Su	0154	3.8 115	<b>14</b> M	0206	3.5 108	<b>29</b> Tu	0250	2.0 62	<b>14</b> O	0337	1.0 30
	0713	6.2 190		0856	6.5 198		0842	6.1 186		1033	5.9 179		1938	7.6 232
	1503	2.7 81		1500	3.6 111		1427	4.1 124		1411	5.1 156			
	2146	5.5 168		2036	5.6 170		1953	5.7 175		1935	6.7 204			
<b>15</b> Su	0217	4.4 133	<b>30</b> M	0244	2.9 88	<b>15</b> Tu	0250	2.6 80	<b>30</b> W	0342	1.5 46	<b>15</b> F	0431	0.5 244
	0828	6.5 197		1000	6.6 200		0950	6.4 194		1135	5.9 179		2029	8.0 244
	1530	3.0 90		1522	4.2 128		1449	4.7 144		1434	5.4 165			
	2135	5.4 165		2038	5.9 181		● 1954	6.2 188		2005	7.1 216			
														31 0430 1.2 37
														Th 1239 5.8 178
														1457 5.6 171
														2042 7.3 223

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Haikou, China, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0554 0.554 2146 7.5 229	ft cm	16 M 0620 0.620 2200 8.2 249	ft cm	1 W 0622 0.622 1322 5.3 161 1657 4.8 145 2235 7.1 216	ft cm	16 Th 0637 0.637 1230 5.2 159 1736 3.7 114	ft cm	1 Sa 0610 0.610 1139 6.1 187 1826 3.4 103	ft cm	16 Su 0123 0.123 0542 5.2 157 1113 7.4 225 1935 2.7 83	ft cm
2 M 0622 1.5 45 2215 7.3 222	ft cm	17 Tu 0656 0.656 2245 7.7 236	ft cm	2 Th 0648 0.648 1318 5.2 160 1740 4.5 138 2322 6.8 207	ft cm	17 F 0001 0.001 0655 3.5 108 1222 5.6 172 1836 3.4 104	ft cm	2 Su 0051 0.051 0623 4.4 133 1147 6.6 201 1921 3.1 94	ft cm	17 M 1139 7.6 233 2040 2.9 89	ft cm
3 Tu 0653 1.7 51 2240 7.0 214	ft cm	18 W 0730 0.730 2333 7.2 218	ft cm	3 F 0711 0.711 1320 5.3 162 1829 4.3 131	ft cm	18 Sa 0100 0.100 0704 4.2 129 1225 6.2 190 1948 3.2 98	ft cm	3 M 0159 0.159 0626 4.9 150 1202 7.1 216 2023 2.9 87	ft cm	18 Tu 1216 7.7 234 2209 3.1 95	ft cm
4 W 0728 1.9 58 2310 6.7 205	ft cm	19 Th 0800 0.800 1436 4.8 146 1830 4.4 133	ft cm	4 Sa 0020 0.020 0729 3.3 101 1318 5.5 168 1931 4.0 123	ft cm	19 Su 0206 0.0206 0653 4.7 143 1242 6.8 206 2114 3.1 95	ft cm	4 Tu 1222 0.1222 2136 2.7 228 21 1324 7.5 229	ft cm	19 W 1324 7.5 229	ft cm
5 Th 0806 2.2 68 2353 6.4 194	ft cm	20 F 0031 0.031 0825 3.2 98 1414 5.1 156 1950 4.0 122	ft cm	5 Su 0130 0.130 0742 3.9 120 1322 5.9 180 2053 3.6 111	ft cm	20 M 1315 0.1315 2256 3.0 216 22 1420 7.3 221	ft cm	5 W 1248 0.1248 2335 2.5 235 20 0147 3.0 90	ft cm	20 Th 1526 7.3 224	ft cm
6 F 0842 2.7 82 1628 5.1 156 1936 5.0 151	ft cm	21 Sa 0145 0.145 0841 4.0 121 1412 5.6 171 2134 3.6 111	ft cm	6 M 0259 0.0259 0741 4.6 131 1340 6.4 195 2224 3.1 95	ft cm	21 Tu 1420 0.1420 1600 2.5 221	ft cm	6 Th 1453 0.1453 1647 7.7 235	ft cm	21 F 0244 0.0244 1647 7.3 223	ft cm
7 Sa 0057 5.9 179 0913 3.2 99 1547 5.2 158 2137 4.6 139	ft cm	22 Su 0351 0.0351 0841 4.5 138 1434 6.2 188 2318 3.1 95	ft cm	7 Tu 1413 0.1413 2355 2.5 211	ft cm	22 W 0123 0.0123 1600 2.7 224	ft cm	7 F 0220 0.0220 1658 2.0 240	ft cm	22 Sa 0308 0.0308 1047 6.4 196 1301 6.3 192 1753 7.3 222	ft cm
8 Su 0233 5.4 164 0937 3.9 118 1542 5.4 166 2315 3.8 116	ft cm	23 M 1520 0.1520 1743 6.6 202	ft cm	8 W 1525 0.1525 1719 7.3 223	ft cm	23 Th 0258 0.0258 1719 2.3 229	ft cm	8 Sa 0311 0.0311 1813 1.6 246	ft cm	23 Su 0313 0.0313 1034 6.3 191 1338 5.8 178 1853 7.3 222	ft cm
9 M 0506 5.0 152 0955 4.5 138 1553 5.9 181	ft cm	24 Tu 0056 0.0056 1631 2.6 79	ft cm	9 Th 0153 0.0153 1709 1.9 235	ft cm	24 F 0347 0.0347 1819 2.0 233	ft cm	9 Su 0344 0.0344 1919 1.4 249	ft cm	24 M 0324 0.0324 1030 6.1 186 1410 5.3 162 1951 7.3 223	ft cm
10 Tu 0030 3.0 90 1628 6.6 200	ft cm	25 W 0221 0.0221 1743 2.1 64	ft cm	10 F 0312 0.0312 1823 1.3 39	ft cm	25 Sa 0412 0.0412 1911 2.0 60	ft cm	10 M 0411 0.0411 1145 1.5 46 1422 5.6 170 2025 8.2 249	ft cm	25 Tu 0345 0.0345 1025 2.7 83 1446 6.0 184 O 2047 7.3 224	ft cm
11 W 0141 2.1 63 1726 7.2 219	ft cm	26 Th 0330 0.0330 1842 1.7 53	ft cm	11 Sa 0406 0.0406 1923 0.8 255	ft cm	26 Su 0421 0.0421 1145 2.0 60	ft cm	11 Tu 0436 0.0436 1121 1.9 57 1508 5.6 171 2131 8.0 245	ft cm	26 W 0407 0.0407 1022 3.0 90 1524 4.2 128 2141 7.4 226	ft cm
12 Th 0249 1.3 39 1831 7.7 236	ft cm	27 F 0421 0.0421 1931 1.5 46	ft cm	12 Su 0446 0.0446 2018 0.7 258	ft cm	27 M 0432 0.0432 1148 2.0 61	ft cm	12 W 0500 0.0500 1107 2.5 77	ft cm	27 Th 0427 0.0427 1019 3.4 103 1606 3.6 111 2234 7.4 225	ft cm
13 F 0352 0.7 21 1931 8.2 249	ft cm	28 Sa 0454 0.0454 2015 1.4 44	ft cm	13 M 0518 0.0518 2111 0.8 23	ft cm	28 Tu 0452 0.0452 1145 2.1 63	ft cm	13 Th 0521 0.0521 1059 3.3 101	ft cm	28 F 0444 0.0444 1014 3.9 119 1648 6.4 194 2327 7.2 220	ft cm
14 Sa 0449 0.3 10 2025 8.4 256	ft cm	29 Su 0513 0.0513 2053 1.5 45	ft cm	14 Tu 0546 0.0546 1323 1.1 35	ft cm	29 W 0515 0.0515 1141 2.3 70	ft cm	14 F 0537 0.0537 1055 4.1 126	ft cm	29 Sa 0500 0.0500 1016 4.5 137	ft cm
15 Su 0538 0.2 7 2114 8.4 256	ft cm	30 M 0531 0.0531 1319 1.6 48	ft cm	15 W 0614 0.0614 1245 1.8 56	ft cm	30 Th 0536 0.0536 1142 2.7 81	ft cm	15 Sa 0027 0.0027 0546 6.7 205	ft cm	30 Su 0023 0.0023 0515 6.9 209	ft cm
		●		15 M 1542 0.554 1542 5.2 160 2127 7.5 229	ft cm	15 W 1644 0.1644 2302 4.3 230	ft cm	15 Sa 0546 0.0546 1059 4.8 146	ft cm	30 Su 0515 0.0515 1025 5.1 155	ft cm
		○		31 Tu 0554 0.0554 1328 1.7 51	ft cm	31 F 0554 0.0554 1140 3.2 97	ft cm	31 F 1738 2.9 87	ft cm	30 Tu 1818 0.2 74	ft cm
				31 Tu 1619 0.54 164	ft cm	31 F 1737 5.8 178	ft cm				
				31 Tu 2159 0.50 152	ft cm	31 F 2357 6.9 211	ft cm				
				31 Tu 2159 0.73 223	ft cm						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Haikou, China, 2018

Times and Heights of High and Low Waters

October					November					December													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	0132 0523 1036 1906	6.3 5.6 7.7 2.3	192 171 236 71	<b>16</b> Tu	1051 1952	8.0 2.8	244 86	<b>1</b> Th	1005 2137	8.3 2.6	252 78	<b>16</b> F	0959 2150	7.3 3.2	222 99	<b>1</b> Sa	1044 2302	7.3 2.9	222 88	<b>16</b> Su	1050 2157	6.4 3.3	195 101
<b>2</b> ○ ○ ○	1050 2000	8.0 2.4	245 72	<b>17</b> W	1116 2040	7.8 3.1	238 96	<b>2</b> F	1031	7.9	242	<b>17</b> Sa	0955 2334	6.9 3.4	211 103	<b>2</b> Su	1147 2344	6.5 3.4	198 105	<b>17</b> M	0805 2244	5.9 3.7	179 114
<b>3</b> W	1106 2108	8.2 2.6	249 78	<b>18</b> Th	1111	7.5	228	<b>3</b> Sa	0025 1049	2.7 7.3	81	<b>18</b> Su	0904	6.6	201	<b>3</b> M	0749 1138 1801	5.9 5.4 5.7	179 166 175	<b>18</b> Tu	0704 1223 1511 2319	5.7 5.0 5.2 4.3	174 153 157 131
<b>4</b> Th	1128	8.1	246	<b>19</b> F	0056 1042	3.2 7.1	99	<b>4</b> Su	0106 0935 1210 1623	2.8 6.7 6.5 6.7	86 204 199 204	<b>19</b> M	0021 0828 1315 1548	3.5 6.4 5.7 5.7	107 194 173 175	<b>4</b> Tu	0016 0701 1245 2015	4.1 5.8 4.4 5.9	125 178 133 179	<b>19</b> W	0609 1303 2012 2346	5.7 4.1 5.2 4.9	174 126 160 150
<b>5</b> F	0104 1157	2.6 7.7	78	<b>20</b> Sa	0129 1001 1322 1545	3.2 6.8 6.6 6.7	98	<b>5</b> M	0135 0859 1247 1908	3.1 6.2 5.5 6.7	96	<b>20</b> Tu	0057 0813 1324 1934	3.8 6.2 4.9 5.9	115 189 149 179	<b>5</b> W	0044 0644 1341 2135	4.8 6.2 3.3 6.0	145 188 101 184	<b>20</b> Th	0526 1346 2159	6.0 3.1 5.7	184 96 174
<b>6</b> Sa	0200 1639	2.3 7.5	70	<b>21</b> Su	0143 0934 1317 1720	3.2 6.6 6.1 6.6	97	<b>6</b> Tu	0200 0830 1334 2040	3.6 6.1 4.5 6.9	111	<b>21</b> W	0126 0752 1357 2048	4.2 6.2 4.0 6.2	127 188 123 189	<b>6</b> Th	0107 0641 1435 2241	5.3 6.7 2.4 6.2	163 203 174 188	<b>21</b> F	0012 0525 1433	5.5 6.6 2.3	169 201 69
<b>7</b> Su	0233 1032 1250 1814	2.3 6.7 6.5 7.5	69	<b>22</b> M	0204 0923 1333 1858	3.2 6.4 5.5 6.6	98	<b>7</b> W	0224 0816 1423 2148	4.3 6.3 3.4 7.0	130	<b>22</b> Th	0149 0731 1436 2152	4.7 6.3 3.1 6.5	144 193 95 198	<b>7</b> F	0128 0653 1527 2345	5.8 7.2 1.8 6.2	177 218 56 190	<b>22</b> Sa	0552 1521	7.2 1.5	219 45
<b>8</b> M	0258 1014 1333 1945	2.4 6.2 5.6 7.6	74	<b>23</b> Tu	0229 0916 1403 2017	3.4 6.3 4.8 6.8	103	<b>8</b> Th	0246 0813 1513 ● 2247	4.9 6.7 2.6 6.9	150	<b>23</b> F	0209 0719 1517 ○ 2300	5.3 6.8 2.3 6.7	162 206 70 204	<b>8</b> Sa	0148 0724 1616	6.1 7.5 1.5	185 229 46	<b>23</b> Su	0639 1611	7.7 1.0	235 29
<b>9</b> Tu	0322 0952 1419 ● 2104	2.8 5.9 4.6 7.6	86	<b>24</b> W	0254 0907 1440 2116	3.7 6.3 4.1 7.0	112	<b>9</b> F	0305 0816 1603 2346	5.5 7.1 2.0 6.8	168	<b>24</b> Sa	0231 0726 1559	5.9 7.3 1.6	180 223 50	<b>9</b> Su	0804 1701	7.8 1.5	237 45	<b>24</b> M	0735 1702	8.1 0.7	246 21
<b>10</b> W	0345 0940 1508 2210	3.4 6.0 3.6 7.6	104	<b>25</b> Th	0315 0858 1520 ○ 2210	4.2 6.4 3.3 7.2	127	<b>10</b> Sa	0320 0828 1650	5.9 7.6 1.7	180	<b>25</b> Su	0020 0255 0748 1642	6.8 6.4 7.9 1.2	207 195 240 37	<b>10</b> M	0846 1738	7.9 1.6	240 49	<b>25</b> Tu	0826 1754	8.2 0.7	251 20
<b>11</b> Th	0406 0935 1557 2306	4.2 6.3 2.9 7.4	127	<b>26</b> F	0332 0850 1602 2305	4.7 6.7 2.6 7.2	144	<b>11</b> Su	0052 0331 0852 1733	6.5 6.1 7.9 1.8	198	<b>26</b> M	0817 1726	8.2 1.1	251 33	<b>11</b> Tu	0924 1807	7.8 1.8	238 55	<b>26</b> W	0907 1846	8.2 0.9	251 26
<b>12</b> F	0423 0935 1647	4.9 6.8 2.4	148	<b>27</b> Sa	0350 0853 1644	5.3 7.2 2.1	161	<b>12</b> M	0924 1811	8.0 2.0	245	<b>27</b> Tu	0840 1814	8.4 1.2	256	<b>12</b> W	0950 1835	7.6 2.0	233	<b>27</b> Th	0933 1934	8.0 1.3	245 39
<b>13</b> Sa	0001 0434 0940 1737	7.0 5.4 7.4 2.2	212	<b>28</b> Su	0008 0408 0904 1726	6.9 5.8 7.7 1.8	211	<b>13</b> Tu	0955 1842	8.0 2.3	244	<b>28</b> W	0856 1910	8.4 1.5	255	<b>13</b> Th	1001 1912	7.4 2.3	226	<b>28</b> F	1001 2020	7.7 1.8	234 56
<b>14</b> Su	0101 0438 0956 1825	6.4 5.7 7.8 2.2	195	<b>29</b> M	0143 0421 0919 1809	6.6 6.3 8.1 1.7	201	<b>14</b> W	1014 1915	7.8 2.6	238	<b>29</b> Th	0921 2025	8.2 2.0	250	<b>14</b> F	1003 2002	7.2 2.6	218	<b>29</b> Sa	1042 2101	7.2 2.6	218 78
<b>15</b> M	1022 1910	8.0 2.5	244	<b>30</b> Tu	0932 1856	8.4 1.8	255	<b>15</b> Th	1001 2005	7.6 3.0	231	<b>30</b> F	0958 2156	7.8 2.4	239	<b>15</b> Sa	1021 2100	6.9 2.9	209	<b>30</b> Su	1140 2136	6.4 3.3	195 102
				<b>31</b> W	0946 1952	8.4 2.2	256										<b>31</b> M	0525 0830 1323 2202	5.2 5.0 5.5 4.1	157 153 168 126			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beihai, China, 2018

Times and Heights of High and Low Waters

January					February					March							
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> M 0419 1346	15.3 2.1	465 64	<b>16</b> Tu 1512	14.2 2.8	433 86	<b>1</b> Th 1553	16.0 1.8	489 54	<b>16</b> F 1543	13.9 3.5	423 108	<b>1</b> Th 1440	15.2 2.6	462 78	<b>16</b> F 1418	13.2 4.2	401 127
●																	
<b>2</b> Tu 0503 1451	16.2 1.4	495 42	<b>17</b> W 1547	14.4 2.8	438 86	<b>2</b> F 1630	15.9 2.3	486 71	<b>17</b> Sa 1601	13.8 3.9	420 120	<b>2</b> F 1512	15.1 3.1	461 96	<b>17</b> Sa 1434	13.1 4.7	400 143
○			●														
<b>3</b> W 0552 1552	16.7 1.2	509 38	<b>18</b> Th 1617	14.4 3.0	439 91	<b>3</b> Sa 1701	15.6 3.1	474 95	<b>18</b> Su 2126	13.6 6.6	414 202	<b>3</b> Sa 1614	14.9 4.0	453 123	<b>18</b> Su 1947	13.0 5.3	395 162
<b>4</b> Th 0642 1649	16.7 1.5	510 46	<b>19</b> F 1644	14.3 3.2	437 98	<b>4</b> Su 2230	14.8 4.0	452 123	<b>19</b> M 0816	6.2 13.2	188 403	<b>4</b> Su 2023	14.2 5.0	433 152	<b>19</b> M 0735	5.9 12.5	379 382
<b>5</b> F 0734 1738	16.4 2.0	501 62	<b>20</b> Sa 1707	14.2 3.5	432 106	<b>5</b> M 0920	5.8 13.6	178 416	<b>20</b> Tu 1628	6.0 5.5	184 167	<b>5</b> M 0836	5.2 13.1	159 399	<b>20</b> Tu 1454	5.2 6.6	158 200
<b>6</b> Sa 0825 1817	15.8 2.7	483 83	<b>21</b> Su 1727	13.9 3.8	424 115	<b>6</b> Tu 1010	6.1 12.1	186 368	<b>21</b> W 1638	5.8 6.0	177 184	<b>6</b> Tu 0930	4.9 11.6	149 355	<b>21</b> W 0917	4.5 10.7	137 325
<b>7</b> Su 0916 1845	15.0 3.6	456 109	<b>22</b> M 1743	13.5 4.1	412 126	<b>7</b> W 1102	6.3 10.2	192 312	<b>22</b> Th 1744	5.5 6.0	169 184	<b>7</b> W 1040	4.8 9.9	147 305	<b>22</b> Th 1019	4.0 9.3	122 283
<b>8</b> M 1007 1902	13.7 4.4	417 133	<b>23</b> Tu 1759	12.9 4.6	392 140	<b>8</b> Th 1201	10.1 8.3	307 253	<b>23</b> F 1736	5.2 6.2	159 188	<b>8</b> Th 1150	4.9 8.2	148 249	<b>23</b> F 1151	3.6 7.8	111 239
<b>9</b> Tu 1059 1912	12.0 5.1	366 155	<b>24</b> W 0301	7.5 11.8	230 360	<b>9</b> F 1013	7.1 11.8	343 202	<b>24</b> Sa 1808	5.9 5.2	145 185	<b>9</b> F 0907	4.9 6.6	148 208	<b>24</b> Sa 2336	3.5 12.5	106 380
<b>10</b> W 0143 0551	8.7 7.7	265 235	<b>25</b> Th 1108	8.7 10.2	264 312	<b>10</b> Sa 1137	12.1 4.9	370 150	<b>25</b> Su 1016	13.4 3.9	407 120	<b>10</b> Sa 0857	4.7 12.0	142 440	<b>25</b> Su 2356	3.3 14.4	100 440
<b>11</b> Th 0213 0849	10.1 7.3	309 223	<b>26</b> F 1221	10.1 8.3	309 254	<b>11</b> Su 1251	12.8 4.0	389 121	<b>26</b> M 1155	14.2 3.0	432 92	<b>11</b> Su 1047	12.8 4.2	390 127	<b>26</b> M 1018	3.0	91
<b>12</b> F 0249 1137	11.5 6.0	350 182	<b>27</b> Sa 1424	11.8 6.5	359 197	<b>12</b> M 1338	13.2 3.3	403 102	<b>27</b> Tu 1303	14.7 2.5	447 75	<b>12</b> M 1156	13.0 3.7	396 114	<b>27</b> Tu 1130	14.4 2.9	440 87
<b>13</b> Sa 0326 1300	12.6 4.6	383 140	<b>28</b> Su 1150	13.3 3.9	406 119	<b>13</b> Tu 1417	13.5 3.1	413 93	<b>28</b> W 1357	15.0 2.3	456 71	<b>13</b> Tu 1244	13.1 3.5	399 107	<b>28</b> W 1225	14.3 3.0	437 91
<b>14</b> Su 0403 1352	13.4 3.6	407 110	<b>29</b> M 1308	14.6 2.6	444 79	<b>14</b> W 1451	13.8 3.1	420 93				<b>14</b> W 1323	13.2 3.5	401 108	<b>29</b> Th 1308	14.2 3.4	434 104
<b>15</b> M 0439 1434	13.9 3.1	423 93	<b>30</b> Tu 1410	15.4 1.8	470 56	<b>15</b> Th 1519	13.9 3.2	423 98				<b>15</b> Th 1355	13.2 3.8	401 115	<b>30</b> F 1335	14.0 4.2	428 127
<b>31</b> W 0451 1505	15.9 1.6	484 49															
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Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beihai, China, 2018

Times and Heights of High and Low Waters

April				May				June															
	Time	Height			Time	Height			Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0649 1359 1857	13.0 5.9 8.8	396 181 269	<b>16</b> M ●	0001 0639 1302 1830	5.9 11.4 6.7 10.2	181 348 204 312	<b>1</b> Tu	0152 0810 1235 1842	3.9 9.3 7.7 13.1	119 282 235 399	<b>16</b> W	0143 0811 1103 1807	3.3 8.2 7.8 14.7	101 250 237 447	<b>1</b> F	0424 1930	2.8 14.9	86 454	<b>16</b> Sa	0430 1925	1.4 16.9	42 516
<b>2</b> M	0109 0749 1409 1913	4.8 11.9 6.7 10.3	147 364 205 314	<b>17</b> Tu	0112 0739 1308 1845	4.7 10.6 7.3 11.7	144 324 224 358	<b>2</b> W	0257 0931 1210 1916	3.3 8.3 7.9 13.9	100 252 240 424	<b>17</b> Th	0249 1848	2.3 15.8	69 481	<b>2</b> Sa	0518 2004	2.9 14.8	89 452	<b>17</b> Su	0537 2017	1.5 16.6	46 507
<b>3</b> Tu	0220 0851 1418 1946	4.1 10.7 7.3 11.6	126 325 224 354	<b>18</b> W	0220 0847 1315 1913	3.6 9.5 7.9 13.3	110 290 240 404	<b>3</b> Th	0401 1953	3.1 14.3	93 437	<b>18</b> F	0400 1935	1.7 16.4	52 499	<b>3</b> Su	0609 2040	3.1 14.6	94 445	<b>18</b> M	0636 2111	1.9 16.1	59 491
<b>4</b> W	0327 0956 1423 2025	3.8 9.3 7.7 12.6	115 283 236 385	<b>19</b> Th	0323 1019 1252 1954	2.8 8.4 8.1 14.5	86 255 246 441	<b>4</b> F	0502 2031	3.0 14.5	92 441	<b>19</b> Sa	0515 2024	1.6 16.4	50 500	<b>4</b> M	0654 2116	3.3 14.3	100 435	<b>19</b> Tu	0724 2207	2.5 15.3	76 467
<b>5</b> Th	0441 1119 1353 2107	3.6 8.1 7.8 13.2	111 247 237 403	<b>20</b> F	0442 2041	2.4 15.2	74 463	<b>5</b> Sa	0606 2107	3.1 14.4	95 439	<b>20</b> Su	0631 2116	1.8 16.1	55 490	<b>5</b> Tu	0735 2153	3.5 13.8	107 421	<b>20</b> W	0802 2307	3.2 14.2	99 432
<b>6</b> F	0552 2150	3.7 13.5	113 412	<b>21</b> Sa	0602 2133	2.3 15.4	71 470	<b>6</b> Su	0710 2146	3.3 14.2	100 432	<b>21</b> M	0742 2212	2.1 15.5	65 472	<b>6</b> W	0810 2235	3.8 13.2	115 403	<b>21</b> Th	0825	4.1	126
<b>7</b> Sa	0709 2234	3.8 13.5	115 413	<b>22</b> Su	0727 2228	2.4 15.2	74 464	<b>7</b> M	0811 2228	3.4 13.8	104 420	<b>22</b> Tu	0840 2312	2.6 14.7	79 448	<b>7</b> Th	0839 2323	4.1 12.4	126 379	<b>22</b> F	0012 0839	12.6 5.1	385 154
<b>8</b> Su	0837 2321	3.8 13.4	115 409	<b>23</b> M	0853 2329	2.6 14.8	78 451	<b>8</b> Tu	0904 2314	3.6 13.3	109 405	<b>23</b> W	0924	3.2	98	<b>8</b> F	0900	4.6	141	<b>23</b> Sa	0128 0843	10.8 5.8	330 177
<b>9</b> M	0954	3.7	113	<b>24</b> Tu	1000	2.8	86	<b>9</b> W	0947	3.8	117	<b>24</b> Th	0021 0957	13.7 4.0	418 122	<b>9</b> Sa	0028 0912	11.5 5.2	349 160	<b>24</b> Su	0259 0840	9.0 6.3	275 193
<b>10</b> Tu	0013 1051	13.2 3.7	402 113	<b>25</b> W	0038 1052	14.3 3.2	435 99	<b>10</b> Th	0008 1020	12.7 4.2	387 129	<b>25</b> F	0140 1015 1637	12.5 4.9 8.8	382 150 267	<b>10</b> Su	0154 0914 1555	10.3 6.0 7.1	313 182 215	<b>25</b> M	0446 0835	7.5 6.6	230 202
<b>11</b> W	0113 1134	12.9 3.9	393 118	<b>26</b> Th	0155 1129	13.7 3.9	417 118	<b>11</b> F	0116 1045	12.0 4.7	367 144	<b>26</b> Sa	0306 1024 1641	11.2 5.8 10.1	342 178 307	<b>11</b> M	0335 0908 1608	9.0 6.6 11.9	275 201 364	<b>26</b> Tu	0100 1652	4.3 14.2	131 432
<b>12</b> Th	0221 1209	12.6 4.2	384 127	<b>27</b> F	0318 1154	13.0 4.7	397 144	<b>12</b> Sa	0239 1100 1722	11.4 5.4 9.0	347 165	<b>27</b> Su	0435 1028 1656	9.9 6.6 11.5	302 200 351	<b>12</b> Tu	0518 0901 1632	7.9 7.0 13.7	240 212 417	<b>27</b> W	0206 1728	3.4 14.7	104 447
<b>13</b> F	0332 1235	12.4 4.7	377 142	<b>28</b> Sa	0436 1206	12.3 5.7	375 173	<b>13</b> Su	0402 1106 1716	10.8 6.2 10.0	328 188	<b>28</b> M	0013 0602 1034	5.2 8.7 7.1	159 266 216	<b>13</b> W	0102 1704	3.5 15.3	107 465	<b>28</b> Th	0302 1802	3.0 14.9	90 454
<b>14</b> Sa	0438 1252	12.1 5.3	370 161	<b>29</b> Su	0549 1215	11.4 6.5	347 199	<b>14</b> M	0521 1107 1722	10.0 6.9 11.4	306 210	<b>29</b> Tu	0126 0729 1019	4.0 7.8 7.3	123 238 224	<b>14</b> Th	0212 1746	2.2 16.3	68 498	<b>29</b> F	0352 1838	2.9 15.0	87 456
<b>15</b> Su	0540 1259	11.9 6.0	362 183	<b>30</b> M	0042 0700	4.9 10.3	149 315	<b>15</b> Tu	0035 0639	4.8 9.2	147 280	<b>30</b> W	0229 1822	3.2 14.5	99 443	<b>15</b> O	0321 1834	1.5 16.9	47 514	<b>30</b> Sa	0435 1913	2.9 14.9	89 454
												<b>31</b> Th	0330 1855	2.9 14.8	89 452								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beihai, China, 2018

Times and Heights of High and Low Waters

July					August					September																	
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0516 1950	3.1 14.7	94 449	<b>16</b> M	0525 2016	2.0 16.5	62 503	<b>1</b> W	0525 2057	4.4 13.7	133 419	<b>16</b> Th	0505 1007 1519 2208	5.3 8.2 5.9 12.9	163 249 181 394	<b>1</b> Sa	0418 0957 1638 2240	6.7 10.7 5.7 10.3	205 326 173 315	<b>16</b> Su	0339 1028 1855	7.7 13.6 4.4	235 416 133				
<b>2</b> M	0551 2027	3.3 14.5	102 441	<b>17</b> Tu	0606 2111	2.7 15.7	83 480	<b>2</b> Th	0540 1119 1347 2138	4.8 7.4 7.1 13.1	145 227 217 398	<b>17</b> F	0516 1041 1654 2309	6.1 9.8 5.9 11.0	187 299 179 334	<b>2</b> Su	0422 1033 1804 2353	7.2 12.0 5.2 8.8	220 367 159 267	<b>17</b> M	1120 2032	14.1 4.3	430 131				
<b>3</b> Tu	0620 2102	3.6 14.1	110 430	<b>18</b> W	0632 2207	3.6 14.6	110 445	<b>3</b> F	0551 1127 1531 2223	5.2 8.3 7.2 12.0	160 252 220 366	<b>18</b> Sa	0528 1128 1838	6.7 11.4 5.7	204 346 174	<b>3</b> M	0415 1118 1937	7.4 13.4 4.6	227 407 141	<b>18</b> Tu	1212 2208	14.3 4.0	436 123				
<b>4</b> W	0646 2140	3.9 13.6	119 415	<b>19</b> Th	0650 1231 1532 2305	4.6 7.4 6.9 13.0	139 226 211 395	<b>4</b> Sa	0556 1152 1712 2318	5.8 9.4 7.0 10.6	177 287 214 323	<b>19</b> Su	0019 0526 1219 2033	9.0 7.0 12.6 5.3	274 213 385 163	<b>4</b> Tu	1209 2127	14.4 3.9	440 120	<b>19</b> W	1305 2317	14.3 3.8	436 117				
<b>5</b> Th	0707 2221	4.2 12.9	129 393	<b>20</b> F	0701 1254 1750	5.4 9.0 7.1	165 273 216	<b>5</b> Su	0556 1222 1905	6.4 10.9 6.5	194 331 197	<b>20</b> M	0202 0508 1312 2231	7.3 6.9 13.5 4.7	223 209 413 142	<b>5</b> W	1305 2302	15.2 3.2	463 98	<b>20</b> Th	1401	14.2	434				
<b>6</b> F	0723 2310	4.7 11.9	144 362	<b>21</b> O	0008 0702 1328 2003	11.0 6.1 10.6 6.7	334 185 324 204	<b>6</b> M	0029 0549 1301	8.9 6.6 12.5	270 202 380 167	<b>21</b> Tu	1403 2359	14.1 4.0	430 121	<b>6</b> Th	1405	15.7	478	<b>21</b> F	0009 1458	3.8 14.1	115 431				
<b>7</b> Sa	0733 1401 1804	5.3 9.0 8.0	161 274 245	<b>22</b> Sa	0125 0700 1411 2219	8.9 6.4 12.2 5.7	270 195 371 174	<b>7</b> Tu	0216 0531 1346 2300	7.2 6.6 14.0 4.2	219 201 426 127	<b>22</b> W	1454	14.4	439	<b>7</b> F	0013 1508	2.7 16.0	83 487	<b>22</b> Sa	0050 1557	3.9 14.0	120 428				
<b>8</b> Su	0013 0732 1415 2036	10.5 5.9 10.4 7.2	319 180 317 220	<b>23</b> M	0315 0646 1455	7.2 6.4 13.4	218 196 407	<b>8</b> W	1436	15.2	463	<b>23</b> Th	0101 1544	3.5 14.6	107 444	<b>8</b> Sa	0111 1612	2.6 16.2	78 493	<b>23</b> Su	0122 1653	4.2 13.9	129 423				
<b>9</b> M	0140 0721 1441 2242	8.8 6.4 12.1 5.6	268 194 369 172	<b>24</b> Tu	0008 1539	4.6 14.1	139 431	<b>9</b> Th	0025 1529	3.0 16.0	90 489	<b>24</b> F	0148 1632	3.4 14.7	103 447	<b>9</b> Su	0158 1715	2.8 16.2	85 493	<b>24</b> M	0147 0737 0948 1745	4.7 7.7 7.4 13.7	143 234 226 417				
<b>10</b> Tu	0337 0706 1515	7.2 6.5 13.8	219 198 421	<b>25</b> W	0121 1621	3.6 14.6	111 444	<b>10</b> F	0134 1625	2.2 16.5	67 504	<b>25</b> Sa	0225 1720	3.4 14.7	105 447	<b>10</b> M	0232 1816	3.4 15.9	103 484	<b>25</b> Tu	0203 1116	5.2 7.0	160 250	<b>●</b>	1834	13.3	406
<b>11</b> W	0014 1555	3.9 15.3	119 466	<b>26</b> Th	0217 1702	3.1 14.8	96 451	<b>11</b> Sa	0232 1723	1.9 16.8	58 512	<b>26</b> Su	0258 1805	3.7 14.6	114 444	<b>11</b> Tu	0255 0802 1147 1915	4.3 7.0 6.0 15.2	130 213 182 462	<b>26</b> W	0213 0732 1231 1921	5.8 9.0 6.4 12.8	178 273 196 390				
<b>12</b> Th	0128 1642	2.6 16.3	78 497	<b>27</b> F	0303 1743	3.0 14.9	91 454	<b>12</b> Su	0323 1821	2.0 16.8	62 512	<b>27</b> M	0321 1849	4.1 14.4	126 438	<b>12</b> W	0305 0756 1323 2015	5.3 8.1 5.4 13.9	161 248 166 424	<b>27</b> Th	0217 0739 1343 2010	6.4 9.9 5.7 12.0	196 303 173 366				
<b>13</b> F	0236 1733	1.7 16.9	53 514	<b>28</b> Sa	0342 1823	3.1 14.9	94 453	<b>13</b> M	0405 1918	2.6 16.5	78 503	<b>28</b> Tu	0341 0905 1131 1931	4.6 7.1 6.8 14.1	140 217 206 429	<b>13</b> Th	0313 0812 1444 2116	6.2 9.8 4.9 12.3	188 298 148 375	<b>28</b> F	0226 0754 1449 2103	7.0 11.2 4.9 10.9	214 341 150 333				
<b>14</b> Sa	0339 1826	1.5 17.0	45 519	<b>29</b> Su	0415 1902	3.3 14.8	101 450	<b>14</b> Tu	0434 2014	3.4 15.8	103 482	<b>29</b> W	0353 0903 1243 2012	5.1 7.7 6.7 13.5	155 235 203 413	<b>14</b> F	0334 0850 1604 2220	7.0 11.4 4.5 10.5	212 347 138 321	<b>29</b> Sa	0239 0819 1557 2208	7.6 12.5 4.3 9.7	231 381 131 295				
<b>15</b> Su	0436 1921	1.6 16.9	48 515	<b>30</b> M	0443 1942	3.6 14.5	111 443	<b>15</b> W	0454 0955 1335 2110	4.4 6.8 5.9 14.6	133 206 181 445	<b>30</b> Th	0403 0913 1400 2055	5.6 8.5 6.5 12.8	171 259 197 390	<b>15</b> Sa	0348 0936 1727 2333	7.5 12.7 4.4 8.9	230 388 135 270	<b>30</b> Su	0235 0857 1709 2341	8.0 13.7 3.8 8.4	244 419 115 257				
				<b>31</b> Tu	0506 2019	4.0 14.2	121 433					<b>31</b> F	0411 0932 1517 2143	6.2 9.5 6.1 11.7	188 289 187 357												

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beihai, China, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0217 0942 1832	8.1 14.7 3.5	247 448 108	<b>16</b> Tu	1021 2017	14.8 3.7	451 114	<b>1</b> Th	1049 2116	15.6 3.0	476 90
●				●				<b>16</b> F	1048 2116	13.7 4.1	419 124
<b>2</b> Tu	1033 2001	15.3 3.3	465 101	<b>17</b> W	1107 2126	14.5 3.8	442 117	<b>2</b> F	1152 2209	15.1 3.3	459 101
●				●				<b>17</b> Sa	1137 2149	13.0 4.5	396 136
<b>3</b> W	1129 2131	15.5 3.1	471 95	<b>18</b> Th	1158 2221	14.1 4.0	431 121	<b>3</b> Sa	1305 2250	14.4 3.9	438 118
								<b>18</b> Su	1238 2212	12.1 5.0	369 151
<b>4</b> Th	1230 2244	15.5 3.0	471 92	<b>19</b> F	1255 2304	13.7 4.2	417 127	<b>4</b> Su	1431 2317	13.6 4.7	414 143
								<b>19</b> M	1401 2227	11.2 5.5	340 169
<b>5</b> F	1337 2340	15.4 3.1	468 95	<b>20</b> Sa	1359 2337	13.2 4.6	402 139	<b>5</b> M	0529 0852 1555 2333	8.7 8.0 12.7 5.6	264 243 387 172
								<b>20</b> Tu	0513 0956 1538 2233	9.7 8.4 10.3 6.2	296 256 315 190
<b>6</b> Sa	1449 1449	15.2 3.1	464 95	<b>21</b> Su	1510 1510	12.7 12.7	388 388	<b>6</b> Tu	0531 1058 1716 2344	9.8 6.7 11.6 6.5	298 203 355 198
								<b>21</b> W	0509 1128 1705 2235	10.7 6.9 9.6 6.9	326 309 292 209
<b>7</b> Su	0024 1602	3.5 15.0	107 457	<b>22</b> M	0002 0629 0902 1620	5.1 8.7 8.4 12.3	154 265 255 376	<b>7</b> W	0535 1226 1835 2357	11.3 5.1 10.5 7.2	343 154 319 220
								<b>22</b> Th	0515 1234 1824 2238	12.0 5.1 8.8 7.3	367 156 269 224
<b>8</b> M	0057 0647 0936 1711	4.2 7.6 7.2 14.5	128 233 218 443	<b>23</b> Tu	0018 0617 1046 1723	5.6 9.3 7.6 11.9	172 283 231 363	<b>8</b> Th	0551 1333 1955	12.9 3.7 9.3	392 114 283 ●
								<b>23</b> F	0528 1333 1953 2234	13.5 3.5 8.0 7.6	413 108 244 232
<b>9</b> Tu	0113 0638 1129 ●	5.1 8.5 6.2 18.17	156 259 190 417	<b>24</b> W	0026 0619 1204 1822	6.3 10.1 6.5 11.4	192 309 197 347	<b>9</b> F	0004 0619 1437 2121	7.8 14.2 3.0 8.3	238 434 91 253
								<b>24</b> Sa	0552 1430	15.0 2.4	458 72
<b>10</b> W	0123 0633 1255 ●	6.1 9.8 5.0 18.17	185 300 153 417	<b>10</b> Sa	0034 0623 1310 1921	6.9 11.3 5.2 10.6	211 345 157 323	<b>10</b> Su	0656 1543	15.1 2.7	460 83
								<b>10</b> M	0626 1536	16.1 1.8	491 55
<b>11</b> Th	0141 0651 1408 2030	6.9 11.5 4.0 11.0	210 352 123 336	<b>11</b> Su	0041 0634 1410 2023	7.5 12.7 3.9 9.6	229 388 120 294	<b>11</b> M	0735 1648	15.5 2.8	471 86
								<b>11</b> Tu	0708 1640	16.7 1.7	508 52
<b>12</b> F	0153 0722 1514 2142	7.6 13.1 3.5 9.6	233 399 107 292	<b>12</b> Sa	0051 0659 1512 2147	8.0 14.1 3.0 8.6	243 431 92 262	<b>12</b> Tu	0812 1745	15.4 3.1	470 93
								<b>12</b> W	0753 1749	16.8 1.9	511 58
<b>13</b> Sa	0200 0805 1629 2307	8.1 14.2 3.3 8.4	246 432 102 257	<b>13</b> Tu	0040 0735 1620	8.2 15.3 2.6	251 466 79	<b>13</b> W	0849 1845	15.2 3.3	464 101
								<b>13</b> Th	0840 1856	16.5 2.2	503 68
<b>14</b> Su	0134 0851 1741	8.1 14.8 3.4	247 450 105	<b>14</b> M	0927 1943	14.9 3.6	453 109	<b>14</b> Th	0929 1955	15.9 2.7	486 81
								<b>14</b> F	0926 1934	14.0 3.8	427 116
<b>15</b> M	0937 1900	14.9 3.6	455 110	<b>15</b> Tu	1005 2034	14.4 3.8	438 116	<b>15</b> Sa	1001 2002	13.3 4.1	405 126
								<b>15</b> W	1117 2007	12.8 2.8	390 84
	<b>31</b> W	0955 2007	16.0 2.8					<b>31</b> M	0224 0551	8.5 7.8	258 239
											1228 1228 2002
											5.6 5.6 170

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.



**Pages 132 through 139 intentionally omitted**

# Bangkok Bar, Thailand, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0550	11.7	356	16 Tu 0629	11.8	361	1 Th 0711	12.8	389	16 F 0700	12.1	369
1101	9.7	296	1210	9.4	285	1249	9.4	288	1242	8.6	262
1437	10.6	324	1530	10.1	307	1633	10.7	326	1700	10.5	319
2239	2.4	72	2319	3.3	100	●					
2 Tu 0635	12.4	377	17 W 0659	12.1	368	2 0011	2.1	63	17 Sa 0015	3.7	114
1200	9.7	297	1235	9.2	281	0745	12.8	391	0722	12.0	367
O 1530	10.7	327	1616	10.2	312	1327	9.0	275	1305	8.3	252
2328	1.7	53	● 2355	3.1	93	1728	10.8	329	1736	10.7	325
3 W 0720	12.8	390	18 Th 0729	12.2	371	3 Sa 0054	2.2	68	18 Su 0043	3.9	118
1253	9.7	297	1302	9.2	279	0815	12.7	387	0739	12.0	365
1620	10.8	328	1654	10.4	316	1402	8.5	259	1328	7.8	239
4 Th 0016	1.4	44	19 F 0027	3.0	92	1820	10.7	327	1814	10.8	329
0806	13.0	395	0758	12.2	371	4 Su 0130	2.8	86	19 M 0107	4.2	128
1344	9.6	293	1330	9.0	275	0841	12.4	379	0749	11.9	362
1711	10.7	327	1728	10.4	318	1435	7.9	241	1352	7.3	222
5 F 0102	1.5	46	20 Sa 0055	3.1	95	1910	10.5	319	1853	10.9	331
0849	12.9	394	0824	12.1	370	5 M 0202	3.7	114	20 Tu 0130	4.7	143
1433	9.4	286	1359	8.8	269	0859	12.1	369	0800	11.8	361
1802	10.5	320	1800	10.4	317	1506	7.3	223	1418	6.6	202
6 Sa 0144	2.0	60	21 Su 0120	3.3	102	2000	10.1	307	1936	10.8	329
0926	12.7	388	0845	12.1	368	6 Tu 0230	4.9	148	21 M 0155	5.3	163
1520	9.0	273	1427	8.5	260	0910	11.8	359	0812	11.8	359
1855	10.1	309	1836	10.3	314	1536	6.8	206	1446	6.0	183
7 Su 0220	2.7	83	22 M 0144	3.7	114	2052	9.6	292	2024	10.7	325
0956	12.4	378	0900	11.9	364	7 W 0254	6.1	185	6 Tu 0142	5.3	161
1604	8.5	256	1456	8.1	248	0919	11.5	351	0748	11.7	356
1950	9.6	294	1915	10.1	308	● 2153	9.1	277	1416	5.6	172
8 M 0252	3.8	116	23 Tu 0206	4.3	132				2009	10.7	327
1016	12.0	367	0909	11.8	360	8 Th 0308	7.3	221	22 W 0211	6.3	183
1648	7.9	240	1528	7.6	233	0929	11.2	342	0700	11.6	353
2048	9.0	275	2001	9.8	299	1647	6.1	185	1344	4.6	141
9 Tu 0322	5.1	154	24 W 0230	5.1	156	2332	8.7	266	2047	11.6	353
1035	11.6	355	0921	11.7	357	9 F 0301	8.3	254	2234	10.1	307
1739	7.3	221	1602	7.1	215	0933	10.9	333	23 M 0322	8.3	254
● 2202	8.4	255	2058	9.4	288	1733	5.9	180	0908	11.3	345
10 W 0345	6.5	197	25 Th 0255	6.1	186	● 2234	10.1	307	1649	4.9	149
1052	11.3	343	0938	11.5	352				2056	10.4	318
1840	6.7	203	1646	6.5	197	10 Sa 0919	10.6	324	209	10.7	327
● 2217	9.1	276	2217	9.1	276	0919	5.7	175	21 M 0418	10.6	323
11 Th 0016	8.0	244	26 F 0324	7.3	222	10 Tu 0749	10.5	319	10 Tu 0315	9.0	273
0333	7.8	237	1002	11.4	346	2017	5.4	166	0827	10.8	328
1105	10.9	331	1745	5.8	178	● 2017			1618	5.2	157
1943	6.0	183				11 Su 0418	10.6	323	25 Su 0344	9.3	283
12 F 1120	10.5	320	27 Sa 0051	9.0	273	1942	4.5	138	0828	10.8	329
2038	5.4	164	0354	8.6	263	12 M 0532	10.9	331	1618	4.0	122
			1033	11.0	336	2127	5.0	151	25 Tu 0347	10.3	315
			1902	5.2	157	2106	4.1	124	1908	4.7	144
13 Sa 1155	10.2	310	28 Su 1109	10.7	325	12 Tu 0502	11.5	351	240	11.2	341
2124	4.8	145	2019	4.4	133	2106	4.1	124	1908	4.7	144
● 2323	2.3	69	● 2219	4.4	135	13 M 0543	11.4	348	0427	10.9	333
						2219	4.4	135	2016	5.6	171
14 Su 0546	10.8	329	29 M 0525	11.1	338	14 W 0608	11.8	361	13 Tu 0427	10.9	333
2204	4.2	127	2128	3.5	107	1206	9.1	278	2016	5.6	171
						1528	9.8	299	2016	5.6	171
1143	9.5	291				2303	4.0	122	1148	8.8	267
1433	9.9	303	30 Tu 0600	11.9	364	1221	8.9	270	1416	8.9	272
2242	3.6	111	1140	10.1	307	1618	10.2	310	2141	5.3	161
			2229	2.8	85	2342	3.8	115	1139	8.3	254
31 W 0636	12.5	381				1145	9.4	287	1532	9.4	288
1215	9.8	299				1435	9.8	298	2236	5.0	151
1530	10.5	320				2215	3.6	109	1057	11.7	357
O 2323	2.3	69							1122	7.2	219
									1619	10.2	310
									2249	4.6	141
31 M 0531	12.0	366							1148	6.3	192
1148	6.3	192							1715	10.9	331
1715	4.9	149							O 2337	4.9	149

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Bangkok Bar, Thailand, 2018

Times and Heights of High and Low Waters

April				May				June																				
	Time	Height			Time	Height			Time	Height																		
	h m	ft	cm		h m	ft	cm		h m	ft	cm																	
<b>1</b> Su	0554 1217 1806	11.8 5.5 11.3	361 167 344	●	<b>16</b> M	0510 1152 1757	11.2 4.9 11.3	340 150 343	<b>1</b> Tu	0003 0511 1213 1903	6.9 10.8 3.2 11.6	210 329 97 355	<b>16</b> W	0428 1146 1851	10.5 2.5 11.9	319 75 364	<b>1</b> F	0119 0522 1247 2022	8.2 9.6 2.1 11.6	250 294 63 354	<b>16</b> Sa	0139 0507 1258 2046	8.6 9.7 0.7 12.4	262 297 22 379				
<b>2</b> M	0017 0614 1245 1853	5.4 11.6 4.8 11.5	164 353 146 350	●	<b>17</b> Tu	0004 0527 1216 1839	6.4 11.1 4.1 11.8	194 339 124 359	<b>2</b> W	0042 0531 1239 1944	7.4 10.6 2.9 11.7	225 323 87 357	<b>17</b> Th	0036 0458 1222 1942	7.8 10.5 1.8 12.3	238 319 54 375	<b>2</b> Sa	0154 0554 1319 2058	8.3 9.5 2.1 11.6	252 290 65 354	<b>17</b> Su	0233 0557 1345 2134	8.5 9.6 0.8 12.4	260 293 24 379				
<b>3</b> Tu	0053 0628 1311 1936	6.1 11.4 4.3 11.5	185 346 131 350	●	<b>18</b> W	0040 0546 1245 1926	6.8 11.1 3.3 12.1	206 339 100 370	<b>3</b> Th	0116 0554 1305 2022	7.8 10.4 2.7 11.7	239 318 82 357	<b>18</b> F	0123 0530 1302 2035	8.2 10.4 1.4 12.5	249 317 42 380	<b>3</b> Su	0231 0625 1351 2135	8.3 9.4 2.3 11.6	253 285 70 353	<b>18</b> M	0330 0649 1429 2217	8.3 9.4 1.2 12.2	254 286 36 373				
<b>4</b> W	0124 0643 1336 2017	6.8 11.2 3.9 11.4	208 340 120 347	●	<b>19</b> Th	0117 0610 1317 2016	7.3 11.1 2.7 12.3	222 338 83 374	<b>4</b> F	0150 0619 1334 2100	8.2 10.3 2.7 11.6	249 313 81 355	<b>19</b> Sa	0215 0607 1344 2130	8.5 10.2 1.3 12.4	259 312 41 379	<b>19</b> Tu	0314 0654 1423 2214	8.3 9.1 2.6 11.5	252 278 80 350	<b>19</b> W	0424 0746 1510 2253	8.0 9.0 2.0 11.9	243 274 60 363				
<b>5</b> Th	0155 0701 1403 2100	7.5 11.0 3.7 11.3	229 335 114 343	●	<b>20</b> F	0158 0636 1353 2112	7.9 11.0 2.4 12.2	240 334 74 373	<b>5</b> Sa	0227 0643 1404 2142	8.4 10.0 2.8 11.6	257 306 85 353	<b>20</b> Su	0312 0646 1428 2224	8.8 10.0 1.6 12.3	267 304 48 375	<b>20</b> Tu	0401 0721 1454 2252	8.2 8.8 3.1 11.3	251 268 96 344	<b>20</b> W	0518 0849 1550 2323	7.4 8.5 3.1 11.5	227 258 93 349				
<b>6</b> F	0226 0720 1430 2146	8.1 10.8 3.7 11.1	248 329 113 339	●	<b>21</b> Sa	0242 0705 1430 2212	8.5 10.8 2.4 12.0	259 328 74 367	<b>6</b> Su	0309 0705 1436 2229	8.6 9.7 3.1 11.5	263 297 95 349	<b>21</b> M	0420 0730 1513 2315	8.8 9.5 2.2 12.0	268 312 66 367	<b>21</b> W	0459 0748 1523 2329	8.1 8.4 3.9 11.0	247 256 118 335	<b>21</b> Th	0614 1007 1631 2352	6.8 7.9 4.4 11.0	206 240 135 334				
<b>7</b> Sa	0300 0735 1501 2243	8.7 10.5 3.9 11.0	264 320 119 334	●	<b>22</b> Su	0334 0736 1514 2317	9.1 10.4 2.8 11.8	276 317 84 360	<b>7</b> M	0400 0724 1511 2320	8.8 9.4 3.6 11.3	269 286 110 344	<b>22</b> Tu	0541 0823 1600	8.5 9.0 3.0	260 274 92	<b>22</b> O	1552 1720	4.7 5.9	144 179	<b>22</b> F	0711 1203 1720	6.0 7.5 5.9	183 228 179				
<b>8</b> Su	0344 0745 1536 2351	9.2 10.1 4.3 10.8	279 309 131 329	●	<b>23</b> M	0457 0808 1605 2317	9.4 9.9 3.4 11.8	287 302 103 360	<b>8</b> Tu	1548 1629 1605 2317	4.3 5.7 103 131	131 131 131 344	<b>23</b> O	0002 0659 0937 1656	11.7 8.0 8.3 4.1	357 243 253 125	<b>23</b> Sa	0004 1629 1649 1829	10.6 5.7 7.8 7.3	324 175 238 222	<b>23</b> W	0023 0808 1449 1829	10.4 5.2 7.8 7.3	318 157 238 222				
<b>9</b> M	0448 0739 1621	9.6 9.8 4.9	292 298 148	●	<b>24</b> Tu	0028 1713	11.6 4.2	354 127	<b>9</b> W	0015 1635	11.1 5.1	338 155	<b>24</b> Th	0047 0809 1149 1803	11.4 7.1 7.7 5.3	346 217 235 161	<b>9</b> Sa	0037 0827 1337 1737	10.3 6.5 7.3 6.8	313 197 224 208	<b>24</b> Su	0058 0900 1638 2030	9.9 4.3 8.9 8.2	303 132 270 250				
<b>10</b> Tu	0113 1727	10.8 5.5	328 167	●	<b>25</b> W	0139 1838	11.5 5.0	350 151	<b>10</b> Th	0110 1745	10.9 5.9	332 180	<b>25</b> F	0130 0902 1411 1928	11.0 6.1 8.0 6.3	335 186 243 193	<b>10</b> Su	0109 0900 1533 1949	10.0 5.5 8.3 7.6	305 167 252 233	<b>25</b> M	0134 0943 1726 2224	9.5 3.6 9.8 8.5	290 110 300 258				
<b>11</b> W	0247 1859	10.9 5.9	333 181	●	<b>26</b> Th	0241 0956	11.5 7.4	349 227	<b>11</b> F	0200 1000 1407 1923	10.8 7.1 7.7 6.6	328 217 234 200	<b>26</b> Sa	0212 0941 1604 2058	10.7 5.1 8.9 7.1	325 154 271 215	<b>11</b> M	0143 0933 1645 2142	9.8 4.4 9.4 8.0	299 135 287 245	<b>26</b> Tu	0215 1020 1800 2333	9.3 3.0 10.6 8.4	282 91 322 256				
<b>12</b> Th	0345 1108 1419 2040	11.2 7.9 8.3 6.0	340 241 252 184	●	<b>27</b> F	0326 1020 1532 2125	11.4 6.4 9.1 5.8	348 196 278 178	<b>12</b> Sa	0243 1004 1536 2102	10.6 6.3 8.6 6.9	324 192 261 210	<b>27</b> Tu	0249 1015 1703 2215	10.4 4.1 9.9 7.4	317 125 302 227	<b>12</b> W	0219 1008 1732 2256	9.7 3.3 10.5 8.2	296 102 319 250	<b>27</b> W	0259 1056 1834 11.1	9.1 2.5 11.1	278 76 338				
<b>13</b> F	0415 1056 1536 2156	11.3 7.3 9.0 6.0	344 222 274 182	●	<b>28</b> Sa	0359 1047 1642 2229	11.3 5.4 10.1 6.1	345 165 307 187	<b>13</b> Su	0316 1025 1636 2215	10.5 5.3 9.6 7.1	321 163 292 215	<b>28</b> M	0323 1047 1749 2315	10.2 3.3 10.7 7.7	310 100 327 234	<b>13</b> W	0258 1045 1818 2353	9.7 2.4 11.3 8.4	296 72 344 255	<b>28</b> Th	0020 0343 1130 1909	8.3 9.1 2.2 11.4	252 277 66 346				
<b>14</b> Sa	0435 1110 1630 2247	11.3 6.6 9.8 6.0	344 200 299 182	●	<b>29</b> Su	0427 1115 1734 2320	11.2 4.5 10.9 6.5	341 136 331 197	<b>14</b> M	0342 1049 1722 2306	10.4 4.3 10.6 7.3	318 132 322 221	<b>29</b> Tu	0352 1118 1830 2351	10.0 2.7 11.3 7.5	305 82 343 229	<b>14</b> O	0339 1126 1906 2351	9.7 1.5 11.9 7.5	297 47 362 349	<b>29</b> F	0058 0426 1204 1944	8.2 9.1 2.0 11.5	249 278 60 349				
<b>15</b> Su	0454 1130 1715 2329	11.2 5.8 10.6 6.1	342 176 323 186	●	<b>30</b> M	0450 1145 1820	11.0 3.7 11.4	335 113 347	<b>15</b> Tu	0403 1115 1805 2351	10.4 3.3 11.4 7.5	318 102 346 229	<b>30</b> W	0002 0420 1147 1910	7.9 9.9 2.3 11.5	240 301 71 352	<b>31</b> Th	0044 0450 1217 1947	8.0 9.7 2.1 11.6	245 297 65 354	<b>30</b> F	0045 0422 1211 1956	8.5 9.8 1.0 12.3	259 298 30 374	<b>30</b> Sa	0130 0507 1239 2016	8.1 9.2 1.9 11.5	247 279 58 350

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Bangkok Bar, Thailand, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0159 8.0 245 0545 9.1 278 1312 2.0 60 2048 11.5 351	16 M 0230 8.1 246 0608 9.4 287 1340 0.8 25 2115 12.3 375	1 W 0237 7.1 216 0700 9.1 277 1354 3.0 91 2105 11.3 343	16 Th 0305 5.7 175 0813 9.4 286 1430 3.9 118 2108 11.3 344	1 Sa 0247 4.9 149 0832 9.8 298 1421 5.7 175 2018 10.8 330	16 Su 0312 3.8 115 1008 9.8 298 1503 7.8 237 2019 10.5 319						
2 M 0231 7.9 242 0622 9.0 275 1344 2.2 66 2120 11.5 350	17 Tu 0312 7.5 230 0705 9.3 282 1419 1.4 44 2146 12.0 367	2 Th 0304 6.7 204 0738 8.9 272 1416 3.7 112 2115 11.0 335	17 F 0336 5.2 157 0911 9.0 275 1500 5.2 158 2118 10.9 332	2 Su 0315 4.4 135 0926 9.6 294 1447 6.7 205 2032 10.7 325	17 M 0344 3.8 116 1120 9.6 293 1534 8.6 263 2026 10.1 309						
3 Tu 0305 7.8 237 0656 8.9 270 1412 2.5 77 2149 11.4 347	18 W 0353 7.0 212 0803 8.9 272 1455 2.5 76 2210 11.6 354	3 F 0332 6.2 190 0821 8.7 264 1437 4.5 137 2122 10.8 328	18 Sa 0408 4.7 143 1018 8.7 264 1526 6.5 199 2128 10.5 321	3 M 0348 4.0 123 1037 9.5 289 1517 7.8 237 2049 10.5 319	18 Tu 0421 4.0 123 1310 9.7 295 1623 9.4 285 2011 9.8 298						
4 W 0341 7.5 230 0730 8.6 262 1436 3.1 94 2215 11.1 339	19 Th 0433 6.3 192 0904 8.5 258 1528 3.8 116 2230 11.2 340	4 Sa 0402 5.7 175 0912 8.5 259 1459 5.5 167 2131 10.6 322	19 Su 0444 4.4 135 1149 8.4 257 1545 7.8 237 2135 10.1 309	4 Tu 0431 3.8 117 1230 9.5 289 1556 8.9 271 2104 10.2 310	19 W 0510 4.4 134 1503 10.1 307						
5 Th 0416 7.3 222 0806 8.3 252 1459 3.9 118 2230 10.8 329	20 F 0515 5.7 174 1019 8.0 243 1600 5.3 161 2245 10.6 324	5 Su 0436 5.2 158 1022 8.3 252 1524 6.6 201 2145 10.3 315	20 M 0528 4.3 132 2122 9.8 299	5 W 0535 3.8 115 1512 10.0 305	20 Th 0622 4.7 144 1559 10.6 323						
6 F 0455 6.9 210 0855 7.9 241 1520 4.8 146 2240 10.5 319	21 Sa 0602 5.2 157 1200 7.7 234 1630 6.8 206 2300 10.1 308	6 M 0521 4.7 143 1236 8.3 252 1553 7.8 238 2205 10.0 306	21 Tu 0627 4.4 133 1846 9.7 295	6 Th 0704 3.6 111 1634 10.9 333	21 F 0802 4.8 146 1634 11.1 337 2331 8.0 245						
7 Sa 0540 6.4 194 1011 7.5 230 1545 5.8 178 2256 10.2 310	22 Su 0700 4.7 142 2307 9.6 294	7 Tu 0625 4.2 127 2218 9.7 296	22 W 0751 4.2 129 1712 10.3 314	7 F 0831 3.3 101 1713 11.6 354	22 Sa 0205 8.3 252 0923 4.6 139 1705 11.4 348 2330 7.5 229						
8 Su 0634 5.7 173 1258 7.5 229 1622 7.1 215 2322 9.9 301	23 M 0801 4.2 129 2311 9.3 282	8 W 0744 3.6 109 1710 10.2 312	23 Th 0906 3.9 120 1728 10.9 331	8 Sa 0945 2.8 86 1745 12.0 367 2352 8.1 246	23 Su 0327 8.8 268 1020 4.3 131 1731 11.6 353 2342 7.0 213						
9 M 0735 4.8 147	24 Tu 0900 3.7 114 1741 10.0 306	9 Th 0859 2.9 87 1746 11.2 341	24 F 1003 3.5 107 1753 11.3 344	9 Su 0334 9.2 281 1045 2.5 76 1812 12.2 372	24 M 0423 9.4 286 1105 4.2 128 1753 11.5 352						
10 Tu 0001 9.6 292 0834 3.8 117 1701 9.6 293 2129 8.9 272	25 W 0950 3.3 100 1759 10.6 324	10 F 1006 2.1 65 1823 11.8 360	25 Sa 0012 8.0 245 0322 8.7 265 1051 3.1 95 1821 11.5 352	10 M 0013 7.3 224 0442 9.8 299 1136 2.4 74 1837 12.2 371	25 Tu 0001 6.4 196 0509 9.9 303 1143 4.3 132 1809 11.4 348						
11 W 0054 9.4 285 0930 2.9 88 1746 10.7 325 2319 8.9 272	26 Th 1034 2.8 86 1825 11.1 338	11 Sa 0033 8.7 266 0306 9.1 276 1104 1.5 46 1858 12.2 372	26 Su 0026 7.7 234 0419 9.1 277 1132 2.9 88 1848 11.6 355	11 Tu 0042 6.5 199 0539 10.3 313 1219 2.8 85 1902 12.0 365	26 W 0024 5.8 178 0549 10.4 316 1215 4.7 142 1822 11.2 342						
12 Th 0157 9.3 282 1023 2.0 60 1830 11.5 349	27 F 0032 8.3 252 0323 8.7 266 1115 2.4 74 1855 11.4 347	12 Su 0053 8.4 255 0423 9.4 286 1156 1.2 36 1930 12.3 376	27 M 0045 7.3 223 0506 9.4 287 1209 2.9 88 1913 11.6 354	12 W 0114 5.7 174 0633 10.5 319 1259 3.5 108 1925 11.6 355	27 Th 0047 5.2 160 0629 10.7 326 1245 5.2 157 1834 11.1 338						
13 F 0018 8.9 270 0303 9.3 283 1115 1.2 38 ● 1915 12.0 365	28 Sa 0057 8.0 245 0418 8.9 272 1153 2.2 67 1926 11.5 351	13 M 0123 7.8 238 0526 9.6 294 1242 1.2 38 2001 12.3 374	28 Tu 0108 7.0 212 0547 9.6 294 1241 3.1 95 1933 11.5 350	13 Th 0145 5.0 152 0725 10.5 319 1333 4.6 139 1941 11.3 344	28 F 0111 4.6 140 0709 11.0 334 1313 5.8 176 1847 11.0 335						
14 Sa 0104 8.7 265 0407 9.4 286 1206 0.8 23 1957 12.3 375	29 Su 0120 7.8 239 0505 9.1 277 1229 2.1 64 1955 11.5 352	14 Tu 0157 7.2 218 0623 9.7 297 1323 1.7 53 2030 12.0 367	29 W 0132 6.5 199 0626 9.8 298 1308 3.6 109 1948 11.3 344	14 F 0215 4.4 134 0816 10.3 313 1404 5.7 174 1952 11.0 335	29 M 0136 4.0 121 0752 11.1 338 1343 6.5 197 1903 10.9 333						
15 Su 0146 8.5 258 0509 9.4 288 1255 0.6 18 2038 12.4 378	30 M 0144 7.6 233 0545 9.2 280 1301 2.2 67 2022 11.5 351	15 W 0231 6.4 196 0718 9.6 294 1359 2.7 81 2052 11.7 356	30 Th 0157 6.0 184 0705 9.8 299 1332 4.2 127 1959 11.1 339	15 Sa 0243 4.0 121 0909 10.0 306 1433 6.8 207 2005 10.7 327	30 Su 0204 3.5 106 0841 11.1 338 1414 7.3 221 1922 10.8 329						
	31 Tu 0210 7.4 226 0624 9.2 280 1330 2.5 77 2046 11.4 348		31 F 0221 5.4 166 0746 9.8 300 1357 4.9 149 2008 11.0 334								

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Bangkok Bar, Thailand, 2018

Times and Heights of High and Low Waters

October				November				December				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> M	0234	3.2	97	<b>16</b> Tu	0256	3.3	102	<b>1</b> Th	0333	3.1	95	
	0938	11.0	335		1045	10.8	329		1203	11.7	357	
	1448	8.1	247		1541	9.1	278					
	1943	10.6	323		1930	9.9	302					
<b>2</b> Tu	0310	3.1	95	<b>17</b> W	0331	3.8	115	<b>2</b> F	0435	3.9	118	
	1049	10.8	329		1152	10.7	327		1311	11.6	355	
<b>O</b>	1532	9.0	273					<b>17</b> Sa	0414	5.2	159	
	2004	10.3	315						1253	11.2	341	
<b>3</b> W	0356	3.3	101	<b>18</b> Th	0416	4.4	134	<b>3</b> Sa	0557	4.7	144	
	1221	10.8	324		1309	10.8	328		1409	11.6	354	
	1716	9.6	294					<b>18</b> Su	0515	6.2	188	
	2019	9.9	303						1342	11.0	336	
<b>4</b> Th	0500	3.7	113	<b>19</b> F	0518	5.1	154	<b>4</b> Su	0104	8.2	251	
	1402	11.0	335		1428	10.9	333		0729	5.4	164	
								<b>19</b> M	0159	7.8	237	
									0653	7.0	214	
<b>5</b> F	0631	4.1	124						1422	10.9	333	
	1526	11.4	348	<b>20</b> Sa	0645	5.6	171		2151	6.4	195	
					1522	11.1	339					
					2244	7.5	229					
<b>6</b> Sa	0804	4.2	127	<b>21</b> Su	0211	8.0	245	<b>5</b> M	0300	9.0	273	
	1612	11.7	358		0827	5.8	178		0845	7.5	228	
	2245	7.7	236		1555	11.3	343		1454	10.8	329	
					2241	6.9	209		2210	5.5	167	
<b>7</b> Su	0236	8.8	268	<b>22</b> M	0333	8.8	269	<b>20</b> Tu	0347	8.7	266	
	0920	4.1	126		0942	5.9	179		0845	7.5	228	
	1643	11.9	363		1617	11.3	343		1454	10.8	329	
	2303	6.8	208		2256	6.1	186		2210	3.7	112	
<b>8</b> M	0355	9.6	293	<b>21</b> Tu	0417	10.0	305	<b>6</b> Th	0535	11.2	340	
	1022	4.1	126		0959	6.2	190		1047	8.6	261	
	1707	11.9	363		1559	11.4	348		1521	10.6	324	
	2330	5.8	177		2252	4.4	133		2255	3.0	92	
<b>9</b> Tu	0457	10.4	318	<b>22</b> W	0514	10.9	333	<b>7</b> Th	0517	10.8	329	
	1113	4.4	135		0954	6.6	202		1051	7.9	241	
<b>O</b>	1731	11.8	359		1625	11.3	343		1538	10.6	324	
					●	2323	3.5	107		2256	3.6	111
<b>10</b> W	0000	4.9	148	<b>23</b> Th	0430	9.7	295	<b>7</b> F	0615	11.8	360	
	0550	11.0	336		1034	5.9	181		1139	8.8	268	
	1158	5.0	151		1636	11.2	341		1549	10.5	321	
	1754	11.5	351		2316	5.3	163		●	2326	2.6	
<b>11</b> Th	0030	4.1	124	<b>24</b> W	0513	10.5	319	<b>8</b> Sa	0655	12.1	370	
	0641	11.4	346		1116	6.1	187		1221	9.0	274	
	1237	5.7	175		1654	11.0	336		1618	10.5	319	
	1811	11.2	342		○	2339	4.6	140		2355	2.4	73
<b>12</b> F	0100	3.5	107	<b>25</b> Th	0551	11.1	339	<b>9</b> Su	0733	12.2	372	
	0729	11.4	347		1152	6.5	197		1257	9.2	280	
	1313	6.6	202		1708	10.9	333		1648	10.4	318	
	1827	11.0	334					<b>24</b> M	0730	12.7	387	
<b>13</b> Sa	0127	3.2	97	<b>26</b> F	0551	11.1	339		1257	9.2	280	
	0815	11.3	344		1225	6.9	211		1624	10.8	329	
	1345	7.4	227		1724	10.9	333		2353	2.2	66	
	1845	10.8	328					<b>9</b> Su	0733	12.2	372	
<b>14</b> Su	0154	3.1	93	<b>27</b> F	0551	11.1	339		1257	9.2	280	
	0901	11.1	338		1225	6.9	211		1624	10.8	329	
	1416	8.1	248		1724	10.9	333		2353	2.2	66	
	1904	10.5	321					<b>9</b> Su	0733	12.2	372	
<b>15</b> M	0223	3.1	94	<b>28</b> F	0556	2.6	80		1257	9.2	280	
	0949	10.9	333		0758	12.2	371		1624	10.8	329	
	1454	8.7	265		1336	8.0	244		1845	10.2	312	
	1921	10.3	313		1809	10.8	330		1845	9.7	295	
<b>31</b> W	0245	2.6	78	<b>29</b> F	0130	2.3	71	<b>13</b> Tu	0147	2.7	83	
	1054	11.8	361		0850	12.1	370		0931	11.7	357	
	1628	9.5	290		1418	8.6	262		1450	9.1	278	
	○	1935	10.0		1836	10.7	325		1837	10.0	306	
<b>31</b> W	0245	2.6	78	<b>14</b> W	0220	3.1	93	<b>28</b> W	0152	1.8	56	
	1054	11.8	361		1016	11.6	354		0956	12.6	384	
	1628	9.5	290		1543	9.3	282		1539	9.5	291	
	○	1935	10.0		1856	9.7	295		1845	10.2	312	
<b>31</b> W	0245	2.6	78	<b>29</b> F	0255	3.6	110	<b>13</b> Th	0236	2.3	71	
	1054	11.8	361		0949	12.0	366		1106	11.5	350	
	1628	9.5	290		1510	9.2	279		1702	9.4	285	
	○	1935	10.0		1905	10.4	317		1931	9.7	295	
<b>31</b> W	0245	2.6	78	<b>30</b> F	0205	2.3	70	<b>15</b> Th	0255	4.3	131	
	1054	11.8	361		0949	12.0	366		1106	11.5	350	
	1628	9.5	290		1510	9.2	279		1702	9.4	285	
	○	1935	10.0		1905	10.4	317		1931	9.7	295	
<b>31</b> W	0245	2.6	78	<b>31</b> F	0245	2.6	78	<b>15</b> Sa	0255	4.3	131	
	1054	11.8	361		1054	11.8	361		1102	11.6	353	
	1628	9.5	290		1628	9.5	290		1931	9.7	295	
	○	1935	10.0		○	1935	10.0					

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Singapore (Tanjong Pagar), Singapore, 2018

Times and Heights of High and Low Waters

January			February			March				
Time	Height		Time	Height		Time	Height			
h m	ft	cm	h m	ft	cm	h m	ft	cm		
<b>1</b> M 0356 10.2 310 0945 1.0 30 1620 2335 9.5 290	<b>16</b> Tu 0448 10.2 310 1713 2.0 60		<b>1</b> Th 0015 9.8 300 0530 4.6 140 1111 10.8 330 1756 0.7 20		<b>16</b> F 0018 8.9 270 0535 4.6 140 1124 9.8 300 1801 2.0 60		<b>1</b> Th 0439 4.6 140 1020 10.2 310 1701 1.0 30 2348 9.5 290		<b>16</b> F 0446 4.3 130 1039 9.2 280 1711 2.0 60 2339 8.9 270	
			<b>2</b> Tu 0448 4.6 140 1031 10.5 320 O 1709 0.7 20	<b>17</b> W 0015 8.9 270 0520 5.2 160 1105 9.8 300 1743 2.0 60		<b>2</b> F 0054 9.8 300 0616 4.3 130 1158 11.2 340 1846 0.7 20		<b>2</b> F 0520 3.9 120 1105 10.5 320 1748 1.0 30	<b>17</b> Sa 0516 3.9 120 1109 9.5 290 1743 2.0 60 2356 9.2 280	
			<b>3</b> W 0026 9.8 300 0539 4.6 140 1118 10.8 330 1801 0.3 10	<b>18</b> Th 0043 9.2 280 0554 4.9 150 1135 9.8 300 1816 1.6 50		<b>3</b> Sa 0131 9.8 300 0701 4.3 130 1245 11.2 340 1935 1.3 40		<b>3</b> Sa 0016 9.5 290 0601 3.6 110 1228 10.2 310 1903 2.0 60	<b>18</b> Su 0545 3.3 100 1141 9.8 300 1813 2.0 60	
			<b>4</b> Th 0115 9.8 300 0630 4.6 140 1205 11.2 340 1854 0.3 10	<b>19</b> F 0111 9.2 280 0626 4.9 150 1207 10.2 310 1848 1.6 50		<b>4</b> Su 0205 9.8 300 0745 3.9 120 1330 10.8 330 2020 1.6 50		<b>4</b> Su 0045 9.5 290 0643 3.0 90 1233 10.8 330 1918 1.6 50	<b>19</b> M 0015 9.2 280 0615 3.0 90 1215 9.8 300 1843 2.0 60	
<b>5</b> F 0201 9.8 300 0718 4.6 140 1254 10.8 330 1945 0.7 20	<b>20</b> Sa 0139 9.2 280 0658 4.6 140 1239 10.2 310 1920 2.0 60		<b>5</b> M 0237 9.5 290 0828 3.6 110 1416 10.2 310 2100 2.3 70		<b>20</b> Tu 0146 9.5 290 0743 3.3 100 1339 9.8 300 2001 2.3 70		<b>5</b> M 0115 9.5 290 0722 2.6 80 1318 10.5 320 1956 2.3 70		<b>20</b> Tu 0037 9.5 290 0648 2.3 70 1252 9.8 300 1913 2.3 70	
			<b>6</b> Sa 0245 9.8 300 0805 4.6 140 1343 10.5 320 2035 1.3 40	<b>21</b> Su 0207 9.2 280 0730 4.6 140 1313 9.8 300 1950 2.0 60		<b>6</b> Tu 0309 9.2 280 0911 3.6 110 1505 9.2 280 2137 3.3 100		<b>6</b> Tu 0215 9.5 290 0822 3.3 100 1422 9.5 290 2035 3.0 90	<b>21</b> W 0105 9.5 290 0724 2.0 60 1331 9.5 290 1946 2.6 80	
			<b>7</b> Su 0324 9.5 290 0852 4.6 140 1431 10.2 310 2122 2.0 60	<b>22</b> M 0233 9.2 280 0803 4.6 140 1350 9.8 300 2020 2.3 70		<b>7</b> W 0343 9.2 280 1001 3.6 110 1600 8.2 250 O 2215 4.3 130		<b>7</b> W 0248 9.2 280 0907 3.0 90 1513 8.9 270 2115 3.6 110	<b>22</b> Th 0137 9.5 290 0803 2.0 60 1418 9.2 280 2020 3.3 100	
			<b>8</b> M 0403 9.2 280 0943 4.6 140 1528 9.2 280 2211 3.0 90	<b>23</b> Tu 0301 9.2 280 0843 4.3 130 1433 9.2 280 2056 2.6 80		<b>8</b> Th 0420 8.9 270 1103 3.9 120 1709 7.2 220 2301 4.9 150		<b>8</b> Th 0330 9.2 280 1003 3.0 90 1618 7.9 240 O 2205 4.3 130	<b>23</b> F 0213 9.5 290 0848 1.6 50 1515 8.5 260 2101 3.9 120	
<b>9</b> Tu 0443 8.9 270 1043 4.6 140 1631 8.5 260 O 2305 3.9 120	<b>24</b> W 0337 8.9 270 0931 4.3 130 1526 8.5 260 2139 3.3 100		<b>9</b> F 0507 8.2 250 1220 3.9 120 1909 6.9 210		<b>24</b> Sa 0420 8.9 270 1116 3.0 90 1801 7.2 220 2316 5.2 160		<b>9</b> F 0315 8.5 260 1011 3.3 100 1631 7.2 220 O 2158 5.2 160		<b>24</b> Sa 0254 9.2 280 0945 2.0 60 1628 7.9 240 O 2152 4.6 140	
			<b>10</b> W 0530 8.5 260 1201 4.3 130 1756 7.5 230	<b>25</b> Th 0420 8.9 270 1035 3.9 120 1635 7.9 240 O 2235 3.9 120		<b>10</b> Sa 0013 5.6 170 0611 7.9 240 1339 3.6 110 2122 7.2 220		<b>10</b> Sa 0348 8.2 250 1241 2.6 80 2016 7.5 230	<b>25</b> Su 0345 8.9 270 1056 2.3 70 1815 7.2 220 2309 5.2 160	
			<b>11</b> Th 0013 4.6 140 0624 8.5 260 1324 3.9 120 1954 7.2 220	<b>26</b> F 0515 8.9 270 1150 3.6 110 1811 7.5 230 2348 4.9 150		<b>11</b> Su 0145 5.9 180 0741 7.9 240 1450 3.3 100 2218 7.5 230		<b>11</b> Su 0437 7.5 230 1239 3.6 110 2054 6.6 200	<b>26</b> M 0458 8.2 250 1222 2.3 70 2011 7.5 230	
			<b>12</b> F 0130 5.2 160 0726 8.5 260 1435 3.6 110 2133 7.5 230	<b>27</b> Sa 0618 8.9 270 1307 3.3 100 2013 7.5 230		<b>12</b> M 0301 5.9 180 0900 8.2 250 1543 3.0 90 2254 8.2 250		<b>12</b> M 0043 6.2 190 0626 7.2 220 1400 3.3 100 2150 7.2 220	<b>27</b> Tu 0107 5.6 170 0652 7.9 240 1356 2.3 70 2124 7.9 240	
<b>13</b> Sa 0239 5.6 170 0826 8.5 260 1530 3.0 90 2230 7.9 240	<b>28</b> Su 0116 5.2 160 0730 8.9 270 1416 2.6 80 2143 8.2 250		<b>13</b> Tu 0356 5.6 170 0946 8.9 270 1622 2.3 70 2326 8.5 260		<b>28</b> W 0350 5.2 160 0930 9.5 290 1611 1.3 40 2315 9.2 280		<b>13</b> Tu 0228 5.9 180 0830 7.5 230 1507 3.0 90 2224 7.9 240		<b>28</b> W 0252 5.2 160 0826 8.2 250 1513 2.0 60 2213 8.5 260	
			<b>14</b> Su 0333 5.6 170 0918 8.9 270 1609 2.6 80 2311 8.5 260	<b>29</b> M 0239 5.6 170 0835 9.5 290 1518 1.6 50 2243 8.9 270		<b>14</b> W 0433 5.2 160 1022 9.2 280 1658 2.3 70 2354 8.9 270		<b>14</b> W 0335 5.6 170 0928 8.2 250 1558 2.6 80 2254 8.2 250		<b>29</b> Th 0350 4.6 140 0928 8.9 270 1607 1.6 50 2246 8.9 270
			<b>15</b> M 0415 5.2 160 0958 9.2 280 1641 2.3 70 2345 8.9 270	<b>30</b> Tu 0345 5.2 160 0931 9.8 300 1613 1.3 40 2331 9.5 290		<b>15</b> Th 0505 4.9 150 1054 9.5 290 1730 2.0 60		<b>15</b> Th 0415 4.9 150 1005 8.5 260 1637 2.3 70 2318 8.5 260		<b>30</b> F 0431 3.6 110 1016 9.5 290 1652 1.3 40 2311 9.2 280
			<b>31</b> W 0441 4.9 150 1024 10.5 320 1703 0.7 20	<b>O</b>					<b>31</b> O 0509 3.0 90 1100 9.8 300 1735 1.6 50 2333 9.2 280	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Singapore (Tanjong Pagar), Singapore, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0545	2.3	70	<b>16</b>	0518	2.3	70	<b>1</b>	0558	1.3	40
	1143	10.2	310	M	1128	9.5	290	Tu	1222	9.2	280
	1815	2.0	60		1745	2.3	70		1822	3.0	90
	2358	9.5	290	●	2331	9.5	290		2350	9.5	290
<b>2</b> M	0620	2.0	60	<b>17</b>	0550	1.6	50	<b>2</b>	0630	1.0	30
	1226	10.2	310	Tu	1205	9.5	290	W	1305	8.9	270
	1852	2.3	70		1818	2.3	70	Th	1854	3.3	100
<b>3</b> Tu	0028	9.5	290	<b>18</b>	0001	9.5	290	<b>3</b>	0022	9.5	290
	0656	1.6	50	W	0626	1.3	40	F	0703	1.0	30
	1309	9.8	300		1248	9.5	290	Th	1345	8.5	260
	1928	2.6	80		1854	2.6	80		1926	3.6	110
<b>4</b> W	0058	9.5	290	<b>19</b>	0035	9.8	300	<b>4</b>	0052	9.2	280
	0730	1.6	50	Th	0707	0.7	20	F	0737	1.0	30
	1352	9.2	280		1337	9.2	280	Th	1426	8.2	250
	1958	3.3	100		1933	3.0	90		1954	3.9	120
<b>5</b> Th	0128	9.2	280	<b>20</b>	0111	9.8	300	<b>5</b>	0122	9.2	280
	0805	1.6	50	F	0750	0.7	20	Sa	0815	1.3	40
	1435	8.5	260		1431	8.9	270		1507	7.9	240
	2024	3.9	120		2013	3.6	110		2022	4.3	130
<b>6</b> F	0156	9.2	280	<b>21</b>	0150	9.5	290	<b>6</b>	0152	8.5	260
	0845	2.0	60	Sa	0837	0.7	20	Su	0854	1.6	50
	1520	7.9	240		1533	8.2	250		1552	7.2	220
	2050	4.6	140		2056	4.3	130		2052	4.6	140
<b>7</b> Sa	0224	8.5	260	<b>22</b>	0233	9.2	280	<b>7</b>	0222	8.2	250
	0928	2.3	70	Su	0933	1.0	30	M	0943	2.3	70
	1609	7.2	220		1643	7.9	240		1646	6.9	210
	2115	4.9	150		2150	4.9	150		2133	5.2	160
<b>8</b> Su	0252	8.2	250	<b>23</b>	0330	8.5	260	<b>8</b>	0301	7.5	230
	1024	3.0	90	M	1045	1.6	50	Tu	1046	2.6	80
	1716	6.6	200		1811	7.5	230		1758	6.6	200
	2156	5.6	170	●	2309	5.2	160	○	2248	5.2	160
<b>9</b> M	0328	7.5	230	<b>24</b>	0448	7.9	240	<b>9</b>	0415	7.2	220
	1139	3.3	100	Tu	1211	2.0	60	W	1201	3.0	90
	1933	6.6	200		1941	7.5	230		1920	6.9	210
	2337	5.9	180								
<b>10</b> Tu	0452	6.9	210	<b>25</b>	0105	5.2	160	<b>10</b>	0030	5.2	160
	1303	3.3	100	W	0641	7.5	230	Th	0615	6.9	210
	2056	6.9	210		1343	2.0	60		1316	3.0	90
					2050	7.9	240		2020	7.2	220
<b>11</b> W	0135	5.6	170	<b>26</b>	0241	4.6	140	<b>11</b>	0203	4.6	140
	0731	6.9	210	Th	0816	7.9	240	Sa	0754	6.9	210
	1420	3.0	90		1458	2.0	60		1422	2.6	80
	2137	7.5	230		2135	8.2	250		2100	7.9	240
<b>12</b> Th	0303	4.9	150	<b>27</b>	0337	3.6	110	<b>12</b>	0303	3.9	120
	0850	7.5	230	F	0920	8.5	260	Sa	0858	7.5	230
	1518	2.6	80		1550	2.0	60		1515	2.6	80
	2207	7.9	240		2207	8.5	260		2130	8.2	250
<b>13</b> F	0348	4.3	130	<b>28</b>	0418	3.0	90	<b>13</b>	0343	3.0	90
	0937	8.2	250	Sa	1011	8.9	270	W	0946	8.2	250
	1603	2.3	70		1633	2.0	60		1556	2.6	80
	2230	8.5	260		2230	8.9	270		2158	8.9	270
<b>14</b> Sa	0422	3.6	110	<b>29</b>	0452	2.0	60	<b>14</b>	0415	2.3	70
	1016	8.9	270	Su	1058	9.2	280	W	1033	8.5	260
	1641	2.0	60		1713	2.3	70		1633	2.6	80
	2248	8.9	270		2254	9.2	280		2226	9.2	280
<b>15</b> Su	0450	3.0	90	<b>30</b>	0526	1.6	50	<b>15</b>	0448	1.3	40
	1052	9.2	280	M	1139	9.2	280	Tu	1118	8.9	270
	1713	2.0	60		1748	2.6	80		1711	2.6	80
	2307	9.2	280	○	2320	9.5	290	●	2258	9.5	290

# Singapore (Tanjong Pagar), Singapore, 2018

Times and Heights of High and Low Waters

July				August				September											
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height								
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm								
<b>1</b> Su	0015	9.2	280	<b>16</b> M	0033	10.5	320	<b>1</b> W	0105	9.5	290	<b>16</b> Sa	0205	8.9	270	<b>16</b> Su	0331	8.2	250
0656	0.7	20	M	0724	- 0.3	- 10	W	0743	1.3	40	Sa	0818	2.3	70	0924	3.9	120		
1350	8.2	250		1416	8.9	270		1415	8.2	250		1424	8.5	260	1500	8.2	250		
1905	3.9	120		1941	3.3	100		1948	3.3	100		2043	2.3	70	2156	2.3	70		
<b>2</b> M	0046	9.2	280	<b>17</b> Tu	0122	10.2	310	<b>2</b> Th	0141	9.2	280	<b>17</b> F	0252	9.2	280	<b>17</b> M	0431	7.2	220
0731	1.0	30		0816	0.0	0		0813	1.3	40		0926	2.3	70	1003	4.6	140		
1424	8.2	250		1500	8.9	270		1445	8.2	250		1522	8.5	260	1539	7.9	240		
1937	3.9	120		2028	3.3	100		2026	3.3	100		2141	2.3	70	2301	2.6	80		
<b>3</b> Tu	0120	9.2	280	<b>18</b> W	0213	9.8	300	<b>3</b> F	0220	8.9	270	<b>18</b> Sa	0348	8.2	250	<b>18</b> Tu	0556	6.6	200
0807	1.0	30		0907	0.7	20		0846	2.0	60		1007	3.0	90	1101	5.2	160		
1500	7.9	240		1539	8.5	260		1518	8.2	250		1601	8.2	250	1635	7.2	220		
2013	3.9	120		2118	3.3	100		2109	3.0	90		2239	2.6	80					
<b>4</b> W	0158	8.9	270	<b>19</b> Th	0307	9.2	280	<b>4</b> Sa	0309	8.2	250	<b>19</b> Su	0456	7.2	220	<b>19</b> Tu	0018	3.0	90
0841	1.3	40		0956	1.3	40		0926	2.3	70		1054	3.9	120	0813	6.6	200		
1535	7.9	240		1618	8.2	250		1558	8.2	250		1648	7.9	240	1233	5.6	170		
2052	3.9	120		2213	3.3	100		2207	3.0	90		2350	2.6	80	1818	6.9	210		
<b>5</b> Th	0239	8.5	260	<b>20</b> F	0409	8.2	250	<b>5</b> Su	0411	7.5	230	<b>20</b> M	0630	6.6	200	<b>20</b> Th	0135	3.0	90
0920	1.6	50		1046	2.3	70		1016	3.0	90		1158	4.6	140	0918	6.9	210		
1616	7.9	240		1701	8.2	250		1648	7.9	240		1750	7.5	230	1407	5.2	160		
2141	3.9	120		2320	3.0	90		2318	2.6	80					2016	7.2	220		
<b>6</b> F	0331	7.9	240	<b>21</b> Sa	0522	7.5	230	<b>6</b> M	0533	6.9	210	<b>21</b> Tu	0105	2.6	80	<b>21</b> F	0245	2.6	80
1007	2.3	70		1145	3.3	100		1122	3.6	110		0835	6.6	200	0956	7.5	230		
1701	7.5	230		1752	7.9	240		1746	7.9	240		1318	4.9	150	1515	4.9	150		
●	2246	3.9	120								1916	7.5	230	2115	7.9	240			
<b>7</b> Sa	0439	7.2	220	<b>22</b> Su	0037	3.0	90	<b>7</b> Tu	0031	2.3	70	<b>22</b> W	0215	2.3	70	<b>22</b> Sa	0337	2.0	60
1103	2.6	80		0656	6.9	210		0720	6.9	210		0945	6.9	210	1028	7.9	240		
1754	7.5	230		1250	3.9	120		1241	4.3	130		1433	4.9	150	1556	4.3	130		
				1852	7.9	240		1856	8.2	250		2039	7.5	230	2154	8.5	260		
<b>8</b> Su	0000	3.6	110	<b>23</b> M	0150	2.6	80	<b>8</b> W	0143	1.6	50	<b>23</b> Th	0315	2.0	60	<b>23</b> Su	0418	2.0	60
0603	6.9	210		0845	6.9	210		0858	7.2	220		1026	7.5	230	1052	8.2	250		
1211	3.3	100		1400	4.3	130		1401	4.3	130		1530	4.6	140	1628	3.6	110		
1848	7.9	240		1958	7.9	240		2005	8.5	260		2131	8.2	250	2228	8.9	270		
<b>9</b> M	0111	3.0	90	<b>24</b> Tu	0252	2.0	60	<b>9</b> Th	0246	1.0	30	<b>24</b> F	0400	1.6	50	<b>9</b> Su	0430	0.3	10
0737	6.9	210		0956	7.2	220		1005	7.9	240		1100	7.9	240	1113	8.5	260		
1318	3.6	110		1500	4.3	130		1511	4.3	130		2111	8.5	260	1658	3.3	100		
1941	8.2	250		2056	8.2	250		2107	9.2	280					2258	9.2	280		
<b>10</b> Tu	0213	2.0	60	<b>25</b> W	0341	1.6	50	<b>10</b> F	0343	0.3	10	<b>25</b> Sa	0437	1.3	40	<b>10</b> M	0518	0.3	10
0903	7.2	220		1045	7.5	230		1056	8.5	260		1128	8.2	250	1143	9.2	280		
1424	3.6	110		1548	4.3	130		1609	3.9	120		1645	3.9	120	1731	2.6	80		
2033	8.9	270		2143	8.5	260		2200	9.5	290		2243	8.9	270	2326	10.5	320		
<b>11</b> W	0305	1.3	40	<b>26</b> Th	0420	1.3	40	<b>11</b> Sa	0435	0.0	0	<b>26</b> Su	0513	1.3	40	<b>11</b> Tu	0605	0.7	20
1011	7.9	240		1122	7.9	240		1139	8.9	270		1154	8.2	250	1152	8.9	270		
1524	3.9	120		1628	4.3	130		1700	3.6	110		1716	3.6	110	1754	2.3	70		
2122	9.2	280		2222	8.9	270		●	2248	10.2	310		2315	9.2	280				
<b>12</b> Th	0356	0.3	10	<b>27</b> F	0454	1.3	40	<b>12</b> Su	0526	- 0.3	- 10	<b>27</b> W	0546	1.3	40	<b>27</b> Th	0000	9.5	290
1105	8.5	260		1154	8.2	250		1220	8.9	270		1216	8.5	260	0624	2.0	60		
1616	3.6	110		1701	3.9	120		1746	3.3	100		1748	3.3	100	1215	9.2	280		
2209	9.8	300		2256	9.2	280		2335	10.5	320		2345	9.5	290	1826	2.0	60		
<b>13</b> F	0445	0.0	0	<b>28</b> Sa	0528	1.0	30	<b>13</b> M	0618	0.0	0	<b>28</b> Tu	0618	1.3	40	<b>13</b> Th	0058	10.2	310
1156	8.9	270		1224	8.2	250		1258	9.2	280		1818	3.0	90	0735	1.6	50		
1709	3.6	110		1735	3.9	120		1833	3.0	90					1316	9.2	280		
●	2258	10.2	310	○	2328	9.2	280								1937	1.6	50		
<b>14</b> Sa	0537	- 0.7	- 20	<b>29</b> Su	0603	1.0	30	<b>14</b> Tu	0022	10.5	320	<b>29</b> W	0015	9.5	290	<b>14</b> F	0146	9.8	300
1245	9.2	280		1252	8.2	250		0711	0.0	0		0650	1.3	40	0815	2.3	70		
1800	3.6	110		1809	3.6	110		1335	8.9	270		1300	8.5	260	1350	8.9	270		
2345	10.5	320						1920	2.6	80		1850	2.6	80	2018	1.6	50		
<b>15</b> Su	0630	- 0.7	- 20	<b>30</b> M	0000	9.2	280	<b>15</b> W	0111	10.5	320	<b>30</b> Th	0048	9.5	290	<b>15</b> Sa	0237	8.9	270
1331	9.2	280		0637	1.0	30		0800	0.7	20		1411	8.9	270	0850	3.0	90		
1850	3.6	110		1320	8.5	260		2005	2.3	70		1324	8.9	270	1424	8.9	270		
				1843	3.6	110					1922	2.6	80	2103	2.0	60			
<b>31</b> Tu	0031	9.5	290	<b>31</b> F	0711	1.0	30					0124	9.2	280		<b>29</b> Sa	0113	9.2	280
				1348	8.5	260		1348	8.5	260		0746	2.0	60	0726	2.6	80		
				1915	3.3	100					1352	8.9	270	1313	9.2	280			
											2000	2.3	70	1937	1.3	40			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Singapore (Tanjong Pagar), Singapore, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0250	8.5	260	16 Tu 0407	7.5	230	1 Th 0531	7.9	240	16 Sa 0618	8.2	250
0839	3.6	110	0920	4.9	150	1037	5.2	160	1156	5.2	160
1426	8.9	270	1443	8.2	250	1609	8.2	250	1731	8.2	250
2113	1.6	50	2209	2.6	80	2328	2.0	60	2341	3.6	110
2 Tu 0400	7.9	240	17 W 0515	6.9	210	2 Th 0700	7.9	240	2 Su 0031	3.0	90
0930	4.3	130	1011	5.6	170	1222	5.2	160	0720	8.5	260
1513	8.5	260	1524	7.5	230	1754	7.9	240	1333	4.6	140
● 2220	1.6	50	2324	3.0	90				1916	8.2	250
3 W 0531	7.2	220	18 Th 0707	6.6	200	3 Sa 0100	2.3	70	18 M 0100	3.6	110
1041	4.9	150	1139	5.9	180	0811	8.2	250	0758	7.5	230
1622	7.9	240	1656	6.9	210	1403	4.9	150	1354	5.2	160
2345	2.0	60				1939	8.2	250	1941	7.2	220
4 Th 0720	7.2	220	19 F 0046	3.3	100	4 Su 0222	2.3	70	19 M 0209	3.6	110
1226	5.2	160	0828	6.9	210	0901	8.5	260	0839	8.2	250
1807	7.5	230	1326	5.6	170	1507	3.9	120	1454	4.3	130
			1922	6.9	210	2052	8.5	260	2048	7.9	240
5 F 0115	2.0	60	20 Sa 0203	3.0	90	5 M 0322	2.3	70	20 Tu 0303	3.6	110
0843	7.9	240	0911	7.5	230	0937	8.9	270	0911	8.5	260
1413	4.9	150	1448	4.9	150	1550	3.0	90	1533	3.3	100
1952	7.9	240	2041	7.5	230	2148	9.2	280	2139	8.5	260
6 Sa 0235	1.6	50	21 Su 0303	2.6	80	6 Tu 0407	2.3	70	21 W 0345	3.3	100
0937	8.2	250	0943	7.9	240	1001	9.2	280	0937	9.2	290
1518	4.3	130	1533	4.3	130	1628	2.3	70	1603	2.6	80
2100	8.9	270	2128	8.2	250	2237	9.5	290	2224	8.9	270
7 Su 0335	1.3	40	22 M 0348	2.6	80	7 W 0448	2.6	80	22 Th 0418	3.6	110
1013	8.5	260	1005	8.5	260	1028	9.5	290	1005	9.5	290
1603	3.3	100	1605	3.3	100	1700	1.6	50	1631	2.0	60
2150	9.5	290	2205	8.9	270	2322	9.8	300	2309	9.2	280
8 M 0424	1.3	40	23 Tu 0426	2.3	70	8 Th 0526	3.0	90	23 F 0452	3.6	110
1039	8.9	270	1026	8.9	270	1056	9.8	300	1035	9.8	300
1641	2.6	80	1633	2.6	80	1733	1.3	40	1705	1.3	40
2235	9.8	300	2241	9.2	280	●			2352	9.5	290
9 Tu 0507	1.3	40	24 W 0458	2.3	70	9 F 0007	9.8	300	24 Sa 0531	3.9	120
1103	9.2	280	1046	9.2	280	0601	3.3	100	1109	10.2	310
1716	2.0	60	1701	2.3	70	1128	9.8	300	1743	0.7	20
● 2318	10.2	310	2315	9.5	290	1805	1.0	30			
10 W 0548	1.6	50	25 Th 0528	2.6	80	10 Sa 0052	9.5	290	25 M 0041	9.5	290
1130	9.5	290	1111	9.5	290	0635	3.6	110	0613	3.9	120
1752	1.6	50	1730	1.6	50	1201	9.8	300	1146	10.5	320
			2352	9.5	290	1841	1.0	30	1824	0.7	20
11 Th 0003	10.2	310	26 F 0558	3.0	90	11 Su 0135	9.2	280	10 Tu 0128	9.2	280
0628	2.0	60	1139	9.8	300	0709	4.3	130	0643	4.9	150
1201	9.5	290	1803	1.3	40	1235	9.8	300	1215	9.8	300
1830	1.3	40				1916	1.3	40	1856	1.3	40
12 F 0050	9.8	300	27 Sa 0031	9.5	290	12 M 0216	8.9	270	11 W 0131	9.8	300
0705	2.6	80	0631	3.3	100	0741	4.6	140	0643	4.9	150
1233	9.5	290	1211	9.8	300	1307	9.5	290	1216	10.8	330
1907	1.3	40	1839	1.0	30	1956	1.6	50	1903	0.3	10
13 Sa 0139	9.5	290	28 Su 0116	9.5	290	13 Tu 0300	8.5	260	11 Tu 0203	8.9	270
0741	3.3	100	0709	3.6	110	0813	4.9	150	0716	4.9	150
1307	9.5	290	1245	9.8	300	1339	9.2	280	1248	9.8	300
1945	1.3	40	1920	0.7	20	2037	2.0	60	1933	1.6	50
14 Su 0228	8.9	270	29 M 0209	9.2	280	14 W 0343	7.9	240	12 W 0239	8.9	270
0815	3.9	120	0748	3.9	120	0846	5.2	160	0748	5.2	160
1339	9.2	280	1322	9.8	300	1411	8.5	260	1322	9.5	290
2026	1.6	50	2005	1.0	30	2126	2.6	80	2011	2.0	60
15 M 0315	8.2	250	30 Tu 0307	8.5	260	15 F 0435	7.5	230	12 F 0239	8.9	270
0845	4.6	140	0831	4.6	140	0930	5.6	170	0748	5.2	160
1411	8.5	260	1403	9.5	290	1450	9.5	290	1354	10.5	320
2113	2.0	60	2100	1.3	40	2228	3.0	90	2048	1.0	30
			31 W 0413	8.2	250				2241	2.6	80
			0924	4.9	150				2141	2.0	60
			1454	8.9	270				2146	9.8	300
			2205	1.6	50				2144	2.0	60

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# **Belawan Channel, Sumatra, 2018**

## Times and Heights of High and Low Waters

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Belawan Channel, Sumatra, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0156	7.9	241	<b>16</b> M	0134	7.7	235	<b>1</b> Tu	0208	7.5	229	<b>16</b> W	0151	7.8	238
	0804	1.1	34		0738	1.5	46		0801	2.1	64		0744	2.1	64
	1420	8.3	253		1353	8.5	259		1415	8.6	262		1359	9.1	277
	2028	1.5	46	●	2006	1.6	49		2037	1.8	55		2025	1.4	43
<b>2</b> M	0228	7.8	238	<b>17</b> Tu	0207	7.9	241	<b>2</b> W	0239	7.4	226	<b>17</b> Th	0232	7.8	238
	0833	1.3	40		0808	1.5	46		0828	2.4	73		0821	2.3	70
	1447	8.3	253		1423	8.7	265		1440	8.4	256		1434	9.0	274
	2058	1.6	49		2039	1.4	43		2105	1.9	58		2104	1.3	40
<b>3</b> Tu	0258	7.6	232	<b>18</b> W	0242	7.9	241	<b>3</b> Th	0309	7.2	219	<b>18</b> F	0314	7.7	235
	0900	1.6	49		0841	1.6	49		0854	2.7	82		0901	2.6	79
	1513	8.1	247		1454	8.6	262		1506	8.2	250		1512	8.8	268
	2127	1.7	52		2114	1.4	43		2135	2.0	61		2146	1.5	46
<b>4</b> W	0328	7.3	223	<b>19</b> Th	0319	7.7	235	<b>4</b> F	0340	6.9	210	<b>19</b> Sa	0402	7.4	226
	0925	2.0	61		0915	2.0	61		0921	3.1	94		0944	3.1	94
	1539	7.8	238		1528	8.4	256		1532	7.9	241		1552	8.3	253
	2157	2.0	61		2152	1.6	49		2206	2.3	70		2233	1.8	55
<b>5</b> Th	0358	6.8	207	<b>20</b> F	0401	7.3	223	<b>5</b> Sa	0416	6.6	201	<b>20</b> Su	0456	7.1	216
	0951	2.5	76		0952	2.5	76		0950	3.6	110		1033	3.7	113
	1605	7.5	229		1605	8.0	244		1600	7.5	229		1638	7.8	238
	2228	2.4	73		2236	1.9	58		2242	2.7	82		2327	2.2	67
<b>6</b> F	0430	6.4	195	<b>21</b> Sa	0450	6.8	207	<b>6</b> Su	0458	6.2	189	<b>21</b> M	0604	6.8	207
	1017	3.0	91		1035	3.2	98		1024	4.1	125		1138	4.3	131
	1633	7.0	213		1648	7.5	229		1632	7.0	213		1734	7.1	216
	2304	2.8	85		2330	2.4	73		2326	3.0	91		1752	6.5	198
<b>7</b> Sa	0509	5.8	177	<b>22</b> Su	0555	6.3	192	<b>7</b> M	0558	5.9	180	<b>22</b> Tu	0034	2.7	82
	1047	3.6	110		1132	3.9	119		1112	4.6	140		0732	6.6	201
	1705	6.5	198		1743	6.8	207		1714	6.5	198		1313	4.7	143
	2353	3.3	101									● 1854	6.5	198	
<b>8</b> Su	0608	5.4	165	<b>23</b> M	0044	2.8	85	<b>8</b> Tu	0028	3.4	104	<b>23</b> W	0156	2.9	88
	1127	4.2	128		0736	6.0	183		0736	5.8	177		0906	6.8	207
	1751	6.0	183		1311	4.5	137		1248	5.0	152		1510	4.6	140
				●	1912	6.3	192	●	1828	6.0	183		2038	6.3	192
<b>9</b> M	0117	3.6	110	<b>24</b> Tu	0227	3.0	91	<b>9</b> W	0159	3.6	110	<b>24</b> Th	0318	3.0	91
	0833	5.1	155		0938	6.2	189		0929	6.1	125		1018	7.2	219
	1326	4.8	146		1533	4.4	134		1524	4.9	149		1635	4.1	125
	1941	5.5	168		2114	6.1	186		2035	5.8	177		2208	6.4	195
<b>10</b> Tu	0330	3.6	110	<b>25</b> W	0401	2.8	85	<b>10</b> Th	0328	3.4	104	<b>25</b> F	0424	2.9	88
	1050	5.6	171		1054	6.8	207		1033	6.6	201		1109	7.7	235
	1633	4.5	137		1700	3.9	119		1643	4.3	131		1730	3.5	107
	2204	5.7	174		2242	6.5	198		2209	6.1	186		2313	6.6	204
<b>11</b> W	0448	3.2	98	<b>26</b> Th	0505	2.4	73	<b>11</b> F	0429	3.1	94	<b>10</b> Su	0420	3.1	94
	1134	6.2	189		1143	7.4	226		1114	7.2	219		1101	7.8	238
	1731	4.0	122		1752	3.2	98		1728	3.7	113		1729	3.3	101
	2311	6.1	186		2340	6.9	210		2308	6.5	198		2316	6.7	204
<b>12</b> Th	0533	2.7	82	<b>27</b> F	0552	2.1	64	<b>12</b> Sa	0515	2.7	82	<b>27</b> Tu	0002	6.9	210
	1205	6.8	207		1220	7.9	241		1148	7.8	238		0557	2.7	82
	1807	3.4	104		1832	2.7	82		1805	3.1	94		1223	8.3	253
	2354	6.6	201						2353	6.9	210		1848	2.6	79
<b>13</b> F	0607	2.3	70	<b>28</b> Sa	0025	7.3	223	<b>13</b> Su	0555	2.4	73	<b>28</b> M	0043	7.0	213
	1232	7.4	226		0630	1.9	58		1220	8.3	253		0633	2.7	82
	1837	2.8	85		1253	8.3	253		1839	2.5	76		1253	8.5	259
					1907	2.2	67					1921	2.3	70	
<b>14</b> Sa	0029	7.0	213	<b>29</b> Su	0103	7.5	229	<b>14</b> M	0033	7.3	223	<b>29</b> Tu	0119	7.2	219
	0638	1.9	58		0704	1.9	58		0631	2.2	67		0704	2.8	85
	1259	7.9	241		1322	8.5	259		1252	8.7	265		1321	8.6	262
	1906	2.3	70		1938	1.9	58		1913	2.0	61		1951	2.1	64
<b>15</b> Su	0101	7.4	226	<b>30</b> M	0137	7.6	232	<b>15</b> Tu	0112	7.6	232	<b>30</b> W	0152	7.2	219
	0708	1.6	49		0734	2.0	61		0707	2.1	64		0734	2.9	88
	1325	8.2	250		1349	8.6	262		1325	9.0	274		1348	8.6	262
	1936	1.9	58		2008	1.8	55		● 1948	1.6	49		2020	2.0	61
												<b>31</b> Th	0224	7.2	219
												0802	3.1	94	
												1414	8.5	259	
												2049	2.0	61	

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Belawan Channel, Sumatra, 2018

Times and Heights of High and Low Waters

July				August				September															
	Time	Height			Time	Height			Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0319 0852 1455 2134	7.0 3.6 8.1 2.0	213 110 247 61	<b>16</b> M	0350 0935 1536 2210	7.9 3.0 8.5 1.3	241 91 259 40	<b>1</b> W	0401 0947 1543 2211	7.4 3.2 7.7 1.9	226 98 235 58	<b>16</b> Th	0443 1042 1637 2257	7.7 3.0 7.4 2.2	235 88 226 67	<b>1</b> Sa	0432 1039 1637 2248	7.7 2.9 7.1 2.5	235 88 216 76	<b>16</b> Su	0505 1130 1728 2317	7.1 3.4 6.1 3.8	216 104 186 116
<b>2</b> M	0353 0926 1526 2206	7.0 3.7 7.9 2.1	213 113 241 64	<b>17</b> Tu	0436 1022 1618 2253	7.7 3.3 8.0 1.7	235 101 244 52	<b>2</b> Th	0434 1024 1618 2245	7.4 3.4 7.4 2.1	226 104 226 64	<b>17</b> F	0523 1127 1718 2335	7.3 3.4 6.7 2.9	223 104 204 88	<b>2</b> Su	0512 1128 1726 2333	7.4 3.2 6.6 3.1	226 98 201 94	<b>17</b> M	0546 1232 1837 O	6.6 3.9 5.5	201 119 168
<b>3</b> Tu	0430 1003 1559 2240	7.0 3.9 7.6 2.3	213 119 232 70	<b>18</b> W	0524 1113 1703 2338	7.5 3.6 7.4 2.2	229 110 226 67	<b>3</b> F	0513 1107 1658 2325	7.3 3.5 7.0 2.5	223 107 213 76	<b>18</b> Sa	0608 1223 1809	6.9 3.8 6.0	210 116 183	<b>18</b> O	0007 0653 1430 2131	4.4 6.1 4.1 5.3	134 186 125 162				
<b>4</b> W	0511 1047 1638 2320	6.9 4.1 7.2 2.5	210 125 219 76	<b>19</b> Th	0616 1211 1754	7.2 4.0 6.7	219 122 204	<b>4</b> Sa	0559 1203 1750	7.1 3.8 6.5	216 116 198	<b>19</b> Su	0020 0706 1346 1930	3.5 6.6 4.1 5.5	107 201 125 168	<b>4</b> Tu	0040 0723 1421 2042	3.7 6.7 3.6 5.7	113 204 110 174	<b>19</b> W	0237 0907 1629 2317	4.8 5.9 3.8 5.8	146 180 116 177
<b>5</b> Th	0558 1141 1724	6.9 4.3 6.8	210 131 207	<b>20</b> F	0027 0716 1326 O	2.7 7.0 4.2 6.1	82 213 128 186	<b>5</b> Su	0014 0658 1318 1904	2.9 7.0 3.9 6.0	88 213 119 183	<b>20</b> M	0127 0830 1543 2149	4.1 6.3 4.0 5.3	125 192 122 162	<b>5</b> W	0232 0909 1609 2238	4.1 6.7 3.2 6.2	125 204 189 195	<b>20</b> Th	0450 1043 1725 2357	4.6 6.2 3.3 6.4	140 189 101 195
<b>6</b> F	0007 0656 1251 O	2.8 6.9 4.4 6.4	85 210 134 195	<b>21</b> Sa	0126 0825 1459 2030	3.3 6.9 4.2 5.7	101 210 128 174	<b>6</b> M	0121 0814 1457 2051	3.3 6.9 3.8 5.8	101 210 116 177	<b>21</b> Tu	0317 1003 1708 2325	4.3 6.4 3.6 5.7	131 195 110 174	<b>6</b> Th	0423 1037 1720 2345	3.9 7.1 2.5 6.8	119 216 76 207	<b>21</b> F	0544 1134 1802	4.1 6.7 2.8	125 204 85
<b>7</b> Sa	0105 0803 1419 1950	3.0 6.9 4.3 6.1	91 210 131 186	<b>22</b> Su	0238 0938 1628 2212	3.7 6.9 3.9 5.6	113 210 119 171	<b>7</b> Tu	0251 0938 1628 2234	3.6 7.1 3.3 6.1	110 216 101 186	<b>22</b> W	0451 1109 1757	4.2 6.7 3.1	128 204 94	<b>7</b> F	0535 1139 1811	3.4 7.6 1.9	104 232 58	<b>22</b> Sa	0026 0619 1211 1831	6.9 3.6 7.1 2.4	210 110 216 73
<b>8</b> Su	0215 0913 1546 2125	3.2 7.2 3.9 6.1	98 219 119 186	<b>23</b> M	0355 1040 1731 2328	3.8 7.1 3.4 5.9	116 216 104 180	<b>8</b> W	0420 1050 1734 2346	3.5 7.5 2.6 6.6	107 229 79 201	<b>23</b> Th	0015 0549 1155 1833	6.1 3.9 7.1 2.6	186 119 216 79	<b>8</b> Sa	0033 0627 1228 1854	7.5 2.8 8.1 1.4	229 85 247 43	<b>23</b> Su	0052 0648 1242 1858	7.4 3.1 7.4 2.1	226 94 226 64
<b>9</b> M	0330 1017 1655 2247	3.3 7.6 3.3 6.3	101 232 101 192	<b>24</b> Tu	0501 1130 1816	3.8 7.3 3.0	116 223 91	<b>9</b> Th	0531 1148 1826	3.2 7.9 1.9	98 241 58	<b>24</b> F	0050 0629 1231 1903	6.6 3.6 7.4 2.3	201 110 226 70	<b>9</b> Sa	0114 0710 1311 1932	8.0 2.4 8.4 1.0	244 73 256 30	<b>24</b> M	0116 0715 1311 1924	7.8 2.8 7.7 1.8	238 85 235 55
<b>10</b> Tu	0438 1112 1750 2351	3.2 8.0 2.7 6.7	98 244 82 204	<b>25</b> W	0021 0552 1210 1852	6.2 3.7 7.6 2.6	189 113 232 79	<b>10</b> F	0041 0627 1237 1911	7.2 2.9 8.4 1.3	219 88 256 40	<b>25</b> Sa	0119 0703 1303 1929	7.0 3.3 7.7 1.9	213 101 235 30	<b>10</b> M	0150 0749 1350 ●	8.4 2.1 8.6 1.0	256 64 262 30	<b>25</b> Tu	0140 0742 1339 1949	8.1 2.4 7.9 1.7	247 73 241 52
<b>11</b> W	0537 1201 1838	3.0 8.4 2.0	91 256 61	<b>26</b> Th	0101 0633 1245 1923	6.5 3.6 7.8 2.3	198 110 238 70	<b>11</b> Sa	0127 0715 1321 ●	7.7 2.6 8.7 1.0	235 79 265 30	<b>26</b> Su	0145 0732 1331 1955	7.3 3.0 7.9 1.7	223 91 241 52	<b>11</b> Tu	0225 0826 1426 2041	8.6 1.9 8.5 1.1	262 58 259 34	<b>26</b> W	0204 0808 1407 2015	8.3 2.2 8.1 1.6	253 67 247 49
<b>12</b> Th	0045 0630 1246 1922	7.2 2.8 8.7 1.5	219 85 265 46	<b>27</b> F	0134 0709 1316 1952	6.7 3.4 7.9 2.0	204 104 241 61	<b>12</b> Su	0209 0759 1403 2031	8.0 2.4 8.8 0.8	244 73 268 24	<b>27</b> W	0258 0800 1359 2020	8.5 2.8 8.0 1.6	232 85 244 49	<b>12</b> Th	0258 0836 1501 2113	8.5 2.0 8.3 1.4	259 61 253 43				
<b>13</b> F	0134 0718 1330 ●	7.5 2.7 8.9 1.1	229 82 271 34	<b>28</b> Sa	0205 0741 1345 O	7.0 3.3 8.0 1.8	213 101 244 55	<b>13</b> M	0249 0841 1442 2108	8.2 2.3 8.7 0.9	250 70 265 27	<b>28</b> Tu	0235 0828 1426 2045	7.8 2.6 8.0 1.5	238 79 244 46	<b>13</b> Th	0329 0935 1535 2144	8.4 2.2 7.9 1.9	256 67 241 58	<b>28</b> F	0256 0906 1507 2111	8.5 2.0 7.9 2.0	259 61 241 61
<b>14</b> Sa	0221 0805 1412 2047	7.8 2.7 9.0 1.0	238 82 274 30	<b>29</b> Su	0233 0812 1414 2046	7.2 3.2 8.1 1.7	219 98 247 52	<b>14</b> Tu	0328 0921 1521 2145	8.2 2.4 8.4 1.2	250 73 256 37	<b>29</b> F	0301 0856 1454 2112	7.9 2.5 8.0 1.6	241 76 244 49	<b>14</b> M	0400 1010 1609 2140	8.0 2.5 7.3 1.8	244 76 223 55	<b>29</b> Sa	0326 0940 1542 2143	8.4 2.1 7.6 2.4	256 64 232 73
<b>15</b> Su	0306 0850 1454 2129	7.9 2.8 8.8 1.0	241 85 268 30	<b>30</b> M	0302 0842 1442 2113	7.3 3.2 8.0 1.7	223 98 244 52	<b>15</b> W	0405 1001 1559 2221	8.0 2.6 7.9 1.6	244 79 244 49	<b>30</b> Th	0328 0926 1525 2140	7.9 2.6 7.8 1.8	241 79 238 55	<b>15</b> Sa	0432 1047 1645 2244	7.6 2.9 6.7 3.1	232 88 204 94	<b>30</b> Su	0358 1019 1623 2220	8.1 2.4 7.1 2.9	247 73 216 88
				<b>31</b> Tu	0330 0914 1512 2141	7.4 3.2 7.9 1.7	226 98 241 52		<b>31</b> F	0358 1000 1558 2212	7.8 2.7 7.5 2.1	238 82 229 64											

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# **Belawan Channel, Sumatra, 2018**

## Times and Heights of High and Low Waters

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Musi River (Outer Bar), Sumatra, 2018

Times and Heights of High and Low Waters

January					February					March														
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height										
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm									
<b>1</b> M	0650 2231	11.5 2.3	350 70	<b>16</b> Tu	0744 2250	11.5 3.0	350 90	<b>1</b> Th	0809 2345	12.8 2.0	390 60	<b>16</b> F	0804 2329	11.5 3.6	350 110	<b>1</b> Th	0707 2257	12.1 3.0	370 90	<b>16</b> F	0651 1553	10.8 4.9	330 150	
<b>2</b> Tu	0734 2306	12.5 1.6	380 50	<b>17</b> W	0810 2313	11.8 2.6	360 80	<b>2</b> F	0852	12.8	390	<b>17</b> Sa	0833	11.5	350	<b>2</b> F	0749	11.8	360	<b>17</b> Sa	0723 1542	10.8 5.2	330 160	
O				●								○				●	2348	4.6	140					
<b>3</b> W	0819 2345	13.1 1.3	400 40	<b>18</b> Th	0836 2336	11.8 2.6	360 80	<b>3</b> Sa	0036 0931	2.3	70	<b>18</b> Su	0011 0903	3.6	110	<b>3</b> Sa	0002 0826	3.0	90	<b>18</b> Su	0755 1532	10.2 5.6	310 170	
<b>4</b> Th	0904 0949	13.1 12.8	400 390	<b>19</b> F	0904	11.8	360	<b>4</b> Su	0127 1006	3.0	90	<b>19</b> M	0059 0933	3.9	120	<b>4</b> Su	0102 0858	3.6	110	<b>19</b> M	0047 0825	4.6	140	
<b>5</b> F	0027 0949	1.3	40	<b>20</b> Sa	0000 0933	3.0	90	<b>5</b> M	0216 1035	3.9	120	<b>20</b> Tu	0150 1001	4.3	130	<b>5</b> M	0158 0922	4.3	130	<b>20</b> Tu	0147 0851	4.9	150	
																	1511	5.9	180					
<b>6</b> Sa	0110 1033	2.0	60	<b>21</b> Su	0029 1004	3.0	90	<b>6</b> Tu	0305 1055	4.9	150	<b>21</b> W	0250 1024	4.9	150	<b>6</b> Tu	0253 0936	5.2	160	<b>21</b> W	0252 0911	5.2	160	
																	1503	5.6	170					
<b>7</b> Su	0151 1114	2.6	80	<b>22</b> M	0101 1036	3.3	100	<b>7</b> W	0354 1059	6.2	190	<b>22</b> Th	0405 1036	5.9	180	<b>7</b> W	0351 0936	5.9	180	<b>22</b> Th	0409 0916	5.6	170	
																	1503	4.9	150					
<b>8</b> M	0228 1149	3.6	110	<b>23</b> Tu	0139 1107	3.9	120	<b>8</b> Th	0203 0505	7.5	230	<b>23</b> F	0606 1015	6.6	200	<b>8</b> Th	0505 0911	6.9	210	<b>23</b> F	0608 0840	6.2	190	
																	1512	4.3	130					
<b>9</b> Tu	0252 1217	4.9	150	<b>24</b> W	0223 1135	4.9	150	<b>9</b> F	0414 1917	8.2	250	<b>24</b> Sa	0141 1737	8.9	270	<b>9</b> F	0044 1649	8.5	260	<b>24</b> Sa	1532	3.6	110	
O	2106	9.5	290									○				○								
<b>10</b> W	1230 2054	8.5	260	<b>25</b> Th	0033 0323	5.9	180	<b>10</b> Sa	0507 1950	9.2	280	<b>25</b> Su	0314 1819	9.8	300	<b>10</b> Sa	0220 1716	8.9	270	<b>25</b> Su	0106 1605	10.5	320	
<b>11</b> Th	1206 2101	7.9	240	<b>26</b> F	0312 0638	7.2	220	<b>11</b> Su	0543 2026	9.8	300	<b>26</b> M	0428 1919	10.8	330	<b>11</b> Su	0338 1747	9.5	290	<b>26</b> M	0234 1652	10.8	330	
<b>12</b> F	0602 2117	8.5	260	<b>27</b> Sa	0413 1958	8.5	260	<b>12</b> M	0613 2102	10.5	320	<b>27</b> Tu	0528 2033	11.5	350	<b>12</b> M	0430 1823	9.8	300	<b>27</b> Tu	0352 1807	11.2	340	
<b>13</b> Sa	0625 2139	9.5	290	<b>28</b> Su	0503 2030	10.2	310	<b>13</b> Tu	0641 2138	10.8	330	<b>28</b> W	0620 2148	12.1	370	<b>13</b> Tu	0510 1911	10.2	310	<b>28</b> W	0457 2003	11.5	350	
<b>14</b> Su	0652 2202	10.5	320	<b>29</b> M	0551 2112	11.2	340	<b>14</b> W	0708 2214	11.2	340					<b>14</b> W	0545 2023	10.5	320	<b>29</b> Th	0551 2154	11.2	340	
<b>15</b> M	0718 2227	10.8	330	<b>30</b> Tu	0638 2201	12.1	370	<b>15</b> Th	0735 2250	11.5	350					<b>15</b> Th	0618 2139	10.8	330	<b>30</b> F	0636 1440	10.8	330	
				<b>31</b> W	0725 2253	12.8	390										<b>31</b> Sa	0714 1416	9.8	300				
				O												O	1836	6.9	210					

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

## Musi River (Outer Bar), Sumatra, 2018

## Times and Heights of High and Low Waters

April					May					June											
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height							
<b>1</b> Su	0033	4.3	130	<b>16</b> M	0023	5.2	160	<b>1</b> Tu	0237	5.9	180	<b>16</b> W	0241	5.2	160	<b>1</b> F	1228	1.6	50	<b>16</b> Sa	
	0743	9.2	280		0704	8.5	260		0629	6.6	200		0601	5.9	180		2140	10.8	330	1212	
	1407	5.6	170		1337	5.2	160		1248	3.6	110		1210	3.3	100				cm	20	2135
	1930	7.5	230	●	1934	7.9	240		2034	9.8	300		2008	10.5	320				ft	380	12.5
<b>2</b> M	0138	4.9	150	<b>17</b> Tu	0133	5.2	160	<b>2</b> W	0409	5.9	180	<b>17</b> Th	1220	2.6	80	<b>2</b> Sa	1245	1.6	50	<b>17</b> Su	
	0802	8.2	250		0730	7.9	240		0600	5.9	180		2050	11.2	340		2212	10.8	330	1248	
	1406	5.2	160		1331	4.9	150		1301	3.3	100								0.7	370	
	2021	8.5	260		2007	8.9	270		2115	10.2	310								11.8	2224	
<b>3</b> Tu	0241	5.6	170	<b>18</b> W	0246	5.2	160	<b>3</b> Th	1316	2.6	80	<b>18</b> F	1239	2.0	60	<b>3</b> Su	1259	1.6	50	<b>18</b> M	
	0810	7.5	230		0746	6.9	210		2155	10.5	320		2137	11.8	360		2245	10.8	330	1326	
	1411	4.9	150		1328	4.6	140												11.8	360	
	2112	8.9	270		2048	9.5	290												2021		
<b>4</b> W	0347	5.9	180	<b>19</b> Th	0412	5.6	170	<b>4</b> F	1333	2.6	80	<b>19</b> Sa	1304	1.3	40	<b>4</b> M	1308	2.0	60	<b>19</b> Tu	
	0804	6.9	210		0742	5.9	180		2235	10.5	320		2230	12.1	370		2319	10.8	330	1403	
	1423	4.3	130		1332	3.9	120												1.6	50	
	2203	9.2	280		2136	10.5	320												3.6	320	
<b>5</b> Th	0516	6.6	200	<b>20</b> F	1345	3.3	100	<b>5</b> Sa	1348	2.6	80	<b>20</b> Su	1334	1.3	40	<b>5</b> Tu	1311	2.3	70	<b>20</b> W	
	0726	6.6	200		2231	11.2	340		2316	10.5	320		2326	11.8	360		2357	10.5	320	0004	
	1438	3.9	120																1434		
	2257	9.5	290																80		
<b>6</b> F	1455	3.6	110	<b>21</b> Sa	1406	2.6	80	<b>6</b> Su	1359	2.6	80	<b>21</b> M	1406	1.6	50	<b>6</b> W	1303	2.6	80	<b>21</b> Th	
	2354	9.5	290		2334	11.2	340		2359	10.5	320								9.8	300	
																			3.6	110	
																			2052		
<b>7</b> Sa	1512	3.6	110	<b>22</b> Su	1434	2.3	70	<b>7</b> M	1403	3.0	90	<b>22</b> Tu	0027	11.5	350	<b>7</b> Th	0039	10.2	310	<b>22</b> F	
																			8.9	270	
																			4.3	130	
																			2013		
<b>8</b> Su	0055	9.8	300	<b>23</b> M	0045	11.5	350	<b>8</b> Tu	0046	10.2	310	<b>23</b> W	0130	10.8	330	<b>8</b> F	0124	9.5	290	<b>23</b> Sa	
	1525	3.6	110		1506	2.3	70		1354	3.0	90		1445	3.0	90		1155	3.3	100	0203	
				●															3.9	240	
																			1755		
<b>9</b> M	0159	9.8	300	<b>24</b> Tu	0202	11.2	340	<b>9</b> W	0137	10.2	310	<b>24</b> Th	0229	10.2	310	<b>9</b> Sa	0210	8.9	270	<b>24</b> Su	
	1530	3.9	120		1542	3.0	90		1330	3.3	100		1248	3.9	120		1124	3.6	110	0211	
																			3.3	100	
																			7.9	240	
<b>10</b> Tu	0258	9.8	300	<b>25</b> W	0314	10.8	330	<b>10</b> Th	0230	9.8	300	<b>25</b> F	0321	9.2	280	<b>10</b> Su	0254	7.9	240	<b>25</b> M	
	1514	3.9	120		1615	3.6	110		1304	3.6	110		1810	5.6	170		1104	3.9	120	1014	
																			8.9	270	
																			2848		
<b>11</b> W	0350	10.2	310	<b>26</b> Th	0416	10.5	320	<b>11</b> F	0322	9.5	290	<b>26</b> Sa	0401	8.2	250	<b>11</b> M	0328	7.2	220	<b>26</b> Tu	
	1436	4.3	130		1354	4.6	140		1245	3.9	120		1128	4.3	130		1052	3.6	110	1030	
					1714	4.6	140									1817	6.9	210	9.8		
					1953	4.6	140									2315	5.9	180	300		
<b>12</b> Th	0436	10.2	310	<b>27</b> F	0507	9.8	300	<b>12</b> Sa	0410	9.2	280	<b>27</b> Su	0426	7.2	220	<b>12</b> Tu	0058	5.9	180	<b>27</b> W	
	1409	4.3	130		1304	4.9	150		1922	5.9	180		1123	3.9	120		1049	3.3	100	1049	
					1750	5.9	180		2135	5.9	180		1849	8.2	250		1850	9.2	280	1954	
					2223	4.9	150												320		
<b>13</b> F	0518	10.2	310	<b>28</b> Sa	0546	8.9	270	<b>13</b> Su	0452	8.5	260	<b>28</b> M	0112	5.9	180	<b>13</b> W	1057	2.6	80	<b>28</b> Th	
	1358	4.6	140		1246	4.9	150		1220	4.3	130		0431	6.2	190		2024	10.8	330	1111	
	1924	5.2	160		1831	7.2	220		1852	6.9	210		1128	3.3	100				40		
	2115	5.2	160						2343	5.9	180		1924	9.2	280				330		
<b>14</b> Sa	0557	9.8	300	<b>29</b> Su	0000	5.2	160	<b>14</b> M	0527	7.5	230	<b>29</b> Tu	1138	2.6	80	<b>14</b> Th	1114	1.6	50	<b>29</b> F	
	1352	4.6	140		0614	7.9	240		1212	4.3	130		2000	9.8	300		2004	11.5	350	1132	
	1900	5.9	180		1240	4.6	140		1905	8.2	250								40		
	2306	5.2	160		1912	8.2	250									●			330		
<b>15</b> Su	0633	9.2	280	<b>30</b> M	0121	5.6	170	<b>15</b> Tu	0113	5.6	170	<b>30</b> W	1153	2.3	70	<b>15</b> F	1140	1.0	30	<b>30</b> Sa	
	1345	4.9	150		0629	7.2	220		0552	6.9	210		2035	10.5	320		2048	12.1	370	1153	
	1911	6.9	210		1241	4.3	130		1208	3.9	120		1932	9.2	280				40		
				○	1953	9.2	280									31	1210	2.0	60	2120	

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Musi River (Outer Bar), Sumatra, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm																				
<b>1</b> Su	1211 2147	1.3 10.8	40 330	<b>16</b> M	1253 2212	0.7 11.5	20 350	<b>1</b> W	1256 2216	2.3 9.8	70 300	<b>16</b> Th	0541 0857 1508 2241	4.9 5.2 3.3 7.9	150 160 100 240	<b>1</b> Sa	0438 1004 1553 2208	4.9 6.2 4.6 6.6	150 190 140 200	<b>16</b> Su	0348 1206	3.3 7.9	100 240
<b>2</b> M	1228 2216	1.6 10.8	50 330	<b>17</b> Tu	1340 2253	1.3 10.5	40 320	<b>2</b> Th	1333 2245	3.0 9.2	90 280	<b>17</b> F	0536 1043 1611 2248	4.6 5.9 4.6 6.9	140 180 140 210	<b>2</b> Su	0430 1122 1744 2144	4.6 6.9 5.2 5.9	140 210 160 180	<b>17</b> M	0409 1332	3.0 8.2	90 250
<b>3</b> Tu	1243 2247	2.0 10.5	60 320	<b>18</b> W	1427 2331	2.3 9.5	70 290	<b>3</b> F	1417 2310	3.6 8.2	110 250	<b>18</b> Sa	0544 1240 1742 2223	4.3 6.6 5.6 6.2	130 200 170 190	<b>3</b> M	0432 1253	3.9 7.5	120 230	<b>18</b> Tu	0434 1456	3.0 8.5	90 260
<b>4</b> W	1256 2320	2.3 10.2	70 310	<b>19</b> Th	1514	3.6	110	<b>4</b> Sa	0741 1140 1516 2326	4.6 4.9 4.6 7.2	140 150 140 220	<b>19</b> Su	0601 1447	3.6 7.2	110 220	<b>4</b> Tu	0448 1428	3.3 8.5	100 260	<b>19</b> W	0501 1600	3.0 8.9	90 270
<b>5</b> Th	1258 2355	3.0 9.5	90 290	<b>20</b> F	0001 0827 1318 1602	8.5 4.6 4.9 4.9	260 140 150 150	<b>5</b> Su	0712 1419 1739 2314	4.3 5.9 5.6 6.2	130 180 170 190	<b>20</b> M	0628 1617	3.3 7.9	100 240	<b>5</b> W	0523 1548	2.6 9.5	80 290	<b>20</b> Th	0530 1647	3.0 9.2	90 280
<b>6</b> F	1156	3.6	110	<b>21</b> Sa	0017 0815 1630 1841	7.5 3.9 6.2 6.2	230 120 190 190	<b>6</b> M	0705 1540	3.9 7.2	120 220	<b>21</b> Tu	0703 1712	2.6 8.9	80 270	<b>6</b> Th	0619 1653	2.0 10.2	60 310	<b>21</b> F	0602 1725	3.3 9.2	100 280
<b>7</b> O	0028 1014	8.5 3.9	260 120	<b>22</b> Sa	0000 0823 1717	6.6 3.6 7.5	200 110 230	<b>7</b> Tu	0718 1636	3.3 8.5	100 260	<b>22</b> W	0744 1752	2.6 9.2	80 280	<b>7</b> F	0737 1749	2.0 10.8	60 330	<b>22</b> Sa	0715 1758	3.6 9.5	110 290
<b>8</b> Su	0057 0934 1840 1919	7.5 3.9 6.2 6.2	230 120 190 190	<b>23</b> M	0842 1756	3.0 8.5	90 260	<b>8</b> W	0748 1726	2.6 9.8	80 300	<b>23</b> Th	0829 1825	2.3 9.5	70 290	<b>8</b> Sa	0906 1839	1.6 10.8	50 330	<b>23</b> Su	0326 0621 0915 1830	3.6 3.9 3.6 9.5	110 120 110 290
<b>9</b> M	0108 0919	6.9 3.6	210 110	<b>24</b> Tu	0907 1831	2.3 9.2	70 280	<b>9</b> Th	0833 1814	1.6 10.5	50 320	<b>24</b> F	0915 1854	2.3 9.8	70 300	<b>9</b> Su	1028 1924	1.6 10.5	50 320	<b>24</b> M	0308 0647 1036 1901	3.9 4.3 3.9 9.2	120 130 120 280
<b>10</b> Tu	0920 1757	3.0 8.9	90 270	<b>25</b> W	0936 1903	2.0 9.8	60 300	<b>10</b> F	0927 1900	1.3 11.2	40 340	<b>25</b> Sa	0959 1921	2.3 9.8	70 300	<b>10</b> M	1141 2004	2.0 9.8	60 300	<b>25</b> Tu	0303 0708 1141 1932	4.3 4.6 3.9 8.9	130 140 120 270
<b>11</b> W	0936 1833	2.3 10.2	70 310	<b>26</b> Th	1006 1933	1.6 10.2	50 310	<b>11</b> Sa	1024 1946	0.7 11.5	20 350	<b>26</b> Su	1042 1949	2.6 9.8	80 300	<b>11</b> Tu	0346 0611 1248 2038	4.9 5.2 2.3 9.2	150 160 70 280	<b>26</b> W	0300 0732 1241 2000	4.3 5.2 3.9 8.2	130 160 120 250
<b>12</b> Th	1004 1914	1.3 11.2	40 340	<b>27</b> F	1035 2000	1.6 10.5	50 320	<b>12</b> Su	1122 2029	0.7 11.5	20 350	<b>27</b> M	1124 2016	2.6 9.8	80 300	<b>12</b> W	0325 0728 1350 2104	5.2 5.9 3.0 8.2	160 180 90 250	<b>27</b> Th	0253 0800 1341 2026	4.6 6.2 4.3 7.5	140 190 130 230
<b>13</b> ●	1040 1958	0.7 11.8	20 360	<b>28</b> Sa	1102 2026	1.6 10.5	50 320	<b>13</b> M	1220 2110	1.0 10.8	30 330	<b>28</b> Tu	1207 2044	2.6 9.5	80 290	<b>13</b> Th	0320 0834 1452 2121	4.9 6.6 3.9 7.2	150 200 120 220	<b>28</b> F	0245 0835 1445 2043	4.6 6.9 4.3 6.6	140 210 130 200
<b>14</b> Sa	1122 2043	0.3 12.1	10 370	<b>29</b> Su	1129 2052	1.6 10.5	50 320	<b>14</b> Tu	1316 2147	1.6 9.8	50 300	<b>29</b> W	0543 0646 1253 2112	4.3 4.3 3.0 9.2	130 130 90 280	<b>14</b> F	0323 0940 1559 2122	4.3 7.2 4.6 6.2	130 220 140 190	<b>29</b> Sa	0237 0918 1602 2045	4.3 7.9 4.9 5.9	130 240 150 180
<b>15</b> Su	1206 2128	0.3 12.1	10 370	<b>30</b> M	1156 2119	2.0 10.5	60 320	<b>15</b> W	1411 2218	2.3 8.9	70 270	<b>30</b> Th	0512 0755 1344 2138	4.6 4.9 3.3 8.2	140 150 100 250	<b>15</b> Sa	0332 1049 1727 2051	3.9 7.5 5.6 5.9	120 230 170 180	<b>30</b> Su	0233 1010 1807 1957	3.9 8.5 5.2 5.2	120 260 160 160
				<b>31</b> Tu	1224 2147	2.0 10.2	60 310					<b>31</b> F	0454 0856 1442 2159	4.9 5.6 3.9 7.5	150 170 120 230								

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Musi River (Outer Bar), Sumatra, 2018

Times and Heights of High and Low Waters

October						November						December							
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		
	h m	ft 3.3	cm 100		h m	ft 2.3	cm 70		h m	ft 1.6	cm 50		h m	ft 3.0	cm 90		h m	ft 3.6	cm 110
<b>1</b> M	0238 1112	3.3 9.2	280	<b>16</b> Tu	0246 1233	2.3 9.5	290	<b>1</b> Th	0235 1321	1.6 11.2	340	<b>16</b> F	0145 1313	3.0 10.2	310	<b>1</b> Sa	0243 1354	3.0 10.5	320
<b>2</b> Tu	0254 1226	2.6 9.5	80	<b>17</b> W	0301 1333	2.6 9.5	80	<b>2</b> F	0308 1433	2.0 10.8	360	<b>17</b> Sa	0116 1401	3.0 9.8	300	<b>2</b> Su	0128 1447	3.9 4.6	120
●																<b>17</b> M	1335 2304	9.5 4.3	290
<b>3</b> W	0322 1348	2.0 10.2	60	<b>18</b> Th	0307 1431	2.6 9.5	80	<b>3</b> Sa	0336 1538	3.0 10.2	310	<b>18</b> Su	0042 1449	3.3 9.5	100	<b>3</b> M	1530 2307	8.5 4.6	260
<b>4</b> Th	0400 1509	2.0 10.5	60	<b>19</b> F	0252 1523	3.0 9.5	90	<b>4</b> Su	0203 1633	3.9 9.5	120	<b>19</b> M	0022 1535	3.6 8.9	110	<b>4</b> Tu	0554 1039	7.2 6.2	220
<b>5</b> F	0457 1619	2.3 10.5	70	<b>20</b> Sa	0212 1609	3.3 9.2	100	<b>5</b> M	0050 0536 0940 1716	4.6 5.2 4.9 8.5	140 160 150 260	<b>20</b> Tu	0011 1616 2359	3.9 8.5 3.9	120	<b>5</b> W	0627 1258 1602 2302	8.5 6.2 6.6 3.6	260
<b>6</b> Sa	0644 1717	2.6 10.2	80	<b>21</b> Su	0143 1650	3.6 9.2	110	<b>6</b> Tu	0025 0613 1137 1748	4.6 6.6 4.9 7.5	140 200 150 230	<b>21</b> W	0705 1132 1651 2356	7.2 6.2 7.5 3.9	220	<b>6</b> Th	0705 2313	9.8 3.0	300
<b>7</b> Su	0908 1806	3.0 9.8	90	<b>22</b> M	0131 1728	3.6 8.9	110	<b>7</b> W	0016 0654 1308 ● 1805	4.3 7.9 5.2 6.6	130 240 160 200	<b>22</b> Th	0707 1310 1715 2350	8.2 5.9 6.9 3.9	250	<b>7</b> F	0744 2329	10.5 2.3	320
<b>8</b> M	0220 0518 1053 1847	4.6 4.9 3.3 9.2	140 150 100 280	<b>23</b> Tu	0126 0721 1053 1804	3.9 5.6 5.2 8.5	120 170 160 260	<b>8</b> Th	0016 0736 1435 1804	3.9 9.2 5.6 5.9	120 280 170 180	<b>23</b> F	0728 1449 1718 2350	9.2 5.6 5.9 3.3	280	<b>8</b> Sa	0822 2349	11.2 2.0	340
<b>9</b> Tu	0151 0621 1216 ● 1919	4.9 5.9 3.6 8.2	150 180 110 250	<b>24</b> W	0123 0722 1216 ○ 1835	4.3 6.2 5.2 7.9	130 190 160 240	<b>9</b> F	0023 0819	3.3 9.8	100 300	<b>24</b> Sa	0759 2358	10.5 2.6	320	<b>9</b> Su	0858 2358	11.5 80	350
<b>10</b> W	0140 0715 1328 1942	4.9 7.2 3.9 7.2	150 220 120 220	<b>25</b> Th	0117 0738 1328 1900	4.3 7.2 4.9 6.9	130 220 150 210	<b>10</b> Sa	0036 0901	2.6 10.5	80	<b>25</b> Su	0836 0901	11.5 10.5	350	<b>10</b> M	0011 0932	1.6 11.8	50
<b>11</b> Th	0138 0806 1438 1952	4.3 7.9 4.6 6.2	130 240 140 190	<b>26</b> F	0111 0804 1443 1913	4.3 8.2 4.9 6.2	130 250 150 190	<b>11</b> Su	0053 0943	2.3 10.8	70	<b>26</b> M	0014 0919	2.0 12.1	60	<b>11</b> Tu	0032 1004	2.0 11.8	60
<b>12</b> F	0143 0856 1553 1943	3.9 8.9 4.9 5.6	120 270 150 170	<b>27</b> Sa	0106 0839 1614 1903	3.9 9.2 4.9 5.2	120 280 150 160	<b>12</b> M	0112 1024	2.0 10.8	60	<b>27</b> Tu	0038 1008	1.3 12.5	40	<b>12</b> W	0049 1036	2.0 11.5	60
<b>13</b> Sa	0154 0947	3.3 9.2	100 280	<b>28</b> Su	0108 0921	3.3 10.2	100 310	<b>13</b> Tu	0130 1105	2.0 10.8	60	<b>28</b> W	0109 1101	1.3 12.5	40	<b>13</b> Th	0102 1108	2.3 11.2	70
<b>14</b> Su	0209 1039	2.6 9.5	80 290	<b>29</b> M	0118 1010	2.6 10.8	80 330	<b>14</b> W	0145 1146	2.3 10.5	70	<b>29</b> Th	0142 1157	1.3 12.1	40	<b>14</b> F	0107 1141	2.6 10.8	80
<b>15</b> M	0227 1135	2.3 9.5	70 290	<b>30</b> Tu	0137 1106	2.0 11.2	60 340	<b>15</b> Th	0152 1228	2.3 10.5	70	<b>30</b> F	0216 1256	2.0 11.5	60	<b>15</b> Sa	0056 1216	3.3 10.5	100
				<b>31</b> W	0203 1211	1.6 11.2	50 340					<b>30</b> ○	0306 1307	4.3 9.8	130	<b>31</b> M	0148 1338	2.0 4.9	60

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Djakarta (Tandjungpriok), Java, 2018

Times and Heights of High and Low Waters

January					February					March									
Time		Height			Time		Height			Time		Height			Time		Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm		
<b>1</b> M	0940 1923	3.8 0.5	116 15	<b>16</b> Tu	1003 1952	3.4 0.8	104 24	<b>1</b> Th	1036 1944	3.6 0.8	110 24	<b>16</b> F	1011 1922	3.1 1.1	94 34	<b>1</b> Th	0950 1807	3.3 1.0	101 30
												●			<b>16</b> F	0933 1733	2.8 1.3	85 40	
<b>2</b> Tu	1013 2002	3.8 0.4	116 12	<b>17</b> W	1015 2022	3.4 0.8	104 24	<b>2</b> F	1105 2012	3.3 0.9	101 27	<b>17</b> Sa	1024 1929	3.0 1.3	91 40	<b>2</b> F	1022 1826	3.1 1.2	94 37
O				●								○			<b>17</b> Sa	0224 0953	1.7 2.7	52 82	
<b>3</b> W	1047 2042	3.8 0.5	116 15	<b>18</b> Th	1027 2050	3.3 0.8	101 24	<b>3</b> Sa	1125 2035	3.0 1.1	91 34	<b>18</b> Su	1035 1926	2.8 1.4	85 43	<b>3</b> Sa	0053 0312	1.8 1.7	55 52
												○			<b>18</b> Su	0316 1011	1.8 2.5	55 76	
<b>4</b> Th	1119 2120	3.6 0.6	110 18	<b>19</b> F	1039 2114	3.3 0.9	101 27	<b>4</b> Su	1123 2052	2.7 1.3	82 40	<b>19</b> M	1036 1910	2.6 1.5	79 46	<b>4</b> Su	0115 0410	2.0 1.9	61 58
												○			<b>19</b> M	0414 1023	1.8 2.3	55 70	
<b>5</b> F	1147 2154	3.4 0.7	104 21	<b>20</b> Sa	1051 2131	3.2 1.0	98 30	<b>5</b> M	0953 2057	2.5 1.4	76 43	<b>20</b> Tu	1010 1834	2.4 1.6	73 49	<b>5</b> M	0158 0520	2.1 2.0	64 61
												○			<b>20</b> Tu	0533 1011	1.9 2.0	58 61	
<b>6</b> Sa	1200 2223	3.1 0.9	94 27	<b>21</b> Su	1058 2139	3.0 1.2	91 37	<b>6</b> Tu	0747 2007	2.5 1.5	76 46	<b>21</b> W	0822 1731	2.3 1.5	70 46	<b>6</b> Tu	0326 1649	2.2 1.6	67 49
												○			<b>21</b> W	0000 1513	2.4 1.5	73 46	
<b>7</b> Su	1123 2246	2.8 1.1	85 34	<b>22</b> M	1053 2135	2.8 1.3	85 40	<b>7</b> W	0734 1701	2.7 1.4	82 43	<b>22</b> Th	0624 1624	2.4 1.4	73 43	<b>7</b> W	0509 1522	2.4 1.5	73 46
												○			<b>22</b> Th	0042 1423	2.5 1.3	76 40	
<b>8</b> M	0911 2302	2.7 1.2	82 37	<b>23</b> Tu	1017 2115	2.6 1.4	79 43	<b>8</b> Th	0746 1640	2.9 1.2	88 37	<b>23</b> F	0621 1601	2.7 1.1	82 34	<b>8</b> Th	0602 1512	2.5 1.3	76 40
												○			<b>23</b> F	0203 1420	2.6 1.1	79 34	
<b>9</b> Tu	0830 2305	2.8 1.3	85 40	<b>24</b> W	0856 2015	2.6 1.5	79 46	<b>9</b> F	0806 1650	3.0 1.0	91 30	<b>24</b> Sa	0648 1608	2.9 0.9	88 27	<b>9</b> F	0641 1525	2.6 1.1	79 34
O												○			<b>24</b> Sa	0413 1438	2.8 0.9	85 27	
<b>10</b> W	0829 1817	3.0 1.4	91 43	<b>25</b> Th	0758 1809	2.7 1.4	82 43	<b>10</b> Sa	0828 1710	3.1 0.9	94 27	<b>25</b> Su	0723 1628	3.2 0.8	98 24	<b>10</b> Sa	0714 1545	2.8 1.0	85 30
												○			<b>25</b> Su	0540 1503	2.9 0.8	88 24	
<b>11</b> Th	0841 1750	3.1 1.2	94 37	<b>26</b> F	0746 1721	2.9 1.1	88 34	<b>11</b> Su	0849 1733	3.2 0.9	98 27	<b>26</b> M	0801 1653	3.4 0.7	104 21	<b>11</b> Su	0743 1608	2.8 1.0	85 30
												○			<b>26</b> M	0641 1529	3.0 0.8	91 24	
<b>12</b> F	0858 1804	3.2 1.0	98 30	<b>27</b> Sa	0759 1722	3.2 0.9	98 27	<b>12</b> M	0908 1758	3.2 0.8	98 24	<b>27</b> Tu	0839 1719	3.4 0.7	104 21	<b>12</b> M	0808 1630	2.9 1.0	88 30
												○			<b>27</b> Tu	0732 1553	3.1 0.8	94 24	
<b>13</b> Sa	0916 1826	3.3 0.9	101 27	<b>28</b> Su	0824 1743	3.5 0.7	107 21	<b>13</b> Tu	0926 1823	3.2 0.9	98 27	<b>28</b> W	0915 1745	3.4 0.8	104 24	<b>13</b> Tu	0832 1652	2.9 1.0	88 30
												○			<b>28</b> W	0817 1615	3.0 1.0	91 30	
<b>14</b> Su	0934 1853	3.4 0.8	104 24	<b>29</b> M	0856 1811	3.7 0.6	113 18	<b>14</b> W	0942 1847	3.2 0.9	98 27				<b>14</b> W	0853 1710	2.9 1.1	88 34	
												○			<b>29</b> Th	0210 1632	1.9 1.2	58 37	
<b>15</b> M	0949 1922	3.4 0.7	104 21	<b>30</b> Tu	0929 1842	3.7 0.5	113 15	<b>15</b> Th	0957 1907	3.2 1.0	98 30				<b>15</b> Th	0913 1725	2.9 1.2	88 37	
												○			<b>30</b> F	0311 1643	1.8 1.3	55 40	
												○			<b>31</b> Sa	0411 1010	1.8 2.4	55 73	
												○			<b>31</b> O	1647 2315	1.5 2.3	46 70	

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Djakarta (Tandjungpriok), Java, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0515	1.7	52	<b>16</b> M	0522	1.6	49	<b>1</b> Tu	0842	1.3	40	<b>16</b> W	0803	1.0	30
	1039	2.1	64		1022	1.9	58		2259	2.9	88		2236	3.3	101
	1636	1.6	49		1505	1.7	52								
	2332	2.4	73	●	2232	2.7	82								
<b>2</b> M	0640	1.7	52	<b>17</b> Tu	0649	1.5	46	<b>2</b> W	1015	1.2	37	<b>17</b> Th	0913	0.8	24
	1055	1.9	58		1112	1.7	52		2308	2.9	88		2309	3.4	104
	1555	1.7	52		1356	1.6	49								
	2350	2.5	76		2253	2.8	85								
<b>3</b> Tu	1403	1.6	49	<b>18</b> W	0940	1.4	43	<b>3</b> Th	1114	1.1	34	<b>18</b> F	1016	0.7	21
					2321	2.9	88		2313	2.9	88		2347	3.3	101
<b>4</b> W	0008	2.6	79	<b>19</b> Th	1136	1.1	34	<b>4</b> F	1156	1.0	30	<b>19</b> Sa	1108	0.7	21
	1309	1.4	43		2359	3.0	91		2316	2.9	88				
<b>5</b> Th	0022	2.6	79	<b>20</b> F	1220	0.9	27	<b>5</b> Sa	1231	0.9	27	<b>20</b> Su	0028	3.2	98
	1323	1.2	37		2319	2.8	85		2319	2.8	85		1151	0.7	21
<b>6</b> F	0031	2.6	79	<b>21</b> Sa	0051	3.0	91	<b>6</b> Su	1301	0.9	27	<b>21</b> M	0110	3.0	91
	1346	1.1	34		1257	0.8	91		2322	2.7	82		1226	0.8	91
<b>7</b> Sa	0026	2.5	76	<b>22</b> Su	0216	2.9	88	<b>7</b> M	1326	1.0	30	<b>22</b> Tu	0151	2.7	82
	1412	1.0	30		1330	0.8	24		2317	2.6	79		1254	0.9	27
<b>8</b> Su	0524	2.5	76	<b>23</b> M	0415	2.8	85	<b>8</b> Tu	1347	1.0	30	<b>23</b> W	1315	1.1	34
	1436	1.0	30		1359	0.8	24		2259	2.5	76		2121	2.6	79
<b>9</b> M	0621	2.6	79	<b>24</b> Tu	0546	2.7	82	<b>9</b> W	1401	1.1	34	<b>24</b> Th	0343	2.0	61
	1459	1.0	30		1424	0.9	27		2230	2.5	76		0557	2.1	64
<b>10</b> Tu	0701	2.6	79	<b>25</b> W	0131	2.2	67	<b>10</b> Th	1410	1.3	40	<b>24</b> Sa	1217	1.5	46
	1519	1.1	34		0655	2.6	79		2200	2.4	73		2053	2.8	85
<b>11</b> W	0736	2.6	79	<b>25</b> F	0421	2.2	67	<b>10</b> Th	1410	1.3	40	<b>25</b> M	0554	1.4	43
	1535	1.1	34		1444	1.1	34		2200	2.3	70		0918	1.5	46
<b>12</b> Th	0807	2.6	79	<b>26</b> Th	0242	2.0	61	<b>11</b> F	0352	2.0	61	<b>25</b> Su	0618	1.0	30
	1545	1.3	40		0753	2.4	73		0753	2.1	64		2131	3.3	101
<b>13</b> F	0824	2.2	67	<b>26</b> Sa	1459	1.2	37	<b>11</b> F	0700	2.1	64	<b>26</b> M	0559	1.2	37
	2216	2.2	67		2157	2.5	76		1411	1.4	43		2106	3.2	98
<b>14</b> Sa	0214	2.1	64	<b>27</b> F	0344	1.8	55	<b>12</b> Sa	0421	1.9	58	<b>26</b> Tu	0649	0.8	24
	0807	2.6	79		0845	2.2	67		0806	2.0	61		2149	3.3	101
<b>15</b> Su	0838	2.5	76	<b>27</b> F	1506	1.4	43	<b>12</b> Sa	1405	1.5	46	<b>27</b> W	0722	0.8	24
	1550	1.4	43		2204	2.6	79		2131	2.6	79		2205	3.3	101
<b>16</b> F	0844	2.2	67	<b>28</b> Sa	0445	1.7	52	<b>13</b> Su	0502	1.6	49	<b>28</b> W	0657	1.1	34
	2226	2.2	67		0936	2.0	61		0915	1.8	55		2157	3.6	110
<b>17</b> Sa	0331	1.9	58	<b>28</b> M	1503	1.5	46	<b>13</b> Su	1345	1.6	49	<b>28</b> Th	0757	0.7	21
	0910	2.3	70		2216	2.7	82		2135	2.8	85		2218	3.3	101
<b>18</b> Su	1547	1.5	46	<b>29</b> Su	0550	1.5	46	<b>14</b> M	0554	1.4	43	<b>29</b> F	0831	0.8	24
	2218	2.3	70		1033	1.8	55		2148	3.0	91		2228	3.3	101
<b>19</b> Su	0421	1.7	52	<b>29</b> M	0654	1.4	43	<b>29</b> Tu	0746	1.0	30	<b>29</b> F	0751	0.6	18
	0944	2.1	64		2246	2.9	88		2221	3.2	98		2230	3.7	113
<b>20</b> Su	1534	1.6	49	<b>30</b> M	0706	1.4	43	<b>30</b> W	0834	0.9	27	<b>30</b> F	0839	0.5	15
	2221	2.5	76		2246	2.9	88		2209	3.2	98		2305	3.6	110
<b>21</b> O	0921	2.1	64	<b>30</b> O				<b>31</b> Th	0921	0.9	27	<b>30</b> Sa	0906	0.8	24
									2242	3.2	98		2237	3.2	98

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# Djakarta (Tandjungpriok), Java, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Su	0940 2246	0.9 3.1	27 94	<b>16</b> M	0904 2346	0.8 3.0	24 91	<b>1</b> W	0822 2223	1.3 2.7	40 82	<b>16</b> Th	0721 1752	1.5 2.4	46 73	<b>1</b> Sa	0419 1459	1.5 2.4	46 73	<b>16</b> Su	0221 1709	1.1 2.7	34 82
<b>2</b> M	1009 2252	1.0 3.0	30 91	<b>17</b> Tu	0932 2326	1.0 2.6	30 79	<b>2</b> Th	0802 2147	1.4 2.5	43 76	<b>17</b> F	0525 1815	1.5 2.6	46 79	<b>2</b> Su	0336 1639	1.3 2.6	40 79	<b>17</b> M	0241 1810	1.0 2.7	30 82
<b>3</b> Tu	1031 2252	1.1 2.9	34 88	<b>18</b> W	0952 2035	1.2 2.5	37 76	<b>3</b> F	0721 2026	1.5 2.5	46 76	<b>18</b> Sa	0353 1847	1.3 2.8	40 85	<b>3</b> M	0322 1741	1.1 2.8	34 85	<b>18</b> Tu	0305 1856	0.9 2.8	27 85
<b>4</b> W	1042 2236	1.2 2.8	37 85	<b>19</b> Th	1000 1942	1.4 2.7	43 82	<b>4</b> Sa	0613 1921	1.5 2.6	46 79	<b>19</b> Su	0350 1920	1.1 2.9	34 88	<b>4</b> Tu	0330 1832	0.9 3.0	27 91	<b>19</b> W	0329 1932	0.9 2.8	27 85
<b>5</b> Th	1040 2149	1.3 2.6	40 79	<b>20</b> F	0926 1945	1.5 2.9	46 88	<b>5</b> Su	0506 1908	1.3 2.8	40 85	<b>20</b> M	0406 1951	0.9 3.0	27 91	<b>5</b> W	0349 1917	0.7 3.2	21 98	<b>20</b> Th	0352 2002	0.9 2.8	27 85
<b>6</b> F	1022 2049	1.4 2.6	43 79	<b>21</b> Sa	0501 2003	1.3 3.0	40 91	<b>6</b> M	0440 1923	1.1 3.1	34 94	<b>21</b> Tu	0429 2019	0.8 3.1	24 94	<b>6</b> Th	0413 2001	0.7 3.3	21 101	<b>21</b> F	0413 2027	0.9 2.8	27 85
<b>7</b> O	0917 2015	1.5 2.8	46 85	<b>22</b> Sa	0501 2026	1.1 3.2	34 98	<b>7</b> Tu	0445 1951	0.9 3.3	27 101	<b>22</b> W	0453 2045	0.8 3.1	24 94	<b>7</b> F	0438 2042	0.7 3.3	21 101	<b>22</b> Sa	0430 1212 1415 2048	1.0 2.1 2.0 2.7	30 64 61 82
<b>8</b> Su	0607 2009	1.4 3.0	43 91	<b>23</b> M	0519 2049	0.9 3.3	27 101	<b>8</b> W	0504 2024	0.7 3.5	21 107	<b>23</b> Th	0518 2106	0.8 3.1	24 94	<b>8</b> Sa	0501 2120	0.8 3.1	24 94	<b>23</b> Su	0442 1156 1446 2107	1.2 2.1 2.0 2.6	37 64 61 79
<b>9</b> M	0535 2021	1.1 3.2	34 98	<b>24</b> Tu	0544 2112	0.8 3.3	24 101	<b>9</b> Th	0530 2100	0.6 3.6	18 110	<b>24</b> F	0541 2124	0.9 3.1	27 94	<b>9</b> Su	0521 1201 1448 2156	1.0 1.9 1.8 2.9	30 58 55 88	<b>24</b> M	0445 1137 1524 2124	1.3 2.1 2.0 2.4	40 64 61 73
<b>10</b> Tu	0544 2045	0.9 3.5	27 107	<b>25</b> W	0611 2132	0.8 3.3	24 101	<b>10</b> F	0559 2137	0.6 3.6	18 110	<b>25</b> Sa	0602 2139	1.0 3.0	30 91	<b>10</b> M	0536 1202 1558 2227	1.2 2.0 1.8 2.6	37 61 55 79	<b>25</b> Tu	0440 1121 1609 2137	1.4 2.2 1.9 2.3	43 67 58 70
<b>11</b> W	0609 2115	0.7 3.6	21 110	<b>26</b> Th	0639 2148	0.8 3.3	24 101	<b>11</b> Sa	0628 2212	0.7 3.5	21 107	<b>26</b> Su	0618 2151	1.1 2.9	34 88	<b>11</b> O	0542 1217 1714 2249	1.4 2.2 1.9 2.3	43 67 58 70	<b>26</b> W	0423 1114 1710 2140	1.5 2.3 1.9 2.1	46 70 58 64
<b>12</b> Th	0642 2148	0.5 3.7	15 113	<b>27</b> F	0707 2202	0.8 3.2	24 98	<b>12</b> Su	0655 2244	0.8 3.2	24 98	<b>27</b> M	0627 2200	1.2 2.8	37 85	<b>12</b> W	0535 1242 1911 2230	1.5 2.3 1.9 2.0	46 70 58 61	<b>27</b> Th	0355 1118	1.6 2.4	49 73
<b>13</b> F	0718 2223	0.5 3.7	15 113	<b>28</b> Sa	0733 2213	0.9 3.2	27 98	<b>13</b> M	0718 2309	1.0 2.9	30 88	<b>28</b> Tu	0626 2206	1.3 2.6	40 79	<b>13</b> Th	0459 1317	1.6 2.5	49 76	<b>28</b> F	0311 1133	1.5 2.6	46 79
<b>14</b> Sa	0755 2257	0.5 3.6	15 110	<b>29</b> Su	0757 2221	1.0 3.1	30 94	<b>14</b> Tu	0735 2315	1.2 2.5	37 76	<b>29</b> W	0613 2202	1.5 2.4	46 73	<b>14</b> F	0317 1410	1.5 2.5	46 76	<b>29</b> Sa	0216 1200	1.4 2.7	43 82
<b>15</b> Su	0831 2327	0.7 3.3	21 101	<b>30</b> M	0816 2229	1.1 3.0	34 91	<b>15</b> W	0741 2131	1.4 2.3	43 70	<b>30</b> Th	0548 1313 1543 2128	1.5 2.1 2.0 2.2	46 64 61 67	<b>15</b> Sa	0216 1538	1.3 2.6	40 79	<b>30</b> Su	0142 1242	1.2 2.8	37 85
				<b>31</b> Tu	0826 2231	1.2 2.9	37 88					<b>31</b> F	0510 1338	1.6 2.2	49 67								

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Djakarta (Tandjungpriok), Java, 2018

Times and Heights of High and Low Waters

October					November					December													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm																				
<b>1</b> M	0144 1354	1.0 2.9	30 88	<b>16</b> Tu	0135 1212	0.8 2.7	24 82	<b>1</b> Th	0126 1553	0.7 2.8	21 85	<b>16</b> F	0119 1056	0.9 2.7	27 82	<b>1</b> Sa	0044 0937	0.9 2.7	27 82	<b>16</b> Su	0014 1001	1.1 2.7	34 82
<b>2</b> Tu	0202 1553	0.8 2.9	24 88	<b>17</b> W	0201 1140	0.8 2.6	24 79	<b>2</b> F	0150 1103	0.8 2.5	24 76	<b>17</b> Sa	0133 1034	1.0 2.7	30 82	<b>2</b> Su	0056 0914	1.1 2.8	34 85	<b>17</b> M	0007 0927	1.3 2.8	40 43
<b>3</b> W	0226 1728	0.7 2.9	21 88	<b>18</b> Th	0225 1122	0.9 2.5	27 76	<b>3</b> Sa	0208 1007	0.9 2.5	27 76	<b>18</b> Su	0140 1011	1.1 2.6	34 79	<b>3</b> M	0058 0914	1.2 3.0	37 91	<b>18</b> Tu	0906 2242	2.9 1.4	88 43
<b>4</b> Th	0251 1835	0.7 2.9	21 88	<b>19</b> F	0245 1111	0.9 2.5	27 76	<b>4</b> Su	0221 0952	1.1 2.6	34 79	<b>19</b> M	0138 0951	1.3 2.7	40 82	<b>4</b> Tu	0045 0926	1.3 3.2	40 98	<b>19</b> W	0901 1849	3.1 1.2	94 37
<b>5</b> F	0314 1930	0.8 2.9	24 88	<b>20</b> Sa	0300 1058	1.1 2.4	34 73	<b>5</b> M	0226 0955	1.3 2.8	40 85	<b>20</b> Tu	0126 0940	1.4 2.8	43 85	<b>5</b> W	0943 1910	3.3 1.0	101 30	<b>20</b> Th	0909 1853	3.3 1.0	101 30
<b>6</b> Sa	0334 1054	0.9 2.2	27 67	<b>21</b> Su	0309 1044	1.2 2.4	37 73	<b>6</b> Tu	0220 1006	1.4 3.0	43 91	<b>21</b> W	0058 0939	1.4 3.0	43 91	<b>6</b> Th	1002 1949	3.4 0.9	104 27	<b>21</b> F	0926 1917	3.5 0.7	107 21
<b>7</b> Su	0349 1041	1.1 2.3	34 70	<b>22</b> M	0310 1031	1.3 2.4	40 73	<b>7</b> W	0151 1022	1.5 3.1	46 94	<b>22</b> Th	0948 1940	3.2 1.1	98 34	<b>7</b> F	1021 2030	3.4 0.8	104 24	<b>22</b> Sa	0951 1952	3.7 0.6	113 18
<b>8</b> M	0358 1044	1.3 2.4	40 73	<b>23</b> Tu	0301 1022	1.4 2.5	43 76	<b>8</b> Th	1040 2051	3.2 1.1	98 34	<b>23</b> F	1005 2026	3.3 0.9	101 27	<b>8</b> Sa	1039 2111	3.4 0.7	104 21	<b>23</b> Su	1021 2031	3.8 0.5	116 15
<b>9</b> Tu	0358 1056	1.4 2.6	43 79	<b>24</b> W	0241 1020	1.5 2.7	46 82	<b>9</b> F	1058 2156	3.2 0.9	98 27	<b>24</b> Sa	1028 2115	3.5 0.7	107 21	<b>9</b> Su	1053 2151	3.4 0.7	104 21	<b>24</b> M	1053 2113	3.8 0.5	116 15
<b>10</b> W	0342 1113	1.5 2.7	46 82	<b>25</b> Th	0203 1028	1.5 2.9	46 88	<b>10</b> Sa	1115 2246	3.2 0.8	98 24	<b>25</b> Su	1057 2202	3.6 0.6	110 18	<b>10</b> M	1104 2229	3.3 0.7	101 21	<b>25</b> Tu	1125 2152	3.6 0.5	110 15
<b>11</b> Th	0249 1134	1.5 2.8	46 85	<b>26</b> F	0038 1043	1.4 3.0	43 91	<b>11</b> Su	1128 2326	3.2 0.8	98 24	<b>26</b> M	1130 2247	3.5 0.5	107 15	<b>11</b> Tu	1111 2304	3.2 0.7	98 21	<b>26</b> W	1154 2228	3.4 0.7	104 21
<b>12</b> F	1155	2.9	88	<b>27</b> Sa	1106 2317	3.1	94	<b>12</b> M	1135	3.1	94	<b>27</b> Tu	1204 2326	3.4 0.5	104 15	<b>12</b> W	1114 2333	3.1 0.8	94 24	<b>27</b> Th	1212 2256	3.1 0.8	94 24
<b>13</b> Sa	0006 1215	1.2 2.9	37 88	<b>28</b> Su	1136 2352	3.2 0.8	98 24	<b>13</b> Tu	0002 1135	0.8 3.0	24 91	<b>28</b> W	1236 2359	3.2 0.6	98 18	<b>13</b> Th	1111 2355	3.0 0.9	91 27	<b>28</b> F	1144 2317	2.8 1.0	85 30
<b>14</b> Su	0037 1232	1.0 2.8	30 85	<b>29</b> M	1214	3.2	98	<b>14</b> W	0032 1128	0.8 2.9	24 88	<b>29</b> Th	1254	3.0	91	<b>14</b> F	1100	2.9	88	<b>29</b> Sa	0924 2329	2.7 1.2	82 37
<b>15</b> M	0106 1238	0.9 2.8	27 85	<b>30</b> Tu	0026 1302	0.7 3.1	21 94	<b>15</b> Th	0058 1115	0.8 2.8	24 85	<b>30</b> F	0025 1110	0.8 2.7	24 82	<b>15</b> Sa	0010 1036	1.0 2.8	30 85	<b>30</b> Su	0836 2329	2.8 1.3	85 40
				<b>31</b> W	0057 1409	0.6 3.0	18 91								<b>31</b> M	0832 2253	3.0 1.4	91 43					

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Surabaja Strait, Djamuang Reef, Java, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 0713 M 2130	ft 1.0 5.9	cm 30 180	h m 0711 Tu 2103	ft 0.7 6.2	cm 20 190	h m 0736 Th 2127	ft 0.7 5.9	cm 20 180	h m 0713 F 2151	ft 1.0 5.6	cm 30 170	
<b>1</b>			<b>16</b>			<b>1</b>			<b>16</b>			
<b>2</b>	0740 Tu 2138	0.7 6.2	20 190	<b>17</b> W 2128	0.7 6.2	20 190	<b>2</b> F 2143	1.0 5.9	30 180	<b>17</b> Sa 2221	1.3 5.2	40 160
<b>3</b>	0808 W 2147	0.7 6.2	20 190	<b>18</b> Th 2153	0.7 6.2	20 190	<b>3</b> Sa 2155	1.0 5.6	30 170	<b>18</b> Su 2241	1.6 4.9	50 150
<b>4</b>	0837 Th 2157	0.7 6.2	20 190	<b>19</b> F 2215	0.7 6.2	20 190	<b>4</b> Su 2201	1.6 5.2	50 160	<b>19</b> M 2237	2.0 4.6	60 140
<b>5</b>	0906 F 2207	0.7 6.2	20 190	<b>20</b> Sa 2232	1.0 5.9	30 180	<b>5</b> M 2155	2.0 4.9	60 150	<b>20</b> Tu 1909	2.3 4.3	70 130
<b>6</b>	0932 Sa 2215	1.0 5.9	30 180	<b>21</b> Su 2235	1.3 5.6	40 170	<b>6</b> Tu 2132	2.3 4.6	70 140	<b>21</b> W 1723	2.6 4.3	80 130
<b>7</b>	0952 Su 2219	1.3 5.9	40 180	<b>22</b> M 2213	1.6 5.2	50 160	<b>7</b> W 2048	2.6 4.6	80 140	<b>22</b> Th 1701	2.6 4.6	80 140
<b>8</b>	1000 M 2217	1.6 5.6	50 170	<b>23</b> Tu 2125	2.0 4.9	60 150	<b>8</b> Th 1940	2.6 4.6	80 140	<b>23</b> F 1652	2.3 4.6	70 140
<b>9</b>	0940 Tu 2206	2.0 5.2	60 160	<b>24</b> W 2041	2.3 4.9	70 150	<b>9</b> F 1831	2.3 4.6	70 140	<b>24</b> Sa 1651	2.0 4.9	60 150
<b>10</b>	0837 W 2145	2.3 4.9	70 150	<b>25</b> Th 2019	2.6 4.9	80 150	<b>10</b> Sa 1812	2.0 4.9	60 150	<b>25</b> Su 1706	1.6 4.9	50 150
<b>11</b>	0732 Th 2116	2.3 4.9	70 150	<b>26</b> F 2011	2.3 5.2	70 160	<b>11</b> Su 1834	1.6 5.2	50 160	<b>26</b> M 1754	1.3 5.2	40 160
<b>12</b>	0656 F 2047	2.0 5.2	60 160	<b>27</b> Sa 2013	1.6 5.2	50 160	<b>12</b> M 1912	1.3 5.6	40 170	<b>27</b> Tu 1904	1.0 5.2	30 160
<b>13</b>	0643 Sa 2029	1.6 5.2	50 160	<b>28</b> Su 2021	1.3 5.6	40 170	<b>13</b> Tu 1954	1.0 5.6	30 170	<b>28</b> W 1959	1.0 5.2	30 160
<b>14</b>	0644 Su 2029	1.3 5.6	40 170	<b>29</b> M 2034	1.0 5.6	30 170	<b>14</b> W 2036	1.0 5.9	30 180			
<b>15</b>	0655 M 2042	1.0 5.9	30 180	<b>30</b> Tu 2051	0.7 5.9	20 180	<b>15</b> Th 2115	1.0 5.6	30 170			
	<b>31</b> W 2109	0.7 5.9	20 180									
	O											

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Surabaja Strait, Djamuang Reef, Java, 2018

Times and Heights of High and Low Waters

April				May				June															
	Time	Height		Time	Height		Time	Height		Time	Height												
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0559 1343 1941 2252	2.6 4.3 3.6 3.9	80 130 110 120	<b>16</b> M Tu	0459 1213 1942	3.0 4.6 3.0	90 140 90	<b>1</b> W Tu	1112 2025	4.9 2.3	150 70	<b>16</b> W W	1052 2025	5.6 1.3	170 40	<b>1</b> F F	1019 2106	6.2 1.0	190 30	<b>16</b> Sa Sa	1016 2119	6.6 0.7	200 20
<b>2</b> M	0547 1308 2008 2348	3.0 4.3 3.3 3.6	90 130 100 110	<b>17</b> Tu W	0106 0427 1204 2022	3.3 3.3 4.9 2.6	100 100 150 80	<b>2</b> W Th	1100 2054	5.2 2.0	160 60	<b>17</b> Th Th	1051 2103	5.9 1.3	180 40	<b>2</b> Sa Sa	1035 2138	6.6 1.0	200 30	<b>17</b> Su Su	1024 2153	6.6 0.7	200 20
<b>3</b> Tu	0501 1233 2054	3.3 4.6 3.0	100 140 90	<b>18</b> W	1157 2113	5.2 2.3	160 70	<b>3</b> Th Th	1100 2131	5.6 1.6	170 50	<b>18</b> F F	1053 2146	5.9 1.0	180 30	<b>3</b> Su Su	1052 2212	6.6 1.0	200 30	<b>18</b> M M	1031 2227	6.2 1.0	190 30
<b>4</b> W	0110 0258 1212 2211	3.3 3.3 4.9 2.6	100 100 150 80	<b>19</b> Th Th	1151 2215	5.2 2.0	160 60	<b>4</b> F F	1110 2216	5.9 1.6	180 50	<b>19</b> Sa Sa	1057 2232	6.2 1.0	190 30	<b>4</b> M M	1108 2246	6.2 1.0	190 30	<b>19</b> Tu Tu	1038 2257	6.2 1.3	190 40
<b>5</b> Th	1207	5.2	160	<b>20</b> F	1149 2325	5.6 1.6	170 50	<b>5</b> Sa Sa	1125 2306	6.2 1.3	190 40	<b>20</b> Su Su	1103 2319	6.2 1.0	190 30	<b>5</b> Tu Tu	1117 2319	6.2 1.3	190 40	<b>20</b> W W	1041 2317	5.9 1.6	180 50
<b>6</b> F	0009 1214	2.3 5.2	70 160	<b>21</b> Sa	1151	5.9	180	<b>6</b> Su Su	1141 2357	6.2 1.3	190 40	<b>21</b> M M	1111	6.2	190	<b>6</b> W W	1117 2349	5.9 1.6	180 50	<b>21</b> Th Th	1040 2312	5.6 2.0	170 60
<b>7</b> Sa	0114 1230	2.0 5.6	60 170	<b>22</b> Su	0031 1156	1.6 5.9	50 180	<b>7</b> M M	1156	6.2	190	<b>22</b> Tu Tu	0006 1118	1.3 6.2	40 190	<b>7</b> Th Th	1104	5.6	170	<b>22</b> F F	1033 2137	5.6 2.3	170 70
<b>8</b> Su	0156 1248	2.0 5.6	60 170	<b>23</b> M	0127 1206	1.3 5.9	40 180	<b>8</b> Tu Tu	0045 1205	1.3 5.9	40 180	<b>23</b> W W	0049 1124	1.3 5.9	40 180	<b>8</b> F F	0010 1042	2.0 5.2	60 160	<b>23</b> Sa Sa	1019 1958	5.2 2.3	160 70
<b>9</b> M	0232 1307	1.6 5.6	50 170	<b>24</b> Tu	0214 1216	1.3 5.9	40 180	<b>9</b> W W	0127 1205	1.6 5.6	50 170	<b>24</b> Th Th	0125 1126	1.6 5.6	50 170	<b>9</b> Sa Sa	0009 1022 2032	2.3 5.2 2.6	70 160 80	<b>24</b> Su Su	0959 1922	5.2 2.0	160 60
<b>10</b> Tu	0304 1321	1.6 5.6	50 170	<b>25</b> W	0254 1225	1.6 5.6	50 170	<b>10</b> Th Th	0202 1155	1.6 5.2	50 160	<b>25</b> F F	0148 1122	2.3 5.6	70 170	<b>10</b> Su Su	1008 1914	5.2 2.3	160 70	<b>25</b> M M	0936 1913	5.2 1.6	160 50
<b>11</b> W	0334 1325	1.6 5.2	50 160	<b>26</b> Th	0327 1230	1.6 5.2	50 160	<b>11</b> F F	0230 1138	2.0 5.2	60 160	<b>26</b> Sa Sa	0145 1111 2023	2.6 5.2 2.6	80 160 80	<b>11</b> M M	1001 1907	5.6 2.0	170 60	<b>26</b> Tu Tu	0918 1918	5.6 1.3	170 40
<b>12</b> Th	0401 1317	1.6 4.9	50 150	<b>27</b> F	0353 1229	2.0 5.2	60 160	<b>12</b> Sa Sa	0250 1121 1959 2159	2.3 4.9 3.0 3.0	70 150 90 90	<b>27</b> Su Su	1053 1949	5.2 2.3	160 70	<b>12</b> Tu Tu	0958 1920	5.6 1.3	170 40	<b>27</b> W W	0912 1932	5.9 1.0	180 30
<b>13</b> F	0425 1259	2.0 4.9	60 150	<b>28</b> Sa	0409 1219 2022 2230	2.3 4.9 3.3 3.3	70 150 100 100	<b>13</b> Su Su	0255 1108 1921	2.6 5.2 2.6	80 160 80	<b>28</b> M M	1031 1945	5.2 2.0	160 60	<b>13</b> W W	0959 1944	5.9 1.0	180 30	<b>28</b> Th Th	0918 1950	6.2 0.7	190 20
<b>14</b> Sa	0445 1240 1902 2202	2.3 4.6 3.6 3.9	70 140 110 120	<b>29</b> Su	0407 1200 2000	3.0 4.9 3.0	90 150 90	<b>14</b> M M	0110 0203 1100 1929	3.3 3.3 5.2 2.3	100 100 160 70	<b>29</b> Tu Tu	1013 1955	5.6 1.6	170 50	<b>14</b> Th Th	1003 2013	6.2 0.7	190 20	<b>29</b> F F	0933 2013	6.2 0.7	190 20
<b>15</b> Su	0458 1224 1913 2329	2.6 4.6 3.3 3.6	80 140 100 110	<b>30</b> M	0047 0316 1135 O	3.3 3.3 4.9 2.6	100 100 150 80	<b>15</b> Tu Tu	1055 1953 2005	5.2 1.6 2.6	160 50 80	<b>30</b> W W	1004 2013	5.9 1.3	180 40	<b>15</b> F F	1009 2045	6.2 0.7	190 20	<b>30</b> Sa Sa	0953 2037	6.6 0.7	200 20
												<b>31</b> Th	1008 2038	6.2 1.0	190 30								

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Surabaja Strait, Djamuang Reef, Java, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm																				
<b>1</b> Su	1014 2103	6.6 0.7	200 20	<b>16</b> M	1003 2113	6.2 1.0	190 30	<b>1</b> W	1036 2053	5.6 1.6	170 50	<b>16</b> Th	0947 2004	4.9 2.3	150 70	<b>1</b> Sa	0335 1733	4.3 3.0	130 90	<b>16</b> Su	0112 1529	4.6 2.6	140 80
<b>2</b> M	1032 2128	6.2 1.0	190 30	<b>17</b> Tu	1010 2135	5.9 1.3	180 40	<b>2</b> Th	1023 2053	4.9 2.0	150 60	<b>17</b> F	0914 1907	4.6 2.6	140 80	<b>2</b> Su	0320 1614	4.6 2.6	140 80	<b>17</b> M	0114 1528	4.9 2.0	150 60
<b>3</b> Tu	1046 2151	6.2 1.3	190 40	<b>18</b> W	1012 2144	5.6 1.6	170 50	<b>3</b> F	0924 2024	4.6 2.3	140 70	<b>18</b> Sa	0812 1804	4.3 2.6	130 80	<b>3</b> M	0312 1602	4.6 2.0	140 60	<b>18</b> Tu	0131 1542	5.2 1.6	160 50
<b>4</b> W	1047 2209	5.9 1.6	180 50	<b>19</b> Th	1007 2126	5.6 2.0	170 60	<b>4</b> Sa	0815 1906	4.6 2.6	140 80	<b>19</b> Su	0612 1728	4.3 2.3	130 70	<b>4</b> Tu	0310 1617	4.9 1.6	150 50	<b>19</b> W	0154 1603	5.6 1.6	170 50
<b>5</b> Th	1031 2215	5.6 2.0	170 60	<b>20</b> F	0953 2022	5.2 2.3	160 70	<b>5</b> Su	0740 1754	4.6 2.3	140 70	<b>20</b> M	0427 1717	4.6 2.0	140 60	<b>5</b> W	0316 1641	5.2 1.3	160 40	<b>20</b> Th	0221 1625	5.6 1.3	170 40
<b>6</b> F	1000 2148	5.2 2.3	160 70	<b>21</b> Sa	0931 1913	4.9 2.3	150 70	<b>6</b> M	0730 1733	4.9 2.0	150 60	<b>21</b> Tu	0426 1721	4.9 1.6	150 50	<b>6</b> Th	0332 1708	5.2 1.0	160 30	<b>21</b> F	0250 1649	5.2 1.3	160 40
<b>7</b> O	0929 2003	5.2 2.3	160 70	<b>22</b> Sa	0901 1838	4.9 2.0	150 60	<b>7</b> Tu	0735 1740	5.2 1.3	160 40	<b>22</b> W	0503 1734	5.2 1.3	160 40	<b>7</b> F	0358 1736	5.2 1.0	160 30	<b>22</b> Sa	0316 1711	5.2 1.3	160 40
<b>8</b> Su	0910 1847	5.2 2.3	160 70	<b>23</b> M	0829 1826	4.9 1.6	150 50	<b>8</b> W	0749 1758	5.6 1.0	170 30	<b>23</b> Th	0601 1751	5.6 1.0	170 30	<b>8</b> Sa	0444 1804	5.2 1.0	160 30	<b>23</b> Su	0325 1732	4.9 1.6	150 50
<b>9</b> M	0901 1830	5.2 1.6	160 50	<b>24</b> Tu	0807 1829	5.2 1.3	160 40	<b>9</b> Th	0809 1822	5.6 0.7	170 20	<b>24</b> F	0705 1811	5.6 1.0	170 30	<b>9</b> Su	0822 1829	4.9 1.3	150 40	<b>24</b> M	0254 0544 0846 1751	4.6 4.6 4.6 2.0	140 60
<b>10</b> Tu	0900 1838	5.6 1.3	170 40	<b>25</b> W	0804 1841	5.6 1.0	170 30	<b>10</b> F	0832 1848	5.9 0.7	180 20	<b>25</b> Sa	0803 1832	5.6 1.0	170 30	<b>10</b> M	0914 1851	4.9 1.6	150 50	<b>25</b> Tu	0213 0604 0959 O	4.3 4.3 4.3 2.3	130 130 130 70
<b>11</b> W	0906 1857	5.9 1.0	180 30	<b>26</b> Th	0818 1857	5.9 0.7	180 20	<b>11</b> Sa	0857 1916	5.9 0.7	180 20	<b>26</b> Su	0852 1853	5.6 1.0	170 30	<b>11</b> Tu	0951 1905	4.6 2.0	140 60	<b>26</b> W	0143 0643 1059 1808	4.3 3.9 3.9 2.6	130 120 120 80
<b>12</b> Th	0915 1922	5.9 0.7	180 20	<b>27</b> F	0841 1917	6.2 0.7	190 20	<b>12</b> Su	0920 1942	5.9 1.0	180 30	<b>27</b> M	0935 1912	5.2 1.3	160 40	<b>12</b> W	0434 0604 1017 1903	4.3 4.3 4.3 2.6	130 130 130 80	<b>27</b> Th	0122 0734 1156 1755	4.3 3.3 3.6 3.0	130 100 110 90
<b>13</b> F	0927 1949	6.2 0.3	190 10	<b>28</b> Sa	0909 1939	6.2 0.7	190 20	<b>13</b> M	0940 2005	5.6 1.3	170 40	<b>28</b> Tu	1013 1928	5.2 1.6	160 50	<b>13</b> Th	0325 0727 1021 1831	3.9 3.9 3.9 3.0	120 120 120 90	<b>28</b> F	0107 0837 1309 1655	4.6 3.0 3.3 3.0	140 90 100 100
<b>14</b> Sa	0940 2018	6.2 0.3	190 10	<b>29</b> Su	0938 2001	6.2 0.7	190 20	<b>14</b> Tu	0954 2022	5.2 1.6	160 50	<b>29</b> W	1042 1936	4.9 2.0	150 60	<b>14</b> F	0221 1721	4.3 3.0	130 90	<b>29</b> Sa	0057 1009	4.6 2.6	140 80
<b>15</b> Su	0952 2047	6.2 0.7	190 20	<b>30</b> M	1004 2022	5.9 1.0	180 30	<b>15</b> W	0958 2026	5.2 2.0	160 60	<b>30</b> Th	1055 1932	4.3 2.6	130 80	<b>15</b> Sa	0132 1604	4.3 3.0	130 90	<b>30</b> Su	0051 1210	4.9 2.3	150 70
				<b>31</b> Tu	1026 2040	5.9 1.3	180 40					<b>31</b> F	0405 1858	4.3 3.0	130 90								

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# **Surabaja Strait, Djamuang Reef, Java, 2018**

## Times and Heights of High and Low Waters

October						November						December											
Time		Height		Time		Height		Time		Height		Time		Height		Time		Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> <b>M</b>	0047 1325	5.2 2.0	160 60	<b>16</b> <b>Tu</b>	0005 1309	5.9 1.6	180 50	<b>1</b> <b>Th</b>	1334 2358	1.3 5.9	40 180	<b>16</b> <b>F</b>	1249 2353	1.3 5.9	40 180	<b>1</b> <b>Sa</b>	1248 2310	1.6 5.9	50 180	<b>16</b> <b>Su</b>	1128 2234	2.0 5.2	60 160
<b>2</b> <b>Tu</b>	0049 1414	5.2 1.6	160 50	<b>17</b> <b>W</b>	0024 1353	5.9 1.6	180 50	<b>2</b> <b>F</b>	1417	1.3	40	<b>17</b> <b>Sa</b>	1323 2344	1.6 5.6	50 170	<b>2</b> <b>Su</b>	1310 2305	2.0 5.6	60 170	<b>17</b> <b>M</b>	1112 2209	2.3 5.2	70 160
<b>3</b> <b>W</b>	0055 1456	5.6 1.3	170 40	<b>18</b> <b>Th</b>	0042 1430	5.9 1.6	180 50	<b>3</b> <b>Sa</b>	0005 1452	5.6 1.6	170 50	<b>18</b> <b>Su</b>	1349 2326	2.0 5.2	60 160	<b>3</b> <b>M</b>	1256 2254	2.6 5.2	80 160	<b>18</b> <b>Tu</b>	0844 2150	2.6 5.2	80 160
<b>4</b> <b>Th</b>	0105 1533	5.6 1.3	170 40	<b>19</b> <b>F</b>	0057 1502	5.6 1.6	170 50	<b>4</b> <b>Su</b>	0008 1520	5.6 2.0	170 60	<b>19</b> <b>M</b>	1404 2305	2.3 5.2	70 160	<b>4</b> <b>Tu</b>	0814 2238	2.6 5.2	80 160	<b>19</b> <b>W</b>	0715 2139	2.3 5.6	70 170
<b>5</b> <b>F</b>	0116 1607	5.6 1.3	170 40	<b>20</b> <b>Sa</b>	0103 1530	5.6 1.6	170 50	<b>5</b> <b>M</b>	0006 1537	5.2 2.3	160 70	<b>20</b> <b>Tu</b>	1356 2248	2.6 5.2	80 160	<b>5</b> <b>W</b>	0740 2217	2.3 5.2	70 160	<b>20</b> <b>Th</b>	0700 2137	1.6 5.6	50 170
<b>6</b> <b>Sa</b>	0127 1637	5.2 1.6	160 50	<b>21</b> <b>Su</b>	0056 1554	5.2 2.0	160 60	<b>6</b> <b>Tu</b>	0820 1054	3.0 3.3	90 100	<b>21</b> <b>W</b>	0726 2238	2.6 5.2	80 160	<b>6</b> <b>Th</b>	0737 2159	2.0 5.6	60 170	<b>21</b> <b>F</b>	0709 2140	1.3 5.9	40 180
<b>7</b> <b>Su</b>	0134 1704	5.2 1.6	160 50	<b>22</b> <b>M</b>	0038 1612	4.9 2.3	150 70	<b>7</b> <b>W</b>	0758 2318	2.6 4.9	80 150	<b>22</b> <b>Th</b>	0725 2233	2.0 5.6	60 170	<b>7</b> <b>F</b>	0748 2149	1.3 5.9	40 180	<b>22</b> <b>Sa</b>	0730 2147	1.0 6.2	30 190
<b>8</b> <b>M</b>	0136 1724	4.9 2.0	150 60	<b>23</b> <b>Tu</b>	0730 0941	3.6 3.6	110 110	<b>8</b> <b>Th</b>	0803 2256	2.3 5.2	70 160	<b>23</b> <b>F</b>	0744 2233	1.6 5.9	50 180	<b>8</b> <b>Sa</b>	0806 2151	1.0 6.2	30 190	<b>23</b> <b>Su</b>	0757 2156	0.7 6.2	20 190
<b>9</b> <b>Tu</b>	0128 0754	4.6 3.9	140 120	<b>24</b> <b>W</b>	0718 1132	3.0 3.3	90 100	<b>9</b> <b>F</b>	0821 1616	2.0 3.0	60 90	<b>24</b> <b>Sa</b>	0812 2235	1.3 5.9	40 180	<b>9</b> <b>Su</b>	0829 2202	1.0 6.6	30 200	<b>24</b> <b>M</b>	0827 2207	0.3 6.6	10 200
<b>10</b> <b>W</b>	0110 0755	4.6 3.6	140 110	<b>25</b> <b>Th</b>	0738 1346	2.6 3.3	80 100	<b>10</b> <b>Sa</b>	0848 1346	1.6 3.3	50 100	<b>25</b> <b>Su</b>	0846 2240	1.0 6.2	30 190	<b>10</b> <b>M</b>	0855 2218	0.7 6.6	20 200	<b>25</b> <b>Tu</b>	0900 2217	0.3 6.6	10 200
<b>11</b> <b>Th</b>	0041 0817	4.6 3.0	140 90	<b>26</b> <b>F</b>	0812 2333	2.3 5.2	70 160	<b>11</b> <b>Su</b>	0921 2250	1.3 6.2	40 190	<b>26</b> <b>M</b>	0925 2246	1.0 6.2	30 190	<b>11</b> <b>Tu</b>	0924 2237	0.7 6.6	20 200	<b>26</b> <b>W</b>	0933 2224	0.7 6.2	20 190
<b>12</b> <b>F</b>	0010 0854	4.6 2.6	140 80	<b>27</b> <b>Sa</b>	0855 2331	2.0 5.6	60 170	<b>12</b> <b>M</b>	0959 2305	1.3 6.2	40 190	<b>27</b> <b>Tu</b>	1007 2253	0.7 6.6	20 200	<b>12</b> <b>W</b>	0954 2254	0.7 6.6	20 200	<b>27</b> <b>Th</b>	1005 2229	0.7 6.2	20 190
<b>13</b> <b>Sa</b>	0947 2342	2.3 5.2	70 160	<b>28</b> <b>Su</b>	0946 2333	1.6 5.9	50 180	<b>13</b> <b>Tu</b>	1042 2322	1.3 6.2	40 190	<b>28</b> <b>W</b>	1050 2300	1.0 6.2	30 190	<b>13</b> <b>Th</b>	1024 2306	1.0 6.2	30 190	<b>28</b> <b>F</b>	1033 2230	1.3 5.9	40 180
<b>14</b> <b>Su</b>	1100 2349	2.3 5.6	70 170	<b>29</b> <b>M</b>	1045 2336	1.3 5.9	40 180	<b>14</b> <b>W</b>	1126 2338	1.3 6.2	40 190	<b>29</b> <b>Th</b>	1133 2306	1.0 6.2	30 190	<b>14</b> <b>F</b>	1052 2309	1.3 5.9	40 180	<b>29</b> <b>Sa</b>	1053 2227	1.6 5.6	50 170
<b>15</b> <b>M</b>	1213	2.0	60	<b>30</b> <b>Tu</b>	1146 2343	1.3 5.9	40 180	<b>15</b> <b>Th</b>	1210 2350	1.3 6.2	40 190	<b>30</b> <b>F</b>	1214 2309	1.3 5.9	40 180	<b>15</b> <b>Sa</b>	1116 2258	1.6 5.6	50 170	<b>30</b> <b>Su</b>	1047 2218	2.0 5.6	60 170
				<b>31</b> <b>W</b>	1243 2350	1.3 5.9	40 180												<b>31</b> <b>M</b>	0922 2203	2.3 5.2	70 160	

Time meridian 105° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Kutei River Entrance, Borneo, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0536 M 1119 1800	ft 6.6 2.3 9.5	cm 200 70 290	h m 0043 Tu 0618 1154 1831	ft 3.0 6.2 2.6 8.9	cm 90 190 80 270	h m 0111 Th 0656 1241 1912	ft 1.6 7.2 1.6 9.8	cm 50 220 50 300	h m 0116 F 0706 1251 1912	ft 2.0 7.2 2.3 9.2	cm 60 220 70 280
1 M 1119 1800	2.3 9.5	16 Tu 0618 1154 1831	6.2 2.6 8.9	1 Th 0656 1241 1912	7.2 1.6 9.8	16 F 0706 1251 1912	7.2 2.3 9.2	1 Th 0027 F 0617 1203 1828	2.3 6.9 2.3 9.2	16 0029 F 0625 1213 1827	2.3 7.2 2.6 8.9
2 Tu 0618 O 1838	2.0 10.2	17 W 0647 ● 1857	6.6 9.2	2 F 0730 Sa 1319 1945	7.5 1.6 50	17 Sa 0729 1317 1936	7.5 2.0 60	2 F 0055 O 1900	1.6 50 9.5	17 Sa 0048 ● 1852	2.0 60 8.9
3 W 0657 1240 1916	1.6 1.6 10.2	18 Th 0714 1254 1923	6.9 2.3 9.2	3 Sa 0212 0803 1355 2017	1.3 7.9 1.6 9.5	18 Su 0752 1344 2001	1.6 7.9 50	3 Sa 0121 0716 1314 1930	1.6 8.2 1.3 9.5	18 Su 0107 1305 1916	1.6 8.2 9.2
4 Th 0735 1318 1952	1.6 1.6 10.2	19 F 0740 1322 1949	6.9 2.3 9.2	4 Su 0240 0835 1430 2047	1.6 7.9 1.6 9.2	19 M 0817 1413 2027	1.6 7.9 50	4 Su 0145 0745 1346 1958	1.3 8.5 1.3 9.2	19 M 0128 0730 1333 1941	1.6 8.5 1.6 9.2
5 F 0812 1356 2028	1.6 2.0 9.8	20 Sa 0807 1350 2015	7.2 2.3 9.2	5 M 0307 0908 1504 2115	1.6 7.9 2.3 8.5	20 Tu 0844 1443 2053	1.6 8.2 60	5 M 0209 0813 1417 2023	1.3 8.9 1.6 8.9	20 Tu 0149 0754 1401 2006	1.6 8.9 1.6 8.9
6 Sa 0850 1434 2103	2.0 2.3 9.2	21 Su 0835 1419 2043	7.2 2.3 8.9	6 Tu 0333 0941 1537 2140	2.0 7.5 3.0 7.5	21 W 0307 0914 1515 2120	2.0 7.9 2.3 7.9	6 Tu 0232 0840 1446 2047	1.6 8.5 2.0 8.2	21 W 0212 0821 1432 2032	1.6 8.9 1.6 8.2
7 Su 0929 1514 2138	2.3 2.6 8.5	22 M 0905 1451 2111	7.2 2.6 8.5	7 W 0359 1017 1612 ● 2203	2.6 7.2 3.6 6.9	22 Th 0333 0948 1553 2148	2.3 7.9 3.0 7.2	7 W 0254 0908 1514 2108	2.0 8.5 2.6 7.5	22 Th 0235 0851 1505 2059	1.6 8.9 2.3 7.5
8 M 1013 1556 2213	2.6 3.6 7.5	23 Tu 0938 1526 2142	6.9 3.0 7.9	8 Th 0426 1100 1654 2221	3.0 6.9 4.6 6.2	23 F 0401 1030 1640 ● 2217	2.6 7.5 3.9 6.2	8 Th 0315 0936 1543 2126	2.3 7.9 3.3 6.9	23 F 0259 0923 1542 2125	2.0 8.5 3.0 6.9
9 Tu 1106 1648 ● 2250	3.0 4.3 6.9	24 W 0411 1019 1609 2217	2.6 6.9 3.6 7.2	9 F 0455 1208 1824 2214	3.6 6.2 5.2 5.2	24 Sa 0434 1134 1810 2253	3.3 6.9 4.6 5.2	9 F 0335 1005 1612 ● 2140	2.6 7.5 3.9 6.2	24 Sa 0325 1002 1628 ● 2153	2.6 7.9 3.6 5.9
10 W 1225 1815 2340	3.6 4.9 5.9	25 Th 0448 1115 1709 ● 2259	3.0 6.6 4.3 6.6	10 Sa 0539 1506 2244	3.9 6.2 4.6	25 Su 0526 1355 2244	3.9 6.6 4.6	10 Sa 0352 1041 1651 2135	3.3 6.9 4.9 5.6	25 Su 0352 1056 1755 2221	3.3 7.2 4.6 5.2
11 Th 1428 2127	3.9 6.6 4.9	26 F 0538 1243 1910	3.3 6.6 4.6	11 Su 0033 0347 0849 1646	4.6 4.6 4.3 6.9	26 M 0316 0823 1611 2329	4.9 4.3 7.2 3.6	11 Su 0400 1155 1155 6.2	3.9 120 6.2	26 M 0423 1309 2241	3.9 6.6 4.3
12 F 0821 1603 2306	5.2 6.9 4.3	27 Sa 0017 0703 1452 2209	5.6 3.6 6.9 4.3	12 M 0004 0522 1033 1726	3.9 5.2 3.9 7.5	27 Tu 0504 1022 1711 2359	5.6 3.6 8.2 3.0	12 M 0214 1626 2357	4.6 6.2 3.9	27 Tu 0427 0827 1558 2310	4.9 4.6 7.2 3.6
13 Sa 0944 1655 2347	5.2 7.5 3.9	28 Su 0308 0858 1619 2320	5.2 3.6 7.5 3.6	13 Tu 0018 0554 1121 1756	3.3 5.9 3.6 8.2	28 W 0544 1119 1753	6.2 3.0 90 8.9	13 Tu 0544 1035 1710 2357	5.2 4.6 7.2 3.3	28 W 0506 1028 1658 2336	5.9 3.9 7.9 3.0
14 Su 1039 1732	5.6 8.2	29 M 0446 1019 1714	5.6 3.3 8.5	14 W 0036 0619 1155 1823	3.0 6.2 3.0 8.5	14 W 0550 1117 1738	5.9 3.9 7.9	14 W 0550 1117 1738	5.9 120 240	29 Th 0534 1119 1738	6.9 8.5 260
15 M 0016 0545 1120 1803	3.3 5.9 3.0 8.5	30 Tu 0003 0539 1115 1757	3.0 6.2 2.6 9.2	15 Th 0056 0643 1224 1848	2.3 6.9 2.6 8.9	15 Th 0011 0606 1147 1803	3.0 6.6 3.3 8.2	15 Th 0011 0606 1147 1803	2.3 200 100 250	30 F 0001 0601 1158 1811	2.3 7.5 2.3 8.9
		31 W 0039 0620 1201 ● 1836	2.3 6.6 2.0 9.8		70 200 60 300					31 Sa 0026 0629 1232 ● 1841	2.0 8.2 1.6 8.9

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kutei River Entrance, Borneo, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0050	1.6	50	<b>16</b> M	0031	1.6	50	<b>1</b> Tu	0037	1.6	50
	0655	8.9	270		0640	8.9	270		0057	1.6	50
	1303	1.6	50		1249	1.6	50		0731	8.9	270
	1908	8.9	270	●	1851	8.5	260		1403	2.0	60
<b>2</b> M	0112	1.6	50	<b>17</b> Tu	0053	1.6	50	<b>2</b> W	0100	1.6	50
	0721	9.2	280		0705	9.2	280		0048	1.3	40
	1332	1.3	40		1319	1.3	40		0714	9.8	300
	1933	8.5	260		1918	8.5	260		1343	1.3	40
<b>3</b> Tu	0134	1.6	50	<b>18</b> W	0117	1.3	40	<b>3</b> Th	0122	1.6	50
	0747	9.2	280		0732	9.5	290		0748	9.8	300
	1400	1.6	50		1350	1.3	40		1420	1.6	50
	1956	8.2	250		1945	8.2	250		2003	6.9	210
<b>4</b> W	0155	1.6	50	<b>19</b> Th	0141	1.6	50	<b>4</b> F	0144	2.0	60
	0812	9.2	280		0801	9.5	290		0813	9.2	280
	1427	2.0	60		1423	1.6	50		1439	2.3	70
	2018	7.9	240		2014	7.5	230		2018	6.9	210
<b>5</b> Th	0216	2.0	60	<b>20</b> F	0207	1.6	50	<b>5</b> Sa	0207	2.3	70
	0837	8.9	270		0833	9.5	290		0839	8.5	260
	1454	2.6	80		1459	2.3	70		1508	3.0	90
	2039	7.2	220		2043	7.2	220		2043	6.2	190
<b>6</b> F	0236	2.3	70	<b>21</b> Sa	0234	2.3	70	<b>6</b> Su	0229	2.6	80
	0903	8.5	260		0908	8.9	270		0906	8.2	250
	1520	3.0	90		1540	3.0	90		1542	3.3	100
	2059	6.9	210		2115	6.2	190		2111	5.9	180
<b>7</b> Sa	0255	2.6	80	<b>22</b> Su	0302	2.6	80	<b>7</b> M	0251	3.3	100
	0929	7.9	240		0948	8.2	250		0937	7.5	230
	1550	3.6	110		1632	3.6	110		1627	3.9	120
	2117	6.2	190		2152	5.6	170		2147	5.2	160
<b>8</b> Su	0312	3.3	100	<b>8</b> Tu	0332	3.3	100	<b>23</b> W	0340	3.3	100
	0957	7.2	220		1043	7.5	230		1040	7.2	220
	1628	4.3	130		1810	4.3	130		1800	3.3	100
	2128	5.6	170	●	2306	4.9	150	●	2351	4.9	150
<b>9</b> M	0319	3.9	120	<b>24</b> Tu	0414	4.3	130	<b>9</b> W	0321	4.6	140
	1037	6.6	200		1240	6.6	200		1154	6.2	190
	2124	3.9	120		2124	3.9	120		2058	3.9	120
	2223	3.3	100		2223	3.3	100		2058	3.9	120
<b>10</b> Tu	0158	4.6	140	<b>25</b> W	0355	5.2	160	<b>10</b> Th	0416	5.2	160
	1443	5.9	180		0832	4.6	140		0842	4.9	150
	2305	4.3	130		1520	6.9	210		1450	6.2	190
	2223	3.3	100		2223	3.3	100		2156	3.6	110
<b>11</b> W	0529	5.6	170	<b>26</b> Th	0439	6.2	190	<b>11</b> F	0431	6.2	190
	1012	4.9	150		1018	3.9	120		1009	4.3	130
	1623	6.6	200		1629	7.2	220		1601	6.6	200
	2311	3.6	110		2256	3.0	90		2229	3.0	90
<b>12</b> Th	0523	6.2	190	<b>27</b> F	0510	7.2	220	<b>12</b> Tu	0454	6.9	210
	1055	3.9	120		1108	3.0	90		1051	7.5	230
	1700	7.2	220		1712	7.5	230		1132	2.6	80
	2328	3.0	90		2324	2.3	70		1645	6.9	210
<b>13</b> F	0537	6.9	210	<b>13</b> Sa	0518	7.5	230	<b>27</b> W	0511	7.5	230
	1125	3.3	100		1146	2.3	70		1132	2.6	80
	1730	7.9	240		1747	7.9	240		1721	7.2	220
	2348	2.3	70		2350	2.0	60		2324	2.0	60
<b>14</b> Sa	0556	7.5	230	<b>14</b> M	0606	8.5	260	<b>28</b> M	0542	8.2	250
	1152	2.6	80		1219	2.0	60		1207	2.3	70
	1757	8.2	250		1816	7.9	240		1126	2.6	80
	1824	8.5	260	●	1842	7.9	240	●	1324	1.6	50
<b>15</b> Su	0008	2.0	60	<b>30</b> M	0014	1.6	50	<b>15</b> Tu	0613	8.9	270
	0616	8.2	250		0632	9.2	280		1233	1.6	50
	1220	2.0	60		1250	1.6	50		1754	7.5	230
	1824	8.5	260	●	1842	7.9	240	●	2351	1.6	50
<b>16</b> Sa	0008	2.0	60	<b>31</b> Th	0032	1.6	50	<b>16</b> F	0005	1.6	50
	0616	8.2	250		0705	8.9	270		0638	8.9	270
	1220	2.0	60		1335	1.6	50		1307	1.6	50
	1824	8.5	260	●	1842	7.9	240	●	1846	6.2	190
<b>17</b> Su	0008	2.0	60	<b>31</b> Th	0032	1.6	50	<b>17</b> Su	0046	1.3	40
	0616	8.2	250		0705	8.9	270		0722	7.9	240
	1220	2.0	60		1335	1.6	50		1341	1.0	30
	1824	8.5	260	●	1842	7.9	240	●	1922	6.2	190
<b>18</b> M	0221	1.3	40	<b>18</b> M	0221	1.3	40	<b>18</b> M	0353	2.6	80
	0900	8.5	260		0923	2.0	60		1029	6.9	210
	1543	1.6	50		1559	2.3	70		1723	2.3	70
	2219	5.2	160		2040	5.6	170		2329	4.9	150
<b>19</b> Tu	0303	2.0	60	<b>19</b> Tu	0303	2.0	60	<b>19</b> Tu	0422	7.5	230
	1042	7.5	230		1042	7.5	230		1629	2.0	60
	2219	5.2	160		2040	5.6	170		2219	5.2	160
	2220	5.2	160		2220	5.2	160		2219	5.2	160
<b>20</b> W	0353	2.6	80	<b>20</b> W	0353	2.6	80	<b>20</b> W	0353	2.6	80
	1029	6.9	210		1029	6.9	210		1029	6.9	210
	1723	2.3	70		1723	2.3	70		1723	2.3	70
	2329	4.9	150		2329	4.9	150		2329	4.9	150
<b>21</b> Th	0500	3.3	100	<b>21</b> Th	0500	3.3	100	<b>21</b> Th	0500	3.3	100
	1126	2.6	80		1126	2.6	80		1126	2.6	80
	1649	4.9	150		1649	4.9	150		1649	4.9	150
	2235	2.0	60		2235	2.0	60		2235	2.0	60
<b>22</b> F	0523	7.2	220	<b>22</b> F	0523	7.2	220	<b>22</b> F	0523	7.2	220
	1202	2.0	60		1202	2.0	60		1202	2.0	60
	1731	4.9	150		1731	4.9	150		1731	4.9	150
	2312	1.6	50		2312	1.6	50		2312	1.6	50
<b>23</b> Sa	0250	5.6	170	<b>23</b> Sa	0250	5.6	170	<b>23</b> Sa	0250	5.6	170
	0908	3.6	110		0908	3.6	110		0908	3.6	110
	1433	4.9	150		1433	4.9	150		1433	4.9	150
	2056	2.3	70		2056	2.3	70		2056	2.3	70
<b>24</b> Su	0358	6.2	190	<b>24</b> Su	0358	6.2	190	<b>24</b> Su	0358	6.2	190
	1032	3.0	90		1032	3.0	90		1032	3.0	90
	1554	4.9	150		1554	4.9	150		1554	4.9	150
	2151	2.3	70		2151	2.3	70		2151	2.3	70
<b>25</b> M	0445	6.9	210	<b>25</b> M	0445	6.9	210	<b>25</b> M	0445	6.9	210
	1123	2.6	80		1123	2.6	80		1123	2.6	80
	1649	4.9	150		1649	4.9	150		1649	4.9	150
	2235	2.0	60		2235	2.0	60		2235	2.0	60
<b>26</b> Tu	0523	7.2	220	<b>26</b> Tu	0523	7.2	220	<b>26</b> Tu	0523	7.2	220
	1202	2.0	60		1202	2.0	60		1202	2.0	60

# Kutei River Entrance, Borneo, 2018

Times and Heights of High and Low Waters

July				August				September							
	Time	Height		Time	Height		Time	Height		Time	Height				
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm				
<b>1</b> <small>Su</small>	0116	1.3	40	<b>16</b> <small>M</small>	0142	0.3	10	<b>1</b> <small>W</small>	0211	0.7	20	<b>16</b> <small>Su</small>	0258	0.7	20
	0750	7.9	240		0815	8.2	250		0832	7.2	220		0901	6.2	190
	1427	1.3	40		1449	0.3	10		1500	0.3	10		1512	0.7	20
	2007	5.2	160		2036	5.6	170		2054	5.6	170		2126	6.2	190
<b>2</b> <small>M</small>	0145	1.3	40	<b>17</b> <small>Tu</small>	0222	0.7	20	<b>2</b> <small>Th</small>	0241	1.0	30	<b>2</b> <small>Su</small>	0332	1.3	40
	0818	7.9	240		0851	7.9	240		0859	6.9	210		0928	5.6	170
	1455	1.3	40		1524	0.7	20		1526	0.7	20		1537	1.0	30
	2039	5.2	160		2116	5.6	170		2125	5.6	170		2203	5.9	180
<b>3</b> <small>Tu</small>	0215	1.6	50	<b>18</b> <small>W</small>	0303	1.0	30	<b>3</b> <small>F</small>	0314	1.3	40	<b>18</b> <small>Sa</small>	0403	1.6	50
	0847	7.5	230		0927	7.2	220		0928	6.2	190		0955	5.2	160
	1526	1.3	40		1559	1.0	30		1554	1.0	30		1611	1.0	30
	2113	5.2	160		2158	5.6	170		2201	5.2	160		2242	5.2	160
<b>4</b> <small>W</small>	0248	2.0	60	<b>19</b> <small>Th</small>	0346	1.6	50	<b>4</b> <small>Sa</small>	0353	1.6	50	<b>19</b> <small>Su</small>	0446	2.3	70
	0918	6.9	210		1003	6.2	190		1000	5.6	170		1017	4.6	140
	1600	1.6	50		1635	1.3	40		1627	1.0	30		1639	1.6	50
	2152	4.9	150		2246	5.2	160		2247	5.2	160		2340	4.9	150
<b>5</b> <small>Th</small>	0325	2.3	70	<b>20</b> <small>F</small>	0436	2.3	70	<b>5</b> <small>Su</small>	0442	2.3	70	<b>20</b> <small>M</small>	0559	3.3	100
	0953	6.6	200		1040	5.6	170		1036	4.9	150		1027	3.6	110
	1638	1.6	50		1715	1.6	50		1707	1.6	50		1714	2.3	70
	2241	4.9	150		2349	4.9	150		2354	4.9	150				
<b>6</b> <small>F</small>	0412	2.6	80	<b>21</b> <small>Sa</small>	0544	3.0	90	<b>6</b> <small>M</small>	0606	3.0	90	<b>21</b> <small>Tu</small>	0153	4.6	140
	1034	5.9	180		1124	4.6	140		1129	3.9	120		1936	2.6	80
	1725	2.0	60		1806	2.0	60		1809	2.0	60		0327	5.2	160
	●	2348	4.9	150								<b>21</b> <small>Th</small>	1104	2.3	110
<b>7</b> <small>Sa</small>	0522	3.0	90	<b>22</b> <small>Su</small>	0120	4.9	150	<b>7</b> <small>Tu</small>	0146	4.9	150	<b>22</b> <small>F</small>	0442	6.2	190
	1129	5.2	160		0752	3.3	100		0903	3.0	90		1136	1.3	40
	1827	2.3	70		1237	3.9	120		1344	3.3	100		1722	4.6	140
					1922	2.3	70		1957	2.0	60		2253	1.6	50
<b>8</b> <small>Su</small>	0122	4.9	150	<b>23</b> <small>M</small>	0312	5.2	160	<b>8</b> <small>W</small>	0339	5.6	170	<b>23</b> <small>Sa</small>	0510	5.6	170
	0721	3.3	100		1029	3.0	90		1053	2.3	70		1204	1.6	50
	1258	4.6	140		1504	3.6	110		1609	3.6	110		1743	3.9	120
	1944	2.3	70		2058	2.3	70		2141	1.6	50		2306	2.0	60
<b>9</b> <small>M</small>	0257	5.6	170	<b>24</b> <small>Tu</small>	0426	5.6	170	<b>9</b> <small>Th</small>	0446	6.2	190	<b>9</b> <small>Su</small>	0606	7.5	230
	0930	3.0	90		1131	2.3	130		1141	1.3	40		1232	0.3	110
	1449	4.3	130		1640	3.6	110		1715	3.9	120		1826	5.9	180
	2100	2.0	60		2210	2.0	60		2247	1.3	40				
<b>10</b> <small>Tu</small>	0404	6.2	190	<b>25</b> <small>W</small>	0514	6.2	190	<b>10</b> <small>F</small>	0535	7.2	220	<b>25</b> <small>Sa</small>	0611	6.6	200
	1046	2.3	70		1206	2.0	60		1219	0.7	20		1242	0.7	20
	1612	4.6	140		1731	3.9	120		1759	4.6	140		1832	4.9	150
	2202	1.6	50		2301	1.6	50		2338	0.7	20		1856	6.6	200
<b>11</b> <small>W</small>	0455	6.9	210	<b>26</b> <small>Th</small>	0550	6.6	200	<b>11</b> <small>Sa</small>	0616	7.9	240	<b>26</b> <small>W</small>	0019	0.0	0
	1138	1.6	50		1234	1.3	40		1252	0.3	10		0639	7.9	240
	1711	4.6	140		1807	4.3	130		1837	5.2	160		1259	0.0	0
	2253	1.3	40		2340	1.3	40		●				1852	6.9	210
<b>12</b> <small>Th</small>	0539	7.9	240	<b>27</b> <small>F</small>	0621	6.9	210	<b>12</b> <small>Su</small>	0021	0.0	0	<b>27</b> <small>W</small>	0129	-0.3	-10
	1221	1.0	30		1259	1.0	30		0653	8.2	250		0740	7.5	230
	1758	4.9	150		1838	4.6	140		1324	0.0	0		1349	-0.3	-10
	2338	0.7	20						1912	5.6	170		1954	7.2	220
<b>13</b> <small>F</small>	0620	8.2	250	<b>28</b> <small>Sa</small>	0014	1.0	30	<b>13</b> <small>M</small>	0101	-0.3	-10	<b>28</b> <small>F</small>	0040	0.7	20
	1300	0.7	20		0648	7.2	220		0728	8.2	250		0659	7.2	220
	1840	5.2	160		1324	0.7	20		1354	-0.3	-10		1323	0.3	10
	●				1905	4.9	150		1945	5.9	180		1939	6.2	190
<b>14</b> <small>Sa</small>	0020	0.3	10	<b>29</b> <small>Su</small>	0045	0.7	20	<b>14</b> <small>Tu</small>	0139	-0.3	-10	<b>29</b> <small>F</small>	0232	0.3	10
	0659	8.5	260		0715	7.5	230		0801	7.9	240		0832	6.6	200
	1338	0.3	10		1347	0.7	20		1423	-0.3	-10		1436	0.3	10
	1919	5.6	170		1932	5.2	160		2019	6.2	190		2051	7.2	220
<b>15</b> <small>Su</small>	0102	0.3	10	<b>30</b> <small>M</small>	0114	0.7	20	<b>15</b> <small>W</small>	0215	-0.3	-10	<b>15</b> <small>Th</small>	0159	0.3	10
	0737	8.5	260		0740	7.5	230		0833	7.5	230		0811	7.2	220
	1414	0.3	10		1411	0.3	10		1451	0.0	0		1425	0.0	0
	1958	5.6	170		1958	5.2	160		2052	6.2	190		2027	6.2	190
				<b>31</b> <small>Tu</small>	0142	0.7	20					<b>31</b> <small>F</small>	0227	0.3	10
					0806	7.2	220						0836	6.9	210
					1435	0.3	10						1448	0.3	10
					2025	5.6	170						2055	6.2	190

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Kutei River Entrance, Borneo, 2018

Times and Heights of High and Low Waters

October					November					December				
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
<b>1</b> M	0318	1.6 50	<b>16</b> Tu	0339	2.6 80	<b>1</b> Th	0520	3.6 110	<b>16</b> F	0527	3.9 120	<b>1</b> Sa	0653	3.6 110
	0902	5.6 170		0902	5.2 160	1019	4.6 140	1049	4.6 140	1325	5.2 160	1234	5.6 170	
	1458	1.3 40		1452	2.3 70	1536	3.6 110	1452	4.3 130	1828	4.6 140	1715	4.9 150	
	2134	6.9 210		2141	6.6 200	2334	6.2 190	2305	6.2 190	2114	4.3 130	2348	6.2 190	
<b>2</b> Tu	0401	2.3 70	<b>17</b> W	0417	3.6 110	<b>2</b> F	0829	3.6 110	<b>17</b> Sa	0832	3.9 120	<b>2</b> Su	0114	6.6 200
	0928	4.9 150		0913	4.6 140	1522	4.6 140	1637	5.2 160	0834	3.6 110	1447	5.9 180	
	1523	2.0 60		1457	3.0 90	1855	4.3 130	2019	4.9 150	1522	6.2 190	2023	4.9 150	
	2221	6.2 190		2216	5.9 180									
<b>3</b> W	0510	3.3 100	<b>18</b> Th	1329	3.6 110	<b>3</b> Sa	0229	6.2 190	<b>18</b> Su	0221	5.9 180	<b>3</b> M	0306	6.2 190
	0956	3.9 120				0953	3.0 90	0941	3.6 110	0935	3.3 100	1614	7.2 220	
	1549	2.6 80				1617	5.6 170	1628	5.9 180	2228	3.6 110	1550	6.6 200	
	2354	5.6 170				2147	3.6 110	2203	4.3 130			2201	4.3 130	
<b>4</b> Th	1009	3.3 100	<b>19</b> F	0203	5.2 160	<b>4</b> Su	0358	6.6 200	<b>19</b> M	0345	6.2 190	<b>4</b> Tu	0413	6.6 200
	1630	3.6 110		1049	3.3 100	1031	2.6 80	1015	3.0 90	0943	3.3 100	1018	3.0 90	
	1800	3.6 110		1728	4.9 150	1648	6.6 200	1646	6.9 210	1653	7.9 240	1630	7.5 230	
				2208	4.3 130	2244	3.0 90	2244	3.6 110	2315	3.0 90	2253	3.6 110	
<b>5</b> F	0312	5.9 180	<b>20</b> Sa	0408	5.6 170	<b>5</b> M	0447	6.9 210	<b>20</b> Tu	0430	6.6 200	<b>5</b> W	0459	6.6 200
	1044	2.6 80		1055	2.6 80	1101	2.0 60	1043	2.6 80	1052	2.6 80	1726	8.5 260	
	1645	4.6 140		1714	5.6 170	1717	7.5 230	1709	7.5 230	2353	2.6 80	2334	3.0 90	
	2156	3.0 90		2247	3.3 100	2325	2.3 70	2316	3.0 90					
<b>6</b> Sa	0428	6.6 200	<b>21</b> Su	0446	6.2 190	<b>6</b> Tu	0525	7.2 220	<b>21</b> W	0506	6.9 210	<b>6</b> Th	0535	6.9 210
	1111	2.0 60		1112	2.3 70	1128	1.6 50	1109	2.3 70	1106	2.3 70	1123	2.3 70	
	1712	5.6 170		1726	6.2 190	1746	8.2 250	1733	8.2 250	1757	9.2 280	1102	2.6 80	
	2254	2.0 60		2315	2.6 80			2348	2.3 70			1740	9.2 280	
<b>7</b> Su	0513	7.2 220	<b>22</b> M	0515	6.9 210	<b>7</b> W	0000	1.6 50	<b>22</b> Th	0538	7.2 220	<b>7</b> F	0027	2.3 70
	1137	1.3 40		1131	1.6 50	0556	7.5 230	1135	2.0 60	0606	6.9 210	1137	2.3 70	
	1740	6.6 200		1743	6.9 210	1154	1.3 40	1759	8.9 270	1152	2.0 60	1814	9.5 290	
	2335	1.3 40		2341	2.0 60	1813	8.9 270			1826	9.5 290			
<b>8</b> M	0548	7.5 230	<b>23</b> Tu	0542	7.2 220	<b>8</b> Th	0033	1.3 40	<b>23</b> F	0019	2.0 60	<b>8</b> Sa	0058	2.3 70
	1202	1.0 30		1151	1.3 40	0625	7.5 230	0608	7.2 220	0635	6.9 210	1219	2.0 60	
	1808	7.2 220		1803	7.5 230	1218	1.3 40	1201	1.6 50	1854	9.5 290	1849	10.2 310	
						● 1841	9.2 280	1827	9.5 290					
<b>9</b> Tu	0011	0.7 20	<b>24</b> W	0007	1.6 50	<b>9</b> F	0103	1.3 40	<b>24</b> Sa	0052	1.6 50	<b>9</b> Su	0126	2.3 70
	0619	7.9 240		0607	7.5 230	0651	7.2 220	0639	7.2 220	0703	6.9 210	1246	2.0 60	
	1227	0.7 20		1212	1.0 30	1242	1.3 40	1228	1.3 40	1921	9.5 290	1925	10.2 310	
	● 1835	7.9 240		1824	8.2 250	1907	9.5 290	1857	9.8 300					
<b>10</b> W	0044	0.3 10	<b>25</b> Th	0034	1.0 30	<b>10</b> Sa	0132	1.3 40	<b>25</b> Su	0126	1.6 50	<b>10</b> M	0154	2.3 70
	0648	7.9 240		0633	7.5 230	0716	7.2 220	0710	7.2 220	0730	6.6 200	1312	2.0 60	
	1251	0.3 10		1234	1.0 30	1305	1.3 40	1257	1.3 40	1948	9.2 280	1924	1.6 50	
	1902	8.5 260		1848	8.5 260	1934	9.2 280	1928	9.8 300			2002	10.2 310	
<b>11</b> Th	0115	0.3 10	<b>26</b> F	0102	1.0 30	<b>11</b> Su	0200	1.6 50	<b>26</b> M	0201	1.6 50	<b>11</b> Tu	0222	2.3 70
	0715	7.5 230		0658	7.5 230	0740	6.9 210	0742	6.9 210	0758	6.6 200	1339	2.3 70	
	1314	0.3 10		1256	1.0 30	1328	1.6 50	1326	1.6 50	2015	9.2 280	2039	9.8 300	
	1929	8.5 260		1913	8.9 270	2000	9.2 280	2002	9.8 300					
<b>12</b> F	0145	0.7 20	<b>27</b> Sa	0131	1.0 30	<b>12</b> M	0227	2.0 60	<b>27</b> Tu	0239	2.0 60	<b>12</b> W	0252	2.6 80
	0740	7.2 220		0725	7.2 220	0804	6.6 200	0816	6.6 200	0829	6.2 190	1442	2.3 70	
	1336	0.7 20		1319	1.0 30	1350	2.0 60	1358	2.0 60	1406	2.6 80	2119	9.2 280	
	1955	8.5 260		1940	9.2 280	2026	8.5 260	2039	9.5 290	2043	8.5 260			
<b>13</b> Sa	0213	1.0 30	<b>28</b> Su	0203	1.0 30	<b>13</b> Tu	0257	2.6 80	<b>28</b> W	0321	2.3 70	<b>13</b> Th	0324	3.0 90
	0803	6.9 210		0752	6.9 210	0829	6.2 190	0854	6.2 190	0902	6.2 190	1435	3.3 100	
	1357	0.7 20		1343	1.0 30	1412	2.3 70	1432	2.6 80	2114	8.2 250	2200	8.2 250	
	2021	8.2 250		2010	8.9 270	2052	8.2 250	2119	8.9 270					
<b>14</b> Su	0241	1.3 40	<b>29</b> M	0237	1.6 50	<b>14</b> W	0329	3.0 90	<b>29</b> Th	0410	3.0 90	<b>14</b> F	0401	3.3 100
	0824	6.2 190		0820	6.6 200	0856	5.6 170	0941	5.6 170	0944	5.9 180	1507	3.6 110	
	1418	1.3 40		1408	1.3 40	1434	3.0 90	1512	3.3 100	1507	3.6 110	2148	7.5 230	
	2047	7.9 240		2043	8.5 260	2121	7.5 230	2208	7.9 240					
<b>15</b> M	0309	2.0 60	<b>30</b> Tu	0316	2.0 60	<b>15</b> Th	0411	3.6 110	<b>30</b> F	0515	3.6 110	<b>15</b> Sa	0449	3.6 110
	0844	5.9 180		0850	5.9 180	0931	5.2 160	1452	3.6 110	1054	5.2 160	1043	5.6 170	
	1437	1.6 50		1435	2.0 60	2120	7.9 240	2157	6.9 210	1608	3.9 120	1549	4.3 130	
	2113	7.2 220								● 2316	6.9 210	2232	6.9 210	
			<b>31</b> W	0403	3.0 90									
				0924	5.2 160									
				1503	2.6 80									
				2208	7.2 220									

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Barito River (Outer Bar), Borneo, 2018

Times and Heights of High and Low Waters

January					February					March									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height						
h m 0120 M 0946 1818	ft 7.2 1.0 8.5	cm 220 30 260	h m <b>16</b> Tu 1908	ft 1.6 8.5	cm 50 260	h m <b>1</b> Th 1917	ft 1.0 9.5	cm 30 290	h m <b>16</b> F 1915	ft 2.0 8.2	cm 60 250	h m <b>1</b> Th 1746	ft 6.2 8.9	cm 190 270	h m <b>16</b> F 1726	ft 5.9 7.9	cm 180 240		
●			●			●			●			●			●				
<b>2</b> Tu O	1028 1907	0.7 9.2	20 280	<b>17</b> W	1033 1943	1.6 8.9	50 270	<b>2</b> F	1140 2000	1.3 9.5	40 290	<b>17</b> Sa	1111 1947	2.3 8.2	70 250	<b>2</b> F	0020 0310	5.9 6.2	180 190
<b>3</b> W	1112 1954	0.7 9.8	20 300	<b>18</b> Th	1104 2017	1.6 8.9	50 270	<b>3</b> Sa	1229 2041	2.0 9.2	60 280	<b>18</b> Su	1150 2018	2.6 7.9	80 240	<b>3</b> Sa	0106 0426	5.6 5.9	170 180
<b>4</b> Th	1159 2039	0.7 9.8	20 300	<b>19</b> F	1137 2049	2.0 8.9	60 270	<b>4</b> Su	0422 0633	5.2 5.2	160 160	<b>19</b> M	1232 2046	3.3 7.9	100 240	<b>4</b> Su	0151 0551	4.9 5.9	160 180
<b>5</b> F	1247 2122	1.3 9.8	40 300	<b>20</b> Sa	1212 2120	2.3 8.9	70 270	<b>5</b> M	0451 0839	4.6 5.2	140 160	<b>20</b> Tu	0430 0659	5.2 5.2	160 160	<b>5</b> M	0236 0728	4.6 5.9	140 180
<b>6</b> Sa	1337 2203	2.0 9.8	60 300	<b>21</b> Su	1249 2148	2.6 8.5	80 260	<b>6</b> Tu	0524 1037	3.9 5.2	120 160	<b>21</b> W	0438 0930	4.6 5.2	140 160	<b>6</b> Tu	0320 0910	4.3 5.9	130 190
<b>7</b> Su	0632 0756 1430 2241	4.6 4.6 2.6 9.5	140 140 80 290	<b>22</b> M	1329 2213	3.0 8.5	90 260	<b>7</b> W	0557 1220	3.6 5.9	110 180	<b>22</b> Th	0502 1131	3.9 5.9	120 180	<b>7</b> W	0403 1047	3.9 6.2	120 190
<b>8</b> M	0634 1021 1525 2315	4.3 4.6 3.6 8.9	130 140 110 270	<b>23</b> Tu	1414 2236	3.6 8.2	110 250	<b>8</b> Th	0629 1341	3.3 6.6	100 200	<b>23</b> F	0534 1257	3.3 6.6	100 200	<b>8</b> Th	0444 1207	3.3 6.9	100 210
<b>9</b> Tu	0656 1214 1626 O	3.6 5.2 4.3 8.5	110 160 130 260	<b>24</b> W	0638 1100	4.3 4.9	130 150	<b>9</b> F	0701 1445	2.6 6.9	80 210	<b>24</b> Sa	0610 1359	2.6 7.2	80 220	<b>9</b> F	0523 1309	3.0 7.2	90 220
<b>10</b> W	0722 1349 1732	3.3 5.9 5.2	100 180 160	<b>25</b> Th	0642 1258	3.6 5.6	110 170	<b>10</b> Sa	0731 1536	2.6 7.5	80 230	<b>25</b> Su	0649 1451	2.0 7.9	60 240	<b>10</b> Sa	0601 1359	3.0 7.5	90 230
<b>11</b> Th	0010 0748 1507 1846	7.9 3.0 6.6 5.9	240 90 200 180	<b>26</b> F	0702 1420	3.0 6.2	90 190	<b>11</b> Su	0801 1620	2.3 7.9	70 240	<b>26</b> M	0730 1537	1.6 8.5	50 260	<b>11</b> Su	0636 1442	2.6 7.9	80 240
<b>12</b> F	0028 0815 1611 2009	7.5 2.3 6.9 6.6	230 70 210 200	<b>27</b> Sa	0730 1522	2.3 7.2	70 220	<b>12</b> M	0830 1659	2.0 8.2	60 250	<b>27</b> Tu	0014 0813	6.6 1.3	200 40	<b>12</b> M	0709 1519	2.6 7.9	80 240
<b>13</b> Sa	0036 0841 1704 2148	7.2 2.3 7.5 6.9	220 70 230 210	<b>28</b> Su	0002 0804	7.5 1.6	230 50	<b>13</b> Tu	0900 1735	2.0 8.2	60 250	<b>28</b> W	0105 0858	6.6 1.3	200 40	<b>13</b> Tu	0742 1553	2.3 8.2	70 250
<b>14</b> Su	0028 0908 1750	6.9 2.0 7.9	210 60 240	<b>29</b> M	0027 0842	7.2 1.0	220 30	<b>14</b> W	0930 1809	2.0 8.2	60 250	<b>14</b> W	0004 0815	5.9 2.3	180 70	<b>29</b> Th	0143 0831	5.9 2.0	180 60
<b>15</b> M	0935 1830	1.6 8.2	50 250	<b>30</b> Tu	0050 0923	7.2 0.7	220 20	<b>15</b> Th	1002 1843	2.0 8.2	60 250	<b>15</b> Th	0050 0849	5.9 2.6	180 80	<b>30</b> F	0252 0921	5.9 2.6	180 80
				<b>31</b> W	1006 1833	0.7 9.2	20 280								<b>31</b> O	0403 1014	5.9 3.3	180 100	
				O										O	2357	4.3	130		

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Barito River (Outer Bar), Borneo, 2018

Times and Heights of High and Low Waters

April				May				June																
	Time	Height			Time	Height			Time	Height														
	h m	ft	cm		h m	ft	cm		h m	ft	cm													
<b>1</b> Su	0519 1111 1755	6.2 3.9 7.2	190 120 220	<b>16</b> M ●	0455 1024 1651 2342	5.9 4.6 6.9 3.9	180 140 210 120	<b>1</b> Tu	0723 1252 1629	6.9 5.9 6.2	210 180 190	<b>16</b> W	0702 1201 1529 2340	7.2 6.2 6.6 1.6	220 190 200 50	<b>1</b> F	0004 0921	1.6 8.5	50 260	<b>16</b> Sa	0852	9.2	280	
<b>2</b> M	0035 0641 1218 1825	3.9 6.2 4.6 6.9	120 190 140 210	<b>17</b> Tu	0617 1132 1713	6.2 4.9 6.6	190 150 200	<b>2</b> W	0015 0834	2.6 7.5	80 230	<b>17</b> Th	0811	7.9	240	<b>2</b> Sa	0038 1000	1.6 8.5	50 260	<b>17</b> Su	0046 0937	0.3 9.5	10	
<b>3</b> Tu	0115 0808 1342 1854	3.6 6.6 5.2 6.2	110 200 160 190	<b>18</b> W	0020 0745 1306 1731	3.3 6.6 5.6 6.2	100 200 170 190	<b>3</b> Th	0052 0935	2.3 7.9	70 240	<b>18</b> F	0025 0911	1.3 8.5	40 260	<b>3</b> Su	0114 1036	1.6 8.9	50 270	<b>18</b> M	0136 1019	0.7 9.5	20	
<b>4</b> W	0157 0931 1531 1917	3.3 6.9 5.6 5.9	100 210 170 180	<b>19</b> Th	0104 0908 1523 1741	3.0 7.2 5.9 5.9	90 220 180 180	<b>4</b> F	0130 1026	2.3 8.2	70 250	<b>19</b> Sa	0113 1003	1.3 8.9	40 270	<b>4</b> M	0150 1108	2.0 8.9	60 270	<b>19</b> Tu	0228 1059	1.0 9.5	30	
<b>5</b> Th	0240 1043 1746 1930	3.3 7.5 5.6 5.6	100 230 170 170	<b>20</b> F	0153 1018	2.3 7.9	70 240	<b>5</b> Sa	0209 1110	2.3 8.5	70 260	<b>20</b> Su	0204 1050	1.0 9.5	30 290	<b>5</b> Tu	0229 1137	2.3 8.5	70 260	<b>20</b> W	0322 1136 1930 ●	1.6 9.2 3.6 250	50 280 110 130	
<b>6</b> F	0324 1141	3.0 7.9	90 240	<b>21</b> Sa	0244 1116	2.0 8.5	60 260	<b>6</b> Su	0250 1148	2.3 8.5	70 260	<b>21</b> M	0258 1133	1.3 9.5	40 290	<b>6</b> W	0309 1203	2.3 8.5	70 260	<b>21</b> Th	0418 1210 1947	2.6 8.9 3.3	80 270 100	
<b>7</b> Sa	0406 1229	3.0 7.9	90 240	<b>22</b> Su	0338 1205	2.0 8.9	60 270	<b>7</b> M	0332 1221	2.6 8.5	80 260	<b>22</b> Tu	0352 1213 2018 ●	1.6 9.5 4.3 4.3	50 290 130 130	<b>7</b> Th	0351 1226 2055 ●	3.0 8.2 3.9 3.9	90 250 120 120	<b>22</b> F	0044 0516 1240 2010	4.6 3.6 8.2 2.6	140 110 250 80	
<b>8</b> Su	0448 1309	3.0 8.2	90 250	<b>23</b> M	0431 1249 2043 ●	1.6 9.2 4.9 4.9	50 280 150 150	<b>8</b> Tu	0414 1251	2.6 8.5	80 260	<b>23</b> W	0447 1249 2026	2.0 9.2 3.9	60 280 120	<b>8</b> F	0436 1247 2040	3.3 8.2 3.6	100 250 110	<b>23</b> Sa	0217 0619 1305 2036	5.2 4.3 7.5 2.3	160 130 230 70	
<b>9</b> M	0527 1344	2.6 8.2	80 250	<b>24</b> Tu	0525 1329 2054 2347	2.0 9.2 4.6 4.9	60 280 140 150	<b>9</b> W	0456 1318 2134 2336	3.0 8.5 4.3 4.6	90 260 130 140	<b>24</b> Th	0016 0542 1323 2046	4.6 2.6 8.9 3.3	140 80 270 100	<b>9</b> Sa	0116 0525 1306 2045	4.3 3.9 7.9 3.3	130 120 240 100	<b>24</b> Su	0338 0728 1323 2103	5.9 5.2 7.2 1.6	180 160 220 50	
<b>10</b> Tu	0606 1416 2201 2337	2.6 8.2 5.2 5.2	80 250 160 160	<b>25</b> W	0617 1407 2117	2.0 9.2 4.6	60 280 140	<b>10</b> Th	0538 1342 2124	3.0 8.2 4.3	90 250 130	<b>25</b> F	0145 0638 1352 2110	4.9 3.6 8.2 3.0	150 110 250 90	<b>10</b> Su	0240 0620 1324 2100	4.9 4.6 7.5 2.6	150 140 230 80	<b>25</b> M	0449 0848 1331 2131	6.6 5.9 6.9 1.3	200 180 210 40	
<b>11</b> W	0644 1445 2205	3.0 8.2 5.2	90 250 160	<b>26</b> Th	0108 0710 1442 2141	5.2 2.6 8.9 3.9	160 80 270 120	<b>11</b> F	0056 0622 1405 2127	4.6 3.3 7.9 3.9	140 100 240 120	<b>26</b> Sa	0305 0737 1416 2135	5.6 4.3 7.9 2.6	170 130 240 80	<b>11</b> M	0357 0726 1340 2125	5.6 5.2 7.2 2.0	170 160 220 60	<b>26</b> Tu	0551 1031 1321 2159	6.9 6.2 6.6 1.3	210 190 200 40	
<b>12</b> Th	0039 0722 1513 2213	5.2 3.0 7.9 4.9	160 90 240 150	<b>27</b> F	0224 0803 1514 2209	5.6 3.3 8.2 3.6	170 100 250 110	<b>12</b> Sa	0207 0709 1426 2139	4.9 3.9 7.5 3.6	150 120 230 110	<b>27</b> Su	0422 0842 1435 2203	5.9 5.2 7.2 2.3	180 160 220 70	<b>12</b> Tu	0508 0846 1356 2156	6.2 5.9 6.9 1.3	190 180 210 40	<b>27</b> W	0645 2228	7.5 1.0	230 30	
<b>13</b> F	0137 0801 1538 2226	5.2 3.3 7.9 4.9	160 100 240 150	<b>28</b> Sa	0337 0859 1542 2238	5.9 3.9 7.5 3.3	180 120 230 100	<b>13</b> Su	0317 0800 1446 2200	5.2 4.3 7.2 3.3	160 130 220 100	<b>28</b> M	0535 1000 1443 2231	6.6 5.9 6.9 2.0	200 180 210 60	<b>13</b> W	0613 1033 1405 2232	7.2 6.6 6.9 1.0	220 200 210 30	<b>28</b> O	0732 2258	7.9 1.0	240 30	
<b>14</b> Sa	0237 0844 1603 2245	5.6 3.6 7.5 4.6	170 110 230 140	<b>29</b> Su	0452 1000 1606 2308	6.2 4.6 7.2 3.0	190 140 220 90	<b>14</b> M	0430 0900 1505 2227	5.9 4.9 7.2 2.6	180 150 220 80	<b>29</b> Tu	0643 1150 1429 2301	7.2 6.2 6.2 1.6	220 190 190 50	<b>14</b> O	0711 2314	7.9 0.7	240 20	<b>29</b> F	0813 2329	8.2 1.0	250 30	
<b>15</b> Su	0342 0930 1627 2311	5.6 3.9 7.2 4.3	170 120 220 130	<b>30</b> M	0608 1113 1624 2341	6.6 5.2 6.6 2.6	200 160 200 80	<b>15</b> Tu	0546 1015 1521 2301	6.6 5.6 6.9 2.3	200 170 210 70	<b>30</b> W	0743 2332 2358	7.5 1.6 0.3	230 200 260 10	<b>30</b> F	0804 2358	8.5 0.3	260 10	<b>30</b> Sa	0851	8.5	260	
								<b>31</b> Th	0836	8.2	250													

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Barito River (Outer Bar), Borneo, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm																				
<b>1</b> Su	0001 0925	1.3 8.5	40 260	<b>16</b> M	0025 0902	0.3 9.2	10 280	<b>1</b> W	0042 0938	2.0 7.5	60 230	<b>16</b> Th	0204 0936 1643 2147	2.6 7.5 3.6 4.9	80 230 110 150	<b>1</b> Sa	0217 0918 1628 2252	3.9 6.2 3.6 5.2	120 190 110 160	<b>16</b> Su	0530 0948 1650	4.9 5.6 2.6	150 170 80
<b>2</b> M	0035 0957	1.3 8.5	40 260	<b>17</b> Tu	0116 0943	0.7 8.9	20 270	<b>2</b> Th	0120 1004	2.3 7.5	70 230	<b>17</b> F	0311 1013 1722 2331	3.6 7.2 3.3 5.2	110 220 100 160	<b>2</b> Su	0337 0942 1702	4.6 6.2 3.0	140 190 90	<b>17</b> M	0033 0659 1024 ●	6.9 4.9 5.2	210 150 160 70
<b>3</b> Tu	0109 1027	1.6 8.5	50 260	<b>18</b> W	0209 1022 1809 2115	1.6 8.5 3.9 4.3	50 260 120 130	<b>3</b> F	0203 1026 1831 2206	3.0 7.2 3.9 4.3	90 220 120 130	<b>18</b> Sa	0428 1047 1800	4.3 6.6 2.6	130 200 80	<b>3</b> M	0022 0511 1007 ●	5.9 5.2 5.9	180 160 180 70				
<b>4</b> W	0145 1054	2.0 8.2	60 250	<b>19</b> Th	0306 1058 1831 2319	2.3 8.2 3.3 4.6	70 250 100 140	<b>4</b> Sa	0254 1046 1829	3.6 6.9 3.3	110 210 100	<b>19</b> Su	0057 0551 1117 1836	5.9 4.9 2.3	180 150 70	<b>4</b> Tu	0127 0642 1037 1820	6.6 5.6 5.9	200 170 180 50	<b>19</b> W	0212 0910 1132 1850	7.5 4.9 5.2 2.3	230 150 160 70
<b>5</b> Th	0224 1117	2.3 8.2	70 250	<b>20</b> F	0407 1130 1859	3.3 7.9 2.6	100 240 80	<b>5</b> Su	0019 0357 1106 ●	4.6 4.3 6.9 2.6	140 130 210 80	<b>20</b> M	0207 0715 1141 1911	6.6 5.2 5.9 2.0	200 160 180 60	<b>5</b> W	0220 0801 1113 1903	7.2 5.6 5.9 1.3	220 170 180 40	<b>20</b> Th	0252 0951 1207 1926	7.5 4.9 5.2 2.3	230 150 160 70
<b>6</b> F	0306 1138 1952 ●	3.0 7.9 3.6 3.9	90 240 110 120	<b>21</b> Sa	0102 0515 1159 1928	4.9 4.3 7.2 2.3	150 130 220 70	<b>6</b> M	0151 0519 1125 1911	5.2 4.9 6.6 2.0	160 150 200 60	<b>21</b> Tu	0303 0836 1159 1945	6.9 5.6 5.9 1.6	210 170 180 50	<b>6</b> Th	0307 0905 1158 1947	7.5 5.6 5.9 1.0	230 170 180 30	<b>21</b> F	0327 1021 1245 2002	7.5 5.2 5.2 2.3	230 160 160 70
<b>7</b> Sa	0354 1156 1948	3.6 7.5 3.3	110 230 100	<b>22</b> Su	0228 0630 1221 1958	5.6 4.9 6.9 2.0	170 150 210 60	<b>7</b> Tu	0257 0650 1147 1944	6.2 5.6 6.6 1.3	190 170 200 40	<b>22</b> W	0351 0951 1211 2017	7.2 5.6 5.6 1.6	220 170 170 50	<b>7</b> F	0350 0958 1251 2033	7.9 5.6 5.9 0.7	240 170 180 20	<b>22</b> Sa	0359 1043 1326 2038	7.5 5.2 5.2 2.3	230 160 160 70
<b>8</b> Su	0144 0451 1214 2000	4.6 4.3 7.2 2.6	140 130 220 80	<b>23</b> M	0338 0751 1236 2028	6.2 5.6 6.6 1.3	190 170 200 40	<b>8</b> W	0350 0821 1212 2021	6.9 5.9 6.6 0.7	210 180 200 20	<b>23</b> Th	0433 1044 1211 2049	7.2 5.6 5.6 1.3	220 170 170 40	<b>8</b> Sa	0432 1044 1352 2121	8.2 5.6 5.9 1.0	250 170 180 30	<b>23</b> Su	0430 1103 1412 2114	7.2 4.9 5.2 2.6	220 150 160 80
<b>9</b> M	0308 0603 1231 2023	5.2 4.9 7.2 2.0	160 220 220 60	<b>24</b> Tu	0436 0922 1240 2057	6.9 5.9 6.2 1.3	210 180 190 40	<b>9</b> Th	0437 0950 1240 2102	7.5 6.2 6.6 0.3	230 190 200 10	<b>24</b> F	0512 2121	7.5 1.3	230 40	<b>9</b> Su	0514 1128 1458 2211	8.2 5.2 5.9 1.3	250 160 180 40	<b>24</b> M	0459 1123 1502 2154	7.2 4.9 5.6 3.0	220 150 170 90
<b>10</b> Tu	0414 0730 1248 2053	6.2 5.9 6.9 1.0	190 180 210 30	<b>25</b> W	0527 1128 1204 2127	7.2 6.2 6.2 1.0	220 190 190 30	<b>10</b> F	0523 1115 1314 2145	7.9 6.2 6.2 0.0	240 190 190 0	<b>25</b> Sa	0547 2154	7.5 1.6	230 50	<b>10</b> M	0555 1212 1610 ●	7.9 4.9 5.6 2.0	240 150 170 60	<b>25</b> Tu	0527 1146 1600 2236	6.9 4.9 5.6 3.3	210 150 170 100
<b>11</b> W	0510 0912 1305 2129	6.9 6.2 6.9 0.7	210 190 210 20	<b>26</b> Th	0611 2157	7.5 1.0	230 30	<b>11</b> Sa	0607 1237 1354 ●	8.2 5.9 5.9 0.0	250 180 180 0	<b>26</b> Su	0622 2228	7.5 1.6	230 50	<b>11</b> O	0635 1257 1730	7.5 4.6 5.6	230 140 170	<b>26</b> W	0555 1213 1709 2325	6.6 4.6 5.6 3.6	200 140 170 110
<b>12</b> Th	0601 1111 1313 2208	7.5 6.6 6.6 0.0	230 200 200 0	<b>27</b> F	0651 2227	7.9 1.0	240 30	<b>12</b> Su	0651 1347 1453 2319	8.5 5.6 5.6 0.3	260 230 170 10	<b>27</b> M	0655 2304	7.2 2.0	220 60	<b>12</b> W	0001 0715 1344 1859	2.6 7.2 3.9 5.6	80 220 120 170	<b>27</b> Th	0621 1246 1832	6.2 4.3 5.6	190 130 170
<b>13</b> F	0649 2252	8.2 0.0	250 0	<b>28</b> Sa	0729 2259	7.9 1.0	240 30	<b>13</b> M	0734 1438 1618	8.5 5.2 5.2	260 200 160	<b>28</b> Tu	0728 2342	7.2 2.3	220 70	<b>13</b> Th	0106 0754 1431 2034	3.3 6.6 3.6 5.9	100 200 110 180	<b>28</b> F	0025 0645 1326 2008	4.3 5.9 3.9 5.9	130 180 120 180
<b>14</b> Sa	0735 2337	8.9 0.0	270 0	<b>29</b> Su	0804 2331	7.9 1.3	240 40	<b>14</b> Tu	0010 0816 1522 1800	1.0 8.2 4.9 4.9	30 250	<b>29</b> W	0759 1533 1623	6.9 4.9 4.9	210 150	<b>14</b> F	0222 0833 1518 2207	3.9 6.2 3.3 6.2	120 190 100 190	<b>29</b> Sa	0146 0709 1410 2143	4.9 5.9 3.3 6.2	150 180 100 190
<b>15</b> Su	0819	8.9	270	<b>30</b> M	0838	7.9	240	<b>15</b> W	0104 0857 1603 1953	1.6 7.9 4.3 4.9	50	<b>30</b> Th	0025 0828 1536 1838	3.0 6.6 4.6 4.9	90	<b>15</b> Sa	0353 0911 1605 2328	4.6 5.9 3.0 6.6	140 180 90 200	<b>30</b> Su	0335 0732 1458 2301	5.2 5.6 3.0 6.9	160 170 90 210
				<b>31</b> Tu	0005 0909	1.6 7.9	50 240					<b>31</b> F	0115 0854 1559 2051	3.3 6.6 4.3 4.9	100 200 130 150								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Barito River (Outer Bar), Borneo, 2018

Times and Heights of High and Low Waters

October				November				December										
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height							
h m 0537 M 0757 1549	ft 5.2 5.6 2.6	cm 160 170 80	h m 1618 Tu	ft 2.6	cm 80	h m 0018 Th	ft 9.2 2.0	cm 280 60	h m 0027 F	ft 8.9 3.3	cm 270 100							
<b>1</b> M			<b>16</b> Tu			<b>1</b> Th			<b>16</b> Sa									
0002 0718 0835 O 1639	7.5 5.2 5.2 2.0	230 160 160 60	<b>17</b> W	0041 1701	8.2 2.6	<b>2</b> F	0059 0838 1116 1741	9.2 4.6 4.9 2.3	<b>17</b> Sa	0054 0910 1205 1712	8.5 4.3 4.6 3.6	<b>2</b> Su	0052 0820 1321 1807	9.2 3.6 5.2 3.9	<b>17</b> M	0023 0825 1339 1652	8.5 3.9 4.9 4.6	260 120 150 140
<b>3</b> W	0054 0812 0942 1730	7.9 5.2 5.2 1.6	<b>18</b> Th	0118 0928 1103 1743	8.2 4.6 4.6 2.6	<b>3</b> Sa	0135 0851 1245 1837	9.2 4.3 4.9 2.6	<b>18</b> Su	0118 0907 1318 1757	8.5 4.3 4.6 3.9	<b>3</b> M	0122 0842 1445 1911	8.9 3.3 5.9 4.6	<b>18</b> Tu	0040 0829 1459 1749	8.2 3.6 5.6 5.2	250 110 170 160
<b>4</b> Th	0139 0843 1100 1821	8.2 5.2 5.2 1.6	<b>19</b> F	0151 0934 1208 1823	8.2 4.6 4.6 3.0	<b>4</b> Su	0210 0913 1404 1934	8.9 3.9 5.6 3.3	<b>19</b> M	0140 0911 1424 1845	8.2 3.9 5.2 4.3	<b>4</b> Tu	0147 0908 1602 2023	8.2 2.6 6.6 5.6	<b>19</b> W	0055 0843 1608 1859	7.9 3.0 6.2 5.9	240 90 190 180
<b>5</b> F	0220 0911 1213 1912	8.5 4.9 5.2 1.6	<b>20</b> Sa	0220 0942 1303 1904	7.9 4.6 4.9 3.3	<b>5</b> M	0241 0938 1519 2034	8.2 3.6 5.9 3.9	<b>20</b> Tu	0158 0922 1529 1938	7.9 3.6 5.6 4.9	<b>5</b> W	0206 0936 1714 2149	7.5 2.3 7.2 6.2	<b>20</b> Th	0108 0904 1710 2028	7.5 2.6 6.9 6.6	230 80 210 200
<b>6</b> Sa	0300 0940 1324 2003	8.5 4.9 5.6 2.0	<b>21</b> Su	0246 0952 1357 1945	7.9 4.6 5.2 3.3	<b>6</b> Tu	0309 1007 1633 2140	7.9 3.3 6.2 4.9	<b>21</b> W	0215 0939 1636 2040	7.5 3.3 6.2 5.6	<b>6</b> Th	0215 1005 1820 2353	7.2 2.0 7.9 6.6	<b>21</b> F	0117 0932 1804 2225	7.5 2.0 7.5 7.2	230 60 230 220
<b>7</b> Su	0337 1010 1434 2056	8.2 4.6 5.6 2.3	<b>22</b> M	0310 1005 1451 2028	7.5 4.3 5.2 3.6	<b>7</b> W	0334 1037 1748 2301	7.2 2.6 6.9 5.6	<b>22</b> Th	0229 1003 1745 2201	7.2 3.0 6.9 6.2	<b>7</b> F	0157 1036 1918 ●	6.9 1.6 5.5 210	<b>22</b> Sa	0116 1005 1855	7.2 1.3 8.5	220 40 260
<b>8</b> M	0413 1043 1546 2152	7.9 4.3 5.9 3.0	<b>23</b> Tu	0333 1021 1551 2116	7.2 4.3 5.6 4.3	<b>8</b> Th	0351 1110 1901 ●	6.6 2.3 7.5 2.3	<b>23</b> F	0237 1033 1852 ○	6.9 2.3 7.5 2.3	<b>8</b> Sa	1108 2009 1108 ○	1.6 8.9 1.6 50	<b>23</b> Su	1044 1941 1941 ○	1.0 9.2 9.2 30	280 30 280 30
<b>9</b> Tu	0448 1118 1701 ● 2254	7.5 3.9 6.2 3.6	<b>24</b> W	0354 1043 1657 2212	6.9 3.9 5.9 4.6	<b>9</b> F	0051 0352 1145 2008	5.9 6.2 2.3 7.9	<b>24</b> Sa	0001 0228 1110 1954	6.6 6.6 2.0 8.2	<b>9</b> Su	1141 2054 2054 280	1.6 9.2 9.2 50	<b>24</b> M	1127 2026 2026 290	0.7 9.5 9.5 290	20 20 20 20
<b>10</b> W	0521 1155 1820	6.9 3.3 6.2	<b>25</b> Th	0413 1110 1812 ● 2323	6.6 3.6 6.2 5.2	<b>10</b> Sa	1222 2108 2048 210	2.0 8.5 8.9 260	<b>25</b> Su	1151 2048 2048 270	1.6 8.9 8.9 270	<b>10</b> M	1215 2135 2135 280	1.6 9.2 9.2 50	<b>25</b> Tu	1213 2109 2109 300	0.7 9.8 9.8 300	20 20 20 20
<b>11</b> Th	0006 0551 1235 1941	4.3 6.2 3.3 6.9	<b>26</b> F	0427 1144 1931	6.2 3.0 6.9	<b>11</b> Su	1300 2159	2.0 8.9	<b>26</b> M	1236 2138	1.3 9.2	<b>11</b> Tu	1250 2211	2.0 9.5	<b>26</b> W	1301 2150	1.0 10.2	30 30
<b>12</b> F	0137 0619 1317 2101	4.9 5.9 3.0 7.2	<b>27</b> Sa	0108 0432 1225 2047	5.6 5.9 2.6 7.2	<b>12</b> M	1340 2243	2.3 8.9	<b>27</b> Tu	1325 2223	1.3 9.8	<b>12</b> W	1326 2244	2.3 9.2	<b>27</b> Th	1352 2229	1.6 9.8	50 300
<b>13</b> Sa	0336 0642 1401 2211	5.2 5.6 2.6 7.5	<b>28</b> Su	1310 2152	2.3 7.9	<b>13</b> Tu	1421 2322	2.3 8.9	<b>28</b> W	1418 2304	1.3 9.8	<b>13</b> Th	1402 2313	2.6 9.2	<b>28</b> F	1446 2306	2.3 9.8	70 300
<b>14</b> Su	1447 2310	2.6 7.9	<b>29</b> M	1401 2247	2.0 8.5	<b>14</b> W	1503 2356	2.6 8.9	<b>29</b> Th	1512 2343	2.0 9.8	<b>14</b> F	1440 2340	3.0 8.9	<b>29</b> Sa	0707 1016 1544 2340	4.3 4.6 3.0 9.2	130 140 90 280
<b>15</b> M	1533 2359	2.6 8.2	<b>30</b> Tu	1455 2335	2.0 8.9	<b>15</b> Th	1546 ●	3.0 90	<b>30</b> F	0818 0933 1609	4.6 4.6 2.3	<b>15</b> Sa	1520 ●	3.6 110	<b>30</b> Su	0720 1215 1646	3.6 4.9 3.9	110 150 120
			<b>31</b> W	1550	1.6	50									<b>31</b> M	0010 0742 1353 1754	8.9 3.3 5.6 4.9	270 100 170 150

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.



**Pages 172 through 175 intentionally omitted**

# Davao, Philippines, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0513 - 0.3 1051 1712 2347	3.9 5.9 1.6	120 - 10 180 - 50	16 Tu 0558 1135 1747	3.6 0.0 4.9	110 0 150	1 Th 0022 0633 1217 1833	- 1.6 4.6 0.7 6.2	- 50 140 20 190
2 Tu 0559 1137 1757	4.3 - 0.3 6.2	130 - 10 190	17 W 0018 0627 1208 1819	- 1.0 3.9 0.0 5.2	- 30 120 0 160	2 F 0101 0710 1259 1914	- 1.6 4.9 0.7 6.2	- 50 140 20 190
O			●					
3 W 0030 0642 1223 1840	- 2.0 4.6 0.7 6.2	- 60 140 - 20 190	18 Th 0046 0656 1240 1850	- 1.0 3.9 0.0 5.2	- 30 120 0 160	3 Sa 0138 0747 1340 1953	- 1.6 4.9 0.7 5.9	- 50 150 180
4 Th 0113 0724 1307 1923	- 2.0 4.6 0.7 6.2	- 60 140 - 20 190	19 F 0115 0725 1309 1920	- 1.0 4.3 0.0 5.2	- 30 130 0 160	4 Su 0213 0823 1420 2030	- 1.3 4.9 0.7 5.2	- 40 150 180
5 F 0154 0807 1351 2006	- 1.6 4.6 0.3 5.6	- 50 140 - 10 170	20 Sa 0142 0754 1337 1949	- 1.0 4.3 0.0 5.2	- 30 130 0 160	5 M 0247 0859 1500 2106	- 1.0 4.6 0.0 4.9	- 30 150 180
6 Sa 0235 0850 1435 2049	- 1.3 4.3 0.0 5.2	- 40 130 - 0 160	21 Su 0209 0821 1406 2019	- 1.0 4.3 0.0 4.9	- 30 130 0 150	6 Tu 0320 0936 1543 2143	- 0.3 4.3 0.3 3.9	- 10 130 120
7 Su 0317 0934 1523 2133	- 0.7 3.9 0.3 4.6	- 20 120 - 10 140	22 M 0238 0850 1441 2053	- 0.7 4.3 0.3 4.6	- 20 130 - 10 140	7 W 0355 1018 1632 2225	0.3 3.9 1.0 3.3	10 120 100
8 M 0400 1024 1617 2222	- 0.3 3.9 0.7 3.9	- 10 120 - 20 120	23 Tu 0310 0925 1522 2133	- 0.3 3.9 0.3 4.3	- 10 120 - 10 130	8 Th 0436 1113 1740 2324	0.7 3.6 1.3 2.6	20 110 80
9 Tu 0448 1124 1725 2325	0.3 3.6 1.0 3.3	10 110 - 30 100	24 W 0348 1008 1614 2223	0.0 3.9 0.7 3.6	0 120 - 20 110	9 F 0535 1237 1933 2257	1.3 3.6 1.3 3.3	40 100 80
O								
10 W 0547 1239 1858	0.7 3.6 1.3	20 110 - 40	25 Th 0434 1105 1726 2331	0.3 3.9 1.0 3.3	10 120 - 30 100	10 Sa 0148 0708 1418 2131	2.3 1.6 3.6 1.0	70 50 30
11 Th 0106 0703 1357 2042	3.0 1.0 3.6 1.0	90 30 - 30	26 F 0536 1224 1907	1.0 3.9 1.0	30 120 - 30	11 Su 0340 0858 1528 2226	2.6 1.3 3.9 0.7	80 40 20
12 F 0247 0827 1502 2152	2.6 1.0 3.9 0.7	80 30 - 20	27 Sa 0108 0703 1358 2053	3.0 1.0 3.9 0.7	90 120 - 20	12 M 0436 1003 1618 2304	3.0 1.0 4.3 0.0	90 30 20
13 Sa 0357 0932 1554 2239	3.0 0.7 4.3 0.0	90 20 - 0	28 Su 0304 0836 1517 2206	3.0 1.0 4.6 0.0	90 120 - 0	13 Tu 0513 1046 1657 2334	3.6 0.7 4.6 0.3	110 20 - 10
14 Su 0447 1021 1637 2317	3.3 0.7 4.6 0.3	100 20 - 10	29 M 0418 0948 1616 2258	3.3 0.7 5.2 0.7	100 120 - 20	14 W 0542 0941 1731 1803	3.9 1.0 5.2 5.2	120 30 20
15 M 0526 1100 1713 2349	3.6 0.3 4.9 0.7	110 10 - 20	30 Tu 0510 1044 1706 2342	3.9 0.0 5.6 1.3	120 10 - 40	15 Th 0000 0608 1154 1803	- 0.7 4.3 0.0 5.2	- 20 130 160
31 W 0554 1133 1751	4.3 0.3 5.9	130 - 10 180	O					

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Davao, Philippines, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0007	-0.7	-20	<b>16</b> M	0553	5.9	180	<b>1</b> Tu	0004	0.0	0
	0614	5.9	180		1205	-0.7	-20		0612	6.2	190
	1225	-0.7	-20		1816	5.6	170		1236	-0.7	-20
	1834	5.9	180	●					1845	5.2	160
<b>2</b> M	0038	-0.7	-20	<b>17</b> Tu	0012	-0.3	-10	<b>2</b> W	0033	0.0	0
	0645	5.9	180		0621	6.2	190		0642	5.9	180
	1300	-0.7	-20		1240	-0.7	-20		1308	-0.7	-20
	1907	5.6	170		1850	5.6	170		1916	4.9	150
<b>3</b> Tu	0106	-0.3	-10	<b>18</b> W	0043	-0.3	-10	<b>3</b> Th	0103	0.3	10
	0714	5.9	180		0653	6.2	190		0713	5.9	180
	1333	-0.7	-20		1315	-0.7	-20		1339	-0.3	-10
	1938	5.2	160		1925	5.2	160		1948	4.6	140
<b>4</b> W	0134	-0.3	-10	<b>19</b> Th	0115	0.0	0	<b>4</b> F	0132	0.7	20
	0744	5.9	180		0727	6.2	190		0744	5.6	170
	1405	-0.3	-10		1354	-0.7	-20		1412	0.0	0
	2009	4.9	150		2003	4.9	150		2021	4.3	130
<b>5</b> Th	0202	0.3	10	<b>20</b> F	0149	0.3	10	<b>5</b> Sa	0201	1.0	30
	0815	5.6	170		0804	5.9	180		0816	5.2	160
	1438	0.0	0		1436	-0.3	-10		1446	0.3	10
	2041	4.3	130		2045	4.6	140		2058	3.9	120
<b>6</b> F	0230	0.7	20	<b>21</b> Sa	0225	0.7	20	<b>6</b> Su	0231	1.3	40
	0847	4.9	150		0845	5.6	170		0850	4.6	140
	1515	0.7	20		1525	0.3	10		1525	0.7	20
	2116	3.9	120		2135	3.9	120		2142	3.6	110
<b>7</b> Sa	0258	1.0	30	<b>22</b> Su	0308	1.3	40	<b>7</b> M	0307	1.6	50
	0923	4.6	140		0935	4.9	150		0932	4.3	130
	1558	1.0	30		1627	1.0	30		1619	1.3	40
	2159	3.3	100		2244	3.6	110		2247	3.3	100
<b>8</b> Su	0330	1.6	50	<b>23</b> M	0409	1.6	50	<b>8</b> Tu	0404	2.0	60
	1008	4.3	130		1047	4.6	140		1034	3.9	120
	1709	1.6	50		1758	1.3	40		1746	1.6	50
	2315	3.0	90	●				●			
<b>9</b> M	0427	2.0	60	<b>24</b> Tu	0028	3.3	100	<b>9</b> W	0027	3.3	100
	1127	3.6	110		0555	2.0	60		0607	2.3	70
	1900	1.6	50		1236	4.3	130		1213	3.6	110
					1941	1.3	40		1918	1.3	40
<b>10</b> Tu	0156	3.0	90	<b>25</b> W	0215	3.6	110	<b>10</b> Th	0159	3.6	110
	0708	2.3	70		0759	2.0	60		0752	2.0	60
	1339	3.6	110		1416	4.3	130		1359	3.9	120
	2041	1.3	40		2055	1.0	30		2025	1.3	40
<b>11</b> W	0316	3.3	100	<b>26</b> Th	0318	4.3	130	<b>11</b> F	0254	3.9	120
	0850	2.0	60		0917	1.3	40		0857	1.3	40
	1500	3.9	120		1525	4.6	140		1505	4.3	130
	2134	1.0	30		2145	0.7	20		2114	1.0	30
<b>12</b> Th	0354	3.9	120	<b>27</b> F	0401	4.9	150	<b>12</b> Sa	0335	4.6	140
	0945	1.3	40		1008	0.7	20		0945	0.7	20
	1550	4.6	140		1616	4.9	150		1553	4.6	140
	2210	0.7	20		2225	0.3	10		2154	0.7	20
<b>13</b> F	0425	4.6	140	<b>13</b> Sa	0437	5.2	160	<b>28</b> M	0410	5.2	160
	1024	0.7	20		1050	0.0	0		1025	0.0	0
	1631	4.9	150		1659	5.2	160		1636	4.9	150
	2243	0.0	0		2301	0.0	0		2230	0.3	10
<b>14</b> Sa	0455	4.9	150	<b>14</b> Su	0511	5.6	170	<b>29</b> Tu	0444	5.6	170
	1100	0.3	10		1127	-0.3	-10		1103	-0.3	-10
	1708	5.2	160		1737	5.2	160		1715	5.2	160
	2314	0.0	0		2334	0.0	0		2304	0.0	0
<b>15</b> Su	0525	5.6	170	<b>15</b> M	0517	6.2	190	<b>30</b> W	0547	5.9	180
	1133	-0.3	-10		1203	-0.7	-20		1141	-0.7	-20
	1743	5.6	170		1812	5.2	160		1753	5.2	160
	2343	-0.3	-10	○				●	2339	0.0	0
<b>16</b> Sa	0640	0.0	0	<b>16</b> Sa	0658	6.2	190	<b>31</b> Th	0008	0.3	10
	1332	-1.0	-30		1332	-1.0	-30		0619	5.9	180
	1948	4.6	140		1948	-0.7	-20		1248	-0.7	-20
									1900	4.6	140

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Davao, Philippines, 2018

Times and Heights of High and Low Waters

July			August			September		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0059 0.7 20			<b>16</b> M 0120 0.0 0			<b>1</b> W 0145 0.7 20		
0708 5.2 160			0735 6.2 190			0752 5.2 160		
1334 - 0.3 - 10			1403 - 1.0 - 30			1407 0.0 0		
1953 4.3 130			2020 4.9 150			2025 4.6 140		
<b>2</b> M 0130 0.7 20			<b>17</b> Tu 0208 0.3 10			<b>2</b> Th 0218 0.7 20		
0738 5.2 160			0820 5.6 170			0825 4.9 150		
1404 0.0 0			1445 - 0.3 - 10			1438 0.3 10		
2025 4.3 130			2104 4.6 140			2056 4.6 140		
<b>3</b> Tu 0201 1.0 30			<b>18</b> W 0258 0.7 20			<b>3</b> F 0257 1.0 30		
0810 4.9 150			0906 4.9 150			0903 4.6 140		
1434 0.0 0			1528 0.0 0			1513 0.7 20		
2057 3.9 120			2153 4.6 140			2135 4.6 140		
<b>4</b> W 0236 1.0 30			<b>19</b> Th 0355 1.0 30			<b>4</b> Sa 0348 1.0 30		
0846 4.6 140			0957 4.3 130			0951 3.9 120		
1509 0.3 10			1614 0.7 20			1554 1.0 30		
2134 3.9 120			2248 4.3 130			2225 4.3 130		
<b>5</b> Th 0322 1.3 40			<b>20</b> F 0503 1.3 40			<b>5</b> Su 0458 1.3 40		
0930 4.3 130			1100 3.6 110			1057 3.6 110		
1550 0.7 20			1710 1.0 30			1649 1.3 40		
2221 3.9 120			2355 4.3 130			2334 4.3 130		
<b>6</b> F 0422 1.6 50			<b>21</b> Sa 0625 1.3 40			<b>6</b> M 0633 1.3 40		
1027 3.9 120			1230 3.3 100			1230 3.3 100		
1643 1.0 30			1819 1.3 40			1810 1.6 50		
● 2320 3.9 120						2029 2.0 60		
<b>7</b> Sa 0543 1.6 50			<b>22</b> Su 0111 4.3 130			<b>7</b> Tu 0101 4.6 140		
1141 3.6 110			0755 1.3 40			0808 1.0 30		
1750 1.3 40			1409 3.3 100			1420 3.3 100		
			1938 1.6 50			1944 1.6 50		
<b>8</b> Su 0031 4.3 130			<b>23</b> M 0220 4.3 130			<b>8</b> W 0225 4.9 150		
0713 1.3 40			0911 1.0 30			0921 0.3 10		
1310 3.6 110			1524 3.3 100			1538 3.6 110		
1906 1.3 40			2049 1.3 40			2101 1.3 40		
<b>9</b> M 0144 4.6 140			<b>24</b> Tu 0317 4.6 140			<b>9</b> Th 0331 5.2 160		
0829 0.7 20			1005 0.3 10			1017 - 0.3 - 30		
1438 3.6 110			1618 3.6 110			1633 4.3 130		
2017 1.0 30			2144 1.3 40			2202 0.7 20		
<b>10</b> Tu 0248 4.9 150			<b>25</b> W 0404 4.9 150			<b>10</b> F 0425 5.9 180		
0932 0.3 10			1047 0.0 0			1103 - 0.7 - 20		
1545 3.9 120			1700 3.9 120			1717 4.6 140		
2117 1.0 30			2229 1.0 30			2254 0.3 10		
<b>11</b> W 0344 5.6 170			<b>26</b> Th 0444 5.2 160			<b>11</b> Sa 0513 6.2 190		
1024 - 0.3 - 10			1122 - 0.3 - 10			1145 - 1.0 - 30		
1639 4.3 130			1734 3.9 120			1758 4.9 150		
2210 0.7 20			2307 0.7 20			● 2341 0.0 0		
<b>12</b> Th 0433 5.9 180			<b>27</b> F 0519 5.2 160			<b>12</b> Su 0558 6.6 200		
1111 - 1.0 - 30			1152 - 0.3 - 10			1225 - 1.3 - 40		
1726 4.6 140			1804 4.3 130			1837 5.2 160		
2300 0.3 10			2341 0.7 20					
<b>13</b> F 0520 6.2 190			<b>28</b> Sa 0553 5.6 170			<b>13</b> M 0026 - 0.3 - 10		
1156 - 1.3 - 40			1219 - 0.7 - 20			0640 6.6 200		
1811 4.6 140			1833 4.6 140			1304 - 1.0 - 30		
● 2347 0.0 0			○			1915 5.6 170		
<b>14</b> Sa 0606 6.6 200			<b>29</b> Su 0014 0.3 10			<b>14</b> Tu 0110 - 0.3 - 10		
1239 - 1.3 - 40			0624 5.6 170			0721 6.2 190		
1854 4.9 150			1248 - 0.7 - 20			1340 - 1.0 - 30		
			1902 4.6 140			1953 5.6 170		
<b>15</b> Su 0033 0.0 0			<b>30</b> M 0046 0.3 10			<b>15</b> W 0154 0.0 0		
0650 6.2 190			0654 5.6 170			0802 5.6 170		
1322 - 1.3 - 40			1315 - 0.3 - 10			1416 - 0.3 - 10		
1936 4.9 150			1931 4.6 140			2031 5.2 160		
			<b>31</b> Tu 0116 0.7 20			<b>31</b> F 0159 0.3 10		
			0723 5.2 160			0805 4.9 150		
			1341 - 0.3 - 10			1408 0.3 10		
			1958 4.6 140			2022 5.2 160		

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Davao, Philippines, 2018

Times and Heights of High and Low Waters

October				November				December				
	Time	Height			Time	Height			Time	Height		
	h m	ft cm		h m	ft cm		h m	ft cm	h m	ft cm		
<b>1</b> M	0306	0.3 10		<b>16</b> Tu	0354	1.0 30	<b>1</b> Th	0525	1.0 30	<b>16</b> Sa	0622	0.7 20
	0912	3.9 120			0959	3.0 90		1209	3.3 100		1308	3.6 110
	1450	1.3 40			1518	2.0 60		1720	2.0 60		1904	1.3 40
	2113	4.9 150			2151	3.9 120	<b>O</b>	2352	3.9 120			
<b>2</b> Tu	0407	1.0 30		<b>17</b> W	0513	1.3 40	<b>2</b> F	0708	1.0 30	<b>2</b> Su	0114	3.6 110
	1017	3.3 100			1204	3.0 90		1355	3.6 110		0742	0.7 20
	1539	1.6 50			1642	2.3 70		1937	1.6 50		1417	3.9 120
	2217	4.6 140		<b>O</b>	2317	3.6 110					2035	1.0 30
<b>3</b> W	0545	1.3 40		<b>18</b> Th	0708	1.3 40	<b>3</b> Sa	0147	3.9 120	<b>3</b> M	0239	3.9 120
	1214	3.0 90			1421	3.3 100		0825	0.7 20		0845	0.3 10
	1712	2.3 70			1940	2.3 70		1455	4.3 130		1509	4.6 140
								2058	1.0 30		2134	0.3 10
<b>4</b> Th	0008	4.3 130		<b>19</b> F	0144	3.6 110	<b>4</b> Su	0302	4.6 140	<b>4</b> Tu	0340	3.9 120
	0740	1.0 30			0834	1.3 40		0919	0.3 10		0935	0.3 10
	1423	3.6 110			1511	3.6 110		1538	4.9 150		1552	4.9 150
	1940	2.0 60			2102	2.0 60		2149	0.3 10		2220	-0.3 -10
<b>5</b> F	0204	4.3 130		<b>20</b> Sa	0255	3.9 120	<b>5</b> M	0355	4.9 150	<b>5</b> W	0429	4.3 130
	0856	0.7 20			0920	0.7 20		1001	0.0 10		1018	0.0 10
	1523	4.3 130			1542	4.3 130		1615	5.2 160		1632	5.2 160
	2105	1.3 40			2142	1.3 40		2231	-0.3 -10		2301	-0.7 -20
<b>6</b> Sa	0316	4.9 150		<b>21</b> Su	0340	4.3 130	<b>6</b> Tu	0440	4.9 150	<b>6</b> Th	0511	4.3 130
	0946	0.0 0			0954	0.3 10		1039	-0.3 -10		1056	0.0 0
	1604	4.9 150			1610	4.6 140		1650	5.9 180		1708	5.6 170
	2158	0.7 20			2215	0.7 20		2310	-0.7 -20		2339	-1.0 -30
<b>7</b> Su	0408	5.6 170		<b>22</b> M	0418	4.9 150	<b>7</b> W	0520	5.2 160	<b>7</b> F	0550	4.3 130
	1027	-0.3 -10			1024	0.0 0		1114	-0.3 -10		1131	0.0 0
	1639	5.2 160			1638	5.2 160		1724	6.2 190		1743	5.6 170
	2242	0.0 0			2246	0.0 0		2347	-1.0 -30	<b>O</b>		
<b>8</b> M	0452	5.9 180		<b>23</b> Tu	0453	5.2 160	<b>8</b> Th	0558	5.2 160	<b>8</b> Sa	0014	-1.3 -40
	1104	-0.7 -20			1054	0.0 0		1147	-0.3 -10		0625	4.3 130
	1713	5.9 180			1706	5.6 170		1756	6.2 190		1205	0.0 0
	2322	-0.7 -20			2318	-0.3 -10	<b>O</b>			1815	5.6 170	
<b>9</b> Tu	0532	5.9 180		<b>24</b> W	0526	5.2 160	<b>9</b> F	0023	-1.3 -40	<b>9</b> Su	0048	-1.3 -40
	1138	-0.7 -20			1123	-0.3 -10		0632	4.9 150		0659	4.3 130
	1747	6.2 190			1733	5.9 180		1218	-0.3 -10		1237	0.0 0
					2349	-0.7 -20		1827	5.9 180		1848	5.6 170
<b>10</b> W	0000	-1.0 -30		<b>25</b> Th	0558	5.2 160	<b>10</b> Sa	0057	-1.0 -30	<b>10</b> M	0120	-1.0 -30
	0610	5.9 180			1150	-0.3 -10		0706	4.6 140		0731	3.9 120
	1211	-0.7 -20			1801	5.9 180		1249	0.0 0		1310	0.3 -10
	1819	6.2 190		<b>O</b>			1859	5.9 180		1852	6.2 190	
<b>11</b> Th	0038	-1.0 -30		<b>26</b> F	0020	-1.0 -30	<b>11</b> Su	0130	-1.0 -30	<b>11</b> Tu	0152	-1.0 -30
	0646	5.6 170			0630	5.2 160		0739	4.3 130		0805	3.6 110
	1242	-0.3 -10			1219	-0.3 -10		1319	0.3 10		1343	0.3 10
	1850	6.2 190			1830	6.2 190		1931	5.6 170		1953	4.9 150
<b>12</b> F	0114	-1.0 -30		<b>27</b> Sa	0055	-1.0 -30	<b>12</b> M	0205	-0.7 -20	<b>12</b> W	0226	-0.7 -20
	0720	5.2 160			0704	4.9 150		0814	3.9 120		0841	3.6 110
	1311	0.0 0			1250	0.0 0		1351	0.7 20		1415	0.7 20
	1921	5.9 180			1902	6.2 190		2004	4.9 150		2026	4.6 140
<b>13</b> Sa	0149	-0.7 -20		<b>28</b> Su	0132	-1.0 -30	<b>13</b> Tu	0241	0.0 0	<b>13</b> W	0258	-0.7 -20
	0753	4.6 140			0741	4.6 140		0853	3.6 110		0915	3.6 110
	1340	0.3 10			1323	0.3 10		1423	1.3 40		1446	0.7 20
	1953	5.6 170			1937	5.9 180		2039	4.6 140		2105	4.9 150
<b>14</b> Su	0225	0.0 0		<b>29</b> M	0213	-0.7 -20	<b>14</b> W	0323	0.3 10	<b>14</b> Th	0353	0.0 0
	0827	4.3 130			0822	4.3 130		0941	3.3 100		1019	3.6 110
	1410	1.0 30			1359	0.7 20		1501	1.6 50		1547	1.3 40
	2027	5.2 160			2016	5.6 170		2119	3.9 120		2207	4.3 130
<b>15</b> M	0305	0.3 10		<b>30</b> Tu	0300	0.0 0	<b>15</b> Th	0418	1.0 30	<b>15</b> F	0500	0.3 10
	0906	3.6 110			0912	3.6 110		1052	3.0 90		1140	3.3 100
	1441	1.3 40			1441	1.3 40		1601	2.0 60		1713	1.6 50
	2104	4.6 140			2103	4.9 150	<b>O</b>	2217	3.6 110		2331	3.9 120
<b>31</b> W	0400	0.3 10		<b>31</b> W	1022	3.3 100						
					1539	1.6 50						
					2208	4.3 130						

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Cebu, Philippines, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0500 0.0 -30	1119 2.3 70	16 Tu 0541 0.7 -20	1153 2.3 70	1 Th 0621 1.3 -40	1230 2.6 80	16 F 0619 1.0 -30	1225 3.0 90	1 Th 0525 1.0 -30	1136 2.6 80	16 M 0521 0.3 -10	1130 3.3 100
1533 1.3 40	2216 5.6 170	1619 1.3 40	2254 5.2 160	1707 0.7 20	2343 5.9 180	1727 0.7 20	2349 5.2 160	1628 1.0 30	2257 5.6 170	1649 0.7 20	2304 4.9 150
2 Tu 0546 1.3 -40	1205 2.3 70	17 W 0612 1.0 -30	1222 2.6 80	2 0657 1.3 -40	1300 2.6 80	17 Sa 0644 1.0 -30	1246 3.0 90	2 Th 0559 1.0 -30	1202 3.0 90	17 M 0546 0.7 -20	1149 3.6 110
1618 1.3 40	O 2300 5.9 180	1655 1.0 30	● 2326 5.2 160	1752 0.7 20		1759 0.7 20		1715 0.3 10		17 Sa 1722 0.3 10	
3 W 0629 1.6 -50	1245 2.3 70	18 Th 0640 1.0 -30	1249 2.6 80	3 Sa 0026 5.6 170	0729 1.0 -30	18 Su 0019 5.2 160	0706 0.7 -20	3 Th 0629 1.0 -30	1227 3.3 100	18 Su 0608 0.3 -10	1208 3.6 110
1701 1.0 30	2344 6.2 190	1727 1.0 30	2357 5.2 160	1330 3.0 90	1836 0.3 10	1307 3.3 100	1830 0.3 10	1758 0.0 0		Su 1754 0.0 0	
4 Th 0711 1.6 -50	1322 2.3 70	19 F 0708 1.0 -30	1315 2.6 80	4 Su 0106 5.2 160	0758 0.7 -20	19 M 0050 4.9 150	0728 0.7 -20	4 Su 0020 5.2 160	0655 0.7 -20	19 M 0008 4.9 150	0628 0.3 -10
1744 1.0 30		1758 1.0 30		1358 3.0 90	1921 0.3 10	1328 3.3 100	1904 0.3 10	1252 3.6 110	1837 0.0 0	M 1227 3.9 120	1826 0.3 -10
5 F 0027 5.9 180	0750 1.3 -40	20 Sa 0026 5.2 160	0734 1.0 -30	5 M 0144 4.9 150	0824 0.3 -10	20 Tu 0121 4.6 140	0749 0.3 -10	5 M 0057 4.9 150	0717 0.3 -10	20 Tu 0041 4.6 140	0647 0.0 0
1359 2.3 70	1827 1.0 30	1341 2.6 80	1829 1.0 30	1428 3.3 100	2007 0.7 20	1351 3.6 110	1943 0.0 0	1316 3.9 120	1916 0.0 0	Tu 1247 4.3 130	1900 0.3 -10
6 Sa 0110 5.6 170	0829 1.0 -30	21 Su 0057 5.2 160	0801 0.7 -20	6 Tu 0221 3.9 120	0848 0.0 0	21 W 0155 4.3 130	0810 0.0 0	6 Tu 0131 4.3 130	0736 0.3 10	21 W 0113 4.3 130	0706 0.3 10
1437 2.6 80	1915 1.0 30	1407 3.0 90	1905 1.0 30	1501 3.6 110	2059 0.7 20	1419 3.9 120	2028 0.3 10	1340 4.3 130	1956 0.0 0	W 1311 4.6 140	1939 0.3 -10
7 Su 0153 5.2 160	0906 0.7 -20	22 M 0130 4.9 150	0828 0.7 -20	7 W 0259 3.3 100	0910 0.7 20	22 Th 0234 3.6 110	0832 0.3 10	7 W 0203 3.6 110	0753 0.7 20	22 Th 0148 3.6 110	0725 0.7 20
1517 2.6 80	2009 1.0 30	1435 3.0 90	1945 1.0 30	1539 3.6 110	● 2204 1.0 30	1453 3.9 120	2124 0.3 10	1407 4.3 130	2037 0.3 10	Th 1339 4.9 150	2023 0.3 -10
8 M 0237 4.6 140	0941 0.0 0	23 Tu 0205 4.6 140	0855 0.3 -10	8 Th 0343 2.6 80	0930 1.0 30	23 F 0319 3.0 90	0855 0.7 20	8 Th 0235 3.0 90	0808 0.7 20	23 M 0227 3.3 100	0744 1.0 30
1603 3.0 90	2115 1.3 40	1507 3.0 90	2035 1.0 30	1627 3.6 110	2337 1.0 30	1536 4.3 130	● 2242 0.7 20	1437 4.3 130	2126 0.7 20	F 1413 4.9 150	2116 0.0 0
9 Tu 0325 3.6 110	1017 0.3 0	24 W 0245 3.9 120	0924 0.0 0	9 F 0449 2.0 60	0953 1.3 40	24 Sa 0424 2.0 60	0919 1.0 30	9 F 0310 2.3 70	0822 1.0 30	24 Sa 0314 2.6 80	0804 1.0 30
1656 3.0 90	● 2246 1.3 40	1546 3.3 100	2139 1.0 30	1734 3.6 110	1734 3.6 110	1637 4.3 130	● 2233 1.0 30	1513 3.9 120	2233 1.0 30	Sa 1456 4.6 140	● 2231 0.3 10
10 W 0426 3.0 90	1056 0.7 20	25 Th 0335 3.3 100	0955 0.7 20	10 Sa 0153 1.0 30	0743 1.6 50	25 Su 0041 0.7 20	0651 1.6 50	10 Th 0400 2.0 60	0831 1.3 40	25 Su 0428 2.0 60	0819 1.3 40
1758 3.3 100		1635 3.6 110	2308 1.0 30	1024 1.6 50	1900 3.6 110	1024 1.6 50	1805 4.3 130	0941 1.6 50	1604 3.9 120	W 1555 4.6 140	
11 Th 0047 1.3 40	0602 2.3 70	26 F 0445 2.6 80	1031 1.0 30	11 Su 0327 0.7 20	1016 1.6 50	26 M 0246 0.3 10	1029 2.0 60	11 Su 0031 1.0 30	1732 3.6 110	26 M 0027 0.3 10	1733 4.3 130
1143 1.0 30	1903 3.6 110	1738 3.9 120		1233 1.6 50	2020 3.9 120	1122 2.0 60	1947 4.6 140	1122 2.0 60		M 1733 4.3 130	
12 F 0237 1.0 30	0811 2.0 60	27 Sa 0108 0.7 20	0648 2.0 60	12 M 0417 0.0 0	1048 2.0 60	27 Tu 0357 0.3 -10	1044 2.3 70	12 M 0247 0.7 20	1933 3.6 110	27 Tu 0227 0.3 10	1029 2.3 70
1243 1.3 40	2004 3.9 120	1121 1.3 40	1854 4.3 130	1427 1.6 50	2119 4.3 130	1412 1.6 50	2107 4.9 150	1412 1.6 50	2107 4.9 150	Th 1153 2.3 70	1935 4.3 130
13 Sa 0345 0.3 10	0946 2.0 60	28 Su 0256 0.3 10	0918 2.0 60	13 Tu 0453 0.3 -10	1114 2.3 70	28 W 0446 0.7 -20	1110 2.6 80	13 Tu 0346 0.3 10	1040 2.3 70	28 W 0334 0.0 0	1018 2.6 80
1350 1.3 40	2055 4.6 140	1240 1.6 50	2009 4.6 140	1532 1.3 40	2205 4.6 140	1532 1.3 40	2207 5.2 160	1421 2.0 60	2054 3.9 120	W 1435 2.0 60	2102 4.6 140
14 Su 0431 0.0 0	1041 2.3 70	29 M 0406 0.3 -10	1037 2.0 60	14 W 0524 0.7 -20	1139 2.6 80	14 W 0423 0.0 0	1052 2.6 80	14 W 0454 0.3 -10	1038 3.0 90	29 Th 0419 0.3 -10	1038 3.0 90
1449 1.3 40	2140 4.6 140	1410 1.6 50	2113 4.9 150	1617 1.3 40	2244 4.9 150	1617 1.3 40	2244 4.9 150	2147 4.3 130	2147 4.3 130	Th 1545 1.3 40	2203 4.9 150
15 M 0508 0.3 -10	1120 2.3 70	30 Tu 0457 1.0 -30	1123 2.3 70	15 Th 0553 0.7 -20	1203 2.6 80	15 Th 0454 0.3 -10	1110 3.0 90	15 Th 0454 0.3 -10	1102 3.6 110	30 F 0454 0.3 -10	1102 3.6 110
1538 1.3 40	2219 4.9 150	1521 1.3 40	2209 5.6 170	1654 1.0 30	2318 5.2 160	1654 1.0 30	2318 5.2 160	1614 1.3 40	2228 4.6 140	W 1635 0.7 20	2251 4.9 150
2219 4.9 150		31 W 0541 1.3 -40	1159 2.3 70							31 Sa 0524 0.3 -10	
		1618 1.0 30	● 2258 5.9 180							Sa 1126 3.9 120	
										1718 0.0 0	
										O 2333 4.9 150	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Cebu, Philippines, 2018

Times and Heights of High and Low Waters

April			May			June						
Time	Height		Time	Height		Time	Height					
h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> Su 0550 0.0 0 1150 4.3 130 1756 - 0.3 - 10			<b>16</b> M 0524 0.3 10 1126 4.6 140 1745 - 0.3 - 10 ● 2357 4.3 130			<b>1</b> Tu 0001 3.9 120 0526 1.0 30 1138 5.2 160 1825 - 0.7 - 20			<b>16</b> F 0058 3.0 90 0531 1.3 40 1114 5.6 170 1816 - 1.0 - 30 ● 1921 - 0.7 - 20			<b>16</b> Sa 0113 3.0 90 0525 1.6 50 1210 6.6 200 1940 - 1.0 - 30
<b>2</b> M 0011 4.6 140 0612 0.3 10 1213 4.6 140 1832 - 0.7 - 20			<b>17</b> Tu 0545 0.7 20 1147 4.9 150 1820 - 0.7 - 20			<b>2</b> W 0034 3.6 110 0545 1.0 30 1202 5.6 170 1857 - 0.7 - 20			<b>2</b> Th 0029 3.3 100 0521 1.3 40 1145 5.9 180 1855 - 1.0 - 30			<b>17</b> Su 0128 3.0 90 0554 1.6 50 1233 5.6 170 1953 - 0.3 - 10
<b>3</b> Tu 0045 4.3 130 0630 0.3 10 1235 4.9 150 1907 - 0.7 - 20			<b>18</b> W 0032 3.9 120 0603 0.7 20 1212 5.2 160 1856 - 1.0 - 30			<b>3</b> Th 0104 3.3 100 0602 1.0 30 1226 5.6 170 1929 - 0.7 - 20			<b>3</b> F 0109 3.0 90 0546 1.3 40 1218 6.2 190 1938 - 1.0 - 30			<b>18</b> M 0201 2.6 80 0620 1.6 50 1303 5.6 170 2028 - 0.3 - 10
<b>4</b> W 0116 3.6 110 0646 0.7 20 1258 4.9 150 1941 - 0.3 - 10			<b>19</b> Th 0108 3.6 110 0622 1.0 30 1239 5.6 170 1936 - 1.0 - 30			<b>4</b> F 0134 3.0 90 0620 1.3 40 1251 5.6 170 2002 - 0.3 - 10			<b>4</b> Sa 0151 2.6 80 0612 1.3 40 1256 6.2 190 2025 - 0.7 - 20			<b>19</b> Tu 0240 2.6 80 0648 1.6 50 1336 5.2 160 2108 0.0 0
<b>5</b> Th 0146 3.3 100 0702 1.0 30 1323 4.9 150 2017 0.0 0			<b>20</b> F 0146 3.3 100 0643 1.0 30 1311 5.6 170 2022 - 0.7 - 20			<b>5</b> Sa 0205 2.6 80 0639 1.3 40 1319 5.2 160 2040 0.0 0			<b>5</b> Su 0238 2.6 80 0641 1.6 50 1337 5.9 180 2118 - 0.3 - 10			<b>20</b> W 0329 2.6 80 0722 2.0 60 1413 4.9 150 2155 0.3 10
<b>6</b> F 0216 3.0 90 0716 1.0 30 1350 4.9 150 2058 0.3 10			<b>21</b> Sa 0229 2.6 80 0704 1.3 40 1348 5.6 170 2116 - 0.3 - 10			<b>6</b> Su 0244 2.3 70 0659 1.6 50 1351 4.9 150 2127 0.3 10			<b>6</b> M 0339 2.3 70 0714 1.6 50 1426 5.2 160 2222 0.0 0			<b>21</b> Th 0435 2.6 80 0808 2.3 70 1459 4.6 140 2250 0.7 20
<b>7</b> Sa 0251 2.3 70 0731 1.3 40 1422 4.6 140 2151 0.7 20			<b>22</b> Su 0324 2.3 70 0725 1.6 50 1433 5.2 160 2229 0.0 0			<b>7</b> M 0340 2.3 70 0718 2.0 60 1430 4.6 140 2230 0.7 20			<b>7</b> Tu 0508 2.3 70 0803 2.0 60 1527 4.6 140 ● 2337 0.3 10			<b>22</b> F 0558 2.6 80 0934 2.3 70 1604 3.9 120 ● 2352 0.7 20
<b>8</b> Su 0342 2.0 60 0741 1.6 50 1503 4.3 130 ● 2316 1.0 30			<b>23</b> M 0501 2.0 60 0741 1.6 50 1534 4.6 140 ● 2358 0.7 20			<b>8</b> Tu 0537 2.3 70 0724 2.0 60 1523 4.3 130 ● 2358 0.7 20			<b>8</b> W 0659 2.6 80 1002 2.3 70 1657 3.9 120			<b>23</b> Sa 0709 3.0 90 1204 2.3 70 1743 3.3 100
<b>9</b> M 1609 3.6 110			<b>24</b> Tu 0010 0.3 10 1714 4.3 130			<b>9</b> W 1656 3.6 110			<b>9</b> Th 0053 0.7 20 0800 3.0 90 1301 2.3 70 1853 3.6 110			<b>24</b> Sa 0055 1.0 30 0756 3.6 110 1403 2.0 60 1935 3.3 100
<b>10</b> Tu 0127 1.0 30 1819 3.6 110			<b>25</b> W 0149 0.3 10 0915 2.6 80 1254 2.3 70 1920 3.9 120			<b>10</b> Th 0125 0.7 20 0900 3.0 90 1319 2.6 80 1902 3.6 110			<b>10</b> F 0155 0.7 20 0840 3.6 110 1442 1.6 50 2029 3.6 110			<b>25</b> M 0149 1.3 40 0833 3.9 120 1513 1.0 30 2103 3.3 100
<b>11</b> W 0249 0.7 20 1006 2.6 80 1407 2.3 70 2011 3.6 110			<b>26</b> Th 0253 0.3 10 0933 3.3 100			<b>11</b> F 0225 0.7 20 0916 3.3 100			<b>11</b> Sa 0243 1.0 30 0914 4.3 130			<b>26</b> Tu 0234 1.3 40 0906 4.6 140
<b>12</b> Th 0334 0.3 10 1013 3.0 90 1517 1.6 50 2116 3.9 120			<b>27</b> F 0337 0.3 10 0958 3.6 110			<b>12</b> Sa 0308 0.7 20 0937 3.9 120			<b>12</b> Su 0320 1.0 30 0945 4.9 150			<b>27</b> W 0312 1.6 50 0940 5.2 160
<b>13</b> F 0408 0.0 0 1029 3.3 100 1601 1.3 40 2204 4.3 130			<b>28</b> Sa 0412 0.3 10 1024 4.3 130			<b>13</b> Su 0341 0.7 20 0959 4.3 130			<b>13</b> M 0352 1.0 30 1015 5.2 160			<b>28</b> W 0346 1.6 50 1015 5.9 180
<b>14</b> Sa 0437 0.0 0 1048 3.9 120 1637 0.7 20 2245 4.3 130			<b>29</b> Su 0441 0.3 10 1049 4.6 140			<b>14</b> M 0410 1.0 30 1022 4.9 150			<b>14</b> Tu 0420 1.3 40 1043 5.6 170			<b>29</b> F 0418 1.6 50 1051 6.2 190
<b>15</b> Su 0502 0.0 0 1107 4.3 130 1712 0.0 0 2322 4.6 140			<b>30</b> O 0505 0.7 20 1114 4.9 150			<b>15</b> W 0435 1.0 30 1047 5.2 160			<b>15</b> Th 0445 1.3 40 1111 5.9 180			<b>30</b> Sa 0027 3.0 90 0518 1.6 50
						<b>15</b> M 1752 - 0.7 - 20			<b>15</b> F 0031 3.0 90 0450 1.6 50			<b>30</b> W 1819 - 0.7 - 20
						<b>● 2350</b> 3.6 110			<b>● 2354</b> 3.3 100			<b>● 1844</b> 0.7 - 20
									<b>31</b> Th 0027 3.0 90 0508 1.3 40			
									<b>31</b> W 1138 5.9 180			
									<b>31</b> F 1850 - 0.7 - 20			

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Cebu, Philippines, 2018

Times and Heights of High and Low Waters

July				August				September					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m 1 Su 0122 3.0 90 0548 1.6 50 1225 5.9 180 1942 - 0.3 - 10	ft 50 180 - 10	h m 16 M 0140 3.0 90 0611 1.3 40 1253 6.2 190 2009 - 0.7 - 20	cm 90 40 190 - 20	h m 1 W 0152 3.6 110 0657 1.3 40 1319 5.6 170 2011 0.0 0	ft 40 170 0 0	cm 110 40 150 0	h m 16 Th 0206 3.9 120 0752 0.7 20 1409 4.9 150 2029 0.7 20	ft 20 150 20 20	cm 140 40 130 30	h m 1 Sa 0157 4.6 140 0809 0.7 20 1416 4.3 130 2009 1.0 30	ft 20 90 30 50	cm 150 50 90 50	
2 M 0152 3.0 90 0619 1.6 50 1255 5.6 170 2012 - 0.3 - 10	ft 50 170 - 10	2 Tu 0214 3.0 90 0658 1.3 40 1336 5.9 180 2044 - 0.3 - 10	cm 90 40 180 - 10	2 Th 0217 3.6 110 0734 1.3 40 1352 4.9 150 2036 0.3 10	ft 40 150 10 10	cm 110 40 120 30	2 F 0237 4.3 130 0842 1.0 30 1447 3.9 120 2050 1.0 30	ft 30 120 30 30	cm 140 40 110 40	2 Su 0225 4.6 140 0858 0.7 20 1456 3.6 110 2029 1.3 40	ft 20 90 40 50	cm 150 50 70 50	
3 Tu 0223 3.0 90 0652 1.6 50 1327 5.6 170 2044 0.0 0	ft 50 170 0	3 W 0251 3.3 100 0751 1.3 40 1420 5.2 160 2118 0.3 10	cm 90 40 160 10	3 F 0245 3.6 110 0817 1.3 40 1428 4.6 140 2101 0.7 20	ft 40 140 10 20	cm 110 40 140 20	3 Sa 0312 4.3 130 0941 1.3 40 1530 3.3 100 2108 1.3 40	ft 40 90 100 40	cm 150 40 90 50	3 M 0302 4.9 150 1001 1.0 30 1549 3.0 90 2047 1.6 50	ft 30 90 70 50	cm 140 40 40 50	
4 W 0258 3.0 90 0732 1.6 50 1403 5.2 160 2118 0.0 0	ft 50 160 0	4 Th 0311 3.6 110 0852 1.6 50 1506 4.3 130 2151 0.7 20	cm 90 50 130 20	4 Sa 0317 3.9 120 0911 1.3 40 1511 3.9 120 2127 1.0 30	ft 40 140 10 30	cm 120 40 120 30	4 M 0354 4.3 130 1101 1.3 40 1628 2.6 80 2123 1.6 50	ft 40 80 80 60	cm 150 40 70 50	4 Tu 0351 4.9 150 1140 1.0 30 1732 2.3 70 2056 2.0 60	ft 30 70 60 60	cm 140 40 70 60	
5 Th 0338 3.0 90 0820 2.0 60 1443 4.6 140 2154 0.3 10	ft 60 140 10	5 F 0418 3.6 110 1009 1.6 50 1601 3.6 110 2225 1.3 40	cm 90 50 110 40	5 Su 0358 4.3 130 1024 1.3 40 1608 3.3 100 2155 1.3 40	ft 40 140 10 40	cm 130 40 100 40	5 M 0452 4.3 130 1309 1.3 40 1903 2.0 60 2119 2.0 60	ft 40 80 60 60	cm 140 40 60 60	5 W 0506 4.6 140 1400 1.0 30 2244 2.2 90	ft 30 90 30	cm 120 40 90	
6 F 0424 3.3 100 0927 2.0 60 1533 3.9 120 O 2233 1.0 30	ft 60 120 30	6 Sa 0514 3.9 120 1155 1.6 50 1720 3.0 90 2303 1.6 50	cm 100 50 90 50	6 M 0452 4.3 130 1211 1.3 40 1746 2.6 80 2228 2.0 60	ft 40 140 10 60	cm 130 40 80 60	6 Tu 0617 4.3 130 1508 1.0 30 2246 2.6 80	ft 40 80 80	cm 140 40 80	6 Th 0656 4.6 140 1530 0.3 10 2242 2.6 100	ft 30 100 100	cm 120 40 100	
7 Sa 0518 3.6 110 1103 2.0 60 1643 3.3 100 2318 1.3 40	ft 60 100 40	7 Su 0621 4.3 130 1358 1.3 40 1933 2.3 70 2355 2.0 60	cm 110 50 70 60	7 Tu 0605 4.6 140 1418 1.0 30 2050 2.3 70 2326 2.3 70	ft 40 140 10 70	cm 130 40 70 70	7 W 0752 4.6 140 1605 0.7 20 2255 2.6 80	ft 40 20 80	cm 140 70 80	7 F 0116 2.6 80 0832 5.2 160 1623 0.0 0 2256 3.0 90	ft 30 160 0 90	cm 120 40 100 110	
8 Su 0618 3.9 120 1304 1.6 50 1834 3.0 90	ft 50 90	8 M 0730 4.6 140 1525 1.0 30 2136 2.3 70	cm 120 50 70	8 W 0729 4.9 150 1543 0.3 10 2234 2.6 80	ft 40 140 10 80	cm 130 50 100 80	8 Th 0202 2.3 70 0903 4.9 150 1643 0.3 10 2309 3.0 90	ft 30 150 10 90	cm 120 50 100 90	8 Sa 0305 2.0 60 0941 5.6 170 1703 - 0.3 - 10 2318 3.3 100	ft 30 170 10 100	cm 150 40 0 120	
9 M 0011 1.6 50 0718 4.3 130 1444 1.0 30 2039 2.6 80	ft 50 130 30 80	9 Tu 0109 2.0 60 0831 4.9 150 1620 0.3 10 2239 2.6 80	cm 50 150 10 80	9 Th 0120 2.3 70 0843 5.2 160 1639 - 0.3 - 10 2313 2.6 80	ft 40 140 10 80	cm 130 50 100 80	9 F 0320 2.0 60 0954 4.9 150 1714 0.0 0 2330 3.3 100	ft 40 150 0 100	cm 130 50 100 100	9 Sa 0407 1.6 50 1035 5.9 180 1738 - 0.3 - 10 2342 3.6 110	ft 30 180 10 110	cm 150 40 100 120	
10 Tu 0111 2.0 60 0814 4.9 150 1551 0.3 10 2208 2.6 80	ft 60 150 10 80	10 W 0223 2.0 60 0923 5.2 160 1700 0.0 0 2318 2.6 80	cm 60 160 0 80	10 F 0252 2.0 60 0945 5.9 180 1723 - 0.7 - 20 2345 3.0 90	ft 40 140 10 90	cm 130 50 180 80	10 M 0410 1.6 50 1034 5.2 160 1742 0.0 0 2351 3.3 100	ft 40 160 0 100	cm 130 50 180 100	10 Tu 0457 1.0 30 1122 5.9 180 1809 - 0.3 - 10 2353 4.3 130	ft 30 180 10 130	cm 150 40 100 130	
11 W 0211 2.0 60 0906 5.2 160 1644 - 0.3 - 10 2307 2.6 80	ft 60 160 - 10 80	11 Th 0321 2.0 60 1006 5.6 170 1734 0.0 0 2347 3.0 90	cm 60 170 0 90	11 Sa 0356 1.6 50 1038 6.2 190 1802 - 0.7 - 20 ●	ft 40 140 0 ●	cm 130 190 - 20 ●	11 M 0448 1.6 50 1109 5.6 170 1807 - 0.3 - 10 ○	ft 40 140 0 ●	cm 130 190 - 20 ●	11 Tu 0007 3.9 120 0541 0.7 20 1204 5.9 180 1835 0.0 0	ft 30 120 10 0	cm 150 40 120 100	
12 Th 0306 2.0 60 0954 5.9 180 1730 - 0.7 - 20 2352 3.0 90	ft 60 180 - 20 90	12 F 0047 1.6 50 1044 5.6 170 1804 - 0.3 - 10	cm 60 170 - 20 90	12 M 0013 3.0 90 0448 1.3 40 1125 6.6 200 1837 - 0.7 - 20	ft 40 140 10 90	cm 130 40 200 90	12 W 0012 3.6 110 0521 1.3 40 1141 5.6 170 1830 - 0.3 - 10	ft 40 140 10 90	cm 130 40 170 90	12 Th 0032 4.3 130 0623 0.3 10 1243 5.2 160 1859 0.3 10	ft 30 10 160 10	cm 150 40 170 20	
13 F 0355 2.0 60 1041 6.2 190 1813 - 1.0 - 30	ft 60 190 - 30	13 Sa 0014 3.0 90 0445 1.6 50 1118 5.9 180 ● 1831 - 0.3 - 10	cm 60 50 180 - 10	13 M 0042 3.3 100 0535 1.0 30 1209 6.2 190 1910 - 0.7 - 20	ft 40 140 10 90	cm 130 50 190 - 20	13 W 0033 3.6 110 0552 1.0 30 1210 5.6 170 1852 0.0 0	ft 40 140 10 90	cm 130 50 170 0	13 Th 0057 4.6 140 0703 0.0 0 1319 4.9 150 1919 0.7 20	ft 30 0 150 20	cm 150 0 150 20	
14 Sa 0030 3.0 90 0440 1.6 50 1126 6.6 200 1853 - 1.0 - 30	ft 50 200 - 30	14 Su 0040 3.3 100 0519 1.6 50 1150 5.9 180 1857 - 0.3 - 10	cm 90 50 180 - 10	14 Tu 0109 3.6 110 0620 1.0 30 1250 5.9 180 1939 - 0.3 - 10	ft 40 140 10 90	cm 130 50 180 - 10	14 W 0052 3.9 120 0622 0.7 20 1240 5.6 170 1912 0.0 0	ft 40 140 10 90	cm 130 50 180 0	14 F 0122 4.9 150 0744 0.0 0 1354 4.3 130 1936 1.0 30	ft 30 0 130 30	cm 150 0 130 30	
15 Su 0106 3.0 90 0525 1.3 40 1210 6.6 200 1932 - 1.0 - 30	ft 40 200 - 30	15 M 0104 3.3 100 0551 1.3 40 1219 5.9 180 1922 - 0.3 - 10	cm 90 40 180 - 10	15 W 0137 3.9 120 0706 0.7 20 1330 5.6 170 2006 0.3 10	ft 40 140 10 90	cm 130 40 180 - 10	15 Th 0112 4.3 130 0654 0.7 20 1309 5.2 160 1931 0.3 10	ft 40 140 10 90	cm 130 40 160 - 10	15 Sa 0148 4.9 150 0826 0.3 10 1428 3.6 110 1950 1.3 40	ft 30 10 110 40	cm 150 10 110 40	
		16 Tu 0128 3.3 100 0623 1.3 40 1249 5.6 170 1947 - 0.3 - 10	cm 90 40 170 - 10				16 F 0133 4.3 130 0729 0.7 20 1341 4.6 140 1950 0.7 20				16 Sa 0173 4.9 150 0913 0.7 20 1503 3.0 90 1409 1.3 40	ft 150 20 90 40	cm 150 20 90 40

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Cebu, Philippines, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0147 5.2 160	16 Tu 0206 4.9 150	1 Th 0258 5.2 160	16 F 0304 4.3 130	1 Sa 0409 4.3 130	16 Su 0340 3.6 110						
0850 0.0 0	0940 0.7 20	1119 0.3 10	1128 0.7 20	1205 0.3 10	1119 0.3 10						
1451 3.0 90	1535 2.3 70	1919 2.0 60	1922 2.0 60	1912 2.6 80	1829 2.6 80						
1939 1.6 50				2348 2.0 60	2320 2.0 60						
2 Tu 0225 5.2 160	17 W 0244 4.6 140	2 F 0417 4.6 140	17 Sa 0421 3.6 110	2 Su 0553 3.6 110	17 M 0502 3.3 100						
0953 0.3 10	1055 1.0 30	1257 0.3 10	1250 0.7 20	1310 0.7 20	1217 0.7 20						
1551 2.3 70	2055 2.6 80	2036 3.0 90	1405 0.7 20	2003 3.3 100	1925 3.3 100						
1953 1.6 50	2313 2.6 80										
3 W 0314 4.9 150	18 Th 0339 4.3 130	3 Sa 0618 4.3 130	18 Su 0622 3.3 100	3 M 0158 1.6 50	18 Tu 0131 1.6 50						
1128 0.7 20	1254 1.0 30	1413 0.3 10	1355 0.7 20	0742 3.3 100	0655 2.6 80						
		2108 3.3 100	2056 3.3 100	1405 0.7 20	1314 1.0 30						
4 Th 0431 4.6 140	19 F 0534 3.6 110	4 Su 0204 2.0 60	19 M 0231 2.0 60	4 Tu 0315 0.7 20	19 W 0254 1.0 30						
1336 0.7 20	1424 1.0 30	0806 2.0 60	0805 3.3 100	0907 3.3 100	0837 2.6 80						
2206 3.0 90	2200 3.0 90	1504 0.3 10	1442 0.7 20	1449 1.0 30	1404 1.3 40						
		2133 3.6 110	2119 3.6 110	2119 4.6 140	2046 4.3 130						
5 F 0635 4.6 140	20 Sa 0143 2.6 80	5 M 0321 1.3 40	20 Tu 0328 1.3 40	5 W 0410 0.0 0	20 Th 0351 0.3 10						
1500 0.3 10	0743 3.9 120	0921 4.3 130	0915 3.3 100	1011 3.0 90	0953 2.6 80						
2206 3.0 90	1513 0.7 20	1543 0.3 10	1519 0.7 20	1526 1.0 30	1446 1.3 40						
	2159 3.3 100	2200 4.3 130	2143 4.3 130	2153 4.9 150	2121 4.6 140						
6 Sa 0150 2.3 70	21 Su 0306 2.0 60	6 Tu 0414 0.3 10	21 W 0411 0.7 20	6 Th 0455 - 0.3 - 10	21 F 0437 - 0.3 - 10						
0823 4.6 140	0858 3.9 120	1018 4.3 130	1009 3.6 110	1102 3.0 90	1051 2.6 80						
1551 0.0 0	1549 0.7 20	1616 0.7 20	1549 1.0 30	1557 1.0 30	1523 1.3 40						
2219 3.3 100	2214 3.6 110	2228 4.9 150	2207 4.6 140	2225 5.2 160	2157 5.2 160						
7 Su 0318 1.6 50	22 M 0352 1.3 40	7 W 0458 0.0 0	22 Th 0449 0.0 0	7 F 0535 - 0.7 - 20	22 Sa 0520 - 1.0 - 30						
0934 4.9 150	0949 4.3 130	1106 3.9 120	1056 3.6 110	1145 3.0 90	1139 2.6 80						
1629 0.0 0	1618 0.3 10	1643 0.7 20	1616 1.0 30	1626 1.3 40	1557 1.3 40						
2241 3.9 120	2233 3.9 120	2254 5.2 160	2231 5.2 160	2256 5.6 170	2234 5.6 170						
8 M 0414 1.0 30	23 Tu 0429 1.0 30	8 Th 0538 - 0.7 - 20	23 F 0526 - 0.7 - 20	8 Sa 0611 - 1.0 - 30	23 Su 0601 - 1.3 - 40						
1028 5.2 160	1032 4.3 130	1148 3.9 120	1138 3.3 100	1222 2.6 80	1221 2.6 80						
1701 0.0 0	1644 0.3 10	1707 1.0 30	1640 1.3 40	1652 1.3 40	1631 1.3 40						
2305 4.3 130	2252 4.6 140	2321 5.6 170	2258 5.6 170	2325 5.6 170	2312 5.9 180						
9 Tu 0500 0.3 10	24 W 0503 0.3 10	9 F 0615 - 0.7 - 20	24 Sa 0603 - 1.0 - 30	9 Su 0645 - 1.0 - 30	24 M 0643 - 1.3 - 40						
1114 4.9 150	1110 4.3 130	1707 0.7 20	1225 3.6 110	1254 2.6 80	1259 2.3 70						
1729 0.3 10	2312 4.9 150	2312 4.9 150	2346 5.6 170	1702 1.3 40	1706 1.3 40						
● 2330 4.6 140				2327 5.9 180	2352 6.2 190						
10 W 0541 0.0 0	25 Th 0536 0.0 0	10 Sa 0650 - 0.7 - 20	25 Su 0642 - 1.3 - 40	10 M 0716 - 1.0 - 30	25 Tu 0724 - 1.3 - 40						
1155 4.9 150	1146 4.3 130	1258 3.3 100	1256 3.0 90	1324 2.6 80	1337 2.3 70						
1753 0.7 20	1727 0.7 20	1746 1.3 40	1726 1.3 40	1742 1.3 40	1744 1.3 40						
2354 4.9 150	O 2332 5.2 160		2359 6.2 190								
11 Th 0620 - 0.3 - 10	26 F 0609 - 0.3 - 10	11 Su 0012 5.9 180	26 M 0722 - 1.3 - 40	11 Tu 0023 5.6 170	26 W 0033 6.2 190						
1233 4.6 140	1220 3.9 120	0723 - 0.7 - 20	1336 2.6 80	0748 - 0.7 - 20	0805 - 1.3 - 40						
1813 1.0 30	1745 1.0 30	1330 3.0 90	1751 1.3 40	1356 2.3 70	1417 2.3 70						
	2354 5.6 170	1804 1.3 40	1820 1.3 40	1808 1.3 40	1826 1.0 30						
12 F 0018 5.2 160	27 Sa 0643 - 0.7 - 20	12 M 0039 5.6 170	27 Tu 0035 6.2 190	12 W 0054 5.2 160	27 Th 0117 5.9 180						
0656 - 0.3 - 10	1255 3.6 110	0757 - 0.3 - 10	0806 - 1.0 - 30	0821 - 0.7 - 20	0847 - 1.0 - 30						
1308 3.9 120	1803 1.3 40	1402 2.6 80	1420 2.3 70	1431 2.3 70	1459 2.3 70						
1830 1.0 30		1822 1.3 40	1820 1.3 40	1838 1.3 40	1915 1.3 40						
13 Sa 0043 5.6 170	28 Su 0019 5.9 180	13 Tu 0108 5.6 170	28 W 0116 5.9 180	13 M 0127 5.2 160	28 F 0204 5.2 160						
0732 - 0.3 - 10	0720 - 0.7 - 20	0834 0.0 0	0855 - 0.7 - 20	0857 - 0.3 - 10	0930 - 0.7 - 20						
1340 3.6 110	1331 3.3 100	1439 2.3 70	1512 2.3 70	1514 2.3 70	1548 2.3 70						
1845 1.3 40	1821 1.3 40	1843 1.6 50	1855 1.6 50	1914 1.6 50	2017 1.3 40						
14 Su 0108 5.6 170	29 M 0049 5.9 180	14 W 0140 5.2 160	29 Th 0201 5.6 170	14 F 0203 4.6 140	29 Sa 0255 4.6 140						
0809 0.0 0	0802 - 0.7 - 20	0918 0.3 10	0951 - 0.3 - 10	0938 0.0 0	1015 0.0 0						
1411 3.0 90	1411 3.0 90	1530 2.3 70	1622 2.0 60	1609 2.3 70	1645 2.6 80						
1859 1.3 40	1841 1.3 40	1904 1.6 50	1942 1.6 50	2001 2.0 60	2140 1.6 50						
15 M 0135 5.2 160	30 Tu 0124 5.9 180	15 Th 0217 4.6 140	30 F 0256 4.9 150	15 Sa 0245 4.3 130	30 Su 0356 3.9 120						
0850 0.3 10	0852 - 0.3 - 10	1014 0.3 10	1055 0.0 0	1025 0.3 10	1102 0.3 10						
1446 2.6 80	1500 2.3 70	1704 2.3 70	1753 2.3 70	1718 2.6 80	1748 3.0 90						
1912 1.6 50	1903 1.6 50	1922 2.0 60	2108 2.0 60	2114 2.0 60	2335 1.6 50						
	31 W 0205 5.6 170	0954 0.0 0	1923 2.0 60								
	1615 2.0 60	1923 2.0 60									
	1923 2.0 60										

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Manila, Philippines, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0434 M 1138 1253 2111	ft -0.7 1.0 1.0 3.9	cm -20 30 30 120	h m 0533 Tu 2135	ft -0.7 3.3	cm -20 100	h m 0555 1 Th 1253	ft -1.0 0.7	cm -30 20	h m 0554 F 1204	ft -0.3 1.0	cm -10 30
● 2 0523 Tu 2153	-1.0 3.9	120	16 0602 W 2207	-0.7 3.3	100	1426 1459 2235	0.7 1.0 3.9	20 30 120	1459 2232	1.0 3.3	30 100
○ 3 0611 W 2236	-1.3 4.3	130	18 0630 Th 1330	-0.7 1.0	20	0712 1330 1634	-0.7 1.0 0.7	20 30 20	0643 1236 1639	-0.3 1.3 0.7	10 40 20
4 0657 Th 2323	-1.3 3.9	120	19 0658 F 1339	-0.7 1.0	20	0013 0747 1352	3.3 -0.3 1.3	100 20 40	0708 1259 1732	0.0 1.6 0.7	0 50 20
5 0744 F 1356	-1.0 1.0	30	20 0727 Sa 1356	-0.7 1.0	20	0101 0818 1416	3.0 0.0 1.3	90 00 40	0032 0731 1326	2.6 0.3 1.6	80 10 50
6 0012 Sa 0828	3.6 -1.0	110	21 0757 Su 1417	-0.3 1.0	10	0149 0841 1445	2.3 0.3 1.6	70 10 50	0118 0749 1356	2.3 0.3 2.0	70 20 60
7 0103 Su 0911	3.3 -0.3	100	22 0026 M 0825	3.0 -0.3	90	0238 0854 1444	2.0 0.7 1.3	60 20 40	0210 0800 1522	2.0 0.7 2.0	60 20 60
8 0156 M 0949	3.0 0.0	90	23 0109 Tu 0853	2.6 0.0	80	0335 0852 1514	1.3 0.7 1.3	40 20 40	0316 0803 1517	1.3 0.7 2.6	40 30 80
9 0251 Tu 1020	2.3 0.3	70	24 0157 W 0917	2.3 0.3	70	0037 0503 1550	0.7 0.7 1.6	20 20 50	0512 0745 1614	1.0 1.0 2.6	30 30 80
○ 10 0353 W 1039	1.6 0.3	50	25 0254 Th 0936	1.6 0.7	50	0219 0908 1634	0.3 2.6 2.0	10 80 60	0056 1723	0.0 3.0 90	0 80 0
11 0104 Th 0517	1.0 1.3	30	26 0424 F 0949	1.3 0.7	40	0322 1906	0.0 2.6	0 80	0224 1837	-0.3 3.3	-10
12 0233 F 0735	0.3 1.0	10	27 0110 Sa 0715	0.3 1.0	10	0405 1955	-0.3 3.0	-10	0323 1946	-0.7 3.3	-20
13 0337 Sa 1950	0.0 3.0	0	28 0239 Su 1914	0.0 3.3	0	0438 2039	-0.3 3.0	-10	0409 2049	-0.7 3.6	-20
14 0423 Su 2027	-0.3 3.0	-10	29 0341 M 2006	-0.7 3.6	-20	0506 2118	-0.7 3.3	-20	0351 2004	-0.3 3.0	-10
15 0501 M 2102	-0.3 3.3	-10	30 0430 Tu 2056	-1.0 3.9	-30	0531 1159 1402 2155	-0.7 1.0 1.0 3.3	-20 30 30 100	0417 1100 1321 2055	-0.3 1.3 1.0 3.0	-10 40 30 90
○ 31 0514 W 2146	-1.0 3.9	-30	○ O								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# **Manila, Philippines, 2018**

## Times and Heights of High and Low Waters

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Manila, Philippines, 2018

Times and Heights of High and Low Waters

July				August				September														
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height											
h m 1115 Su 1955	ft 3.9 0.0	cm 120 0	16 M 2009	h m 1155 - 0.3	ft 4.6 -	cm 140 - 10	1 W 0210	h m 0210 0450	ft 2.0 1.6	cm 60 50	16 Th 0203 0700	h m 2.3 1.3	ft 70 40	cm 80 40	1 Sa 0136 0751	h m 2.6 1.3	ft 80 40	cm 80 40	16 Su 0157 1000	h m 3.3 0.7	ft 100 20	cm 50 20
1149 M 2027	3.9 0.0	120 0	17 Tu 2051	4.3 0.0	130 0	2 Th 0232	2.0 0558	60 50	17 F 0234 0833	2.6 1.3	80 40	2 Su 0210 0913	3.0 1.0	90 30	17 M 0242 1139	3.3 0.7	100 20	●				
1226 Tu 2100	3.6 0.3	110 10	18 W 0352	1.6 0556	50	3 F 0258	2.3 0720	70 50	18 Sa 0311 1012	2.6 1.3	80 40	3 M 0253 1041	3.3 1.0	100 30	18 Tu 0337 1317	3.3 0.7	100 20	●				
1306 W 2132	3.3 0.3	100 10	19 Th 0414	2.0 0754	60	4 Sa 0330	2.3 0900	70 50	19 Su 0357 1203	3.0 1.0	90 30	4 Tu 0348 1221	3.6 0.7	110 20	19 W 0443 1422	3.3 0.3	100 10	●				
0511 Th 0607	2.0 2.0	60 60	20 F 0444	2.3 1010	70 50	5 Su 0408	2.6 1042	80 40	20 M 0451 1352	3.3 1.0	100 30	5 W 0454 1357	3.6 0.3	110 10	20 Th 0551 1506	3.3 0.3	100 10	●				
1351 2201	3.0 0.7	90 20	F 1545	2.6 2217	80 40	6 M 0454	3.3 1229	100 50	21 Tu 0549 1503	3.3 0.7	100 20	6 Th 0605 1500	3.9 0.0	120 0	21 F 0655 1540	3.3 0.3	100 10	●				
0511 F 0826	2.0 2.0	60 80	21 Sa 0519	2.6 1214	80 40	7 M 0454	3.3 1229	100 50	21 W 0645 1551	3.6 0.3	110 10	7 F 0713 1547	4.3 0.0	130 0	22 Sa 0752 1607	3.6 0.3	110 10	22 Sa 2244	2.0 60			
1444 ● 2226	2.6 1.0	80 30	Sa 1707	2.0 2215	60 40	8 W 0640	3.9 1522	120 10	8 Th 0736 1627	3.6 0.3	110 10	8 Sa 0817 1627	4.3 0.0	130 0	23 Su 0101 1631	1.6 0.7	50 20	23 Su 2236	2.0 60			
0535 Sa 1042	2.3 1.6	70 50	22 Su 0559	3.0 1400	90 30	9 Tu 0733	4.3 1413	110 0.7	22 W 0645 1551	3.6 0.3	110 10	9 Sa 0123 0917	1.6 4.3	50 0.0	24 M 0218 1651	1.6 0.7	50 20	24 M 2242	2.0 60			
1558 2247	2.3 1.0	70 30	Sa 1911	1.6 2157	50 40	10 F 0822	3.9 1657	120 0	23 Tu 0903 1724	3.9 0.3	120 10	10 M 0250 1013	1.6 4.3	50 130	25 Tu 0316 1711	1.3 1.0	40 30	● 2339	2.0 60			
0606 Su 1242	2.6 1.3	80 40	23 M 0641	3.3 1517	100 20	11 W 0640	3.9 1522	120 10	24 Sa 0903 1724	3.9 0.3	120 10	11 W 0400 1107	1.3 3.9	40 120	26 W 0408 1054	1.3 3.3	40 100	●				
1758 2304	2.0 1.3	60 40	Tu 1611	0.3	110	12 Th 0724	3.6 1611	110 0.3	25 Tu 0805 1653	3.9 0.3	120 10	12 W 0506 1020	1.0 3.9	30 120	27 Th 0501 1139	1.0 3.0	30 90	●				
0642 M 1418	3.3 1.0	100 30	Tu 1611	0.3	110	13 F 0724	3.6 1612	110 0.0	26 Th 0826 1656	4.6 - 0.3	140 - 10	13 W 0003 0337	2.0 1.6	60 50	13 Th 0021 0613	2.6 1.0	80 30	28 F 0558 1226	1.0 2.6	30 80	●	
2009 2318	1.6 1.3	50 40	Sa 1611	0.3	110	14 Tu 0733	4.3 1612	130 0.0	27 M 0826 1656	4.6 - 0.3	140 - 10	14 W 0003 0337	2.0 1.6	60 50	14 F 0048 0723	2.6 1.0	80 30	29 Sa 0007 0700	3.0 0.7	90 20	●	
2203 2326	1.3 1.3	40 40	Sa 1728	0.0	120	15 W 0844	4.3 1758	130 0.0	28 Th 0921	3.9 1758	120 0	15 W 0042 0529	2.3 1.3	70 40	15 Sa 0120 0838	3.0 1.0	90 30	30 Su 0039 0808	3.3 0.7	100 20	●	
0721 Tu 1527	3.6 0.3	110 10	Th 1728	0.0	120	16 W 0844	4.3 1758	130 0.0	29 Tu 0921	3.9 1758	120 0	16 W 0042 0529	2.3 1.3	70 40	16 Sa 0141 1441	3.0 2.0	60 60	31 W 0157 0347	1.6 1.6	50 50	●	
1527 2203	0.3 1.3	10 40	W 1728	0.0	120	17 W 0844	4.3 1758	130 0.0	30 Tu 0921	3.9 1758	120 0	17 W 0042 0529	2.3 1.3	70 40	17 Tu 0107 0635	2.3 1.3	70 40	31 F 0107 0635	2.3 1.3	70 40	●	
0802 W 1621	3.9 0.0	120 0	W 1728	0.0	120	18 W 0844	4.3 1758	130 0.0	31 Tu 0157	1.6 0.3	120 - 10	18 W 0042 0529	2.3 1.3	70 40	18 Tu 0141 1441	3.0 2.0	60 60	31 F 0107 0635	2.3 1.3	70 40	●	
0844 Th 1709	4.3 - 0.3	130 - 10	W 1728	0.0	120	19 W 0844	4.3 1758	130 0.0	32 Tu 0157	1.6 0.3	120 - 10	19 W 0042 0529	2.3 1.3	70 40	19 Tu 0141 1441	3.0 2.0	60 60	31 F 0107 0635	2.3 1.3	70 40	●	
0928 F 1755	4.6 - 0.7	140 - 20	W 1728	0.0	120	20 W 0844	4.3 1758	130 0.0	33 Tu 0157	1.6 0.3	120 - 10	20 W 0042 0529	2.3 1.3	70 40	20 Tu 0141 1441	3.0 2.0	60 60	31 F 0107 0635	2.3 1.3	70 40	●	
1014 Sa 1840	4.9 - 0.7	150 - 20	W 1728	0.0	120	21 W 0844	4.3 1758	130 0.0	34 Tu 0157	1.6 0.3	120 - 10	21 W 0042 0529	2.3 1.3	70 40	21 Tu 0141 1441	3.0 2.0	60 60	31 F 0107 0635	2.3 1.3	70 40	●	
1103 Su 1925	4.6 - 0.3	140 - 10	W 1728	0.0	120	22 W 0844	4.3 1758	130 0.0	35 Tu 0157	1.6 0.3	120 - 10	22 W 0042 0529	2.3 1.3	70 40	22 Tu 0141 1441	3.0 2.0	60 60	31 F 0107 0635	2.3 1.3	70 40	●	

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Manila, Philippines, 2018

Times and Heights of High and Low Waters

October					November					December													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	0117 0920	3.6 0.3	110 10	<b>16</b> Tu	0137 1059	3.3 0.3	100 10	<b>1</b> Th	0238 1151	3.6 -0.3	110 -10	<b>16</b> F	0225 1203	3.0 0.0	90 0	<b>1</b> Sa	0337 1207	3.0 0.0	90 0	<b>16</b> Su	0244 1126	2.3 0.3	70 10
<b>2</b> ○ Tu	0204 1041	3.6 0.3	110 10	<b>17</b> W	0226 1218	3.3 0.3	100 10	<b>2</b> F	0355 1254	3.3 0.0	100 0	<b>17</b> Sa	0333 1247	2.6 0.3	80 10	<b>2</b> Su	0500 1954	2.6 2.0	80 60	<b>17</b> M	0356 1910	2.0 2.0	60 60
<b>3</b> W	0304 1211	3.6 0.3	110 10	<b>18</b> Th	0328 1318	3.3 0.3	100 10	<b>3</b> Sa	0520 1343	3.3 0.0	100 0	<b>18</b> Su	0452 2037	2.3 2.0	70 60	<b>3</b> M	0115 0635	1.3 2.0	40 60	<b>18</b> Tu	0101 0537	1.3 1.6	40 50
<b>4</b> Th	0419 1330	3.6 0.0	110 0	<b>19</b> F	0440 1402	3.0 0.3	90 10	<b>4</b> Su	0017 0649	2.0 3.0	60 90	<b>19</b> M	0103 0621	1.6 2.3	50 70	<b>4</b> Tu	0229 0811	1.0 2.0	30 60	<b>19</b> W	0218 0738	0.7 1.3	20 40
<b>5</b> F	0540 1426	3.6 0.0	110 0	<b>20</b> Sa	0556 1435	3.0 0.3	90 10	<b>5</b> M	0200 0812	1.3 2.6	40 80	<b>20</b> Tu	0214 0751	1.3 2.0	40 60	<b>5</b> W	0330 0931	0.3 1.6	10 50	<b>20</b> Th	0315 0915	0.3 1.3	10 40
<b>6</b> Sa	0700 1510	3.6 0.0	110 0	<b>21</b> Su	0012 0709	2.0 3.0	60 90	<b>6</b> Tu	0305 0923	1.0 2.6	30 80	<b>21</b> W	0307 0905	0.7 2.0	20 60	<b>6</b> Th	0423 1039	0.0 1.3	0 40	<b>21</b> F	0406 1032	-0.3 1.0	-10 30
<b>7</b> Su	0054 0814	1.6 3.6	50 110	<b>22</b> M	0151 0815	1.6 3.0	50 90	<b>7</b> W	0401 1023	0.7 2.3	20 70	<b>22</b> Th	0357 1008	0.3 1.6	10 50	<b>7</b> F	0513 1143	-0.3 1.3	-10 40	<b>22</b> Sa	0453 1149	-0.7 1.0	-20 30
<b>8</b> M	0227 0920	1.3 3.6	40 110	<b>23</b> Tu	0250 0913	1.3 2.6	40 80	<b>8</b> Th	0454 1119	0.3 2.0	10 60	<b>23</b> F	0446 1106	0.0 1.6	0 50	<b>8</b> Sa	0558 1256	-0.7 1.0	-20 30	<b>23</b> Su	0541 1308	-1.0 1.0	-30 30
<b>9</b> Tu	0333 1018	1.0 3.3	30 100	<b>24</b> W	0341 1005	1.0 2.6	30 80	<b>9</b> F	0546 1214	0.0 1.6	0 50	<b>24</b> Sa	0536 1208	-0.3 1.3	-10 40	<b>9</b> Su	0641 1447	-0.7 1.3	-20 110	<b>24</b> M	0628 2243	-1.3 4.3	-40 130
<b>10</b> W	0433 1111	0.7 3.0	20 90	<b>25</b> Th	0431 1055	0.7 2.6	20 80	<b>10</b> Sa	0638 1318	-0.3 1.6	-10 50	<b>25</b> Su	0627 1328	-0.7 1.3	-20 40	<b>10</b> M	0723 2314	-0.7 3.6	-20 110	<b>25</b> Tu	0716 2329	-1.3 4.3	-40 130
<b>11</b> Th	0531 1202	0.7 2.6	20 80	<b>26</b> F	0523 1146	0.3 2.3	10 70	<b>11</b> Su	0729 2339	-0.3 3.6	-10 110	<b>26</b> M	0721 2337	-0.7 3.9	-20 120	<b>11</b> Tu	0803 2346	-0.7 3.6	-20 110	<b>26</b> W	0805 2346	-1.0 3.0	-30 100
<b>12</b> F	0629 1254	0.3 2.3	10 70	<b>27</b> Sa	0617 1242	0.0 2.0	0 60	<b>12</b> M	0821 1617	-0.3 1.6	-10 50	<b>27</b> Tu	0818 1018	-1.0 0.7	-30 20	<b>12</b> W	0844 1048	-0.7 2.6	-20 80	<b>27</b> Th	0019 0855	3.9 -1.0	120 -30
<b>13</b> Sa	0730 1354	0.3 2.0	10 60	<b>28</b> Su	0715 1353	0.0 1.6	0 50	<b>13</b> Tu	0011 0915	3.6 -0.3	110 -10	<b>28</b> W	0023 0917	3.9 -0.7	120 -20	<b>13</b> Th	0022 0926	3.3 -0.3	100 -10	<b>28</b> F	0115 0943	3.6 -0.7	110 -20
<b>14</b> Su	0022 0832	3.3 0.3	100 10	<b>29</b> M	0001 0816	3.6 -0.3	110 -10	<b>14</b> W	0048 1012	3.3 0.0	100 0	<b>29</b> Th	0118 1018	3.6 -0.7	110 -20	<b>14</b> F	0103 1008	3.0 -0.3	90 -10	<b>29</b> Sa	0216 1027	3.0 -0.3	90 -10
<b>15</b> M	0057 0940	3.3 0.3	100 10	<b>30</b> Tu	0042 0923	3.9 -0.3	120 -10	<b>15</b> Th	0131 1110	3.3 0.0	100 0	<b>30</b> F	0223 1117	3.3 -0.3	100 -10	<b>15</b> Sa	0148 1048	2.6 0.0	80 0	<b>30</b> Su	0321 1104	2.3 0.0	70 0
				<b>31</b> W	0134 1037	3.9 -0.3	120 -10					<b>31</b> M	0439 1131	2.0 0.3	60 10								

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.



**Pages 188 through 195 intentionally omitted**

# Guam (Apra Harbor), Mariana Islands, 2018

Times and Heights of High and Low Waters

January			February			March			
Time	Height		Time	Height		Time	Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	
<b>1</b> M 0037 2.5 76 0739 2.5 76 1253 1.4 43 1807 2.7 82	0.7	-21	<b>16</b> Tu 0120 2.2 67 0826 1.5 46 1342 2.3 70	-0.3	-9	<b>1</b> Th 0202 2.6 79 0859 1.2 37 1430 2.6 79	-0.8	-24	
	2.6	79				<b>16</b> F 0208 2.3 70 0851 1.2 37 1431 2.4 73	-0.2	-6	
	1.4	43				● 1943 2.4 73			
	2.7	82							
<b>2</b> Tu 0125 0.9 27 0831 2.6 79 1350 1.4 43 ○ 1855 2.7 82	0.155	-0.4	-12	<b>2</b> F 0249 2.6 79 0940 1.1 34 1520 2.6 79	-0.7	-21	<b>17</b> Sa 0240 2.4 73 0919 1.1 34 1506 2.3 70	-0.2	-6
	2.6	79					<b>2</b> O 1911 2.3 70		
	1.4	43							
	2.7	82							
<b>3</b> W 0214 1.0 30 0921 2.7 82 1444 1.4 43 1943 2.7 82	0.229	-0.4	-12	<b>3</b> Th 0334 2.6 79 1018 1.0 30 1611 2.4 73	-0.5	-15	<b>18</b> Su 0312 2.4 73 0946 1.0 30 1542 2.3 70	-0.1	-3
	2.7	82							
	1.4	43							
	2.7	82							
<b>4</b> Th 0302 1.0 30 1009 2.7 82 1539 1.4 43 2033 2.6 79	0.301	-0.3	-9	<b>4</b> Su 0418 2.5 76 1055 2.5 76 1702 0.9 27	-0.2	-6	<b>19</b> M 0345 2.4 73 1013 2.4 73 1620 0.9 27	0.1	3
	2.7	82							
	1.4	43							
	2.6	79							
<b>5</b> F 0351 0.8 24 1056 2.6 79 1635 1.3 40 2126 2.4 73	0.334	-0.2	-6	<b>5</b> M 0500 2.5 76 1131 2.5 76 1756 0.8 24	0.1	3	<b>20</b> Tu 0419 2.4 73 1041 2.4 73 1702 0.7 21	0.3	9
	2.6	79							
	1.3	40							
	2.4	73							
<b>6</b> Sa 0439 0.5 15 1142 2.6 79 1735 1.2 37 2223 2.2 67	0.406	-0.1	-3	<b>6</b> Tu 0543 2.4 73 1207 2.4 73 1852 0.7 21	0.5	15	<b>21</b> W 0456 2.4 73 1112 2.4 73 1750 0.5 15	0.6	18
	2.6	79							
	1.2	37							
	2.2	67							
<b>7</b> Su 0527 0.2 6 1227 2.5 76 1837 1.1 34 2329 1.9 58	0.440	0.1	3	<b>7</b> W 0035 2.3 70 0628 0.9 27 1243 2.3 70	1.8	55	<b>22</b> Th 0538 2.3 70 1147 0.4 12	0.8	24
	2.5	76							
	1.1	34							
	1.9	58							
<b>8</b> M 0615 0.2 6 1310 2.4 73 1943 0.9 27	0.517	0.3	9	<b>8</b> Th 0209 1.2 37 0720 1.2 37 1324 2.2 67	1.7	52	<b>23</b> F 0105 1.1 34 0630 2.3 70	1.9	58
	2.4	73							
	0.9	27							
	2.344	1.8	55	○ 2052 0.4 12			● 1948 0.2 6		
<b>9</b> Tu 0052 1.7 52 0706 0.6 18 1353 2.4 73 ○ 2047 0.7 21	0.600	0.5	15	<b>9</b> F 0353 2.1 64 0825 1.4 43 1411 2.1 64	1.7	52	<b>24</b> Sa 0242 2.3 70 0737 1.3 40	1.9	58
	0.6	18							
	2.4	73							
	0.7	21							
<b>10</b> W 0235 1.6 49 0802 0.9 27 1434 2.4 73 2147 0.5 15	0.106	1.7	52	<b>10</b> Sa 0515 1.5 46 0943 1.5 46 1504 2.1 64	1.8	55	<b>10</b> Sa 0417 2.3 70 0901 1.5 46	2.0	61
	0.9	27							
	2.4	73							
	0.5	15							
<b>11</b> Th 0416 1.7 52 0904 1.2 37 1515 2.3 70 2239 0.2 6	0.246	1.7	52	<b>11</b> Su 0611 1.5 46 1057 1.5 46 1600 2.1 64	1.9	58	<b>11</b> Su 0530 2.1 64 1026 1.5 46	2.1	64
	1.2	37							
	2.3	70							
	0.2	6							
<b>12</b> F 0535 1.8 55 1012 1.4 43 1556 2.3 70 2325 0.1 3	0.422	1.9	58	<b>12</b> M 0652 2.1 64 1155 2.1 64 1652 2.1 64	2.1	64	<b>12</b> Tu 0624 2.3 70 1138 1.4 43	2.0	61
	1.4	43							
	2.3	70							
	0.1	3							
<b>13</b> Sa 0632 2.0 61 1117 1.5 46 1636 2.3 70	0.538	2.1	64	<b>13</b> Tu 0017 2.1 64 0725 2.1 64 1241 1.4 43	-0.1	-3	<b>13</b> Tu 0608 2.1 64 1132 1.4 43	2.1	64
	1.5	46							
	2.3	70							
	0.5	15							
<b>14</b> Su 0006 0.1 3 0716 2.1 64 1213 1.5 46 1717 2.3 70	0.639	2.3	70	<b>14</b> W 0057 2.2 67 0755 2.2 67 1321 1.3 40	-0.2	-6	<b>14</b> W 0641 2.1 64 1216 1.3 40	2.1	64
	2.1	64							
	1.5	46							
	2.3	70							
<b>15</b> M 0044 0.2 6 0753 2.2 67 1300 1.5 46 1756 2.3 70	0.021	-0.7	-21	<b>15</b> Th 0133 2.3 70 0824 2.3 70 1357 1.3 40	-0.2	-6	<b>15</b> Th 0024 2.2 67 0710 2.2 67	0.0	-3
	2.2	67							
	1.5	46							
	2.3	70							
<b>31</b> W 0113 0.8 24 0816 2.6 79 1338 1.4 43	0.113	-0.8	-24				<b>31</b> Sa 0127 0.1 3 0743 2.5 76	0.1	3
	2.6	79							
	1.4	43							
	2.7	82							

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# **Guam (Apra Harbor), Mariana Islands, 2018**

## Times and Heights of High and Low Waters

April					May					June				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time
1 Su 0210 h.m 0.3 0814 2.5 1437 0.3 2037 2.4	9 cm 76 76 9 73	16 M 0144 0.5 0740 2.5 1409 0.2 2022 2.5	15 cm 15 76 6 76	1 Tu 0230 1.0 0754 2.4 1450 0.1 2126 2.4	30 cm 73 73 3 -73	16 W 0201 1.1 0726 2.5 1424 0.5 2113 2.6	34 cm 76 76 15 79	1 F 0335 1.5 0814 2.2 1535 0.3 2244 2.3	46 cm 67 9 70	16 Sa 0329 1.5 0822 2.5 1543 0.9 2255 2.6	46 cm 76 76 27 79			
2 M 0252 0.5 0843 2.5 1516 0.2 2125 2.4	15 cm 76 76 6 73	17 Tu 0225 0.7 0809 2.5 1447 0.0 2111 2.5	21 cm 76 76 0 76	2 W 0311 1.1 0822 2.3 1525 0.2 2211 2.3	34 cm 70 70 6 70	17 Th 0250 1.2 0802 2.5 1508 0.6 2207 2.6	37 cm 76 76 18 79	2 Sa 0417 1.5 0847 2.1 1610 0.2 2325 2.3	46 cm 64 6 70	17 Su 0426 1.5 0912 2.4 1633 0.7 2347 2.6	46 cm 73 21 79			
3 Tu 0332 0.7 0911 2.4 1554 0.1 2214 2.3	21 cm 73 73 3 70	18 W 0306 0.9 0840 2.5 1527 0.2 2203 2.5	27 cm 76 76 6 76	3 Th 0352 1.3 0850 2.2 1600 0.2 2256 2.3	40 cm 67 67 6 70	18 F 0341 1.3 0841 2.5 1555 0.7 2304 2.6	40 cm 76 76 21 79	3 Su 0502 1.5 0923 2.1 1648 0.1 2125 0.5	46 cm 64 3 -15	18 M 0527 1.4 1007 2.3 1725 0.5 2147 0.5	43 cm 70 15 79			
4 W 0411 0.9 0938 2.3 1633 0.1 2305 2.2	27 cm 70 70 3 67	19 Th 0350 1.1 0913 2.4 1611 0.3 2300 2.4	34 cm 73 73 9 73	4 F 0435 1.4 0920 2.1 1637 0.1 2344 2.2	43 cm 64 64 3 67	19 Sa 0436 1.4 0924 2.4 1646 0.6 2181 0.0	43 cm 73 73 18 0	4 M 0008 2.3 0551 1.5 1004 2.0 1727 0.0	70 cm 46 61 0	19 Tu 0039 2.5 0631 1.3 1110 2.1 1818 0.2	76 cm 40 64 6 -6			
5 Th 0452 1.2 1007 2.2 1713 0.1 1713 3	37 cm 67 67 3	20 F 0438 1.2 0949 2.4 1659 0.4 1659 12	37 cm 73 73 -12	5 Sa 0521 1.5 0953 2.0 1717 0.0 1717 0	46 cm 61 0 0	20 Su 0003 2.5 0536 1.5 1012 2.3 1740 0.5	76 cm 46 70 15	5 Tu 0051 2.2 0645 1.5 1053 1.9 1811 0.2	67 cm 46 58 6	20 W 0128 2.5 0738 1.1 1227 1.9 1912 0.2	76 cm 34 58 6			
6 F 0000 2.1 0537 1.3 1037 2.1 1758 0.2	64 cm 40 64 6 6	21 Sa 0003 2.3 0534 1.4 1030 2.3 1754 0.3	70 cm 43 70 9	6 Su 0037 2.1 0614 1.5 1031 1.9 1802 0.1	64 cm 64 58 3	21 M 0105 2.5 0644 1.5 1111 2.1 1838 0.3	76 cm 46 64 9	6 W 0135 2.3 0744 1.4 1156 1.8 1858 0.3	70 cm 43 55 9	21 Th 0214 2.5 0845 0.9 1402 1.8 2009 0.6	76 cm 27 55 18			
7 Sa 0105 2.0 0630 1.4 1114 2.0 1849 0.2	61 cm 43 61 6 6	22 Su 0115 2.3 0640 1.5 1121 2.2 1856 0.2	70 cm 46 67 -6	7 M 0134 2.1 0716 1.5 1120 1.8 1854 0.2	64 cm 46 55 6	22 Tu 0206 2.4 0758 1.4 1226 1.9 1939 0.0	73 cm 43 58 0	7 Th 0217 2.3 0841 1.2 1318 1.7 1950 0.5	70 cm 37 52 15	22 F 0257 2.5 0947 0.6 1541 1.7 2109 0.9	76 cm 18 52 27			
8 Su 0219 2.0 0738 1.5 1202 1.9 1947 0.3	61 cm 46 58 9	23 M 0231 2.3 0759 1.5 1229 2.0 2004 0.1	70 cm 46 61 -3	8 Tu 0231 2.1 0825 1.5 1227 1.7 1950 0.3	64 cm 46 52 9	23 W 0301 2.4 0910 1.2 1401 1.8 2042 0.3	73 cm 37 55 9	8 F 0257 2.3 0934 1.0 1450 1.7 2047 0.7	70 cm 30 52 21	23 Sa 0337 2.4 1042 0.3 1706 1.8 2212 1.1	73 cm 34 55 34			
9 M 0332 2.0 0856 1.5 1313 1.8 2051 0.3	61 cm 46 55 9	24 Tu 0338 2.3 0920 1.4 1359 1.9 2113 0.0	70 cm 43 58 0	9 W 0321 2.2 0928 1.3 1356 1.7 2049 0.4	67 cm 40 52 12	24 Th 0347 2.4 1014 0.9 1539 1.8 2146 0.5	73 cm 27 55 15	9 Sa 0335 2.4 1022 0.7 1613 1.8 2146 0.8	73 cm 21 55 24	24 Su 0415 2.4 1130 0.1 1815 2.0 2314 1.3	73 cm 33 61 40			
10 Tu 0427 2.0 1007 1.4 1441 1.8 2154 0.3	61 cm 43 55 9	25 W 0432 2.3 1030 1.2 1534 2.0 2219 0.2	70 cm 37 61 6	10 Th 0403 2.2 1021 1.1 1525 1.7 2147 0.5	67 cm 34 52 15	25 F 0428 2.5 1108 0.6 1702 1.9 2247 0.8	76 cm 18 58 24	10 Su 0413 2.4 1107 0.3 1725 2.0 2247 1.0	73 cm 9 61 30	25 M 0452 2.4 1213 0.1 1911 2.1 2249 0.6	73 cm -3 64			
11 W 0509 2.1 1101 1.3 1600 1.9 2249 0.3	64 cm 40 58 9	26 Th 0515 2.4 1126 0.9 1655 2.0 2320 0.3	73 cm 27 61 9	11 F 0440 2.3 1106 0.9 1638 1.9 2243 0.6	70 cm 27 58 18	26 Sa 0504 2.5 1155 0.3 1810 2.0 2343 1.0	76 cm 9 61 30	11 M 0451 2.5 1150 0.0 1827 2.2 2346 1.1	76 cm 0 67 34	26 Tu 0012 1.4 0528 2.4 1252 0.2 1957 2.2	43 cm 73 67			
12 Th 0543 2.2 1144 1.1 1703 2.0 2338 0.3	67 cm 34 61 9	27 F 0552 2.4 1214 0.6 1802 2.2 2021 0.7	73 cm 18 67	12 Sa 0513 2.4 1146 0.6 1741 2.0 2335 0.7	73 cm 18 61 21	27 Su 0537 2.5 1237 0.0 1908 2.1 2043 2.3	76 cm 0 64 70	12 Tu 0530 2.5 1234 0.3 1923 2.4 2110 2.6	76 cm -9 73	27 W 0104 1.5 0604 2.3 1329 0.3 2037 2.2	46 cm 70 67			
13 F 0614 2.3 1222 0.9 1757 2.1	70 cm 27 64	28 Sa 0014 0.5 0625 2.5 1257 0.3 1900 2.3	15 cm 76 9 70	13 Su 0546 2.4 1224 0.3 1836 2.2 1958 0.6	73 cm 9 67	28 M 0036 1.1 0609 2.4 1315 0.1 2017 2.2	34 cm 73 67	13 W 0044 1.3 0610 2.6 1320 0.6 2121 2.5	40 cm 79 18 76	28 Th 0151 1.5 0640 2.3 1405 0.4 2113 2.3	46 cm 70 12 70			
14 Sa 0023 0.4 0643 2.4 1258 0.6 1846 2.3	12 cm 73 18 70	29 Su 0102 0.6 0656 2.5 1337 0.1 1952 2.3	18 cm 76 3 70	14 M 0025 0.8 0618 2.5 1303 0.0 1929 2.4	24 cm 76 0 73	29 Tu 0124 1.2 0640 2.4 1351 0.3 2043 2.3	37 cm 73 9 70	14 Th 0140 1.4 0652 2.6 1406 0.8 2110 2.6	43 cm 79 24 79	29 F 0233 1.5 0716 2.3 1440 0.4 2148 2.3	46 cm 70 12 70			
15 Su 0104 0.4 0712 2.4 1333 0.4 1934 2.4	12 cm 73 12 73	30 M 0147 0.8 0725 2.5 1414 0.0 2040 2.4	24 cm 76 0 73	15 Tu 0113 0.9 0652 2.5 1342 0.3 2021 2.5	27 cm 76 9 76	30 W 0210 1.3 0711 2.3 1426 0.3 2124 2.3	40 cm 70 9 70	15 F 0234 1.4 0736 2.6 1454 0.9 2203 2.6	43 cm 79 27 79	30 Sa 0314 1.5 0752 2.2 1514 0.3 2222 2.3	46 cm 67 9 70			
						15 ● 0253 1.4 0742 2.3 1500 0.3 2204 2.3	43 cm 70 9 70							

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

# Guam (Apra Harbor), Mariana Islands, 2018

Times and Heights of High and Low Waters

July				August				September									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 0353 0829 1548 - 0.2 2256	ft 1.5 2.2 - 0.2 2.3	cm 46 67 - 6 70	<b>16</b> M 0408 0908 1618 - 0.6 2315	ft 1.3 2.5 - 0.6 2.6	cm 40 76 - 18 79	<b>1</b> W 0439 0942 1630 2313	ft 1.2 2.1 0.2 2.3	cm 37 64 6 70	<b>16</b> Th 0529 1108 1730 2343	ft 0.6 2.2 0.5 2.4	cm 18 67 15 73	<b>1</b> Sa 0524 1128 1722 2321	ft 0.5 2.0 0.9 2.3	cm 15 61 27 70	<b>16</b> Su 0631 1328 1853 2357	ft 0.2 2.0 1.3 2.0	cm 6 61 40 61
<b>2</b> M 0434 0907 1623 - 0.1 2330	ft 1.5 2.1 - 0.1 2.3	cm 46 64 - 3 70	<b>17</b> Tu 0505 1006 1706 - 0.3 2358	ft 1.2 2.3 - 9 2.5	cm 37 70 76 70	<b>2</b> Th 0522 1031 1705 2343	ft 1.1 2.0 0.4 2.3	cm 34 61 12 70	<b>17</b> F 0624 1220 1818	ft 0.5 2.0 0.8	cm 15 61 24	<b>2</b> Su 0615 1238 1812	ft 0.4 2.0 1.1	cm 12 61 34	<b>17</b> M 0728 1454 2003 O	ft 0.2 1.9 1.5	cm 6 58 46
<b>3</b> Tu 0518 0949 1658	ft 1.4 2.0 0.0	cm 43 61 0	<b>18</b> W 0604 1110 1755	ft 1.0 2.1 0.1	cm 30 64 3	<b>3</b> F 0608 1129 1744	ft 0.9 1.9 0.6	cm 27 58 18	<b>18</b> Sa 0020 0722 1346	ft 2.3 0.4 1.8	cm 70 12 55	<b>3</b> M 0000 0713 1404	ft 2.2 0.2 1.9	cm 67 6 58	<b>18</b> Tu 0049 0829 1608 2119	ft 1.9 0.3 2.0 1.5	cm 58 9 61 46
<b>4</b> W 0005 0605 1038 1735	ft 2.3 1.3 1.9 0.2	cm 70 40 58 6	<b>19</b> Th 0039 0705 1226 1845	ft 2.5 0.8 1.9 0.5	cm 76 24 58 15	<b>4</b> Sa 0017 0659 1240 1830	ft 2.3 0.7 1.8 0.8	cm 70 21 55 24	<b>19</b> Su 0102 0822 1521 2015	ft 2.2 0.3 1.8 1.3	cm 67 9 55 40	<b>4</b> Tu 0050 0818 1533 2030	ft 2.2 0.0 2.0 1.4	cm 67 0 61 43	<b>19</b> W 0157 0931 1702 2227	ft 1.9 0.3 2.0 1.4	cm 58 9 61 43
<b>5</b> Th 0040 0656 1137 1816	ft 2.3 1.2 1.8 0.4	cm 70 37 55 12	<b>20</b> F 0121 0807 1357 1938	ft 2.4 0.6 1.8 0.9	cm 73 18 55 27	<b>5</b> Su 0054 0754 1408 1926	ft 2.3 0.5 1.8 1.1	cm 70 15 55 34	<b>20</b> M 0149 0922 1643 2128	ft 2.1 0.2 1.9 1.5	cm 64 6 58 46	<b>5</b> W 0152 0925 1647 2150	ft 2.2 - 0.1 2.1 1.5	cm 67 - 3 64 46	<b>20</b> Th 0312 1029 1743 2319	ft 1.9 0.2 2.1 1.3	cm 58 6 64 40
<b>6</b> F 0116 0749 1253 O	ft 2.4 1.0 1.7 0.6	cm 73 30 52 18	<b>21</b> Sa 0202 0909 1536 2037	ft 2.4 0.4 1.7 1.1	cm 73 12 52 34	<b>6</b> M 0138 0853 1540 2034	ft 2.3 0.2 1.9 1.3	cm 70 6 58 40	<b>21</b> Tu 0244 1019 1744 2239	ft 2.1 0.1 2.0 1.5	cm 64 3 61 46	<b>6</b> Th 0304 1030 1745 2301	ft 2.3 - 0.3 2.3 1.4	cm 70 - 9 70 43	<b>21</b> F 0417 1119 1816 21	ft 1.9 0.2 2.2 2.2	cm 58 6 67
<b>7</b> Sa 0153 0843 1423 1958	ft 2.4 0.7 1.7 0.8	cm 73 21 52 24	<b>22</b> Su 0245 1006 1702 2143	ft 2.3 0.2 1.8 1.4	cm 70 6 55 43	<b>7</b> Tu 0229 0954 1700 2149	ft 2.4 - 0.1 2.0 1.4	cm 73 - 3 61 43	<b>22</b> W 0341 1111 1828 2338	ft 2.1 0.1 2.1 1.4	cm 64 3 64 43	<b>7</b> F 0415 1130 1833 2338	ft 2.3 - 0.4 2.4 1.4	cm 70 - 12 73 43	<b>22</b> Sa 0001 0512 1204 1845	ft 1.2 2.1 0.2 2.2	cm 37 64 6 67
<b>8</b> Su 0234 0936 1553 2101	ft 2.4 0.4 1.8 1.1	cm 73 12 55 34	<b>23</b> M 0328 1058 1809 2252	ft 2.3 0.1 1.9 1.5	cm 70 3 58 46	<b>8</b> W 0326 1053 1804 2302	ft 2.4 - 0.3 2.2 1.4	cm 73 - 9 67 43	<b>23</b> Th 0436 1158 1904 2302	ft 2.1 0.0 2.1 1.4	cm 64 0 64 43	<b>8</b> Sa 0001 0521 1225 1915	ft 1.2 2.5 - 0.4 2.5	cm 37 76 12 76	<b>23</b> Su 0037 0600 1244 1912	ft 1.0 2.2 0.2 2.3	cm 30 67 6 70
<b>9</b> M 0317 1028 1711 2208	ft 2.4 0.1 2.0 1.2	cm 73 3 61 37	<b>24</b> Tu 0413 1145 1859 2353	ft 2.3 - 0.1 2.1 1.5	cm 70 - 3 64 46	<b>9</b> Th 0426 1149 1858 2353	ft 2.5 - 0.6 2.4 2.4	cm 76 18 73 73	<b>9</b> F 0025 0526 1240 1935	ft 1.4 2.2 - 0.1 2.2	cm 43 67 - 3 67	<b>9</b> Su 0054 0621 1317 1953	ft 1.0 2.6 - 0.4 2.5	cm 30 79 - 12 76	<b>24</b> M 0112 0645 1321 1939	ft 0.9 2.3 0.2 2.3	cm 27 6 6 70
<b>10</b> Tu 0403 1119 1817 2317	ft 2.5 - 0.2 2.2 1.4	cm 76 - 6 67 43	<b>25</b> W 0457 1228 1940	ft 2.2 - 0.2 2.1	cm 67 - 6 64	<b>10</b> F 0008 0524 1244 1946	ft 1.4 2.6 - 0.7 2.5	cm 43 79 21 76	<b>25</b> Sa 0104 0611 1318 2004	ft 1.3 2.2 - 0.1 2.2	cm 40 67 - 3 67	<b>10</b> M 0143 0718 1405 ●	ft 0.8 2.6 - 0.2 2.5	cm 24 79 - 6 76	<b>25</b> Tu 0145 0727 1356 2029	ft 0.7 2.3 0.3 2.5	cm 21 70 9 73
<b>11</b> W 0451 1210 1914	ft 2.5 - 0.5 2.4	cm 76 - 15 73	<b>26</b> Th 0045 0540 1307 2014	ft 1.5 2.2 - 0.2 2.2	cm 46 67 - 6 67	<b>11</b> Sa 0106 0621 1335 ●	ft 1.3 2.6 - 0.7 2.5	cm 40 79 - 21 76	<b>11</b> Su 0141 0653 1353 2031	ft 1.2 2.3 - 0.1 2.3	cm 37 70 - 3 70	<b>11</b> Tu 0230 0814 1451 2103	ft 0.6 2.6 0.0 2.5	cm 18 79 0 76	<b>26</b> W 0218 0810 1430 2031	ft 0.6 2.4 0.4 2.4	cm 18 73 12 73
<b>12</b> Th 0021 0540 1301 2007	ft 1.4 2.6 - 0.8 2.5	cm 43 79 - 24 76	<b>27</b> F 0129 0622 1344 2046	ft 1.5 2.3 - 0.3 2.2	cm 46 70 - 9 67	<b>12</b> Su 0200 0717 1424 2112	ft 1.2 2.7 - 0.7 2.6	cm 37 82 - 21 79	<b>27</b> M 0216 0734 1427 2058	ft 1.1 2.3 0.0 2.3	cm 34 70 0 70	<b>12</b> W 0317 0908 1535 2136	ft 0.5 2.5 0.3 2.5	cm 15 76 9 76	<b>27</b> Th 0252 0854 1505 2058	ft 0.4 2.4 0.6 2.4	cm 12 73 18 73
<b>13</b> F 0121 0630 1351 ●	ft 1.4 2.6 - 0.9 2.6	cm 43 79 - 27 79	<b>28</b> Sa 0209 0701 1419 ●	ft 1.4 2.3 - 0.3 2.3	cm 43 70 - 9 79	<b>13</b> M 0252 0812 1512 2151	ft 1.1 2.6 - 0.5 2.6	cm 34 79 - 15 79	<b>28</b> Tu 0250 0814 1459 2124	ft 1.0 2.3 0.1 2.3	cm 30 70 3 70	<b>13</b> Th 0403 1004 1620 2209	ft 0.3 2.4 0.6 2.4	cm 9 73 18 73	<b>28</b> F 0328 0941 1542 2126	ft 0.3 2.3 0.8 2.3	cm 9 70 24 70
<b>14</b> Sa 0218 0721 1440 2145	ft 1.4 2.7 - 0.9 2.6	cm 43 82 - 27 79	<b>29</b> Su 0246 0740 1453 2146	ft 1.4 2.3 - 0.2 2.3	cm 43 70 - 6 70	<b>14</b> Tu 0343 0908 1558 2229	ft 0.9 2.5 - 0.2 2.5	cm 27 76 - 6 76	<b>29</b> W 0325 0856 1531 2151	ft 0.9 2.3 0.3 2.3	cm 27 70 9 70	<b>14</b> F 0451 1104 1705 2242	ft 0.2 2.2 0.9 2.3	cm 6 67 27 70	<b>29</b> Sa 0407 1033 1623 2157	ft 0.2 2.3 1.0 2.3	cm 6 70 30 70
<b>15</b> Su 0313 0814 1529 2230	ft 1.4 2.6 - 0.8 2.6	cm 43 79 - 24 79	<b>30</b> M 0323 0819 1525 2215	ft 1.3 2.2 - 0.1 2.3	cm 40 67 - 3 70	<b>15</b> W 0435 1005 1644 2306	ft 0.8 2.3 0.1 2.5	cm 24 70 3 76	<b>30</b> Th 0401 0940 1605 2218	ft 0.8 2.2 0.4 2.3	cm 24 67 12 70	<b>15</b> Sa 0539 1210 1755 2317	ft 0.2 2.1 1.2 2.1	cm 6 64 37 64	<b>30</b> Su 0451 1132 1710 2232	ft 0.0 2.2 1.2 2.2	cm 0 67 37 67
			<b>31</b> Tu 0400 0859 1558 2244	ft 1.3 2.2 0.0 2.3	cm 40 67 0 70				<b>31</b> F 0440 1030 1641 2248	ft 0.7 2.1 0.7 2.3	cm 21 64 21 70						

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Guam (Apra Harbor), Mariana Islands, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0543	0.0	0	<b>16</b> Tu	0634	0.2	6	<b>1</b> Th	0726	-0.1	-3
	1243	2.1	64		1414	2.1	64		0011	1.7	52
	1809	1.4	43		1949	1.5	46		0733	0.4	12
	2315	2.2	67		2347	1.8	55		1507	2.2	67
<b>2</b> Tu	0642	-0.1	-3	<b>17</b> W	0732	0.3	9	<b>2</b> F	0119	1.9	58
	1405	2.1	64		1519	2.1	64		0834	0.0	0
	1922	1.5	46		2103	1.5	46		1556	2.4	73
	●				2159	1.2	37		2128	1.3	40
<b>3</b> W	0012	2.1	64	<b>18</b> Th	0104	1.7	52	<b>3</b> Sa	0258	1.9	58
	0749	-0.1	-3		0834	0.3	9		0941	0.2	6
	1524	2.2	67		1609	2.1	64		1640	2.5	76
	2043	1.5	46		2206	1.3	40		2256	0.9	27
<b>4</b> Th	0129	2.1	64	<b>19</b> F	0235	1.7	52	<b>4</b> Su	0424	2.0	61
	0900	-0.1	-3		0934	0.4	12		1043	0.3	9
	1627	2.3	70		1648	2.2	67		1718	2.5	76
	2159	1.4	43		2253	1.2	37		2345	0.5	15
<b>5</b> F	0256	2.1	64	<b>20</b> Sa	0353	1.8	55	<b>5</b> M	0535	2.1	64
	1007	-0.1	-3		1029	0.4	12		1139	0.5	15
	1717	2.4	73		1721	2.2	67		1753	2.5	76
	2302	1.2	37		2332	1.0	30				
<b>6</b> Sa	0416	2.2	67	<b>21</b> Su	0455	1.9	58	<b>6</b> Tu	0029	0.2	6
	1109	-0.1	-3		1118	0.4	12		0636	2.3	70
	1758	2.5	76		1750	2.3	70		1231	0.7	21
	2355	0.9	27						1825	2.6	79
<b>7</b> Su	0525	2.3	70	<b>22</b> M	0007	0.8	24	<b>7</b> W	0110	0.0	0
	1204	0.0	0		0547	2.1	64		0732	2.4	73
	1835	2.5	76		1201	0.5	15		1319	0.9	27
	●				1818	2.4	73		1856	2.5	76
<b>8</b> M	0042	0.6	18	<b>23</b> Tu	0041	0.6	18	<b>8</b> Th	0149	-0.2	-6
	0627	2.4	73		0635	2.2	67		0823	2.4	73
	1255	0.1	3		1242	0.6	18		1405	1.1	34
	1910	2.5	76		1845	2.4	73		●	1927	2.5
<b>9</b> Tu	0127	0.4	12	<b>24</b> W	0115	0.3	9	<b>9</b> F	0228	-0.3	-9
	0724	2.5	76		0721	2.3	70		0912	2.4	73
	1342	0.3	9		1322	0.7	21		1450	1.2	37
	●	1942	2.5		1913	2.4	73		1957	2.4	73
<b>10</b> W	0209	0.2	6	<b>25</b> Th	0148	0.1	3	<b>10</b> Sa	0305	-0.3	-9
	0817	2.5	76		0807	2.4	73		0959	2.4	73
	1427	0.6	18		1401	0.8	24		1535	1.4	43
	2013	2.5	76		○	1941	2.4	73		2027	2.3
<b>11</b> Th	0251	0.0	0	<b>26</b> F	0224	-0.1	-3	<b>11</b> Su	0342	-0.3	-9
	0910	2.5	76		0854	2.4	73		1047	2.3	70
	1512	0.8	24		1442	1.0	30		1622	1.5	46
	2044	2.4	73		2011	2.4	73		2058	2.2	67
<b>12</b> F	0332	-0.1	-3	<b>27</b> Sa	0301	-0.2	-6	<b>12</b> M	0421	-0.2	-6
	1003	2.4	73		0943	2.4	73		1137	2.3	70
	1556	1.0	30		1525	1.2	37		1714	1.5	46
	2114	2.3	70		2042	2.4	73		2132	2.0	61
<b>13</b> Sa	0414	-0.1	-3	<b>28</b> Su	0343	-0.3	-9	<b>13</b> Tu	0502	-0.1	-3
	1057	2.3	70		1037	2.4	73		1231	2.2	67
	1643	1.2	37		1612	1.3	40		1813	1.6	49
	2144	2.2	67		2117	2.3	70		2210	1.9	58
<b>14</b> Su	0456	0.0	0	<b>29</b> M	0429	-0.4	-12	<b>14</b> W	0547	0.1	3
	1156	2.2	67		1137	2.4	73		1327	2.2	67
	1735	1.4	43		1708	1.5	46		1919	1.5	46
	2217	2.0	61		2157	2.2	67		2300	1.8	55
<b>15</b> M	0543	0.1	3	<b>30</b> Tu	0521	-0.3	-9	<b>15</b> Th	0638	0.2	6
	1302	2.1	64		1245	2.3	70		1421	2.2	67
	1836	1.5	46		1814	1.5	46		2028	1.4	43
	2256	1.9	58		2246	2.1	64				
	<b>31</b> W	0621	-0.3	-9	<b>31</b> W	1357	2.3	70			
					1932	1.5	46				
					2351	2.0	61				

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Malakal Harbor, Palau Islands 2018

Times and Heights of High and Low Waters

January				February				March								
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height					
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm					
<b>1</b> M	0040	- 0.1	- 3	<b>16</b> Tu	0119	0.3	9	<b>1</b> Th	0203	- 0.7	- 21	<b>16</b> F	0206	0.2	6	
0700	5.5	168		0737	5.0	152	0821	5.8	177	0812	5.4	165				
1248	2.2	67		1324	2.2	67	1413	1.5	46	1411	1.6	49				
1827	6.4	195		1857	5.8	177	1956	6.5	198	● 1952	5.9	180				
<b>2</b> Tu	0127	- 0.5	- 15	<b>17</b> W	0153	0.2	6	<b>2</b> F	0245	- 0.6	- 18	<b>17</b> Sa	0235	0.2	6	
0748	5.8	177		0807	5.2	158	0859	5.9	180	0838	5.5	168				
1335	2.1	64		1357	2.1	64	1456	1.4	43	1440	1.5	46				
○ 1914	6.7	204		● 1931	5.9	180	2040	6.5	198	2025	6.0	183				
<b>3</b> W	0212	- 0.6	- 18	<b>18</b> Th	0225	0.2	6	<b>3</b> Sa	0325	- 0.3	- 9	<b>18</b> Su	0302	0.4	12	
0833	5.9	180		0836	5.4	165	0935	5.9	180	0906	5.7	174				
1420	2.0	61		1427	2.1	64	1538	1.4	43	1509	1.5	46				
2000	6.8	207		2004	6.0	183	2124	6.3	192	2100	6.0	183				
<b>4</b> Th	0256	- 0.6	- 18	<b>19</b> F	0255	0.3	9	<b>4</b> Su	0405	0.2	6	<b>19</b> M	0330	0.6	18	
0916	6.0	183		0905	5.4	165	1011	5.8	177	0935	5.7	174				
1505	2.1	64		1457	2.2	67	1622	1.5	46	1540	1.4	43				
2045	6.7	204		2037	6.0	183	2208	5.9	180	2138	5.9	180				
<b>5</b> F	0341	- 0.3	- 9	<b>20</b> Sa	0324	0.4	12	<b>5</b> M	0444	0.8	24	<b>20</b> Tu	0358	1.0	30	
0959	5.9	180		0935	5.5	168	1047	5.7	174	1006	5.7	174				
1552	2.2	67		1527	2.2	67	1708	1.6	49	1616	1.4	43				
2132	6.4	195		2112	6.0	183	2254	5.5	168	2219	5.6	171				
<b>6</b> Sa	0426	0.2	6	<b>21</b> Su	0354	0.7	21	<b>6</b> Tu	0523	1.4	43	<b>21</b> W	0430	1.3	40	
1043	5.8	177		1007	5.5	168	1125	5.5	168	1041	5.7	174				
1643	2.3	70		1600	2.2	67	1759	1.7	52	1659	1.3	40				
2221	6.0	183		2150	5.8	177	2343	5.0	152	2307	5.3	162				
<b>7</b> Su	0512	0.7	21	<b>22</b> M	0424	0.9	27	<b>7</b> W	0605	1.9	58	<b>22</b> Th	0506	1.7	52	
1127	5.6	171		1042	5.5	168	1205	5.3	162	1122	5.6	171				
1740	2.3	70		1638	2.2	67	1857	1.8	55	1752	1.3	40				
2314	5.6	171		2233	5.6	171				2314	5.0	152				
<b>8</b> M	0601	1.3	40	<b>23</b> Tu	0458	1.2	37	<b>8</b> Th	0039	4.5	137	<b>23</b> F	0004	4.9	149	
1214	5.5	168		1120	5.4	165	0653	2.4	73	0551	2.2	67				
1843	2.3	70		1725	2.1	64	1250	5.0	152	1209	5.4	165				
				2323	5.2	158	● 2005	1.8	55	● 1901	1.3	40				
<b>9</b> Tu	0013	5.0	152	<b>24</b> W	0538	1.6	49	<b>9</b> F	0149	4.1	125	<b>24</b> Sa	0116	4.5	137	
0654	1.8	55		1203	5.4	165	0758	2.7	82	0656	2.6	79				
1303	5.3	162		1824	2.0	61	1345	4.8	146	1310	5.1	155				
○ 1953	2.2	67					2120	1.7	52	2032	1.3	40				
<b>10</b> W	0121	4.6	140	<b>25</b> Th	0022	4.8	146	<b>10</b> Sa	0322	3.9	119	<b>25</b> Su	0249	4.2	128	
0753	2.2	67		0626	2.0	61	0923	2.9	88	0842	2.9	88				
1356	5.2	158		1252	5.3	162	1452	4.7	143	1426	5.0	152				
2104	2.0	61		● 1939	1.8	55	2232	1.5	46	2204	0.9	55				
<b>11</b> Th	0243	4.3	131	<b>26</b> F	0136	4.5	137	<b>11</b> Su	0502	4.0	122	<b>26</b> M	0433	4.3	131	
0900	2.5	76		0733	2.4	73	1042	2.8	85	1026	2.7	82				
1453	5.1	155		1351	5.2	158	1605	4.7	143	1553	5.1	155				
2211	1.7	52		2106	1.5	46	2332	1.1	34	2318	0.5	15				
<b>12</b> F	0413	4.2	128	<b>27</b> Sa	0307	4.3	131	<b>12</b> M	0606	4.3	131	<b>12</b> Tu	0550	4.7	143	
1009	2.6	79		0905	2.6	79	1143	2.5	76	1139	2.3	70				
1552	5.1	155		1500	5.2	158	1710	4.9	149	1711	5.4	165				
2309	1.3	40		2226	1.0	30				2255	1.5	46				
<b>13</b> Sa	0530	4.4	134	<b>28</b> Su	0442	4.4	134	<b>13</b> Tu	0020	0.7	21	<b>13</b> W	0642	5.2	158	
1111	2.6	79		1035	2.6	79	0646	4.6	140	1230	2.2	67				
1648	5.2	158		1612	5.4	165	1801	5.2	158	1234	1.8	55				
2359	0.9	27		2333	0.4	12	1813	5.8	177	1813	5.8	177				
<b>14</b> Su	0623	4.6	140	<b>29</b> M	0559	4.8	146	<b>14</b> W	0100	0.4	12	<b>14</b> W	0613	4.6	140	
1203	2.4	73		1145	2.4	73	0718	4.9	149	1308	2.0	61				
1737	5.4	165		1719	5.7	174	1842	5.5	168							
<b>15</b> M	0041	0.5	15	<b>30</b> Tu	0029	- 0.2	- 6	<b>15</b> Th	0134	0.2	6	<b>15</b> Th	0031	0.8	24	
0704	4.8	146		0655	5.2	158	0745	5.1	155	1341	1.8	55	<b>30</b> F	0045	0.3	9
1246	2.3	70		1241	2.0	61	1918	5.7	174	1918	5.7	174	0644	4.9	149	
1819	5.6	171		1817	6.1	186				1823	5.3	162	1246	1.8	55	
										1858	6.0	183	1306	1.0	30	
										<b>31</b> O	0126	0.3	9	0729	6.0	183
										<b>31</b> Sa	0740	5.5	168	1345	0.6	18
										<b>31</b> O	1909	6.4	195	1942	6.2	189

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Malakal Harbor, Palau Islands 2018

Times and Heights of High and Low Waters

April				May				June											
	Time	Height			Time	Height			Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Su	0204	0.4	12	<b>16</b> M	0137	1.1	34	<b>1</b> Tu	0211	1.5	46	<b>16</b> W	0142	1.8	55				
	0759	6.2	189		0726	6.0	183		0725	6.4	195		0252	2.4	73				
	1422	0.3	9		1355	0.5	15		1435	0.1	3		0824	6.0	183				
	2021	6.2	189	●	1957	6.0	183		2043	5.8	177		1520	0.3	9				
<b>2</b> M	0238	0.8	24	<b>17</b> Tu	0208	1.2	37	<b>2</b> W	0243	1.8	55	<b>17</b> Th	0219	2.0	61	<b>2</b> Sa	0324	2.7	82
	0828	6.2	189		0756	6.2	189		0822	6.1	186		0857	5.8	177	<b>17</b> Su	0339	2.5	76
	1457	0.3	9		1428	0.2	6		1507	0.2	6		1553	0.6	18		0916	6.4	195
	2058	6.1	186		2036	6.1	186		2118	5.7	174		2214	5.3	162		1616	-0.1	-3
<b>3</b> Tu	0310	1.2	37	<b>18</b> W	0239	1.5	46	<b>3</b> Th	0314	2.1	64	<b>18</b> F	0258	2.2	67	<b>3</b> Su	0358	2.9	88
	0857	6.1	186		0828	6.3	192		0851	6.0	183		0841	6.5	198	<b>18</b> M	0433	2.6	79
	1530	0.4	12		1503	0.1	3		1539	0.5	15		1534	-0.2	-6		1007	6.1	186
	2134	5.8	177		2117	6.0	183		2153	5.5	168		2159	5.8	177		1708	0.4	12
<b>4</b> W	0341	1.7	52	<b>19</b> Th	0313	1.8	55	<b>4</b> F	0344	2.5	76	<b>19</b> Sa	0342	2.5	76	<b>4</b> M	0437	3.1	94
	0925	6.0	183		0903	6.3	192		0921	5.8	177		0925	6.3	192	<b>19</b> Tu	0537	2.7	82
	1604	0.7	21		1543	0.2	6		1612	0.8	24		1623	0.1	3		1105	5.7	174
	2211	5.5	168		2203	5.8	177		2231	5.2	158		2252	5.5	168		1803	0.9	27
<b>5</b> Th	0412	2.1	64	<b>20</b> F	0350	2.2	67	<b>5</b> Sa	0417	2.8	85	<b>20</b> Su	0435	2.8	85	<b>5</b> Tu	0527	3.2	98
	0956	5.7	174		0941	6.2	189		0955	5.5	168		1014	6.0	183	<b>20</b> W	0029	5.5	168
	1640	1.0	30		1628	0.4	12		1650	1.1	34		1718	0.5	15		0648	2.6	79
	2250	5.2	158		2254	5.5	168		2314	5.0	152		2350	5.3	162		1210	5.2	158
<b>6</b> F	0443	2.5	76	<b>21</b> Sa	0434	2.6	79	<b>6</b> Su	0455	3.1	94	<b>21</b> M	0542	3.0	91	<b>6</b> W	0027	5.0	152
	1029	5.4	165		1026	5.9	180		1035	5.3	162		1112	5.6	171	<b>21</b> Th	0124	5.5	168
	1720	1.3	40		1723	0.7	21		1734	1.4	43		1822	0.9	27		0802	2.3	70
	2335	4.8	146		2353	5.1	155						1154	4.8	146		1325	4.8	146
<b>7</b> Sa	0520	2.9	88	<b>22</b> Su	0534	3.0	91	<b>7</b> M	0005	4.8	146	<b>22</b> Tu	0055	5.2	158	<b>7</b> Th	0119	5.0	152
	1108	5.1	155		1120	5.5	168		0549	3.3	101		0705	3.0	91	<b>22</b> F	0220	5.5	168
	1809	1.6	49		1831	1.0	30		1123	4.9	149		1221	5.2	158		0914	2.0	61
									1830	1.7	52	●	1932	1.2	37		1448	4.6	140
<b>8</b> Su	0030	4.5	137	<b>23</b> M	0105	4.9	149	<b>8</b> Tu	0104	4.6	140	<b>23</b> W	0203	5.2	158	<b>8</b> F	0213	5.1	155
	0613	3.2	98		0702	3.1	94		0712	3.3	101		0831	2.7	82		0902	2.6	79
	1157	4.8	146		1229	5.2	158		1225	4.6	140		1345	4.8	146		1613	4.5	137
	● 1918	1.8	55	●	1954	1.2	37	●	1940	1.9	58		2045	1.5	46		2213	2.2	67
<b>9</b> M	0141	4.3	131	<b>24</b> Tu	0229	4.8	146	<b>9</b> W	0211	4.6	140	<b>24</b> Th	0309	5.3	162	<b>9</b> Sa	0307	5.2	158
	0751	3.3	101		0845	3.0	94		0846	3.1	94		0946	2.2	67		1006	2.1	64
	1303	4.5	137		1356	4.9	149		1342	4.4	134		1515	4.7	143		1537	4.5	137
	2044	1.9	58		2117	1.3	40		2056	1.9	58		2152	1.6	49		2158	2.1	64
<b>10</b> Tu	0309	4.2	128	<b>25</b> W	0350	5.0	152	<b>10</b> Th	0316	4.7	143	<b>25</b> F	0407	5.4	165	<b>10</b> Su	0359	5.4	165
	0936	3.1	94		1009	2.5	76		1000	2.7	82		1048	1.6	49		1100	1.4	43
	1429	4.4	134		1533	4.9	149		1507	4.4	134		1637	4.8	146		1650	4.7	143
	2203	1.8	55		2229	1.2	37		2203	1.9	58		2252	1.7	52		2257	2.1	64
<b>11</b> W	0427	4.4	134	<b>26</b> Th	0452	5.2	158	<b>11</b> F	0412	5.0	152	<b>26</b> Sa	0456	5.6	171	<b>11</b> M	0448	5.6	171
	1046	2.7	82		1113	1.9	58		1055	2.2	67		1140	1.0	30		0542	5.7	174
	1557	4.5	137		1655	5.1	155		1623	4.6	140		1743	5.0	152		1244	0.4	12
	2303	1.5	46		2328	1.1	34		2258	1.8	55		2345	1.7	52		1906	5.0	152
<b>12</b> Th	0518	4.7	143	<b>27</b> F	0540	5.6	171	<b>12</b> Sa	0458	5.2	158	<b>27</b> Su	0538	5.8	177	<b>12</b> Tu	0534	5.9	180
	1136	2.3	70		1203	1.2	37		1140	1.6	49		1225	0.6	18		0621	5.8	177
	1705	4.8	146		1758	5.4	165		1724	5.0	152		1835	5.2	158		1323	0.2	6
	2350	1.3	40						2345	1.7	52					1944	5.2	158	
<b>13</b> F	0556	5.1	155	<b>28</b> Sa	0017	1.0	30	<b>13</b> Su	0537	5.6	171	<b>28</b> M	0030	1.8	55	<b>13</b> W	0037	2.1	64
	1216	1.7	52		0619	5.8	177		1220	1.0	30		0616	5.9	180		0658	5.9	180
	1757	5.2	158		1247	0.7	21		1816	5.3	162		1305	0.2	6		1358	0.1	3
					1930	5.8	177					1918	5.4	165		1934	5.6	171	
<b>14</b> Sa	0030	1.1	34	<b>29</b> Su	0059	1.1	34	<b>14</b> M	0027	1.6	49	<b>29</b> Tu	0110	1.8	55	<b>14</b> O	0122	2.1	64
	0627	5.4	165		0653	6.1	186		0614	5.9	180		0650	6.0	183		0732	6.0	183
	1251	1.2	37		1326	0.3	9		1257	0.5	15		1341	0.0	0		1431	0.2	6
	1840	5.6	171		1930	5.8	177		1901	5.6	171		1955	5.5	168		2048	5.4	165
<b>15</b> Su	0105	1.0	30	<b>30</b> M	0137	1.2	37	<b>15</b> Tu	0105	1.6	49	<b>30</b> W	0147	2.0	61	<b>15</b> F	0205	2.2	67
	0657	5.8	177		0724	6.2	189		0649	6.2	189		0722	6.1	186		0744	6.6	201
	1323	0.8	24		1401	0.1	3		1333	0.0	0		1415	0.0	0		1442	-0.6	-18
	1919	5.9	180		2008	5.9	180	●	1944	5.9	180		2030	5.5	168		2106	5.8	177
<b>31</b> Th	0220	2.2	67					<b>31</b> Th	0220	2.2	67					<b>30</b> Sa	0235	2.5	76
	0753	6.0	183						0753	6.0	183					<b>30</b> F	0806	6.0	183
	1447	0.1	3						1447	0.1	3					<b>30</b> M	1503	0.3	9
	2103	5.5	168						2103	5.5	168					<b>30</b> W	2120	5.4	165

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Malakal Harbor, Palau Islands 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0308	2.6	79	<b>16</b> M	0331	2.2	67	<b>1</b> W	0352	2.5	76
	0839	5.9	180		0910	6.6	201		0936	6.0	183
	1535	0.5	15		1603	0.0	0		1610	1.2	37
	2153	5.4	165		2221	6.0	183		2227	5.8	177
<b>2</b> M	0341	2.7	82	<b>17</b> Tu	0422	2.2	67	<b>2</b> Th	0428	2.4	73
	0915	5.8	177		1000	6.2	189		1017	5.8	177
	1607	0.8	24		1649	0.6	18		1641	1.5	46
	2228	5.4	165		2305	5.9	180		2302	5.8	177
<b>3</b> Tu	0417	2.8	85	<b>18</b> W	0517	2.2	67	<b>3</b> F	0510	2.4	73
	0954	5.6	171		1053	5.8	177		1103	5.5	168
	1640	1.1	34		1736	1.1	34		1715	1.9	58
	2305	5.4	165		2350	5.8	177		2341	5.8	177
<b>4</b> W	0459	2.8	85	<b>19</b> Th	0618	2.2	67	<b>4</b> Sa	0602	2.3	70
	1037	5.4	165		1151	5.3	162		1157	5.1	155
	1717	1.4	43		1826	1.7	52		1757	2.3	70
	2345	5.4	165								
<b>5</b> Th	0550	2.8	85	<b>20</b> F	0037	5.7	174	<b>5</b> Su	0025	5.7	174
	1127	5.1	155		0724	2.1	64		0707	2.1	64
	1757	1.7	52		1257	4.9	149		1304	4.8	146
					1921	2.2	67		1850	2.6	79
<b>6</b> F	0029	5.4	165	<b>21</b> Sa	0127	5.6	171	<b>6</b> M	0118	5.6	171
	0651	2.6	79		0833	1.9	58		0826	1.9	58
	1226	4.8	146		1413	4.5	137		1426	4.6	140
					2024	2.6	79		2009	3.0	91
<b>7</b> Sa	0116	5.4	165	<b>22</b> Su	0221	5.5	168	<b>7</b> Tu	0221	5.6	171
	0801	2.4	73		0941	1.7	52		0949	1.5	46
	1336	4.6	140		1542	4.4	134		1600	4.6	140
	1944	2.3	70		2134	2.8	85		2146	3.1	94
<b>8</b> Su	0208	5.4	165	<b>23</b> M	0319	5.4	165	<b>8</b> W	0332	5.7	174
	0913	1.9	58		1044	1.4	43		1100	0.9	27
	1456	4.4	134		1706	4.4	134		1724	4.9	149
	2058	2.5	76		2241	2.9	88		2307	2.9	88
<b>9</b> M	0306	5.5	168	<b>24</b> Tu	0418	5.4	165	<b>9</b> Th	0442	5.9	180
	1021	1.4	43		1138	1.0	30		1200	0.4	162
	1620	4.5	137		1809	4.7	143		1826	5.3	162
	2214	2.6	79		2340	2.8	85		2340	2.8	85
<b>10</b> Tu	0405	5.6	171	<b>25</b> W	0513	5.5	168	<b>10</b> F	0010	2.7	82
	1121	0.8	24		1224	0.7	21		0545	6.3	192
	1734	4.8	146		1854	4.9	149		1251	0.0	0
	2322	2.6	79						1915	5.7	174
<b>11</b> W	0502	5.9	180	<b>26</b> Th	0029	2.6	79	<b>11</b> Sa	0102	2.3	70
	1214	0.2	6		0600	5.7	174		0640	6.6	201
	1835	5.2	158		1305	0.5	15		1337	-0.3	-9
					1929	5.1	155		● 1957	6.1	186
<b>12</b> Th	0019	2.4	73	<b>27</b> F	0110	2.5	76	<b>12</b> Su	0148	2.0	61
	0556	6.2	189		0641	5.9	180		0730	6.9	210
	1303	-0.3	-9		1341	0.4	12		1421	-0.2	-6
	1926	5.5	168		1959	5.4	165		2036	6.3	192
<b>13</b> F	0110	2.3	70	<b>28</b> Sa	0146	2.4	73	<b>13</b> M	0232	1.8	55
	0646	6.5	198		0717	6.0	183		0817	6.9	210
	1349	-0.5	-15		1414	0.4	12		1502	0.0	0
	● 2012	5.8	177		2028	5.5	168		2113	6.4	195
<b>14</b> Sa	0157	2.2	67	<b>29</b> Su	0218	2.4	73	<b>14</b> Tu	0316	1.7	52
	0735	6.7	204		0752	6.1	186		0902	6.8	207
	1434	-0.6	-18		1444	0.5	15		1542	0.5	15
	2056	5.9	180		2056	5.7	174		2150	6.4	195
<b>15</b> Su	0243	2.2	67	<b>30</b> M	0249	2.4	73	<b>15</b> W	0401	1.7	52
	0822	6.7	204		0825	6.2	189		0948	6.5	198
	1518	-0.4	-12		1513	0.7	31		1622	1.1	34
	2138	6.0	183		2125	5.7	174		2227	6.3	192
<b>31</b> Tu	0320	2.4	73	<b>31</b> F	0320	2.4	73	<b>16</b> Sa	0358	2.0	61
	0900	6.1	186		0900	6.1	186		0959	6.2	189
	1542	0.9	27		1542	0.9	27		1607	2.0	61
	2155	5.8	177		2155	5.8	177		2219	6.3	192

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Malakal Harbor, Palau Islands 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0502 0.5 52	1.7 52	16 Tu 0602 2.3 70	5.2 158	1 Th 0714 1.9 58	5.3 162	16 Sa 0006 5.3 165	5.4 165	1 Sa 0101 5.4 165	5.4 149	16 Su 0035 4.9 149	7.3 70
1125 5.7 174		1220 5.2 122		1348 5.4 165	2.5 76	0728 2.5 76		0807 1.9 58		0723 2.3 73	
1656 3.3 101		1803 4.0 122		1956 3.8 116	5.1 155	1354 5.1 155		1430 5.6 171		1347 5.2 158	
2308 6.3 192		2342 5.6 171		O	2027 3.8 116	2027 3.8 116		2107 2.8 85		2034 3.0 91	
2 Tu 0605 1.9 58		17 W 0712 2.5 76		2 F 0114 5.7 174		17 Sa 0122 5.0 152		2 Su 0232 5.2 158		17 M 0149 4.7 143	
1233 5.4 165		1333 5.0 152		0840 2.0 61		0842 2.5 76		0919 2.0 61		0830 2.4 73	
1759 3.7 113		1943 4.1 125		1512 5.6 171		1501 5.2 158		1534 5.8 177		1442 5.2 158	
O		O		2131 3.4 104		2142 3.4 104		2217 2.2 67		2144 2.5 76	
3 W 0007 6.0 183		18 Th 0048 5.3 162		3 Sa 0249 5.6 171		18 Su 0247 5.0 152		3 M 0401 5.2 158		18 Tu 0311 4.6 140	
0730 2.0 61		0834 2.6 79		0955 1.9 58		0947 2.5 76		1024 2.1 64		0938 2.5 76	
1400 5.2 158		1504 5.0 152		1619 5.8 177		1557 5.4 165		1629 6.0 183		1537 5.4 165	
1950 3.9 119		2121 3.9 119		2241 2.7 82		2239 2.8 85		2314 1.6 49		2242 1.9 58	
4 Th 0126 5.8 177		19 F 0214 5.2 158		4 Su 0417 5.7 174		19 M 0405 5.1 155		4 Tu 0515 5.4 165		19 W 0428 4.7 143	
0904 1.9 58		0948 2.5 76		1057 1.8 55		1043 2.4 73		1121 2.1 64		1040 2.5 76	
1538 5.3 162		1618 5.2 158		1711 6.2 189		1642 5.7 174		1716 6.2 189		1629 5.6 171	
2141 3.7 113		2230 3.5 107		2336 2.0 61		2325 2.3 70		O		2332 1.3 40	
5 F 0300 5.7 174		20 Sa 0341 5.2 158		5 M 0527 6.0 183		20 Tu 0507 5.4 165		5 W 0004 1.0 30		20 Th 0533 5.0 152	
1023 1.6 49		1047 2.3 70		1150 1.7 52		1129 2.3 70		0614 5.6 171		1134 2.4 73	
1653 5.6 171		1705 5.5 168		1753 6.5 198		1721 6.0 183		1210 2.1 64		1716 5.9 180	
2256 3.1 94		2320 3.0 91		O		1758 6.3 192		1758 6.3 192		O	
6 Sa 0426 6.0 183		21 Su 0449 5.5 168		6 Tu 0022 1.4 43		21 W 0005 1.7 52		6 Th 0047 0.6 18		21 F 0017 0.7 21	
1125 1.3 40		1133 2.1 64		0622 6.3 192		0558 5.7 174		0701 5.8 177		0627 5.3 162	
1745 6.1 186		1740 5.8 177		1235 1.7 52		1210 2.2 67		1253 2.1 64		1221 2.3 70	
2352 2.4 73		O		1830 6.8 207		1757 6.3 192		1835 6.5 198		1801 6.2 189	
7 Su 0535 6.4 195		22 M 0001 2.5 76		7 W 0104 0.9 27		22 Th 0042 1.1 34		7 F 0126 0.3 9		22 Sa 0059 0.2 6	
1215 1.1 34		0541 5.8 177		0708 6.5 198		0643 6.0 183		0741 5.9 180		0714 5.6 171	
1827 6.5 198		1213 1.9 58		1315 1.8 55		1247 2.2 67		1332 2.2 67		1304 2.3 70	
O		1811 6.2 189		1904 6.9 210		1832 6.6 201		1910 6.5 198		1843 6.5 198	
8 M 0039 1.8 55		23 Tu 0036 2.0 61		8 Th 0142 0.6 18		23 F 0117 0.7 21		8 Sa 0202 0.2 6		23 M 0140 -0.2 -6	
0630 6.7 204		0623 6.2 189		0749 6.5 198		0724 6.2 189		0816 5.9 180		0758 5.8 177	
1259 1.0 30		1247 1.8 55		1351 2.0 61		1322 2.2 67		1407 2.4 73		1344 2.3 70	
1903 6.8 207		1840 6.5 198		● 1935 7.0 213		O 1906 6.8 207		1942 6.5 198		1925 6.7 204	
9 Tu 0121 1.3 40		24 W 0108 1.6 49		9 F 0218 0.5 15		24 M 0152 0.4 12		9 Su 0236 0.3 9		24 M 0222 -0.3 -9	
0717 6.9 210		0702 6.4 195		0826 6.5 198		0805 6.3 192		0850 5.8 177		0841 6.0 183	
1339 1.2 37		1318 1.9 58		1425 2.3 70		1356 2.4 73		1440 2.6 79		1426 2.3 70	
● 1936 7.0 213		1908 6.7 204		2006 6.9 210		1941 7.0 213		2014 6.4 195		2008 6.8 207	
10 W 0200 1.0 30		25 Th 0139 1.3 40		10 Sa 0252 0.7 21		25 Su 0230 0.3 9		10 M 0309 0.5 15		25 Tu 0304 -0.3 -9	
0759 7.0 213		0738 6.6 201		0902 6.3 192		0846 6.3 192		0923 5.7 174		0925 6.0 183	
1415 1.4 43		1348 2.0 61		1457 2.6 79		1432 2.6 79		1511 2.8 85		1509 2.4 73	
2007 7.1 216		O 1937 6.9 210		2036 6.8 207		2019 7.0 213		2046 6.3 192		2053 6.7 204	
11 Th 0237 0.9 27		26 F 0209 1.0 30		11 Su 0326 0.9 27		26 M 0310 0.3 9		11 Tu 0342 0.8 24		26 W 0349 0.0 0	
0838 6.9 210		0815 6.7 204		0938 6.1 186		0931 6.2 189		0958 5.6 171		1010 5.9 180	
1449 1.9 58		1417 2.2 67		1528 3.0 91		1511 2.9 88		1544 3.0 91		1558 2.5 76	
2037 7.0 213		2007 7.0 213		2107 6.5 198		2100 6.9 210		2121 6.1 186		2141 6.5 198	
12 F 0313 1.0 30		27 Sa 0242 0.9 27		12 M 0401 1.3 40		27 Tu 0355 0.5 15		12 W 0417 1.1 34		27 Th 0437 0.4 12	
0917 6.6 201		0853 6.6 201		1016 5.8 177		1019 6.0 183		1036 5.5 168		1058 5.8 177	
1522 2.4 73		1447 2.5 76		1601 3.3 101		1557 3.1 94		1620 3.2 98		1654 2.6 79	
2107 6.9 210		2039 7.0 213		2141 6.3 192		2145 6.7 204		2159 5.9 180		2234 6.1 186	
13 Sa 0349 1.3 40		28 Tu 0318 0.9 27		13 M 0439 1.6 49		28 W 0446 0.9 27		13 Th 0455 1.5 46		28 F 0529 0.9 27	
0955 6.3 192		0936 6.4 195		1059 5.6 171		1113 5.8 177		1117 5.3 162		1149 5.7 174	
1554 2.8 85		1520 2.9 88		1639 3.6 110		1656 3.3 101		1704 3.3 101		1800 2.6 79	
2139 6.6 201		2115 6.9 210		2220 6.0 183		2239 6.3 192		2242 5.6 171		2334 5.6 171	
14 Su 0427 1.6 49		29 M 0400 1.1 34		14 W 0524 2.0 61		29 Th 0545 1.2 37		14 F 0536 1.8 55		29 M 0626 1.4 43	
1037 5.9 180		1023 6.1 186		1149 5.3 162		1215 5.6 171		1203 5.2 158		1243 5.6 171	
1627 3.3 101		1559 3.2 98		1731 3.8 116		1812 3.4 104		1802 3.4 104		1914 2.5 76	
2213 6.3 192		2157 6.7 204		2307 5.6 171		2343 5.8 177		2333 5.2 158		O	
15 M 0510 2.0 61		30 Tu 0451 1.3 40		15 Th 0620 2.3 70		30 F 0653 1.6 49		15 M 0625 2.0 61		30 Su 0044 5.1 155	
1123 5.5 168		1119 5.8 177		1248 5.2 158		1322 5.6 171		1253 5.2 158		0728 1.8 55	
1706 3.7 113		1650 3.6 110		1852 3.9 119		1943 3.3 101		1915 3.3 101		1341 5.5 168	
2252 6.0 183		2247 6.4 195		O		O		O		2032 2.2 67	
31 W 0555 1.6 49		1227 5.5 168		1807 3.8 116		2351 6.0 183				0206 4.8 146	
1807 3.8 116										M 0837 2.2 67	
2351 6.0 183										1441 5.5 168	
										2145 1.8 55	

Time meridian 135° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Chuuk, Moen Island, Caroline Islands, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0315 0.2 6 0546 0.1 3 1403 2.3 70 2219 -0.6 -18			<b>16</b> Tu 0337 0.2 6 0548 0.1 3 1411 2.1 64 2216 -0.2 -6			<b>1</b> Th 0406 0.3 9 0712 0.2 6 1501 2.3 70 2253 -0.4 -12		
<b>2</b> Tu 0351 0.1 3 0610 0.0 0 O 1433 2.4 73 2255 -0.6 -18			<b>17</b> W 0325 0.2 6 0634 0.1 3 1435 2.1 64 ● 2227 -0.2 -6			<b>2</b> F 0415 0.4 12 0752 0.2 6 1526 2.2 67 2310 -0.2 -6		
<b>3</b> W 0421 0.0 0 0634 -0.1 -3 1503 2.4 73 2332 -0.5 -15			<b>18</b> Th 0332 0.2 6 0710 0.1 3 1500 2.2 67 2242 -0.2 -6			<b>3</b> Sa 0428 0.5 15 0828 0.2 6 1546 2.0 61 2319 0.0 0		
<b>4</b> Th 0447 0.0 0 0656 -0.1 -3 1531 2.3 70			<b>19</b> F 0347 0.3 9 0741 0.1 3 1525 2.1 64 2259 -0.2 -6			<b>4</b> Su 0443 0.7 21 0900 0.3 9 1557 1.8 55 2318 0.1 3		
<b>5</b> F 0007 -0.4 -12 0511 0.0 0 0716 -0.1 -3 1555 2.1 64			<b>20</b> Sa 0407 0.4 12 0809 0.1 3 1548 2.0 61 2318 -0.1 -3			<b>5</b> M 0502 0.8 24 0929 0.5 15 1557 1.5 46 2307 0.2 6		
<b>6</b> Sa 0039 -0.2 -6 1610 1.9 58			<b>21</b> Su 0431 0.5 15 0834 0.2 6 1610 1.9 58 2337 0.0 0			<b>6</b> Tu 0525 0.9 27 0951 0.7 21 1542 1.3 40 2246 0.2 6		
<b>7</b> Su 0101 0.0 0 1613 1.6 49			<b>7</b> M 0501 0.6 18 0857 0.3 9 1626 1.7 52 2354 0.1 3			<b>21</b> W 0458 1.3 40 1028 0.6 18 1610 1.3 40 2244 0.2 6		
<b>8</b> M 0104 0.2 6 1558 1.4 43			<b>22</b> Tu 0539 0.7 21 0915 0.5 15 1631 1.4 43			<b>7</b> W 0554 1.0 30 1003 0.9 27 1512 1.2 37 2227 0.1 3		
<b>9</b> Tu 0035 0.2 6 1521 1.2 37 O 2342 0.2 6			<b>8</b> Th 0642 1.1 34 0941 1.0 30 1423 1.2 37 ● 2215 0.0 0			<b>22</b> F 0528 1.3 40 1107 0.9 27 1515 1.0 30 2225 0.2 6		
<b>10</b> W 1420 1.2 37 2304 0.1 3			<b>23</b> O 0005 0.2 6 0641 0.8 24 0911 0.7 21 1556 1.2 37			<b>8</b> Th 0611 1.3 40 2145 0.1 3 ● 2215 0.0 0		
<b>11</b> Th 1324 1.3 40 2246 0.0 0			<b>10</b> Th 0005 0.2 6 1335 1.1 34 2328 0.2 6			<b>23</b> F 0611 1.3 40 1119 0.1 3 2109 -0.1 -3		
<b>12</b> F 1305 1.5 46 2236 -0.1 -3			<b>11</b> Su 0005 0.2 6 1335 1.1 34 2328 0.2 6			<b>9</b> F 1323 1.3 40 2211 -0.1 -3		
<b>13</b> Sa 1310 1.7 52 2225 -0.1 -3			<b>12</b> F 0226 1.3 40 2147 0.1 3			<b>10</b> Su 1258 1.5 46 2209 -0.1 -3		
<b>14</b> Su 1326 1.8 55 2216 -0.2 -6			<b>13</b> Tu 0226 1.3 40 2147 0.1 3			<b>11</b> Su 1250 1.9 58 2110 -0.3 -9		
<b>15</b> M 1347 2.0 61 2212 -0.2 -6			<b>14</b> W 0342 0.5 15 0631 0.4 12 1405 2.1 64 2147 -0.1 -3			<b>12</b> M 1244 1.6 49 2121 0.0 0		
			<b>15</b> Tu 0323 0.6 18 0713 0.3 9 1429 2.2 67 2153 -0.1 -3			<b>13</b> Tu 1303 1.7 52 2111 0.1 3		
			<b>31</b> W 0404 0.3 9 0624 0.2 6 1432 2.4 73 O 2233 -0.5 -15			<b>14</b> W 0353 0.7 21 0614 0.6 18 1355 2.2 67 2137 -0.3 -9		
						<b>15</b> Th 0307 0.9 27 0707 0.6 18 1348 2.0 61 2100 0.1 3		
						<b>16</b> F 0247 1.2 37 0742 0.6 18 1407 1.9 58 2051 0.2 6		
						<b>31</b> Sa 0248 1.5 46 0817 0.5 15 1430 1.8 55 O 2055 0.3 9		

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Chuuk, Moen Island, Caroline Islands, 2018

Times and Heights of High and Low Waters

April					May					June					
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0258	1.7	52	<b>16</b>	0240	1.9	58	<b>1</b>	0242	2.2	67	<b>16</b>	0237	2.3	70
	0850	0.4	12	M	0903	0.3	9	Tu	0940	0.3	9	W	1012	0.0	0
	1450	1.6	49		1449	1.5	46		1442	1.0	30		1521	0.7	21
	2057	0.3	9	●	2029	0.3	9		1949	0.3	9		1937	0.3	9
<b>2</b> M	0313	1.8	55	<b>17</b>	0259	2.1	64	<b>2</b>	0301	2.3	70	<b>17</b>	0303	2.4	73
	0923	0.4	12	Tu	0942	0.3	9	W	1011	0.3	9	Th	1103	0.0	0
	1504	1.4	43		1517	1.3	40		1452	0.8	24		1554	0.5	15
	2057	0.3	9		2037	0.4	12		1951	0.3	9		1935	0.3	9
<b>3</b> Tu	0330	2.0	61	<b>18</b>	0320	2.2	67	<b>3</b>	0321	2.3	70	<b>18</b>	0329	2.5	76
	0954	0.4	12	W	1026	0.3	9	Th	1042	0.4	12	F	1209	0.1	3
	1513	1.2	37		1541	1.0	30		1456	0.7	21		1621	0.3	9
	2054	0.3	9		2039	0.4	12		1951	0.2	6		1918	0.2	6
<b>4</b> W	0347	2.0	61	<b>19</b>	0342	2.2	67	<b>4</b>	0340	2.2	67	<b>19</b>	0356	2.4	73
	1024	0.5	15	Th	1118	0.4	12	F	1117	0.4	12	Sa	1835	0.1	3
	1513	1.1	34		1552	0.7	21		1449	0.6	18				
	2048	0.3	9		2031	0.3	9		1950	0.2	6				
<b>5</b> Th	0404	2.0	61	<b>20</b>	0405	2.2	67	<b>5</b>	0359	2.1	64	<b>20</b>	0420	2.2	67
	1053	0.6	18	F	1244	0.4	12	Sa	1201	0.5	15	Su	1806	0.0	0
	1502	1.0	30		1512	0.5	15		1426	0.6	18				
	2042	0.2	6		2009	0.2	6		1951	0.2	6				
<b>6</b> F	0421	2.0	61	<b>21</b>	0429	2.2	67	<b>6</b>	0418	2.0	61	<b>21</b>	0441	2.0	61
	1124	0.8	24	Sa	1940	0.1	3	Su	1952	0.2	6	M	1816	0.0	0
	1438	0.9	27								W	1744	0.4	12	
	2039	0.2	6									21	0357	1.4	43
<b>7</b> Sa	0437	1.9	58	<b>22</b>	0452	2.0	61	<b>7</b>	0436	1.9	58	<b>22</b>	0450	1.8	55
	2039	0.1	3	Su	1927	0.0	0	M	1949	0.2	6	Tu	1827	0.1	3
												7	0448	1.5	46
												Th	1656	0.4	12
<b>8</b> Su	0452	1.7	52	<b>23</b>	0512	1.8	55	<b>8</b>	0450	1.7	52	<b>23</b>	0430	1.6	49
	2039	0.1	3	M	1930	0.0	0	Tu	1936	0.3	59	W	1832	0.2	6
												8	0309	1.3	40
												23	0128	1.5	46
<b>9</b> M	0506	1.6	49	<b>24</b>	0518	1.6	49	<b>9</b>	0443	1.5	46	<b>24</b>	0318	1.4	43
	2036	0.2	6	Tu	1936	0.0	0	W	1911	0.3	9	Sa	0805	0.8	24
												9	0133	1.4	43
												24	0106	1.7	52
<b>10</b> Tu	0502	1.4	43	<b>25</b>	0417	1.4	43	<b>10</b>	0327	1.3	40	<b>25</b>	0207	1.5	46
	0749	1.3	40	F	0719	1.3	40	Th	0720	1.2	37	F	0851	0.9	27
	1134	1.4	43		1200	1.5	46		1046	1.3	40		1214	1.0	30
	2025	0.2	6		1941	0.1	3		1852	0.4	12		1826	0.4	12
<b>11</b> W	0402	1.2	37	<b>26</b>	0256	1.3	40	<b>11</b>	0216	1.4	43	<b>26</b>	0138	1.6	49
	0645	1.1	34	Th	0722	1.1	34	Sa	0713	1.0	30	Sa	0849	0.7	21
	1219	1.6	49		1246	1.5	46		1159	1.3	40		1300	0.9	27
	2010	0.3	9		1942	0.2	6		1847	0.4	12		1822	0.4	12
<b>12</b> Th	0300	1.2	37	<b>27</b>	0218	1.4	43	<b>12</b>	0147	1.5	46	<b>27</b>	0134	1.8	55
	0658	1.0	30	F	0745	0.8	24	Sa	0737	0.8	24	Su	0901	0.5	15
	1251	1.7	52		1319	1.5	46		1246	1.3	40		1330	0.8	24
	2001	0.3	9										1822	0.4	12
<b>13</b> F	0227	1.3	40	<b>28</b>	0208	1.6	49	<b>13</b>	0144	1.7	52	<b>28</b>	0143	2.0	61
	0723	0.8	24	Sa	0812	0.6	18	Su	0809	0.5	15	M	0919	0.4	12
	1320	1.8	55		1345	1.4	43		1328	1.3	40		1354	0.7	21
	2001	0.3	9		1943	0.4	12		1906	0.3	9		1828	0.3	9
<b>14</b> Sa	0219	1.5	46	<b>29</b>	0213	1.9	58	<b>14</b>	0155	2.0	61	<b>29</b>	0200	2.2	67
	0754	0.6	18	F	0841	0.5	15	M	0846	0.3	9	Tu	0941	0.2	6
	1350	1.8	55		1407	1.2	37		1407	1.1	34		1415	0.6	18
	2008	0.3	9		1944	0.4	12		1919	0.3	9		1837	0.3	9
<b>15</b> Su	0225	1.7	52	<b>30</b>	0225	2.1	64	<b>15</b>	0214	2.2	67	<b>30</b>	0220	2.3	70
	0827	0.4	12	M	0910	0.4	12	Tu	0927	0.1	3	W	1005	0.2	6
	1420	1.7	52		1426	1.1	34		1445	1.0	30		1434	0.5	15
	2019	0.3	9	O	1947	0.4	12	●	1930	0.3	9	O	1847	0.2	6
												<b>31</b>	0242	2.3	70
												Th	1033	0.1	3
												1450	0.4	12	
												1857	0.2	6	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Chuuk, Moen Island, Caroline Islands, 2018

Times and Heights of High and Low Waters

July			August			September														
Time	Height		Time	Height		Time	Height		Time	Height										
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm									
<b>1</b> Su 1123 1555 1922	0.0	0	<b>16</b> M 1217 1731 1956	2.3 0.3 0.2	-0.1 0.3 0.2	<b>1</b> W 1112 1640 2109	1.9 0.8 0.5	3 9 15	<b>16</b> Th 1047 1708 2208	1.5 1.1 0.7	46 34 21	<b>1</b> Sa 0402 1018 1659 2310	1.2 0.3 1.4 0.8	37 9 43 24	<b>16</b> Su 0228 0857 1655	0.9 0.1 1.6	27 3 49			
	0.1	3	<b>17</b> Tu 1237 1802 2014	2.0 0.5 0.4	61 15 12	<b>2</b> Th 1126 1712 2137	1.7 0.9 0.6	52 27 18	<b>17</b> F 1024 1734 2233	1.3 1.2 0.9	40 37 27	<b>2</b> Su 0326 1004 1734	1.0 0.3 1.4	30 9 43	<b>17</b> M 1712 ●	0.0 0	0 46			
	0.4	12	<b>18</b> W 1242	1.7 0.3	52 9	<b>3</b> F 1137 1754 2205	1.5 1.0 0.8	46 30 24	<b>18</b> Sa 1001 1811 2244	1.1 1.2 1.1	34 37 34	<b>3</b> M 0926 1836	0.2 1.4	6 43	<b>18</b> Tu 1729 2114 2345	0.0 1.2 1.3	0 37 40			
	0.3	9	<b>19</b> Th 1220	1.5 0.4	46 12	<b>4</b> Sa 1140 1910 2221	1.2 1.1 1.0	37 34 30	<b>19</b> Su 0948	1.2 0.1	37 3	<b>4</b> Tu 0843 2326	0.0 1.5	0 46	<b>19</b> W 0855	0.0	0			
<b>5</b> Th 1306	1.6	49	<b>20</b> F 1132	1.3 0.4	40 12	<b>5</b> Su 0206 1121 2337	1.1 0.3 1.3	34 34 40	<b>20</b> M 0035 0945	1.3 0.0	40 0	<b>5</b> W 0832	-0.2	-6	<b>20</b> Th 0019 0852	1.4 0.0	43 0			
	0.3	9	●			<b>6</b> M 0957	0.2	6	<b>21</b> Tu 0027 0945	1.5 0.0	46 0	<b>6</b> Th 0018 0839	-1.8 -0.3	55 -9	<b>21</b> F 0043 0844 1528 1838	1.6 0.0 0.9 0.8	49 0 27 24			
<b>6</b> F 1336	1.4	43	<b>21</b> Sa 0213 1053	1.3 0.3	40 9	<b>7</b> Tu 0000 0905	1.6 0.0	49 0	<b>22</b> W 0043 0944	1.6 -0.1	49 -3	<b>7</b> F 0057 0853 1529 1806	2.0 -0.3 0.8 0.7	61 -9 24 21	<b>22</b> Sa 0105 0835 1449 1904	1.7 0.1 1.0 0.6	52 3 30 18			
	0.4	12	●			<b>8</b> W 0032 0907	1.8 -0.2	55 -6	<b>23</b> Th 0104 0938	1.8 0.0	55 0	<b>8</b> Sa 0131 0909 1507 1900	2.1 -0.3 0.8 0.5	64 -9 24 15	<b>23</b> Su 0128 0831 1433 1932	1.8 0.1 1.1 0.5	55 3 34 15			
<b>9</b> M 0900 1325 1538	1.6	49	<b>24</b> Tu 0053 1024	1.7 0.0	52 0	<b>9</b> Th 0106 0924	2.1 -0.4	64 -12	<b>24</b> F 0126 0931 1533 1827	1.9 0.0 0.6 0.5	58 0 18 15	<b>9</b> Su 0203 0922 1506 1942	2.2 -0.1 0.9 0.4	67 -3 27 12	<b>24</b> M 0152 0834 1434 2002	1.8 0.1 1.2 0.4	55 3 37 12			
	0.3	9	●			<b>10</b> Tu 0112 1017	1.9 0.0	58 0	<b>25</b> F 0141 0947 1547 1815	2.3 -0.4 0.5 0.4	70 -12 15 12	<b>25</b> Sa 0149 0927 1508 1907	2.0 0.0 0.7 0.4	61 0 21 12	<b>10</b> M 0231 0933 1514 ●	2.1 0.0 1.1 0.3	64 0 34 9	<b>25</b> Tu 0216 0842 1444 2033	1.8 0.1 1.4 0.3	55 3 43 9
	0.4	12	●			<b>11</b> W 0135 1011	2.0 -0.1	61 -3	<b>26</b> Sa 0214 1010 1549 ●	2.4 -0.4 0.5 0.3	73 -12 15 9	<b>26</b> Su 0213 0930 1504 1941	2.1 0.0 0.8 0.3	64 0 24 9	<b>11</b> Tu 0256 0939 1527 2058	1.9 0.1 1.3 0.3	58 3 40 9	<b>26</b> W 0241 0852 1500 2106	1.7 0.1 1.6 0.3	52 3 49 9
<b>12</b> Th 1550 1752	2.3	70	<b>27</b> F 0200 1011	2.1 -0.1	64 -3	<b>12</b> Su 0246 1032 1558 1950	2.4 -0.2 0.6 0.3	73 -6 18 9	<b>27</b> M 0236 0938 1513 2014	2.1 0.1 0.9 0.3	64 3 27 9	<b>12</b> W 0314 0940 1544 2133	1.7 0.2 1.5 0.4	52 6 46 12	<b>27</b> Th 0304 0902 1519 2141	1.6 0.2 1.7 0.3	49 6 52 9			
	0.4	-12	●			<b>13</b> F 1827	2.5 0.1	67 3	<b>28</b> M 0314 1049 1611 2029	2.2 -0.1 0.7 0.3	67 -3 21 9	<b>28</b> Tu 0300 0948 1528 2045	2.0 0.1 1.1 0.3	61 3 34 9	<b>13</b> Th 0324 0934 1602 2207	1.4 0.3 1.6 0.5	43 9 49 15	<b>28</b> F 0325 0910 1539 2219	1.3 0.2 1.8 0.3	40 6 55 9
	0.3	9	●			<b>14</b> Sa 1643 1900	2.5 0.1	76 3	<b>29</b> Tu 0337 1059 1628 2105	2.0 0.1 0.9 0.4	61 3 27 12	<b>29</b> W 0322 1000 1547 2117	1.9 0.1 1.2 0.4	58 3 37 12	<b>14</b> F 0323 0922 1620 2239	1.2 0.3 1.7 0.6	37 9 52 18	<b>29</b> Sa 0340 0911 1601 2306	1.1 0.2 1.8 0.5	34 6 55 15
<b>15</b> Su 1707 1930	2.4	73	<b>30</b> M 1042 1554 2011	2.2 0.6 0.3	67 0 9	<b>15</b> W 0351 1100 1646 2138	1.8 0.2 1.0 0.5	55 6 30 15	<b>30</b> Th 0342 1011 1608 2149	1.7 0.2 1.3 0.5	52 6 40 15	<b>15</b> Sa 0305 0907 1637 2309	1.0 0.2 1.6 0.8	30 6 49 24	<b>30</b> Su 0335 0901 1624 2309	0.8 0.2 1.8 0.5	24 6 55 9			
	1147 0.3	-9	●			<b>31</b> Tu 1057 1615 2040	2.1 0.7 0.3	64 21 9	<b>31</b> F 0358 1018 1632 2225	1.5 0.2 1.4 0.6	46 6 43 18									
	0.3	9	●																	

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 Heights are referred to mean lower low water which is the chart datum of soundings.

# Chuuk, Moen Island, Caroline Islands, 2018

Times and Heights of High and Low Waters

October					November					December							
Time	Height		Time	Height	Time	Height		Time	Height	Time	Height		Time	Height			
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> M 0835 1650	0.1 1.8	55	<b>16</b> Tu 0804 1628	-0.1 1.6	-3 49	<b>1</b> Th 0656 1652	-0.2 1.5	-6 46	<b>16</b> F 0715 1608	0.0 1.3	0 40	<b>1</b> Sa 0608 1516	-0.1 1.2	-3 37	<b>16</b> Su 0408 1521	0.2 1.2	6 37
<b>2</b> Tu 0802 1720	0.0 1.6	0 49	<b>17</b> W 0806 1633	-0.1 1.5	-3 46	<b>2</b> F 0704 1558	-0.2 1.3	-6 40	<b>17</b> Sa 0654 1514	0.1 1.2	3 37	<b>2</b> Su 0610 1404	0.1 1.3	3 40	<b>17</b> M 0421 1351	0.2 1.2	6 37
<b>3</b> W 0747 1813 2015 2225	-0.2 1.5 1.4 1.5	-6 46 43 46	<b>18</b> Th 0805 1619	0.0 1.3	0 40	<b>3</b> Sa 0711 1441	-0.1 1.2	-3 37	<b>18</b> Su 0631 1413	0.1 1.2	3 37	<b>3</b> M 0606 1331	0.2 1.4	6 43	<b>18</b> Tu 0443 1310	0.2 1.4	6 43
<b>4</b> Th 0750 2356	-0.2 1.6	-6 49	<b>19</b> F 0757 1534	0.0 1.2	0 37	<b>4</b> Su 0017 0715	1.2 0.0	37 0	<b>19</b> M 0622 1339	0.1 1.3	3 40	<b>4</b> Tu 0055 0602	0.6 0.2	18 6	<b>19</b> W 0001 0507	0.5 0.2	15 6
<b>5</b> F 0759 1533 1814	-0.2 1.0 0.9	-6 30 27	<b>20</b> Sa 0743 1444	0.1 1.1	3 34	<b>5</b> M 0056 0716	1.2 0.1	37 3	<b>20</b> Tu 0024 0626	0.9 0.1	27 3	<b>5</b> W 0131 0601	0.4 0.1	12 33	<b>20</b> Th 0112 0532	0.4 0.1	12 33
<b>6</b> Sa 0040 0809 1442 1856	1.7 -0.2 1.1 0.7	52 -6 34 21	<b>21</b> Su 0030 0733	1.4 0.1	43 3	<b>6</b> Tu 0127 0717	1.1 0.1	34 3	<b>21</b> W 0106 0637	0.9 0.1	27 3	<b>6</b> Th 0157 0606	0.3 0.1	9 33	<b>21</b> F 0204 0557	0.3 0.1	9 64
<b>7</b> Su 0115 0817 1427 1933	1.8 -0.1 1.2 0.5	55 -3 37 15	<b>22</b> M 0058 0730	1.4 0.1	43 3	<b>7</b> W 0152 0717	0.9 0.1	27 3	<b>22</b> Th 0144 0651	0.8 0.1	24 3	<b>7</b> F 0217 0615	0.2 0.0	6 0	<b>22</b> Sa 0249 0619	0.2 0.0	6 0
<b>8</b> M 0145 0823 1428 2008	1.7 0.0 1.4 0.4	52 0 43 12	<b>23</b> Tu 0127 0736	1.4 0.1	43 3	<b>8</b> Th 0212 0719	0.7 0.1	21 3	<b>23</b> F 0221 0705	0.6 0.0	18 0	<b>8</b> Sa 0234 0628	0.2 -0.1	6 -3	<b>23</b> Su 0332 0639	0.1 0.0	3 0
<b>9</b> Tu 0211 0826 1438 ● 2043	1.6 0.1 1.6 0.3	49 3 49 9	<b>24</b> W 0156 0746	1.3 0.1	40 3	<b>9</b> F 0228 0721	0.6 0.1	18 3	<b>24</b> Sa 0258 0716	0.5 0.0	15 0	<b>9</b> Su 0249 0641	0.1 -0.1	3 -3	<b>24</b> M 0413 0653	0.0 -0.1	0 -3
<b>10</b> W 0232 0828 1453 2117	1.4 0.2 1.8 0.2	43 6 55 6	<b>25</b> Th 0224 0757	1.2 0.1	37 3	<b>10</b> Sa 0238 0723	0.5 0.0	15 0	<b>25</b> Su 0332 0720	0.2 0.0	6 0	<b>10</b> M 0300 0652	0.1 -0.1	3 -3	<b>25</b> Tu 0455 0658	0.0 -0.1	0 -3
<b>11</b> Th 0248 0826 1510 2151	1.2 0.2 2.0 0.3	37 6 61 9	<b>26</b> F 0252 0806	1.0 0.1	30 3	<b>11</b> Su 0240 0723	0.3 0.0	9 0	<b>26</b> M 0404 0713	0.1 -0.1	3 -3	<b>11</b> Tu 0308 0702	0.1 -0.1	3 -3	<b>26</b> W 0035 1605	-0.4 2.1	-12 64
<b>12</b> F 0257 0822 1528 2224	0.9 0.2 2.0 0.3	27 6 61 9	<b>27</b> Sa 0317 0811	0.8 0.1	24 3	<b>12</b> M 0230 0722	0.3 -0.1	9 -3	<b>27</b> Tu 0002 0426	0.0 -0.1	0 -3	<b>12</b> W 0028 0313	-0.2 0.1	-6 3	<b>27</b> Th 0128 1622	-0.2 1.8	-6 55
<b>13</b> Sa 0254 0815 1546 2258	0.8 0.1 2.0 0.4	24 3 49 12	<b>28</b> Su 0334 0807	0.5 0.1	15 3	<b>13</b> Tu 0723 1601	-0.1 1.9	-3 58	<b>28</b> W 0540 1624	-0.2 1.9	-6 58	<b>13</b> Th 0041 0316	0.0 0.1	0 3	<b>28</b> F 0228 1624	0.0 1.6	0 49
<b>14</b> Su 0238 0808 1603 2338	0.6 0.0 1.9 0.5	18 0 58 15	<b>29</b> M 0012 0318	0.2 0.3	6 9	<b>14</b> W 0725 0748	-0.1 0.0	-3 0	<b>29</b> Th 0546 1635	-0.2 1.7	-6 52	<b>14</b> F 0708 1627	0.1 1.5	3 46	<b>29</b> Sa 0323 1558	0.1 1.3	3 40
<b>15</b> M 0201 0804 1617	0.6 0.0 1.8	18 0 55	<b>30</b> Tu 0715 1629	-0.1 1.9	-3 58	<b>15</b> Th 0724 1621	-0.1 1.5	-3 46	<b>30</b> F 0559 1620	-0.2 1.4	-6 43	<b>15</b> Sa 0622 1620	0.2 1.3	6 40	<b>30</b> Su 0342 1453	0.2 1.2	6 37
			<b>31</b> W 0655	-0.2 1.7	-6 52				<b>31</b> O 0240 1338	0.3 1.3	9 40						

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Pohnpei Harbor, Caroline Islands, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0243 0.7 21	2.7 82	16 Tu 0311 0.9 27	2.3 70	1 Th 0401 0.5 15	2.9 88	16 F 0354 0.7 21	2.9 88	1 Th 0314 0.7 21	3.1 94	16 F 0307 0.8 30	3.3 101
1452 4.6 140		1508 4.1 125		1602 4.6 140		0924 0.7 21		1514 4.5 137		0846 1.0 30	
2143 0.3 9		2201 0.5 15		O 2244 0.0 0		1549 4.3 131		2148 0.2 6		1502 4.2 128	
				● 2225 0.3 9		2225 0.3 9				2129 0.5 15	
2 Tu 0326 0.6 18	2.7 82	17 W 0339 0.8 24	2.4 73	2 F 0435 0.5 15	3.0 91	17 Sa 0418 0.7 21	3.1 94	2 Th 0343 0.5 15	3.4 104	17 Sa 0329 0.8 24	3.6 110
1531 4.7 143		1535 4.2 128		1637 4.5 137		0955 0.7 21		1548 4.6 140		1530 4.3 131	
O 2223 0.1 3		● 2226 0.4 12		2316 0.1 3		1617 4.3 131		O 2216 0.2 6		2151 0.5 15	
				2248 0.3 9		2248 0.3 9					
3 W 0407 0.6 18	2.7 82	18 Th 0407 0.8 24	2.5 76	3 Sa 0509 0.6 18	3.1 94	18 Su 0444 0.7 21	3.2 98	3 Sa 0413 0.5 15	3.6 110	18 Su 0353 0.7 21	3.8 116
0930 0.6 18		0925 0.8 24		1711 4.3 131		1026 0.7 21		1620 4.4 134		0947 0.7 21	
1610 4.7 143		1602 4.3 131		2346 0.3 9		1644 4.2 128		2242 0.3 9		1559 4.3 131	
2302 0.1 3		2251 0.4 12				2312 0.4 12				● 2214 0.5 15	
4 Th 0448 0.7 21	2.7 82	19 F 0435 0.8 24	2.6 79	4 Su 0544 0.8 24	3.1 94	19 M 0512 0.8 24	3.3 101	4 Su 0442 0.5 15	3.7 113	19 M 0419 0.7 21	3.9 119
1009 0.7 21		0955 0.8 24		1123 3.9 119		1058 0.8 24		1649 4.2 128		1019 0.7 21	
1648 4.6 140		1630 4.2 128				1712 3.9 119		2307 0.5 15		1627 4.1 125	
2341 0.2 6		2317 0.4 12				2337 0.6 18				2238 0.6 18	
5 F 0529 0.8 24	2.7 82	20 Sa 0504 0.9 27	2.7 82	5 M 0015 0.6 15	0.5 15	20 Tu 0541 1.0 30	3.3 101	5 M 0511 0.7 21	3.7 113	20 Tu 0446 0.7 21	4.0 122
1048 0.8 24		1026 0.9 27		0619 3.0 91		1133 1.0 30		1110 0.7 21		1053 0.7 21	
1726 4.3 131		1658 4.1 125		1200 1.1 34		1741 3.6 110		1717 3.8 116		1656 3.8 116	
		2344 0.5 15		1811 3.5 107				2330 0.7 21		2302 0.8 24	
6 Sa 0020 0.4 12	0.4 12	21 Su 0535 1.0 30	2.7 82	6 Tu 0042 0.6 15	0.8 24	21 W 0001 0.6 15	0.8 24	6 Tu 0540 1.0 30	3.6 110	21 W 0515 0.9 27	4.0 122
0612 2.6 79		1059 1.0 30		0658 2.9 88		0615 3.3 101		1143 1.0 30		1129 0.9 27	
1128 1.1 34		1727 3.9 119		1240 1.5 46		1212 1.2 37		1740 3.4 104		1725 3.5 107	
1803 4.0 122				1836 3.0 91		1809 3.2 98		2349 0.9 27		2325 1.0 30	
7 Su 0100 0.7 21	0.7 21	22 M 0012 0.6 18	0.6 18	7 W 0108 0.7 21	1.1 34	22 Th 0027 0.6 18	1.0 30	7 W 0610 1.4 43	3.5 107	22 Th 0547 1.2 37	3.9 119
0701 2.6 79		0610 2.7 82		0744 2.8 85		0656 3.2 98		1216 1.4 43		1209 1.2 37	
1212 1.4 43		1135 1.2 37		1331 1.8 55		1303 1.6 49		1759 3.0 91		1754 3.0 91	
1841 3.5 107		1758 3.6 110		1852 2.5 76		1838 2.7 82				2346 1.2 37	
8 M 0142 0.9 27	0.9 27	23 Tu 0043 0.6 24	0.8 24	8 Th 0132 0.7 24	1.3 40	23 F 0054 0.7 24	1.2 37	8 Th 0005 0.7 24	1.1 34	23 F 0625 1.6 49	3.7 113
0801 2.5 76		0651 2.7 82		0858 2.7 82		0756 3.0 91		0640 3.3 101		1302 1.6 49	
1307 1.8 55		1218 1.4 43		1548 2.0 61		1442 1.9 58		1252 1.7 52		1824 2.6 79	
1921 3.0 91		1831 3.2 98		O 1818 2.1 64		1912 2.2 67		1808 2.6 79			
9 Tu 0230 1.2 37	1.2 37	24 W 0117 0.7 24	1.0 30	9 F 0159 0.7 24	1.5 46	24 Sa 0131 0.7 24	1.5 46	9 F 0014 0.7 24	1.4 43	24 Sa 0006 1.9 58	1.5 46
0926 2.6 79		0745 2.7 82		1122 2.8 85		0958 3.0 91		0717 3.1 64		0716 3.4 104	
1442 2.0 61		1319 1.7 52		2138 1.6 49		1914 1.7 52		O 1741 2.3 70		1449 2.1 64	
O 2012 2.6 79		1911 2.8 85								1902 2.1 64	
10 W 0330 1.3 40	1.3 40	25 Th 0202 0.7 24	1.2 37	10 Sa 0032 0.7 24	1.7 52	25 Su 0001 0.7 24	1.8 55	10 Sa 0006 0.7 24	1.6 49	25 Su 0012 1.7 52	1.8 55
1111 2.7 82		0909 2.7 82		0349 1.6 49		0346 1.7 52		0830 2.8 85		0908 3.2 98	
1751 2.0 61		1522 1.9 58		1250 3.0 91		1209 3.2 98		2227 1.7 52		1856 1.7 52	
2156 2.2 67		O 2017 2.3 70		2045 1.4 43		1954 1.2 37				O 2017 2.3 70	
11 Th 0443 1.4 43	1.4 43	26 F 0311 0.7 24	1.3 40	11 Su 0204 0.7 24	1.9 58	26 M 0139 0.7 24	2.1 64	11 Su 1205 0.7 24	2.9 88	26 M 1148 1.3 40	3.3 101
1224 3.0 91		1104 2.9 88		0613 1.6 49		0616 1.6 49		2039 1.5 46		1931 1.3 40	
1936 1.7 52		1833 1.7 52		1332 3.3 101		1314 3.7 113					
		2310 2.0 61		2052 1.1 34		2023 0.8 24					
12 F 0011 2.1 64	2.1 64	27 Sa 0454 0.7 24	1.4 43	12 M 0227 0.7 24	2.1 64	27 Tu 0214 0.7 24	2.5 76	12 M 0307 0.7 24	2.2 67	27 Tu 0145 0.7 24	2.5 76
0549 1.4 43		1226 3.3 101		0711 1.4 43		0722 1.3 40		0558 2.1 64		0625 1.9 58	
1310 3.3 101		1945 1.2 37		1402 3.6 110		1400 4.1 125		1306 3.2 98		1259 3.7 113	
2019 1.4 43				2106 0.9 27		2052 0.5 15		2028 1.3 40		1959 1.0 30	
13 Sa 0124 2.1 64	2.1 64	28 W 0107 0.7 24	2.1 64	13 Tu 0247 0.7 24	2.3 70	28 W 0244 0.7 24	2.8 85	13 Tu 0230 0.7 24	2.4 73	28 W 0203 0.7 24	2.9 88
0639 1.3 40		0619 1.2 37		0750 1.2 37		0808 0.9 27		0708 1.8 55		0723 1.5 46	
1344 3.6 110		1322 3.7 113		1430 3.8 116		1439 4.4 134		1339 3.5 107		1344 4.0 122	
2048 1.1 34		2027 0.8 24		2123 0.6 18		2121 0.3 9		2036 1.1 34		2025 0.8 24	
14 Su 0208 2.2 67	2.2 67	29 M 0205 0.7 24	2.3 70	14 W 0308 0.7 24	2.5 76						
0718 1.1 34		0718 1.0 30		0823 1.0 30							
1414 3.8 116		1407 4.1 125		1456 4.1 125							
2114 0.8 24		2104 0.4 12		2142 0.5 15							
15 M 0242 2.2 67	2.2 67	30 Tu 0248 0.7 24	2.5 76	15 Th 0330 0.7 24	2.7 82						
0753 1.0 30		0807 0.7 24		0854 0.9 27							
1442 4.0 122		1447 4.4 134		1522 4.2 128							
2138 0.6 18		2138 0.2 6		2203 0.4 12							
		31 W 0325 0.7 24	2.7 82								
		0850 0.6 18									
		1525 4.6 140									
		2212 0.0 0									

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Pohnpei Harbor, Caroline Islands, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0346	4.2	128	<b>16</b> M	0325	4.3	131	<b>1</b> Tu	0346	4.5	137
	0951	0.6	18		0937	0.7	21		1012	0.8	24
	1557	4.2	128		1539	4.0	122		1602	3.5	107
	2203	0.6	18	●	2139	0.7	21		2146	0.9	27
<b>2</b> M	0413	4.3	131	<b>17</b> Tu	0353	4.5	137	<b>2</b> W	0412	4.5	137
	1023	0.7	21		1012	0.7	21		1044	0.9	27
	1625	3.9	119		1611	3.8	116		1628	3.2	98
	2225	0.7	21		2205	0.8	24		2207	1.0	30
<b>3</b> Tu	0440	4.3	131	<b>18</b> W	0424	4.5	137	<b>3</b> Th	0439	4.4	134
	1055	0.8	24		1049	0.7	21		1116	1.1	34
	1650	3.6	110		1644	3.5	107		1653	3.0	91
	2246	0.9	27		2230	1.0	30		2225	1.2	37
<b>4</b> W	0506	4.2	128	<b>19</b> Th	0455	4.4	134	<b>4</b> F	0504	4.2	128
	1127	1.1	34		1129	0.9	27		1149	1.3	40
	1713	3.3	101		1717	3.2	98		1718	2.7	82
	2303	1.1	34		2255	1.2	37		2242	1.4	43
<b>5</b> Th	0532	4.0	122	<b>20</b> F	0530	4.3	131	<b>5</b> Sa	0530	4.0	122
	1158	1.4	43		1216	1.2	37		1227	1.5	46
	1732	2.9	88		1753	2.8	85		1744	2.5	76
	2316	1.3	40		2319	1.4	43		2255	1.6	49
<b>6</b> F	0558	3.7	113	<b>21</b> Sa	0610	4.0	122	<b>6</b> Su	0558	3.7	113
	1233	1.7	52		1317	1.5	46		1316	1.7	52
	1745	2.6	79		1839	2.4	73		1820	2.2	67
	2324	1.5	46		2340	1.7	52		2302	1.8	55
<b>7</b> Sa	0625	3.5	107	<b>22</b> Su	0703	3.6	110	<b>7</b> M	0634	3.4	104
	1323	2.0	61		1510	1.7	52		1446	1.8	55
	1745	2.3	70		2051	2.1	64		2021	2.1	64
	2316	1.7	52		2341	2.0	61		2221	2.0	61
<b>8</b> Su	0702	3.2	98	<b>23</b> M	0843	3.3	101	<b>8</b> Tu	0738	3.2	98
	2153	1.9	58		1744	1.6	49		1703	1.8	55
	○	○	○		○	○	○		○	○	○
	○	○	○		○	○	○		○	○	○
<b>9</b> M	0906	3.0	91	<b>24</b> Tu	0108	2.4	73	<b>9</b> W	1003	3.0	91
	1936	1.8	55		0401	2.3	70		1801	1.6	49
	1109	3.3	101		1109	3.3	101		1143	3.1	94
	1842	1.4	43		1842	1.4	43		1823	1.2	37
<b>10</b> Tu	1202	3.1	94	<b>25</b> W	0113	2.8	85	<b>10</b> Th	0058	2.8	85
	1932	1.5	46		0618	2.1	64		0558	2.3	70
	1228	3.5	107		1228	3.5	107		1144	3.1	94
	1917	1.2	37		1917	1.2	37		1836	1.4	43
<b>11</b> W	0200	2.7	82	<b>26</b> Th	0135	3.2	98	<b>11</b> Sa	0110	3.2	98
	0647	2.2	67		0714	1.7	52		0653	1.9	58
	1254	3.4	104		1319	3.7	113		1241	3.3	101
	1944	1.3	40		1946	1.0	30		1906	1.2	37
<b>12</b> Th	0159	3.0	91	<b>27</b> F	0159	3.6	110	<b>12</b> Sa	0133	3.6	110
	0725	1.8	55		0755	1.3	40		0734	1.5	46
	1330	3.7	113		1358	3.8	116		1325	3.5	107
	2003	1.1	34		2012	0.9	27		1936	1.0	30
<b>13</b> F	0214	3.4	104	<b>13</b> Sa	0225	4.0	122	<b>28</b> M	0158	4.0	122
	0758	1.5	46		0832	1.0	30		0824	1.1	34
	1403	3.9	119		1433	3.9	119		1405	3.6	110
	2024	0.9	27		2037	0.9	27		2006	0.9	27
<b>14</b> Sa	0234	3.8	116	<b>29</b> Su	0252	4.2	128	<b>14</b> M	0228	4.3	131
	0830	1.1	34		0907	0.8	24		0850	0.8	24
	1435	4.0	122		1504	3.8	116		1443	3.6	110
	2048	0.8	24		2101	0.8	24		2036	0.8	24
<b>15</b> Su	0258	4.1	125	<b>30</b> M	0319	4.4	134	<b>15</b> Tu	0300	4.5	137
	0903	0.9	27		0940	0.8	24		0928	0.6	18
	1506	4.1	125		1534	3.7	113		1521	3.5	107
	2113	0.7	21		○	2124	0.9	27		2106	0.8
<b>31</b> Th	0352	4.4	134	<b>31</b> Th	0352	4.4	134		0319	4.6	140
	1038	0.8	24		1038	0.8	24		1008	0.3	9
	1615	2.7	82		1615	2.7	82		1555	2.8	85
	2137	1.0	30		○	2113	0.9	27		2120	0.8
<b>16</b> Sa	0438	4.5	137	<b>31</b> Th	1038	0.8	24	<b>16</b> F	0324	4.4	134
	1136	0.4	12		1615	0.8	24		106	0.8	24
	1724	2.6	79		1615	0.8	24		1521	2.5	76
	2237	1.0	30		○	2113	0.9	27		2123	0.9

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Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Pohnpei Harbor, Caroline Islands, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0433 1129 1713 2223	ft 4.1 0.6 2.4 1.1	cm 125 18 73 34	h m <b>16</b> M 1200 1756 2321	ft 4.3 0.3 2.8 0.9	cm 131 9 85 27	h m <b>1</b> W 1152 1754 2328	ft 3.9 0.7 2.9 1.2	cm 119 21 88 37	h m <b>16</b> Th 1223 1839	ft 3.6 0.9 3.3	cm 110 27 101
1 Su 1129 0.6 18	0502 1159 1747 2255	4.0 0.7 2.4 1.3	122 21 73 40	17 Tu 1238 1840	4.0 0.6 2.8 85	2 Th 1220 1830	3.6 0.8 24 91	17 F 1249 1923	1.4 3.2	43 98	
2 M 1230 0.8 24	0532 1230 1826 2332	3.8 0.8 2.5 1.4	116 24 76 43	18 W 0008 0631 1317 1931	1.2 3.6 0.8 2.7	3 F 0009 0615 1250 1914	1.4 3.3 1.0 2.9	18 Sa 0131 0659 1315 2024	1.8 2.7 1.4 3.0	55 82 43 91	
3 Tu 1230 0.8 24	0532 1230 1826 2332	3.8 0.8 2.5 1.4	116 24 76 43	18 W 0008 0631 1317 1931	1.2 3.6 0.8 2.7	3 F 0009 0615 1250 1914	1.4 3.3 1.0 2.9	18 Sa 0131 0659 1315 2024	1.8 2.7 1.4 3.0	55 82 43 91	
4 W 1306 0.9 27	0604 1306 1914	3.5 0.9 2.5	107 27 76	<b>19</b> Th 0101 0712 1359 2034	1.5 3.1 1.1 2.7	<b>4</b> Sa 0102 0652 1326 2017	1.6 2.9 1.2 2.9	<b>19</b> Su 0322 0723 1341 2215	2.0 2.2 1.7 3.0	61 67 58 91	
5 Th 0643 1348 2018	0018 0643 1348 2018	1.6 3.2 1.1 2.5	49 98 34 76	<b>20</b> F 0217 0801 1448 2158	1.8 2.7 1.3 2.8	<b>5</b> Su 0230 0745 1417 2153	1.9 2.4 1.4 3.0	<b>20</b> M 0755 1228 1457	1.8 1.9 1.8	55 58 55	
6 F 0733 1440 ● 2140	0127 0733 1440 ● 2140	1.8 2.9 1.2 2.7	55 88 37 82	<b>21</b> Sa 0426 0920 1550 2327	1.9 2.3 1.4 3.0	<b>6</b> M 0520 0956 1547 2335	1.8 2.1 1.5 3.2	<b>21</b> Tu 0009 0811 1359 1753	3.1 1.5 2.1 1.9	94 64 46 58	
7 Sa 0851 1547 2304	0323 0851 1547 2304	1.9 2.6 1.2 2.9	58 79 37 88	<b>22</b> Su 0647 1132 1705	1.7 2.1 1.5	<b>7</b> Tu 0709 1232 1734	1.4 2.1 1.5	<b>22</b> W 0106 0830 1420 1859	3.4 1.2 2.3 1.7	104 37 52 52	
8 Su 1045 1659	0537 1045 1659	1.8 2.4 1.2	55 73 37	<b>23</b> M 0033 0753 1307 1810	3.2 1.4 2.1 1.4	<b>8</b> W 0045 0800 1342 1848	3.6 1.0 2.3 1.3	<b>23</b> Th 0143 0847 1439 1941	110 30 70 40	113 58 46 58	
9 M 1222 1803	0009 0700 1222 1803	3.3 1.4 2.3 1.1	101 43 70 34	<b>24</b> Tu 0119 0832 1400 1900	3.5 1.1 2.1 1.3	<b>9</b> Th 0137 0838 1427 1943	4.0 0.6 2.6 1.0	<b>24</b> F 0213 0905 1458 2014	122 18 76 40	113 58 46 58	
10 Tu 0756 1330 1858	0100 0756 1330 1858	3.7 1.0 2.4 1.0	113 30 73 30	<b>25</b> W 0156 0901 1437 1941	3.7 0.9 2.3 1.2	<b>10</b> F 0222 0914 1505 2030	4.3 0.4 2.8 0.8	<b>25</b> Sa 0240 0924 1518 2044	131 12 91 37	125 125 125 125	
11 W 0842 1423 1946	0146 0842 1423 1946	4.0 0.6 2.5 0.8	122 18 76 24	<b>26</b> Th 0228 0926 1506 2016	3.9 0.7 2.4 1.1	<b>11</b> Sa 0303 0948 1541 2112	4.6 0.2 3.1 0.7	<b>26</b> Su 0306 0943 1540 2114	119 6 98 30	131 24 131 30	
12 Th 1509 2031	0229 0924 1509 2031	4.3 0.3 2.6 0.7	131 9 79 21	<b>27</b> F 0257 0950 1534 2048	4.0 0.6 2.5 1.0	<b>12</b> Su 0341 1021 1616 2153	4.6 0.2 3.2 0.6	<b>27</b> M 0333 1004 1603 2143	131 18 104 30	128 27 134 30	
13 F 1552 ● 2114	0311 1004 1552 ● 2114	4.5 0.1 2.7 0.6	137 3 82 18	<b>28</b> Sa 0324 1014 1600 2119	4.1 0.5 2.6 0.9	<b>13</b> M 0418 1053 1650 2232	4.6 0.2 3.4 0.7	<b>28</b> Tu 0359 1026 1627 2213	131 18 107 27	119 30 134 37	
14 Sa 1633 2156	0352 1043 1633 2156	4.6 0.1 2.8 0.7	140 3 85 21	<b>29</b> Su 0352 1038 1627 2150	4.2 0.5 2.7 0.9	<b>14</b> Tu 0454 1124 1725 2312	4.4 0.4 3.4 0.8	<b>29</b> W 0426 1049 1653 2244	128 21 110 30	110 37 134 43	
15 Su 1122 1714 2238	0432 1122 1714 2238	4.5 0.2 2.8 0.8	137 6 85 24	<b>30</b> M 0419 1102 1654 2221	4.1 0.5 2.8 1.0	<b>15</b> W 0528 1154 1801 2352	4.0 0.6 3.4 1.1	<b>30</b> Th 0453 1111 1720 2318	122 24 113 34	110 43 131 125	
				<b>31</b> Tu 0446 1126 1723 2253	4.0 0.5 2.9 1.1			<b>31</b> F 0521 1134 1751 2356	3.7 1.0 3.6 1.4		

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Pohnpei Harbor, Caroline Islands, 2018

Times and Heights of High and Low Waters

October			November			December		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0040	1.7	52	<b>16</b> Tu 0138	2.1	64	<b>1</b> Th 0458	1.8	55
0601	2.8	85	0546	2.4	73	2207	3.5	107
1132	1.7	52	1041	2.0	61	<b>16</b> F 2109	3.1	94
1840	3.8	116	1846	3.5	107	<b>1</b> Sa 1716	2.3	70
<b>2</b> Tu 0209	2.0	61	<b>17</b> W 0801	2.1	64	<b>16</b> Su 2259	3.1	94
0644	2.3	70	2031	3.2	98	<b>2</b> Sa 1312	3.0	91
1135	2.0	61	<b>2</b> F 1302	3.0	91	1759	2.6	79
2000	3.5	107	1747	2.4	73	2316	3.1	94
<b>3</b> W 0604	1.9	58	<b>18</b> Th 0704	1.9	58	<b>3</b> M 0015	3.1	94
2248	3.5	107	1508	2.8	85	0635	1.2	37
1738	2.7	82	1738	2.7	82	1314	3.7	113
2338	3.3	101	1852	2.0	61	1931	1.5	46
<b>4</b> Th 0657	1.6	49	<b>4</b> Su 0048	3.8	116	<b>4</b> Tu 0109	3.2	98
1332	2.8	85	1356	3.1	94	0709	1.1	34
1752	2.3	70	1847	2.5	76	M 1325	3.7	113
<b>5</b> F 0020	3.8	116	<b>19</b> F 0711	1.6	49	1927	1.8	55
0728	1.3	40	0719	1.2	37	<b>4</b> Tu 1344	4.1	125
1343	3.2	98	1340	3.8	116	2012	1.2	37
1859	1.9	58	1936	1.6	49	<b>19</b> W 0624	2.7	82
<b>6</b> Sa 0113	4.1	125	<b>5</b> M 0132	3.9	119	W 0627	1.1	34
0755	1.0	30	0725	1.5	46	<b>19</b> W 1317	3.8	116
1405	3.6	110	Sa 1352	3.4	104	1953	1.3	40
1943	1.5	46	1920	2.1	64	<b>20</b> Th 0122	2.8	85
<b>7</b> Su 0154	4.4	134	<b>20</b> M 0034	3.5	107	0707	1.0	30
0822	0.9	27	0725	1.5	46	1352	4.1	125
1430	4.0	122	1406	4.2	128	2033	0.9	27
2022	1.2	37	2015	1.3	40	<b>20</b> W 0739	1.0	30
<b>8</b> M 0230	4.5	137	<b>6</b> Tu 0209	3.9	119	0151	3.1	94
0848	0.8	24	0741	1.0	30	0739	1.0	30
1457	4.3	131	1403	3.7	113	1414	4.3	131
2058	0.9	27	1949	1.8	55	2049	1.0	30
<b>9</b> Tu 0304	4.5	137	<b>7</b> W 0243	3.9	119	<b>6</b> Th 0228	3.1	94
0913	0.8	24	0802	1.1	34	0807	0.9	27
1524	4.6	140	1420	4.0	122	1444	4.5	137
● 2133	0.8	24	2018	1.5	46	2124	0.8	24
<b>10</b> W 0336	4.3	131	<b>8</b> Th 0213	4.1	125	<b>21</b> F 0209	2.8	85
0938	0.8	24	0824	1.0	30	0746	0.8	24
1553	4.7	143	Tu 1441	4.3	131	1427	4.4	134
2208	0.9	27	2048	1.2	37	2113	0.6	18
<b>11</b> Th 0406	4.1	125	<b>22</b> W 0244	4.1	125	<b>22</b> Sa 0253	2.8	85
1002	0.9	27	0926	0.9	27	0823	0.7	21
1621	4.7	143	1506	4.6	140	1504	4.7	143
2243	1.0	30	2120	1.0	30	2153	0.4	12
<b>12</b> F 0434	3.8	116	<b>9</b> F 0345	3.5	107	<b>7</b> F 0302	3.0	91
1023	1.1	34	0926	1.0	30	0834	0.9	27
1649	4.6	140	1557	4.9	149	1513	4.6	140
2317	1.2	37	2234	1.0	30	● 2158	0.7	21
<b>13</b> Tu 0500	3.4	104	<b>10</b> Sa 0413	3.3	101	<b>22</b> Sa 0253	2.8	85
1042	1.3	40	0912	0.9	27	0823	0.7	21
1717	4.4	134	1532	4.8	146	1504	4.7	143
2353	1.5	46	2154	0.9	27	2233	0.3	9
<b>14</b> W 0522	3.0	91	<b>11</b> Su 0441	3.0	91	<b>8</b> Sa 0334	2.9	88
1056	1.5	46	0912	0.9	27	0900	0.9	27
1744	4.1	125	1601	4.8	146	1542	4.6	140
● 2154	0.9	27	2230	1.0	30	2231	0.7	21
<b>15</b> M 0034	1.8	55	<b>12</b> M 0508	2.8	85	<b>8</b> Sa 0334	2.9	88
0540	2.7	82	1024	1.5	46	0912	0.9	27
1101	1.8	55	1718	4.3	131	1547	4.9	149
1812	3.8	116	2309	1.1	34	2231	0.7	21
<b>16</b> W 0224	1.8	55	<b>13</b> Tu 0023	1.5	46	<b>9</b> Su 0404	2.8	85
0749	2.3	70	0536	2.5	76	0926	1.0	30
1102	2.2	67	1036	1.7	52	1610	4.6	140
1940	3.7	113	1745	4.0	122	2303	0.8	24
<b>17</b> W 0050	1.6	49	<b>14</b> W 0113	1.7	52	<b>9</b> M 0416	2.8	85
0610	2.6	79	0615	2.3	70	0937	0.7	21
1106	1.8	55	1036	2.0	61	1619	4.7	143
1826	4.0	122	1815	3.7	113	2314	0.3	9
<b>18</b> W 0224	1.8	55	<b>15</b> Th 0239	1.9	58	<b>24</b> M 0458	2.7	82
0749	2.3	70	1900	3.4	104	1015	0.8	24
1102	2.2	67	<b>16</b> M 0453	2.9	88	1657	4.6	140
1940	3.7	113	1008	1.3	40	2356	0.4	12
<b>19</b> W 0050	1.6	49	1652	4.5	137	<b>25</b> W 0542	2.6	79
0610	2.6	79	2308	1.1	34	1054	1.0	30
1106	1.8	55	2343	1.3	40	1737	4.3	131
1826	4.0	122	<b>26</b> M 0453	2.9	88	<b>26</b> W 0542	2.6	79
<b>20</b> W 0451	3.3	101	1012	1.2	37	1054	1.0	30
1025	1.3	40	1658	4.7	143	1737	4.3	131
1704	4.6	140	<b>27</b> Tu 0000	0.9	27	<b>27</b> Th 0040	0.6	18
2353	1.3	40	0538	2.6	79	0632	2.5	76
2109	4.4	134	1043	1.4	43	1136	1.3	40
1738	4.4	134	1738	4.4	134	1819	3.9	119
1826	4.0	122	1927	3.6	110	<b>28</b> F 0129	0.9	27
<b>21</b> W 0224	1.8	55	1827	4.0	122	0732	2.4	73
0749	2.3	70	1834	3.4	104	1228	1.6	49
1102	2.2	67	1926	3.1	94	1906	3.5	107
1940	3.7	113	<b>29</b> Sa 0224	1.1	34	<b>29</b> F 0129	1.1	34
<b>22</b> W 0224	1.8	55	1348	1.9	58	0856	2.5	76
0749	2.3	70	2108	3.3	101	● 2007	3.0	91
1102	2.2	67	<b>30</b> Su 0330	1.2	37	<b>30</b> M 0441	1.3	40
1940	3.7	113	1223	2.2	67	1040	2.7	82
<b>23</b> W 0224	1.8	55	1926	3.1	94	1616	2.1	64
0749	2.3	70	<b>31</b> M 0441	1.3	34	2141	2.6	79
1102	2.2	67	1158	2.0	61	<b>31</b> W 0441	1.3	40
1940	3.7	113	1927	3.6	110	1158	3.0	91
<b>24</b> W 0224	1.8	55	1834	3.4	104	1828	1.8	55
0749	2.3	70	1926	3.1	94	2334	2.4	73

Time meridian 165° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings which is about 1.0ft (30 cm) below mean low water springs.

# Wake Island, 2018

Times and Heights of High and Low Waters

January			February			March			
Time	Height		Time	Height		Time	Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	
<b>1</b> M 0311 - 0.1 0859 - 0.1 1520 2.7 2154 - 0.6	2.0 - 3 82 - 18	61 - 3 73 - 9	<b>16</b> Tu 0353 0.0 0936 0.0 1549 2.4 2221 - 0.3	1.8 - 3 76 - 9	55 0 73 - 9	<b>1</b> Th 0435 0.4 1023 2.9 1642 2.9 2311 - 0.8	2.1 - 12 88 - 24	64 - 9 88 - 18	
<b>2</b> Tu 0359 2.1 0944 - 0.2 1605 2.9 O 2239 - 0.7	64 - 6 88 - 21	61 - 3 76 - 12	<b>17</b> W 0426 1.9 1010 - 0.1 1622 2.5 ● 2251 - 0.4	58 - 3 76 - 12	55 - 15 88 - 24	<b>2</b> Sa 0513 2.2 1104 - 0.5 1722 2.9 2347 - 0.8	67 - 15 88 - 24	67 - 9 79 - 18	
<b>3</b> W 0442 2.2 1028 - 0.3 1648 3.0 2322 - 0.8	67 - 9 91 - 24	61 - 3 79 - 15	<b>18</b> Th 0456 2.0 1042 - 0.1 1653 2.6 2320 - 0.5	61 - 4 79 - 15	550 2.3 1143 - 0.4 1759 2.8 2355 - 0.6	<b>18</b> Sa 0534 2.2 1130 - 0.4 1739 2.6 2323 - 0.8	67 - 12 79 - 18	73 - 15 85 - 24	
<b>4</b> Th 0525 2.2 1110 - 0.3 1731 2.9	67 - 9 88	61 - 3 79	<b>19</b> F 0526 2.0 1113 - 0.1 1724 2.6 2349 - 0.4	61 - 3 79 - 12	0022 - 0.6 0626 2.3 1221 - 0.3 1836 2.6	<b>19</b> Su 0601 2.3 1200 - 0.4 1809 2.5	70 - 12 76 - 21	76 - 18 82 - 21	
<b>5</b> F 0004 - 0.7 0606 2.1 1152 - 0.2 1812 2.8	- 21 64 - 6 85	61 - 3 79	<b>20</b> Sa 0555 2.0 1143 - 0.1 1754 2.6	61 - 3 79	0056 - 0.5 0701 2.2 1259 - 0.2 1911 2.3	<b>20</b> M 0022 - 0.5 0630 2.2 1233 - 0.3 1841 2.4	15 - 6 73 - 73	76 - 15 76 - 15	
<b>6</b> Sa 0045 - 0.5 0648 2.1 1235 - 0.1 1854 2.6	- 15 64 - 3 79	61 - 3 76	<b>21</b> Su 0018 - 0.4 0624 2.0 1215 - 0.1 1826 2.5	61 - 3 76	0128 - 0.2 0737 2.1 1339 0.0 1947 2.0	<b>21</b> W 0052 - 0.3 0701 2.2 1310 - 0.2 1917 2.1	- 9 67 - 6 64	76 - 15 73 - 67	
<b>7</b> Su 0126 - 0.3 0731 2.0 1320 0.1 1938 2.3	- 9 61 - 3 70	61 - 3 70	<b>22</b> M 0048 - 0.3 0655 2.0 1249 0.0 1900 2.3	61 - 3 0 70	0201 0.0 0816 1.9 1424 0.3 2026 1.6	<b>22</b> W 0123 - 0.2 0738 2.1 1355 0.0 1959 1.8	- 6 64 0 55	76 - 9 73 - 58	
<b>8</b> M 0209 - 0.1 0818 1.9 1410 0.3 2025 2.0	- 3 58 - 9 61	61 - 3 76	<b>23</b> Tu 0120 - 0.2 0730 1.9 1329 0.1 1938 2.1	- 6 58 - 3 64	0238 0.2 0903 1.7 1523 0.5 ● 2118 1.3	<b>23</b> F 0201 0.0 0823 1.9 1454 0.2 ● 2055 1.5	6 58 6 46	- 6 70 - 6 49	
<b>9</b> Tu 0255 0.1 0912 1.8 1513 0.5 O 2123 1.7	3 55 15 52	61 - 3 66 - 58	<b>24</b> W 0157 0.0 0812 1.9 1418 0.2 2026 1.9	0 58 6 58	0328 0.5 1011 1.6 1703 0.6 2302 1.1	<b>24</b> F 0250 0.3 0930 1.8 1627 0.3 2230 1.2	9 55 9 37	- 6 64 - 3 40	
<b>10</b> W 0350 0.3 1019 1.7 1639 0.6 2243 1.4	9 52 18 43	61 - 3 55 - 49	<b>25</b> Th 0242 0.1 0906 1.8 1526 0.3 ● 2131 1.6	3 55 9 49	0454 0.6 1150 1.6 1911 0.5	<b>25</b> Su 0413 0.5 1116 1.7 1832 0.2	18 52 6	12 49 15 34	
<b>11</b> Th 0500 0.5 1139 1.7 1822 0.6	15 52 18	9 55 43	<b>26</b> F 0342 0.3 1021 1.8 1703 0.4 2306 1.4	9 55 12 43	0119 1.1 0645 0.6 1320 1.7 2021 0.3	<b>26</b> M 0043 1.2 0618 0.5 1303 1.9 1959 0.0	37 15 58 0	18 52 18 18	
<b>12</b> F 0021 1.4 0616 0.5 1252 1.8 1940 0.4	43 15 55 12	9 55 6	<b>27</b> Sa 0506 0.4 1155 1.8 1848 0.2	12 55 6	0228 1.3 0759 0.4 1419 1.9 2103 0.0	<b>27</b> Tu 0209 1.5 0748 0.3 1415 2.2 2055 - 0.3	46 9 67 - 9	37 18 55 0	
<b>13</b> Sa 0140 1.4 0722 0.4 1350 2.0 2033 0.2	43 12 61 6	43 12 61 - 3	<b>28</b> Su 0052 1.4 0640 0.4 1318 2.0 2005 - 0.1	43 6 61 - 3	0310 1.5 0847 0.2 1501 2.1 2136 - 0.2	<b>28</b> W 0302 1.7 0847 0.0 1507 2.5 2138 - 0.6	52 0 76 - 18	37 9 64 - 6	
<b>14</b> Su 0235 1.5 0815 0.3 1435 2.2 2114 0.0	46 9 67 0	49 6 70 - 12	<b>29</b> M 0211 1.6 0754 0.2 1422 2.3 2102 - 0.4	49 6 70 - 12	0343 1.7 0926 0.0 1537 2.3 2206 - 0.3	<b>29</b> W 0251 1.5 0830 0.3 1439 2.0 2112 - 0.1	46 9 61 - 3	55 0 70 - 12	
<b>15</b> M 0317 1.7 0858 0.2 1514 2.3 2149 - 0.2	52 6 70 - 6	55 0 79 - 18	<b>30</b> Tu 0308 1.8 0851 0.0 1514 2.6 2149 - 0.6	55 0 79 - 18	0412 1.9 0959 - 0.1 1609 2.5 2234 - 0.5	<b>30</b> Th 0321 1.8 0907 0.1 1515 2.2 2140 - 0.3	55 3 67 - 9	64 - 9 76 - 18	
			<b>31</b> W 0354 2.0 0939 - 0.2 1600 2.8 2231 - 0.8	61 - 6 85 - 24				<b>31</b> Sa 0357 2.4 1001 - 0.5 1612 2.6 2224 - 0.6	73 - 15 79 - 18

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Wake Island, 2018

Times and Heights of High and Low Waters

April					May					June							
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height			
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm		
<b>1</b> Su	0429	2.5	76	<b>16</b> M	0410	2.5	76	<b>1</b> Tu	0432	2.7	82	<b>16</b> W	0415	2.8	85		
1036	-0.6	-18		1020	-0.6	-18	1051	-0.5	-15	1038	-0.6	-18	1139	-0.3	-9		
1646	2.6	79		1626	2.5	76	1656	2.3	70	1643	2.4	73	1744	2.0	61		
O	2254	-0.6	-18	●	2230	-0.5	-15	2251	-0.3	-9	2236	-0.3	-9	2328	0.1	3	
<b>2</b> M	0500	2.6	79	<b>17</b> Tu	0440	2.6	79	<b>2</b> W	0502	2.7	82	<b>17</b> Th	0451	2.9	88		
1110	-0.6	-18		1054	-0.7	-21	1122	-0.5	-15	1119	-0.7	-21	1723	2.3	70		
1718	2.5	76		1700	2.5	76	1727	2.2	67	2320	0.2	-6	2312	0.2	-6		
2322	-0.5	-15		2300	-0.5	-15											
<b>3</b> Tu	0529	2.6	79	<b>18</b> W	0511	2.7	82	<b>3</b> Th	0531	2.6	79	<b>18</b> F	0529	2.8	85		
1142	-0.6	-18		1129	-0.7	-21	1153	-0.4	-12	1201	-0.6	-18	1805	2.1	64		
1748	2.3	70		1735	2.4	73	1757	2.0	61	2350	0.1	-3					
2349	-0.4	-12		2331	-0.4	-12	2347	-0.1	-3				1851	1.8	55		
<b>4</b> W	0557	2.5	76	<b>19</b> Th	0544	2.7	82	<b>4</b> F	0600	2.5	76	<b>19</b> Sa	0609	2.7	82		
1213	-0.4	-12		1207	-0.6	-18	1225	-0.2	-6	1246	-0.4	-12	1849	2.0	61		
1817	2.1	64		1812	2.2	67	1828	1.8	55				1930	1.7	52		
<b>5</b> Th	0015	-0.2	-6	<b>20</b> F	0003	-0.3	-9	<b>5</b> Sa	0015	0.1	3	<b>20</b> Su	0030	0.1	3		
0626	2.4	73		0619	2.6	79	0630	2.3	70	1258	-0.1	-3	0654	2.6	79		
1244	-0.3	-9		1249	-0.5	-15	1901	1.7	52	1336	-0.2	-6	1336	-0.2	-6		
1846	1.9	58		1852	2.0	61	1940	1.8	55	1940	1.8	55	2018	1.6	49		
<b>6</b> F	0041	0.0	0	<b>21</b> Sa	0038	-0.1	-3	<b>6</b> Su	0045	0.3	9	<b>21</b> M	0117	0.3	9		
0655	2.2	67		0659	2.4	73	0704	2.1	64	1436	0.0	0	0746	2.3	70		
1317	0.0	0		1337	-0.2	-6	1337	0.1	3	2043	1.6	49	1816	2.0	61		
1916	1.6	49		1939	1.7	52	1941	1.5	46				2121	1.6	49		
<b>7</b> Sa	0107	0.2	6	<b>22</b> Su	0119	0.2	6	<b>7</b> M	0121	0.5	15	<b>22</b> Tu	0218	0.5	15		
0727	2.0	61		0747	2.2	67	0744	1.9	58	0851	2.1	64	0920	1.8	55		
1355	0.2	6		1438	0.0	0	1427	0.3	9	1548	0.2	6	1604	0.4	12		
1953	1.4	43		2041	1.4	43	2037	1.3	40	2205	1.5	46	2240	1.6	49		
<b>8</b> Su	0138	0.4	12	<b>23</b> M	0213	0.4	12	<b>8</b> Tu	0211	0.7	21	<b>23</b> W	0344	0.6	18		
0808	1.7	52		0854	1.9	58	0842	1.7	52	1017	1.9	58	1711	0.3	9		
1451	0.4	12		1606	0.2	6	1541	0.5	15	2336	1.6	49	2356	1.7	52		
2052	1.1	34		●	2220	1.3	40	●	2217	1.3	40						
<b>9</b> M	0227	0.7	21	<b>24</b> Tu	0348	0.6	18	<b>9</b> W	0347	0.8	24	<b>24</b> Th	0532	0.6	18		
0917	1.5	46		1040	1.8	55	1013	1.6	49	1824	0.2	6	1204	1.8	55		
1642	0.6	18		1753	0.2	6	1722	0.5	15	1825	0.4	12	1825	0.4	12		
2337	1.1	34										<b>25</b> Sa	0604	0.6	18		
<b>10</b> Tu	0446	0.8	24	<b>25</b> W	0018	1.4	43	<b>10</b> Th	0009	1.4	43	<b>25</b> M	0048	1.8	55		
1127	1.4	43		0559	0.6	18	0549	0.8	24	0658	0.5	15	0713	0.4	12		
1854	0.5	15		1228	1.8	55	1155	1.6	49	1307	1.9	58	1314	1.9	58		
				1912	0.1	3	1841	0.4	12	1922	0.2	6	1921	0.3	9		
<b>11</b> W	0130	1.3	40	<b>26</b> Th	0130	1.7	52	<b>11</b> F	0112	1.6	49	<b>26</b> Sa	0141	2.1	64		
0658	0.7	21		0726	0.4	12	0706	0.5	15	0758	0.2	6	0808	0.1	3		
1307	1.6	49		1340	2.0	61	1308	1.8	55	1404	2.0	61	1411	2.0	61		
1953	0.2	6		2004	-0.1	-3	1933	0.2	6	2007	0.1	3	2010	0.1	3		
<b>12</b> Th	0213	1.5	46	<b>27</b> F	0218	2.0	61	<b>12</b> Sa	0155	1.9	58	<b>27</b> Su	0224	2.3	70		
0757	0.4	12		0821	0.1	3	0758	0.3	9	0845	0.0	0	0857	-0.2	-6		
1402	1.9	58		1432	2.2	67	1400	2.0	61	1449	2.1	64	1501	2.2	67		
2030	0.0	0		2045	-0.2	-6	2014	0.0	0	2046	0.0	0	2054	0.0	0		
<b>13</b> F	0244	1.8	55	<b>28</b> Sa	0256	2.2	67	<b>13</b> Su	0231	2.2	67	<b>28</b> W	0301	2.5	76		
0838	0.1	3		0905	-0.2	-6	0841	0.0	0	0925	-0.1	-3	0943	-0.4	-12		
1443	2.1	64		1514	2.3	70	1444	2.2	67	1529	2.1	64	1547	2.2	67		
2102	-0.2	-6		2120	-0.3	-9	2051	-0.1	-3	2121	-0.1	-3	2136	-0.1	-3		
<b>14</b> Sa	0313	2.1	64	<b>29</b> Su	0330	2.5	76	<b>14</b> M	0305	2.4	73	<b>29</b> Th	0355	2.9	88		
0913	-0.1	-3		0943	-0.4	-12	0920	-0.3	-9	1001	-0.3	-9	1027	-0.5	-15		
1518	2.3	70		1551	2.4	73	1525	2.3	70	1605	2.1	64	1632	2.3	70		
2132	-0.3	-9		2152	-0.4	-12	2126	-0.2	-6	2154	-0.1	-3	2218	-0.1	-3		
<b>15</b> Su	0342	2.3	70	<b>30</b> M	0402	2.6	79	<b>15</b> Tu	0340	2.6	79	<b>30</b> W	0408	2.7	82		
0946	-0.4	-12		1018	-0.5	-15	0959	-0.5	-15	1035	-0.3	-9	1111	-0.6	-18		
1552	2.5	76		1624	2.3	70	1604	2.4	73	1639	2.1	64	1715	2.3	70		
2201	-0.4	-12		●	2223	-0.4	-12	●	2201	-0.3	-9	2226	-0.1	-3	2300	-0.1	-3
												<b>31</b> Th	0440	2.7	82		
												1107	-0.3	-9			
												1711	2.1	64			
												2258	0.0	0			

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Wake Island, 2018

Times and Heights of High and Low Waters

July			August			September			
Time	Height		Time	Height		Time	Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	
<b>1</b> Su 0529 0.1 1159 -0.1 1805 2.1 2349 0.2	2.7 -3 64 6	82	<b>16</b> M 0556 1227 1831 2.4	3.1 -0.4 73	94 -12	<b>1</b> W 0005 0615 1236 2.3	0.2 0.0 70	6 82 70	
<b>2</b> M 0601 0.1 1230 -2.0 1837 2.0	2.6 -3 61	79	<b>17</b> Tu 0020 0639 1309 2.3	0.0 -0.2 70	0 -6	<b>2</b> Th 0038 0647 1306 2.3	0.2 0.1 70	6 73 70	
<b>3</b> Tu 0022 0.3 0634 2.5 1303 0.0 1911 2.0	9 76 0 61	18 W 0105 0723 1350 2.2	0.2 0.0 67	6 82 67	15 F 0114 0723 1339 2.2	0.3 0.2 67	15 Sa 0212 0816 1424 2.2	0.5 0.5 67	
<b>4</b> W 0057 0.4 0710 2.4 1338 0.1 1949 1.9	12 73 3 58	19 Th 0154 0808 1434 2.1	0.3 0.2 64	9 73 64	<b>4</b> Sa 0158 0804 1417 2.1	0.4 0.4 64	21 Su 0309 0908 1512 2.0	0.7 0.7 61	
<b>5</b> Th 0139 0.5 0750 2.3 1418 0.3 2034 1.9	15 70 9 58	20 F 0250 0900 1522 2.1	0.5 0.4	15 61	<b>5</b> Su 0255 0859 1507 2.1	0.6 0.5	18 M 0436 1038 1628 0.9	0.8 0.9	
<b>6</b> F 0230 0.6 0839 2.1 1506 0.4 O 2131 1.9	18 64 12 58	21 Sa 0402 1007 1621 2.0	0.7 0.6	21 61	<b>6</b> O 0415 1017 1618 2.1	0.7 0.7	24 Tu 0636 1247 1814 0.9	0.8 0.9	
<b>7</b> Sa 0337 0.7 0943 1.9 1606 0.5 2241 1.9	21 58 15 58	<b>22</b> Su 0533 1135 1733 0.7	0.8 0.6	24 21	<b>7</b> Tu 0558 1201 1750 0.7	0.6 0.5	24 W 0052 0756 1405 0.8	0.8 0.8	
<b>8</b> Su 0503 0.7 1104 1.8 1717 0.5 2356 2.0	21 55 15 61	<b>23</b> M 0012 0704 1305 0.7	2.1 1.6	64 21	<b>8</b> W 0035 0727 1333 0.7	2.2 1.8	67 M 0157 0843 1451 0.6	2.2 1.8	
<b>9</b> M 0630 0.5 1231 1.8 1830 0.5	15 55 15	<b>24</b> Tu 0120 0810 1412 0.7	2.2 1.7	67 18	<b>9</b> Th 0147 0831 1437 0.4	2.5 2.0	76 Sa 0236 0908 1514 0.6	2.7 2.3	
<b>10</b> Tu 0105 2.3 0742 0.3 1345 1.9 1935 0.4	70 9 58 12	<b>25</b> W 0214 0857 1501 0.5	2.3 1.8	85 15	<b>10</b> F 0245 0923 1527 0.2	2.8 2.2	85 Tu 0320 0919 1526 0.4	2.6 1.2	
<b>11</b> W 0203 2.5 0841 0.0 1445 2.0 2031 0.3	76 0 61 9	<b>26</b> Th 0258 0936 1540 0.4	2.5 2.0	76 12	<b>11</b> Sa 0334 1007 1611 0.4	3.0 2.4	88 Tu 0354 1018 1624 0.1	2.7 2.4	
<b>12</b> Th 0255 2.7 0932 -0.3 1536 2.2 2121 0.1	82 -9 67 3	<b>27</b> F 0336 1009 1614 0.3	2.6 2.1	79 9	<b>12</b> Su 0419 1048 1651 0.1	3.2 2.5	88 W 0424 1045 1651 0.0	2.9 2.7	
<b>13</b> F 0343 3.0 1019 -0.4 1623 2.3 ● 2207 0.0	91 -12 70 0	<b>28</b> Sa 0411 1041 1646 0.2	2.7 2.2	82 6	<b>13</b> M 0501 1126 1729 0.2	3.2 2.6	85 Tu 0454 1111 1718 0.2	2.9 2.6	
<b>14</b> Sa 0429 3.1 1103 -0.5 1706 2.4 2252 -0.1	94 -15 73 -3	<b>29</b> Su 0443 1110 1716 0.2	2.8 2.3	85 6	<b>14</b> Tu 0541 1203 1806 0.4	3.1 2.7	79 W 0523 1138 1744 0.1	2.9 2.6	
<b>15</b> Su 0513 3.1 1146 -0.5 1749 2.4 2336 -0.1	94 -15 73 -3	<b>30</b> M 0514 1139 1745 0.2	2.8 2.3	85 6	<b>15</b> W 0004 0619 1238 0.2	-0.1 -0.2	0 Sa 0056 1204 1811 0.1	0.1 0.1	
		<b>31</b> Tu 0544 1207 1814 0.2	2.8 2.3	85 70	<b>16</b> F 0016 0623 1231 0.2	0.0 0.0		<b>30</b> Su 0033 0637 1231 0.1	0.0 0.2
					<b>31</b> F 0623 1231 1841 0.2	0.7 0.5		<b>31</b> O 0623 1231 1847 0.2	0.7 0.6

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Wake Island, 2018

Times and Heights of High and Low Waters

October			November			December					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0115 0.1 3 0718 2.1 64 1306 0.4 12 1929 2.4 73	<b>16</b> Tu 0147 0.5 15 0746 1.6 49 1327 0.8 24 1957 2.0 61		<b>1</b> Th 0326 0.4 12 0939 1.5 46 1505 0.8 24 <b>O</b> 2154 2.0 61		<b>16</b> F 0327 0.6 18 1005 1.4 43 1533 1.0 30 <b>O</b> 2155 1.7 52		<b>1</b> Sa 0429 0.3 9 1053 1.7 52 1646 0.7 21 2309 1.9 58		<b>16</b> Su 0334 0.4 12 1009 1.5 46 1604 0.8 24 2209 1.7 52		
<b>2</b> Tu 0209 0.4 12 0811 1.8 55 1352 0.7 21 <b>O</b> 2027 2.2 67	<b>17</b> W 0247 0.7 21 0855 1.4 43 1422 1.0 30 <b>O</b> 2110 1.8 55		<b>2</b> F 0510 0.5 15 1136 1.6 49 1715 0.9 27 2347 2.0 61		<b>17</b> Sa 0506 0.7 21 1157 1.5 46 1737 0.9 27 2339 1.7 52		<b>2</b> Su 0549 0.3 9 1214 1.8 55 1824 0.6 18		<b>17</b> M 0448 0.5 15 1132 1.6 49 1741 0.7 21 2339 1.6 49		
<b>3</b> W 0332 0.6 18 0940 1.6 49 1508 0.9 27 2207 2.0 61	<b>18</b> Th 0441 0.8 24 1140 1.4 43 1648 1.1 34 2317 1.7 52		<b>3</b> Sa 0636 0.3 9 1257 1.9 58 1852 0.6 18		<b>18</b> Su 0624 0.5 15 1259 1.8 55 1854 0.7 21		<b>3</b> M 0035 1.9 58 0653 0.3 9 1314 2.1 64 1933 0.3 9		<b>18</b> Tu 0601 0.4 12 1238 1.8 55 1857 0.5 15		
<b>4</b> Th 0532 0.6 18 1154 1.6 49 1725 0.9 27	<b>19</b> F 0638 0.7 21 1314 1.6 49 1846 0.9 27		<b>4</b> Su 0107 2.2 67 0733 0.2 6 1348 2.2 67 1953 0.3 9		<b>19</b> M 0052 1.9 58 0716 0.4 12 1340 2.0 61 1944 0.4 12		<b>4</b> Tu 0139 2.0 61 0743 0.1 3 1401 2.3 70 2025 0.1 3		<b>19</b> W 0055 1.7 52 0702 0.3 9 1330 2.1 64 1954 0.2 6		
<b>5</b> F 0008 2.1 64 0705 0.4 12 1322 1.8 55 1906 0.7 21	<b>20</b> Sa 0051 1.9 58 0734 0.5 15 1355 1.9 58 1942 0.7 21		<b>5</b> M 0203 2.4 73 0817 0.0 0 1429 2.5 76 2040 0.0 0		<b>20</b> Tu 0144 2.1 64 0756 0.2 6 1415 2.3 70 2026 0.2 6		<b>5</b> W 0229 2.1 64 0825 0.1 3 1441 2.5 76 2107 0.1 3		<b>20</b> Th 0154 1.9 58 0752 0.2 6 1415 2.3 70 2042 0.1 3		
<b>6</b> Sa 0128 2.4 73 0803 0.1 3 1414 2.1 64 2007 0.4 12	<b>21</b> Su 0145 2.1 64 0811 0.3 9 1426 2.1 64 2022 0.4 12		<b>6</b> Tu 0248 2.5 76 0855 -0.1 3 1505 2.7 82 2120 -0.2 -6		<b>21</b> W 0227 2.2 67 0832 0.1 3 1448 2.5 76 2103 -0.1 -3		<b>6</b> Th 0311 2.1 64 0903 0.0 0 1518 2.7 82 2145 -0.3 -9		<b>21</b> F 0244 2.0 61 0836 0.0 0 1456 2.6 79 2126 -0.4 -12		
<b>7</b> Su 0223 2.6 79 0846 -0.1 -3 1454 2.4 73 2054 0.1 3	<b>22</b> M 0225 2.3 70 0842 0.1 3 1455 2.4 73 2056 0.2 6		<b>7</b> W 0328 2.6 79 0929 -0.2 -6 1539 2.9 88 2157 -0.3 -9		<b>22</b> Th 0306 2.3 70 0905 -0.1 -3 1520 2.7 82 2140 -0.3 -9		<b>7</b> F 0349 2.2 67 0938 -0.1 -3 1552 2.8 85 2220 -0.3 -9		<b>22</b> Sa 0329 2.1 64 0918 -0.1 -3 1537 2.8 85 2208 -0.6 -18		
<b>8</b> M 0307 2.8 85 0924 -0.2 -6 1530 2.7 82 2135 -0.2 -6	<b>23</b> Tu 0300 2.5 76 0911 0.0 0 1522 2.6 79 2128 -0.1 -3		<b>8</b> Th 0404 2.5 76 1001 -0.2 -6 1611 3.0 91 ● 2232 -0.4 -12		<b>23</b> F 0344 2.4 73 0939 -0.1 -3 1554 2.9 88 ○ 2218 -0.5 -15		<b>8</b> Sa 0424 2.1 64 1011 -0.1 -3 1625 2.8 85 2254 -0.4 -12		<b>23</b> Su 0412 2.2 67 0958 -0.2 -6 1617 2.9 88 ○ 2250 -0.7 -21		
<b>9</b> Tu 0347 2.9 88 0958 -0.3 -9 1604 2.9 88 ● 2213 -0.3 -9	<b>24</b> W 0333 2.6 79 0939 -0.1 -3 1550 2.8 85 2201 -0.2 -6		<b>9</b> F 0437 2.5 76 1031 -0.1 -3 1642 2.9 88 2305 -0.3 -9		<b>24</b> Sa 0421 2.4 73 1013 -0.2 -3 1628 2.9 88 2256 -0.5 -15		<b>9</b> Su 0457 2.1 64 1043 0.0 0 1657 2.7 82 2326 -0.3 -9		<b>24</b> M 0453 2.2 67 1038 -0.2 -6 1658 2.9 88 2332 -0.7 -21		
<b>10</b> W 0423 2.9 88 1029 -0.3 -9 1636 3.0 91 2249 -0.3 -9	<b>25</b> Th 0405 2.7 82 1007 -0.2 -6 1618 2.9 88 ○ 2233 -0.3 -9		<b>10</b> Sa 0510 2.3 70 1101 -0.1 -3 1713 2.9 88 2338 -0.2 -6		<b>25</b> Su 0500 2.4 73 1048 -0.1 -3 1705 2.9 88 2336 -0.5 -15		<b>10</b> M 0530 2.0 61 1114 0.0 0 1728 2.6 79 2358 -0.2 -6		<b>25</b> Tu 0535 2.2 67 1119 -0.2 -6 1740 2.9 88		
<b>11</b> Th 0457 2.8 85 1100 -0.2 -6 1708 3.0 91 2323 -0.3 -9	<b>26</b> F 0438 2.7 82 1036 -0.2 -6 1648 2.9 88 ○ 2307 -0.4 -12		<b>11</b> Su 0542 2.2 67 1130 0.1 3 1744 2.7 82		<b>26</b> M 0539 2.2 67 1124 -0.1 -3 1743 2.9 88		<b>11</b> Tu 0602 1.9 58 1146 0.1 3 1800 2.5 76		<b>26</b> W 0015 -0.6 -18 0618 2.1 64 1202 -0.1 -3 1823 2.8 85		
<b>12</b> F 0530 2.6 79 1129 -0.1 -3 1738 2.9 88 2357 -0.2 -6	<b>27</b> Sa 0511 2.6 79 1106 -0.1 -3 1719 2.9 88 2343 -0.3 -9		<b>12</b> M 0011 -0.1 -3 0613 2.0 61 1159 0.2 6 1815 2.5 76		<b>27</b> Tu 0019 -0.4 -12 0622 2.1 64 1203 0.1 3 1826 2.7 82		<b>12</b> W 0031 -0.1 -3 0636 1.8 55 1219 0.3 9 1834 2.4 73		<b>27</b> Th 0059 -0.4 -12 0703 2.0 61 1247 0.0 0 1909 2.5 76		
<b>13</b> Sa 0601 2.4 73 1157 0.1 3 1809 2.8 85	<b>28</b> Su 0547 2.4 73 1137 0.0 0 1753 2.8 85		<b>13</b> Tu 0045 0.1 3 0648 1.8 55 1230 0.4 12 1849 2.3 70		<b>28</b> W 0106 -0.2 -6 0709 1.9 58 1248 0.3 9 1914 2.5 76		<b>13</b> F 0106 0.0 0 0713 1.7 52 1254 0.4 12 1911 2.2 67		<b>28</b> M 0146 -0.2 -6 0752 1.9 58 1338 0.2 6 2000 2.3 70		
<b>14</b> Su 0030 0.0 0 0633 2.1 64 1224 0.3 9 1840 2.5 76	<b>29</b> M 0023 -0.2 -6 0626 2.2 67 1211 0.2 6 1831 2.7 82		<b>14</b> W 0124 0.3 9 0728 1.6 49 1306 0.6 18 1929 2.1 64		<b>29</b> Th 0201 0.0 0 0807 1.7 52 1342 0.5 15 2013 2.2 67		<b>14</b> F 0146 0.2 6 0757 1.6 49 1338 0.6 18 1954 2.0 61		<b>29</b> Sa 0237 0.0 0 0849 1.8 55 1441 0.4 12 ● 2100 2.0 61		
<b>15</b> M 0106 0.2 6 0706 1.9 58 1253 0.5 15 1914 2.3 70	<b>30</b> Tu 0108 0.0 0 0710 1.9 58 1250 0.4 12 1916 2.5 76		<b>15</b> Th 0214 0.5 15 0826 1.5 46 1357 0.8 24 2026 1.9 58		<b>30</b> F 0308 0.2 6 0922 1.6 49 1500 0.7 21 ○ 2132 2.0 61		<b>15</b> Sa 0233 0.3 9 0853 1.5 46 1438 0.7 21 ● 2051 1.8 55		<b>30</b> Su 0337 0.2 6 0958 1.8 55 1603 0.5 15 2218 1.7 52		
	<b>31</b> W 0205 0.2 6 0809 1.7 52 1341 0.6 18 2018 2.2 67										

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Kwajalein Atoll, Marshall Islands, 2018

Times and Heights of High and Low Waters

January				February				March						
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height			
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm			
1 M 0330	3.7	113	16 Tu 0402	3.2	98	1 Th 0452	4.0	122	1 Th 0402	3.9	119	16 F 0358	3.7	113
0925 - 0.5	- 15		0952 - 0.1	- 3		1046 - 0.8	- 24		0957 - 0.6	- 18		0955 - 0.3	- 9	
1548 5.0	152		1612 4.4	134		1705 5.3	162		1657 4.7	143		1607 4.4	134	
2216 - 0.9	- 27		2237 - 0.4	- 12	O	2329 - 1.1	- 34	●	2315 - 0.7	- 21		2235 - 1.0	- 30	
2 Tu 0415	3.9	119	17 W 0433	3.4	104	2 F 0531	4.1	125	2 F 0438	4.3	131	17 Sa 0425	4.1	125
1009 - 0.7	- 21		1024 - 0.3	- 9		1126 - 0.8	- 24	Sa	1112 - 0.6	- 18		1024 - 0.6	- 18	
1631 5.2	158		1643 4.5	137	F	1744 5.2	158		1725 4.7	143		1635 4.7	143	
2259 - 1.0	- 30	●	2306 - 0.5	- 15		2342 - 0.7	- 21	O	2309 - 1.1	- 34		2248 - 0.8	- 24	
3 W 0459	3.9	119	18 Th 0503	3.5	107	3 Sa 0006	- 1.0	- 30	3 Sa 0512	4.4	134	18 Su 0452	4.3	131
1051 - 0.8	- 24		1054 - 0.3	- 9	Sa	0608 4.1	125	Su	1141 - 0.6	- 18		1054 - 0.7	- 21	
1714 5.3	162		1712 4.6	140		1204 - 0.6	- 18		1725 5.0	152		1704 4.7	143	
2342 - 1.0	- 30		2335 - 0.5	- 15		1820 4.9	149		2340 - 1.0	- 30	●	2315 - 0.9	- 27	
4 Th 0542	3.9	119	19 F 0532	3.6	110	4 Su 0041	- 0.7	- 21	4 Su 0545	4.5	137	19 M 0521	4.5	137
1133 - 0.7	- 21		1124 - 0.3	- 9	Su	0644 4.0	122	M	0612 4.1	125		1125 - 0.8	- 24	
1755 5.1	155		1741 4.5	137		1241 - 0.3	- 9		1212 - 0.4	- 18		1733 4.7	143	
						1855 4.4	134		1822 4.5	137		2342 - 0.8	- 24	
5 F 0024	- 0.9	- 27	20 Sa 0003	- 0.5	- 15	5 M 0114	- 0.4	- 12	5 M 0010	- 0.8	- 24	20 Tu 0550	4.5	137
0624 3.7	113		0602 3.6	110	M	0720 3.7	113	Tu	0643 4.0	122		1157 - 0.7	- 21	
1215 - 0.4	- 12		1154 - 0.2	- 6		1318 0.1	13		1245 - 0.2	- 6		1803 4.4	134	
1837 4.8	146		1810 4.4	134		1928 3.9	119		1853 4.2	128				
6 Sa 0106	- 0.6	- 18	21 Su 0032	- 0.4	- 12	6 Tu 0147	0.0	0	6 Tu 0037	- 0.5	- 15	21 W 0011	- 0.7	- 21
0707 3.5	107		0632 3.5	107	Tu	0757 3.4	104	W	0718 3.8	116		0622 4.4	134	
1258 0.0	0		1225 - 0.1	- 3		1357 0.5	15		1322 0.1	133		1232 - 0.5	- 15	
1919 4.3	131		1841 4.3	131		2002 3.3	101		1928 3.7	113		1836 4.1	125	
7 Su 0149	- 0.2	- 6	22 M 0103	- 0.2	- 6	7 W 0220	0.4	12	7 W 0103	- 0.1	- 3	22 Th 0042	- 0.4	- 12
0753 3.2	98		0706 3.5	107	Th	0840 3.1	94	Th	0759 3.6	110		0656 4.2	128	
1344 0.4	12		1259 0.1	3		1444 1.0	30		1409 0.5	15		1310 - 0.1	- 3	
2002 3.8	116		1914 4.0	122		2040 2.8	85		2011 3.2	98		1912 3.6	110	
8 M 0234	0.2	6	23 Tu 0137	0.0	0	8 Th 0300	0.8	24	8 Th 0129	0.3	9	23 F 0115	0.0	0
0846 3.0	91		0744 3.3	101	Th	0938 2.8	85	Th	0747 3.4	104		0737 3.9	119	
1437 0.8	24		1339 0.4	12		1559 1.4	43		1359 0.7	21		1358 0.3	9	
2051 3.2	98		1952 3.6	110	○	2140 2.3	70	○	1951 2.8	85		1955 3.0	91	
9 Tu 0327	0.6	18	24 W 0218	0.2	6	9 F 0403	1.1	34	9 F 0155	0.7	21	24 Sa 0156	0.4	12
0953 2.8	85		0833 3.2	98		1120 2.6	79	Sa	1025 3.1	94		0830 3.5	107	
1551 1.2	37		1432 0.8	24		1828 1.4	43		1720 1.1	34		1507 0.8	24	
2156 2.8	85		2042 3.2	98					2320 2.3	70	○	2101 2.4	73	
10 W 0435	0.9	27	25 Th 0310	0.5	15	10 Sa 0005	2.0	61	10 Sa 0229	1.1	34	25 Su 0259	0.9	27
1122 2.7	82		0940 3.0	91	Sa	0604 1.2	37	Sa	0929 2.6	79		0958 3.1	94	
1739 1.4	43		1552 1.0	30		1312 2.8	85		1641 1.5	46		1713 1.0	30	
2330 2.5	76		2156 2.8	85		2010 1.1	34		2209 1.8	55	○	2324 2.2	67	
11 Th 0556	0.9	27	26 F 0426	0.7	21	11 Su 0158	2.2	67	11 Su 0404	1.4	43	26 M 0510	1.2	37
1248 2.9	88		1115 3.1	94		0738 1.0	30	M	0716 0.8	24		1211 3.1	94	
1919 1.2	37		1749 1.1	34		1415 3.2	98		1352 3.7	113		1917 0.7	21	
			2347 2.6	79		2054 0.6	18		2034 0.2	6				
12 F 0104	2.4	73	27 Sa 0602	0.7	21	12 M 0248	2.5	76	12 M 0147	2.0	61	27 Tu 0130	2.5	76
0708 0.8	24		1251 3.4	104		0831 0.7	21	Tu	0825 0.3	9		0713 0.9	27	
1348 3.2	98		1931 0.7	21		1456 3.6	110		1449 4.2	128		1340 3.5	107	
2021 0.8	24					2126 0.2	6		2120 - 0.4	- 12		2020 0.2	6	
13 Sa 0208	2.6	79	28 Su 0128	2.7	82	13 Tu 0323	2.9	88	13 W 0234	2.5	76	28 W 0228	3.1	94
0801 0.6	18		0726 0.5	15		0910 0.3	9	W	0915 - 0.2	- 6		0818 0.4	12	
1432 3.6	110		1401 3.9	119		1529 3.9	119		1534 4.7	143		1436 4.0	122	
2102 0.4	12		2037 0.1	3		2155 - 0.1	- 3		2200 - 0.8	- 24		2103 - 0.3	- 9	
14 Su 0253	2.8	85	29 M 0236	3.1	94	14 W 0353	3.2	98	14 W 0305	2.9	88	29 Th 0309	3.6	110
0842 0.4	12		0828 0.1	3		0943 0.0	0		1508 3.7	113		0905 - 0.1	- 3	
1508 3.9	119		1455 4.4	134		1600 4.3	131		2130 0.0	0		1519 4.4	134	
2136 0.1	3		2127 - 0.4	- 12		2222 - 0.4	- 12					2138 - 0.6	- 18	
15 M 0330	3.0	91	30 Tu 0327	3.5	107	15 Th 0421	3.5	107	15 Th 0332	3.3	101	30 F 0345	4.1	125
0919 0.1	3		0919 - 0.3	- 9		1013 - 0.3	- 9		0925 0.0	0		0945 - 0.5	- 15	
1541 4.1	125		1542 4.9	149		1629 4.5	137		1538 4.1	125		1556 4.7	143	
2207 - 0.2	- 6		2211 - 0.8	- 24		2249 - 0.6	- 18		2156 - 0.4	- 12		2211 - 0.8	- 24	
			31 W 0412	3.8	116							31 Sa 0417	4.4	134
			1004 - 0.6	- 18								1021 - 0.8	- 24	
			1625 5.2	158								1630 4.8	146	
			2251 - 1.1	- 34								2241 - 0.9	- 27	

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings which is one-half foot below mean low water springs.

# Kwajalein Atoll, Marshall Islands, 2018

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 1 0448 Su 1054 O 1701 ● 2309	ft 4.6 -0.8 4.7 -0.9	cm 140 -24 143 -27	h m 16 0426 M 1034 ● 2246	ft 4.6 -0.8 4.9 -0.9	cm 140 -24 -27	h m 1 0452 Tu 1106 2305	ft 4.7 -0.6 4.0 -0.5	cm 143 -18 122 -15	h m 16 0436 W 1055 2255	ft 5.0 -0.9 4.1 -0.8	cm 152 -27 125 -24
h m 2 0518 M 1126 1731 2336	ft 4.7 -0.8 4.4 -0.7	cm 143 -24 134 -21	h m 17 0457 Tu 1108 2316	ft 4.8 -0.9 4.2 -0.8	cm 146 -27 140 -24	h m 17 0513 Th 1136 2332	ft 5.0 -0.9 4.6 -0.6	cm 152 -27 152 -18	h m 2 0559 Sa 1226 1822	ft 4.2 -0.1 3.1	cm 128 -3 101 0
h m 3 0547 Tu 1157 1759	ft 4.6 -0.6 4.1 -0.7	cm 140 -18 125	h m 18 0529 W 1144 1747 2348	ft 4.9 -0.8 4.2 -0.7	cm 149 -21 128 -21	h m 3 0548 Th 1208 1804 2357	ft 4.4 -0.3 3.4 -0.1	cm 134 -104 -3	h m 18 0553 F 1219 1819	ft 4.9 -0.7 3.6 -0.6	cm 149 -110
h m 4 0002 W 0614 1227 1827	ft -0.5 4.4 -0.3 3.7	cm -15 134 113	h m 19 0604 Th 1223 1824	ft 4.7 -0.6 3.8	cm 143 -18 116	h m 4 0616 F 1239 1834	ft 4.1 0.0 3.1	cm 125 94	h m 19 0011 Sa 0635 1306 1906	ft -0.3 4.6 3.2	cm -9 140 98
h m 5 0026 Th 0642 1258 1853	ft -0.2 4.0 0.1 3.2	cm -6 122 98	h m 20 0022 F 0642 1306 1905	ft -0.4 4.5 -0.2 3.3	cm -12 137 101	h m 5 0024 Sa 0647 1314 1907	ft 0.2 3.8 2.7	cm 6 116 82	h m 20 0055 Su 0723 1401 2002	ft 0.1 4.2 2.9	cm 3 128 88
h m 6 0050 F 0711 1331 1922	ft 0.2 3.7 0.5 2.8	cm 6 113 85	h m 21 0100 Sa 0726 1358 1955	ft 0.0 4.1 0.2 2.8	cm 0 125 85	h m 6 0054 Su 0721 1356 1948	ft 0.5 3.4 2.4	cm 15 104 73	h m 21 0148 M 0821 1510 2119	ft 0.5 3.7 2.6	cm 15 113 79
h m 7 0115 Sa 0743 1413 1957	ft 0.6 3.2 0.9 2.3	cm 18 70	h m 22 0146 Su 0822 1511 2113	ft 0.5 3.6 0.6 2.4	cm 15 10 73	h m 7 0130 M 0806 1457 2056	ft 0.9 3.1 0.9 2.1	cm 27 94 64	h m 22 0301 Tu 0938 1638 ● 2302	ft 1.0 3.3 0.6	cm 30 101 76
h m 8 0146 Su 0831 1528 ● 2112	ft 1.0 2.8 1.2 1.9	cm 30 85 58	h m 23 0257 M 0950 1706 ● 2328	ft 1.0 3.2 0.8 2.3	cm 30 98 70	h m 8 0230 Tu 0921 1640 ● 2308	ft 1.3 2.7 1.1 2.1	cm 40 82 64	h m 23 0448 W 1115 1806	ft 1.1 3.2 0.6	cm 34 98 18
h m 9 0246 M 1023 1824	ft 1.4 2.5 1.3	cm 43 76 40	h m 24 0507 Tu 1150 1850	ft 1.2 3.1 0.6	cm 37 94 18	h m 9 0439 W 1119 1821	ft 1.5 2.7 0.9	cm 46 82 27	h m 24 0033 Th 0629 1240 1910	ft 2.8 1.0 3.2	cm 85 30 91
h m 10 0053 Tu 0611 1250 1944	ft 2.0 1.5 2.7 0.9	cm 61 46 27	h m 25 0111 W 0658 1316 1951	ft 2.7 0.9 3.4 0.2	cm 82 27 6	h m 10 0048 Th 0634 1246 1919	ft 2.5 1.2 2.9	cm 76 37 18	h m 25 0134 F 0738 1341 1957	ft 3.3 0.7 3.4	cm 101 21 3
h m 11 0157 W 0738 1352 2021	ft 2.4 1.1 3.1 0.5	cm 73 34 15	h m 26 0206 Th 0802 1413 2034	ft 3.2 0.5 3.8	cm 98 15 -3	h m 11 0138 F 0735 1341 2000	ft 2.9 0.8 3.3	cm 88 24 6	h m 26 0218 Sa 0828 1428 2036	ft 3.7 0.3 3.5	cm 113 9 0
h m 12 0230 Th 0822 1431 2051	ft 2.9 0.6 3.5 0.1	cm 88 18 107	h m 27 0247 F 0849 1456 2109	ft 3.7 0.0 4.0	cm 113 9 -12	h m 12 0216 Sa 0820 1424 2036	ft 3.5 0.3 3.6	cm 107 9 -3	h m 27 0255 Su 0909 1507 2109	ft 4.0 0.0 3.6	cm 122 0 6
h m 13 0259 F 0856 1505 2119	ft 3.4 0.1 3.9	cm 104 3 119	h m 28 0321 Sa 0927 1532 2141	ft 4.1 -0.3 4.2	cm 125 -9 -18	h m 13 0251 Su 0859 1503 2110	ft 4.0 -0.1 3.9	cm 122 3 12	h m 28 0328 M 0945 1542 2140	ft 4.3 -0.2 3.6	cm 131 6 -9
h m 14 0327 Sa 0929 1536 2147	ft 3.9 -0.3 4.3	cm 119 -9 131	h m 29 0353 Su 1002 1605 2210	ft 4.4 -0.5 4.2	cm 134 -15 -21	h m 14 0325 M 0937 1540 2144	ft 4.4 -0.5 4.1	cm 134 15 -21	h m 29 0359 Tu 1018 1615 2210	ft 4.5 -0.4 3.6	cm 137 12 -9
h m 15 0356 Su 1001 1608 2216	ft 4.3 -0.6 4.5	cm 131 -18 137	h m 30 0423 M 1035 1636 ● 2238	ft 4.6 -0.6 4.2	cm 140 -18 -18	h m 15 0400 Tu 1016 1618 ● 2219	ft 4.8 -0.8	cm 146 -24 -24	h m 30 0429 W 1050 1646 ● 2239	ft 4.5 -0.4 3.6	cm 137 12 -9
h m 16 0426 M 1034 ● 2246	ft 4.6 -0.8	cm 140 -24	h m 31 0459 Th 1122 1718 2309	ft 4.5 -0.4 3.4	cm 137 -12 104	h m 31 0459 Th 1122 1718 2309	ft 4.5 -0.4 3.2	cm 137 -12 6	h m 31 0502 F 1109 1705 ● 2255	ft 5.1 -0.9 3.3	cm 155 -27 -6
h m 17 0513 Th 1136 1736 2332	ft 5.0 -0.9	cm 152 -27	h m 32 0559 Sa 1226 1822 2339	ft 4.2 -0.1	cm 128 3 0	h m 32 0559 F 1109 1705 ● 2255	ft 4.2 -0.1	cm 128 3 0	h m 32 0559 Th 1122 1718 2322	ft 4.5 -0.4	cm 137 12 -6
h m 18 0006 Su 1303 1904	ft -0.3 0.5	cm -9 15	h m 33 0604 M 1303 1905 ● 2240	ft 0.3 -0.2	cm -9 104 -21	h m 33 0604 F 1109 1705 ● 2255	ft 0.2 -0.1	cm -9 104 -6	h m 33 0604 Th 1122 1718 2327	ft 0.3 -0.1	cm -9 104 -3

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings which is one-half foot below mean low water springs.

# Kwajalein Atoll, Marshall Islands, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0546	4.3	131	<b>16</b> M	0620	4.9	149	<b>1</b> W	0015	-0.1	-3
	1212	-0.3	-9		1247	-0.7	-21		0629	4.2	128
	1810	3.2	98		1850	3.7	113		1249	-0.2	-6
	2358	0.0	0						1852	3.5	107
<b>2</b> M	0618	4.1	125	<b>17</b> Tu	0043	-0.3	-9	<b>2</b> Th	0047	0.1	3
	1244	-0.1	-3		0703	4.5	137		0700	4.0	122
	1843	3.2	98		1330	-0.4	-12		1320	0.0	0
					1935	3.5	107		1927	3.4	104
<b>3</b> Tu	0031	0.2	6	<b>18</b> W	0130	0.1	3	<b>3</b> F	0124	0.3	9
	0651	3.9	119		0747	4.1	125		0735	3.6	110
	1318	0.1	3		1414	0.0	0		1356	0.2	6
	1919	3.0	91		2025	3.3	101		2009	3.3	101
<b>4</b> W	0107	0.4	12	<b>19</b> Th	0221	0.5	15	<b>4</b> Sa	0211	0.6	18
	0726	3.7	113		0835	3.5	107		0818	3.3	101
	1356	0.3	9		1503	0.4	12		1440	0.4	12
	2001	2.9	88		2123	3.1	94		2105	3.1	94
<b>5</b> Th	0150	0.7	21	<b>20</b> F	0325	0.9	27	<b>5</b> Su	0316	0.9	27
	0808	3.4	104		0932	3.0	91		0919	2.9	88
	1441	0.4	12		1601	0.7	21		1543	0.7	21
	2054	2.8	85		2237	2.9	88		2225	3.1	94
<b>6</b> F	0247	0.9	27	<b>21</b> Sa	0453	1.2	37	<b>6</b> M	0456	1.0	30
	0902	3.1	94		1050	2.6	79		1711	0.8	24
	1538	0.6	18		1713	0.9	27		0743	1.0	30
	2204	2.8	85						1338	2.2	67
<b>7</b> Sa	0406	1.1	34	<b>22</b> Su	0002	3.0	91	<b>7</b> Tu	0002	3.2	98
	1014	2.9	88		0636	1.1	34		0645	0.8	24
	1648	0.7	21		1225	2.4	73		1244	2.6	79
	2326	3.0	91		1830	0.9	27		1844	0.6	18
<b>8</b> Su	0542	1.0	30	<b>23</b> M	0115	3.2	98	<b>8</b> W	0123	3.6	110
	1143	2.8	85		0753	0.9	27		0802	0.3	9
	1803	0.6	18		1342	2.5	76		1402	2.9	88
					1934	0.7	21		1955	0.3	9
<b>9</b> M	0041	3.3	101	<b>24</b> Tu	0209	3.5	107	<b>9</b> Th	0224	4.2	128
	0706	0.7	21		0843	0.5	15		0858	-0.2	-6
	1304	2.9	88		1435	2.7	82		1458	3.3	101
	1911	0.3	9		2023	0.5	15		2051	-0.1	-3
<b>10</b> Tu	0143	3.8	116	<b>25</b> W	0250	3.7	113	<b>10</b> F	0314	4.6	140
	0811	0.2	6		0921	0.2	6		0944	-0.7	-21
	1409	3.2	98		1515	2.9	88		1545	3.7	113
	2008	0.0	0		2103	0.3	9		2139	-0.5	-15
<b>11</b> W	0236	4.3	131	<b>26</b> Th	0326	4.0	122	<b>11</b> Sa	0400	5.0	152
	0905	-0.2	-6		0954	-0.1	-3		1026	-1.0	-30
	1504	3.4	104		1550	3.1	94		1628	4.0	122
	2059	-0.3	-9			0.0	0		●	2223	-0.8
<b>12</b> Th	0324	4.7	143	<b>27</b> F	0359	4.2	128	<b>12</b> Su	0442	5.2	158
	0953	-0.6	-18		1024	-0.3	-9		1106	-1.1	-34
	1553	3.7	113		1622	3.3	101		1708	4.2	128
	2146	-0.5	-15						2305	-0.8	-24
<b>13</b> F	0409	5.0	152	<b>28</b> Sa	0431	4.4	134	<b>13</b> M	0522	5.2	158
	1038	-0.9	-27		1054	-0.4	-12		1144	-1.0	-30
	1638	3.8	116		1652	3.5	107		1747	4.2	128
	● 2231	-0.7	-21		2244	-0.2	-6		2345	-0.7	-21
<b>14</b> Sa	0453	5.2	158	<b>29</b> Su	0501	4.4	134	<b>14</b> Tu	0601	5.0	152
	1121	-1.0	-30		1123	-0.5	-15		1220	-0.8	-24
	1722	3.9	119		1721	3.6	110		1825	4.1	125
	2315	-0.7	-21		2314	-0.3	-9		2355	-0.4	-12
<b>15</b> Su	0537	5.1	155	<b>30</b> M	0530	4.4	134	<b>15</b> W	0025	-0.5	-15
	1204	-0.9	-27		1151	-0.5	-15		0638	4.6	140
	1806	3.9	119		1751	3.6	110		1256	-0.5	-15
	2359	-0.5	-15		2344	-0.2	-6		1903	3.9	119
				<b>31</b> Tu	0559	4.4	134	<b>16</b> F	0026	-0.2	-6
					1219	-0.4	-12		0633	4.0	122
					1821	3.6	110		1244	-0.3	-9
									1855	3.9	119

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings which is one-half foot below mean low water springs.

# Kwajalein Atoll, Marshall Islands, 2018

Times and Heights of High and Low Waters

October			November			December		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0129	0.2	6	<b>16</b> Tu 0206	0.9	27	<b>1</b> Th 0416	0.8	24
0726	3.0	91	0749	2.2	67	1037	2.2	67
1324	0.4	12	1328	1.1	34	1612	1.3	40
1955	3.6	110	2018	2.8	85	2300	3.1	94
						●	2259	2.6
							79	
<b>2</b> Tu 0231	0.7	21	<b>17</b> W 0332	1.2	37	<b>2</b> F 0610	0.6	18
0826	2.5	76	0925	1.8	55	1236	2.6	79
1419	0.9	27	1434	1.5	46	1820	1.1	34
● 2112	3.2	98	● 2218	2.5	76			
<b>3</b> W 0423	1.0	30	<b>18</b> Th 0623	1.2	37	<b>3</b> Sa 0039	3.3	101
1033	2.1	64	1301	2.0	61	0719	0.3	9
1617	1.2	37	1814	1.5	46	1338	3.2	98
2321	3.1	94				1933	0.6	18
<b>4</b> Th 0635	0.7	21	<b>19</b> F 0039	2.7	82	<b>4</b> Su 0142	3.7	113
1253	2.5	76	0730	0.8	24	0806	-0.1	-3
1834	1.0	30	1348	2.5	76	1421	3.7	113
			1930	1.1	34	2023	0.1	3
<b>5</b> F 0102	3.4	104	<b>20</b> Sa 0138	3.1	94	<b>5</b> M 0229	4.0	122
0745	0.2	6	0805	0.4	12	0844	-0.4	-12
1357	3.0	91	1418	3.0	91	1458	4.2	128
1947	0.5	15	2010	0.6	18	2105	-0.3	-9
							2046	0.0
<b>6</b> Sa 0203	3.9	119	<b>21</b> Su 0216	3.5	107	<b>6</b> Tu 0309	4.2	128
0831	-0.3	-9	0834	0.1	3	0917	-0.6	-18
1441	3.6	110	1444	3.5	107	1531	4.6	140
2037	-0.1	-3	2043	0.2	6	2142	-0.6	-18
							2122	-0.4
								-12
<b>7</b> Su 0249	4.4	134	<b>22</b> M 0248	3.8	116	<b>7</b> W 0344	4.3	131
0909	-0.6	-18	0901	-0.3	-9	0948	-0.7	-21
1518	4.1	125	1511	3.9	119	1603	4.8	146
2119	-0.5	-15	2114	-0.2	-6	2217	-0.7	-21
							2158	-0.7
								-21
<b>8</b> M 0329	4.7	143	<b>23</b> Tu 0318	4.1	125	<b>8</b> Th 0417	4.2	128
0944	-0.9	-27	0927	-0.5	-15	1018	-0.7	-21
1552	4.5	137	1538	4.3	131	1633	4.9	149
2157	-0.8	-24	2144	-0.5	-15	● 2250	-0.7	-21
<b>9</b> Tu 0405	4.8	146	<b>24</b> W 0348	4.3	131	<b>9</b> F 0448	4.0	122
1016	-1.0	-30	0954	-0.7	-21	1046	-0.6	-18
1625	4.8	146	1606	4.6	140	1703	4.8	146
● 2232	-0.9	-27	2215	-0.7	-21	2322	-0.6	-18
<b>10</b> W 0439	4.7	143	<b>25</b> Th 0418	4.4	134	<b>10</b> Sa 0519	3.8	116
1046	-1.0	-30	1022	-0.8	-24	1113	-0.4	-12
1657	4.8	146	1635	4.8	146	1732	4.6	140
2307	-0.9	-27	○ 2247	-0.8	-24	2354	-0.4	-12
<b>11</b> Th 0511	4.5	137	<b>26</b> F 0449	4.3	131	<b>11</b> Su 0549	3.4	104
1115	-0.8	-24	1051	-0.8	-24	1140	-0.2	-6
1727	4.7	143	1705	4.8	146	1801	4.3	131
2340	-0.7	-21	2321	-0.8	-24			
<b>12</b> F 0541	4.1	125	<b>27</b> Sa 0522	4.1	125	<b>12</b> M 0026	-0.1	-3
1142	-0.5	-15	1121	-0.7	-21	0619	3.1	94
1757	4.5	137	1738	4.8	146	1208	0.2	6
			2357	-0.6	-18	1831	3.9	119
							27	0037
							Tu	-0.5
<b>13</b> Sa 0012	-0.4	-12	<b>28</b> Su 0556	3.8	116	<b>13</b> W 0101	0.2	-3
0610	3.6	110	1153	-0.4	-12	0652	2.7	82
1208	-0.2	-6	1814	4.5	137	1236	0.5	15
1826	4.2	128				1905	3.5	107
<b>14</b> Su 0045	0.0	0	<b>29</b> M 0038	-0.3	-9	<b>14</b> W 0142	0.6	18
0639	3.2	98	0635	3.4	104	0733	2.4	73
1233	0.2	6	1229	0.0	0	1310	0.9	27
1855	3.7	113	1854	4.2	128	1947	3.1	94
<b>15</b> M 0121	0.5	15	<b>30</b> Tu 0126	0.1	3	<b>15</b> Th 0242	0.9	27
0710	2.7	82	0722	2.9	88	0840	2.1	64
1258	0.6	18	1311	0.4	12	1404	1.3	40
1929	3.3	101	1945	3.7	113	2057	2.7	82
			<b>31</b> W 0232	0.5	15			
			0831	2.4	73			
			1412	0.9	27			
			2102	3.3	101			

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings which is one-half foot below mean low water springs.

# Sand Island, Midway Islands, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 0419	1.6	49	16 0508	1.4	43	1 Th 0533	1.6	49	16 0547	1.3	40
M 1046	0.6	18	Tu 1132	0.6	18	M 1155	0.5	15	F 1203	0.5	15
1505	0.9	27	1549	0.9	27	Th 1714	1.1	34	17 1718	1.0	30
O 2147	-0.2	-6	● 2216	0.1	3	2328	0.0	0	2327	0.2	6
2 0508	1.6	49	17 0544	1.5	46	2 F 0616	1.5	46	17 0617	1.3	40
Tu 1135	0.6	18	W 1209	0.6	18	18 1240	0.4	12	Sa 1234	0.4	12
1610	1.0	30	1638	0.9	27	1818	1.1	34	Sa 1806	1.0	30
2242	-0.2	-6	2256	0.1	3	19 2023	0.1	3	2 F 0505	1.3	40
3 0555	1.6	49	18 0618	1.5	46	3 Sa 0657	1.5	46	17 1124	0.3	9
W 1222	0.5	15	Th 1243	0.5	15	Sa 1323	0.3	9	17 1716	1.1	34
1714	1.0	30	1726	0.9	27	1918	1.2	37	2324	0.1	3
2336	-0.1	-3	2335	0.2	6	18 0009	0.3	9	● 2321	0.2	6
4 0640	1.6	49	19 0650	1.4	43	4 Su 0116	0.2	6	18 0536	1.1	34
Th 1308	0.4	12	F 1315	0.5	15	Su 0736	1.4	43	Su 1145	0.1	3
1819	1.0	30	1814	0.9	27	1405	0.2	6	17 1756	1.1	34
5 0030	0.0	0	20 0015	0.2	6	4 M 0116	0.3	9	19 0007	0.2	6
F 0723	1.6	49	Sa 0719	1.4	43	M 0714	1.2	37	M 0606	1.0	30
1353	0.3	9	1347	0.4	12	1333	0.2	6	1216	0.1	3
1923	1.1	34	1903	1.0	30	1942	1.2	37	1841	1.2	37
6 0124	0.1	3	21 0056	0.3	9	5 M 0209	0.3	9	19 0052	0.3	9
Sa 0805	1.5	46	Su 0748	1.4	43	Tu 0742	1.2	37	Tu 0635	1.0	30
1439	0.3	9	1417	0.4	12	1406	0.1	3	1250	0.0	0
2029	1.1	34	1954	1.0	30	2032	1.2	37	1927	1.2	37
7 0219	0.2	6	22 0141	0.4	12	6 Tu 0227	0.5	15	21 0138	0.3	9
Su 0846	1.4	43	M 0817	1.3	40	W 0811	1.1	34	W 0706	0.9	27
1526	0.2	6	1449	0.3	9	1529	0.1	3	1326	-0.1	-3
2136	1.1	34	2048	1.1	34	2214	1.3	40	2015	1.3	40
8 0318	0.4	12	23 0230	0.5	15	7 W 0400	0.5	15	22 0226	0.4	12
M 0927	1.3	40	Tu 0846	1.2	37	Th 0930	1.2	37	Th 0740	0.9	27
1612	0.2	6	1524	0.2	6	1612	0.1	3	1408	-0.2	-6
● 2244	1.1	34	2146	1.2	37	● 2313	1.3	40	2106	1.3	40
9 0420	0.5	15	24 0326	0.6	18	8 Th 0500	0.6	18	23 0315	0.4	12
Tu 1009	1.2	37	W 0918	1.2	37	1009	1.1	34	W 0818	0.9	27
1658	0.1	3	1603	0.1	3	1656	0.1	3	F 1455	-0.2	-6
2352	1.2	37	● 2248	1.2	37	1744	0.1	3	2200	1.3	40
10 0528	0.6	18	25 0429	0.7	21	9 F 0014	1.3	40	24 0409	0.5	15
W 1051	1.1	34	Th 0952	1.1	34	M 0606	0.7	21	Sa 0904	0.9	27
1745	0.1	3	1647	0.1	3	1052	1.0	30	1548	-0.2	-6
			2353	1.3	40	1744	0.1	3	● 2258	1.2	37
11 0057	1.2	37	26 0541	0.7	21	10 Sa 0116	1.3	40	10 0528	0.5	15
Th 0642	0.7	21	F 1033	1.1	34	Su 0715	0.7	21	Su 1015	0.9	27
1136	1.0	30	1737	0.0	0	1139	0.9	27	Su 1656	0.1	3
1831	0.1	3	1833	-0.1	-3	1835	0.2	6	25 0509	0.5	15
12 0158	1.3	40	27 0059	1.4	43	11 M 0215	1.3	40	Su 1002	0.8	24
F 0756	0.7	21	Sa 0659	0.8	24	Su 0746	0.7	21	1648	-0.1	-3
1223	1.0	30	1124	1.0	30	1221	1.0	30	2359	1.2	37
1918	0.1	3	1833	-0.1	-3	1929	0.2	6			
13 0253	1.4	43	28 0203	1.5	46	12 M 0309	1.3	40	26 0614	0.5	15
Sa 0904	0.7	21	Su 0815	0.8	24	M 0923	0.7	21	M 1113	0.8	24
1314	0.9	27	1228	1.0	30	1334	0.9	27	M 1755	-0.1	-3
2005	0.1	3	1933	-0.1	-3	2022	0.2	6			
14 0343	1.4	43	29 0303	1.5	46	12 F 0438	1.3	40	27 0101	1.1	34
Su 1002	0.7	21	M 0922	0.7	21	W 1054	0.6	18	Tu 0721	0.4	12
1406	0.9	27	1340	1.0	30	1534	0.9	27	1236	0.8	24
2050	0.1	3	2034	-0.1	-3	2159	0.2	6	1851	0.1	3
15 0427	1.4	43	30 0358	1.5	46	15 Th 0514	1.3	40	27 0125	1.1	34
M 1051	0.7	21	Tu 1019	0.7	21	Su 1131	0.5	15	M 0733	0.6	18
1459	0.9	27	1455	1.0	30	1436	0.9	27	1206	0.8	24
2134	0.1	3	2134	-0.1	-3	2112	0.2	6	1851	0.1	3
31 0448	1.6	49	● 2244	0.2	6	2123	0.0	0	2017	0.0	0
W 1109	0.6	18				2128	0.0	0			
1607	1.1	34				1952	0.2	6			
O 2232	-0.1	-3				1952	0.2	6			

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Sand Island, Midway Islands, 2018

Times and Heights of High and Low Waters

April					May					June																			
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height															
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm														
<b>1</b> Su	0511 1128 - 0.1 1804 1.2	1.0 -0.1 37	30 -3	<b>16</b> M	0446 1055 - 0.2 1740 1.1	0.8 -0.2 34	24 -6	<b>1</b> Tu	0007 0513 - 0.7 1125 - 0.3 1831 1.2	0.1 0.7 -0.9 37	3 21	<b>16</b> W	0434 1056 - 0.5 1809 1.3	0.6 -0.5 40	18 -15	<b>1</b> F	0120 0553 - 0.5 1204 - 0.2 1927 1.2	0.2 0.5 -0.6 37	6 15	<b>16</b> Sa	0107 0553 - 0.7 1215 - 0.4 1922 1.4	0.3 0.7 -1.2 43	9 21						
<b>2</b> M	0013 0551 0.9 1205 - 0.1 1850 1.2	0.1 27 -3 37	3 27	<b>17</b> Tu	0003 0520 - 0.7 1132 - 0.3 1826 1.2	0.2 21 -9 37	6	<b>2</b> W	0053 0551 - 0.6 1201 - 0.3 1911 1.2	0.1 18 -0.9 37	3	<b>17</b> Th	0040 0519 - 0.6 1142 - 0.5 1855 1.3	0.2 18 -15 40	6	<b>2</b> Sa	0158 0635 - 0.5 1242 - 0.2 2003 1.1	0.2 15 -0.6 34	6 15	<b>17</b> Su	0152 0657 - 0.7 1309 - 0.3 2007 1.3	0.2 21 -9 40	6 21						
<b>3</b> Tu	0101 0628 0.9 1242 - 0.1 1934 1.2	0.2 27 -3 37	6	<b>18</b> W	0049 0555 - 0.7 1211 - 0.3 1911 1.3	0.2 21 -9 40	6	<b>3</b> Th	0135 0628 - 0.6 1237 - 0.2 1951 1.1	0.1 18 -0.6 34	3	<b>18</b> F	0125 0608 - 0.6 1231 - 0.5 1942 1.3	0.2 18 -15 40	6	<b>3</b> Su	0235 0720 - 0.6 1322 - 0.1 2039 1.1	0.2 18 -0.3 34	3 24	<b>18</b> M	0239 0804 - 0.8 1406 - 0.2 2050 1.2	0.1 24 -6 37	3 37						
<b>4</b> W	0147 0704 0.8 1318 - 0.1 2018 1.2	0.2 24 -3 37	6	<b>19</b> Th	0135 0633 - 0.7 1254 - 0.4 1958 1.3	0.2 21 -12 40	6	<b>4</b> F	0216 0705 - 0.6 1315 - 0.2 2031 1.1	0.2 18 -0.6 34	6	<b>19</b> Sa	0211 0701 - 0.6 1322 - 0.4 2028 1.2	0.2 18 -12 37	6	<b>4</b> M	0313 0810 - 0.6 1405 - 0.1 2116 1.0	0.2 18 -0.3 30	0 24	<b>19</b> Tu	0327 0915 - 0.8 1505 - 0.0 2134 1.1	0.0 24 0 34	0 24						
<b>5</b> Th	0232 0740 0.8 1356 - 0.1 2102 1.2	0.2 24 -3 37	6	<b>20</b> F	0221 0716 - 0.7 1341 - 0.4 2047 1.2	0.2 21 -12 37	6	<b>5</b> Sa	0257 0745 - 0.6 1355 - 0.2 2112 1.0	0.2 18 -0.6 30	6	<b>20</b> Su	0258 0802 - 0.6 1417 - 0.3 2116 1.2	0.1 18 -0.9 37	3	<b>5</b> Tu	0353 0906 - 0.6 1452 - 0.0 2153 1.0	0.1 18 0 30	3 24	<b>20</b> W	0417 1030 - 0.8 1609 - 0.1 2219 1.0	0.0 24 3 30	0 24						
<b>6</b> F	0317 0818 0.7 1436 - 0.1 2148 1.1	0.3 21 -3 34	9	<b>21</b> Sa	0309 0804 - 0.7 1432 - 0.3 2138 1.2	0.2 21 -9 37	6	<b>6</b> Su	0339 0831 - 0.6 1438 - 0.1 2155 1.0	0.2 18 -0.3 30	6	<b>21</b> M	0348 0910 - 0.6 1516 - 0.2 2204 1.1	0.1 18 -0.6 34	3	<b>6</b> W	0433 1009 - 0.6 1547 - 0.1 2230 0.9	0.1 18 -0.3 27	3 27	<b>21</b> Th	0507 1144 - 0.9 1719 - 0.3 2305 1.0	-0.1 27 -3 30	-3 27						
<b>7</b> Sa	0404 0858 0.7 1520 - 0.1 0 2238 1.1	0.3 21 -3 34	9	<b>22</b> Su	0401 0902 - 0.7 1529 - 0.3 0 2232 1.1	0.2 21 -9 34	6	<b>7</b> M	0424 0923 - 0.6 1527 - 0.1 0 2239 0.9	0.2 18 -0.1 27	6	<b>22</b> Tu	0441 1026 - 0.7 1621 - 0.1 2253 1.0	0.0 21 -0.3 30	0	<b>7</b> Th	0514 1117 - 0.7 1651 - 0.2 2310 0.8	0 21 6 24	0 30	<b>22</b> F	0557 1255 - 1.0 1834 - 0.4 2352 0.9	-0.1 30 12 27	-3 30						
<b>8</b> Su	0454 0945 0.7 1610 0.0 2331 1.0	0.3 21 0 30	9	<b>23</b> M	0457 1012 - 0.7 1633 - 0.2 2327 1.0	0.2 21 -6 30	6	<b>8</b> Tu	0511 1025 - 0.6 1623 - 0.0 2325 0.9	0.2 18 0 27	6	<b>23</b> W	0535 1147 - 0.7 1732 - 0.1 2344 0.9	0 21 3 27	0 24	<b>8</b> F	0555 1226 - 0.8 1806 - 0.3 2351 0.8	0 24 9 24	-6 34	<b>23</b> Sa	0646 1359 - 1.1 1950 0.4	-0.2 34 12	-6 12						
<b>9</b> M	0548 1042 0.7 1706 0.0	0.3 21 0	9	<b>24</b> Tu	0557 1133 - 0.7 1743 - 0.1	0.2 21 -3	6	<b>9</b> W	0559 1136 - 0.6 1728 0.1	0.1 18 3	3	<b>24</b> Th	0629 1305 - 0.8 1849 0.2	-0.1 24 6	-3	<b>9</b> Sa	0637 1330 - 0.9 1925 0.4	-0.1 27 12	-3 12	<b>24</b> Su	0042 0733 - 0.2 1456 - 1.1 2101 0.4	0.8 34 12	24 34						
<b>10</b> Tu	0026 0644 0.3 1150 0.7 1810 0.1	0.9 27 -3 3	9	<b>25</b> W	0023 0656 - 0.1 1257 - 0.7 1858 0.0	1.0 3 21 0	30	<b>10</b> Th	0012 0646 - 0.1 1248 - 0.6 1841 0.2	0.8 18 6	24	<b>25</b> F	0035 0721 - 0.2 1415 - 0.9 2005 0.2	0.8 24 6	21	<b>10</b> Su	0035 0720 - 0.2 1429 - 1.0 2041 0.4	0.7 30 12	21	<b>25</b> M	0133 0818 - 0.2 1547 - 1.2 2203 0.4	0.7 37 12	21						
<b>11</b> W	0120 0738 0.3 1303 0.7 1918 0.1	0.9 27 -3 3	9	<b>26</b> Th	0119 0752 - 0.0 1414 - 0.8 2013 0.1	0.9 0 3	27	<b>11</b> F	0059 0730 - 0.0 1355 - 0.7 1956 0.2	0.7 21 6	21	<b>26</b> Sa	0127 0808 - 0.2 1514 - 1.0 2115 0.2	0.7 21 6	21	<b>11</b> M	0121 0805 - 0.3 1524 - 1.2 2148 0.4	0.7 37 12	21	<b>26</b> Tu	0223 0901 - 0.2 1632 - 1.2 2256 0.4	0.7 37 12	21						
<b>12</b> Th	0210 0826 0.2 1412 0.7 2025 0.1	0.9 27 -3 3	9	<b>27</b> F	0212 0843 - 0.1 1520 - 0.9 2122 0.1	0.8 -3 3	24	<b>12</b> Sa	0144 0811 - 0.1 1454 - 0.9 2106 0.2	0.7 27 6	21	<b>27</b> Su	0217 0852 - 0.3 1605 - 1.1 2217 0.2	0.7 34 6	18	<b>12</b> Tu	0210 0851 - 0.4 1615 - 1.3 2245 0.4	0.6 40 12	18	<b>27</b> W	0312 0942 - 0.2 1714 - 1.3 2342 0.4	0.7 40 12	18						
<b>13</b> F	0254 0907 0.1 1513 0.8 2126 0.2	0.9 27 -6 6	9	<b>28</b> Sa	0303 0929 - 0.2 1616 - 1.0 2223 0.1	0.8 -6 3	24	<b>13</b> Su	0228 0851 - 0.2 1547 - 1.0 2208 0.2	0.6 27 6	18	<b>28</b> M	0306 0933 - 0.3 1651 - 1.1 2311 0.2	0.6 34 6	18	<b>13</b> Th	0302 0940 - 0.4 1704 - 1.4 2335 0.3	0.6 43 9	18	<b>28</b> W	0358 1022 - 0.1 1753 - 1.3	0.6 40 40	18						
<b>14</b> Sa	0335 0945 0.0 1606 0.9 2222 0.2	0.8 24 -6 6	9	<b>29</b> Su	0349 1010 - 0.2 1705 - 1.1 0 2318 0.1	0.7 -6 3	21	<b>14</b> M	0310 0931 - 0.3 1636 - 1.1 2303 0.2	0.6 34 6	18	<b>29</b> F	0351 1012 - 0.3 1732 - 1.2 0 2358 0.2	0.6 37 6	18	<b>14</b> Th	0357 1031 - 0.5 1751 1.4	0.6 43 43	18	<b>29</b> W	0022 0443 - 0.7 1101 - 0.1 1829 1.3	0.4 21 -3 40	12						
<b>15</b> Su	0411 1020 - 0.1 1654 1.0 ● 2314 0.2	0.8 24 -3 6	9	<b>30</b> M	0432 1048 - 0.2 1749 1.1	0.7 -6 34	21	<b>15</b> Tu	0352 1013 - 0.4 1723 1.2	0.6 37 6	18	<b>30</b> W	0433 1049 - 0.3 1812 1.2	0.6 37 6	18	<b>15</b> F	0022 0454 - 0.7 1122 - 0.5 1837 1.4	0.3 21 -15 43	9	<b>30</b> Sa	0058 0528 - 0.7 1140 - 0.1 1903 1.3	0.3 21 -3 40	9						
													<b>31</b> Th	0041 0513 - 0.5 1126 - 0.3 1850 1.2	0.2 15 37	6													

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Sand Island, Midway Islands, 2018

Times and Heights of High and Low Waters

July			August			September								
Time	Height													
h m	ft	cm												
<b>1</b> Su 0133 0614 1219 1936	0.3	9	<b>16</b> M 0125 0656 1300 1940	0.3	9	<b>1</b> W 0159 0740 1329 2001	0.3	9	<b>16</b> Th 0220 0851 1443 2029	0.1	3	<b>1</b> Sa 0218 0901 1459 2021	0.1	3
	0.7	21		1.0	30		1.0	30		1.3	40		1.3	40
	0.0	0		0.0	0		0.3	9		0.6	18		0.6	18
	1.2	37		1.4	43		1.2	37		1.1	34		1.0	30
<b>2</b> M 0207 0703 1259 2007	0.3	9	<b>17</b> Tu 0211 0802 1357 2021	0.2	6	<b>2</b> Th 0230 0831 1416 2029	0.3	9	<b>17</b> F 0303 0950 1540 2110	0.1	3	<b>2</b> Su 0258 0955 1553 2056	0.1	3
	0.7	21		1.0	30		1.0	30		1.3	40		1.3	40
	0.0	0		0.1	3		0.4	12		0.5	15		0.6	18
	1.2	37		1.3	40		1.2	37		1.2	37		1.0	30
<b>3</b> Tu 0241 0754 1342 2039	0.2	6	<b>18</b> W 0257 0909 1455 2102	0.1	3	<b>3</b> F 0303 0925 1508 2059	0.2	6	<b>18</b> Sa 0348 1049 1641 2152	0.1	3	<b>3</b> M 0344 1053 1654 2140	0.0	0
	0.7	21		1.1	34		1.1	34		1.3	40		1.3	40
	0.1	3		0.2	6		0.5	15		0.6	18		0.6	18
	1.2	37		1.2	37		1.1	34		1.1	34		0.9	27
<b>4</b> W 0315 0850 1428 2110	0.2	6	<b>19</b> Th 0344 1016 1556 2144	0.0	0	<b>4</b> Sa 0340 1023 1606 2131	0.1	3	<b>19</b> Su 0435 1150 1745 2237	0.1	3	<b>4</b> Tu 0437 1156 1801 2237	0.0	0
	0.8	24		1.1	34		1.2	37		1.3	40		1.2	37
	0.2	6		0.4	12		0.7	21		0.7	21		0.6	18
	1.1	34		1.2	37		1.1	34		1.0	30		1.0	30
<b>5</b> Th 0350 0949 1522 2142	0.1	3	<b>20</b> F 0431 1123 1702 2227	0.0	0	<b>5</b> Su 0422 1124 1712 2209	0.0	0	<b>20</b> M 0525 1251 1853 2327	0.1	3	<b>5</b> W 0538 1300 1910 2348	0.0	0
	0.8	24		1.1	34		1.3	40		1.3	40		0.3	27
	0.3	9		0.5	15		0.7	21		0.7	21		1.2	37
	1.0	30		1.1	34		1.0	30		1.0	30		0.6	18
<b>6</b> F 0427 1052 1624 2216	0.1	3	<b>21</b> Sa 0519 1228 1813 2313	0.0	0	<b>6</b> M 0509 1227 1825 2256	0.0	0	<b>21</b> Tu 0618 1351 1959	0.2	6	<b>6</b> Th 0644 1401 2015	0.0	0
	0.9	27		1.2	37		1.3	40		1.3	40		1.2	37
	0.4	12		0.6	18		0.7	21		0.7	21		1.2	37
	1.0	30		1.0	30		1.0	30		1.0	30		0.6	18
<b>7</b> Sa 0506 1156 1736 2253	0.0	0	<b>22</b> Su 0607 1331 1926	0.0	0	<b>7</b> Tu 0603 1331 1939 2355	-0.1	-3	<b>22</b> W 0023 0713 1447 2059	0.9	27	<b>7</b> F 0110 0752 1457 2112	1.0	30
	1.0	30		1.2	37		1.4	43		1.3	40		0.3	27
	0.5	15		0.6	18		0.8	24		1.3	40		1.2	37
	0.9	27		1.1	34		1.0	30		0.7	21		0.5	15
<b>8</b> Su 0550 1300 1854 2336	-0.1	-3	<b>23</b> M 0002 0656 1428 2036	0.9	27	<b>8</b> W 0702 1432 2047	-0.1	-3	<b>23</b> Th 0124 0808 1536 2150	0.9	27	<b>8</b> Sa 0230 0858 1547 2202	1.1	34
	1.1	34		1.3	40		1.4	40		1.3	40		0.3	27
	0.6	18		0.6	18		0.7	21		0.7	21		1.2	37
	0.9	27		1.0	30		1.0	30		1.0	30		0.4	12
<b>9</b> M 0637 1401 2011	-0.2	-6	<b>24</b> Tu 0054 0745 1521	0.8	24	<b>9</b> Th 0105 0803 1528	1.0	30	<b>24</b> F 0226 0900 1619	0.9	27	<b>9</b> Su 0343 1001 1633	1.2	37
	1.2	37		0.0	0		-0.1	-3		0.2	6		0.1	3
	0.6	18		1.3	40		1.5	46		1.3	40		1.4	37
	0.6	18		0.6	18		0.7	21		0.6	18		0.3	9
<b>10</b> Tu 0027 0728 1459 2120	0.8	24	<b>25</b> W 0148 0833 1609 2230	0.8	24	<b>10</b> F 0221 0905 1619 2236	1.0	30	<b>25</b> Sa 0324 0949 1657 2309	1.0	30	<b>10</b> M 0449 1059 1716 2333	1.2	37
	-0.2	-6		0.0	0		-0.1	-3		0.2	6		0.2	6
	1.3	40		1.3	40		1.5	46		1.3	40		1.3	40
	0.6	18		0.6	18		0.6	18		0.5	15		0.2	6
<b>11</b> W 0125 0822 1553 2218	0.8	24	<b>26</b> Th 0242 0919 1651 2313	0.8	24	<b>11</b> Sa 0335 1005 1705 2323	1.0	30	<b>26</b> Su 0418 1034 1730 2342	1.0	30	<b>11</b> Tu 0548 1155 1757 2354	1.3	40
	-0.3	-9		0.0	0		-0.1	-3		0.3	9		0.4	12
	1.4	43		1.4	43		1.5	46		1.3	40		1.2	37
	0.6	18		0.6	18		0.5	15		0.5	15		0.2	6
<b>12</b> Th 0230 0918 1643 2308	0.8	24	<b>27</b> F 0335 1003 1729 2351	0.8	24	<b>12</b> Su 0445 1103 1749 2351	1.1	34	<b>27</b> M 0507 1116 1800 2351	1.0	30	<b>12</b> W 0015 0643 1248 1837	0.2	6
	-0.3	-9		0.1	3		0.0	0		0.3	9		0.4	12
	1.5	46		1.4	43		1.5	46		1.3	40		1.5	46
	0.5	15		0.5	15		0.6	18		0.5	15		0.2	6
<b>13</b> F 0337 1014 1731 2355	0.8	24	<b>28</b> Sa 0425 1045 1804	0.8	24	<b>13</b> M 0008 0550 1159 1830	0.4	12	<b>28</b> Tu 0013 0554 1158 1828	0.4	12	<b>13</b> Th 0057 0735 1339 1916	0.1	3
	-0.3	-9		0.1	3		0.1	3		0.1	3		0.4	43
	1.5	46		1.4	43		1.4	43		0.3	9		0.5	15
	0.4	12		1.3	40		1.4	43		0.4	12		1.0	30
<b>14</b> Sa 0443 1110 1816	0.9	27	<b>29</b> Su 0025 0514 1125	0.5	15	<b>14</b> Tu 0052 0652 1254	0.3	9	<b>29</b> W 0042 0639 1240	0.3	9	<b>14</b> F 0138 0826 1430	0.1	3
	-0.3	-9		0.9	27		0.2	6		0.4	12		0.4	43
	1.5	46		0.1	3		0.2	6		0.4	12		0.5	15
	1.5	46		1.3	40		1.4	43		1.2	37		1.0	30
<b>15</b> Su 0040 0550 1205 1859	0.3	9	<b>30</b> M 0058 0603 1205 1905	0.4	12	<b>15</b> W 0136 0752 1348 1950	0.2	6	<b>30</b> Th 0112 0724 1324 1922	0.3	9	<b>15</b> Sa 0219 0917 1522 2036	0.1	3
	0.5	15		0.9	27		0.3	9		0.4	12		0.4	43
	0.2	6		0.2	6		0.4	12		0.5	15		0.6	18
	1.4	43		1.3	40		1.3	40		1.1	34		1.0	30
<b>31</b> Tu 0129 0651 1246 1933	0.4	12	<b>31</b> F 0143 0811 1410 1950	0.2	6	<b>31</b> F 0143 0811 1410 1950	0.3	9	<b>31</b> F 0143 0811 1410 1950	0.1	3	<b>31</b> F 0143 0811 1410 1950	0.0	0
	0.9	27		0.9	27		1.3	40		1.4	43		1.4	43
	0.2	6		0.2	6		0.5	15		0.5	15		0.6	18
	1.3	40		1.3	40		1.1	34		1.1	34		1.0	30

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Sand Island, Midway Islands, 2018

Times and Heights of High and Low Waters

October			November			December					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0224 0.0 0 0930 1.4 43 1544 0.6 18 <b>O</b> 2035 1.0 30	<b>16</b> Tu 1020 1.3 40 1642 0.5 15 2135 0.9 27	<b>1</b> Th 0356 0.1 3 1052 1.3 40 1724 0.4 12 2258 0.9 27	<b>16</b> F 0407 0.3 9 1106 1.1 34 1743 0.3 9 2327 0.8 24	<b>1</b> Sa 0456 0.3 9 1108 1.2 37 1755 0.1 3	<b>16</b> Su 0432 0.5 15 1048 1.1 34 1736 0.2 6						
<b>2</b> Tu 0315 0.0 0 1025 1.4 43 1640 0.6 18 2130 1.0 30	<b>17</b> W 0353 0.2 6 1112 1.2 37 1735 0.5 15 2235 0.8 24	<b>2</b> F 0506 0.2 6 1147 1.2 37 1822 0.3 9	<b>17</b> Sa 0513 0.4 12 1151 1.0 30 1829 0.3 9	<b>2</b> Su 0032 1.1 34 0613 0.4 12 1158 1.1 34 1847 0.1 3	<b>17</b> M 0010 1.0 30 0545 0.6 18 1127 1.0 30 1818 0.1 3						
<b>3</b> W 0413 0.0 0 1124 1.3 40 1742 0.6 18 2240 0.9 27	<b>18</b> Th 0451 0.3 9 1206 1.1 34 1830 0.5 15 2345 0.8 24	<b>3</b> Sa 0024 1.0 30 0623 0.3 9 1242 1.1 34 1917 0.2 6	<b>18</b> Su 0040 0.9 27 0627 0.5 15 1237 1.0 30 1913 0.2 6	<b>3</b> M 0145 1.2 37 0732 0.5 15 1251 1.0 30 1938 0.0 0	<b>18</b> Tu 0114 1.1 34 0704 0.6 18 1209 1.0 30 1900 0.1 3						
<b>4</b> Th 0519 0.1 3 1225 1.3 40 1845 0.6 18	<b>19</b> F 0557 0.3 9 1259 1.1 34 1921 0.4 12	<b>4</b> Su 0144 1.1 34 0740 0.3 9 1335 1.1 34 2009 0.1 3	<b>19</b> M 0146 1.0 30 0743 0.5 15 1322 0.9 27 1954 0.1 3	<b>4</b> Tu 0248 1.3 40 0847 0.5 15 1344 0.9 27 2025 0.0 0	<b>19</b> W 0213 1.2 37 0822 0.7 21 1255 0.9 27 1944 0.0 0						
<b>5</b> F 0003 1.0 30 0632 0.1 33 1324 1.3 40 1946 0.5 15	<b>20</b> Sa 0059 0.9 27 0708 0.4 12 1349 1.1 34 2008 0.4 12	<b>5</b> M 0253 1.2 37 0853 0.4 12 1427 1.0 30 2057 0.0 0	<b>20</b> Tu 0244 1.1 34 0853 0.5 15 1406 0.9 27 2033 0.0 0	<b>5</b> W 0342 1.4 43 0952 0.5 15 1436 0.9 27 2110 -0.1 -3	<b>20</b> Th 0307 1.4 43 0930 0.6 18 1344 0.9 27 2030 -0.1 -3						
<b>6</b> Sa 0129 1.0 30 0745 0.2 6 1419 1.2 37 2040 0.4 12	<b>21</b> Su 0207 1.0 30 0815 0.4 12 1433 1.0 30 2049 0.3 9	<b>6</b> Tu 0352 1.3 40 0958 0.4 12 1516 1.0 30 2141 0.0 0	<b>21</b> W 0334 1.2 37 0954 0.5 15 1447 0.9 27 2112 0.0 0	<b>6</b> Th 0430 1.4 43 1049 0.5 15 1525 0.9 27 2152 -0.1 -3	<b>21</b> F 0356 1.5 46 1028 0.6 18 1436 0.9 27 2118 -0.2 -6						
<b>7</b> Su 0245 1.1 34 0855 0.2 6 1509 1.2 37 2129 0.2 6	<b>22</b> M 0305 1.0 30 0916 0.4 12 1513 1.0 30 2126 0.2 6	<b>7</b> W 0443 1.4 43 1055 0.4 12 1602 0.9 27 ● 2223 -0.1 -3	<b>22</b> Th 0420 1.4 43 1048 0.5 15 1528 0.8 24 ○ 2152 -0.1 -3	<b>7</b> F 0514 1.5 46 1138 0.5 15 1612 0.8 24 2232 0.0 0	<b>22</b> Sa 0444 1.6 49 1117 0.6 18 1530 0.9 27 ○ 2207 -0.2 -6						
<b>8</b> M 0351 1.2 37 0959 0.3 9 1556 1.2 37 ● 2215 0.1 3	<b>23</b> Tu 0356 1.2 37 1011 0.4 12 1550 1.0 30 2200 0.1 3	<b>8</b> Th 0529 1.4 43 1146 0.4 12 1646 0.9 27 2302 -0.1 -3	<b>23</b> F 0504 1.5 46 1137 0.5 15 1610 0.8 24 2233 -0.2 -6	<b>8</b> Sa 0555 1.5 46 1223 0.5 15 1656 0.8 24 2311 0.0 0	<b>23</b> Su 0530 1.6 49 1201 0.6 18 1626 0.9 27 2257 -0.2 -6						
<b>9</b> Tu 0449 1.3 40 1057 0.3 9 1640 1.1 34 2257 0.1 3	<b>24</b> W 0441 1.3 40 1101 0.4 12 1624 0.9 27 ○ 2234 0.0 0	<b>9</b> F 0612 1.5 46 1234 0.4 12 1728 0.9 27 2340 -0.1 -3	<b>24</b> Sa 0548 1.5 46 1221 0.5 15 1653 0.8 24 2317 -0.2 -6	<b>9</b> Su 0634 1.5 46 1304 0.4 12 1738 0.8 24 2350 0.0 0	<b>24</b> M 0614 1.6 49 1244 0.5 15 1725 0.9 27 2349 -0.2 -6						
<b>10</b> W 0541 1.4 43 1151 0.3 9 1722 1.1 34 2338 0.0 0	<b>25</b> Th 0524 1.4 43 1148 0.4 12 1658 0.9 27 2309 0.0 0	<b>10</b> Sa 0653 1.5 46 1318 0.4 12 1808 0.8 24	<b>25</b> Su 0632 1.6 49 1304 0.5 15 1739 0.8 24	<b>10</b> M 0712 1.4 43 1342 0.4 12 1821 0.8 24	<b>25</b> Tu 0658 1.6 49 1326 0.5 15 1827 1.0 30						
<b>11</b> Th 0628 1.4 43 1241 0.3 9 1802 1.0 30	<b>26</b> F 0606 1.4 43 1232 0.4 12 1731 0.9 27 2346 -0.1 -3	<b>11</b> Su 0019 0.0 0 0734 1.4 43 1400 0.4 12 1848 0.8 24	<b>26</b> M 0003 -0.2 -6 0717 1.5 46 1347 0.4 12 1831 0.9 27	<b>11</b> Tu 0029 0.1 3 0748 1.4 43 1419 0.4 12 1906 0.8 24	<b>26</b> W 0042 -0.1 -3 0740 1.5 46 1410 0.4 12 1932 1.0 30						
<b>12</b> F 0017 0.0 0 0714 1.5 46 1329 0.4 12 1842 1.0 30	<b>27</b> Sa 0649 1.5 46 1316 0.4 12 1807 0.9 27	<b>12</b> M 0057 0.0 0 0814 1.4 43 1443 0.4 12 1930 0.8 24	<b>27</b> Tu 0052 -0.2 -6 0801 1.5 46 1432 0.4 12 1929 0.9 27	<b>12</b> W 0109 0.1 3 0824 1.4 43 1457 0.4 12 1957 0.8 24	<b>27</b> Th 0137 0.0 0 0822 1.5 46 1456 0.3 12 2041 1.0 30						
<b>13</b> Sa 0056 0.0 0 0759 1.4 43 1416 0.4 12 1921 0.9 27	<b>28</b> Su 0026 -0.1 -3 0733 1.5 46 1400 0.5 15 1847 0.9 27	<b>13</b> Tu 0138 0.1 3 0856 1.3 40 1525 0.4 12 2017 0.8 24	<b>28</b> W 0145 -0.1 -3 0847 1.4 43 1519 0.4 12 2035 0.9 27	<b>13</b> Th 0151 0.2 6 0859 1.3 40 1535 0.4 12 2052 0.8 24	<b>28</b> F 0235 0.2 6 0904 1.4 43 1543 0.2 6 ○ 2154 1.1 34						
<b>14</b> Su 0135 0.0 0 0844 1.4 43 1503 0.4 12 2002 0.9 27	<b>29</b> M 0111 -0.1 -3 0820 1.5 46 1445 0.5 15 1933 0.9 27	<b>14</b> W 0222 0.1 3 0938 1.2 37 1610 0.4 12 2111 0.8 24	<b>29</b> Th 0242 0.0 0 0933 1.4 43 1609 0.3 9 ○ 2150 0.9 27	<b>14</b> F 0238 0.3 9 0934 1.2 37 1614 0.3 9 2155 0.9 27	<b>29</b> Sa 0337 0.3 9 0947 1.3 40 1633 0.1 3 2309 1.1 34						
<b>15</b> M 0217 0.1 3 0930 1.3 40 1551 0.5 15 2045 0.9 27	<b>30</b> Tu 0200 -0.1 -3 0908 1.4 43 1534 0.5 15 2029 0.9 27	<b>15</b> Th 0311 0.2 6 1021 1.2 37 1656 0.4 12 ○ 2215 0.8 24	<b>30</b> F 0345 0.2 6 1019 1.3 40 1701 0.2 6 2312 1.0 30	<b>15</b> Sa 0330 0.4 12 1010 1.2 37 1655 0.3 9 ○ 2302 0.9 27	<b>30</b> Su 0445 0.5 15 1031 1.2 37 1723 0.1 3 1814 0.0 0						
		<b>31</b> W 0255 0.0 0 0959 1.3 40 1627 0.4 12 ○ 2137 0.9 27			<b>31</b> M 0022 1.2 37 0600 0.6 18 1119 1.1 34 1814 0.0 0						

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Nawiliwili, Kauai Island, Hawaii, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 0337 M 1036 O 1458 ○ 2045	ft 2.4 0.3 0.8 -0.4	cm 73 9 24 -12	h m 16 0354 Tu 1050 ● 2054	ft 2.1 0.4 -0.1 -3	cm 64 12 -21 -6	h m 1 Th 0443 1128 2211	ft 2.2 0.1 -0.2 -6	cm 67 3 -27 -55	h m 16 0425 F 1057 2159	ft 1.8 0.2 -0.1 -3	cm 55 6 -27 -55	
0337 1036 1458 2045	2.4 0.3 0.8 -0.4	73 9 24 -12	0354 1050 1515 ● 2054	2.1 0.4 0.7 -0.1	64 12 21 -3	0443 1128 1637 2211	2.2 0.1 0.9 -0.2	67 3 27 -6	0425 1057 1619 2159	1.8 0.2 0.9 -0.1	55 6 27 -3	
0420 1122 1549 2130	2.5 0.3 0.7 -0.4	76 9 21 -12	17 W 0424 1117 1550 2128	2.1 0.3 0.8 -0.1	64 9 24 -3	0520 1203 1730 2258	2.1 0.1 0.9 0.0	64 3 27 0	0452 1124 1700 2238	1.8 0.1 1.0 0.0	55 3 30 0	
0504 1207 1643 2216	2.4 0.2 0.7 -0.2	73 6 21 -6	18 Th 0454 1146 1627 2203	2.0 0.3 0.8 0.0	61 9 24 0	0557 1239 1829 2348	1.8 0.1 1.0 0.2	55 3 30 6	0519 1153 1747 2323	1.6 0.1 1.1 0.2	49 3 34 6	
0547 1252 1743 2304	2.3 0.2 0.8 0.0	70 6 24 0	19 F 0523 1217 1710 2240	1.9 0.3 0.8 0.1	58 9 24 3	0631 1315 1937	1.6 0.1 1.0	49 3 30	0546 1225 1843	1.5 0.0 1.1	46 0 34	
0631 1339 1855 2355	2.1 0.2 0.8 0.2	64 6 24 6	20 Sa 0553 1250 1801 2320	1.8 0.3 0.8 0.2	55 9 24 6	0045 0704 1354 2057	0.5 1.3 0.1 1.1	15 40 3 34	0016 0614 1301 1952	0.4 1.3 0.0 1.2	12 40 0 37	
0714 1425 2022	1.9 0.2 0.8	58 6 24	21 Sa 0623 1326 1908	1.7 0.2 0.8	52 6 24	0202 0737 1436 2223	0.7 1.1 0.1 1.2	21 34 3 37	0128 0643 1342 2117	0.6 1.1 0.0 1.3	18 34 0 40	
0757 1511 2157	0.5 0.2 1.0	15 6 30	22 M 0009 0653 1404 2034	0.4 1.5 0.2 0.9	12 6 6 27	0412 0811 1524 ● 2336	0.8 0.9 0.1 1.4	24 27 3 43	0315 0718 1434 ● 2242	0.7 0.9 0.0 1.5	21 27 0 46	
0843 1556 ● 2319	0.7 0.1 1.2	21 3 37	23 M 0115 0727 1447 2208	0.6 1.3 0.1 1.1	18 40 3 34	1617 Th 1617	0.1	3	0601 0825 1538 2353	0.6 0.7 0.0 1.7	18 21 0 52	
0941 1638	0.8 0.1	24 3	24 Tu 0257 0808 1533 ● 2324	0.8 1.1 0.0 1.4	24 34 0 43	0033 W 0833 1120 1712	1.5 0.5 0.6 0.1	46 15 18 3	0735 0825 1404 2342	0.5 0.7 0.2 1.4	15 21 6 43	
0021 0640 1035 1718	1.4 0.8 1.0 0.0	43 24 30 0	25 W 0515 0909 0909 Th 1624	0.8 0.9 0.9 -0.1	24 27 -3	0117 Sa 0857 1232 1804	1.7 0.5 0.6 0.0	52 15 18 0	0049 0813 1219 1754	1.8 0.3 0.6 -0.2	55 9 18 -6	
0107 0811 1139 1755	1.6 0.7 0.8 0.0	49 21 24 0	26 F 0023 0715 1040 1717	1.6 0.7 0.8 -0.1	49 21 24 -3	0155 Su 0915 1321 1849	1.8 0.4 0.6 0.0	55 12 18 0	0138 M 0844 1321 1853	2.0 0.2 0.7 -0.2	61 6 21 -6	
0146 0901 1236 1832	1.8 0.6 0.7 -0.1	55 18 21 -3	27 Sa 0112 0820 1205 1809	1.9 0.5 0.7 -0.3	58 15 21 -9	0229 M 0932 1400 1931	1.8 0.4 0.7 -0.1	55 12 21 -3	0222 Tu 0914 1411 1946	2.1 0.2 0.8 -0.3	64 6 24 -9	
0220 0934 1323 1908	1.9 0.5 0.7 -0.1	58 15 21 -3	28 Su 0158 0904 1312 1901	2.1 0.4 0.7 -0.3	64 9 21 -3	0300 Tu 0950 1434 2009	1.9 0.3 0.8 -0.1	58 9 24 -3	0302 W 0942 1457 2036	2.1 0.1 0.9 -0.3	64 9 27 -9	
0252 1001 1404 1943	2.0 0.4 0.7 -0.1	61 12 21 -3	29 M 0241 0942 1407 1950	2.3 0.3 0.7 -0.4	70 9 21 -12	0330 W 1010 1507 2045	1.9 0.3 0.8 -0.2	58 9 24 -6	0226 Th 1033 1542 ● 2122	1.7 0.2 0.9 -0.1	52 6 27 -3	
0323 1025 1440 2019	2.0 0.4 0.7 -0.2	61 12 21 -6	30 Tu 0323 1018 1458 2038	2.3 0.2 0.8 -0.4	70 6 24 -12	0358 Th 1033 1542 ● 2122	1.9 0.2 0.9 -0.1	58 6 27 -3	0255 Th 0920 1456 2037	1.7 0.1 1.0 -0.1	52 3 30 -3	
0403 1053 1547 ● 2125	2.3 0.2 0.8 -0.3	70 6 24 -9	31 W 0403 1053 1547 ● 2125	2.3 0.2 0.8 -0.3	70 6 24 -9						31 0340 Sa 0949 1614 ● 2210	1.5 -0.1 1.5 -3

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Nawiliwili, Kauai Island, Hawaii, 2018

Times and Heights of High and Low Waters

April					May					June						
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0411	1.3	40	<b>16</b> M	0340	1.2	37	<b>1</b> Tu	0403	0.8	24	<b>16</b> W	0346	0.8	24	
	1015	-0.2	-6	0945	-0.2	-6	0952	-0.2	-6	0942	-0.4	-12	1710	2.1	64	
	1654	1.5	46	1636	1.7	52	1713	1.8	55				1020	0.0	0	
	2258	0.2	6	2254	0.2	6	2357	0.3	9	1807	1.9	58				
<b>2</b> M	0440	1.1	34	<b>17</b> Tu	0412	1.0	30	<b>2</b> W	0433	0.7	21	<b>17</b> Th	0007	0.2	6	
	1042	-0.1	-3	1016	-0.3	-9	1020	-0.1	-3	0430	0.7	21	1021	-0.3	-9	
	1736	1.6	49	1721	1.8	55	1752	1.8	55	1759	2.1	64				
	2349	0.3	9	2351	0.3	9				1848	1.8	55				
<b>3</b> Tu	0508	0.9	27	<b>18</b> W	0446	0.8	24	<b>3</b> Th	0053	0.3	9	<b>18</b> F	0113	0.3	9	
	1109	-0.1	-3	1050	-0.2	-6	0505	0.6	18	0522	0.5	15	1104	-0.2	-6	
	1820	1.6	49	1811	1.8	55	1050	0.0	0	1853	2.0	61				
							1834	1.7	52				1932	1.7	52	
<b>4</b> W	0048	0.4	12	<b>19</b> Th	0058	0.3	9	<b>4</b> F	0159	0.4	12	<b>19</b> Sa	0225	0.2	6	
	0535	0.8	24	0525	0.7	21	0542	0.5	15	0634	0.5	15	1129	-0.1	-3	
	1138	0.0	0	1908	1.8	55	1123	0.1	3	1155	-0.1	-3	1923	1.6	49	
	1909	1.5	46				1923	1.6	49	1952	1.9	58				
<b>5</b> Th	0202	0.5	15	<b>20</b> F	0222	0.4	12	<b>5</b> Sa	0323	0.3	9	<b>20</b> Su	0337	0.2	6	
	0600	0.6	18	0615	0.5	15	0643	0.4	12	0818	0.5	15	1203	0.2	6	
	1211	0.1	3	1215	-0.1	-3	1203	0.2	6	1257	0.1	3	2020	1.5	46	
	2009	1.5	46	2015	1.8	55				2054	1.8	55				
<b>6</b> F	0405	0.4	12	<b>21</b> Sa	0406	0.3	9	<b>6</b> Su	0447	0.3	9	<b>21</b> M	0438	0.1	3	
	0624	0.5	15	0749	0.4	12	0903	0.4	12	1009	0.6	18	1315	0.0	0	
	1253	0.2	6	1315	0.0	0	1300	0.3	9	1419	0.3	9	2129	1.7	52	
	2121	1.4	43				2123	1.5	46	2156	1.7	52				
<b>7</b> Sa	0642	0.3	9	<b>22</b> Su	0530	0.2	6	<b>7</b> M	0533	0.3	9	<b>22</b> Tu	0523	0.1	3	
	0919	0.4	12	1006	0.5	15	1058	0.5	15	1133	0.8	24	1426	0.4	12	
	1357	0.3	9	1437	0.2	6	1426	0.4	12	1558	0.5	15	2239	1.7	52	
	2236	1.4	43				2224	1.4	43	2254	1.5	46				
<b>8</b> Su	0700	0.3	9	<b>23</b> M	0618	0.2	6	<b>8</b> Tu	0600	0.2	6	<b>23</b> W	0600	0.0	0	
	1123	0.5	15	1138	0.6	18	1159	0.7	21	1233	1.1	34	1603	0.5	15	
	1529	0.3	9	1612	0.2	6	1603	0.5	15	1734	0.5	15	2341	1.6	49	
	2338	1.4	43				2317	1.4	43	2346	1.4	43				
<b>9</b> M	0715	0.3	9	<b>24</b> Tu	0651	0.1	3	<b>9</b> W	0622	0.2	6	<b>24</b> Th	0630	-0.1	-3	
	1222	0.6	18	1240	0.8	24	1241	0.9	27	1320	1.3	40	1855	0.5	15	
	1656	0.3	9	1739	0.3	9	1726	0.5	15	1855	0.5	15				
													<b>9</b> Sa	0613	-0.1	-3
<b>10</b> Tu	0026	1.5	46	<b>25</b> W	0032	1.6	49	<b>10</b> Th	0001	1.3	40	<b>25</b> F	0031	1.2	37	
	0730	0.2	6	0720	0.0	0	0644	0.1	3	0658	-0.1	-3	1327	1.1	34	
	1302	0.8	24	1327	1.1	34	1317	1.1	34	1401	1.5	46	1849	0.2	6	
	1803	0.3	9				1834	0.4	12	2001	0.5	15				
<b>11</b> W	0106	1.5	46	<b>26</b> Th	0116	1.5	46	<b>11</b> F	0040	1.3	40	<b>26</b> Sa	0112	1.1	34	
	0746	0.2	6	0746	-0.1	-3	0707	0.0	0	0725	-0.2	-6	1409	1.8	55	
	1336	0.9	27	1409	1.3	40	1352	1.3	40	1438	1.7	52	1949	0.2	6	
	1856	0.2	6				1932	0.4	12	2057	0.4	12				
<b>12</b> Th	0139	1.5	46	<b>27</b> F	0155	1.4	43	<b>12</b> Sa	0116	1.2	37	<b>27</b> Su	0149	1.0	30	
	0805	0.1	3	0811	-0.2	-6	0733	-0.1	-3	0751	-0.2	-6	1448	1.5	46	
	1409	1.1	34	1448	1.5	46	1427	1.5	46	1512	1.9	58	2042	0.2	6	
	1943	0.1	3				2026	0.3	9	2147	0.4	12				
<b>13</b> F	0210	1.4	43	<b>28</b> Sa	0229	1.2	37	<b>13</b> Su	0152	1.1	34	<b>28</b> M	0225	0.8	24	
	0826	0.0	0	0836	-0.2	-6	0801	-0.2	-6	0818	-0.2	-6	1525	1.6	49	
	1443	1.3	40				1504	1.8	55	1546	2.0	61	2131	0.2	6	
	2029	0.1	3	2219	0.2	6	2119	0.3	9	2232	0.4	12				
<b>14</b> Sa	0239	1.4	43	<b>29</b> Su	0301	1.1	34	<b>14</b> M	0228	1.0	30	<b>29</b> Tu	0259	0.7	21	
	0850	-0.1	-3	0900	-0.2	-6	0832	-0.3	-9	0846	-0.2	-6	1600	1.7	55	
	1518	1.4	43				1543	1.9	58	1619	2.0	61	2219	0.2	6	
	2114	0.1	3	2219	0.2	6	2212	0.2	6	2316	0.3	9				
<b>15</b> Su	0309	1.3	40	<b>30</b> M	0332	1.0	30	<b>15</b> Tu	0306	0.9	27	<b>30</b> W	0333	0.7	21	
	0916	-0.2	-6	0926	-0.2	-6	0905	-0.4	-12	0916	-0.2	-6	1625	2.1	64	
	1556	1.6	49				1625	2.1	64	1653	2.0	61	2307	0.3	9	
	2202	0.1	3	2307	0.3	9	2307	0.2	6	1745	2.3	70				
										<b>31</b> Th	0000	0.3	9			
										0409	0.6	18				
										0947	-0.1	-3				
										1729	2.0	61				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Nawiliwili, Kauai Island, Hawaii, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0053	0.4	12	<b>16</b> M	0108	0.2	6	<b>1</b> W	0101	0.3	9
	0518	0.7	21		0626	0.9	27		0648	1.0	30
	1040	0.1	3		1139	0.2	6		1157	0.5	15
	1815	1.9	58		1851	2.0	61		1834	1.6	49
<b>2</b> M	0131	0.4	12	<b>17</b> Tu	0152	0.2	6	<b>2</b> Th	0136	0.3	9
	0613	0.7	21		0744	1.0	30		0802	1.1	34
	1119	0.2	6		1238	0.4	12		1257	0.7	21
	1849	1.8	55		1934	1.7	52		1904	1.4	43
<b>3</b> Tu	0210	0.3	9	<b>18</b> W	0236	0.2	6	<b>3</b> F	0215	0.2	6
	0727	0.7	21		0912	1.1	34		0928	1.2	37
	1205	0.4	12		1353	0.7	21		1425	0.9	27
	1923	1.6	49		2017	1.5	46		1938	1.2	37
<b>4</b> W	0248	0.3	9	<b>19</b> Th	0321	0.1	3	<b>4</b> Sa	0259	0.2	6
	0859	0.8	24		1037	1.3	40		1047	1.4	43
	1305	0.6	18		1540	0.8	24		1630	0.9	28
	1959	1.5	46		2105	1.2	37		2027	1.1	34
<b>5</b> Th	0326	0.2	6	<b>20</b> F	0405	0.1	3	<b>5</b> Su	0349	0.1	3
	1028	1.0	30		1147	1.5	46		1151	1.7	52
	1433	0.8	24		1800	0.9	27		1839	0.8	24
	2040	1.3	40		2203	1.0	30		2153	0.9	27
<b>6</b> F	0404	0.1	3	<b>21</b> Sa	0448	0.1	3	<b>6</b> M	0443	0.0	0
	1134	1.2	37		1241	1.7	52		1243	1.9	58
	1625	0.8	24		1949	0.8	24		1952	0.7	21
	2131	1.2	37		2310	0.9	27		2327	0.8	24
<b>7</b> Sa	0443	0.0	0	<b>22</b> Su	0530	0.1	3	<b>7</b> Tu	0539	- 0.1	- 3
	1224	1.5	46		1325	1.8	55		1331	2.1	64
	1815	0.8	24		2047	0.7	21		2037	0.6	18
	2232	1.0	30						2112	0.5	15
<b>8</b> Su	0524	- 0.1	- 3	<b>23</b> M	0015	0.8	24	<b>8</b> W	0040	0.8	24
	1309	1.8	55		0611	0.0	0		0633	- 0.1	- 3
	1939	0.7	21		1403	2.0	61		1415	2.3	70
	2338	0.9	27		2123	0.6	18		2115	0.5	15
<b>9</b> M	0606	- 0.2	- 6	<b>24</b> Tu	0108	0.8	24	<b>9</b> Th	0139	0.9	27
	1351	2.0	61		0650	0.0	0		0725	- 0.2	- 6
	2041	0.6	18		1437	2.0	61		1458	2.4	73
					2150	0.5	15		2150	0.4	12
<b>10</b> Tu	0041	0.8	24	<b>25</b> W	0152	0.8	24	<b>10</b> F	0232	0.9	27
	0650	- 0.3	- 9		0729	0.0	0		0815	- 0.2	- 6
	1433	2.2	67		1510	2.1	64		1539	2.4	73
	2130	0.5	15		2214	0.5	15		2225	0.3	9
<b>11</b> W	0138	0.8	24	<b>26</b> Th	0231	0.8	24	<b>11</b> Sa	0322	1.0	30
	0736	- 0.3	- 9		0806	0.0	0		0904	- 0.2	- 6
	1516	2.4	73		1541	2.1	64		1619	2.3	70
	2215	0.4	12		2238	0.5	15		2300	0.3	9
<b>12</b> Th	0232	0.8	24	<b>27</b> F	0306	0.8	24	<b>12</b> Su	0413	1.1	34
	0822	- 0.4	- 12		0842	0.0	0		0952	- 0.1	- 3
	1559	2.5	76		1612	2.1	64		1658	2.2	67
	2259	0.3	9		2303	0.4	12		2335	0.2	6
<b>13</b> F	0325	0.8	24	<b>28</b> Sa	0342	0.9	27	<b>13</b> M	0507	1.2	37
	0909	- 0.3	- 9		0918	0.0	0		1042	0.1	3
	1642	2.4	73		1642	2.1	64		1736	2.0	61
	2342	0.3	9		2329	0.4	12		2300	0.3	9
<b>14</b> Sa	0420	0.8	24	<b>29</b> Su	0419	0.9	27	<b>14</b> Tu	0011	0.2	6
	0957	- 0.2	- 6		0954	0.1	3		0605	1.2	37
	1726	2.3	70		1710	2.0	61		1134	0.3	9
					2358	0.4	12		1812	1.8	55
<b>15</b> Su	0025	0.2	6	<b>30</b> M	0501	0.9	27	<b>15</b> W	0048	0.2	6
	0519	0.8	24		1031	0.2	6		0710	1.3	40
	1046	- 0.1	- 3		1739	1.9	58		1234	0.6	18
	1809	2.2	67						1848	1.5	46
				<b>31</b> Tu	0029	0.4	12	<b>16</b> F	0720	1.4	43
					0549	0.9	27		1110	0.3	9
					1110	0.3	9		1806	1.8	55

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Nawiliwili, Kauai Island, Hawaii, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0108 M 0922 1732 O 2036	ft 0.3 1.9 0.6 0.7	cm 9 58 18 21	h m 16 0135 Tu 1013 1833 O 2324	ft 0.6 1.7 0.6 0.8	cm 18 52 18 24	h m 1 Th 0330 1105 1822	ft 0.5 1.9 0.3	cm 15 58 9	h m 16 0345 F 1056 1807	ft 0.7 1.6 0.3	cm 21 49 9
h m 0220 Tu 1039 1832 2254	ft 0.3 1.9 0.6 0.8	cm 9 58 18 24	h m 17 0311 W 1115 1853	ft 0.6 1.7 0.5	cm 18 52 15	h m 2 F 0015 1159 1851	ft 1.1 1.8 0.2	cm 34 55 6	h m 2 Sa 0037 515 1141 1827	ft 1.1 0.8 1.5 0.3	cm 34 24 46 9
h m 0349 W 1144 1905	ft 0.4 2.0 0.5	cm 12 61 15	h m 18 0018 Th 0443 1205 1910	ft 0.9 0.6 1.7 0.5	cm 27 18 52 15	h m 3 Sa 0104 0621 1245 1919	ft 1.3 0.5 1.7 0.1	cm 40 15 52 3	h m 18 0111 Su 0626 1220 1849	ft 1.3 0.7 1.4 0.2	cm 40 21 43 6
h m 0009 Th 0512 1237 1934	ft 0.9 0.3 2.0 0.4	cm 27 9 61 12	h m 19 0055 F 0552 1245 1926	ft 1.1 0.6 1.7 0.4	cm 34 18 52 12	h m 4 Su 0148 0726 1326 1945	ft 1.5 0.5 1.6 0.0	cm 46 15 49 0	h m 19 0143 M 0724 1255 1913	ft 1.5 0.7 1.3 0.0	cm 46 21 40 0
h m 0102 F 0621 1322 2002	ft 1.1 0.3 2.0 0.3	cm 34 9 61 9	h m 20 Sa 0128 0646 1319 1944	ft 1.2 0.5 1.7 0.3	cm 37 15 52 9	h m 5 M 0227 0823 1403 2011	ft 1.8 0.5 1.5 0.0	cm 55 15 46 0	h m 20 W 0216 Tu 0816 1329 1940	ft 1.8 0.6 1.3 0.1	cm 55 18 40 -3
h m 0148 Sa 0720 1403 2028	ft 1.3 0.2 2.0 0.2	cm 40 6 61 6	h m 21 Su 0159 0733 1349 2004	ft 1.4 0.5 1.6 0.2	cm 43 15 49 6	h m 6 Tu 0305 0915 1437 2037	ft 1.9 0.5 1.3 -0.1	cm 58 15 40 -3	h m 21 W 0249 W 0905 1404 2009	ft 2.0 0.5 1.2 -0.1	cm 61 15 37 -3
h m 0231 Su 0814 1439 2055	ft 1.5 0.2 1.9 0.1	cm 46 6 58 3	h m 22 M 0231 0817 1417 2026	ft 1.6 0.5 1.6 0.1	cm 49 15 49 3	h m 7 W 0343 W 1005 1510 ● 2104	ft 2.1 0.5 1.2 -0.1	cm 64 15 37 -3	h m 22 Th 0325 Th 0955 1440 ○ 2041	ft 2.1 0.5 1.1 -0.2	cm 64 15 34 -6
h m 0313 M 0904 1514 ● 2122	ft 1.7 0.3 1.7 0.1	cm 52 9 52 3	h m 23 Tu 0304 Tu 0901 1444 2051	ft 1.7 0.4 1.5 0.1	cm 52 12 46 3	h m 8 Th 0419 Th 1055 1542 2132	ft 2.1 0.5 1.0 0.0	cm 64 15 30 0	h m 23 Sa 0404 F 1046 1518 2116	ft 2.3 0.5 1.0 -0.2	cm 70 15 30 -6
h m 0354 Tu 0954 1546 2149	ft 1.8 0.3 1.5 0.1	cm 55 9 46 3	h m 24 W 0338 W 0946 1513 ○ 2118	ft 1.9 0.5 1.3 0.0	cm 58 15 40 0	h m 9 F 0457 F 1146 1614 2200	ft 2.2 0.5 0.9 0.0	cm 67 15 27 0	h m 24 Sa 0445 Sa 1141 1559 2154	ft 2.3 0.5 0.8 -0.2	cm 70 15 24 -6
h m 0435 W 1045 1617 2217	ft 1.9 0.4 1.3 0.1	cm 58 12 40 3	h m 25 Th 0416 Th 1035 1543 2147	ft 2.0 0.5 1.2 0.0	cm 61 15 37 0	h m 10 Sa 0536 Sa 1243 1648 2231	ft 2.1 0.6 0.8 0.1	cm 64 18 24 3	h m 25 W 0531 Su 1241 1646 2235	ft 2.3 0.5 0.7 -0.1	cm 70 15 21 -3
h m 0517 Th 1139 1648 2245	ft 1.9 0.5 1.2 0.1	cm 58 15 37 3	h m 26 F 0456 F 1129 1615 2220	ft 2.1 0.5 1.1 0.0	cm 64 15 34 0	h m 11 Su 0618 Su 1349 1728 2304	ft 2.0 0.6 0.7 0.3	cm 61 18 21 9	h m 26 W 0621 M 1348 1749 2322	ft 2.3 0.4 0.7 0.1	cm 70 12 21 3
h m 0602 F 1241 1718 2315	ft 1.9 0.6 1.0 0.2	cm 58 18 30 6	h m 27 Sa 0543 Sa 1233 1651 2256	ft 2.1 0.6 0.9 0.1	cm 64 18 27 3	h m 12 M 0706 M 1511 1836 2342	ft 1.9 0.5 0.6 0.4	cm 58 15 18 12	h m 27 W 0716 Tu 1458 1923 2301	ft 2.2 0.4 0.6 0.9	cm 67 18 18 27
h m 0652 Sa 1400 1751 2348	ft 1.9 0.7 0.8 0.3	cm 58 21 24 9	h m 28 Su 0636 Su 1351 1736 2339	ft 2.1 0.6 0.8 0.2	cm 64 18 24 6	h m 13 Tu 0801 Tu 1632 2059 2356	ft 1.8 0.5 0.6 0.9	cm 55 15 18 27	h m 28 W 0018 Th 0754 2124 ○ 2301	ft 0.3 1.7 0.7 0.9	cm 9 52 21 27
h m 0751 Su 1606 1847	ft 1.8 0.6 0.7	cm 55 18 21	h m 29 M 0738 M 1529 1857	ft 2.0 0.6 0.7	cm 61 18 21	h m 14 W 0035 W 0902 1718 2255	ft 0.5 1.7 0.5 0.8	cm 15 52 15 24	h m 29 Th 0133 Th 0917 1652 ○ 2301	ft 0.5 1.9 0.3 0.9	cm 15 58 9 27
h m 0030 M 0900 1801 2139	ft 0.4 1.7 0.6 0.7	cm 12 18 18 21	h m 30 Tu 0034 Tu 0849 1657 2125	ft 0.3 2.0 0.5 0.7	cm 9 61 15 21	h m 15 Th 0200 Th 1003 1745 ○ 2356	ft 0.7 1.6 0.4 0.9	cm 21 49 12 27	h m 30 F 0312 F 1018 1731 ○	ft 0.6 1.7 0.2 0.9	cm 18 52 6 27
h m 31 W 1000 W 1747 ○ 2310	ft 0.4 0.4 0.8	cm 12 12 24	h m 31 W 1018 W 1747 ○ 2310	ft 1.9 0.4 0.8	cm 58 12 24				h m 31 M 0045 M 0659 1120 1751	ft 1.6 0.8 1.0 -0.1	cm 49 24 30 -3

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Honolulu, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0345 M 1053 O 1532 ● 2106	ft 2.6 0.0 0.8 -0.4	cm 79 0 24 -12	h m <b>16</b> Tu 1108 ● 2114	ft 2.2 0.2 -0.2	cm 67 6 -6	h m <b>1</b> Th 1152 21238	ft 2.4 -0.1 -0.2	cm 73 -3 -6	h m <b>16</b> F 1123 1648 2222	ft 2.0 0.0 -0.1	cm 61 0 -3
0345 1053 1532 ● 2106	ft 2.6 0.0 0.8 -0.4	cm 79 0 24 -12	0402 Tu 1546 ● 2114	ft 2.2 0.7 -0.2	cm 67 21 -6	0455 Th 1710 2238	ft 2.4 0.9 -0.2	cm 73 27 -6	0438 F 1648 2222	ft 2.0 1.0 -0.1	cm 61 30 -3
0430 1141 1626 ● 2152	ft 2.7 0.0 0.7 -0.4	cm 82 0 21 -12	<b>17</b> W 1139 1624 2149	ft 2.2 0.7 -0.1	cm 67 21 -3	<b>2</b> F 1230 1803 2329	ft 2.2 1.0 0.0	cm 67 30 0	<b>2</b> F 1106 1729 2303	ft 2.0 1.1 0.0	cm 61 34 0
0515 1229 1722 2240	ft 2.6 0.0 0.7 -0.2	cm 79 0 21 -6	<b>18</b> Th 1211 1704 2224	ft 2.2 0.8 -0.1	cm 67 24 -3	<b>3</b> Sa 1308 1901	ft 2.0 -0.1 1.1	cm 61 -3 34	<b>3</b> Sa 1220 1815 2350	ft 1.9 1.1 0.2	cm 58 34 6
0600 1316 1824 ● 2331	ft 2.5 0.0 0.8 0.0	cm 76 0 24 0	<b>19</b> F 1244 1750 2302	ft 2.1 0.8 -0.1	cm 64 24 3	<b>4</b> Su 0024 0654 2006	ft 0.2 1.7 1.2	cm 6 52 37	<b>4</b> Su 0612 M 1252 1908	ft 1.6 0.0 0.0	cm 49 0 37
0646 1404 1935	ft 2.2 0.0 0.8	cm 67 0 24	<b>20</b> Sa 0610 1318 1842 2345	ft 2.0 0.1 0.8 0.2	cm 61 33 24 6	<b>5</b> M 0129 0734 1427 2118	ft 0.4 1.4 0.0 1.3	cm 12 43 0 40	<b>5</b> M 0047 Tu 0647 1327 2011	ft 0.4 1.4 0.0 1.3	cm 12 43 0 40
0728 1452 2056	ft 2.0 0.0 0.9	cm 61 0 27	<b>21</b> Sa 0644 1354 1944	ft 1.8 0.1 0.9	cm 55 33 27	<b>6</b> Tu 0257 0817 1510 2234	ft 0.6 1.1 0.0 1.4	cm 18 34 0 43	<b>6</b> Tu 0204 W 0728 1409 2124	ft 0.5 1.1 0.0 1.4	cm 15 34 0 43
0139 0819 1538 2220	ft 0.5 1.7 0.0 1.1	cm 15 52 0 34	<b>22</b> Su 0039 M 0721 1432 2057	ft 0.4 1.7 0.0 1.0	cm 12 52 0 30	<b>7</b> W 0455 0912 1557 ● 2341	ft 0.7 0.9 0.1 1.5	cm 21 27 3 46	<b>7</b> W 0351 Th 0824 1500 ● 2241	ft 0.6 0.9 0.0 1.6	cm 18 27 0 49
0313 0909 1622 ● 2333	ft 0.7 1.4 0.0 1.3	cm 21 43 0 40	<b>23</b> M 0153 Tu 0803 1513 2213	ft 0.6 1.4 0.0 1.2	cm 18 43 0 37	<b>8</b> Th 0650 1029 1649	ft 0.6 0.7 0.1	cm 18 21 3	<b>23</b> F 0551 Th 0947 1602 2350	ft 0.5 0.7 -0.1 1.8	cm 15 21 6 55
0507 1005 ● 1704	ft 0.8 1.2 0.0	cm 24 37 0	<b>24</b> Tu 0339 W 0855 1558 ● 2323	ft 0.7 1.2 0.0 1.5	cm 21 37 0 46	<b>9</b> F 0036 W 0800 1153 1740	ft 1.7 0.4 0.6 0.0	cm 52 12 18 0	<b>9</b> F 0715 Sa 1126 1170	ft 0.3 0.6 -0.1	cm 9 18 -3
0030 0651 1106 ● 1743	ft 1.6 0.7 1.0 0.0	cm 49 21 30 0	<b>25</b> W 0540 Th 1003 1647	ft 0.7 1.0 -0.1	cm 21 30 -3	<b>10</b> Th 0121 Sa 0842 1257 1829	ft 1.8 0.3 0.6 0.0	cm 55 9 18 0	<b>10</b> Sa 0050 Su 0808 1245 1816	ft 2.0 0.1 0.6 -0.2	cm 61 3 18 -6
0114 0805 1208 1820	ft 1.8 0.6 0.8 -0.1	cm 55 18 24 -3	<b>26</b> Th 0021 F 0714 1122 1738	ft 1.8 0.5 0.8 -0.2	cm 55 15 24 -6	<b>11</b> F 0200 Su 0913 1345 1913	ft 1.9 0.2 0.7 -0.1	cm 58 6 21 -3	<b>11</b> Su 0141 M 0849 1346 1915	ft 2.1 0.0 0.7 -0.3	cm 64 0 21 -9
0152 0856 1303 1855	ft 1.9 0.5 0.8 -0.1	cm 58 15 24 -3	<b>27</b> F 0113 Sa 0819 1237 1830	ft 2.0 0.3 0.7 -0.3	cm 61 9 21 -9	<b>12</b> M 0235 M 0940 1424 1953	ft 1.9 0.2 0.7 -0.1	cm 58 6 24 -3	<b>12</b> M 0228 Tu 0926 1436 2009	ft 2.2 -0.1 0.8 -0.3	cm 67 3 24 -9
0226 0935 1350 ● 1930	ft 2.0 0.3 0.7 -0.1	cm 61 9 21 -12	<b>28</b> Sa 0201 Su 0909 1340 1921	ft 2.3 0.1 0.7 -0.4	cm 70 3 21 -12	<b>13</b> Tu 0307 W 1005 1459 2031	ft 2.0 0.1 0.8 -0.2	cm 61 3 24 -6	<b>13</b> W 0311 Tu 1001 1523 2100	ft 2.2 -0.2 1.0 -0.3	cm 67 6 30 -9
0259 1008 1431 ● 2005	ft 2.1 0.3 0.7 -0.1	cm 64 9 21 -12	<b>29</b> Su 0247 M 0953 1436 2011	ft 2.4 0.0 0.7 -0.4	cm 73 0 21 -12	<b>14</b> W 0338 W 1031 1534 2107	ft 2.0 0.1 0.8 -0.2	cm 61 3 24 -6	<b>14</b> W 0234 W 1045 1445 2021	ft 1.8 0.0 0.9 -0.1	cm 55 0 27 -3
0330 1038 1509 ● 2039	ft 2.2 0.2 0.7 -0.2	cm 67 6 21 -6	<b>30</b> M 0331 Tu 1034 1528 2101	ft 2.5 -0.1 0.8 -0.4	cm 76 -3 24 -12	<b>15</b> Th 0409 W 1056 1609 ● 2144	ft 2.0 0.0 0.9 -0.2	cm 61 0 27 -6	<b>15</b> F 0305 Th 0943 1518 2100	ft 1.8 0.0 1.1 -0.1	cm 55 0 34 -3
0414 1113 1619 ● 2149	ft 2.5 -0.1 0.9 -0.4	cm 76 -3 27 -12	<b>31</b> W 0414 W 1113 1619 ● 2149	ft 2.5 -0.1 0.9 -0.4	cm 76 -3 27 -12				<b>31</b> O 0358 Sa 1015 1634 ● 2240	ft 1.6 -0.3 1.6 0.0	cm 49 -9 49 0

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Honolulu, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

April					May					June						
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0433	1.4	43	<b>16</b>	0405	1.3	40	<b>1</b>	0436	0.9	27	<b>16</b>	0422	0.8	24	
	1043	-0.2	-6	M	1008	-0.3	-9	Tu	1017	-0.2	-6	W	1003	-0.4	-12	
	1714	1.7	52		1652	1.9	58		1726	2.0	61		1721	2.3	70	
	2330	0.1	3		2320	0.1	3					F	1040	0.0	0	
<b>2</b> M	0507	1.2	37	<b>17</b>	0443	1.1	34	<b>2</b>	0025	0.2	6	<b>17</b>	0030	0.0	0	
	1110	-0.2	-6	Tu	1039	-0.3	-9	W	0514	0.7	21	Sa	0157	0.1	3	
	1754	1.7	52		1735	2.0	61		1044	-0.1	-3		0630	0.5	15	
									1805	1.9	58		1116	0.1	3	
<b>3</b> Tu	0023	0.2	6	<b>18</b>	0018	0.1	3	<b>3</b>	0121	0.2	6	<b>18</b>	0134	0.0	0	
	0543	1.0	30	W	0524	0.9	27	Th	0556	0.6	18	Su	0249	0.1	3	
	1137	-0.1	-3		1112	-0.2	-6		1113	0.0	0		0738	0.5	15	
	1837	1.7	52		1824	2.0	61		1847	1.8	55		1157	0.2	6	
<b>4</b> W	0124	0.3	9	<b>19</b>	0126	0.1	3	<b>4</b>	0224	0.2	6	<b>19</b>	0242	0.0	0	
	0621	0.8	24	Th	0612	0.7	21	F	0650	0.5	15	M	0339	0.1	3	
	1206	0.0	0		1151	-0.2	-6		1146	0.1	3	Tu	0903	0.6	18	
	1924	1.6	49		1919	2.0	61		1935	1.7	52		1252	0.4	12	
<b>5</b> Th	0238	0.3	9	<b>20</b>	0245	0.2	6	<b>5</b>	0333	0.2	6	<b>20</b>	0349	0.0	0	
	0708	0.6	18	W	0716	0.5	15	Sa	0806	0.4	12	Tu	0423	0.1	3	
	1239	0.1	3		1237	-0.1	-3		1227	0.2	6		1028	0.7	21	
	2020	1.6	49		2023	1.9	58		2030	1.7	52		1411	0.5	15	
<b>6</b> F	0410	0.3	9	<b>21</b>	0412	0.1	3	<b>6</b>	0439	0.2	6	<b>21</b>	0447	-0.1	-3	
	0820	0.5	15	Sa	0849	0.4	12	Th	0951	0.5	15	M	1039	0.7	21	
	1322	0.2	6		1340	0.1	3		1329	0.3	9	W	1133	0.9	27	
	2127	1.5	46		2133	1.9	58		2130	1.6	49	O	2206	1.8	55	
<b>7</b> Sa	0537	0.3	9	<b>22</b>	0525	0.0	0	<b>7</b>	0530	0.1	3	<b>21</b>	0525	-0.1	-3	
	1014	0.5	15	W	1038	0.5	15	M	1120	0.6	18	Th	1229	1.5	46	
	1432	0.3	9		1508	0.2	6		1504	0.4	15		1551	0.6	18	
	2237	1.5	46	O	2243	1.8	55	O	2231	1.5	46		2216	1.5	46	
<b>8</b> Su	0633	0.2	6	<b>23</b>	0619	-0.1	-3	<b>8</b>	0607	0.1	3	<b>23</b>	0614	-0.2	-6	
	1148	0.5	15	M	1202	0.7	21	Tu	1215	0.8	24	W	1250	1.2	37	
	1607	0.3	9		1645	0.2	6		1641	0.5	15		1808	0.5	15	
	2339	1.5	46		2347	1.8	55		2325	1.5	46		2306	1.6	49	
<b>9</b> M	0710	0.1	3	<b>24</b>	0709	-0.1	-3	<b>9</b>	0637	0.0	0	<b>24</b>	0000	1.5	46	
	1242	0.7	21	Tu	1259	0.9	27	W	1255	1.0	30	Sa	0649	-0.2	-6	
	1728	0.3	9		1809	0.2	6		1758	0.4	12	Th	1335	1.5	46	
									1923	0.4	12		1952	0.5	15	
<b>10</b> Tu	0030	1.5	46	<b>25</b>	0041	1.7	52	<b>10</b>	0012	1.5	46	<b>25</b>	0049	1.3	40	
	0738	0.1	3	W	0734	-0.2	-6	Th	0704	-0.1	-3	F	0719	-0.3	-9	
	1320	0.8	24		1345	1.2	37		1330	1.2	37		1414	1.7	52	
	1831	0.2	6		1917	0.2	6		1902	0.4	12		2025	0.4	12	
<b>11</b> W	0112	1.6	49	<b>26</b>	0128	1.6	49	<b>11</b>	0055	1.4	43	<b>26</b>	0133	1.1	34	
	0802	0.0	0	Th	0805	-0.3	-9	F	0730	-0.2	-6	Sa	0747	-0.3	-9	
	1353	1.0	30		1426	1.4	43		1404	1.5	46		1449	1.9	58	
	1922	0.1	3		2016	0.1	3		1957	0.3	9		2119	0.3	9	
<b>12</b> Th	0149	1.6	49	<b>27</b>	0210	1.5	46	<b>12</b>	0135	1.3	40	<b>27</b>	0227	0.9	27	
	0826	-0.1	-3	F	0833	-0.3	-9	W	0756	-0.2	-6	Tu	0819	-0.4	-12	
	1426	1.2	37		1504	1.6	49		1439	1.7	52		1538	2.4	73	
	2008	0.1	3		2108	0.1	3		2050	0.2	6		2239	0.1	3	
<b>13</b> F	0223	1.6	49	<b>28</b>	0248	1.3	40	<b>13</b>	0215	1.2	37	<b>13</b>	0317	0.8	24	
	0849	-0.1	-3	Sa	0859	-0.3	-9	W	0824	-0.3	-9	W	0858	-0.4	-12	
	1459	1.4	43		1540	1.8	55		1515	1.9	58		1622	2.5	76	
	2053	0.0	0		2158	0.1	3		2142	0.1	3	O	2332	0.0	0	
<b>14</b> Sa	0256	1.5	46	<b>29</b>	0324	1.2	37	<b>14</b>	0255	1.1	34	<b>29</b>	0409	0.7	21	
	0914	-0.2	-6	Tu	0925	-0.3	-9	M	0854	-0.4	-12	Th	0909	-0.2	-6	
	1535	1.6	49		1615	1.9	58		1554	2.1	64		1629	2.2	67	
	2139	0.0	0	O	2246	0.1	3		2235	0.1	3		1708	2.1	64	
<b>15</b> Su	0330	1.4	43	<b>30</b>	0400	1.0	30	<b>15</b>	0337	1.0	30	<b>15</b>	0026	0.0	0	
	0940	-0.3	-9	W	0951	-0.2	-6	Tu	0927	-0.4	-12	F	0505	0.6	18	
	1612	1.7	52		1650	2.0	61		1636	2.3	70		1026	-0.3	-9	
	● 2227	0.0	0		2335	0.1	3	O	2331	0.1	3		1756	2.5	76	
												Th	0451	0.6	18	
													1008	-0.1	-3	
													1740	2.1	64	
													31	0021	0.1	3
													Th	0451	0.6	18
														1008	-0.1	-3
														1740	2.1	64

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Honolulu, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

July			August			September					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0117 0.2 6 0604 0.7 21 1101 0.1 3 1829 2.0 61	<b>16</b> M 0133 0.0 0 0703 0.9 27 1210 0.2 6 1908 2.1 64	<b>1</b> W 0130 0.2 6 0721 1.1 34 1226 0.5 15 1902 1.7 52	<b>16</b> Th 0159 0.1 3 0846 1.5 46 1439 0.7 21 2002 1.3 40	<b>1</b> Sa 0136 0.2 6 0848 1.7 52 1518 0.8 24 1957 1.1 34	<b>16</b> Su 0218 0.4 12 1011 1.8 55 1801 0.6 18 2221 0.8 24						
	<b>2</b> M 0156 0.2 6 0701 0.7 21 1143 0.3 9 1906 1.9 58	<b>17</b> Tu 0219 0.0 0 0816 1.0 30 1317 0.4 12 1954 1.8 55	<b>2</b> Th 0204 0.2 6 0826 1.2 37 1333 0.7 21 1940 1.5 46	<b>2</b> F 0242 0.2 6 0959 1.6 49 1629 0.8 24 2100 1.1 34	<b>2</b> Su 0224 0.2 6 1002 1.8 55 1712 0.7 21 2115 0.9 27	<b>17</b> M 0326 0.5 15 1119 1.8 55 1902 0.5 15 2353 0.8 24					
	<b>3</b> Tu 0236 0.1 3 0809 0.8 24 1233 0.4 12 1944 1.8 55	<b>18</b> W 0304 0.0 0 0936 1.2 37 1442 0.7 21 2043 1.5 46	<b>3</b> F 0242 0.2 6 0937 1.4 43 1506 0.8 24 2026 1.3 40	<b>18</b> Sa 0331 0.2 6 1110 1.7 52 1819 0.7 21 2218 0.9 27	<b>3</b> M 0325 0.2 6 1113 2.0 61 1839 0.5 15 2253 0.8 24	<b>18</b> Tu 0444 0.5 15 1216 1.9 58 1940 0.4 12					
	<b>4</b> W 0314 0.1 3 0924 0.9 27 1342 0.6 18 2027 1.6 49	<b>19</b> Th 0348 0.0 0 1052 1.4 43 1629 0.8 24 2137 1.3 40	<b>4</b> Sa 0325 0.1 3 1047 1.6 49 1701 0.8 24 2128 1.1 34	<b>19</b> Su 0425 0.3 9 1210 1.8 55 1934 0.6 18 2342 0.8 24	<b>4</b> Tu 0435 0.2 6 1215 2.1 64 1935 0.4 12	<b>19</b> W 0050 0.9 27 0551 0.4 12 1302 1.9 58 2009 0.3 9					
<b>5</b> Th 0352 0.1 3 1036 1.1 34 1516 0.8 24 2114 1.4 43	<b>20</b> F 0432 0.0 0 1156 1.6 49 1818 0.8 24 2238 1.1 34	<b>5</b> Su 0413 0.1 3 1149 1.8 55 1841 0.7 21 2245 0.9 27	<b>20</b> M 0521 0.3 9 1259 1.9 58 2020 0.5 15	<b>5</b> W 0015 0.8 24 0544 0.1 3 1309 2.3 70 2018 0.2 6	<b>20</b> Th 0129 1.0 30 0644 0.4 12 1341 2.0 61 2034 0.3 9						
	<b>6</b> F 0429 0.0 0 1136 1.4 43 1704 0.8 24 2209 1.3 40	<b>21</b> Sa 0515 0.0 0 1248 1.8 55 1942 0.6 18 2344 0.9 27	<b>6</b> M 0506 0.0 0 1243 2.1 64 1950 0.5 15	<b>21</b> Tu 0047 0.8 24 0613 0.2 6 1341 2.0 61 2053 0.4 12	<b>6</b> Th 0117 1.0 30 0646 0.0 0 1358 2.4 73 2055 0.1 3	<b>21</b> F 0202 1.1 34 0729 0.3 9 1415 2.0 61 2057 0.3 9					
	<b>7</b> Sa 0507 -0.1 -3 1226 1.6 49 1838 0.7 21 2311 1.1 34	<b>22</b> Su 0556 0.0 0 1332 2.0 61 2040 0.5 15	<b>7</b> Tu 0003 0.9 27 0600 -0.1 -3 1333 2.3 70 2041 0.3 9	<b>22</b> W 0135 0.9 27 0659 0.2 6 1418 2.1 64 2121 0.3 9	<b>7</b> F 0209 1.1 34 0743 -0.1 -3 1442 2.4 73 2130 0.1 3	<b>22</b> Sa 0233 1.3 40 0810 0.2 6 1446 2.0 61 2120 0.2 6					
	<b>8</b> Su 0546 -0.1 -3 1311 1.9 58 1952 0.5 15	<b>23</b> M 0045 0.8 24 0636 0.0 0 1410 2.1 64 2122 0.4 12	<b>8</b> W 0110 0.8 24 0653 -0.2 -6 1420 2.5 76 2125 0.2 6	<b>23</b> Th 0213 0.9 27 0741 0.1 3 1451 2.1 64 2146 0.3 9	<b>8</b> Sa 0257 1.3 40 0836 -0.1 -3 1524 2.4 73 2204 0.0 0	<b>23</b> Su 0305 1.4 43 0849 0.2 6 1516 1.9 58 2142 0.2 6					
<b>9</b> M 0014 1.0 30 0628 -0.2 -6 1355 2.2 67 2051 0.4 12	<b>24</b> Tu 0136 0.8 24 0714 0.0 0 1444 2.2 67 2156 0.3 9	<b>9</b> Th 0208 0.9 27 0746 -0.3 -9 1505 2.6 79 2206 0.1 3	<b>24</b> F 0248 1.0 30 0819 0.1 3 1522 2.1 64 2211 0.3 9	<b>9</b> Su 0343 1.4 43 0928 0.0 0 1604 2.2 67 2236 0.0 0	<b>24</b> M 0337 1.5 46 0928 0.2 6 1545 1.9 58 2206 0.1 3						
	<b>10</b> Tu 0114 0.9 27 0711 -0.3 -9 1439 2.4 73 2143 0.2 6	<b>25</b> W 0220 0.8 24 0751 0.0 0 1517 2.2 67 2226 0.3 9	<b>10</b> F 0301 1.0 30 0837 -0.3 -9 1549 2.6 79 2245 0.0 0	<b>25</b> Sa 0321 1.1 34 0856 0.1 3 1552 2.1 64 2235 0.2 6	<b>10</b> M 0429 1.6 49 1019 0.1 3 1643 2.0 61 2309 0.0 0	<b>25</b> Tu 0412 1.7 52 1009 0.3 9 1615 1.8 55 2231 0.1 3					
	<b>11</b> W 0212 0.8 24 0756 -0.4 -12 1523 2.6 79 2231 0.1 3	<b>26</b> Th 0259 0.8 24 0828 0.0 0 1549 2.2 67 2255 0.3 9	<b>11</b> Sa 0353 1.0 30 0927 -0.2 -6 1631 2.5 76 2324 0.0 0	<b>26</b> Su 0356 1.2 37 0933 0.1 3 1621 2.1 64 2301 0.2 6	<b>11</b> Tu 0515 1.7 52 1112 0.2 6 1721 1.8 55 2341 0.1 3	<b>26</b> W 0449 1.8 55 1054 0.3 9 1645 1.6 49 2257 0.1 3					
	<b>12</b> Th 0306 0.8 24 0842 -0.4 -12 1608 2.6 79 2317 0.0 0	<b>27</b> F 0336 0.8 24 0903 0.0 0 1621 2.2 67 2324 0.2 6	<b>12</b> Su 0444 1.1 34 1018 -0.1 -3 1713 2.4 73	<b>27</b> M 0432 1.3 40 1011 0.2 6 1650 2.0 61 2327 0.2 6	<b>12</b> W 0604 1.8 55 1210 0.4 12 1759 1.5 46	<b>27</b> Th 0530 1.8 55 1144 0.4 12 1719 1.4 43 2326 0.1 3					
<b>13</b> F 0401 0.8 24 0930 -0.4 -12 1653 2.6 79	<b>28</b> Sa 0414 0.9 27 0939 0.0 0 1652 2.2 67 2354 0.2 6	<b>13</b> M 0002 0.0 0 0537 1.2 37 1111 0.1 3 1754 2.1 64	<b>28</b> Tu 0511 1.3 40 1051 0.3 9 1720 1.9 58 2355 0.2 6	<b>13</b> Th 0014 0.1 3 0656 1.8 55 1315 0.5 15 1839 1.3 40	<b>28</b> F 0615 1.9 58 1244 0.5 15 1756 1.2 37 2359 0.2 6						
	<b>14</b> Sa 0003 0.0 0 0457 0.8 24 1020 -0.2 -6 1738 2.5 76	<b>29</b> Su 0454 0.9 27 1016 0.1 3 1724 2.1 64	<b>14</b> Tu 0040 0.0 0 0634 1.3 40 1209 0.3 9 1835 1.9 58	<b>29</b> W 0555 1.4 43 1136 0.4 12 1751 1.7 52	<b>14</b> F 0049 0.2 6 0754 1.8 55 1438 0.6 18 1927 1.0 30	<b>29</b> Sa 0709 1.9 58 1400 0.6 18 1843 1.0 30					
	<b>15</b> Su 0048 0.0 0 0557 0.9 27 1112 -0.1 -3 1823 2.3 70	<b>30</b> M 0025 0.2 6 0537 0.9 27 1054 0.2 6 1755 2.0 61	<b>15</b> W 0119 0.1 3 0737 1.4 43 1315 0.5 15 1916 1.6 49	<b>30</b> Th 0024 0.2 6 0643 1.5 46 1231 0.5 15 1825 1.5 46	<b>15</b> Sa 0128 0.3 9 0859 1.8 55 1623 0.7 21 2036 0.9 27	<b>30</b> Su 0039 0.2 6 0812 2.0 61 1537 0.6 18 1951 0.8 24					
		<b>31</b> Tu 0057 0.2 6 0625 1.0 30 1136 0.3 9 1828 1.9 58		<b>31</b> F 0057 0.2 6 0740 1.6 49 1341 0.7 21 1904 1.3 40							

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Honolulu, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0132 M 0925 1714 O 2137	ft 0.3 2.0 0.5 0.7	cm 9 61 15 21	h m 0212 Tu 1016 1814 O 2351	ft 0.6 1.8 0.4 0.8	cm 18 55 12 24	h m 0402 Th 1110 1829	ft 0.5 2.0 0.1	cm 15 61 3	h m 0012 F 0428 1104 1821	ft 1.0 0.7 1.6 0.2	cm 30 21 49 6
<b>1</b> Tu 1039 1821 2319	<b>16</b> W 1119 1850	<b>17</b> <b>9</b>	<b>1</b> F 0033 1207 1905	<b>2</b> Th 0534 1207 1905	<b>17</b> Sa 0050 1152 1847	<b>16</b> Th 0428 1104 1821	<b>1</b> Sa 0023 1127 1822	<b>1</b> Su 0023 1127 1822	<b>16</b> Su 0012 0512 1043 1747	<b>16</b> M 0512 1136 1043 1747	<b>16</b> W 0012 0512 1043 1747
<b>2</b> W 0246 1145 1907	<b>17</b> W 0353 0518 1210 1918	<b>18</b> Th 0039 0518 1210 1918	<b>3</b> Sa 0121 0649 1257 1936	<b>2</b> F 0033 0534 1207 1905	<b>17</b> Sa 0050 0549 1152 1847	<b>18</b> Su 0122 0654 1235 1911	<b>3</b> M 0153 0805 1308 1925	<b>2</b> Su 0111 0657 1220 1855	<b>17</b> M 0051 0636 1136 1817	<b>17</b> Tu 0051 0636 1136 1817	<b>17</b> W 0051 0636 1136 1817
<b>3</b> W 0415 1145 1907	<b>18</b> Th 0039 0518 1210 1918	<b>19</b> F 0114 0621 1253 1943	<b>4</b> Su 0203 0752 1341 2006	<b>4</b> Th 0203 0752 1341 2006	<b>19</b> M 0154 0749 1314 1936	<b>18</b> Su 0122 0654 1235 1911	<b>3</b> M 0153 0805 1308 1925	<b>2</b> M 0111 0657 1220 1855	<b>18</b> Tu 0127 0743 1227 1849	<b>18</b> W 0127 0743 1227 1849	<b>18</b> M 0127 0743 1227 1849
<b>4</b> Th 0030 0537 1241 1944	<b>19</b> F 0114 0621 1253 1943	<b>20</b> Sa 0145 0713 1329 2005	<b>5</b> M 0242 0848 1422 2034	<b>5</b> Su 0242 0848 1422 2034	<b>20</b> Tu 0226 0839 1352 2003	<b>5</b> W 0306 0953 1434 2024	<b>4</b> Tu 0231 0903 1353 1955	<b>4</b> W 0231 0903 1353 1955	<b>19</b> M 0203 0840 1316 1922	<b>19</b> W 0203 0840 1316 1922	<b>19</b> M 0203 0840 1316 1922
<b>5</b> F 0122 0645 1330 2017	<b>20</b> Sa 0145 0713 1329 2005	<b>21</b> Su 0215 0758 1402 2027	<b>6</b> Tu 0319 0941 1501 2101	<b>6</b> W 0319 0941 1501 2101	<b>21</b> M 0300 0928 1431 2031	<b>6</b> Th 0341 1039 1515 2053	<b>5</b> W 0306 0953 1434 2024	<b>5</b> Th 0341 1039 1515 2053	<b>20</b> Tu 0240 0930 1405 1958	<b>20</b> W 0240 0930 1405 1958	<b>20</b> M 0240 0930 1405 1958
<b>6</b> Sa 0208 0745 1414 2048	<b>21</b> Su 0215 0758 1402 2027	<b>22</b> M 0246 0842 1434 2050	<b>7</b> W 0356 1031 1538 ● 2129	<b>7</b> Th 0356 1031 1538 ● 2129	<b>22</b> Tu 0336 1017 1511 ● 2102	<b>7</b> F 0415 1123 1555 2123	<b>6</b> Th 0341 1039 1515 ● 2053	<b>6</b> W 0341 1039 1515 ● 2053	<b>21</b> Tu 0320 1019 1453 2037	<b>21</b> W 0320 1019 1453 2037	<b>21</b> M 0320 1019 1453 2037
<b>7</b> Su 0250 0840 1454 2118	<b>22</b> M 0246 0842 1434 2050	<b>23</b> Tu 0319 0926 1506 2115	<b>8</b> Th 0433 1122 1616 2156	<b>8</b> W 0356 1031 1538 ● 2129	<b>23</b> M 0336 1017 1511 ● 2102	<b>7</b> F 0415 1123 1555 2123	<b>7</b> W 0415 1108 1543 ● 2118	<b>7</b> Th 0415 1108 1543 ● 2118	<b>22</b> Tu 0401 1108 1543 ● 2118	<b>22</b> W 0401 1108 1543 ● 2118	<b>22</b> M 0401 1108 1543 ● 2118
<b>8</b> M 0332 0932 1533 ● 2147	<b>23</b> M 0319 0926 1506 2115	<b>24</b> Tu 0353 0926 1506 2141	<b>9</b> W 0433 1122 1616 2224	<b>9</b> F 0510 1214 1656 2224	<b>23</b> Tu 0414 1109 1554 2136	<b>8</b> W 0449 1206 1636 2154	<b>8</b> Th 0449 1206 1636 2154	<b>8</b> W 0449 1206 1636 2154	<b>23</b> Tu 0444 1157 1635 2202	<b>23</b> W 0444 1157 1635 2202	<b>23</b> M 0444 1157 1635 2202
<b>9</b> Tu 0412 1023 1610 2216	<b>24</b> W 0353 1012 1540 ● 2141	<b>25</b> Th 0430 1101 1540 ● 2141	<b>10</b> W 0510 1214 1656 ● 2224	<b>10</b> F 0510 1214 1656 ● 2224	<b>24</b> Tu 0457 1204 1641 ● 2214	<b>9</b> W 0525 1251 1720 ● 2227	<b>9</b> Th 0525 1251 1720 ● 2227	<b>9</b> W 0525 1251 1720 ● 2227	<b>24</b> Tu 0529 1247 1732 ● 2249	<b>24</b> W 0529 1247 1732 ● 2249	<b>24</b> M 0529 1247 1732 ● 2249
<b>10</b> W 0453 1116 1646 2244	<b>25</b> Th 0430 1101 1615 2210	<b>26</b> W 0430 1101 1615 2210	<b>10</b> Th 0549 1310 1740 2254	<b>10</b> F 0549 1310 1740 2254	<b>25</b> Tu 0542 1304 1735 2255	<b>10</b> W 0602 1304 1735 ● 2255	<b>10</b> M 0602 1338 1812 ● 2302	<b>10</b> W 0602 1338 1812 ● 2302	<b>25</b> Tu 0616 1339 1839 ● 2341	<b>25</b> W 0616 1339 1839 ● 2341	<b>25</b> M 0616 1339 1839 ● 2341
<b>11</b> Th 0535 1212 1724 2313	<b>26</b> F 0511 1156 1654 2241	<b>11</b> W 0511 1156 1654 ● 2241	<b>11</b> Th 0631 1412 1836 ● 2326	<b>11</b> W 0631 1412 1836 ● 2326	<b>26</b> Tu 0632 1408 1843 ● 2343	<b>11</b> W 0642 1427 1916 ● 2341	<b>11</b> M 0642 1427 1916 ● 2341	<b>11</b> W 0642 1427 1916 ● 2341	<b>26</b> Tu 0704 1431 1958 ● 2341	<b>26</b> W 0704 1431 1958 ● 2341	<b>26</b> M 0704 1431 1958 ● 2341
<b>12</b> F 0619 1316 1806 2343	<b>27</b> W 0556 1300 1740 2317	<b>12</b> M 0717 1520 1956	<b>12</b> W 0717 1520 1956	<b>12</b> F 0727 1513 2013	<b>27</b> Tu 0727 1513 2013	<b>12</b> W 0725 1516 2038	<b>12</b> M 0725 1516 2038	<b>12</b> W 0725 1516 2038	<b>27</b> Th 0043 0755 1522 ● 2127	<b>27</b> W 0043 0755 1522 ● 2127	<b>27</b> M 0043 0755 1522 ● 2127
<b>13</b> Sa 0707 1431 1859	<b>28</b> Su 0648 1415 1839	<b>13</b> Tu 0004 0811 1623 2147	<b>13</b> W 0044 0826 1613 2156	<b>13</b> F 0044 0826 1613 2156	<b>28</b> Th 0044 0826 1602 2210	<b>13</b> W 0030 0810 1602 2210	<b>13</b> M 0030 0810 1602 2210	<b>13</b> W 0030 0810 1602 2210	<b>28</b> Tu 0203 0848 1610 ● 2252	<b>28</b> W 0203 0848 1610 ● 2252	<b>28</b> M 0203 0848 1610 ● 2252
<b>14</b> Su 0016 0802 1600 2023	<b>29</b> M 0000 0747 1538 2007	<b>14</b> W 0000 0747 1538 2007	<b>14</b> W 0104 0910 1714 2320	<b>14</b> W 0104 0910 1714 2320	<b>29</b> Th 0208 0928 1703 ● 2321	<b>14</b> W 0208 0928 1703 ● 2321	<b>14</b> M 0143 0859 1641 ● 2322	<b>14</b> W 0143 0859 1641 ● 2322	<b>29</b> Tu 0348 0945 1655 ● 2322	<b>29</b> W 0348 0945 1655 ● 2322	<b>29</b> M 0348 0945 1655 ● 2322
<b>15</b> M 0100 0907 1720 2224	<b>30</b> Tu 0057 0854 1652 2201	<b>15</b> Th 0243 1010 1751 ● 2201	<b>15</b> Th 0243 1010 1751 ● 2201	<b>15</b> F 0243 1029 1745 ● 2201	<b>30</b> F 0353 1029 1745 ● 2201	<b>15</b> Sa 0327 0950 1715 ● 2201	<b>15</b> M 0327 0950 1715 ● 2201	<b>15</b> W 0327 0950 1715 ● 2201	<b>30</b> Tu 0000 0540 1045 1736	<b>30</b> W 0000 0540 1045 1736	<b>30</b> M 0000 0540 1045 1736
		<b>31</b> W 0220 1004 1747 ● 2332			<b>31</b> W 0220 1004 1747 ● 2332				<b>31</b> M 0053 0713 1146 1814	<b>31</b> W 0053 0713 1146 1814	<b>31</b> M 0053 0713 1146 1814

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Moku O Loe, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m 0250 M 0926 1320 O 1956	ft 2.8 0.8 1.3 - 0.7	cm 85 24 40 - 21	h m <b>16</b> 0305 Tu 0939 1332 ● 2002	ft 2.4 0.9 1.2 - 0.3	cm 73 27 37 - 9	h m <b>1</b> 0350 Th 1020 1504 2115	ft 2.7 0.6 1.4 - 0.3	cm 82 18 43 - 9
0250 M 0926 1320 O 1956	ft 2.8 0.8 1.3 - 0.7	cm 85 24 40 - 21	0305 Tu 0939 1332 ● 2002	ft 2.4 0.9 1.2 - 0.3	cm 73 27 37 - 9	0327 Th 0948 1450 2057	ft 2.3 0.6 1.4 - 0.1	cm 70 18 43 - 3
0332 Tu 1011 1407 2039	ft 2.8 0.8 1.2 - 0.6	cm 85 24 37 - 18	<b>17</b> 0332 W 1004 1408 2033	ft 2.4 0.8 1.2 - 0.3	cm 73 24 37 - 9	<b>17</b> 0351 Sa 1014 1529 2129	ft 2.3 0.5 1.5 - 3	cm 70 15 46 3
0414 W 1057 1456 2121	ft 2.8 0.8 1.2 - 0.5	cm 85 24 37 - 15	<b>18</b> 0359 Th 1032 1445 2104	ft 2.4 0.8 1.2 - 0.2	cm 73 24 37 - 6	<b>18</b> 0415 Su 1041 1613 2203	ft 2.2 0.4 1.5 - 0.3	cm 67 12 46 9
0455 Th 1144 1548 2203	ft 2.7 0.7 1.1 - 0.2	cm 82 21 34 - 6	<b>19</b> 0427 F 1103 1523 2135	ft 2.4 1.2 - 0.1	cm 73 37 - 3	<b>19</b> 0438 M 1111 1705 2241	ft 2.0 0.3 1.5 - 0.5	cm 61 9 46 15
0536 F 1235 1649 2245	ft 2.5 0.7 1.1 - 0.1	cm 76 21 34 3	<b>20</b> 0454 Sa 1136 1607 2206	ft 2.3 1.2 0.1	cm 70 37 3	<b>20</b> 0500 M 1253 1919 2357	ft 1.8 0.4 0.9	cm 55 12 27
0615 Sa 1330 1811 2327	ft 2.2 0.6 1.0 0.5	cm 67 18 30 15	<b>21</b> 0521 Su 1213 1703 2240	ft 2.1 0.6 1.1 0.4	cm 64 18 34 12	<b>21</b> 0520 W 1211 1752 2143	ft 1.6 0.4 1.3 0.6	cm 49 12 40 46
0654 Su 1427 2017	ft 2.0 0.5 1.0	cm 61 15 30	<b>22</b> 0549 M 1254 1821 2320	ft 2.0 0.5 1.1	cm 61 15 34	<b>22</b> 0045 W 0602 1438 ● 2346	ft 1.2 1.4 0.3	cm 37 43 52
0731 M 1522 ● 2255	ft 0.8 0.4 1.2	cm 24 12 37	<b>23</b> 0617 Tu 1343 2023	ft 1.8 0.4 1.2	cm 55 12 37	<b>23</b> 1443 F 1542 2328	ft 0.1 0.3 1.9	cm 3 58
0210 Tu 0808 1609	ft 1.1 1.5 0.3	cm 34 46 9	<b>24</b> 0024 W 0648 1439 ● 2241	ft 1.0 1.6 0.3	cm 30 49 43	<b>24</b> 1604 Sa 0032 F 1641	ft 0.0 1.8 0.2	cm 0 55 6
0012 W 0517 0849 1648	ft 1.5 1.3 1.4 0.1	cm 46 40 43 3	<b>25</b> 0306 Th 0728 1538 2352	ft 1.3 1.4 0.1 1.8	cm 40 43 33 55	<b>25</b> 0020 Sa 0102 0737 1729	ft 2.2 0.9 0.1	cm 67 27 - 3
0051 Th 0712 0943 1723	ft 1.8 1.1 1.2 0.0	cm 55 34 37 0	<b>10</b> 0128 Su 0838 1635	ft 1.2 1.3 - 0.1	cm 37 40 - 3	<b>26</b> 0102 M 0752 1132	ft 2.4 0.8 1.0	cm 73 24 30
0121 F 0804 1040 1756	ft 2.0 1.1 1.2 - 0.1	cm 61 34 37 - 3	<b>11</b> 0128 Su 0838 1635	ft 1.2 1.3 - 0.1	cm 64 27 0	<b>26</b> 0102 M 0752 1145	ft 1.9 0.8 1.1	cm 58 24 34
0039 Sa 0724 1014 1729	ft 2.1 1.1 - 0.3	cm 64 34 - 9	<b>12</b> 0152 M 0837 1221 1847	ft 2.2 0.9 1.1	cm 67 27 - 3	<b>27</b> 0139 Tu 0815 1244 1859	ft 2.5 0.7 1.3	cm 76 21 40
0147 Sa 0833 1132 1827	ft 2.2 1.0 - 0.2	cm 67 30 - 6	<b>13</b> 0216 Tu 0848 1300 1921	ft 2.3 0.8 1.2	cm 70 24 37	<b>28</b> 0213 W 0840 1334 1945	ft 2.6 0.6 1.4	cm 79 18 43
0213 Su 0855 1216 1859	ft 2.3 1.0 1.1 - 0.2	cm 70 30 34 - 6	<b>14</b> 0239 W 0905 1337 1953	ft 2.6 0.7 1.3	cm 70 21 40	<b>29</b> 0138 W 0804 1301 1906	ft 2.1 0.6 1.3	cm 64 18 0
0238 M 0916 1255 1931	ft 2.4 0.9 1.2 - 0.3	cm 73 27 37 - 9	<b>15</b> 0237 Tu 0912 1325 1950	ft 2.7 1.0 1.3 - 0.6	cm 82 21 43 - 18	<b>15</b> 0303 Th 0925 1413 ● 2025	ft 2.3 0.7 1.4 - 0.2	cm 70 21 43 - 6
0314 W 0946 1415 ● 2034	ft 2.7 0.7 1.4 - 0.5	cm 82 21 43 - 15	<b>31</b> 0314 W 0946 1415 ● 2034	ft 2.7 0.7 1.4 - 0.5	cm 82 21 43 - 15	<b>31</b> 0232 Sa 0850 1502 ● 2100	ft 2.0 0.1 1.9 - 0.3	cm 61 3 58 9

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Moku O Loe, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0257	1.9	58	<b>16</b> M	0223	1.8	55	<b>1</b> Tu	0227	1.4	43	
	0915	0.0	0		0844	-0.2	-6		0210	1.4	43	
	1543	2.0	61		1529	2.2	67		W	0844	-0.5	-15
	2141	0.5	15		2132	0.6	18		1611	2.2	67	
<b>2</b> M	0318	1.7	52	<b>17</b> Tu	0249	1.6	49	<b>2</b> W	0246	1.3	40	
	0940	0.0	0		0913	-0.2	-6		0919	-0.1	-3	
	1624	2.0	61		1615	2.2	67		1705	2.5	76	
	2224	0.7	21		2223	0.8	24		2358	0.9	27	
<b>3</b> Tu	0337	1.5	46	<b>18</b> W	0313	1.5	46	<b>3</b> Th	0301	1.2	37	
	1004	0.0	0		0945	-0.2	-6		0945	-0.1	-3	
	1708	1.9	58		1706	2.2	67		1801	2.4	73	
	2311	0.9	27		2326	0.9	27		1021	0.2	6	
<b>4</b> W	0350	1.4	43	<b>19</b> Th	0336	1.3	40	<b>4</b> F	0041	1.0	30	
	1029	0.1	3		1021	-0.2	-6		0302	1.1	34	
	1759	1.9	58		1807	2.2	67		1012	0.1	3	
									1826	2.0	61	
<b>5</b> Th	0016	1.1	34	<b>20</b> F	0058	1.0	30	<b>5</b> Sa	1044	0.2	6	
	0349	1.2	37		0350	1.1	34		1928	1.9	58	
	1056	0.2	6		1104	-0.1	-3		2009	2.2	67	
	1904	1.8	55		1922	2.1	64		1143	0.1	3	
<b>6</b> F	1128	0.3	9	<b>21</b> Sa	1200	0.1	3	<b>6</b> Su	1125	0.4	12	
	2037	1.7	52		2047	2.1	64		2039	1.8	55	
									0428	0.7	21	
									0741	0.8	24	
<b>7</b> Sa	1220	0.5	15	<b>22</b> Su	1326	0.3	9	<b>21</b> M	1301	0.4	12	
	2212	1.8	55		2203	2.1	64		2111	2.1	64	
									0422	0.6	18	
									0938	0.9	24	
<b>8</b> Su	1417	0.6	18	<b>23</b> M	0603	0.7	21	<b>7</b> M	1242	0.6	18	
	2311	1.8	55		0950	0.8	24		2142	1.8	55	
					1515	0.4	12		0458	0.5	15	
					2301	2.1	64		1012	0.9	27	
<b>9</b> M	0711	0.8	24	<b>24</b> Tu	0616	0.5	15	<b>23</b> W	1133	1.2	37	
	1048	0.9	27		1028	0.9	27		1447	0.7	21	
	1607	0.5	15		2230	1.8	55		2249	1.8	55	
	2350	1.9	58						1225	1.6	49	
<b>10</b> Tu	0657	0.7	21	<b>25</b> W	0635	0.4	12	<b>24</b> Th	0551	0.2	6	
	1142	1.1	34		1218	1.4	43		1129	1.1	34	
	1714	0.5	15		1750	0.4	12		1621	0.7	21	
									2306	1.8	55	
<b>11</b> W	0019	1.9	58	<b>26</b> Th	0020	2.0	61	<b>9</b> W	0553	0.6	18	
	0701	0.6	18		0657	0.2	6		1129	1.1	34	
	1220	1.3	40		1302	1.6	49		1621	0.7	21	
	1802	0.4	12		1845	0.5	15		2306	1.8	55	
<b>12</b> Th	0044	2.0	61	<b>27</b> F	0050	1.9	58	<b>10</b> F	0615	0.0	0	
	0714	0.4	12		0719	0.1	3		1209	1.3	40	
	1256	1.5	46		1343	1.8	55		1727	0.7	21	
	1844	0.3	9		1932	0.5	15		2338	1.8	55	
<b>13</b> F	0109	2.0	61	<b>11</b> F	0621	0.2	6	<b>25</b> F	0615	0.0	0	
	0731	0.3	9		1247	1.6	49		1209	1.3	40	
	1331	1.7	52		1822	0.7	21		1727	0.7	21	
	1924	0.3	9						2356	1.6	49	
<b>14</b> Sa	0133	1.9	58	<b>12</b> Sa	0008	1.8	55	<b>10</b> Su	0600	-0.2	-6	
	0753	0.1	3		0643	0.0	0		1209	1.3	40	
	1408	1.9	58		1324	1.9	58		1727	0.7	21	
	2005	0.4	12		1912	0.7	21		2338	1.8	55	
<b>15</b> Su	0158	1.9	58	<b>13</b> Sa	0038	1.7	52	<b>11</b> F	0639	-0.1	-3	
	0817	0.0	0		0742	-0.1	-3		1247	1.6	49	
	1447	2.0	61		1420	2.0	61		1822	0.7	21	
	2047	0.5	15		2017	0.6	18					
<b>16</b> M	0205	1.6	49	<b>14</b> M	0108	1.6	49	<b>29</b> O	0116	1.3	40	
	0830	-0.2	-6		0738	-0.3	-9		0754	-0.3	-9	
	1534	2.2	67		1444	2.3	70		1524	2.4	73	
	2144	0.8	24		2052	0.7	21		2153	0.9	27	
<b>17</b> M	0205	1.6	49	<b>15</b> Tu	0139	1.5	46	<b>30</b> W	0142	1.2	37	
	0830	-0.2	-6		0810	-0.4	-12		0820	-0.3	-9	
	1534	2.2	67		1527	2.5	76		1558	2.4	73	
	2144	0.8	24		2146	0.8	24		2239	0.9	27	
<b>18</b> F	0208	1.2	37	<b>31</b> Th	0208	1.2	37					
	0849	-0.2	-6		0849	-0.2	-6					
	1634	2.3	70		1634	2.3	70					
	2330	1.0	30		2330	1.0	30					

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Moku O Loe, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

July			August			September					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0307 0.0 34 1719 2.2 67	1.1 34 0 0		<b>16</b> M 0004 0.6 18 1027 0.4 12 1728 1.9 58	0.6 18 1.1 34 0 0		<b>1</b> W 0449 1.2 37 1027 0.4 12 1728 1.9 58	1.2 37 1.4 43 1.6 49		<b>1</b> Sa 0710 1.5 46 1220 1.1 34 1705 1.4 43	1.5 46 1.1 34 1.4 43	
<b>2</b> M 0024 0.8 24 0351 1.0 30 1007 0.1 3 1752 2.1 64	0.6 18 1.1 34 0.4 12 2.0 61		<b>17</b> Tu 0054 0.6 18 0547 1.1 34 1117 0.4 12 1831 2.0 61	0.6 18 1.1 34 0.4 12 2.0 61		<b>2</b> Th 0025 0.5 15 0559 1.2 37 1106 0.7 21 1753 1.8 55	0.5 15 1.4 43 1.2 37 1.4 43		<b>2</b> Su 0046 0.2 6 0914 1.6 49	0.2 6 1.6 49	
<b>3</b> Tu 0111 0.8 24 0450 0.9 27 1041 0.3 9 1825 2.0 61	0.5 15 1.1 34 0.8 24 1.8 55		<b>18</b> W 0147 0.5 15 0731 1.1 34 1213 0.8 24 1907 1.8 55	0.5 15 1.1 34 0.8 24 1.8 55		<b>3</b> F 0109 0.4 12 0742 1.2 30 1202 1.0 30 1820 1.6 49	0.4 12 1.2 30 1.0 30 1.6 49		<b>3</b> M 0201 0.2 6 1051 1.9 58	0.2 6 1.9 58	
<b>4</b> W 0158 0.7 21 0620 0.9 27 1120 0.6 18 1859 1.9 58	0.3 9 1.2 37 1.1 34 1.6 49		<b>19</b> Th 0240 0.3 9 0946 1.2 37 1346 1.1 34 1943 1.6 49	0.3 9 1.4 43 1.2 37 1.4 43		<b>19</b> Su 0318 0.3 9 1159 1.8 55	0.3 9 1.8 55		<b>4</b> Tu 0327 0.1 3 1147 2.1 64	0.1 3 2.1 64	
<b>5</b> Th 0243 0.5 15 0834 1.0 30 1221 0.9 27 ● 1937 1.7 52	0.2 6 1.5 46 1.5 46 1.4 43		<b>20</b> F 0331 0.2 6 1129 1.5 46 1631 1.3 40 2021 1.4 43	0.2 6 1.5 46 1.3 40 1.4 43		<b>5</b> Su 0301 0.2 6 1120 1.7 52	0.2 6 1.7 52		<b>5</b> W 0441 0.0 0 1231 2.3 70	0.0 0 2.3 70	
<b>6</b> F 0324 0.4 12 1036 1.2 37 1422 1.1 34 2020 1.6 49	0.1 3 1.8 55 1.1 34 1.2 37		<b>21</b> Sa 0418 0.1 3 1224 1.8 55 1848 1.1 34 2111 1.2 37	0.1 3 1.8 55 1.1 34 1.2 37		<b>6</b> M 0402 0.0 0 1211 2.0 61	0.0 0 2.0 61		<b>6</b> Th 0541 - 0.2 - 6 1309 2.5 76	- 0.2 - 6 2.5 76	
<b>7</b> Sa 0403 0.2 6 1141 1.6 49 1642 1.2 37 2112 1.5 46	0.0 0 1.5 49 1.3 37 1.4 46		<b>22</b> Su 0459 0.0 0 1301 2.0 61 1952 1.0 30 2214 1.1 34	0.0 0 2.0 61 1.0 30 1.1 34		<b>7</b> Tu 0458 - 0.2 - 6 1254 2.3 70	0.1 3 2.2 67		<b>7</b> F 0556 0.1 3 1333 2.2 67	0.1 3 2.2 67	
<b>8</b> Su 0443 0.0 0 1226 1.9 58 1820 1.1 34 2209 1.4 43	0.0 0 2.1 64 1.0 30 1.1 34		<b>8</b> W 0536 - 0.1 - 3 1331 2.1 64 2023 1.0 30 2312 1.1 34	0.0 0 2.1 64 1.0 30 1.1 34		<b>23</b> Th 0551 - 0.4 - 12 1333 2.5 76	0.1 3 2.2 67		<b>8</b> Sa 0513 0.1 3 1307 2.1 64	0.1 3 2.1 64	
<b>9</b> M 0524 - 0.3 - 9 1307 2.2 67 1927 1.1 34 2306 1.3 40	- 0.1 - 3 2.3 70 1.0 30 1.1 34		<b>9</b> Tu 0611 - 0.1 - 3 1359 2.3 70 2045 1.0 30	- 0.1 - 3 2.3 70 1.0 30		<b>24</b> F 0003 1.2 37 0640 - 0.5 - 15	1.2 37 - 0.5 - 15		<b>9</b> Su 0014 1.1 34 0633 0.0 0	1.1 34 0.0 0	
<b>10</b> Tu 0606 - 0.4 - 12 1348 2.5 76 2018 1.0 30	- 0.1 - 12 - 0.2 - 6 - 0.6 - 27		<b>10</b> W 0000 1.1 34 0644 - 0.2 - 6 1425 2.3 70 2105 0.9 27	1.1 34 - 0.2 - 6 2.3 70 0.9 27		<b>25</b> F 0059 1.3 40 0726 - 0.6 - 18	1.3 40 - 0.6 - 18		<b>10</b> M 0125 1.4 43 0739 - 0.1 - 3	1.4 43 - 0.1 - 3	
<b>11</b> W 0000 1.3 40 0649 - 0.6 - 18 1429 2.7 82 2104 0.9 27	- 0.1 - 18 - 0.2 - 6 - 0.5 - 27		<b>11</b> Th 0042 1.2 37 0717 - 0.2 - 6	1.2 37 - 0.2 - 6		<b>26</b> Sa 0151 1.4 43 0811 - 0.5 - 15	1.4 43 - 0.5 - 15		<b>11</b> Tu 0330 1.8 55 0929 0.2 6	1.8 55 0.2 6	
<b>12</b> Th 0052 1.3 40 0733 - 0.7 - 21 1510 2.8 85 ● 2148 0.8 24	- 0.1 - 40 - 0.3 - 9 - 0.9 - 24		<b>12</b> F 0120 1.2 37 0750 - 0.3 - 9	1.2 37 - 0.3 - 9		<b>27</b> Su 0241 1.5 46 0855 - 0.4 - 12	1.5 46 - 0.4 - 12		<b>12</b> W 0236 1.5 46 0841 0.0 0	1.5 46 0.0 0	
<b>13</b> F 0143 1.3 40 0817 - 0.6 - 18 1552 2.8 85 2232 0.8 24	- 0.1 - 40 - 0.2 - 6 - 0.6 - 24		<b>13</b> Sa 0158 1.2 37 0821 - 0.2 - 6	1.2 37 - 0.2 - 6		<b>28</b> M 0333 1.5 46 0937 - 0.1 - 3	1.5 46 - 0.1 - 3		<b>13</b> Th 0314 1.5 46 0913 0.1 3	1.5 46 0.1 3	
<b>14</b> Sa 0235 1.2 37 0902 - 0.5 - 15 1633 2.7 82 2317 0.7 21	- 0.1 - 37 - 0.5 - 15 - 0.3 - 21		<b>14</b> Su 0235 1.3 40 0853 - 0.1 - 3	1.3 40 - 0.1 - 3		<b>29</b> Tu 0429 1.4 43 1020 0.2 6	1.4 43 0.2 6		<b>14</b> F 0355 1.5 46 0946 0.3 9	1.5 46 0.3 9	
<b>15</b> Su 0330 1.2 37 0946 - 0.3 - 9 1714 2.5 76	- 0.1 - 37 - 0.3 - 9 - 2.5 - 76		<b>15</b> M 0314 1.2 37 0923 0.0 0	1.2 37 0.0 0		<b>30</b> W 0533 1.4 43 1105 0.6 18	1.4 43 0.6 18		<b>15</b> Th 0443 1.5 46 1023 0.6 18	1.5 46 0.6 18	
			<b>31</b> Tu 0357 1.2 37 0955 0.2 6	1.2 37 0.2 6		<b>31</b> F 0543 1.5 46 1108 0.9 27	1.5 46 0.9 27		<b>30</b> Sa 0749 1.6 49 1335 1.1 34	1.6 49 1.1 34	
			<b>31</b> Tu 0357 1.2 37 1703 2.1 64	1.2 37 2.1 64		<b>31</b> F 0543 1.5 46 1651 1.6 49	1.5 46 1.6 49		<b>30</b> Su 0653 1.8 55 1540 1.2 37	1.8 55 1.2 37	
			<b>31</b> Tu 0357 1.2 37 2348 0.6 18	1.2 37 0.6 18		<b>31</b> F 0543 1.5 46 2353 0.3 9	1.5 46 0.3 9		<b>30</b> Sa 0653 1.8 55 2348 0.1 3	1.8 55 0.1 3	

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
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# Moku O Loe, Oahu Island, Hawaii, 2018

Times and Heights of High and Low Waters

October					November					December														
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm										
<b>1</b> M <b>O</b>	0838	1.9	58	<b>16</b> Tu <b>O</b>	0953	1.8	55	<b>1</b> Th	0224	0.4	12	<b>16</b> F	0216	0.7	21	<b>1</b> Sa	0345	0.8	24	<b>16</b> Su	0234	1.0	30	
<b>2</b> Tu	0107	0.2	6	<b>17</b> W	0155	0.6	18	<b>2</b> F	0408	0.5	15	<b>17</b> Sa	0409	0.8	24	<b>2</b> Su	0010	1.5	46	<b>17</b> M	0004	1.4	43	
	1012	2.0	61		1052	1.8	55		1113	2.1	64		1048	1.7	52		0519	0.9	27		0443	1.1	34	
					1849	0.7	21		1811	0.3	9		1754	0.4	12		1059	1.7	52		0958	1.5	46	
					2311	0.9	27		2358	1.3	40		2341	1.1	34		1755	0.0	0		1717	0.1	3	
<b>3</b> W	0256	0.3	9	<b>18</b> Th	0357	0.6	18	<b>3</b> Sa	0523	0.5	15	<b>18</b> Su	0013	1.4	43	<b>3</b> M	0054	1.8	55	<b>18</b> Tu	0037	1.7	52	
	1113	2.1	64		1131	1.9	58		1151	2.0	61		0520	0.8	24		0630	0.9	27		0606	1.1	34	
	1838	0.7	21		1841	0.6	18		1833	0.1	3		1119	1.7	52		1134	1.6	49		1041	1.5	46	
	2233	0.9	27		2349	1.1	34						1809	0.2	6		1821	-0.2	-6		1746	-0.1	-3	
<b>4</b> Th	0426	0.2	6	<b>19</b> F	0505	0.5	15	<b>4</b> Su	0044	1.6	49	<b>19</b> M	0045	1.6	49	<b>4</b> Tu	0132	2.1	64	<b>19</b> W	0111	2.0	61	
	1157	2.2	67		1200	1.9	58		0622	0.5	15		0614	0.8	24		0727	0.9	27		0708	1.0	30	
	1850	0.6	18		1845	0.5	15		1223	1.9	58		1148	1.7	52		1206	1.5	46		1124	1.4	43	
	2342	1.2	37						1856	0.0	0		1828	0.0	0		1848	-0.3	-9		1817	-0.3	-9	
<b>5</b> F	0532	0.1	3	<b>20</b> Sa	0020	1.3	40	<b>5</b> M	0125	1.9	58	<b>20</b> Tu	0117	1.9	58	<b>5</b> W	0206	2.3	70	<b>20</b> Th	0146	2.3	70	
	1235	2.3	70		0553	0.5	15		0714	0.5	15		0702	0.8	24		0816	0.9	27		0759	1.0	30	
	1909	0.4	12		1224	1.9	58		1252	1.8	55		1216	1.6	49		1235	1.4	43		1205	1.4	43	
					1856	0.4	12		1920	-0.2	-6		1852	-0.2	-6		1914	-0.4	-12		1852	-0.5	-15	
<b>6</b> Sa	0033	1.5	46	<b>21</b> Su	0050	1.5	46	<b>6</b> Tu	0204	2.1	64	<b>21</b> W	0151	2.1	64	<b>6</b> Th	0240	2.4	73	<b>21</b> F	0223	2.5	76	
	0626	0.1	3		0633	0.4	12		0801	0.6	18		0748	0.8	24		0900	0.9	27		0847	0.9	27	
	1307	2.2	67		1247	1.9	58		1318	1.7	52		1245	1.6	49		1304	1.3	40		1247	1.3	40	
	1932	0.2	6		1912	0.2	6		1945	-0.3	-9		1918	-0.3	-9		1942	-0.4	-12		1929	-0.6	-18	
<b>7</b> Su	0118	1.7	52	<b>22</b> M	0122	1.7	52	<b>7</b> W	0242	2.3	70	<b>22</b> Th	0228	2.3	70	<b>7</b> F	0312	2.5	76	<b>22</b> Sa	0303	2.7	82	
	0714	0.1	3		0711	0.4	12		0846	0.7	21		0835	0.8	24		0942	0.9	27		0934	0.9	27	
	1337	2.2	67		1309	1.9	58		1343	1.6	49		1314	1.5	46		1332	1.2	37		1328	1.3	40	
	1957	0.1	3		1931	0.1	3		2010	-0.3	-9		1948	-0.5	-15		2009	-0.4	-12		2007	-0.6	-18	
<b>8</b> M	0201	1.9	58	<b>23</b> Tu	0155	1.9	58	<b>8</b> Th	0319	2.3	70	<b>23</b> F	0307	2.5	76	<b>8</b> Sa	0345	2.5	76	<b>23</b> Su	0344	2.7	82	
	0759	0.2	6		0749	0.5	15		0931	0.8	24		0924	0.8	24		1025	0.9	27		1023	0.8	24	
	1405	2.0	61		1332	1.8	55		1406	1.4	43		1345	1.4	43		1400	1.2	37		1411	1.2	37	
	2023	0.0	0		1953	-0.1	-3		2036	-0.3	-9		2021	-0.5	-15		2038	-0.3	-9		2048	-0.6	-18	
<b>9</b> Tu	0243	2.0	61	<b>24</b> W	0231	2.1	64	<b>9</b> F	0356	2.3	70	<b>24</b> Sa	0349	2.5	76	<b>9</b> Su	0419	2.4	73	<b>24</b> M	0427	2.7	82	
	0842	0.3	9		0829	0.5	15		1019	0.9	27		1018	0.9	27		1109	0.9	27		1113	0.8	24	
	1430	1.9	58		1355	1.7	52		1427	1.3	40		1415	1.3	40		1427	1.1	34		1456	1.2	37	
	2049	-0.1	-3		2018	-0.2	-6		2101	-0.3	-9		2056	-0.5	-15		2107	-0.2	-6		2129	-0.5	-15	
<b>10</b> W	0325	2.1	64	<b>25</b> Th	0309	2.2	67	<b>10</b> Sa	0436	2.3	70	<b>25</b> Su	0436	2.5	76	<b>10</b> M	0455	2.3	70	<b>25</b> Tu	0511	2.6	79	
	0926	0.5	15		0911	0.6	18		1114	1.0	30		1120	0.9	27		1201	0.9	27		1209	0.8	24	
	1453	1.7	52		1419	1.6	49		1442	1.2	37		1446	1.2	37		1453	1.0	34		1549	1.1	34	
	2115	-0.1	-3		2046	-0.3	-9		2127	-0.1	-3		2134	-0.4	-12		2137	-0.1	-3		2212	-0.2	-6	
<b>11</b> Th	0408	2.1	64	<b>26</b> F	0350	2.2	67	<b>11</b> Su	0518	2.2	67	<b>26</b> M	0527	2.5	76	<b>11</b> Tu	0533	2.2	67	<b>26</b> W	0556	2.4	73	
	1011	0.7	21		0959	0.8	24		1230	1.0	30		1239	0.9	27		1304	0.9	27		1309	0.7	21	
	1513	1.5	46		1442	1.5	46		1443	1.1	34		1517	1.0	30		1518	1.0	30		1656	1.0	30	
	2141	-0.1	-3		2115	-0.3	-9		2154	0.0	0		2215	-0.2	-6		2206	0.1	3		2258	0.1	3	
<b>12</b> F	0453	2.0	61	<b>27</b> Sa	0437	2.3	70	<b>12</b> M	0607	2.1	64	<b>27</b> Tu	0623	2.4	73	<b>12</b> W	0613	2.1	64	<b>27</b> Th	0642	2.2	67	
	1104	0.9	27		1056	0.9	27		2221	0.2	6		2303	0.0	0		2237	0.3	9		1412	0.6	18	
	1526	1.3	40		1503	1.3	40													1838	0.9	27		
	2207	0.0	0		2149	-0.2	-6													2351	0.5	15		
<b>13</b> Sa	0545	2.0	61	<b>28</b> Su	0533	2.2	67	<b>13</b> Tu	0707	1.9	58	<b>28</b> W	0725	2.2	67	<b>13</b> Th	0656	2.0	61	<b>28</b> F	0729	2.0	61	
	1220	1.1	34		1218	1.1	34		2253	0.4	12		1559	0.7	21		2310	0.5	15		2108	1.0	30	
	1520	1.2	37		1515	1.2	37						1805	0.8	24							2108	1.0	30
	2233	0.1	3		2227	-0.1	-3															2108	1.0	30
<b>14</b> Su	0650	1.9	58	<b>29</b> M	0641	2.1	64	<b>14</b> W	0816	1.9	58	<b>29</b> Th	0006	0.3	9	<b>14</b> F	0741	1.8	55	<b>29</b> Sa	0109	0.8	24	
	2302	0.3	9		2315	0.1	3		2345	0.6	18		0829	2.1	64		1607	0.6	18		0817	1.8	55	
													1633	0.6	18		2124	0.8	24		1559	0.3	9	
													2124	0.8	24						2313	1.3	40	
<b>15</b> M	0821	1.8	55	<b>30</b> Tu	0803	2.1	64	<b>15</b> Th	0921	1.8	55	<b>30</b> F	0146	0.6	18	<b>15</b> Sa	0006	0.7	21	<b>30</b> Su	0326	1.1	34	
	2346	0.5	15						1749	0.6	18		0928	2.0	61		0827	1.7	52		0905	1.6	49	
									2256	0.8	24		1702	0.4	12		1629	0.5	15		1641	0.1	3	
									2311	1.2	37										31	0017	1.6	49
																					0539	1.2	37	
		</																						

## **Kahului, Maui Island, Hawaii, 2018**

## Times and Heights of High and Low Waters

January					February					March										
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time						
1 M 0233 0.3 91	16 0251 2.6 79	1 Th 0335 2.8 85	16 0318 2.5 76	1 Th 0234 2.6 79	16 0217 2.3 70	1 M 0903 0.7 21	Tu 0920 0.8 24	F 0938 0.4 12	F 0856 0.2 6	16 0833 0.2 6	O 1325 1.4 43	Tu 1342 1.3 40	F 1451 1.5 46	F 1411 1.7 52	O 1950 -0.7 -21	● 2001 -0.4 -12	2108 -0.5 -15	2054 -0.2 -6	O 2021 -0.4 -12	2011 -0.1 -3
2 Tu 0314 3.0 91	17 0320 2.6 79	2 F 0409 2.7 82	17 0343 2.4 73	2 F 0305 2.6 79	17 0240 2.3 70	2 Tu 0948 0.7 21	W 0947 0.7 21	Sa 1004 0.3 9	Sa 0924 0.1 3	17 0856 0.1 3	1411 1.4 43	1416 1.4 43	Sa 1527 1.6 49	Sa 1446 1.8 55	2032 -0.7 -21	2032 -0.3 -9	2148 -0.2 -6	2125 -0.1 -3	2101 -0.3 -9	● 2045 -0.1 -3
3 W 0356 3.0 91	18 0348 2.6 79	3 Sa 0442 2.5 76	18 0406 2.3 70	3 Sa 0334 2.4 73	18 0304 2.2 67	3 W 1033 0.7 21	Th 1017 0.7 21	Su 1030 0.3 9	Sa 0952 0.1 3	18 0920 0.0 0	1457 1.4 43	1450 1.4 43	Su 1606 1.6 49	Su 1522 1.9 58	2114 -0.5 -15	2102 -0.3 -9	2227 0.1 3	2158 0.1 3	2139 0.0 0	2120 0.1 3
4 Th 0437 2.9 88	19 0416 2.5 76	4 Su 0511 2.2 67	19 0430 2.1 64	4 Su 0400 2.2 67	19 0327 2.0 61	4 Th 1119 0.6 18	F 1047 0.7 21	M 1059 0.2 6	Su 1020 0.1 3	19 0946 -0.1 -3	1547 1.3 40	1526 1.3 40	M 1652 1.6 49	M 1602 1.9 58	2156 -0.3 -9	2132 -0.1 -3	2306 0.5 15	2234 0.4 12	2216 0.3 9	2158 0.3 9
5 F 0518 2.7 82	20 0443 2.4 73	5 M 0538 2.0 61	20 0452 1.9 58	5 M 0423 1.9 58	20 0350 1.9 58	5 F 1208 0.6 18	Sa 1120 0.6 18	Tu 1132 0.2 6	M 1048 0.1 3	20 1014 -0.1 -3	1643 1.2 37	1606 1.3 40	Tu 1750 1.5 46	Tu 1648 1.9 58	2237 0.1 3	2202 0.1 3	2349 0.8 24	2316 0.7 21	2255 0.6 18	2241 0.6 18
6 Sa 0558 2.4 73	21 0510 2.3 70	6 Tu 0559 1.7 52	21 0514 1.7 52	6 Tu 0442 1.7 52	21 0412 1.7 52	6 Sa 1301 0.6 18	Su 1155 0.6 18	W 1212 0.2 6	Tu 1116 0.1 3	21 1045 -0.1 -3	1754 1.1 34	1655 1.2 37	W 1913 1.5 46	W 1743 1.9 58	2322 0.4 12	2235 0.3 9	2033 1.4 43	2193 0.9 27	2338 0.9 27	2335 0.8 24
7 Su 0638 2.1 64	22 0538 2.1 64	7 W 0100 1.2 37	22 0022 1.0 30	7 W 0454 1.5 46	22 0431 1.4 43	7 Su 1358 0.5 15	M 1235 0.5 15	Th 1413 0.4 42	W 1147 0.2 6	22 1122 -0.1 -3	1938 1.1 34	1803 1.2 37	Th 1306 0.2 6	Th 1858 1.8 55	2314 0.6 18	2258 1.5 46	2122 1.6 49	2122 1.5 46	2113 1.5 46	2113 1.5 46
8 M 0016 0.8 24	23 0607 1.9 58	8 Th 1525 0.3 9	23 1425 0.1 58	8 Th 0046 1.1 34	23 0110 1.1 34	8 M 0718 1.9 58	Tu 1324 0.4 12	F 2308 1.9 58	Th 0442 1.3 40	23 0439 1.2 37	1456 0.4 12	1949 1.2 37	F 1226 0.3 9	F 1213 0.0 0	● 2200 1.3 40	● 2199 1.2 37	2123 1.5 46	2123 1.5 46	2047 1.8 55	2047 1.8 55
9 Tu 0157 1.1 34	24 0015 1.0 30	9 F 0006 1.8 55	24 1555 0.0 0	9 F 1337 0.4 12	24 1336 0.1 3	9 Tu 0803 1.7 52	W 0640 1.7 52	Sa 1633 0.2 6	Th 2319 1.7 52	24 2231 0.1 3	1549 0.3 9	1422 0.3 9	Sa 2319 1.7 52	Sa 2231 0.1 3	2335 1.6 49	2207 1.5 46	● 2207 1.5 46	● 2207 1.5 46	● 2207 1.5 46	
10 W 0441 1.3 40	25 0240 1.3 40	10 Sa 0043 2.0 61	25 0006 2.2 67	10 Sa 1535 0.4 12	25 1529 0.1 3	10 W 0857 1.5 46	Th 0728 1.5 46	Su 0716 0.8 24	Su 2335 0.1 3	25 2335 0.1 3	1635 0.2 6	1526 0.1 3	Su 1034 1.0 30	Su 2335 0.1 3	2331 1.8 55	1726 0.1 3	1708 -0.2 -6	1708 -0.2 -6	1708 -0.2 -6	
11 Th 0023 1.9 58	26 0541 1.2 37	11 Su 0112 2.1 64	26 0049 2.4 73	11 Su 0008 1.8 55	26 0651 0.6 18	11 Th 0630 1.2 37	F 0851 1.3 40	M 0736 0.7 21	Su 0749 0.8 24	26 1104 0.9 27	1001 1.3 40	1628 -0.1 -3	M 1152 1.1 34	M 1656 0.0 0	1715 0.1 3	1628 -0.1 -3	1809 -0.1 -3	1809 -0.1 -3	1809 -0.1 -3	
12 F 0058 2.1 64	27 0022 2.2 67	12 M 0139 2.3 70	27 0127 2.6 79	12 M 0040 2.0 61	27 0020 2.3 70	12 F 0725 1.1 34	Sa 0658 1.0 30	Tu 0801 0.5 15	M 0736 0.7 21	27 0707 0.4 12	1059 1.3 40	1026 1.2 37	Tu 1247 1.3 40	Tu 1207 1.2 37	1751 -0.1 -3	1723 -0.3 -9	1846 -0.2 -6	1855 -0.5 -15	1749 0.1 3	1758 -0.1 -3
13 Sa 0127 2.3 70	28 0104 2.5 76	13 Tu 0204 2.4 73	28 0201 2.7 82	13 Tu 0106 2.1 64	28 0057 2.3 70	13 Sa 0759 1.0 30	Su 0742 0.9 27	F 0828 0.3 9	Tu 0742 0.6 18	28 0729 0.2 6	1148 1.3 40	1139 1.2 37	F 1334 1.5 46	F 1254 1.5 46	1825 -0.2 -6	1813 -0.5 -15	1920 -0.3 -9	1940 -0.5 -15	1830 0.0 0	1848 -0.1 -3
14 Su 0155 2.4 73	29 0144 2.7 82	14 W 0229 2.4 73	14 0229 2.2 67	14 W 0130 2.2 67	29 0129 2.3 70	14 Su 0827 0.9 27	M 0819 0.7 21	W 0852 0.6 18	W 0756 0.5 15	29 0752 0.1 3	1229 1.3 40	1237 1.3 40	W 1342 1.4 43	W 1304 1.4 43	1858 -0.3 -9	1900 -0.6 -18	1952 -0.3 -9	1952 -0.3 -9	1905 -0.1 -3	1933 -0.1 -3
15 M 0223 2.5 76	30 0222 2.9 88	15 Th 0254 2.5 76	15 0254 2.3 70	15 Th 0154 2.3 70	30 0159 2.3 70	15 M 0853 0.8 24	Tu 0854 0.6 18	Th 1416 1.5 46	Th 0813 0.3 9	30 0817 0.0 0	1307 1.3 40	1328 1.4 43	Th 1414 1.9 58	Th 1414 1.9 58	1930 -0.3 -9	1945 -0.7 -21	● 2023 -0.3 -9	● 2023 -0.3 -9	● 2023 -0.3 -9	● 2023 -0.3 -9
	31 0259 2.9 88						W 0928 0.5 15									W 1415 1.5 46				
																O 2027 -0.6 -18				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

# Kahului, Maui Island, Hawaii, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0252	2.0	61	<b>16</b> M	0222	1.9	58	<b>1</b> Tu	0232	1.5	46	
	0907	-0.2	-6	0839	-0.3	-9	0850	-0.4	-12	0215	1.5	46
	1529	2.1	64	1517	2.3	70	1553	2.3	70	0839	-0.6	-18
	2131	0.2	6	2121	0.3	9	2210	0.6	18	1555	2.6	79
<b>2</b> M	0316	1.8	55	<b>17</b> Tu	0249	1.7	52	<b>2</b> W	0255	1.4	43	
	0931	-0.2	-6	0908	-0.4	-12	0915	-0.3	-9	0248	1.3	40
	1607	2.1	64	1559	2.3	70	1630	2.3	70	0915	-0.6	-18
	2210	0.5	15	2207	0.5	15	2255	0.7	21	1643	2.6	79
<b>3</b> Tu	0337	1.6	49	<b>18</b> W	0315	1.6	49	<b>3</b> Th	0314	1.2	37	
	0956	-0.2	-6	0939	-0.4	-12	0941	-0.2	-6	0323	1.2	37
	1646	2.0	61	1645	2.3	70	1710	2.1	64	0954	-0.5	-15
	2251	0.7	21	2300	0.7	21	2350	0.9	27	1737	2.5	76
<b>4</b> W	0354	1.4	43	<b>19</b> Th	0340	1.4	43	<b>4</b> F	0329	1.1	34	
	1020	-0.1	-3	1013	-0.3	-9	1007	-0.1	-3	0039	0.8	24
	1730	1.9	58	1740	2.2	67	1758	2.0	61	0402	1.0	30
	2340	0.9	27							1038	-0.2	-6
<b>5</b> Th	0403	1.2	37	<b>20</b> F	0012	0.9	27	<b>5</b> Sa	0119	0.9	27	
	1045	0.0	0	0403	1.2	37	0325	1.0	30	0219	0.7	21
	1826	1.8	55	1052	-0.2	-6	1036	0.1	3	0502	0.8	24
				1850	2.1	64	1858	1.9	58	1130	0.0	0
<b>6</b> F	0104	1.0	30	<b>21</b> Sa	1143	0.0	0	<b>6</b> Su	1112	0.3	9	
	0344	1.1	34	2017	2.0	61	2014	1.8	55	0350	0.6	18
	1114	0.2	6						<b>21</b> M	0718	0.7	21
	1950	1.6	49						1245	0.3	9	
<b>7</b> Sa	1158	0.3	9	<b>22</b> Su	1305	0.2	6	<b>7</b> M	1220	0.5	15	
	2148	1.6	49	2145	2.0	61	2129	1.8	55	0439	0.4	12
									0955	0.9	27	
									1434	0.6	18	
<b>8</b> Su	1355	0.5	15	<b>23</b> M	0548	0.6	18	<b>8</b> Tu	1023	0.8	24	
	2302	1.7	52	0947	0.8	24	1438	0.6	18	0512	0.3	9
				1504	0.3	9	2224	1.8	55	1120	1.2	37
				2249	2.1	64				1618	0.7	21
<b>9</b> M	0702	0.7	21	<b>24</b> Tu	0605	0.4	12	<b>9</b> W	0547	0.5	15	
	1053	0.8	24	1120	1.0	30	1125	1.1	34	0541	0.1	3
	1606	0.5	15	1640	0.3	9	1619	0.6	18	1212	1.6	49
	2344	1.8	55	2337	2.1	64	2304	1.8	55	1736	0.7	21
<b>10</b> Tu	0649	0.6	18	<b>25</b> W	0627	0.2	6	<b>10</b> Th	0559	0.3	9	
	1145	1.0	30	1213	1.4	43	1204	1.3	40	0607	-0.1	-3
	1714	0.4	12	1747	0.3	9	1726	0.6	18	1253	1.9	58
									1836	0.7	21	
<b>11</b> W	0015	1.9	58	<b>26</b> Th	0015	2.1	64	<b>11</b> F	0618	0.1	3	
	0656	0.4	12	0649	0.0	0	1240	1.7	52	0633	-0.2	-6
	1221	1.3	40	1255	1.7	52	1819	0.5	15	0633	-0.2	-6
	1802	0.3	9	1840	0.3	9				1329	2.1	64
<b>12</b> Th	0041	2.0	61	<b>27</b> F	0047	2.0	61	<b>12</b> Sa	0009	1.8	55	
	0709	0.3	9	0713	-0.1	-3	0640	-0.1	-3	0029	1.6	49
	1254	1.5	46	1333	1.9	58	1315	2.0	61	0659	-0.3	-9
	1843	0.2	6	1926	0.3	9	1906	0.5	15	1402	2.3	70
<b>13</b> F	0106	2.0	61	<b>28</b> Sa	0116	1.9	58	<b>13</b> Su	0039	1.8	55	
	0727	0.1	3	0737	-0.2	-6	0706	-0.3	-9	0059	1.5	46
	1327	1.7	52	1409	2.1	64	1352	2.2	67	0725	-0.4	-12
	1921	0.1	3	2008	0.3	9	1952	0.5	15	1435	2.4	73
<b>14</b> Sa	0131	2.0	61	<b>29</b> Su	0143	1.8	55	<b>14</b> M	0111	1.7	52	
	0749	-0.1	-3	0801	-0.3	-9	0734	-0.5	-15	0128	1.4	43
	1402	2.0	61	1443	2.3	70	1430	2.4	73	0752	-0.4	-12
	1959	0.2	6	O	2049	0.4	12	2039	0.5	15	1507	2.5
<b>15</b> Su	0156	2.0	61	<b>30</b> M	0208	1.7	52	<b>15</b> Tu	0143	1.6	49	
	0813	-0.2	-6	0825	-0.4	-12	0806	-0.6	-18	0156	1.3	40
	1438	2.1	64	1518	2.3	70	1511	2.6	79	0820	-0.4	-12
	2039	0.2	6	2129	0.5	15	O	2128	0.6	18	1541	2.5

# Kahului, Maui Island, Hawaii, 2018

Times and Heights of High and Low Waters

July			August			September		
Time	Height		Time	Height		Time	Height	
h m 0320 0935 - 0.1 1706 2.4 2358 0.8	ft 1.2 - 3 73 24	cm 37 - 3 73 24	h m <b>16</b> 0427 M 1024 1736 2.5	ft 1.3 0.0 76	cm 40 0 76	h m <b>1</b> W 0444 1026 1719 2.2	ft 1.4 0.4 67	cm 43 12 67
1 Su 0359 0.35 1006 0.1 1738 2.3			16 Th 0008 0.6 0543 1.4 1102 0.7 1744 2.0			16 Sa 0003 0.4 0623 1.6 1148 0.9 1746 1.8		
2 M 0359 1.1 1006 0.1 1738 2.3			2 Th 0028 0.4 0543 1.4 1102 0.7 1744 2.0			2 Su 0028 0.4 0829 1.8 1430 1.3 1805 1.6		
3 Tu 0042 0.8 0450 1.0 1038 0.3 1811 2.1			3 F 0050 0.5 0708 1.4 1154 1.0 1813 1.8			3 M 0140 0.4 1024 2.0		
4 W 0130 0.7 0604 1.0 1116 0.6 1846 2.0			4 Sa 0141 0.4 0910 1.5 1341 1.3 1849 1.6			4 Tu 0313 0.3 1131 2.3 1849 1.0 2155 1.2		
5 Th 0219 0.6 0759 1.1 1213 0.9 1925 1.9			5 Su 0244 0.3 1054 1.8 1653 1.3 1954 1.4			5 W 0433 0.1 1217 2.5 1908 0.9 2323 1.3		
6 F 0306 0.4 1004 1.3 1404 1.1 2013 1.7			6 M 0350 0.1 1153 2.1 1833 1.2 2139 1.3			6 Th 0536 - 0.1 1257 2.7 1932 0.7		
7 Sa 0351 0.2 1120 1.6 1624 1.2 2111 1.6			7 Tu 0450 - 0.1 1238 2.4 1913 1.1 2230 1.3			7 F 0020 1.5 0628 - 0.2 1333 2.8 1959 0.5		
8 Su 0434 0.0 1209 2.0 1803 1.1 2213 1.5			8 W 0545 - 0.3 1312 2.3 1951 1.0 2328 1.3			8 Sa 0109 1.7 0715 - 0.2 1407 2.8 2027 0.4		
9 M 0518 - 0.2 1252 2.3 1908 1.0 2313 1.4			9 Th 0009 1.4 0634 - 0.4 1358 2.9 2029 0.7			9 Su 0154 1.9 0758 - 0.2 1439 2.7 2056 0.3		
10 Tu 0601 - 0.4 1333 2.6 1959 0.9			10 F 0015 1.3 0643 - 0.2 1411 2.5 2044 0.9			10 M 0130 1.6 0739 - 0.1 1436 2.5 2054 0.6		
11 W 0008 1.4 0645 - 0.6 1414 2.8 2045 0.8			11 Th 0055 1.3 0717 - 0.2 1439 2.6 2109 0.8			11 Tu 0204 1.7 0810 - 0.1 1500 2.5 2117 0.6		
12 Th 0100 1.4 0729 - 0.7 1455 2.9 ● 2128 0.7			12 F 0132 1.4 0750 - 0.3 1508 2.6 ○ 2135 0.8			12 M 0241 1.7 0849 - 0.4 1547 2.8 2212 0.4		
13 F 0150 1.4 0813 - 0.7 1536 3.0 2211 0.6			13 M 0208 1.4 0822 - 0.2 1535 2.6 2203 0.7			13 Tu 0329 1.7 0932 - 0.1 1621 2.6 2248 0.4		
14 Sa 0239 1.4 0856 - 0.6 1617 2.9 2255 0.6			14 Su 0243 1.4 0853 - 0.2 1602 2.5 2231 0.7			14 W 0420 1.7 1014 0.2 1652 2.4 2324 0.4		
15 Su 0331 1.4 0940 - 0.4 1657 2.7 2340 0.6			15 M 0319 1.4 0923 0.0 1629 2.4 2301 0.7			15 Th 0516 1.7 1058 0.6 1721 2.1 2303 0.4		
			31 Tu 0359 1.4 0954 0.2 1654 2.3 2333 0.6			31 F 0525 1.8 1059 0.9 1649 1.8 2339 0.4		

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to mean lower low water which is the chart datum of soundings.

# Kahului, Maui Island, Hawaii, 2018

Times and Heights of High and Low Waters

October					November					December														
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm										
<b>1</b> M <b>O</b>	0801	2.1	64	<b>16</b> Tu <b>O</b>	0925	2.0	61	<b>1</b> Th	0213	0.6	18	<b>16</b> F	0214	0.9	27	<b>1</b> Sa	0338	0.9	27	<b>16</b> Su	0234	1.1	34	
<b>2</b> Tu	0047	0.4	12	<b>17</b> W	0138	0.8	24	<b>2</b> F	0402	0.6	18	<b>17</b> Sa	0407	0.9	27	<b>2</b> Su	0510	0.9	27	<b>17</b> M	0435	1.2	37	
<b>3</b> W	0948	2.2	67	<b>17</b> W	1038	2.0	61	<b>2</b> F	1104	2.3	70	<b>17</b> Sa	1044	2.0	61	<b>2</b> Su	1056	2.0	61	<b>17</b> M	1001	1.7	52	
<b>4</b> Th	1058	2.3	70	1832	0.8	24	1800	0.4	12	2303	1.1	34	2350	1.6	49	1746	0.5	15	1711	0.2	6			
<b>5</b> F	1823	0.8	24	<b>18</b> Th	1122	2.1	64	<b>3</b> Sa	0517	0.6	18	<b>18</b> Su	0002	1.6	49	<b>3</b> M	0036	2.0	61	<b>18</b> Tu	0020	1.9	58	
2235	1.1	34	1828	0.7	21	1144	2.3	70	1823	0.2	6	1117	2.0	61	1802	0.3	9	1046	1.7	52	1740	0.0	0	
<b>6</b> Sa	1146	2.5	76	<b>19</b> F	0502	0.7	21	<b>4</b> Su	0034	1.9	58	<b>19</b> M	0033	1.9	58	<b>4</b> Tu	0113	2.3	70	<b>19</b> W	0055	2.2	67	
1838	0.6	18	1153	2.2	67	0615	0.6	18	1218	2.2	67	0607	0.9	27	0711	0.9	27	1129	1.6	49	1812	-0.3	-9	
2341	1.4	43	1836	0.6	18	1848	0.0	0	1823	0.1	3	1147	2.0	61	1841	-0.2	-6	1847	-0.5	-9	1812	-0.3	-9	
<b>7</b> Su	0527	0.2	6	<b>20</b> Sa	0014	1.5	46	<b>5</b> M	0113	2.2	67	<b>20</b> Tu	0104	2.1	64	<b>5</b> W	0148	2.5	76	<b>20</b> Th	0130	2.5	76	
1225	2.6	79	0549	0.6	18	0705	0.6	18	1217	1.9	58	0653	0.8	24	0757	0.9	27	0741	0.9	27	1211	1.6	49	
1900	0.5	15	1219	2.2	67	1249	2.1	64	1913	-0.1	-3	1847	-0.1	-3	1909	-0.3	-9	1847	-0.5	-15	1923	-0.6	-15	
<b>8</b> Sa	0029	1.7	52	<b>21</b> Su	0044	1.8	55	<b>6</b> Tu	0150	2.4	73	<b>21</b> W	0138	2.4	73	<b>6</b> Th	0221	2.7	82	<b>21</b> F	0207	2.7	82	
0621	0.2	6	0629	0.5	15	0750	0.6	18	1318	2.0	61	0737	0.8	24	0839	0.9	27	0827	0.9	27	1252	1.5	46	
1259	2.6	79	1243	2.2	67	1938	-0.2	-6	1914	-0.3	-9	1247	1.9	58	1914	-0.4	-12	1937	-0.4	-12	1923	-0.6	-18	
1924	0.3	9	1906	0.3	9	1938	-0.2	-6	1914	-0.3	-9	1914	-0.3	-9	1937	-0.4	-12	1923	-0.6	-18	1923	-0.6	-18	
<b>9</b> M	0112	2.0	61	<b>22</b> M	0115	2.0	61	<b>7</b> W	0226	2.6	79	<b>22</b> Th	0213	2.6	79	<b>7</b> F	0254	2.7	82	<b>22</b> Sa	0246	2.9	88	
0708	0.2	6	0706	0.5	15	0832	0.7	21	1345	1.9	58	0820	0.8	24	0919	0.9	27	0912	0.8	24	1334	1.5	46	
1330	2.5	76	1307	2.2	67	1927	0.1	3	●	2004	-0.3	-9	1943	-0.4	-12	2006	-0.3	-9	2002	-0.7	-21	2041	-0.6	-18
1949	0.1	3	1331	2.2	67	2030	-0.2	-6	2030	-0.2	-6	1410	1.7	52	2035	-0.3	-15	2041	-0.6	-18	2041	-0.6	-18	
<b>10</b> M	0153	2.2	67	<b>23</b> Tu	0147	2.2	67	<b>8</b> Th	0302	2.7	82	<b>23</b> F	0251	2.8	85	<b>8</b> Sa	0328	2.7	82	<b>23</b> Su	0327	3.0	91	
0752	0.2	6	0743	0.5	15	0914	0.8	24	1410	1.7	52	0906	0.8	24	0959	0.9	27	0959	0.8	24	1416	1.4	43	
1359	2.4	73	1331	2.2	67	2030	-0.2	-6	2030	-0.2	-6	1349	1.7	52	2016	-0.5	-15	2035	-0.3	-9	2041	-0.6	-18	
2015	0.0	0	1949	0.0	0	1949	0.0	0	1949	0.0	0	1434	1.6	49	2050	-0.5	-15	2104	-0.2	-6	2122	-0.5	-15	
<b>11</b> Tu	0232	2.4	73	<b>24</b> W	0221	2.4	73	<b>9</b> F	0338	2.7	82	<b>24</b> Sa	0332	2.8	85	<b>9</b> Su	0402	2.6	79	<b>24</b> M	0409	2.9	88	
0834	0.3	9	0820	0.6	18	0958	0.9	27	1434	1.6	49	0955	0.9	27	1421	1.4	43	1048	0.8	24	1500	1.3	40	
1426	2.2	67	1355	2.1	64	1434	1.6	49	2057	-0.2	-6	1421	1.5	46	2127	-0.3	-9	2122	-0.5	-15	2122	-0.5	-15	
2041	0.0	0	○	2014	-0.1	-3	2057	-0.2	-6	2057	-0.2	-6	2127	-0.3	-9	2134	-0.2	-6	2134	-0.2	-6	2134	-0.2	-6
<b>12</b> W	0311	2.5	76	<b>25</b> Th	0257	2.5	76	<b>10</b> Sa	0416	2.6	79	<b>25</b> Su	0417	2.8	85	<b>10</b> M	0438	2.5	76	<b>25</b> Tu	0453	2.8	85	
0915	0.5	15	0900	0.7	21	1045	1.0	30	1455	1.4	43	1051	0.9	27	1508	1.2	37	1551	1.2	37	2205	-0.2	-6	
1451	2.0	61	1420	1.9	58	2123	-0.1	-3	2123	-0.1	-3	1454	1.4	43	2127	-0.3	-9	2134	0.0	0	2205	-0.2	-6	
2108	-0.1	-3	2041	-0.2	-6	2110	-0.2	-6	2110	-0.2	-6	2150	0.1	3	2207	-0.2	-6	2207	0.1	3	2251	0.1	3	
<b>13</b> Th	0351	2.5	76	<b>26</b> F	0336	2.6	79	<b>11</b> Su	0456	2.4	73	<b>26</b> M	0506	2.7	82	<b>11</b> Tu	0516	2.4	73	<b>26</b> W	0538	2.7	82	
0958	0.7	21	0944	0.8	24	1445	1.8	55	1142	1.1	34	1159	1.0	30	1531	1.2	37	1653	1.1	34	2239	0.1	3	
1514	1.8	55	1509	1.6	49	2142	-0.1	-3	2150	0.1	3	2150	0.1	3	2207	-0.2	-6	2207	0.1	3	2251	0.1	3	
2134	0.0	0	2110	-0.2	-6	2142	-0.1	-3	2142	-0.1	-3	2142	-0.1	-3	2207	-0.2	-6	2207	0.1	3	2251	0.1	3	
<b>14</b> F	0432	2.4	73	<b>27</b> Sa	0420	2.6	79	<b>12</b> M	0543	2.3	70	<b>27</b> Tu	0601	2.6	79	<b>12</b> W	0556	2.3	70	<b>27</b> Th	0625	2.4	73	
1043	0.9	27	1035	1.0	30	1509	1.6	49	2217	0.3	9	1329	1.0	30	1619	1.1	34	1332	0.9	27	1342	0.6	18	
1533	1.6	49	1530	1.4	43	2142	-0.1	-3	2254	0.1	3	2254	0.1	3	2254	0.1	3	2234	0.4	12	2344	0.5	15	
2159	0.1	3	2219	0.0	0	2219	0.0	0	2254	0.1	3	2343	0.7	21	2106	1.0	30	2051	1.0	30	2051	1.0	30	
<b>15</b> Sa	0518	2.3	70	<b>28</b> Su	0511	2.5	76	<b>13</b> Tu	0641	2.1	64	<b>28</b> W	0703	2.4	73	<b>13</b> Th	0640	2.1	64	<b>28</b> F	0713	2.2	67	
1140	1.1	34	1142	1.1	34	1530	1.4	43	2249	0.5	15	1510	0.8	24	1805	0.9	27	1453	0.8	24	2034	1.1	34	
1542	1.4	43	1530	1.4	43	2219	0.0	0	2356	0.4	12	2356	0.4	12	2356	0.4	12	2309	0.6	18	2309	0.6	18	
2225	0.2	6	2219	0.0	0	2219	0.0	0	2254	0.1	3	2254	0.1	3	2254	0.1	3	2254	0.1	3	2254	0.1	3	
<b>16</b> M	0738	2.0	61	<b>30</b> Tu	0735	2.3	70	<b>15</b> Th	0908	2.0	61	<b>30</b> F	0138	0.7	21	<b>15</b> Sa	0011	0.9	27	<b>30</b> Su	0312	1.1	34	
2335	0.6	18	1728	0.8	24	1734	0.8	24	2240	1.0	30	0915	2.2	67	1646	0.5	15	1617	0.6	18	1627	0.2	6	
2254	0.4	12	1728	0.8	24	2101	0.9	27	2254	1.3	40	2254	1.3	40	2254	1.3	40	2258	1.2	37	2350	1.8	55	
<b>17</b> W	0903	2.3	70	<b>31</b> W	0013	0.4	12	<b>18</b> O	0903	2.3	70	<b>31</b> O	0517	1.2	37	<b>31</b> M	0957	1.6	49	<b>31</b> M	0517	1.2	37	
1728	0.8	24	1728	0.8	24	2101	0.9	27	2101	0.9	27	2101	0.9	27	2101	0.9	27	2107	0.0	0	2107	0.0	0	

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Hilo, Hawaii Island, Hawaii, 2018

Times and Heights of High and Low Waters

January			February			March											
Time	Height		Time	Height		Time	Height										
h m	ft	cm	h m	ft	cm	h m	ft	cm									
<b>1</b> M O	0301 0.5 15 1423 1.6 49 ○ 2032 - 0.7 - 21	3.2 15 0.6 14 ● 2042 - 0.3 - 9	<b>16</b> Tu ●	0319 0952 1439 1439 1.4 43 ● 2042 - 0.3 - 9	2.7 0.6 1.4 1.4 43 - 0.3 - 9	<b>1</b> Th	0408 1039 1557 1557 1.7 52 2155 - 0.4 - 12	3.1 0.2 1.7 1.7 52 - 0.4 - 12	<b>16</b> F	0352 1016 1542 1542 1.7 52 2139 - 0.2 - 6	2.6 0.2 1.7 1.7 52 - 0.2 - 6	<b>1</b> Th	0305 0929 1504 1504 1.9 58 ○ 2104 - 0.4 - 12	2.8 0.0 1.9 1.9 58 - 0.4 - 12	<b>16</b> F	0249 0908 1454 1454 1.9 58 2053 - 0.2 - 6	2.4 0.0 1.9 1.9 58 - 0.2 - 6
<b>2</b> Tu	0345 1022 1512 1512 1.5 46 2117 - 0.6 - 18	3.3 12 0.5 12 1.5 46 - 0.6 - 18	<b>17</b> W	0350 1023 1515 1515 1.4 43 2115 - 0.3 - 9	2.8 0.5 15 1.4 43 - 0.3 - 9	<b>2</b> F	0446 1117 1646 1646 1.7 52 2239 - 0.2 - 6	2.9 0.1 1.7 1.7 52 - 0.2 - 6	<b>2</b> F	0340 1042 1547 1547 2.0 61 2146 - 0.3 - 9	2.7 0.2 2.0 2.0 61 - 0.3 - 9	<b>17</b> Sa	0317 0934 1530 1530 2.0 61 ● 2129 - 0.1 - 3	2.4 0.1 2.0 2.0 61 - 0.1 - 3			
<b>3</b> W	0429 1109 1603 1603 1.5 46 2203 - 0.5 - 15	3.2 12 0.4 12 1.5 46 - 0.5 - 15	<b>18</b> Th	0420 1054 1551 1551 1.4 43 2148 - 0.2 - 6	2.5 0.5 15 1.4 43 - 0.2 - 6	<b>3</b> Sa	0448 1114 1701 1701 1.7 52 2251 0.2 6	2.4 0.1 1.7 1.7 52 0.2 6	<b>3</b> Sa	0413 1033 1630 1630 2.0 61 2228 0.0 0	2.5 0.1 2.0 2.0 61 0.0 0	<b>18</b> Su	0345 1001 1608 1608 2.1 64 2208 0.0 0	2.3 0.1 2.1 2.1 64 0.0 0			
<b>4</b> Th	0513 1156 1657 1657 1.5 46 2249 - 0.2 - 6	3.1 12 0.4 12 1.5 46 - 0.2 - 6	<b>19</b> F	0451 1127 1630 1630 1.4 43 2222 0.0 0	2.7 0.5 15 1.4 43 0.0 0	<b>4</b> Su	0557 1235 1835 1835 1.6 49	2.4 0.2 1.6 1.6 49	<b>19</b> M	0516 1146 1749 1749 1.7 52 2335 0.4 12	2.3 0.1 1.7 1.7 52 0.4 12	<b>4</b> Su	0444 1104 1714 1714 2.0 61 2311 0.2 6	2.3 0.1 2.0 2.0 61 0.2 6	<b>19</b> M	0413 1030 1650 1650 2.1 64 2251 0.2 6	2.1 0.2 2.1 2.1 64 0.2 6
<b>5</b> F	0557 1245 1757 1757 1.4 43 2338 0.1 3	2.9 12 0.4 12 1.4 43 0.1 3	<b>20</b> Sa	0521 1201 1713 1713 1.4 43 2257 0.2 6	2.6 0.4 12 1.4 43 0.2 6	<b>5</b> M	0013 0631 1317 1317 0.2 6 1944 1.6 49	0.5 2.1 64 0.2 6 1.6 49	<b>20</b> Tu	0546 1221 1847 1847 1.7 52	2.0 0.1 1.7 1.7 52	<b>5</b> M	0513 1136 1801 1801 1.9 58 2357 0.5 15	2.0 0.0 1.9 1.9 58 0.5 15	<b>20</b> Tu	0442 1101 1736 1736 2.1 64 2341 0.5 15	1.9 0.2 2.1 2.1 64 0.5 15
<b>6</b> Sa	0640 1337 1909 1909 1.4 43	2.6 12 0.4 12 1.4 43	<b>21</b> Su	0553 1238 1806 1806 1.4 43 2338 0.4 12	2.4 0.4 12 1.4 43 0.4 12	<b>6</b> Tu	0112 0705 1403 1403 0.3 9 2111 1.6 49	0.8 1.8 55 0.3 9 1.6 49	<b>21</b> W	0030 0619 1305 1305 0.1 3 2004 1.8 55	0.7 1.8 55 0.1 3 1.8 55	<b>6</b> Tu	0541 1209 1855 1855 1.9 58	1.7 0.1 1.9 1.9 58	<b>21</b> W	0514 1137 1832 1832 2.1 64	1.7 0.1 2.1 2.1 64
<b>7</b> Su	0034 0725 1430 1430 0.3 9 2038 1.4 43	0.5 15 2.3 70 0.3 9	<b>22</b> M	0626 1319 1913 1913 1.4 43	2.3 0.4 12 0.4 12 1.4 43	<b>7</b> W	0245 0744 1459 1459 0.3 9 ● 2246 1.8 55	1.1 1.5 46 0.3 9 1.8 55	<b>22</b> Th	0152 0701 1401 1401 0.1 3 ● 2139 1.9 58	0.9 1.5 46 0.1 3 1.9 58	<b>7</b> W	0053 0608 1245 1245 0.2 6 2004 1.8 55	0.8 1.5 46 0.2 6 1.8 55	<b>22</b> Th	0044 0549 1219 1219 0.1 3 1943 2.0 61	0.7 1.4 2.0 1.4 61 2.0 61
<b>8</b> M	0144 0811 1524 1524 0.3 9 ● 2215 1.6 49	0.8 24 2.0 61 0.3 9	<b>23</b> Tu	0031 0703 1406 1406 0.3 9 2040 1.5 46	0.7 2.0 61 0.3 9 1.5 46	<b>8</b> Th	0511 0844 1602 1602 0.3 9 2358 2.0 61	1.1 1.3 40 0.3 9 2.0 61	<b>23</b> F	0406 0807 1514 1514 0.1 3 2308 2.1 64	1.0 1.2 37 0.1 3 2.1 64	<b>8</b> Th	0220 0635 1333 1333 0.3 9 2134 1.7 52	1.0 1.2 37 0.3 9 1.7 52	<b>23</b> F	0219 0635 1317 1317 0.0 0 2111 2.1 64	0.8 1.2 0.0 1.2 64 2.1 64
<b>9</b> Tu	0323 0903 1615 1615 0.2 6 2334 1.8 55	1.1 34 1.8 55 0.2 6	<b>24</b> W	0151 0749 1501 1501 0.2 6 ● 2216 1.8 55	1.0 1.8 55 0.2 6 1.8 55	<b>9</b> F	0656 0749 1704 1704 0.2 6	1.0 1.1 34 0.1 3 0.2 6	<b>24</b> Sa	0606 0957 1633 1633 0.0 0	0.9 1.1 34 0.0 0	<b>9</b> F	0511 0722 1445 1445 0.4 12 ● 2305 1.8 55	0.9 1.0 12 0.4 12 1.8 55	<b>24</b> Sa	0433 0805 1439 1439 0.1 3 ● 2239 2.2 67	0.8 1.0 0.1 1.0 67 2.2 67
<b>10</b> W	0517 1001 1702 1702 0.1 3	1.2 37 1.6 49 0.1 3	<b>25</b> Th	0351 0851 1601 1601 0.1 3 2333 2.1 64	1.1 1.6 49 0.1 3 2.1 64	<b>10</b> Sa	0047 0741 1142 1142 1.1 34 1758 0.1 3	2.1 0.8 24 1.1 34 0.1 3	<b>25</b> Su	0013 0707 1132 1132 1.1 34 1742 - 0.2 6	2.4 0.7 21 1.1 34 - 0.2 6	<b>10</b> Sa	0649 0700 1616 1616 0.3 9	0.8 0.9 27 0.9 9	<b>25</b> Su	0601 1018 1614 1614 0.1 3 2347 2.3 70	0.6 0.9 0.1 0.1 3 2.3 70
<b>11</b> Th	0030 0643 1101 1101 1.4 43 1744 0.1 3	2.1 34 1.1 34 0.1 3	<b>26</b> F	0548 1011 1700 1700 - 0.1 - 3	1.0 1.4 43 - 0.1 - 3	<b>11</b> Su	0125 0809 1237 1237 1.2 37 1842 0.0 0	2.3 0.7 21 1.2 37 0.0 0	<b>26</b> M	0105 0748 1239 1239 1.3 40 1841 - 0.4 - 12	2.6 0.4 21 1.3 40 - 0.4 - 12	<b>11</b> Su	0006 0716 1138 1138 1.0 30 1729 0.2 6	2.0 0.7 21 1.0 30 0.2 6	<b>26</b> M	0647 1146 1733 1733 0.0 0	0.4 1.1 0.0 1.1 0.0 0.0 0
<b>12</b> F	0111 0740 1156 1156 1.4 43 1823 0.0 0	2.3 70 1.0 30 0.0 0	<b>27</b> Sa	0032 0705 1128 1128 1.4 43 1757 - 0.3 - 9	2.4 0.8 24 1.4 43 - 0.3 - 9	<b>12</b> M	0158 0834 1320 1320 1.3 40 1922 - 0.2 - 6	2.4 0.6 18 0.6 18 - 0.2 - 6	<b>27</b> Tu	0149 0823 1333 1333 1.5 46 1933 - 0.5 - 15	2.8 0.3 18 0.3 18 - 0.5 - 15	<b>12</b> M	0050 0738 1232 1232 1.2 37 1821 0.1 3	2.1 0.5 18 0.5 18 0.1 3	<b>27</b> Tu	0038 0722 1245 1245 1.4 43 1834 - 0.1 - 3	2.4 0.2 1.4 1.4 43 - 0.1 - 3
<b>13</b> Sa	0146 0820 1243 1243 1.3 40 1859 - 0.1 - 3	2.5 76 1.8 24 - 0.1 - 3	<b>28</b> Su	0121 0758 1234 1234 1.4 43 1849 - 0.5 - 15	2.7 0.6 18 1.4 43 - 0.5 - 15	<b>13</b> Tu	0228 0858 1357 1357 1.4 43 1958 - 0.2 - 6	2.5 0.5 15 0.5 15 - 0.2 - 6	<b>28</b> W	0228 0857 1420 1420 1.7 52 2019 - 0.5 - 15	2.8 0.1 52 0.1 52 - 0.5 - 15	<b>13</b> Tu	0124 0759 1311 1311 1.3 40 1904 0.0 0	2.2 0.4 12 0.4 12 0.0 0	<b>28</b> W	0121 0753 1333 1333 1.7 52 1926 - 0.2 - 6	2.5 0.0 1.7 1.7 52 - 0.2 - 6
<b>14</b> Su	0218 0853 1325 1325 1.4 43 1935 - 0.2 - 6	2.6 79 1.7 21 - 0.2 - 6	<b>29</b> M	0206 0842 1330 1330 1.5 46 1938 - 0.6 - 18	3.0 0.5 15 1.5 46 - 0.6 - 18	<b>14</b> W	0256 0842 1432 1432 1.5 46 2032 - 0.3 - 9	2.6 0.4 12 1.5 46 - 0.3 - 9	<b>29</b> Th	0154 0820 1346 1346 1.5 46 1942 - 0.1 - 3	2.3 0.3 12 1.5 46 - 0.1 - 3	<b>29</b> Th	0159 0822 1415 1415 1.9 58 2012 - 0.2 - 6	2.5 0.1 1.9 1.9 58 - 0.2 - 6			
<b>15</b> M	0249 0923 1403 1403 1.4 43 2009 - 0.3 - 9	2.7 82 0.6 18 - 0.3 - 9	<b>30</b> Tu	0248 0922 1421 1421 1.6 49 2025 - 0.7 - 21	3.1 0.3 94 0.3 94 - 0.7 - 21	<b>15</b> Th	0325 0949 1507 1507 1.6 49 ● 2105 - 0.3 - 9	2.6 0.3 94 0.3 94 - 0.3 - 9	<b>15</b> Th	0222 0844 1420 1420 1.7 52 2017 - 0.2 - 6	2.4 0.2 52 0.2 52 - 0.2 - 6	<b>30</b> F	0233 0851 1455 1455 2.1 64 2056 - 0.1 - 3	2.4 0.2 64 2.1 64 - 0.1 - 3			
			<b>31</b> W	0329 1001 1509 1509 1.6 49 ● 2111 - 0.6 - 18	3.1 0.2 6 1.6 49 - 0.6 - 18				<b>31</b> O	0305 0920 1534 1534 2.2 67 ● 2138 0.0 0	2.3 0.3 6 2.2 67 0.0 0						

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Hilo, Hawaii Island, Hawaii, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0335	2.1	64	<b>16</b> M	0308	2.0	61	<b>1</b> Tu	0325	1.5	46
	0948	-0.3	-9		0921	-0.4	-12		0933	-0.4	-12
	1613	2.3	70		1557	2.5	76		1632	2.5	76
	2219	0.2	6		2208	0.2	6		2258	0.5	15
<b>2</b> M	0403	1.9	58	<b>17</b> Tu	0340	1.8	55	<b>2</b> W	0355	1.4	43
	1016	-0.3	-9		0952	-0.5	-15		1001	-0.3	-9
	1652	2.3	70		1640	2.5	76		1710	2.4	73
	2302	0.3	9		2258	0.3	9		2345	0.6	18
<b>3</b> Tu	0431	1.7	52	<b>18</b> W	0414	1.6	49	<b>3</b> Th	0425	1.2	37
	1043	-0.2	-6		1027	-0.4	-12		1031	-0.2	-6
	1733	2.2	67		1728	2.5	76		1751	2.3	70
	2349	0.5	15		2355	0.5	15				
<b>4</b> W	0458	1.4	43	<b>19</b> Th	0451	1.4	43	<b>4</b> F	0041	0.6	18
	1112	-0.1	-3		1105	-0.3	-9		0458	1.0	30
	1818	2.1	64		1823	2.4	73		1103	0.0	0
									1838	2.2	67
<b>5</b> Th	0046	0.7	21	<b>20</b> F	0108	0.6	18	<b>5</b> Sa	0152	0.7	21
	0525	1.2	37		0536	1.1	34		0540	0.9	27
	1144	0.1	3		1151	-0.2	-6		1141	0.2	6
	1913	2.0	61		1929	2.3	70		1934	2.0	61
<b>6</b> F	0209	0.8	24	<b>21</b> Sa	0243	0.6	18	<b>6</b> Su	0322	0.7	21
	0555	1.0	30		0642	0.9	27		0849	0.9	27
	1224	0.2	6		1252	0.0	0		1234	0.4	12
	2025	1.8	55		2046	2.2	67		2040	1.9	58
<b>7</b> Sa	0428	0.8	24	<b>21</b> M	0344	0.4	12	<b>6</b> M	0404	0.4	12
	0654	0.9	27		0849	0.9	27		0955	1.1	34
	1327	0.4	12		1097	0.8	24		1400	0.3	9
	2151	1.8	55		1418	0.2	6		2123	2.2	67
<b>8</b> Su	0556	0.7	21	<b>22</b> M	0423	0.5	15	<b>7</b> Tu	0437	0.6	18
	0945	0.8	24		0838	0.8	24		0907	0.8	24
	1510	0.5	15		1418	0.2	6		1359	0.5	15
	2304	1.9	58		2204	2.2	67		2147	1.9	58
<b>9</b> M	0626	0.5	15	<b>8</b> Tu	0528	0.4	12	<b>23</b> W	0520	0.5	15
	1124	1.0	30		1036	1.0	30		1049	1.0	30
	1644	0.4	12		1557	0.3	9		1540	0.6	18
	2355	1.9	58		2309	2.2	67		2243	1.9	58
<b>10</b> Tu	0649	0.4	12	<b>9</b> W	0611	0.2	6	<b>24</b> Th	0550	0.3	9
	1215	1.2	37		1151	1.3	40		1147	1.2	37
	1748	0.3	9		1720	0.3	9		1701	0.6	18
									2329	1.9	58
<b>11</b> W	0034	2.0	61	<b>25</b> W	0001	2.2	67	<b>9</b> Th	0603	-0.1	-3
	0711	0.3	9		0645	0.0	0		1237	1.8	55
	1254	1.4	43		1244	1.6	49		1816	0.6	18
	1837	0.2	6		1825	0.2	6		2359	1.9	58
<b>12</b> Th	0106	2.1	64	<b>10</b> Th	0617	0.1	3	<b>25</b> F	0636	-0.2	-6
	0734	0.1	3		1230	1.5	46		1320	2.1	64
	1329	1.7	52		1803	0.5	15		1914	0.6	18
	1920	0.1	3								
<b>13</b> F	0137	2.2	67	<b>11</b> F	0044	2.2	67	<b>26</b> Sa	0008	1.9	58
	0758	-0.1	-3		0716	-0.1	-3		0706	-0.3	-9
	1404	1.9	58		1328	1.9	58		1358	2.3	70
	2000	0.1	3		1919	0.2	6		2005	0.6	18
<b>14</b> Sa	0207	2.2	67	<b>12</b> Sa	0121	2.1	64	<b>27</b> Tu	0045	1.9	58
	0824	-0.2	-6		0744	-0.3	-9		0734	-0.4	-12
	1440	2.1	64		1408	2.1	64		1346	2.2	67
	2041	0.1	3		2006	0.2	6		1944	0.4	12
<b>15</b> Su	0237	2.1	64	<b>14</b> M	0157	1.8	55	<b>29</b> O	0221	1.4	43
	0851	-0.3	-9		0839	-0.4	-12		0832	-0.4	-12
	1517	2.3	70		1521	2.5	76		1541	2.6	79
	2123	0.1	3		O	2132	0.3	9		2213	0.5
<b>16</b> ●	0257	2.1	64	<b>15</b> M	0255	1.7	52	<b>30</b> W	0254	1.3	40
	0851	-0.3	-9		0906	-0.4	-12		0902	-0.4	-12
	1517	2.3	70		1556	2.5	76		1615	2.6	79
	2123	0.1	3		2215	0.4	12		2254	0.5	15
<b>17</b> ●	0329	1.2	37	<b>31</b> Th	0329	1.2	37				
	0933	-0.3	-9		0933	-0.3	-9				
	1651	2.6	79								
	2338	0.6	18								

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Hilo, Hawaii Island, Hawaii, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Su	0433 1024 1741	1.2 0.0 2.5	37 0 76	<b>16</b> M	0019 0535 1120 1817	0.3 1.5 0.0 2.7	9 46 0 82	<b>1</b> W	0017 0550 1124 1806	0.4 1.5 0.5 2.3	12 46 15 70	<b>16</b> Th	0053 0722 1301 1849	0.2 1.9 0.9 1.9	6 58 27 58	<b>1</b> Sa	0034 0730 1321 1831	0.3 2.0 1.1 1.7	9 61 34 52	<b>16</b> Su	0117 0915 1651 1938	0.5 2.1 1.1 1.2	15 64 34 37
<b>2</b> M	0035 0520 1100 1816	0.5 1.2 0.1 2.4	15 37 3 73	<b>17</b> Tu	0107 0642 1214 1900	0.2 1.5 0.3 2.4	6 46 9 73	<b>2</b> Th	0054 0650 1212 1839	0.4 1.5 0.7 2.1	12 46 21 64	<b>17</b> F	0139 0843 1429 1930	0.3 1.9 1.1 1.6	9 58 34 49	<b>2</b> Su	0126 0859 1522 1929	0.3 2.0 1.2 1.4	9 61 37 43	<b>17</b> M	0230 1042 1821 2203	0.6 2.1 1.0 1.1	18 64 30 34
<b>3</b> Tu	0118 0616 1140 1852	0.5 1.1 0.4 2.3	15 34 12 70	<b>18</b> W	0156 0801 1320 1944	0.2 1.5 0.7 2.1	6 46 21 64	<b>3</b> F	0136 0806 1319 1918	0.3 1.6 1.0 1.9	9 49 30 58	<b>3</b> Sa	0233 1014 1642 2031	0.3 2.0 1.2 1.4	9 61 37 43	<b>18</b> Tu	0400 1145 1854 2331	0.6 2.2 0.9 1.2	18 67 27 37				
<b>4</b> W	0202 0728 1231 1932	0.5 1.2 0.6 2.1	15 37 18 64	<b>19</b> Th	0248 0932 1447 2032	0.2 1.6 1.0 1.8	6 49 30 55	<b>4</b> Sa	0226 0936 1505 2011	0.3 1.8 1.2 1.7	9 55 37 52	<b>4</b> Tu	0337 1131 1830 2204	0.3 2.1 1.1 1.2	9 64 34 37	<b>19</b> W	0513 1229 1918	0.5 2.3 0.7	15 70 21				
<b>5</b> Th	0248 0856 1343 2016	0.4 1.3 0.9 2.0	12 40 27 61	<b>20</b> F	0340 1057 1638 2127	0.2 1.8 1.1 1.6	6 55 34 49	<b>5</b> Su	0324 1058 1708 2126	0.2 2.0 1.1 1.5	6 61 34 46	<b>5</b> W	0442 1225 1921 2327	0.3 2.3 0.9 1.2	9 70 37 37	<b>20</b> Th	0021 0607 1304 1939	1.4 0.4 2.4 0.6	43 12 73 18				
<b>6</b> F	0334 1022 1522 2109	0.2 1.5 1.0 1.8	6 46 30 55	<b>21</b> Sa	0431 1203 1818 2229	0.1 2.1 1.1 1.4	3 64 34 43	<b>6</b> M	0425 1202 1834 2249	0.0 2.3 1.0 1.4	0 70 30 43	<b>21</b> Th	0008 0611 1319 1954	1.5 -0.1 2.9 0.5	46 -3 88 15	<b>21</b> F	0059 0649 1334 2001	1.6 0.3 2.5 0.5	49 9 76 15				
<b>7</b> Sa	0420 1129 1706 2208	0.1 1.8 1.0 1.7	3 55 30 52	<b>22</b> Su	0518 1252 1925 2330	0.0 2.3 1.0 1.3	0 70 30 40	<b>7</b> Tu	0524 1254 1931	-0.2 2.7 0.8	-6 82 24	<b>22</b> W	0024 0626 1341 2018	1.3 0.1 2.5 0.7	40 3 76 21	<b>22</b> Sa	0133 0727 1402 2023	1.8 0.2 2.6 0.4	55 6 79 12				
<b>8</b> Su	0505 1223 1829 2310	-0.1 2.2 0.9 1.5	-3 67 27 46	<b>23</b> M	0602 1331 2009	0.0 2.4 0.9	0 73 27	<b>8</b> W	0001 0620 1340 2016	1.4 -0.3 2.9 0.6	43 -9 88 18	<b>23</b> Th	0107 0707 1411 2041	1.4 0.0 2.6 0.6	43 -9 79 18	<b>23</b> Sa	0206 0802 1429 2046	2.0 0.2 2.6 0.3	61 6 79 9				
<b>9</b> M	0551 1311 1933	-0.3 2.5 0.8	-9 76 24	<b>24</b> Tu	0024 0642 1405 2043	1.3 -0.1 2.6 0.8	40 -3 79 24	<b>9</b> Th	0101 0711 1423 2057	1.5 -0.5 3.1 0.4	46 15 94 12	<b>24</b> F	0144 0743 1440 2105	1.6 0.0 2.7 0.5	49 0 82 15	<b>24</b> Sa	0239 0840 1514 2135	2.1 -0.2 2.9 0.1	64 6 88 3				
<b>10</b> Tu	0009 0636 1356 2027	1.5 -0.5 2.8 0.6	46 15 85 18	<b>25</b> W	0109 0719 1437 2113	1.3 -0.2 2.7 0.7	40 -6 82 21	<b>10</b> F	0154 0800 1505 2136	1.6 -0.6 3.2 0.3	49 18 98 9	<b>25</b> Sa	0218 0818 1507 2130	1.7 -0.1 2.7 0.5	52 -3 82 15	<b>25</b> M	0324 0925 1549 2208	2.2 -0.1 2.7 0.0	67 -3 82 0				
<b>11</b> W	0105 0722 1440 2115	1.5 -0.6 3.1 0.5	46 18 94 15	<b>26</b> Th	0150 0755 1507 2142	1.4 -0.2 2.7 0.6	43 -6 82 18	<b>11</b> Sa	0245 0848 1545 2214	1.7 -0.5 3.1 0.2	52 15 94 6	<b>11</b> Su	0409 0851 1534 2156	1.8 0.0 2.7 0.4	55 0 82 12	<b>26</b> W	0349 0949 1548 2204	2.3 0.4 2.3 0.1	70 12 70 3				
<b>12</b> Th	0157 0809 1524 ● 2201	1.5 -0.7 3.2 0.4	46 -21 98 12	<b>27</b> F	0228 0830 1538 2210	1.4 -0.2 2.7 0.5	43 -6 82 15	<b>12</b> Su	0334 0934 1624 2252	1.8 -0.4 3.0 0.2	55 12 91 6	<b>12</b> M	0328 0924 1601 2223	1.9 0.0 2.6 0.3	58 0 79 9	<b>27</b> W	0428 1030 1654 2314	2.4 0.5 2.2 0.1	73 15 64 3				
<b>13</b> F	0249 0855 1608 2247	1.5 -0.7 3.2 0.3	46 -21 98 9	<b>13</b> Sa	0304 0904 1607 2240	1.5 -0.2 2.7 0.5	46 -6 82 15	<b>28</b> M	0424 1020 1701 2331	1.9 -0.1 2.8 0.2	58 6 85 6	<b>13</b> Tu	0404 0958 1627 2251	1.9 0.2 2.5 0.3	58 6 76 9	<b>28</b> F	0512 1117 1646 2307	2.4 0.7 1.9 0.1	73 21 58 3				
<b>14</b> Sa	0341 0942 1651 2332	1.5 -0.6 3.1 0.3	46 -18 94 9	<b>29</b> Tu	0341 0937 1637 2311	1.5 -0.1 2.7 0.5	46 -3 82 15	<b>14</b> W	0517 1108 1738 2181	1.9 0.2 2.5 2.2	58 6 76 67	<b>14</b> F	0444 1035 1654 2321	1.9 0.4 2.3 0.3	58 12 70 9	<b>29</b> Sa	0603 1217 1718 2347	2.4 0.9 1.7 0.2	73 27 52 6				
<b>15</b> Su	0435 1030 1735	1.5 -0.4 2.9	46 -12 88	<b>30</b> M	0420 1011 1011 2343	1.5 0.2 0.0 0.5	46 6 79 15	<b>15</b> W	0528 1116 1159 1813	1.9 0.6 0.5 2.2	58 18 64 67	<b>15</b> Th	0027 0749 1420 1830	0.3 2.1 1.2 1.4	9 64 37 43	<b>30</b> Su	0708 1344 1801	2.3 1.1 1.4	70 34 43				
				<b>31</b> Tu	0502 1045 1735	1.5 0.2 2.4	46 6 73	<b>31</b> F	0621 1207 1753	1.9 0.8 1.9	58 24 58												

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Hilo, Hawaii Island, Hawaii, 2018

Times and Heights of High and Low Waters

October					November					December							
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
h m 0039 M 0832 O 1921	ft 0.3 2.3 1.1 1.2	cm 9 70 34 37	h m 0112 Tu 0935 O 2152	ft 0.7 2.1 0.9 1.1	cm 21 64 27 34	h m 0314 Th 1034 F 1742 O 2320	ft 0.6 2.5 0.5 1.5	cm 18 76 15 46	h m 0324 F 1025 Tu 1736 O 2341	ft 0.9 2.1 0.6 1.5	cm 27 64 18 46	h m 0428 Sa 1044 Su 1738	ft 0.8 2.2 0.1	cm 24 67 3	h m 0345 Su 0953 M 1702 O 2352	ft 1.1 1.9 0.3 1.8	cm 34 58 9 55
2 Tu 1015 1729 2137	0.4 0.9 1.2	12 73 37	17 W 0258 1809 2321	0.8 24 1.3	24 67 40	2 F 0445 1129 1818	0.6 2.5 0.3	18 76 9	17 Sa 0448 1111 1802	0.9 2.1 0.4	27 64 12	2 Su 0012 0549 1133 1813	2.0 0.8 2.1 0.0	61 24 64 0	17 M 0515 1044 1736	1.1 1.9 0.1	34 58 3
3 W 0333 1111 1816 2314	0.4 2.5 0.7 1.3	12 76 21 40	18 Th 0432 1136 1833	0.7 2.2 0.6	21 67 18	3 Sa 0018 0555 1215 1849	1.8 0.5 2.5 0.1	55 15 76 3	18 Su 0022 0551 1150 1828	1.8 0.8 2.1 0.2	55 24 64 6	3 M 0100 0654 1216 1845	2.3 0.8 2.0 -0.1	70 24 61 -3	18 Tu 0035 0625 1133 1811	2.1 1.0 1.8 -0.1	64 30 55 -3
4 Th 0457 1206 1852	0.3 2.7 0.5	9 82 15	19 F 0008 0536 1215 1854	1.5 0.7 2.3 0.5	46 21 70 15	4 Su 0104 0653 1254 1919	2.2 0.5 2.4 0.0	67 15 73 0	19 M 0058 0643 1226 1854	2.1 0.8 2.1 0.0	64 24 64 0	4 Tu 0140 0747 1255 1917	2.6 0.8 1.9 -0.2	79 24 58 -6	19 W 0115 0722 1219 1847	2.4 0.9 1.7 -0.3	73 27 52 -9
5 F 0016 0603 1250 1924	1.6 0.2 2.7 0.3	49 6 82 9	20 Sa 0044 0624 1247 1916	1.7 0.6 2.3 0.4	52 18 70 12	5 M 0146 0744 1329 1949	2.5 0.5 2.3 -0.2	76 15 70 -6	20 Tu 0133 0730 1300 1922	2.4 0.7 2.1 -0.1	73 21 64 -3	5 W 0218 0834 1331 1947	2.8 0.7 1.7 -0.3	85 21 52 -9	20 Th 0154 0813 1304 1924	2.7 0.7 1.7 -0.4	82 21 52 -12
6 Sa 0106 0658 1330 1954	1.9 0.1 2.7 0.1	58 3 82 3	21 Su 0117 0706 1316 1939	2.0 0.5 2.4 0.2	61 15 73 6	6 Tu 0225 0830 1403 2017	2.7 0.5 2.1 -0.2	82 18 64 -6	21 W 0208 0815 1335 1952	2.6 0.6 2.0 -0.3	79 18 61 -9	6 Th 0253 0917 1406 2018	2.9 0.7 1.6 -0.3	88 21 49 -9	21 F 0234 0901 1349 2004	3.0 0.6 1.6 -0.6	91 18 49 -18
7 Su 0150 0747 1405 2025	2.2 0.1 2.7 0.0	67 3 82 0	22 M 0150 0745 1345 2003	2.2 0.4 2.3 0.1	67 12 70 3	7 W 0302 0915 1434 ● 2046	2.8 0.6 2.0 -0.3	85 18 61 -9	22 Th 0246 0901 1410 ○ 2025	2.9 0.6 1.9 -0.4	88 18 58 -12	7 F 0327 0958 1441 2049	2.9 0.7 1.5 -0.3	88 21 46 -9	22 O 0316 0948 1434 2045	3.1 0.6 1.6 -0.6	94 18 49 -18
8 M 0232 0833 1439 ● 2054	2.4 0.1 2.6 -0.1	73 3 79 -3	23 Tu 0223 0824 1413 2029	2.4 0.4 2.3 -0.1	73 12 70 -3	8 Th 0339 0959 1505 2115	2.9 0.6 1.8 -0.2	88 18 55 -6	23 F 0325 0948 1448 2100	3.0 0.6 1.8 -0.4	91 18 55 -12	8 Sa 0401 1038 1516 2120	2.9 0.7 1.5 -0.2	88 21 46 -6	23 Su 0359 1036 1521 2128	3.2 0.5 1.5 -0.6	98 15 46 -18
9 Tu 0313 0918 1511 2124	2.6 0.3 2.4 -0.1	79 9 73 -3	24 W 0259 0904 1443 ○ 2056	2.6 0.5 2.2 -0.1	79 15 67 -3	9 F 0417 1044 1536 2144	2.9 0.7 1.6 -0.1	88 21 49 -3	24 Sa 0408 1039 1527 2138	3.1 0.6 1.6 -0.4	94 18 49 -12	9 Su 0437 1120 1552 2153	2.8 0.7 1.4 -0.1	85 21 43 -3	24 M 0443 1125 1611 2213	3.2 0.5 1.4 -0.4	98 15 43 -12
10 W 0354 1002 1541 2153	2.7 0.4 2.2 -0.1	82 12 67 -3	25 Th 0336 0946 1513 2126	2.7 0.5 2.0 -0.2	82 15 61 -6	10 Sa 0455 1132 1608 2215	2.8 0.8 1.5 0.0	85 24 46 0	25 Su 0453 1134 1611 2219	3.1 0.7 1.5 -0.3	94 21 46 -9	10 M 0514 1205 1630 2227	2.7 0.7 1.3 0.1	82 21 40 3	25 Tu 0529 1217 1707 2301	3.1 0.5 1.4 -0.2	94 15 43 -6
11 Th 0435 1048 1611 2223	2.7 0.6 1.9 0.0	82 18 58 0	26 F 0416 1033 1545 2159	2.8 0.6 1.8 -0.2	85 18 55 -6	11 Su 0536 1228 1642 2247	2.6 0.9 1.3 0.2	79 27 40 6	26 M 0544 1238 1703 2306	3.0 0.7 1.3 -0.1	91 21 40 -3	11 Tu 0552 1254 1716 2303	2.6 0.8 1.2 0.3	79 24 37 9	26 W 0617 1313 1815 2355	2.9 0.5 1.3 0.2	88 15 40 6
12 F 0518 1138 1640 2254	2.6 0.8 1.7 0.1	79 24 52 3	27 Sa 0501 1127 1620 2235	2.8 0.8 1.6 -0.1	85 24 49 -3	12 M 0623 1339 1725 2325	2.5 0.9 1.2 0.4	76 27 37 12	27 Tu 0639 1350 1814 2344	2.8 0.7 1.2 0.5	85 24 37 15	12 W 0634 1350 1816 2344	2.4 0.8 1.1 0.5	73 24 34 15	27 Th 0706 1411 1940	2.6 0.4 1.3	79 12 40
13 Sa 0605 1239 1710 2327	2.5 1.0 1.4 0.3	76 30 43 9	28 Su 0553 1235 1701 2318	2.7 0.9 1.4 0.1	82 27 30 3	13 Tu 0718 1507 1841 2058	2.3 0.9 1.0 1.1	70 27 30 34	28 W 0002 0740 1449 2147	0.2 2.7 0.7 1.3	6 82 18 40	13 Th 0719 1449 1945 2147	2.3 0.7 1.1 0.4	70 21 34 37	28 F 0100 0758 1509 ○ 2120	0.5 2.4 0.3 1.5	15 73 9 46
14 Su 0700 1408 1745	2.3 1.1 1.2	70 34 37	29 M 0654 1404 1759	2.6 0.9 1.2	79 27 37	14 W 0015 0822 1622 2058	0.6 2.2 0.8 1.1	18 67 24 34	29 Th 0115 0845 1608 ○ 2147	0.5 2.5 0.5 1.3	15 76 15 40	14 F 0039 0808 1541 2133	0.7 2.2 0.6 1.2	21 67 18 37	29 Sa 0226 0854 1603 2252	0.8 2.1 0.2 1.7	24 64 6 52
15 M 0008 0812 1623 1903	0.5 2.2 1.0 1.1	15 67 30 34	30 Tu 0013 0808 1546 1946	0.2 2.5 0.9 1.1	6 76 27 34	15 W 0138 0928 1706 ○ 2244	0.8 2.1 0.7 1.2	24 64 21 37	30 F 0251 0948 1657 ○ 2244	0.7 2.3 0.3 1.2	21 70 9 49	15 Sa 0201 0900 1625 ○ 2257	0.9 2.0 0.5 1.5	27 61 15 46	30 Su 0412 0951 1652 ○ 2257	1.0 1.9 0.1 0.0	30 58 3 0
31 W 0132 0926 1657 ○ 2155	0.4 2.5 0.7 1.2	12 76 21 37													31 M 0000 0550 1049 ○ 1736	2.0 1.0 30 0.0	61 30 52 0

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Johnston Island, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0508 M 1142 - 0.5 O 1743 2.0 ● 2328 - 0.2	ft 2.9 - 15 61 0.0	cm 88 - 6 55 0	h m 16 0524 Tu 1154 - 0.2 ● 2336 0.0	ft 2.4 - 6 55 0	cm 73 - 6 67 0	h m 1 Th 0008 F 0625 ● 1250 2.2	ft - 0.3 2.7 - 0.6 2.2	cm - 9 82 - 18 67	h m 16 0612 F 1231 ● 1840 2.0	ft 2.3 - 0.4 2.0	cm 70 12 61
h m 0553 Tu 1226 - 0.5 W 1831 2.1	ft 2.9 - 15 64	cm 88 - 64	h m 17 0557 W 1225 - 0.2 1828 1.8	ft 2.4 - 6 55	cm 73 - 6 67	h m 2 0051 F 0706 ● 1327 2.2	ft - 0.2 2.5 - 0.5 2.2	cm - 6 76 - 15 67	h m 2 0608 F 1224 ● 1838 2.3	ft 2.4 - 0.6 2.3	cm 73 18 70
h m 0015 W 0638 - 0.5 1309 2.8 1918 2.1	ft - 0.2 - 15 64	cm - 6 58	h m 18 0010 Th 0629 1255 - 0.2 1901 1.9	ft 0.0 2.4 - 6 58	cm 0 73 - 6 64	h m 3 0134 Sa 0745 1403 - 0.4 2024 2.1	ft - 0.1 2.4 - 12 2.1	cm - 3 73 - 12 64	h m 3 0037 Sa 0645 1330 - 0.4 1947 2.1	ft - 0.3 2.3 - 12 64	cm - 9 70 - 15 70
h m 0101 Th 0722 - 0.1 1351 - 0.4 2005 2.0	ft - 3 82 61	cm 0	h m 19 0044 F 0701 1326 - 0.2 1936 1.9	ft 0.0 2.4 - 6 58	cm 0 73 - 6 61	h m 4 0218 Su 0824 1439 - 0.2 2106 2.0	ft 0.1 2.1 - 6 61	cm 3 64 - 9 61	h m 4 0116 Su 0750 1402 - 0.3 2025 2.1	ft - 0.3 2.1 - 9 64	cm - 9 67 - 12 70
h m 0148 F 0806 - 0.3 1434 - 0.3 2054 2.0	ft 0.1 76 - 9 61	cm 3	h m 20 0119 Sa 0734 1358 - 0.2 2012 1.9	ft 0.1 2.3 - 6 58	cm 3 70 - 6 58	h m 5 0304 M 0903 1515 0.0 2150 1.9	ft 0.2 1.8 0 58	cm 6 55 0 64	h m 5 0154 M 0756 1438 - 0.2 2109 2.1	ft - 0.1 2.0 - 6 64	cm - 3 61 - 6 64
h m 0239 Sa 0851 - 0.1 1519 - 0.1 2146 1.9	ft 0.3 67 - 3 58	cm 9	h m 21 0158 Su 0809 1432 - 0.1 2054 1.9	ft 0.2 2.2 - 3 58	cm 6 67 - 3 58	h m 6 0356 Tu 0947 1555 0.2 2241 1.8	ft 0.4 1.6 0.2 55	cm 12 49 6 61	h m 6 0233 Tu 0832 1430 - 0.1 2102 2.0	ft 0.0 1.7 - 3 61	cm 0 52 - 3 61
h m 0335 Su 0939 - 1.9 1606 0.1 2243 1.9	ft 0.5 58 3	cm 15	h m 22 0242 M 0849 1510 0.0 2142 1.9	ft 0.3 2.0 0 58	cm 9 61 0 58	h m 7 0504 W 1042 1644 0.4 ○ 2342 1.7	ft 0.6 1.3 0.4 52	cm 18 40 3 58	h m 7 0316 W 0910 1614 0.1 ○ 2308 1.9	ft 0.2 1.5 0.1 58	cm 6 46 3 55
h m 0444 M 1034 - 1.7 1659 0.3 ○ 2346 1.9	ft 0.6 52 9 58	cm 18	h m 23 0337 Tu 0937 1556 0.1 2239 1.9	ft 0.4 1.8 0.1 58	cm 12 55 3 58	h m 8 0637 Th 1158 1756 0.5	ft 0.6 1.2 0.5 15	cm 18 37 15 52	h m 8 0408 Th 0958 1731 0.3	ft 0.4 1.3 0.3 40	cm 12 40 9 52
h m 0611 Tu 1141 - 1.5 1801 0.4	ft 0.7 46 12	cm 21	h m 24 0449 W 1039 1654 0.2 ○ 2347 2.0	ft 0.5 1.6 0.6 61	cm 15 49 6 61	h m 9 0055 F 0806 1335 1.1 1924 0.5	ft 1.7 0.5 34 15	cm 52 6 37 9	h m 9 0524 F 1107 1646 0.5 ○ 2350 1.5	ft 0.5 1.1 0.5 46	cm 15 34 15 46
h m 0051 W 0737 - 0.6 1300 1.4 1907 0.4	ft 1.9 18 43 12	cm 58	h m 25 0622 Th 1159 1808 0.2	ft 0.5 1.4 0.2	cm 15 43 6	h m 10 0207 Sa 0909 1455 1.2 2035 0.4	ft 1.8 0.3 1.2 12	cm 55 9 37 12	h m 10 0150 Su 0848 1443 1.4 2032 0.1	ft 2.0 0.0 1.4 3	cm 61 0 43 3
h m 0153 Th 0844 - 0.5 1417 1.4 2009 0.4	ft 2.0 15 43 12	cm 61	h m 26 0101 F 0753 1329 1.4 1929 0.2	ft 2.1 0.3 43 6	cm 64 9 43 6	h m 11 0306 Su 0953 1549 1.4 2128 0.3	ft 1.9 0.2 1.4 9	cm 58 6 43 9	h m 11 0300 M 0944 1547 1.6 2136 0.0	ft 2.1 - 0.2 1.6 0	cm 64 - 6 49 0
h m 0247 F 0934 - 0.3 1518 1.4 2100 0.4	ft 2.1 9 43 12	cm 64	h m 27 0212 Sa 0903 1450 1.5 2041 0.1	ft 2.2 0.1 46 3	cm 67 3 46 3	h m 12 0353 M 1030 1629 1.5 2211 0.1	ft 2.0 0.0 46 3	cm 61 0 46 3	h m 12 0231 M 0920 1522 1.3 2108 0.3	ft 1.6 0.2 1.3 9	cm 49 6 40 9
h m 0332 Sa 1014 - 0.2 1606 1.5 2145 0.3	ft 2.2 6 46 9	cm 67	h m 28 0314 Su 0959 1554 1.7 2141 - 0.1	ft 2.4 - 0.2 52 - 3	cm 73 - 6 64 - 9	h m 13 0432 Tu 1102 1704 1.7 2249 0.0	ft 2.1 - 0.2 52 0	cm 64 - 6 64 - 9	h m 13 0445 W 1111 1721 2.1 2314 - 0.3	ft 2.4 - 0.6 64 - 9	cm 73 - 18 64 - 9
h m 0412 Su 1049 - 0.0 1645 1.6 2225 0.2	ft 2.3 0 49 6	cm 70	h m 29 0409 M 1046 1648 1.8 2234 - 0.2	ft 2.6 - 0.4 55 - 6	cm 79 - 12 55 - 6	h m 14 0507 W 1133 1737 1.8 2324 - 0.1	ft 2.2 - 0.3 55 - 3	cm 67 - 9 55 - 3	h m 14 0406 W 1031 1638 1.7 2231 0.0	ft 2.0 - 0.2 52 0	cm 61 - 6 52 0
h m 0449 M 1122 - 0.1 1721 1.7 2302 0.1	ft 2.3 - 3 52 3	cm 70	h m 30 0458 Tu 1130 1735 2.0 2322 - 0.3	ft 2.7 - 0.5 61 - 9	cm 82 - 15 58 - 9	h m 15 0540 Th 1202 1809 1.9 ● 2358 - 0.1	ft 2.3 - 0.3 58 - 3	cm 70 - 9 58 - 3	h m 15 0443 Th 1102 1711 1.9 2307 - 0.2	ft 2.1 - 0.3 58 - 6	cm 64 - 9 58 - 6
h m 0543 W 1211 - 0.6 1819 2.1	ft 2.7 - 18 64	cm 82	h m 31 0543 W 1211 1819 2.1	ft - 0.6 - 18 64	cm 82	h m ● 2358 - 0.1	ft - 0.1 - 3	cm 82	h m ● 2358 - 0.1	ft - 0.1 - 3	cm 82

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Johnston Island, 2018

Times and Heights of High and Low Waters

April			May			June		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0020 2.1 64 0622 2.1 64 1223 -0.5 -15 1843 2.4 73	<b>16</b> M 0001 2.0 61 0601 2.0 61 1201 -0.5 -15 1822 2.5 76	<b>1</b> Tu 0036 1.7 52 0634 1.7 52 1221 -0.2 -6 1844 2.3 70	<b>16</b> W 0029 1.8 55 0627 1.8 55 1215 -0.4 -12 1842 2.6 79	<b>1</b> F 0125 1.5 46 0728 1.5 46 1302 0.1 3 1928 2.1 64	<b>16</b> Sa 0150 1.8 55 0759 1.8 55 1338 -0.1 -3 2003 2.4 73			
	<b>2</b> M 0056 -0.4 -12 0657 2.0 61 1253 -0.3 -9 1915 2.3 70	<b>17</b> Tu 0041 -0.5 -15 0640 2.0 61 1236 -0.4 -12 1900 2.5 76	<b>2</b> W 0109 -0.3 -9 0709 1.6 49 1251 -0.1 -3 1916 2.2 67	<b>17</b> Th 0113 -0.5 -15 0714 1.7 52 1258 -0.3 -9 1926 2.5 76	<b>2</b> Sa 0202 0.1 -3 0808 1.5 46 1338 0.2 6 2005 2.0 61	<b>17</b> Su 0239 -0.4 -12 0854 1.7 52 1432 0.1 3 2054 2.2 67		
	<b>3</b> Tu 0131 -0.3 -9 0731 1.8 55 1323 -0.2 -6 1947 2.2 67	<b>18</b> W 0122 -0.4 -12 0722 1.8 55 1313 -0.3 -9 1941 2.4 73	<b>3</b> Th 0144 -0.2 -6 0745 1.5 46 1323 0.0 0 1950 2.1 64	<b>18</b> F 0200 -0.5 -15 0805 1.6 49 1344 -0.1 -3 2014 2.3 70	<b>3</b> Su 0241 0.0 0 0852 1.4 43 1420 0.3 9 2047 1.9 58	<b>18</b> M 0331 -0.3 -9 0954 1.7 52 1535 0.3 9 2149 2.0 61		
	<b>4</b> W 0206 -0.1 -3 0805 1.6 49 1353 0.0 0 2021 2.0 61	<b>19</b> Th 0207 -0.4 -12 0808 1.7 52 1354 -0.2 -6 2026 2.3 70	<b>4</b> F 0221 -0.1 -3 0824 1.4 43 1358 0.2 6 2028 1.9 58	<b>19</b> Sa 0252 0.3 -9 0902 1.5 46 1437 0.1 3 2108 2.1 64	<b>4</b> M 0325 0.0 0 0944 1.4 43 1511 0.5 15 2135 1.8 55	<b>19</b> Tu 0427 -0.1 -3 1059 1.7 52 1651 0.5 15 2249 1.8 55		
<b>5</b> Th 0245 0.0 0 0843 1.4 43 1425 0.1 3 2100 1.8 55	<b>20</b> F 0258 -0.2 -6 0901 1.5 46 1442 0.0 0 2119 2.1 64	<b>5</b> Sa 0303 0.0 0 0911 1.3 40 1439 0.3 9 2114 1.7 52	<b>20</b> Su 0351 0.2 -6 1009 1.5 46 1544 0.3 9 2210 1.9 58	<b>5</b> Tu 0416 0.1 3 1045 1.4 43 1618 0.6 18 2233 1.6 49	<b>20</b> W 0527 0.0 0 1206 1.8 55 1817 0.5 15 2357 1.6 49			
	<b>6</b> F 0330 0.2 6 0930 1.2 37 1504 0.3 9 2148 1.7 52	<b>21</b> Sa 0400 -0.1 -3 1008 1.3 40 1544 0.2 6 2225 1.9 58	<b>6</b> Su 0355 0.1 3 1010 1.2 37 1533 0.5 15 2211 1.6 49	<b>21</b> M 0458 -0.1 -3 1124 1.5 46 1710 0.4 12 2320 1.7 52	<b>6</b> W 0515 0.2 6 1151 1.5 46 1744 0.6 18 2339 1.6 49	<b>21</b> Th 0628 0.1 3 1310 1.9 58 1937 0.5 15		
	<b>7</b> Sa 0431 0.3 9 1034 1.1 34 1601 0.5 15 2254 1.5 46	<b>22</b> Su 0519 0.0 0 1133 1.3 40 1715 0.4 12 2344 1.7 52	<b>7</b> M 0503 0.2 6 1125 1.2 37 1657 0.6 18 2322 1.5 46	<b>22</b> Tu 0610 0.0 0 1241 1.6 49 1844 0.4 12	<b>7</b> Th 0617 0.1 3 1254 1.7 52 1908 0.5 15	<b>22</b> F 0108 1.5 46 0725 0.1 3 1406 2.0 61 2041 0.3 9		
	<b>8</b> Su 0600 0.4 12 1204 1.1 34 1742 0.6 18	<b>23</b> M 0644 0.0 0 1303 1.4 43 1859 0.4 12	<b>8</b> Tu 0619 0.2 6 1244 1.3 40 1838 0.6 18	<b>23</b> W 0036 1.6 49 0715 0.0 0 1348 1.8 55 2002 0.3 9	<b>8</b> F 0048 1.5 46 0715 0.1 3 1351 1.9 58 2016 0.3 9	<b>23</b> Sa 0214 1.5 46 0817 0.1 3 1455 2.1 64 2132 0.2 6		
<b>9</b> M 0019 1.4 43 0729 0.3 9 1337 1.2 37 1930 0.5 15	<b>24</b> Tu 0107 1.7 52 0755 -0.1 -3 1417 1.6 49 2020 0.2 6	<b>9</b> W 0039 1.5 46 0725 0.2 6 1349 1.5 46 1956 0.4 12	<b>24</b> Th 0146 1.6 49 0810 -0.1 -3 1442 2.0 61 2102 0.2 6	<b>9</b> Sa 0154 1.6 49 0808 0.0 0 1442 2.1 64 2112 0.1 3	<b>24</b> Su 0312 1.5 46 0903 0.1 3 1537 2.2 67 2214 0.1 3			
	<b>10</b> Tu 0140 1.5 46 0830 0.2 6 1440 1.4 43 2037 0.3 9	<b>25</b> W 0219 1.7 52 0849 -0.2 -6 1512 1.8 55 2119 0.1 3	<b>10</b> Th 0146 1.6 49 0816 0.0 0 1439 1.7 52 2053 0.2 6	<b>25</b> F 0247 1.6 49 0856 -0.1 -3 1526 2.1 64 2150 0.0 0	<b>10</b> Su 0254 1.6 49 0857 -0.1 -3 1528 2.4 73 2201 0.1 -3	<b>25</b> M 0401 1.5 46 0944 0.1 3 1615 2.3 70 2252 -0.1 -3		
	<b>11</b> W 0242 1.6 49 0913 0.0 0 1525 1.6 49 2126 0.1 3	<b>26</b> Th 0317 1.8 55 0933 -0.3 -9 1556 2.1 64 2207 -0.1 -3	<b>11</b> F 0242 1.7 52 0859 -0.1 -3 1522 2.0 61 2140 0.0 0	<b>26</b> Sa 0338 1.6 49 0936 -0.1 -3 1605 2.3 70 2231 -0.1 -3	<b>11</b> M 0348 1.7 52 0944 -0.2 -6 1614 2.6 79 2247 -0.3 -9	<b>26</b> Tu 0443 1.5 46 1023 0.1 3 1651 2.4 73 2327 -0.1 -3		
	<b>12</b> Th 0329 1.8 55 0949 -0.2 -6 1603 1.8 55 2208 0.0 0	<b>27</b> F 0404 1.9 58 1012 -0.3 -9 1634 2.2 67 2248 -0.2 -6	<b>12</b> Sa 0331 1.8 55 0939 -0.2 -6 1602 2.2 67 2223 -0.2 -6	<b>27</b> Su 0422 1.7 52 1013 -0.1 -3 1640 2.4 73 2309 -0.2 -6	<b>12</b> Tu 0439 1.8 55 1029 -0.3 -9 1658 2.7 82 2332 -0.5 -15	<b>27</b> W 0522 1.6 49 1100 0.0 0 1726 2.4 73 O		
<b>13</b> F 0409 1.9 58 1022 -0.3 -9 1638 2.1 64 2246 -0.2 -6	<b>28</b> Sa 0446 1.9 58 1046 -0.4 -12 1709 2.4 73 2326 -0.3 -9	<b>13</b> Su 0416 1.8 55 1017 -0.3 -9 1641 2.4 73 2304 -0.4 -12	<b>28</b> M 0502 1.7 52 1048 -0.1 -3 1714 2.4 73 2343 -0.3 -9	<b>13</b> W 0529 1.8 55 1115 -0.3 -9 1743 2.7 82 ●	<b>28</b> Th 0000 -0.2 -6 0558 1.6 49 1135 0.0 0 1800 2.4 73			
	<b>14</b> Sa 0447 2.0 61 1055 -0.4 -12 1712 2.3 70 2323 -0.4 -12	<b>29</b> Su 0524 1.9 58 1119 -0.4 -12 1741 2.4 73 O	<b>14</b> M 0459 1.9 58 1055 -0.4 -12 1720 2.6 79 2346 -0.5 -15	<b>29</b> Tu 0539 1.6 49 1121 -0.1 -3 1746 2.4 73 O	<b>14</b> Th 0018 -0.5 -15 0618 1.8 55 1201 -0.3 -9 1828 2.7 82	<b>29</b> F 0033 -0.2 -6 0634 1.6 49 1210 0.1 3 1834 2.3 70		
	<b>15</b> Su 0524 2.0 61 1127 -0.5 -15 1746 2.4 73	<b>30</b> M 0001 -0.4 -12 0559 1.8 55 1150 -0.3 -9 1813 2.4 73	<b>15</b> W 0543 1.9 58 1134 -0.4 -12 1800 2.6 79	<b>30</b> F 0017 -0.3 -9 0615 1.6 49 1154 -0.1 -3 1819 2.3 70	<b>15</b> Sa 0103 -0.6 -18 0707 1.8 55 1248 -0.2 -6 1915 2.6 79	<b>30</b> Sa 0107 -0.2 -6 0710 1.6 49 1246 0.1 3 1908 2.3 70		
	●			<b>31</b> Th 0051 -0.3 -9 0651 1.6 49 1227 0.0 0 1852 2.3 70				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Johnston Island, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
<b>1</b> <b>Su</b> 0140 1.6 49 0748 1.6 49 1322 0.2 6 1944 2.2 67	0.1 -3	<b>16</b> <b>M</b> 0216 0.4 -12 0834 2.0 61 1419 0.1 3 2033 2.3 70	-0.4 -12	<b>1</b> <b>W</b> 0216 0.0 0 0837 2.0 61 1424 0.4 12 2031 2.1 64	0.0 0	<b>16</b> <b>Th</b> 0300 0.1 3 0934 2.2 67 1541 0.5 15 2135 1.8 55	0.1 3	<b>1</b> <b>Sa</b> 0254 0.2 6 0933 2.2 67 1549 0.5 15 2143 1.7 52	0.2 6	<b>16</b> <b>Su</b> 0335 0.6 18 1027 1.9 58 1716 0.7 21 2303 1.4 43	0.6 18
	1.7 52	<b>17</b> <b>Tu</b> 0300 0.2 -6 0926 2.0 61 1515 0.3 9 2121 2.1 64	-0.2 -6	<b>2</b> <b>Th</b> 0252 0.0 0 0921 2.0 61 1514 0.5 15 2115 1.9 58	0.0 0	<b>17</b> <b>F</b> 0342 0.3 9 1026 2.1 64 1648 0.7 21 2230 1.6 49	0.3 9	<b>2</b> <b>Su</b> 0345 0.3 9 1036 2.1 64 1711 0.6 18 2259 1.5 46	0.3 9	<b>17</b> <b>M</b> 0444 0.8 24 1143 1.8 55 1858 0.7 21	0.8 24
	0.3 9	<b>18</b> <b>W</b> 0346 0.0 0 1021 2.0 61 1619 0.5 15 2213 1.8 55	0.0 0	<b>3</b> <b>F</b> 0333 0.1 3 1013 2.0 61 1617 0.6 18 2210 1.7 52	0.1 3	<b>18</b> <b>Sa</b> 0433 0.5 15 1127 2.0 61 1816 0.7 21 2344 1.4 43	0.5 15	<b>3</b> <b>M</b> 0456 0.5 15 1154 2.1 64 1851 0.5 15	0.5 15	<b>18</b> <b>Tu</b> 0043 1.4 43 0632 0.8 24 1309 1.8 55 2014 0.6 18	1.4 43
	2.1 64	<b>19</b> <b>W</b> 0436 0.1 3 1120 2.0 61 1737 0.6 18 2314 1.6 49	0.1 3	<b>4</b> <b>Sa</b> 0424 0.2 6 1115 2.0 61 1740 0.6 18 2321 1.6 49	0.2 6	<b>19</b> <b>Su</b> 0543 0.6 18 1238 1.9 58 1944 0.7 21	0.6 18	<b>4</b> <b>Tu</b> 0035 1.5 46 0631 0.5 15 1316 2.2 67 2012 0.4 12	1.5 46	<b>19</b> <b>W</b> 0209 1.5 46 0758 0.7 21 1419 2.0 61 2103 0.5 15	1.5 46
<b>5</b> <b>Th</b> 0420 0.1 3 1100 1.8 55 1655 0.6 18 2249 1.7 52	0.1 3	<b>20</b> <b>F</b> 0533 0.3 9 1223 2.0 61 1902 0.6 18	0.3 9	<b>5</b> <b>Su</b> 0531 0.3 9 1226 2.1 64 1912 0.5 15	0.3 9	<b>20</b> <b>M</b> 0114 1.3 40 0707 0.6 18 1349 2.0 61 2048 0.5 15	1.3 40	<b>5</b> <b>W</b> 0204 1.6 49 0757 0.4 12 1427 2.4 73 2112 0.1 3	1.6 49	<b>20</b> <b>Th</b> 0304 1.7 52 0854 0.6 18 1510 2.1 64 2141 0.3 9	1.7 52
	1.8 55	<b>21</b> <b>Sa</b> 0026 1.4 43 0637 0.4 12 1326 2.0 61 2016 0.5 15	1.4 43	<b>6</b> <b>M</b> 0046 1.5 46 0649 0.3 9 1337 2.2 67 2028 0.3 9	1.5 46	<b>21</b> <b>Tu</b> 0233 1.4 43 0817 0.6 18 1448 2.1 64 2134 0.4 12	1.4 43	<b>6</b> <b>Th</b> 0311 1.8 55 0904 0.2 6 1526 2.5 76 2200 -0.1 -3	1.8 55	<b>21</b> <b>F</b> 0344 1.9 58 0937 0.4 12 1550 2.3 70 2213 0.2 6	1.9 58
	0.6 18	<b>22</b> <b>Sa</b> 0143 1.4 43 0740 0.4 12 1422 2.1 64 2112 0.4 12	1.4 43	<b>7</b> <b>Tu</b> 0208 1.5 46 0804 0.2 6 1441 2.4 73 2128 0.1 3	1.5 46	<b>22</b> <b>W</b> 0328 1.5 46 0910 0.5 15 1536 2.2 67 2212 0.2 6	1.5 46	<b>7</b> <b>F</b> 0405 2.1 64 0959 0.0 0 1616 2.7 82 2243 -0.3 -9	2.1 64	<b>22</b> <b>Sa</b> 0418 2.1 64 1015 0.3 9 1625 2.4 73 2243 0.0 0	2.1 64
	1.7 52	<b>23</b> <b>M</b> 0250 1.4 43 0836 0.4 12 1512 2.2 67 2156 0.2 6	1.4 43	<b>8</b> <b>W</b> 0318 1.7 52 0908 0.1 3 1539 2.6 79 2218 -0.2 -6	1.7 52	<b>23</b> <b>Th</b> 0409 1.7 52 0954 0.3 9 1615 2.3 70 2245 0.1 3	1.7 52	<b>8</b> <b>Sa</b> 0451 2.3 70 1047 -0.1 -3 1701 2.8 85 2322 -0.4 -12	2.3 67	<b>23</b> <b>Su</b> 0450 2.2 67 1049 0.1 3 1658 2.5 76 2311 0.0 0	2.2 67
<b>9</b> <b>M</b> 0225 1.6 49 0824 0.0 0 1501 2.4 73 2143 0.0 0	1.6 49	<b>24</b> <b>Tu</b> 0344 1.5 46 0924 0.3 70 1555 2.3 70 2234 0.1 3	1.5 46	<b>9</b> <b>Th</b> 0415 1.9 58 1004 0.0 3 1630 2.7 82 2303 -0.3 -9	1.9 58	<b>24</b> <b>F</b> 0445 1.8 55 1032 0.2 6 1650 2.4 73 2315 0.0 0	1.8 55	<b>9</b> <b>Su</b> 0533 2.5 76 1131 -0.2 -6 1743 2.8 85 2359 -0.4 -12	2.5 76	<b>24</b> <b>M</b> 0521 2.4 73 1123 0.1 3 1729 2.5 76 2339 -0.1 -3	2.4 73
	2.2 67	<b>25</b> <b>W</b> 0427 1.6 49 1007 0.2 6 1633 2.3 70 2309 0.0 0	1.6 49	<b>10</b> <b>F</b> 0506 2.1 64 1055 -0.1 -3 1717 2.8 85 2346 -0.4 -12	2.1 64	<b>25</b> <b>Sa</b> 0518 2.0 61 1107 0.1 3 1723 2.5 76 2345 -0.1 -3	2.0 61	<b>10</b> <b>M</b> 0613 2.6 79 1213 -0.1 -3 1822 2.7 82	2.6 79	<b>25</b> <b>Tu</b> 0552 2.5 76 1156 0.0 0 1801 2.5 76	2.5 76
	0.2 6	<b>26</b> <b>W</b> 0505 1.7 52 1045 0.2 6 1709 2.4 73 2341 -0.1 -3	1.7 52	<b>11</b> <b>Th</b> 0552 2.2 67 1142 -0.2 -6 1801 2.8 85	2.2 67	<b>26</b> <b>Su</b> 0550 2.1 64 1140 0.1 3 1754 2.5 76	2.1 64	<b>11</b> <b>Tu</b> 0034 -0.3 -9 0651 2.6 79 1255 -0.1 -3 1901 2.5 76	-0.3 -9	<b>26</b> <b>W</b> 0008 -0.1 -3 0623 2.6 79 1231 0.0 0 1833 2.4 73	-0.1 -3
	-0.4 -12	<b>27</b> <b>F</b> 0541 1.8 55 1121 0.1 3 1743 2.4 73 O	1.8 55	<b>12</b> <b>Su</b> 0026 -0.5 -15 0637 2.3 70 1228 -0.1 -3 1844 2.7 82	-0.5 -15	<b>27</b> <b>M</b> 0013 -0.1 -3 0621 2.2 67 1214 0.1 3 1825 2.5 76	-0.1 -3	<b>12</b> <b>W</b> 0108 -0.2 -6 0729 2.6 79 1335 0.1 3 1938 2.3 70	-0.2 -6	<b>27</b> <b>Th</b> 0038 -0.1 -3 0656 2.6 79 1307 0.1 3 1908 2.3 70	-0.1 -3
<b>13</b> <b>F</b> 0004 -0.5 -15 0607 2.0 61 1151 -0.2 -6 1816 2.8 85	0.0 0	<b>28</b> <b>Sa</b> 0012 -0.1 -3 0614 1.8 55 1156 0.1 3 1816 2.4 73	-0.1 -3	<b>13</b> <b>M</b> 0106 -0.4 -12 0720 2.3 70 1313 0.0 0 1925 2.6 79	-0.4 -12	<b>28</b> <b>Tu</b> 0041 -0.1 -3 0653 2.3 70 1248 0.1 3 1856 2.4 73	-0.1 -3	<b>13</b> <b>Th</b> 0141 0.0 0 0806 2.5 76 1417 0.3 9 2017 2.0 61	0.0 0	<b>28</b> <b>F</b> 0109 0.0 0 0732 2.6 79 1347 0.2 6 1946 2.1 64	0.0 0
	2.0 61	<b>29</b> <b>Su</b> 0043 -0.1 -3 0648 1.9 58 1230 0.1 3 1848 2.4 73	-0.1 -3	<b>14</b> <b>Tu</b> 0144 -0.3 -9 0804 2.3 70 1359 0.1 3 2006 2.3 70	-0.3 -9	<b>29</b> <b>W</b> 0110 -0.1 -3 0726 2.3 70 1323 0.2 6 1929 2.3 70	-0.1 -3	<b>14</b> <b>F</b> 0215 0.2 6 0846 2.3 70 1502 0.4 12 2059 1.8 55	0.2 6	<b>29</b> <b>Sa</b> 0144 0.1 3 0814 2.5 76 1434 0.3 9 2032 1.9 58	0.1 3
	-0.2 -6	<b>30</b> <b>M</b> 0113 -0.1 -3 0722 1.9 58 1305 0.2 6 1920 2.3 70	-0.1 -3	<b>15</b> <b>W</b> 0222 -0.1 -3 0848 2.3 70 1447 0.3 9 2049 2.1 64	-0.1 -3	<b>30</b> <b>Th</b> 0141 0.0 0 0802 2.3 70 1403 0.3 9 2005 2.1 64	0.0 0	<b>15</b> <b>Sa</b> 0251 0.4 12 0931 2.1 64 1557 0.6 18 2150 1.6 49	0.4 12	<b>30</b> <b>Tu</b> 0225 0.3 9 0903 2.3 70 1532 0.4 12 2131 1.7 52	0.3 9
	2.8 85	<b>31</b> <b>Tu</b> 0144 -0.1 -3 0758 2.0 61 1342 0.3 9 1954 2.2 67	-0.1 -3	<b>31</b> <b>F</b> 0214 0.1 3 0843 2.3 70 1450 0.4 12 2048 1.9 58	0.1 3	<b>31</b> <b>F</b> 0214 0.1 3 0843 2.3 70 1450 0.4 12 2048 1.9 58	0.1 3				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Johnston Island, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0319 0.5 15	16 0352 0.9 27	1 Th 0025 1.7 52	16 0029 1.6 49	1 Sa 0114 2.0 61	16 0030 1.8 55						
1007 2.2 67	Tu 1044 1.8 55	0621 0.7 21	0628 0.9 27	0732 0.6 18	0647 0.8 24						
1652 0.5 15	1751 0.7 21	1233 2.0 61	1224 1.7 52	1317 1.8 55	1225 1.6 49						
● 2254 1.5 46	●	1922 0.3 9	1910 0.5 15	1942 0.2 6	1851 0.4 12						
2 Tu 0438 0.6 18	17 0000 1.4 43	2 F 0144 1.9 58	17 0136 1.8 55	2 Su 0215 2.2 67	17 0131 2.0 61						
1129 2.1 64	W 0541 0.9 27	0749 0.6 18	0747 0.8 24	0839 0.4 12	0801 0.6 18						
1832 0.5 15	1212 1.8 55	1349 2.1 64	1334 1.8 55	1424 1.8 55	1336 1.6 49						
1919 0.7 21	2021 0.2 6	2002 0.4 12	2034 0.2 6	2034 0.2 6	1949 0.3 9						
3 W 0034 1.6 49	18 0129 1.5 46	3 Sa 0242 2.2 67	18 0226 2.0 61	3 M 0304 2.4 73	18 0224 2.2 67						
0626 0.7 21	0725 0.8 46	0852 0.4 12	Su 0842 0.6 18	0931 0.3 9	0858 0.4 12						
1257 2.1 64	Th 1332 1.8 55	1450 2.2 67	1430 1.9 58	1519 1.9 58	1438 1.7 52						
1953 0.3 9	2017 0.5 15	2107 0.1 3	2044 0.3 9	2118 0.1 3	2040 0.2 6						
4 Th 0159 1.8 55	19 0228 1.7 52	4 Su 0329 2.4 73	19 0307 2.3 70	4 Tu 0346 2.6 79	19 0311 2.4 73						
0756 0.5 15	F 0828 0.7 21	0943 0.2 6	M 0927 0.4 12	1015 0.1 3	0946 0.1 3						
1412 2.2 67	1430 2.0 61	1540 2.2 67	1517 2.0 61	1606 1.9 58	1532 1.8 55						
2051 0.1 3	2058 0.4 12	2148 0.0 0	2123 0.1 3	2157 0.1 3	2127 0.1 3						
5 F 0301 2.0 61	20 0310 2.0 61	5 M 0409 2.6 79	20 0345 2.5 76	5 W 0424 2.6 79	20 0355 2.6 79						
0900 0.3 9	Sa 0914 0.5 15	1026 0.0 0	Tu 1007 0.1 3	1053 0.0 0	1030 -0.1	-3					
1511 2.4 73	1515 2.1 64	1624 2.3 70	1559 2.1 64	1648 1.9 58	1622 1.9 58						
2137 0.0 0	2133 0.2 6	2225 -0.1 -3	2159 0.0 0	2234 0.1 3	2212 -0.1 -3						
6 Sa 0349 2.3 70	21 0346 2.2 67	6 Tu 0446 2.8 85	21 0421 2.7 82	6 Th 0459 2.7 82	21 0439 2.8 85						
0952 0.1 3	Su 0953 0.3 9	1105 -0.1 -3	W 1046 0.0 0	1129 -0.1 -3	1113 -0.3 -9						
1600 2.5 76	1553 2.2 67	1703 2.3 70	1640 2.1 64	1726 1.9 58	1709 2.0 61						
2217 -0.2 -6	2204 0.1 3	2259 -0.1 -3	2236 -0.1 -3	2309 0.1 3	2256 -0.1 -3						
7 Su 0431 2.5 76	22 0419 2.4 73	7 M 0520 2.8 85	22 0458 2.8 85	7 F 0532 2.7 82	22 0522 2.9 88						
1037 0.0 0	1029 0.1 3	1142 -0.1 -3	W 1125 -0.2 -6	1203 -0.1 -3	1155 -0.4 -12						
1643 2.6 79	1629 2.3 70	1741 2.2 67	1721 2.1 64	1802 1.9 58	1755 2.0 61						
2254 -0.2 -6	2235 0.0 0	● 2332 0.0 0	O 2313 -0.1 -3	2342 0.1 3	2340 -0.2 -6						
8 M 0510 2.7 82	23 0451 2.6 79	8 Th 0553 2.8 85	23 0536 2.9 88	8 Sa 0605 2.6 79	23 0605 2.9 88						
1118 -0.1 -3	Tu 1104 0.0 0	1217 -0.1 -3	F 1205 -0.2 -6	1236 -0.1 -3	1238 -0.4 -12						
1723 2.6 79	1703 2.4 73	1817 2.1 64	1803 2.1 64	1837 1.9 58	1841 2.0 61						
● 2328 -0.2 -6	2306 -0.1 -3	2351 -0.1 -3									
9 Tu 0546 2.8 85	24 0523 2.7 82	9 F 0003 0.1 3	24 0616 2.9 88	9 Sa 0016 0.2 6	24 0025 -0.1 -3						
1158 -0.1 -3	W 1139 -0.1 -3	0626 2.7 82	Sa 1246 -0.3 6	0638 2.5 76	0649 2.8 85						
1800 2.5 76	1739 2.3 70	1252 0.0 0	1846 2.1 64	1309 -0.1 -3	1321 -0.4 -12						
○ 2337 -0.1 -3	2337 -0.1 -3	1852 2.0 61		1913 1.8 55	1929 2.0 61						
10 W 0001 -0.2 -6	25 0557 2.8 85	10 Sa 0035 0.2 6	25 0032 0.0 0	10 M 0049 0.3 9	25 0112 0.0 0						
0621 2.8 85	1216 -0.1 -3	0659 2.6 79	Su 0658 2.8 85	0712 2.4 73	0735 2.7 82						
1235 -0.1 -3	1815 2.3 70	1327 0.1 3	1330 -0.2 -6	1344 0.0 0	1407 -0.3 -9						
1837 2.3 70		1928 1.9 58	1933 2.0 61	1950 1.8 55	2020 2.0 61						
11 Th 0033 0.0 0	26 0010 -0.1 -3	11 Su 0107 0.3 9	26 0115 0.1 3	11 Tu 0125 0.4 12	26 0202 0.1 3						
0655 2.7 82	0632 2.8 85	0733 2.4 73	M 0743 2.7 82	0748 2.3 70	0822 2.5 76						
1312 0.0 0	1255 -0.1 -3	1404 0.2 6	1418 -0.1 -3	1420 0.1 3	1454 -0.2 -6						
1913 2.2 67	1854 2.2 67	2008 1.7 52	2026 1.9 58	2031 1.7 52	2114 2.0 61						
12 F 0104 0.1 3	27 0046 0.0 0	12 M 0142 0.5 15	27 0205 0.3 9	12 Tu 0204 0.5 15	27 0258 0.3 9						
0728 2.6 79	Sa 0711 2.7 82	0810 2.2 67	Tu 0834 2.4 73	W 0827 2.1 64	0914 2.2 67						
1349 0.2 6	1337 0.0 0	1445 0.3 9	1512 0.0 0	1501 0.2 6	1546 0.0 0						
1949 2.0 61	1937 2.0 61	2053 1.6 49	2128 1.8 55	2119 1.7 52	2215 1.9 58						
13 Sa 0136 0.3 9	28 0125 0.1 3	13 Tu 0222 0.6 18	28 0305 0.5 15	13 Th 0250 0.6 18	28 0406 0.5 15						
0804 2.4 73	Su 0754 2.6 79	0855 2.0 61	W 0932 2.2 67	0911 2.0 61	1011 2.0 61						
1429 0.3 9	1424 0.1 3	1535 0.5 15	1615 0.2 6	1547 0.3 9	1643 0.1 3						
2029 1.8 55	2027 1.8 55	2152 1.5 46	2241 1.8 55	2216 1.6 49	2322 1.7 52						
14 Su 0210 0.5 15	29 0210 0.3 9	14 W 0316 0.8 24	29 0424 0.7 21	14 F 0350 0.8 24	29 0531 0.6 18						
0844 2.2 67	M 0845 2.4 73	0952 1.9 58	Th 1041 2.0 61	1005 1.8 55	1118 1.7 52						
1515 0.5 15	1522 0.3 9	1641 0.6 18	1728 0.3 9	1643 0.4 12	1748 0.2 6						
2118 1.6 49	2131 1.7 52	2308 1.5 46	○	2322 1.7 52	1956 0.3 9						
15 M 0250 0.7 21	30 0308 0.5 15	15 Th 0439 0.9 27	30 0000 1.8 55	15 F 0514 0.8 24	30 0032 2.0 61						
0934 2.0 61	Tu 0948 2.2 67	1105 1.8 55	0603 0.7 21	1111 1.7 52	0703 0.6 18						
1618 0.7 21	1637 0.4 12	1801 0.6 18	1159 1.9 58	1747 0.4 12	1236 1.6 49						
2226 1.4 43	2253 1.6 49	○	1840 0.3 9	○	1854 0.3 9						
31 W 0432 0.7 21	31 0432 0.7 21	1107 2.1 64	W 1805 0.4 12	1805 0.4 12	1956 0.3 9						
○	○	1805 0.4 12	○	○	○						

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Papeete Harbor, Tahiti Island, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0610 - 0.1 M 1222 0.8 O 1825 - 0.1	ft -3 24 -3	16 0034 0.7 Tu 0642 - 0.1 ● 1851 - 0.1	cm 21 -3 -3	1 Th 0105 0.9 F 0718 - 0.2 1318 0.8 1920 - 0.2	ft 27 -6 -6	16 0110 0.9 F 0718 - 0.2 1317 0.8 1917 - 0.2	cm 27 -6 -6	1 Th 0028 1.0 F 0641 - 0.2 1241 0.9 O 1841 - 0.2	ft 30 -6 -6	16 0030 0.9 F 0640 - 0.2 1239 0.8 1837 - 0.2	cm 27 -6 -6
2 Tu 0031 0.8 0644 - 0.1 1252 0.8 1854 - 0.1	24 -3 24 -3	17 W 0058 0.7 0705 - 0.1 1309 0.7 1911 - 0.1	21 -3 21 -3	2 F 0135 0.9 0746 - 0.1 1344 0.8 1948 - 0.2	27 -3 24 -6	17 Sa 0130 0.9 0738 - 0.1 1334 0.8 1935 - 0.1	27 -3 24 -3	2 F 0054 1.0 0705 - 0.2 1303 0.9 1906 - 0.2	30 -6 27 -6	17 Sa 0049 1.0 0658 - 0.2 1255 0.8 ● 1855 - 0.2	30 -6 24 -6
3 W 0105 0.9 0718 - 0.1 1322 0.8 1924 - 0.1	27 -3 24 -3	18 Th 0120 0.8 0728 - 0.1 1329 0.7 1931 - 0.1	24 -3 21 -3	3 Sa 0205 0.9 0813 - 0.1 1408 0.8 2014 - 0.1	27 -3 24 -3	18 Su 0151 0.9 0757 - 0.1 1350 0.8 1954 - 0.1	27 -3 24 -3	3 Sa 0120 1.0 0728 - 0.2 1325 0.9 1930 - 0.2	30 -6 27 -6	18 Su 0108 1.0 0716 - 0.1 1311 0.9 1914 - 0.2	30 -3 27 -6
4 Th 0139 0.8 0752 - 0.1 1352 0.7 1955 - 0.1	24 -3 21 -3	19 F 0143 0.8 0751 - 0.1 1349 0.7 1950 - 0.1	24 -3 21 -3	4 Su 0233 0.8 0838 0.0 1430 0.7 2040 0.0	24 0 21 0	19 M 0212 0.9 0816 0.0 1406 0.7 2013 - 0.1	27 0 21 -3	4 Su 0145 1.0 0749 - 0.1 1345 0.9 1953 - 0.2	30 -3 27 -6	19 M 0128 1.0 0734 - 0.1 1328 0.8 1933 - 0.2	30 -3 24 -6
5 F 0214 0.8 0827 0.0 1422 0.7 2027 0.0	24 0 21 0	20 Sa 0207 0.8 0814 0.0 1407 0.7 2010 0.0	24 0 21 0	5 M 0301 0.7 0859 0.1 1448 0.7 2104 0.1	21 3 21 3	20 Tu 0233 0.8 0833 0.1 1421 0.7 2033 0.0	24 3 21 0	5 M 0208 0.9 0808 0.0 1403 0.8 2015 - 0.1	27 0 24 -3	20 Tu 0149 0.9 0752 0.0 1345 0.8 1953 - 0.1	27 0 24 -3
6 Sa 0252 0.7 0902 0.1 1451 0.6 2100 0.1	21 3 18 3	21 Su 0232 0.7 0837 0.1 1425 0.6 2031 0.0	21 3 18 0	6 Tu 0325 0.6 0913 0.2 1457 0.6 2122 0.2	18 6 18 6	21 W 0254 0.7 0847 0.2 1432 0.6 2051 0.1	21 6 18 3	6 Tu 0227 0.8 0823 0.1 1418 0.7 2032 0.0	24 3 21 0	21 W 0209 0.8 0808 0.0 1401 0.7 2013 0.0	24 0 21 0
7 Su 0333 0.6 0941 0.2 1520 0.5 2138 0.2	18 6 15 6	22 M 0258 0.7 0900 0.2 1441 0.6 2053 0.1	21 6 18 3	7 W 0343 0.5 0903 0.3 1432 0.5 ● 2112 0.3	15 9 15 9	22 Th 0312 0.6 0851 0.3 1431 0.5 ● 2059 0.2	18 9 15 6	7 W 0242 0.6 0831 0.1 1425 0.6 2042 0.1	18 3 18 3	22 Th 0227 0.7 0821 0.1 1415 0.7 2031 0.1	21 3 21 3
8 M 0430 0.5 1038 0.3 1551 0.4 ● 2243 0.3	15 9 12 9	23 Tu 0328 0.6 0923 0.3 1451 0.5 2116 0.2	18 9 15 6	8 Th 0253 0.4 0608 0.3 1212 0.4 1830 0.3	12 9 12 9	23 F 0311 0.4 0758 0.3 1329 0.5 1951 0.3	12 9 15 9	8 Th 0244 0.5 0821 0.2 1413 0.5 2028 0.2	15 6 15 6	23 F 0240 0.6 0824 0.2 1419 0.6 2038 0.2	18 6 18 6
9 Tu 0727 0.5 1558 0.3 2022 0.4	15 9 12	24 W 0408 0.5 0944 0.4 1436 0.5 ● 2140 0.3	15 9 15 9	9 F 0506 0.2 1129 0.5 1738 0.2 2318 0.5	6 15 6 15	24 Sa 0019 0.4 0515 0.3 1137 0.5 2302 0.5	12 9 15 15	9 F 0207 0.4 0724 0.2 1315 0.5 ● 1911 0.2	12 6 15 6	24 Sa 0225 0.4 0741 0.3 1336 0.5 ● 1924 0.3	12 9 15 9
10 W 0248 0.3 1001 0.5 1634 0.3 2208 0.5	9 15 9 15	25 Th 1029 0.5 1817 0.3 2212 0.4	15 9 12	10 Sa 0520 0.1 1135 0.6 1740 0.1 2333 0.6	3 18 3 18	25 Su 0508 0.1 1125 0.6 1721 0.1 2313 0.6	3 18 3 18	10 Sa 0024 0.4 0601 0.2 1203 0.5 2335 0.5	12 6 15 15	25 Su 0531 0.2 1141 0.5 1712 0.3 2250 0.5	12 6 15 15
11 Th 0411 0.2 1043 0.6 1700 0.2 2247 0.5	6 18 6 15	26 F 0345 0.3 1042 0.6 1707 0.3 2237 0.5	9 18 9 15	11 Su 0539 0.0 1149 0.6 1752 0.0 2352 0.6	0 18 0 18	26 M 0527 0.0 1138 0.7 1733 0.0 2336 0.8	0 21 0 24	11 Su 0536 0.1 1142 0.5 1736 0.1 2331 0.6	3 15 3 18	26 M 0507 0.1 1116 0.6 1700 0.1 2300 0.7	3 18 3 21
12 F 0452 0.1 1113 0.7 1724 0.1 2318 0.6	3 21 3 18	27 Sa 0439 0.1 1107 0.6 1716 0.2 2305 0.6	3 18 6 18	12 M 0559 - 0.1 1206 0.7 1808 - 0.1	-3 21 -3	27 Tu 0551 - 0.1 1157 0.7 1753 - 0.1	-3 21 -3	12 M 0539 0.0 1144 0.6 1740 0.0 2341 0.7	0 18 0 21	27 Tu 0519 0.0 1124 0.7 1714 0.0 2322 0.8	0 21 0 24
13 Sa 0524 0.0 1139 0.7 1747 0.0 2345 0.7	0 21 0 21	28 W 0515 0.0 1132 0.7 1736 0.0 2335 0.7	0 21 0 21	13 Tu 0011 0.7 0619 - 0.1 1224 0.7 1825 - 0.1	21 -3 21 -3	28 W 0001 0.9 0616 - 0.2 1219 0.8 1817 - 0.2	27 -6 24 -6	13 Tu 0550 - 0.1 1154 0.7 1750 - 0.1 2356 0.8	-3 21 -3 24	28 W 0538 - 0.1 1141 0.7 1735 - 0.1 2346 0.9	-3 21 -3 27
14 Su 0552 - 0.1 1203 0.7 1809 - 0.1	-3 21 -3	29 M 0547 - 0.1 1159 0.8 1800 0.0	-3 24 0	14 W 0030 0.8 0639 - 0.2 1242 0.8 1842 - 0.2	24 -6 24 -6	14 W 0605 - 0.1 1208 0.7 1805 - 0.1	21 -3	14 W 0605 - 0.1 1208 0.7 1805 - 0.1	-3 21 -3	29 Th 0600 - 0.2 1200 0.8 1758 - 0.2	-6 24 -6
15 M 0010 0.7 0617 - 0.1 1226 0.7 1830 - 0.1	21 -3 21 -3	30 Tu 0005 0.8 0618 - 0.1 1226 0.8 1826 - 0.1	24 -3 24 -3	15 Th 0050 0.8 0658 - 0.2 1300 0.8 ● 1859 - 0.2	24 -6 24 -6	15 Th 0012 0.8 0622 - 0.2 1223 0.8 1820 - 0.2	24 -6 24 -6	15 Th 0012 0.8 0622 - 0.2 1223 0.8 1820 - 0.2	24 -6 24 -6	30 F 0011 1.0 0623 - 0.2 1221 0.9 1822 - 0.2	30 -6 27 -6
		31 W 0035 0.9 0649 - 0.2 1252 0.8 ● 1853 - 0.2	27 -6 24 -6							31 Sa 0035 1.0 0644 - 0.2 1242 0.9 ● 1846 - 0.2	30 -6 27 -6

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Papeete Harbor, Tahiti Island, 2018

Times and Heights of High and Low Waters

April			May			June						
Time	Height		Time	Height		Time	Height		Time	Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	
<b>1</b> Su 0059 - 0.1 -3 0705 - 0.1 -3 1302 0.9 27 1909 - 0.2 -6	<b>16</b> M 0044 1.0 30 0652 - 0.1 -3 1247 0.9 27 1852 - 0.2 -6		<b>1</b> Tu 0100 0.9 27 0703 - 0.1 -3 1301 0.8 24 1911 - 0.1 -3		<b>16</b> W 0050 0.9 27 0655 - 0.1 -3 1255 0.8 24 1904 - 0.1 -3		<b>1</b> F 0132 0.6 18 0735 0.0 0 1343 0.6 18 1952 0.0 0		<b>16</b> Sa 0147 0.7 21 0750 0.0 0 1406 0.8 24 2022 0.0 0			
			<b>2</b> M 0121 0.9 27 0724 - 0.1 -3 1321 0.9 27 1930 - 0.2 -6	<b>17</b> Tu 0106 0.9 27 0712 - 0.1 -3 1307 0.8 24 1914 - 0.2 -6		<b>2</b> W 0121 0.8 24 0721 0.0 0 1322 0.8 24 1932 - 0.1 -3		<b>2</b> Sa 0116 0.8 24 0720 0.0 0 1323 0.8 24 1935 - 0.1 -3		<b>17</b> Su 0221 0.6 18 0824 0.0 0 1449 0.7 21 2106 0.1 3		
			<b>3</b> Tu 0141 0.9 27 0741 0.0 0 1339 0.8 24 1950 - 0.1 -3	<b>18</b> W 0128 0.9 27 0731 0.0 0 1328 0.8 24 1939 - 0.1 -3		<b>3</b> Th 0138 0.7 21 0738 0.0 0 1341 0.7 21 1951 0.0 0		<b>18</b> F 0144 0.7 21 0746 0.0 0 1354 0.7 21 2009 0.0 0		<b>3</b> Su 0214 0.5 15 0817 0.1 3 1440 0.5 15 2048 0.2 6		<b>18</b> M 0259 0.6 18 0904 0.1 3 1542 0.6 18 2204 0.2 6
			<b>4</b> W 0158 0.7 21 0755 0.0 0 1354 0.7 21 2006 0.0 0	<b>19</b> Th 0150 0.8 24 0751 0.0 0 1350 0.7 21 2003 0.0 0		<b>4</b> F 0153 0.6 18 0752 0.0 0 1358 0.6 18 2007 0.1 3		<b>19</b> Sa 0212 0.6 18 0813 0.1 3 1430 0.6 18 2049 0.1 3		<b>4</b> M 0233 0.4 12 0838 0.1 3 1520 0.5 15 2133 0.3 9		<b>19</b> Tu 0346 0.5 15 0958 0.2 6 1703 0.6 18 2350 0.3 9
<b>5</b> Th 0210 0.6 18 0803 0.1 33 1403 0.6 18 2015 0.1 3	<b>20</b> F 0211 0.7 21 0808 0.1 33 1412 0.6 18 2028 0.1 3		<b>5</b> Sa 0202 0.5 15 0759 0.1 33 1411 0.5 15 2015 0.2 6		<b>20</b> Su 0243 0.5 15 0843 0.2 6 1519 0.5 15 2152 0.3 9		<b>5</b> Tu 0244 0.4 12 0900 0.2 6 1720 0.4 12		<b>20</b> W 0518 0.4 12 1143 0.2 6 1927 0.6 18		<b>20</b> O	
			<b>6</b> F 0212 0.5 15 0800 0.1 33 1401 0.5 15 2007 0.2 6	<b>21</b> Sa 0228 0.5 15 0818 0.2 6 1431 0.5 15 2049 0.2 6		<b>6</b> Su 0154 0.4 12 0748 0.2 6 1406 0.4 12 1942 0.3 9		<b>21</b> M 0322 0.4 12 0925 0.3 15 1747 0.5 15 O		<b>6</b> W 0453 0.2 6 0918 0.3 6 1300 0.2 6 2100 0.5 15		<b>21</b> Th 0235 0.3 9 0810 0.4 12 1413 0.2 6 2112 0.6 18
			<b>7</b> Sa 0146 0.4 12 0726 0.2 6 1324 0.4 12 O 1907 0.2 6	<b>22</b> Su 0215 0.4 12 0743 0.3 9 1413 0.4 12 O 1850 0.3 9		<b>7</b> M 0030 0.4 12 0626 0.2 6 1229 0.4 12 O 1850 0.3 9		<b>22</b> Tu 0257 0.3 9 0852 0.4 12 1401 0.3 9 2100 0.6 18		<b>7</b> Th 0404 0.2 6 0942 0.4 12 1503 0.2 6 2144 0.6 18		<b>22</b> F 0348 0.2 6 0932 0.5 15 1533 0.2 6 2209 0.7 21
			<b>8</b> Su 0022 0.4 12 0609 0.2 6 1206 0.4 12 1738 0.2 6 2317 0.5 15	<b>23</b> M 0452 0.2 6 1059 0.4 12 1604 0.3 9 2206 0.5 15		<b>8</b> Tu 0459 0.2 6 1056 0.4 12 1613 0.2 6 2222 0.5 15		<b>23</b> W 0350 0.2 6 0944 0.5 15 1524 0.2 6 2153 0.7 21		<b>8</b> F 0421 0.2 6 1005 0.5 15 1546 0.2 6 2217 0.7 21		<b>23</b> Sa 0430 0.2 6 1019 0.6 18 1624 0.1 3 2249 0.7 21
<b>9</b> M 0525 0.1 3 1126 0.5 15 1708 0.1 3 2307 0.6 18	<b>24</b> Tu 0438 0.1 3 1041 0.5 15 1619 0.2 6 2230 0.7 21		<b>9</b> W 0447 0.1 3 1044 0.5 15 1620 0.1 3 2234 0.6 18		<b>24</b> Th 0421 0.1 3 1015 0.6 18 1607 0.1 3 2230 0.8 24		<b>9</b> Sa 0442 0.1 3 1028 0.6 18 1620 0.1 3 2246 0.8 24		<b>24</b> Su 0503 0.1 3 1056 0.6 18 1703 0.0 0 2323 0.7 21		<b>24</b> O	
			<b>10</b> Tu 0519 0.0 0 1121 0.6 18 1709 0.1 3 2314 0.7 21	<b>25</b> W 0454 0.0 0 1054 0.6 18 1643 0.0 0 2257 0.8 24		<b>10</b> Th 0455 0.1 3 1051 0.6 18 1637 0.1 3 2253 0.8 24		<b>25</b> F 0449 0.1 3 1043 0.7 21 1642 0.0 0 2302 0.8 24		<b>10</b> Su 0504 0.1 3 1054 0.6 18 1653 0.0 0 2315 0.8 24		<b>25</b> M 0533 0.0 0 1128 0.7 21 1737 0.0 0 2353 0.7 21
			<b>11</b> W 0527 0.0 0 1128 0.6 18 1719 0.0 0 2328 0.8 24	<b>26</b> Th 0515 0.0 0 1114 0.7 21 1709 - 0.1 -3 2324 0.9 27		<b>11</b> F 0511 0.0 0 1106 0.6 18 1657 0.0 0 2314 0.8 24		<b>26</b> Sa 0516 0.0 0 1111 0.7 21 1714 - 0.1 -3 2331 0.9 27		<b>11</b> M 0528 0.0 0 1121 0.7 21 1725 0.0 0 2344 0.8 24		<b>26</b> Tu 0600 0.0 0 1158 0.7 21 1808 - 0.1 -3
			<b>12</b> Th 0541 - 0.1 -3 1140 0.7 21 1734 - 0.1 -3 2345 0.9 27	<b>27</b> F 0538 - 0.1 -3 1135 0.8 24 1735 - 0.1 -3 2350 0.9 27		<b>12</b> Sa 0529 0.0 0 1123 0.7 21 1719 - 0.1 -3 2336 0.9 27		<b>27</b> Tu 0541 0.0 0 1137 0.8 24 1743 - 0.1 -3 2359 0.8 24		<b>12</b> W 0553 0.0 0 1150 0.8 24 1757 - 0.1 -3 O 1836 - 0.1 -3		<b>27</b> O
<b>13</b> F 0557 - 0.1 -3 1155 0.8 24 1751 - 0.1 -3	<b>28</b> Sa 0601 - 0.1 -3 1157 0.8 24 1800 - 0.2 -6		<b>13</b> Su 0549 0.0 0 1143 0.8 24 1743 - 0.1 -3		<b>28</b> M 0606 0.0 0 1202 0.8 24 1811 - 0.1 -3		<b>13</b> Th 0013 0.8 24 0620 0.0 0 1220 0.8 24 ● 1831 - 0.1 -3		<b>28</b> W 0045 0.7 21 0649 - 0.1 -3 1254 0.7 21 1903 - 0.1 -3		<b>28</b> O	
			<b>14</b> Sa 0003 0.9 27 0615 - 0.1 -3 1211 0.8 24 1810 - 0.2 -6	<b>29</b> Su 0015 1.0 30 0622 - 0.1 -3 1219 0.9 27 O 1825 - 0.2 -6		<b>14</b> M 0000 0.9 27 0610 - 0.1 -3 1205 0.8 24 1808 - 0.1 -3		<b>29</b> Tu 0024 0.8 24 0629 - 0.1 -3 1228 0.8 24 O 1837 - 0.1 -3		<b>14</b> W 0043 0.8 24 0648 - 0.1 -3 1253 0.7 21 1906 - 0.1 -3		<b>29</b> F
			<b>15</b> Su 0024 1.0 30 0633 - 0.1 -3 1229 0.9 27 ● 1830 - 0.2 -6	<b>30</b> M 0039 0.9 27 0643 - 0.1 -3 1241 0.9 27 ● 1849 - 0.2 -6		<b>15</b> Tu 0024 0.9 27 0632 - 0.1 -3 1228 0.8 24 ● 1836 - 0.1 -3		<b>30</b> W 0048 0.8 24 0651 - 0.1 -3 1253 0.7 21 1903 - 0.1 -3		<b>15</b> F 0114 0.8 24 0718 - 0.1 -3 1328 0.8 24 1942 - 0.1 -3		<b>30</b> Sa 0133 0.6 18 0736 - 0.1 -3 1348 0.7 21 1957 0.0 0
								<b>31</b> Th 0110 0.7 21 0713 0.0 0 1317 0.7 21 1927 - 0.1 -3				

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Papeete Harbor, Tahiti Island, 2018

Times and Heights of High and Low Waters

July					August					September						
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0156	0.6	18	<b>16</b>	0215	0.7	21	<b>1</b>	0222	0.6	18	<b>16</b>	0219	0.6	18	
	0759	0.0	0	M	0820	-0.1	-3	W	0827	0.0	0	Sa	0836	0.1	3	
	1416	0.7	21	Tu	1443	0.8	24	Th	1451	0.7	21	Su	1456	0.6	18	
	2024	0.0	0		2055	0.1	3		2055	0.1	3	16	1403	0.4	12	
<b>2</b> M	0219	0.6	18	<b>17</b>	0247	0.7	21	<b>2</b>	0239	0.6	18	<b>2</b>	0223	0.5	15	
	0823	0.0	0	Tu	0855	0.0	0	Th	0849	0.1	3	Su	0849	0.2	6	
	1446	0.6	18		1524	0.7	21		1519	0.6	18	M	1503	0.5	15	
	2054	0.1	3		2133	0.2	6		2118	0.2	6	16	2012	0.3	9	
<b>3</b> Tu	0242	0.5	15	<b>18</b>	0319	0.6	18	<b>3</b>	0253	0.5	15	<b>3</b>	0146	0.5	15	
	0848	0.1	3	W	0934	0.1	3	F	0913	0.1	3	M	0815	0.2	6	
	1520	0.6	18		1611	0.6	18		1553	0.6	18	18	1103	0.5	15	
	2128	0.2	6		2218	0.3	9		2141	0.3	9	Tu	1710	0.1	13	
<b>4</b> W	0306	0.5	15	<b>19</b>	0355	0.5	15	<b>4</b>	0300	0.5	15	<b>4</b>	0525	0.3	9	
	0917	0.1	3	Th	1024	0.2	6	Sa	0941	0.2	6	Tu	1042	0.4	12	
	1606	0.5	15		1728	0.5	15	O	1701	0.5	15		1649	0.2	6	
	2218	0.3	9		2346	0.3	9		2212	0.3	9		2306	0.5	15	
<b>5</b> Th	0331	0.4	12	<b>20</b>	0456	0.4	12	<b>5</b>	0123	0.4	12	<b>5</b>	0458	0.2	6	
	0957	0.2	6	F	1218	0.3	9	Su	1332	0.3	9	W	1050	0.6	18	
	1735	0.5	15		2038	0.5	15		2224	0.5	15	Th	1705	0.0	0	
													2333	0.7	21	
<b>6</b> F	0052	0.3	9	<b>21</b>	0343	0.3	9	<b>6</b>	0501	0.3	9	<b>6</b>	0509	0.1	3	
	0417	0.4	12	Sa	0856	0.4	12	M	1014	0.4	12	Th	1112	0.7	21	
	1148	0.3	9		1521	0.2	6		1616	0.2	6		1728	-0.1	-3	
	2034	0.5	15		2215	0.6	18		2250	0.6	18		2334	0.7	21	
<b>7</b> Sa	0359	0.3	9	<b>22</b>	0438	0.2	6	<b>7</b>	0501	0.2	6	<b>7</b>	0529	0.0	0	
	0858	0.4	12	Su	1018	0.5	15	Tu	1047	0.5	15	F	1134	0.8	24	
	1449	0.3	9		1629	0.1	3		1657	0.1	3	Sa	1743	-0.1	-3	
	2152	0.6	18		2257	0.6	18		2316	0.6	18		1753	-0.1	-3	
<b>8</b> Su	0428	0.2	6	<b>23</b>	0509	0.1	3	<b>8</b>	0519	0.1	3	<b>8</b>	0552	-0.1	-3	
	1001	0.5	15	M	1100	0.6	18	W	1117	0.7	21	Sa	1204	0.9	27	
	1558	0.2	6		1710	0.0	0		1730	0.0	0		1818	-0.2	-6	
	2234	0.7	21		2328	0.6	18		2342	0.7	21					
<b>9</b> M	0454	0.2	6	<b>24</b>	0536	0.1	3	<b>9</b>	0542	0.0	0	<b>9</b>	0018	0.8	24	
	1039	0.6	18	Tu	1133	0.6	18	Th	1147	0.8	24	Su	0617	-0.2	-6	
	1644	0.1	3		1743	0.0	0		1801	-0.1	-3	M	1231	1.0	30	
	2308	0.7	21		2355	0.7	21					●	1843	-0.2	-6	
<b>10</b> Tu	0520	0.1	3	<b>25</b>	0600	0.0	0	<b>10</b>	0009	0.8	24	<b>10</b>	0041	0.9	27	
	1113	0.6	18	F	1201	0.7	21	Sa	0608	-0.1	-3	M	0643	-0.2	-6	
	1723	0.0	0		1811	-0.1	-3		1218	0.9	27	1259	1.0	30		
	2340	0.7	21						1845	-0.2	-6	1907	-0.1	-3		
<b>11</b> W	0547	0.0	0	<b>26</b>	0019	0.7	21	<b>11</b>	0035	0.8	24	<b>11</b>	0104	0.9	27	
	1147	0.7	21	Th	0623	-0.1	-3	Sa	0635	-0.1	-3	Th	0709	-0.2	-6	
	1759	-0.1	-3		1227	0.7	21		1248	0.9	27		1325	1.0	30	
					1836	-0.1	-3		1901	-0.2	-6		1930	-0.1	-3	
<b>12</b> Th	0011	0.8	24	<b>27</b>	0042	0.7	21	<b>12</b>	0102	0.8	24	<b>12</b>	0126	0.9	27	
	0615	0.0	0	F	0645	-0.1	-3	Su	0703	-0.2	-6	W	0735	-0.2	-6	
	1221	0.8	24		1252	0.7	21		1319	0.9	27		1350	0.9	27	
	●	1834	-0.1	-3	O	1900	-0.1	-3		1930	-0.1	-3		1952	0.0	0
<b>13</b> F	0042	0.8	24	<b>28</b>	0103	0.7	21	<b>13</b>	0129	0.8	24	<b>13</b>	0147	0.8	24	
	0645	-0.1	-3	Sa	0706	-0.1	-3	M	0732	-0.2	-6	Th	0759	-0.1	-3	
	1255	0.8	24		1315	0.8	24		1350	0.9	27		1412	0.8	24	
	1909	-0.1	-3		1924	-0.1	-3		1959	-0.1	-3		2009	0.1	3	
<b>14</b> Sa	0113	0.8	24	<b>29</b>	0124	0.7	21	<b>14</b>	0154	0.8	24	<b>14</b>	0204	0.7	21	
	0715	-0.1	-3	Su	0726	-0.1	-3	Tu	0801	-0.1	-3	F	0820	0.0	0	
	1330	0.8	24		1339	0.8	24		1420	0.9	27		1430	0.7	21	
	1944	-0.1	-3		1947	-0.1	-3		2025	0.0	0		2020	0.1	3	
<b>15</b> Su	0144	0.7	21	<b>30</b>	0145	0.7	21	<b>15</b>	0219	0.8	24	<b>15</b>	0216	0.6	18	
	0747	-0.1	-3	M	0746	-0.1	-3	W	0829	-0.1	-3	Sa	0835	0.1	3	
	1406	0.8	24		1402	0.8	24		1449	0.8	24		1438	0.5	15	
	2019	0.0	0		2009	0.0	0		2050	0.1	3		2015	0.2	6	
				<b>31</b>	0204	0.7	21	<b>31</b>	0207	0.7	21	<b>30</b>	0154	0.7	21	
				Tu	0807	0.0	0	F	0818	0.0	0	Su	0809	0.1	3	
					1426	0.7	21		1438	0.7	21		1417	0.6	18	
					2032	0.1	3		2033	0.2	6		2004	0.2	6	

Time meridian 150° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to mean lower low water which is the chart datum of soundings.

# Papeete Harbor, Tahiti Island, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0201 0.6 18	16 0105 0.4 12	1 Th 0340 0.3 9	16 0358 0.2 6	1 Sa 0256 0.2 6	16 0304 0.3 9	16 Su 0947 0.6 18	16 0346 0.2 6	16 M 0304 0.3 9	16 0947 0.6 18	16 1626 0.2 6	16 2208 0.5 15
0818 0.2 6	Tu 0640 0.3 9	Th 0943 0.5 15	F 1008 0.5 15	Sa 0932 0.7 21	Su 0947 0.6 18	Su 0947 0.6 18	Su 0947 0.6 18	M 1641 0.1 3	M 1641 0.1 3	M 1641 0.1 3	M 1641 0.1 3
1407 0.4 12	1144 0.4 12	1619 0.1 3	1633 0.1 3	1605 0.2 6	1627 0.3 15	1627 0.3 15	1627 0.3 15	2228 0.5 15	2228 0.5 15	2228 0.5 15	2228 0.5 15
● 1933 0.3 9	● 1738 0.2 6	2219 0.5 15	2228 0.5 15	2156 0.5 15	2156 0.5 15	2156 0.5 15	2156 0.5 15	2228 0.5 15	2228 0.5 15	2228 0.5 15	2228 0.5 15
2 Tu 0132 0.5 15	17 0503 0.2 6	2 F 0352 0.2 6	2 17 0407 0.1 3	2 Sa 0345 0.1 3	2 17 0346 0.2 6	2 M 0418 0.1 3	2 W 1015 0.7 21	2 17 0346 0.2 6	2 1015 0.7 21	2 1641 0.1 3	2 2228 0.5 15
0722 0.3 9	W 1046 0.5 15	F 1006 0.7 21	17 1021 0.6 18	Sa 1011 0.8 24	Su 1015 0.7 21	18 0418 0.1 3	W 1015 0.7 21	17 0346 0.2 6	17 1015 0.7 21	17 1641 0.1 3	17 2228 0.5 15
1152 0.4 12	1659 0.1 3	1631 0.1 3	1641 0.1 3	1632 0.1 3	1632 0.1 3	18 0423 0.1 3	W 1015 0.7 21	18 0418 0.1 3	18 1042 0.7 21	18 1701 0.1 3	18 2250 0.6 18
1724 0.2 6	2300 0.5 15	2230 0.6 18	2237 0.6 18	2251 0.6 18	2252 0.7 21	3 M 0422 0.0 0	W 1015 0.7 21	18 0418 0.1 3	18 1042 0.7 21	18 1701 0.1 3	18 2250 0.6 18
2330 0.4 12	2253 0.5 15	2258 0.6 18	2249 0.7 21	2251 0.6 18	2252 0.7 21	3 W 1044 0.8 24	W 1015 0.7 21	19 0447 0.0 0	W 1108 0.8 24	W 1722 0.0 0	W 2314 0.7 21
3 W 0451 0.3 9	18 0441 0.1 3	3 Sa 0416 0.1 3	18 0423 0.1 3	3 M 0422 0.0 0	19 0447 0.0 0	4 Tu 0455 0.0 0	W 1108 0.8 24	4 Tu 0455 0.0 0	4 Tu 1114 0.9 27	4 Tu 1722 0.0 0	4 Tu 2314 0.7 21
1026 0.5 15	Th 1042 0.6 18	Sa 1032 0.8 24	Sa 1039 0.7 21	3 W 1044 0.8 24	19 0443 0.0 0	4 W 1114 0.9 27	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
1645 0.1 3	1657 0.0 0	1652 0.0 0	1656 0.0 0	1656 0.0 0	19 M 1059 0.8 24	4 W 1114 0.9 27	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
2253 0.5 15	2258 0.6 18	2306 0.6 18	2311 0.8 24	2308 0.7 21	19 M 1059 0.8 24	4 W 1114 0.9 27	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
4 Th 0433 0.2 6	19 0446 0.0 0	4 Su 0443 0.0 0	19 0443 0.0 0	4 W 1114 0.9 27	19 0443 0.0 0	4 Tu 0455 0.0 0	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
1034 0.6 18	F 1052 0.7 21	1706 0.0 0	1714 0.1 3	1714 0.1 3	1714 0.0 0	4 W 1114 0.9 27	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
1654 0.0 0	2306 0.6 18	2311 0.8 24	2311 0.8 24	2308 0.7 21	2308 0.7 21	4 W 1114 0.9 27	W 1108 0.8 24	19 0447 0.0 0	19 1108 0.8 24	19 1722 0.0 0	19 2314 0.7 21
2314 0.7 21	2320 0.7 21	2334 0.8 24	2334 0.8 24	2328 0.8 24	2328 0.8 24	5 W 1143 0.9 27	W 1135 0.8 24	20 0517 0.0 0	20 1135 0.8 24	20 1745 0.0 0	20 2341 0.7 21
5 F 0446 0.0 0	20 0458 0.0 0	5 M 0510 -0.1 -3	20 0504 -0.1 -3	5 W 1143 0.9 27	20 0504 -0.1 -3	5 W 1143 0.9 27	W 1135 0.8 24	20 0517 0.0 0	20 1135 0.8 24	20 1745 0.0 0	20 2341 0.7 21
1055 0.8 24	Sa 1108 0.8 24	Sa 1126 1.0 30	20 0504 -0.1 -3	5 W 1143 0.9 27	20 0504 -0.1 -3	5 W 1143 0.9 27	W 1135 0.8 24	20 0517 0.0 0	20 1135 0.8 24	20 1745 0.0 0	20 2341 0.7 21
1713 -0.1 -3	1721 -0.1 -3	1738 -0.1 -3	21 0514 -0.1 -3	6 Tu 1121 0.9 27	21 0527 -0.1 -3	6 Th 1209 0.8 24	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
2314 0.7 21	2320 0.7 21	2334 0.8 24	21 0514 -0.1 -3	6 Tu 1121 0.9 27	21 0527 -0.1 -3	6 Th 1209 0.8 24	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
6 Sa 0507 -0.1 -3	21 0514 -0.1 -3	6 Tu 1125 1.0 30	21 0527 -0.1 -3	6 Th 1209 0.8 24	21 0556 -0.1 -3	6 Th 1814 -0.1 -3	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
1119 0.9 27	Su 1125 0.9 27	Su 1143 0.9 27	21 0514 -0.1 -3	6 Th 1209 0.8 24	21 0556 -0.1 -3	6 Th 1814 -0.1 -3	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
1735 -0.1 -3	1737 -0.1 -3	1755 -0.1 -3	21 0514 -0.1 -3	6 Th 1209 0.8 24	21 0556 -0.1 -3	6 Th 1814 -0.1 -3	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
2334 0.8 24	2335 0.8 24	2352 0.8 24	21 0514 -0.1 -3	6 Th 1209 0.8 24	21 0556 -0.1 -3	6 Th 1814 -0.1 -3	W 1135 0.8 24	21 0547 -0.1 -3	21 1202 0.8 24	21 1809 -0.1 -3	21 24 F 1202 0.8 24
7 Su 0531 -0.1 -3	22 0531 -0.1 -3	7 W 1217 0.9 27	22 0551 -0.1 -3	7 F 1234 0.8 24	22 0013 0.8 24	7 F 1837 -0.1 -3	W 1135 0.8 24	22 0009 0.8 24	22 0618 -0.1 -3	22 1229 0.8 24	22 1834 -0.1 -3
1145 1.0 30	M 1144 0.9 27	M 1217 0.9 27	22 0531 -0.1 -3	7 F 1234 0.8 24	22 0013 0.8 24	7 F 1837 -0.1 -3	W 1135 0.8 24	22 0009 0.8 24	22 0618 -0.1 -3	22 1229 0.8 24	22 1834 -0.1 -3
1758 -0.2 -6	1755 -0.1 -3	1755 -0.1 -3	22 0531 -0.1 -3	7 F 1234 0.8 24	22 0013 0.8 24	7 F 1837 -0.1 -3	W 1135 0.8 24	22 0009 0.8 24	22 0618 -0.1 -3	22 1229 0.8 24	22 1834 -0.1 -3
2356 0.9 27	2352 0.8 24	2352 0.8 24	22 0531 -0.1 -3	7 F 1234 0.8 24	22 0013 0.8 24	7 F 1837 -0.1 -3	W 1135 0.8 24	22 0009 0.8 24	22 0618 -0.1 -3	22 1229 0.8 24	22 1834 -0.1 -3
8 M 0556 -0.2 -6	23 0550 -0.1 -3	8 Th 0629 -0.2 -6	23 0011 0.8 24	8 Sa 0650 -0.1 -3	23 0039 0.8 24	8 Sa 1257 0.7 21	W 1135 0.8 24	23 0039 0.8 24	23 0650 -0.1 -3	23 1257 0.8 24	23 1901 -0.1 -3
1211 1.0 30	Tu 1203 1.0 30	Tu 1813 -0.1 -3	23 0550 -0.1 -3	8 Th 0629 -0.2 -6	23 0011 0.8 24	8 Sa 1257 0.7 21	W 1135 0.8 24	23 0039 0.8 24	23 0650 -0.1 -3	23 1257 0.8 24	23 1901 -0.1 -3
1820 -0.2 -6	-6	-6	23 0550 -0.1 -3	8 Th 0629 -0.2 -6	23 0011 0.8 24	8 Sa 1257 0.7 21	W 1135 0.8 24	23 0039 0.8 24	23 0650 -0.1 -3	23 1257 0.8 24	23 1901 -0.1 -3
● 1820 -0.2 -6	-6	-6	23 0550 -0.1 -3	8 Th 0629 -0.2 -6	23 0011 0.8 24	8 Sa 1257 0.7 21	W 1135 0.8 24	23 0039 0.8 24	23 0650 -0.1 -3	23 1257 0.8 24	23 1901 -0.1 -3
9 Tu 0017 0.9 27	24 0009 0.8 24	9 F 0653 -0.1 -3	24 0036 0.8 24	9 Sa 0644 -0.1 -3	24 0104 0.7 21	9 Su 0715 -0.1 -3	W 1135 0.8 24	24 0110 0.8 24	24 0723 -0.1 -3	24 1327 0.7 21	24 1930 -0.1 -3
0621 -0.2 -6	-6	-6	24 0009 0.8 24	9 F 0653 -0.1 -3	24 0036 0.8 24	9 Sa 0644 -0.1 -3	W 1135 0.8 24	24 0110 0.8 24	24 0723 -0.1 -3	24 1327 0.7 21	24 1930 -0.1 -3
1236 1.0 30	1224 1.0 30	1302 0.8 24	24 0009 0.8 24	9 F 0653 -0.1 -3	24 0036 0.8 24	9 Sa 0644 -0.1 -3	W 1135 0.8 24	24 0110 0.8 24	24 0723 -0.1 -3	24 1327 0.7 21	24 1930 -0.1 -3
1842 -0.1 -3	-3	-3	24 0009 0.8 24	9 F 0653 -0.1 -3	24 0036 0.8 24	9 Sa 0644 -0.1 -3	W 1135 0.8 24	24 0110 0.8 24	24 0723 -0.1 -3	24 1327 0.7 21	24 1930 -0.1 -3
10 W 0039 0.9 27	25 0027 0.8 24	10 Sa 0716 -0.1 -3	25 0102 0.8 24	10 M 0713 -0.1 -3	25 0102 0.8 24	10 M 0740 0.0 0	W 1135 0.8 24	25 0145 0.8 24	25 0758 0.0 0	25 1357 0.7 21	25 2000 0.0 0
0646 -0.2 -6	-6	-6	25 0027 0.8 24	10 Sa 0716 -0.1 -3	25 0102 0.8 24	10 M 0740 0.0 0	W 1135 0.8 24	25 0145 0.8 24	25 0758 0.0 0	25 1357 0.7 21	25 2000 0.0 0
1300 1.0 30	1244 0.9 27	1321 0.7 21	25 0027 0.8 24	10 Sa 0716 -0.1 -3	25 0102 0.8 24	10 M 0740 0.0 0	W 1135 0.8 24	25 0145 0.8 24	25 0758 0.0 0	25 1357 0.7 21	25 2000 0.0 0
1903 -0.1 -3	-3	-3	25 0027 0.8 24	10 Sa 0716 -0.1 -3	25 0102 0.8 24	10 M 0740 0.0 0	W 1135 0.8 24	25 0145 0.8 24	25 0758 0.0 0	25 1357 0.7 21	25 2000 0.0 0
11 Th 0100 0.9 27	26 0046 0.8 24	11 Su 0736 0.0 0	26 0132 0.7 21	11 M 0744 0.0 0	26 0132 0.7 21	11 Tu 0804 0.1 3	W 1135 0.8 24	26 0221 0.8 24	26 0835 0.1 3	26 1428 0.6 18	26 2033 0.0 0
0710 -0.2 -6	-6	-6	26 0046 0.8 24	11 Su 0736 0.0 0	26 0132 0.7 21	11 M 0744 0.0 0	W 1135 0.8 24	26 0221 0.8 24	26 0835 0.1 3	26 1428 0.6 18	26 2033 0.0 0
1322 0.9 27	1305 0.9 27	1337 0.6 18	26 0046 0.8 24	11 Su 0736 0.0 0	26 0132 0.7 21	11 M 0744 0.0 0	W 1135 0.8 24	26 0221 0.8 24	26 0835 0.1 3	26 1428 0.6 18	26 2033 0.0 0
1922 0.0 0	0	0	26 0046 0.8 24	11 Su 0736 0.0 0	26 0132 0.7 21	11 M 0744 0.0 0	W 1135 0.8 24	26 0221 0.8 24	26 0835 0.1 3	26 1428 0.6 18	26 2033 0.0 0
12 F 0120 0.8 24	27 0106 0.8 24	12 M 0753 0.1 3	27 0205 0.7 21	12 Tu 0829 0.1 3	27 0223 0.6 18	12 W 0829 0.1 3	W 1135 0.8 24	27 0304 0.7 21	27 0918 0.2 6	27 1502 0.5 15	27 2112 0.1 3
0732 -0.1 -3	-3	-3	27 0106 0.8 24	12 M 0753 0.1 3	27 0205 0.7 21	12 W 0829 0.1 3	W 1135 0.8 24	27 0304 0.7 21	27 0918 0.2 6	27 1502 0.5 15	27 2112 0.1 3
1341 0.7 21	1326 0.8 24	1346 0.4 12	27 0106 0.8 24	12 M 0753 0.1 3	27 0205 0.7 21	12 W 0829 0.1 3	W 1135 0.8 24	27 0304 0.7 21	27 0918 0.2 6	27 1502 0.5 15	27 2112 0.1 3
1937 0.0 0	0	0	27 0106 0.8 24	12 M 0753 0.1 3	27 0205 0.7 21	12 W 0829 0.1 3	W 1135 0.8 24	27 0304 0.7 21	27 0918 0.2 6	27 1502 0.5 15	27 2112 0.1 3
13 13 0137 0.7 21	28 0127 0.7 21	13 Tu 0801 0.2 6	28 0247 0.6 18	13 W 0807 0.2 6	28 0255 0.5 15	13 Th 0858 0.2 6	W 1135 0.8 24				

# Apia, Samoa Islands, 2018

Times and Heights of High and Low Waters

January				February				March					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m 0522 M 1136 1743	ft 3.2 -0.1 3.8	cm 98 -3 116	h m 0012 Tu 0555 1207 1805	ft 0.3 2.6 0.4 3.2	cm 9 79 12 98	h m 0055 Th 0651 1306 O 1910	ft -0.4 3.3 -0.2 3.8	cm -12 101 -6 116	h m 0049 F 0638 1250 ● 1849	ft 0.2 2.9 0.3 3.3	cm 6 88 9 101		
1 M 1136 1743	3.8	116	16 Tu 0012 W 0630 1241 ● 1839	0.2	6 82 12 3.2	1 Th 0121 Sa 0713 1324 1958	-0.4 3.3 -0.1 3.6	-12 101 -3 110	16 Th 0545 F 1202 1805 ● 1851	3.4 -0.2 3.8 3.7	104 -6 116 113		
2 Tu 0019 0614 1227 O 1834	-0.3	-9 101 -6 3.9	17 W 0046 1241 ● 1839	0.2	6 12 3.2	2 F 0144 1356 1958	-0.4 -0.1 0.0	-12 -3 0	2 F 0036 1250 O 1851	-0.3 -0.2 3.7	-9 -6 113		
3 W 0111 0706 1320 1926	-0.4	-12 101 -3 3.8	18 Th 0119 0705 1315 1915	0.2	6 2.7 0.5 3.2	3 Sa 0233 0829 1448 2048	-0.2 3.2 0.0 3.4	-6 98 0 104	3 Sa 0121 0717 1401 2005	-0.3 3.4 0.4 3.1	-9 -3 12 107		
4 Th 0203 0759 1414 2018	-0.3	-9 98 0 3.7	19 F 0153 0742 1350 1952	0.3	9 2.7 0.5 3.1	4 Su 0323 0920 1544 2140	0.0 3.1 0.2 3.1	0 94 6 94	4 Su 0205 0802 1442 2048	-0.1 3.3 0.4 3.0	-3 101 12 91		
5 F 0257 0854 1510 2112	-0.2	-6 94 3 104	20 Sa 0227 0821 1427 2032	0.3	9 2.7 0.6 3.0	5 M 0416 1014 1644 2234	0.2 2.9 0.5 2.8	6 88 15 85	5 M 0251 0848 1516 2109	0.1 3.1 0.3 3.0	3 94 9 91		
6 Sa 0353 0950 1611 2209	-0.1	-3 91 9 98	21 Su 0304 0902 1508 2115	0.4	12 2.7 0.6 2.9	6 Tu 0513 1112 1750 2335	0.4 2.7 0.6 2.6	12 88 18 79	6 Tu 0339 0936 1611 2159	0.4 3.0 0.5 2.7	12 98 15 82		
7 Su 0452 1050 1716 2310	0.1	3 88 0.5 88	22 M 0345 0948 1557 2203	0.5	15 2.7 0.7 2.8	7 W 0615 1215 1900	0.6 2.6 0.7	18 79 21	7 W 0432 1028 1713 2255	0.6 2.8 0.7 2.5	18 94 15 76		
8 M 0553 1154 1825	0.3	9 85 0.6	23 Tu 0432 1040 1657 2259	0.5	15 2.7 0.7 2.7	8 Th 0042 0718 1320 ● 2006	2.4 0.7 2.6 0.7	73 21 79 21	8 Th 0604 1215 1902 ● 0006	0.6 2.9 0.6 2.3	18 91 24 70		
9 Tu 0015 0655 1259 ● 1933	2.7	82 0.4 82 0.6	24 W 0528 1138 1808	0.6	18 2.7 0.7	9 F 0150 0817 1421 2104	2.3 0.7 2.7 0.7	70 21 82 21	9 F 0051 0718 1325 2014	2.6 0.6 3.0 0.4	79 18 91 12		
10 W 0121 0755 1401 2035	2.6	79 0.5 15 0.6	25 Th 0002 0632 1241 ● 1921	2.6	79 18 2.8 18	10 Sa 0251 0909 1511 2153	2.3 0.7 2.7 0.6	70 21 82 18	10 Sa 0203 0827 1432 2117	2.7 0.4 3.2 0.2	70 27 98 6		
11 Th 0224 0849 1455 2130	2.5	76 0.5 15 0.5	26 F 0109 0738 1346 2029	2.6	79 15 3.0 0.4	11 Su 0340 0954 1553 2235	2.4 0.6 2.9 0.4	73 18 88 12	11 Su 0308 0928 1532 2212	2.9 0.2 3.4 0.0	70 27 88 0		
12 F 0318 0937 1541 2217	2.5	76 0.5 15 0.4	27 Sa 0216 0841 1447 2130	2.7	82 0.4 3.2 0.2	12 M 0420 1034 1630 2311	2.5 0.6 3.0 0.3	76 18 91 9	12 M 0308 0925 1518 2303	2.4 0.8 2.8 -6	73 24 85 15		
13 Sa 0404 1019 1620 2259	2.5	76 0.5 15 0.4	28 Su 0319 0939 1545 2225	2.9	88 0.2 3.4 -0.1	13 Tu 0456 1110 1705 2345	2.6 0.5 3.1 0.3	79 15 94 9	13 Tu 0457 1114 1717 2350	3.2 -0.1 3.7 -0.3	98 -3 113 -9		
14 Su 0443 1057 1656 2336	2.5	76 0.5 15 0.3	29 M 0416 1033 1639 2317	3.0	91 0.0 3.6 -0.3	14 W 0530 1144 1739	2.7 0.4 3.2	82 12 98	14 W 0425 1042 1634 2311	2.7 0.5 3.1 0.3	82 15 94 9		
15 M 0520 1133 1730	2.6	79 0.5 15 3.1	30 Tu 0510 1125 1731	3.2	98 -0.1 3.8	15 Th 0017 0604 1217 1814	0.2 2.8 0.4 3.2	6 85 12 98	15 Th 0459 1116 1710 2343	2.8 0.4 3.2 0.2	85 12 98 6		
				31 W 0006 0601 1215 1820	-0.4 3.3 -0.2 3.8			-12 101 -6 116			31 Sa 0013 0610 1233 1830	-0.2 3.4 -0.1 3.5	-6 104 -3 107

Time meridian 195° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Apia, Samoa Islands, 2018

Times and Heights of High and Low Waters

April				May				June									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m 1 Su 0055 0652 1317 O 1913	ft -0.1 3.4 0.0 3.3	cm -3 104 0 101	h m 16 M 0016 0616 1239 ● 1838	ft 0.1 3.4 0.1 3.3	cm 3 104 3 101	h m 1 Tu 0109 0706 1341 1930	ft 0.2 3.2 0.2 2.9	cm 6 98 6 88	h m 16 W 0031 0638 1310 ● 1907	ft 0.0 3.5 -0.2 3.1	cm 0 107 -6 94	h m 1 F 0200 0759 1445 2029	ft 0.5 2.9 0.3 2.4	cm 15 88 9 73	h m 16 Sa 0200 0807 1446 2043	ft -0.1 3.5 -0.4 2.9	cm -3 107 -12 88
2 M 0137 0734 1402 1955	0.1 3.3 0.2 3.1	3.0 101 6 94	2 W 0148 0746 1425 2012	0.4 3.1 0.3 2.7	12 94 9 82	2 Th 0119 0727 1402 1959	0.0 3.5 -0.2 3.0	0 107 -6 91	2 Sa 0241 0840 1529 2114	0.6 2.8 0.4 2.3	18 85 12 70	2 M 0258 0903 1545 2142	0.0 3.3 -0.3 2.8	0 101 -9 85			
3 Tu 0219 0816 1449 2039	0.3 3.2 0.3 2.9	9 98 9 88	3 Th 0229 0828 1512 2056	0.5 3.0 0.5 2.5	15 91 15 76	3 F 0211 0820 1459 2056	0.1 3.4 -0.1 2.9	3 104 -3 88	3 Su 0327 0924 1617 2203	0.7 2.7 0.5 2.2	21 82 15 67	3 M 0400 1002 1646 2245	0.1 3.1 -0.2 2.7	3 94 -6 82			
4 W 0303 0900 1540 2126	0.5 3.0 0.5 2.6	15 91 15 79	4 F 0314 0912 1603 2146	0.7 2.8 0.6 2.4	21 85 18 73	4 Sa 0309 0917 1601 2157	0.2 3.3 0.0 2.8	6 101 0 85	4 M 0417 1012 1707 2254	0.8 2.6 0.5 2.2	24 79 15 67	4 Tu 0507 1105 1750 2350	0.2 2.9 -0.1 2.7	6 88 -3 82			
5 Th 0351 0948 1637 2218	0.7 2.8 0.7 2.4	21 85 21 73	5 Sa 0405 1001 1659 2240	0.9 2.7 0.7 2.3	27 82 21 70	5 Tu 0415 1019 1707 2304	0.3 3.2 0.1 2.7	9 98 3 82	5 W 0513 1103 1758 2348	0.8 2.5 0.5 2.2	24 76 15 67	5 M 0616 1211 1853 ● 0	0.2 2.8 0.0 0	6 85 0 0			
6 F 0447 1041 1741 2319	0.9 2.7 0.8 2.3	27 82 24 70	6 Su 0504 1054 1758 2340	1.0 2.6 0.7 2.2	30 79 21 67	6 M 0526 1126 1815	0.4 3.0 0.1	12 91 3	6 W 0612 1158 1849	0.8 2.4 0.5	24 15 15	6 Th 0555 0724 1317 1953	2.7 0.2 2.7 0.1	82 6 82 3			
7 Sa 0551 1141 1847	1.0 2.6 0.9	30 79 27	7 M 0607 1152 1855	1.0 2.5 0.7	30 76 21	7 Tu 0013 0637 1234 ● 1920	2.7 0.4 3.0 0.1	82 12 91 3	7 Th 0042 0710 1253 ● 1937	2.3 0.7 2.5 0.4	70 21 76 12	7 F 0157 0827 1419 2048	2.7 0.2 2.6 0.1	82 6 79 3			
8 Su 0026 0657 1244 ● 1947	2.3 1.0 2.6 0.8	70 30 79 24	8 Tu 0040 0708 1249 ● 1946	2.3 1.0 2.5 0.6	70 30 76 18	8 W 0120 0745 1341 2019	2.8 0.3 2.9 0.1	85 9 88 3	8 M 0133 0803 1347 2023	2.5 0.6 2.5 0.3	76 18 76 9	8 Sa 0253 0924 1516 2138	2.8 0.1 2.5 0.1	85 3 76 3			
9 M 0131 0757 1343 2038	2.3 1.0 2.6 0.7	70 30 79 21	9 W 0134 0803 1401 2043	2.4 0.4 3.1 0.1	73 24 79 15	9 Th 0221 0846 1441 2113	2.8 0.2 2.9 0.0	85 6 88 0	9 Su 0222 0854 1440 2108	2.7 0.4 2.6 0.2	82 79 79 6	9 M 0342 1015 1605 2223	2.8 0.1 2.5 0.1	85 3 76 3			
10 Tu 0224 0847 1434 2120	2.4 0.9 2.7 0.6	73 27 82 18	10 Th 0221 0903 1502 2136	2.5 0.3 3.2 0.0	76 21 82 0	10 F 0221 0941 1535 2201	2.5 0.1 2.9 0.0	88 3 88 0	10 Su 0309 0942 1531 2153	2.9 0.2 2.7 0.1	88 6 82 3	10 M 0426 1101 1649 2304	2.9 0.1 2.5 0.2	88 3 76 6			
11 W 0308 0930 1517 2158	2.6 0.7 2.9 0.5	79 21 88 15	11 Th 0335 0957 1555 2224	3.1 0.1 3.3 0.0	94 3 101 0	11 F 0304 0931 1518 2150	2.7 0.5 2.8 0.3	82 15 85 9	11 Sa 0403 1031 1624 2245	3.0 0.1 2.9 0.1	91 3 88 3	11 M 0357 1030 1621 2238	3.1 0.0 2.8 0.0	94 0 85 0			
12 Th 0347 1008 1557 2232	2.8 0.6 3.0 0.3	85 18 91 9	12 F 0423 1046 1643 2308	3.2 0.0 3.3 0.0	98 0 101 0	12 Sa 0345 1012 1602 2227	2.9 0.3 3.0 0.2	88 9 91 6	12 Tu 0446 1117 1707 2326	3.1 0.0 2.8 0.1	94 0 85 3	12 W 0542 1222 1806	2.9 0.0 2.4	88 0 73			
13 F 0423 1045 1636 2306	2.9 0.4 3.1 0.2	88 12 98 6	13 Su 0507 1132 1727 2350	3.3 0.0 3.2 0.0	101 0 98 0	13 M 0426 1054 1646 2306	3.1 0.1 3.1 0.1	94 3 94 3	13 W 0526 1200 1748	3.1 0.0 2.7	94 0 82	13 Th 0532 1207 1801	3.4 -0.3 3.0	104 -9 91			
14 Sa 0459 1121 1715 2340	3.1 0.3 3.2 0.2	94 9 98 6	14 Su 0548 1216 1809	3.3 0.0 3.1	101 0 94	14 M 0508 1136 1731 2348	3.3 0.0 3.1 0.0	101 0 94 0	14 Tu 0005 0604 1241 1827	0.2 3.1 0.1 2.7	6 94 3 82	14 F 0056 0654 1258 ● 1853	0.3 2.9 -0.4 3.0	9 88 -12 91			
15 Su 0537 1159 1756	3.3 0.1 3.3	101 3 101	15 M 0620 1259 1849	0.1 0.1 3.0	101 3 91	15 Tu 0552 1222 1818	3.4 -0.1 3.1	104 -3 94	15 W 0043 0641 1322 ● 1906	0.2 3.1 0.1 2.6	6 94 3 79	15 F 0105 0713 1351 1947	-0.2 3.5 -0.4 3.0	-6 107 -12 91			
16 Su 0537 1159 1756	3.3 0.1 3.3	101 3 101	16 M 0620 1259 1849	0.1 0.1 3.0	101 3 91	16 Tu 0121 0719 1403 1947	0.4 3.0 0.2 2.5	12 91 6 76	16 Th 0121 0719 1403 1947	0.4 3.0 0.2 2.5	12 91 6 76	16 F 0133 0731 1415 2001	0.3 2.8 0.1 2.4	9 85 3 73			

Time meridian 195° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Apia, Samoa Islands, 2018

Times and Heights of High and Low Waters

July				August				September							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0211	0.4	12	<b>16</b> M	0241	-0.2	-6	<b>1</b> W	0256	0.4	12	<b>16</b> Th	0417	0.1	3
	0810	2.8	85		0845	3.3	101		1011	2.8	85		0404	0.6	18
	1454	0.2	6		1523	-0.4	-12		1647	0.1	3	<b>1</b> Sa	1006	2.6	79
	2041	2.3	70		2121	2.9	88		2247	2.7	82		1623	0.6	18
<b>2</b> M	0251	0.5	15	<b>17</b> Tu	0340	-0.1	-3	<b>2</b> Th	0340	0.5	15	<b>17</b> F	0523	0.3	9
	0850	2.7	82		0941	3.1	94		1112	2.5	76	<b>2</b> Su	0511	0.6	18
	1534	0.3	9		1620	-0.2	-6		1749	0.3	9		1108	2.5	76
	2125	2.3	70		2219	2.8	85		2350	2.6	79		1728	0.6	18
<b>3</b> Tu	0334	0.6	18	<b>18</b> W	0444	0.1	3	<b>3</b> F	0434	0.6	18	<b>3</b> Sa	0633	0.4	12
	0933	2.6	79		1040	2.9	88		1220	2.3	78		1217	2.5	78
	1616	0.3	9		1720	-0.1	-3		1853	0.5	15		1842	0.6	18
	2210	2.3	70		2321	2.7	82		●				●		
<b>4</b> W	0423	0.6	18	<b>19</b> Th	0551	0.2	6	<b>4</b> Sa	0538	0.6	18	<b>4</b> Su	0056	2.6	79
	1020	2.5	76		1143	2.6	79		0742	0.5	15		0740	2.9	88
	1702	0.4	12		1822	0.1	3		1330	2.2	67		1328	2.5	76
	2300	2.3	70						1955	0.5	15		1952	0.5	15
<b>5</b> Th	0518	0.7	21	<b>20</b> F	0025	2.6	79	<b>5</b> Su	0011	2.6	79	<b>5</b> W	0157	3.0	91
	1112	2.4	73		0700	0.3	9		0649	0.5	15		0844	0.2	6
	1751	0.4	12		1250	2.4	73		1237	2.4	73		1434	2.2	67
	2353	2.3	70		●	1924	0.2	6		1904	0.4	12		2055	0.3
<b>6</b> F	0619	0.6	18	<b>21</b> Sa	0129	2.6	79	<b>6</b> M	0113	2.7	82	<b>6</b> Tu	0254	2.6	79
	1209	2.4	73		0806	0.3	9		0935	0.4	12		0940	0.0	0
	1844	0.4	12		1356	2.3	70		1343	2.4	73		1532	2.9	88
	●				2022	0.3	9		2008	0.3	9		2151	0.0	0
<b>7</b> Sa	0048	2.5	76	<b>22</b> Su	0229	2.6	79	<b>7</b> Tu	0215	2.9	88	<b>7</b> W	0339	2.7	82
	0721	0.5	15		0905	0.3	9		0859	0.1	3		1018	0.3	9
	1308	2.4	73		1456	2.3	70		1447	2.6	79		1608	2.4	73
	1939	0.3	9		2115	0.3	9		2107	0.1	3		2220	0.4	12
<b>8</b> Su	0144	2.6	79	<b>23</b> M	0320	2.7	82	<b>8</b> W	0314	3.1	94	<b>8</b> Th	0418	2.8	85
	0821	0.3	9		0957	0.2	6		0955	-0.1	-3		1056	0.2	6
	1407	2.5	76		1547	2.3	70		1545	2.8	85		1644	2.5	76
	2033	0.2	6		2202	0.3	9		2202	-0.1	-3		2257	0.4	12
<b>9</b> M	0239	2.8	85	<b>24</b> Tu	0405	2.7	82	<b>9</b> Th	0409	3.4	104	<b>9</b> F	0452	2.9	88
	0917	0.1	3		1043	0.1	3		1047	-0.3	-9		1131	0.2	6
	1505	2.6	79		1630	2.3	70		1640	2.9	88		1717	2.6	79
	2125	0.0	0		2243	0.3	9		2255	-0.2	-6		2332	0.3	9
<b>10</b> Tu	0332	3.1	94	<b>25</b> W	0443	2.8	85	<b>10</b> F	0501	3.5	107	<b>10</b> Sa	0526	3.0	91
	1010	-0.1	-3		1123	0.1	3		1137	-0.5	-15		1203	0.1	3
	1600	2.7	82		1708	2.4	73		1732	3.1	94		1750	2.7	82
	2217	-0.1	-3		2321	0.2	6		2347	-0.4	-12		●	1850	3.4
<b>11</b> W	0424	3.3	101	<b>26</b> Th	0519	2.9	88	<b>11</b> Sa	0552	3.6	110	<b>11</b> Tu	0111	-0.3	-9
	1102	-0.3	-9		1200	0.0	0		1226	-0.6	-18		0600	3.0	91
	1654	2.9	88		1744	2.4	73		1822	3.2	98		1235	0.1	3
	2308	-0.2	-6		2357	0.2	6		●				1823	2.7	82
<b>12</b> Th	0516	3.5	107	<b>27</b> F	0553	2.9	88	<b>12</b> Su	0038	-0.4	-12	<b>12</b> W	0201	-0.1	-3
	1153	-0.5	-15		1234	0.0	76		0642	3.6	110		0634	3.1	94
	1747	3.0	91		1819	2.5	76		1315	-0.6	-18		1306	0.1	3
									1912	3.2	98		1857	2.8	85
<b>13</b> F	0000	-0.3	-9	<b>28</b> Sa	0031	0.2	6	<b>13</b> M	0129	-0.4	-12	<b>13</b> Th	0111	0.3	9
	0607	3.6	110		0628	2.9	88		0732	3.5	107		0848	3.1	94
	1244	-0.6	-18		1308	0.0	0		1405	-0.5	-15		1517	0.2	6
	●	1839	3.0		●	1854	2.5	76		2002	3.2	98		2115	3.1
<b>14</b> Sa	0052	-0.4	-12	<b>29</b> Su	0106	0.3	9	<b>14</b> Tu	0222	-0.2	-6	<b>14</b> W	0146	0.3	9
	0659	3.6	110		0703	2.9	88		0823	3.4	104		0747	3.0	91
	1335	-0.6	-18		1342	0.1	3		1456	-0.3	-9		1411	0.2	6
	1931	3.0	91		1930	2.5	76		2054	3.0	91		2012	2.8	85
<b>15</b> Su	0146	-0.3	-9	<b>30</b> M	0141	0.3	9	<b>15</b> W	0317	-0.1	-3	<b>15</b> Th	0225	0.4	12
	0751	3.5	107		0739	2.9	88		0916	3.1	94		0828	2.9	88
	1428	-0.5	-15		1416	0.1	3		1550	-0.1	-3		1448	0.3	9
	2025	3.0	91		2007	2.5	76		2148	2.9	88		2054	2.8	85
				<b>31</b> Tu	0217	0.4	12	<b>31</b> F	0309	0.5	15				
					0818	2.8	85		0914	2.7	82				
					1451	0.2	6		1530	0.5	15		2142	2.7	82
					2047	2.5	76								

Time meridian 195° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Apia, Samoa Islands, 2018

Times and Heights of High and Low Waters

October				November				December								
	Time	Height			Time	Height			Time	Height						
	h m	ft	cm		h m	ft	cm		h m	ft	cm					
<b>1</b> M	0456 1052 1710 2321	0.6 2.6 0.7 3.0	18 79 21 91		<b>16</b> Tu 1845	0632 1217 1.1	0.8 2.4 34	24	<b>1</b> Th 1926	0015 1302 0.6	3.1 2.9 18	94				
<b>2</b> Tu	0612 1204 1828	0.6 2.6 0.7	18 79 21		<b>17</b> W 1945	0033 0732 1.0	2.7 0.8 30	82	<b>2</b> F 2030	0124 0808 0.4	3.2 0.3 12	98				
<b>3</b> W	0032 0725 1316 1940	3.0 0.5 2.7 0.6	91 15 82 18		<b>18</b> Th 2036	0132 0824 0.9	2.7 0.7 27	82	<b>3</b> Sa 2127	0227 0904 0.3	3.3 0.2 9	101				
<b>4</b> Th	0141 0828 1422 2043	3.2 0.3 2.9 0.4	98 9 88 12		<b>19</b> F 2119	0223 0907 0.8	2.8 0.6 24	85	<b>4</b> Su 2218	0324 0954 0.1	3.4 0.1 3	104				
<b>5</b> F	0244 0923 1519 2139	3.3 0.1 3.1 0.2	101 3 94 6		<b>20</b> Sa 2157	0305 0944 0.7	2.9 0.5 21	88	<b>5</b> M 2306	0415 1040 0.0	3.4 0.0 0	104				
<b>6</b> Sa	0340 1013 1610 2231	3.5 -0.1 3.3 0.0	107 -3 101 0		<b>21</b> Su 2233	0344 1018 0.5	3.0 0.4 15	91	<b>6</b> Tu 2352	0502 1124 0.0	3.4 0.0 0	104				
<b>7</b> Su	0431 1100 1658 2319	3.6 -0.2 3.5 -0.1	110 -6 107 -3		<b>22</b> M 2307	0421 1051 0.4	3.1 0.4 12	94	<b>7</b> W 2319	0546 1206 0.1	3.3 0.1 3	101				
<b>8</b> M	0518 1145 1743	3.6 -0.2 3.6	110 -6 110		<b>23</b> Tu 2343	0458 1123 0.3	3.2 0.3 9	98	<b>8</b> F ●	0037 0629 1847	0.1 3.2 3.5	3	104			
<b>9</b> Tu	0006 0604 1229 ●	-0.1 3.6 -0.1 3.6	-3 110 -3 110		<b>24</b> W 1827	0536 1156 0.3	3.2 3.4 104	98	<b>9</b> F ●	0122 0712 1929	0.2 3.1 3.4	6	104			
<b>10</b> W	0053 0650 1313 1911	-0.1 3.5 0.0 3.5	-3 107 0 107		<b>25</b> Th O	0020 0616 1836	0.3 3.2 3.5	9	<b>10</b> Sa ●	0208 0756 2012	0.3 2.9 3.2	98	104			
<b>11</b> Th	0140 0735 1357 1956	0.1 3.3 0.2 3.4	3 101 6 104		<b>26</b> F ●	0101 0659 1310	0.2 3.2 0.3	6	<b>11</b> Su ●	0256 0842 1459	0.5 2.7 0.8	15	104			
<b>12</b> F	0230 0821 1444 2042	0.3 3.0 0.5 3.2	9 91 15 98		<b>12</b> Sa ●	0146 0745 1354	0.3 3.1 0.4	9	<b>12</b> M ●	0348 0932 1551	0.6 2.6 0.9	18	104			
<b>13</b> Sa	0323 0911 1534 2132	0.5 2.8 0.7 3.0	15 85 21 91		<b>13</b> Tu 2058	0237 0836 1445	0.3 3.0 0.5	9	<b>13</b> W ●	0444 1027 1650	0.8 2.4 1.1	24	104			
<b>14</b> Su	0421 1006 1632 2227	0.7 2.6 0.9 2.8	21 79 27 85		<b>14</b> W 2157	0336 0934 1546	0.4 2.9 0.7	12	<b>14</b> Th ●	0543 1127 1754	0.8 2.4 2.7	24	104			
<b>15</b> M	0526 1108 1738 2329	0.8 2.4 1.0 2.7	24 73 30 82		<b>15</b> Th ●	0444 1040 1658	0.5 2.8 0.7	15	<b>15</b> F ●	0643 1228 1856	0.8 2.4 1.1	24	104			
					<b>31</b> W	0556 1151	0.5 2.8	15					<b>31</b> M	0148 0820	2.8 0.3	85
						1815	0.7	21						1426	3.0	91

Time meridian 195° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suva, Suva Harbor, 2018

Times and Heights of High and Low Waters

January				February				March					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m 0529 M 1122 1738	ft 4.4 0.2 5.3	cm 134 6 162	h m 0012 Tu 0625 1211 1819	ft 0.2 3.8 0.9 4.4	cm 6 116 27 134	h m 0046 Th 0701 1258 O 1909	ft -0.8 4.7 0.0 5.3	cm -24 143 0 162	h m 0057 F 0711 1305 ● 1910	ft 0.1 4.0 0.7 4.4	cm 3 122 21 134		
1 M 1122 1738	0.2 5.3	162	16 Tu 0625 1211 1819	3.8 0.9 4.4	116 27 134	1 F 0701 1258 O 1909	4.7 0.0 5.3	143 0 162	1 Th 0711 1305 ● 1910	4.0 0.7 4.4	122 21 134		
2 Tu 0624 O 1831	0.7 5.4	21	17 W 0704 ● 1856	-0.7 4.4	21	2 F 0752 1351 2001	-0.8 0.0 5.2	-24 0 158	17 Sa 0747 1343 1947	0.1 0.6 4.4	3 18 134		
3 W 0718 1312 1924	-0.8 0.1 5.4	24	18 Th 0741 1330 1934	0.1 0.9 4.4	3	3 Sa 0843 1444 2053	0.1 0.1 5.0	-21 149 152	18 Su 0824 1423 2026	0.1 0.6 4.4	3 131 1943		
4 Th 0811 1407 2017	-0.9 0.1 5.3	27	19 F 0819 1409 2012	0.1 0.9 4.4	3	4 Su 0933 1538 2146	-0.5 0.2 4.7	-15 146 143	19 M 0902 1505 2108	0.1 0.6 4.2	3 128 128		
5 F 0905 1503 2112	-0.8 0.2 5.1	24	20 Sa 0857 1449 2051	0.2 0.9 4.3	6	5 M 1024 1634 2240	-0.2 0.4 4.4	-6 143 134	20 Tu 0942 1551 2153	0.2 0.6 4.1	6 131 125		
6 Sa 1000 1601 2209	-0.6 0.3 4.8	18	21 Su 0935 1532 2132	0.2 1.0 4.2	6	6 Tu 1117 1732 2338	0.1 0.5 4.0	3 137 122	21 W 1026 1641 2243	0.3 0.6 3.9	9 131 119		
7 Su 1056 1702 2307	-0.4 0.5 4.5	12	22 M 1016 1617 2216	0.3 1.0 4.0	9	7 W 1211 1833	0.4 0.7	12 134 21	22 Th 1114 1737 2341	0.5 0.6 3.8	15 131 116		
8 M 1153 1804	-0.1 0.6	3	23 Tu 1100 1708 2306	0.4 1.0 3.9	12	8 Th 0644 1306 ● 1935	0.7 4.2 0.7	21 128 21	23 F 1209 1839	0.6 0.5	18 131 21		
9 Tu 0009 1250 ● 1908	4.2 4.5 0.7	128	24 W 1147 1803	0.5 0.9	15	9 F 0741 1402 2036	3.5 4.1 0.7	107 125 21	9 Sa 0645 1309 1944	3.7 4.3 0.3	113 131 9		
10 W 0112 0721 1346	3.9 0.5 4.4	119	25 Th 0611 1239 ● 1903	0.6 4.3 0.8	116	10 Sa 0246 0838 2132	3.4 1.1 0.7	104 34 21	10 Su 0750 1412 2048	3.7 4.4 0.1	104 34 10		
11 Th 0818 1440 2110	3.7 4.4 0.6	113	26 F 0707 1335 2005	0.7 4.4 0.5	113	11 Su 0344 0932 2221	3.4 1.1 0.6	104 34 18	11 M 0803 1515 2149	3.8 4.6 -0.1	101 34 -3		
12 F 0911 1531 2203	3.6 4.3 0.6	110	27 Sa 0807 1433 2107	0.7 4.6 0.2	116	12 M 0434 1021 2305	3.5 1.0 0.4	107 30 12	12 Tu 0958 1614 2245	4.1 4.8 -0.4	125 146 112		
13 Sa 1002 1617 2250	3.6 4.3 0.4	110	28 Su 0909 1531 2205	0.6 4.8 -0.1	119	13 Tu 0518 1106 2344	3.6 1.0 0.3	110 30 9	13 W 1056 1714 2337	4.3 4.2 -0.6	131 152 -18		
14 Su 1048 1659 2333	3.6 4.4 0.3	110	29 M 1009 1628 2301	0.4 5.0 -0.4	125	14 W 0558 1147 1754	3.7 0.9 4.3	113 27 131	14 Th 1036 1644 2309	3.6 4.0 0.3	110 122 6		
15 M 1131 1740	3.7 4.4	113	30 Tu 1107 1723 2354	0.3 5.2 -0.6	131	15 Th 0635 1226 1832	0.2 0.8 4.4	6 24 134	15 Th 1118 1724 2346	3.7 4.2 0.2	113 128 6		
			31 W 1203 1816	0.1 5.3	137						31 Sa 0619 1228 1837	-0.5 -0.2 4.7	-15 -6 143

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# **Suva, Suva Harbor, 2018**

# Times and Heights of High and Low Waters

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Suva, Suva Harbor, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0222	0.6	18	<b>16</b> M	0234	-0.3	-9	<b>1</b> W	0316	0.5	15
	0827	3.9	119		0845	4.8	146		0406	-0.2	-6
	1455	-0.1	-3		1512	-1.0	-30		1016	4.2	128
	2113	3.4	104		2130	4.4	134		1631	-0.3	-9
<b>2</b> M	0304	0.6	18	<b>17</b> Tu	0331	-0.2	-6	<b>2</b> Th	0359	0.6	18
	0907	3.8	116		0941	4.6	140		1115	3.9	119
	1535	0.0	0		1606	-0.8	-24		1725	0.0	0
	2154	3.4	104		2225	4.3	131		2344	4.1	125
<b>3</b> Tu	0347	0.7	21	<b>18</b> W	0431	-0.1	-3	<b>3</b> F	0446	0.6	18
	0949	3.7	113		1039	4.3	131		1217	3.6	110
	1615	0.1	3		1701	-0.6	-18		1823	0.3	9
	2237	3.4	104		2322	4.3	131		●		
<b>4</b> W	0433	0.8	24	<b>19</b> Th	0532	0.0	0	<b>4</b> Sa	0538	0.6	18
	1033	3.5	107		1140	4.0	122		0709	4.0	122
	1657	0.2	6		1757	-0.3	-9		0709	0.3	9
	2321	3.4	104		1748	0.4	12		1321	3.4	104
<b>5</b> Th	0522	0.8	24	<b>20</b> F	0020	4.2	128	<b>5</b> Su	0013	3.7	113
	1121	3.4	104		0636	0.1	13		0812	0.3	9
	1740	0.3	9		1243	3.7	113		1426	3.3	101
	●	1855	0.0		●	1841	0.4	12		2022	0.7
<b>6</b> F	0007	3.5	107	<b>21</b> Sa	0117	4.1	125	<b>6</b> M	0107	3.8	116
	0615	0.8	24		0740	0.2	6		0910	0.3	9
	1212	3.3	101		1348	3.5	107		1525	3.3	101
	●	1827	0.3		1953	0.2	6		2118	0.7	21
<b>7</b> Sa	0055	3.6	110	<b>22</b> Su	0214	4.0	122	<b>7</b> Tu	0204	4.0	122
	0710	0.6	18		0842	0.2	6		0835	0.1	3
	1308	3.3	101		1451	3.4	104		1443	3.4	104
	1917	0.3	9		2049	0.4	12		2040	0.3	9
<b>8</b> Su	0144	3.8	116	<b>23</b> M	0308	4.0	122	<b>8</b> W	0302	4.2	128
	0806	0.4	12		0939	0.1	3		0934	-0.2	-6
	1407	3.3	101		1549	3.3	101		1545	3.6	110
	2010	0.3	9		2143	0.5	15		2140	0.2	6
<b>9</b> M	0235	4.0	122	<b>24</b> Tu	0358	4.0	122	<b>9</b> Th	0359	4.4	134
	0902	0.1	3		1030	0.0	0		1031	-0.6	-18
	1506	3.5	107		1641	3.3	101		1643	3.9	119
	2105	0.2	6		2232	0.5	15		2238	0.0	0
<b>10</b> Tu	0327	4.2	128	<b>25</b> W	0444	4.0	122	<b>10</b> F	0454	4.7	143
	0957	-0.2	-6		1115	0.0	0		1125	-0.8	-24
	1604	3.6	110		1728	3.4	104		1737	4.1	125
	2200	0.1	3		2317	0.5	15		2334	-0.2	-6
<b>11</b> W	0419	4.5	137	<b>26</b> Th	0526	4.0	122	<b>11</b> Sa	0549	4.9	149
	1051	-0.5	-15		1156	-0.1	-3		1217	-1.0	-30
	1700	3.8	116		1809	3.4	104		1830	4.4	134
	2255	-0.1	-3		2358	0.5	15		●		
<b>12</b> Th	0512	4.7	143	<b>27</b> F	0606	4.0	122	<b>12</b> Su	0029	-0.4	-12
	1143	-0.8	-24		1235	-0.2	-6		0642	5.0	152
	1755	4.0	122		1848	3.5	107		1307	-1.1	-34
	2349	-0.2	-6						1922	4.5	137
<b>13</b> F	0604	4.9	149	<b>28</b> Sa	0038	0.4	12	<b>13</b> M	0122	-0.5	-15
	1235	-1.0	-30		0645	4.0	122		0734	4.9	149
	1849	4.2	128		1312	-0.2	-6		1358	-1.1	-34
	●				●	1926	3.5	107		2013	4.6
<b>14</b> Sa	0044	-0.3	-9	<b>29</b> Su	0117	0.4	12	<b>14</b> Tu	0216	-0.5	-15
	0657	4.9	149		0723	4.0	122		0827	4.8	146
	1327	-1.2	-37		1348	-0.2	-6		1448	-0.9	-27
	1942	4.3	131		2003	3.6	110		2104	4.6	140
<b>15</b> Su	0139	-0.4	-12	<b>30</b> M	0156	0.4	12	<b>15</b> W	0311	-0.4	-12
	0751	4.9	149		0801	4.0	122		0921	4.6	140
	1419	-1.2	-37		1425	-0.1	-3		1539	-0.7	-21
	2036	4.4	134		2040	3.6	110		2156	4.5	137
	31	0235	0.5	15				<b>31</b> Tu	0235	0.5	15
		0839	3.9	119					0934	3.8	116
		1501	0.0	0					1543	0.2	6
		2118	3.6	110					2200	3.9	119

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suva, Suva Harbor, 2018

Times and Heights of High and Low Waters

October			November			December			
Time	Height		Time	Height		Time	Height		
h m	ft	cm	h m	ft	cm	h m	ft	cm	
<b>1</b> M 0447 0.1 3 1100 3.7 113 1658 0.6 18 2314 4.1 125			<b>16</b> Tu 0553 0.4 12 1218 3.4 104 1814 1.1 34			<b>1</b> Th 0000 4.2 128 0633 0.0 0 1256 4.0 122 1858 0.7 21			<b>16</b> Sa 0032 3.6 110 0659 0.7 21 1329 3.6 110 1931 1.2 37
<b>2</b> Tu 0546 0.1 3 1203 3.6 110 1800 0.7 21			<b>17</b> W 0020 3.6 110 0652 0.5 15 1318 3.4 104 1916 1.1 34			<b>2</b> F 0107 4.1 125 0736 0.0 0 1359 4.1 125 2005 0.6 18			<b>2</b> Su 0129 3.5 107 0750 0.7 21 1418 3.7 113 2025 1.1 34
<b>3</b> W 0016 4.0 122 0651 0.1 3 1309 3.7 113 1908 0.6 18			<b>18</b> Th 0120 3.5 107 0749 0.6 18 1415 3.4 104 2014 1.1 34			<b>3</b> Sa 0214 4.2 128 0836 -0.1 -3 1458 4.3 131 2108 0.4 12			<b>3</b> M 0223 3.6 110 0837 0.7 21 1503 3.9 119 2114 0.9 27
<b>4</b> Th 0123 4.1 125 0755 0.0 0 1415 3.8 116 2015 0.5 15			<b>19</b> F 0217 3.5 107 0842 0.6 18 1505 3.5 107 2107 1.0 30			<b>4</b> Su 0316 4.3 131 0932 -0.1 -3 1552 4.6 140 2205 0.1 3			<b>4</b> Tu 0313 3.7 113 0922 0.7 21 1544 4.1 125 2200 0.7 21
<b>5</b> F 0228 4.2 128 0857 -0.2 -6 1515 4.0 122 2118 0.3 9			<b>20</b> Sa 0309 3.6 110 0929 0.5 15 1549 3.7 113 2153 0.8 24			<b>5</b> M 0413 4.4 134 1024 -0.1 -3 1641 4.7 143 2258 -0.1 -3			<b>5</b> W 0400 3.8 116 1004 0.6 18 1623 4.3 131 2243 0.4 12
<b>6</b> Sa 0330 4.4 134 0953 -0.3 -9 1610 4.3 131 2216 0.0 0			<b>21</b> Su 0356 3.8 116 1010 0.5 15 1628 3.9 119 2235 0.6 18			<b>6</b> Tu 0507 4.4 134 1113 -0.1 -3 1728 4.9 149 2347 -0.2 -6			<b>6</b> Th 0446 3.9 119 1045 0.5 15 1703 4.5 137 2325 0.2 6
<b>7</b> Su 0427 4.5 137 1046 -0.4 -12 1701 4.6 140 2310 -0.2 -6			<b>22</b> M 0439 3.9 119 1049 0.4 12 1705 4.1 125 2315 0.4 12			<b>7</b> W 0557 4.4 134 1159 0.0 0 1812 4.9 149			<b>7</b> F 0530 4.1 125 1127 0.4 12 1743 4.7 143
<b>8</b> M 0520 4.7 143 1135 -0.5 -15 1749 4.8 146			<b>23</b> Tu 0519 4.0 122 1126 0.3 15 1741 4.3 131 2355 0.2 6			<b>8</b> Th 0034 -0.3 -9 0645 4.4 134 1244 0.1 3 1855 4.9 149			<b>8</b> Sa 0008 -0.1 -3 0616 4.2 128 1211 0.3 9 1825 4.8 146
<b>9</b> Tu 0000 -0.4 -12 0611 4.7 143 1222 -0.5 -15 ● 1835 4.9 149			<b>24</b> W 0600 4.1 125 1203 0.2 6 1817 4.4 134			<b>9</b> F 0119 -0.3 -9 0732 4.3 131 1329 0.3 9 1938 4.7 143			<b>9</b> Sa 0052 -0.3 -9 0703 4.3 131 1256 0.3 9 1909 4.9 149
<b>10</b> W 0049 -0.4 -12 0701 4.6 140 1308 -0.3 -9 1920 4.9 149			<b>25</b> Th 0034 0.0 0 0641 4.2 128 1242 0.2 6 1855 4.6 140			<b>10</b> O 0204 -0.2 -6 0819 4.1 125 1414 0.5 15 2021 4.5 137			<b>10</b> M 0139 -0.4 -12 0752 4.3 131 1345 0.3 9 1956 4.9 149
<b>11</b> Th 0137 -0.4 -12 0749 4.5 137 1354 -0.1 -3 2005 4.8 146			<b>26</b> F 0115 -0.1 -3 0723 4.2 128 1322 0.2 6 1935 4.6 140			<b>11</b> Su 0249 -0.1 -3 0906 4.0 122 1500 0.7 21 2105 4.3 131			<b>11</b> M 0227 -0.5 -15 0843 4.3 131 1436 0.4 12 2047 4.8 146
<b>12</b> F 0225 -0.3 -9 0838 4.3 131 1441 0.1 3 2051 4.6 140			<b>27</b> Sa 0158 -0.2 -6 0809 4.2 128 1406 0.3 9 2018 4.6 140			<b>12</b> M 0335 0.1 3 0955 3.8 116 1548 0.9 27 2152 4.1 125			<b>12</b> W 0319 -0.5 -15 0938 4.3 131 1532 0.5 15 2141 4.7 143
<b>13</b> Sa 0314 -0.2 -6 0929 4.0 122 1529 0.4 12 2138 4.3 131			<b>28</b> Su 0245 -0.2 -6 0857 4.1 125 1453 0.4 12 2105 4.5 137			<b>13</b> Tu 0423 0.3 9 1047 3.6 110 1640 1.1 34 2242 3.8 116			<b>13</b> Th 0414 -0.4 -12 1035 4.3 131 1632 0.6 18 2241 4.5 137
<b>14</b> Su 0404 0.0 0 1022 3.8 116 1619 0.7 21 2228 4.0 122			<b>29</b> M 0335 -0.2 -6 0951 4.0 122 1545 0.5 15 2157 4.4 134			<b>14</b> W 0513 0.4 12 1140 3.5 107 1735 1.2 37 2335 3.7 113			<b>14</b> F 0512 -0.2 -6 1136 4.3 131 1737 0.6 18 2344 4.4 134
<b>15</b> M 0457 0.2 6 1118 3.6 110 1715 0.9 27 2322 3.8 116			<b>30</b> Tu 0430 -0.1 -3 1049 3.9 119 1644 0.7 21 2256 4.3 131			<b>15</b> Th 0606 0.6 18 1235 3.5 107 1833 1.3 40			<b>15</b> Sa 0613 -0.1 -3 1238 4.3 131 1844 0.6 18 ●
			<b>31</b> W 0530 -0.1 -3 1151 3.9 119 1749 0.7 21						<b>31</b> M 0137 4.1 125 0747 0.3 9 1412 4.6 140 2036 0.5 15

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pago Pago, American Samoa 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0024 0.6 - 18 O 0630 2.9 88 1233 - 0.5 - 15 O 1856 3.5 107	16 Tu 0056 0.1 3 ● 0700 2.2 67 1254 0.2 6 1909 2.6 79	1 Th 0155 0.6 - 18 0802 3.0 91 1407 - 0.4 - 12 2027 3.3 101	16 F 0138 0.0 0 0746 2.4 73 1346 0.1 3 1957 2.7 82	1 Th 0043 0.6 - 18 0650 3.0 91 1257 - 0.5 - 15 O 1915 3.3 101	16 F 0028 0.0 0 0637 2.5 76 1240 0.0 0 1850 2.8 85						
2 Tu 0119 0.7 - 21 0725 2.9 88 1329 - 0.5 - 15 1951 3.4 104	17 W 0132 0.1 3 0737 2.2 67 1332 0.2 6 1947 2.6 79	2 F 0247 0.5 - 15 0856 2.9 88 1503 - 0.3 - 9 2121 3.1 94	17 Sa 0215 0.0 0 0825 2.4 73 1427 0.1 3 2037 2.6 79	2 F 0132 0.5 - 15 0740 3.0 91 1348 - 0.4 - 12 2005 3.2 98	17 Sa 0104 0.0 0 0715 2.6 79 1321 0.0 0 ● 1930 2.8 85						
3 W 0215 0.7 - 21 0822 2.9 88 1426 - 0.4 - 12 2047 3.4 104	18 Th 0210 0.1 3 0816 2.2 67 1412 0.2 6 2025 2.6 79	3 Sa 0341 0.4 - 12 0952 2.8 85 1601 - 0.1 - 3 2218 2.9 88	18 Su 0254 0.1 3 0907 2.4 73 1512 0.2 6 2121 2.6 79	3 Sa 0220 0.4 - 12 0830 2.9 88 1440 - 0.2 - 6 2055 3.0 91	18 Su 0143 0.0 0 0755 2.7 82 1404 0.0 0 2012 2.7 82						
4 Th 0311 0.6 - 18 0920 2.8 85 1525 - 0.3 - 9 2145 3.2 98	19 F 0248 0.1 3 0857 2.2 67 1454 0.3 9 2106 2.5 76	4 Su 0436 0.2 - 6 1050 2.7 82 1702 0.1 3 2316 2.7 82	19 M 0337 0.1 3 0953 2.5 76 1601 0.2 6 2209 2.5 76	4 Su 0309 0.2 - 6 0921 2.8 85 1533 - 0.1 - 3 2147 2.7 82	19 M 0224 0.0 0 0839 2.7 82 1451 0.0 0 2059 2.6 79						
5 F 0409 0.4 - 12 1021 2.8 85 1627 - 0.1 - 3 2246 3.0 91	20 Sa 0328 0.2 6 0939 2.2 67 1538 0.4 12 2149 2.5 76	5 M 0533 0.0 0 1149 2.6 79 1806 0.2 6	20 Tu 0424 0.2 6 1044 2.5 76 1657 0.3 9 2303 2.4 73	5 M 0400 0.0 0 1013 2.7 82 1630 0.1 3 2242 2.5 76	20 Tu 0309 0.0 0 0927 2.7 82 1543 0.0 0 2150 2.5 76						
6 Sa 0509 0.3 - 9 1123 2.7 82 1731 0.0 0 2348 2.8 85	21 Su 0410 0.2 6 1025 2.2 67 1627 0.4 12 2236 2.4 73	6 Tu 0018 2.4 73 0631 0.2 6 1250 2.5 76 1911 0.3 9	21 W 0517 0.2 6 1141 2.5 76 1759 0.3 9	6 Tu 0453 0.2 6 1109 2.5 76 1730 0.3 9 2341 2.2 67	21 W 0400 0.1 3 1021 2.7 82 1642 0.1 3 2248 2.4 73						
7 Su 0609 0.1 - 3 1226 2.6 79 1838 0.2 6	22 M 0456 0.3 9 1115 2.3 70 1721 0.4 12 2328 2.4 73	7 W 0121 2.3 70 0729 0.3 9 1350 2.4 73 ● 2015 0.4 12	22 Th 0004 2.3 70 0616 0.2 6 1243 2.6 79 ● 1905 0.2 6	7 W 0549 0.3 9 1207 2.4 73 1833 0.4 12	22 Th 0457 0.1 3 1121 2.7 82 1746 0.1 3 2353 2.4 73						
8 M 0051 2.6 79 0708 0.0 0 1327 2.6 79 ● 1943 0.2 6	23 Tu 0547 0.3 9 1210 2.4 73 1821 0.4 12	8 Th 0221 2.1 64 0824 0.3 9 1445 2.4 73 2112 0.4 12	23 F 0110 2.3 70 0719 0.1 3 1346 2.7 82 2010 0.0 0	8 Th 0044 2.1 64 0647 0.4 12 1307 2.3 70 1937 0.4 12	23 F 0600 0.2 6 1227 2.7 82 1853 0.0 0						
9 Tu 0153 2.5 76 0805 0.1 3 1425 2.6 79 2045 0.3 9	24 W 0026 2.4 73 0642 0.2 6 1307 2.5 76 ● 1923 0.3 9	9 F 0315 2.1 64 0914 0.3 9 1533 2.4 73 2200 0.3 9	24 Sa 0215 2.4 73 0822 0.0 0 1448 2.9 88 2112 - 0.1 - 3	9 F 0146 2.0 61 0745 0.5 15 1405 2.3 70 ● 2035 0.4 12	24 Sa 0100 2.4 73 0707 0.1 3 1332 2.8 85 ● 1958 - 0.1 - 3						
10 W 0251 2.3 70 0857 0.2 6 1517 2.5 76 2139 0.3 9	25 Th 0127 2.4 73 0739 0.1 3 1406 2.7 82 2025 0.1 3	10 Sa 0403 2.1 64 0958 0.3 9 1616 2.4 73 2242 0.3 9	25 Su 0317 2.5 76 0922 - 0.1 - 3 1546 3.0 91 2209 - 0.3 - 9	10 Sa 0242 2.0 61 0838 0.4 12 1456 2.3 70 2125 0.4 12	25 Su 0206 2.4 73 0812 0.0 0 1435 2.9 88 2059 - 0.2 - 6						
11 Th 0343 2.3 70 0944 0.2 6 1603 2.6 79 2226 0.2 6	26 F 0228 2.5 76 0837 0.0 0 1503 2.9 88 2125 - 0.1 - 3	11 Su 0444 2.1 64 1038 0.3 9 1654 2.5 76 2318 0.2 6	26 M 0414 2.7 82 1019 - 0.3 - 9 1641 3.2 98 2302 - 0.5 - 15	11 Su 0330 2.0 61 0925 0.4 12 1541 2.4 73 2207 0.3 9	26 M 0307 2.6 79 0913 - 0.1 - 3 1534 3.0 91 2155 - 0.3 - 9						
12 F 0428 2.2 67 1026 0.2 6 1643 2.6 79 2308 0.2 6	27 Sa 0328 2.6 79 0935 - 0.2 - 6 1559 3.1 94 2221 - 0.3 - 9	12 M 0521 2.2 67 1116 0.2 6 1731 2.6 79 2353 0.1 3	27 Tu 0508 2.8 85 1113 - 0.4 - 12 1734 3.3 101 2353 - 0.6 - 18	12 M 0412 2.1 64 1007 0.3 73 1621 2.4 73 2244 0.2 6	27 Tu 0403 2.7 82 1009 - 0.2 - 6 1628 3.1 94 2246 - 0.4 - 12						
13 Sa 0509 2.2 67 1104 0.2 6 1721 2.6 79 2345 0.2 6	28 Su 0425 2.7 82 1030 - 0.3 - 9 1654 3.3 101 2316 - 0.5 - 15	13 Tu 0557 2.2 67 1152 0.1 3 1806 2.6 79	28 W 0600 3.0 91 1206 - 0.5 - 15 1825 3.4 104	13 Tu 0449 2.2 67 1046 0.2 6 1659 2.5 76 2319 0.1 3	28 W 0455 2.9 88 1102 - 0.3 - 9 1719 3.2 98 2335 - 0.4 - 12						
14 Su 0546 2.2 67 1141 0.2 6 1756 2.6 79	29 M 0521 2.8 85 1125 - 0.4 - 12 1747 3.4 104	14 W 0028 0.1 3 0632 2.3 70 1229 0.1 3 1842 2.7 82		14 W 0525 2.3 70 1124 0.1 3 1735 2.6 79 2353 0.0 0	29 Th 0543 3.0 91 1152 - 0.3 - 9 1807 3.1 94						
15 M 0021 0.1 3 0623 2.2 67 1217 0.2 6 1832 2.6 79	30 Tu 0010 0.6 - 18 0615 2.9 88 1219 - 0.5 - 15 1840 3.5 107	15 Th 0102 0.0 0 0709 2.4 73 1307 0.1 3 ● 1919 2.7 82		15 Th 0600 2.4 73 1201 0.0 82	30 F 0021 - 0.4 - 12 0630 3.0 91 1241 - 0.3 - 9 1855 3.1 94						
	31 W 0102 - 0.7 - 21 0708 3.0 91 1313 - 0.5 - 15 ● 1933 3.4 104				31 O 0106 - 0.4 - 12 0716 3.0 91 1329 - 0.3 - 9 ● 1941 2.9 88						

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pago Pago, American Samoa 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0151	-0.2	-6	<b>16</b> M	0112	-0.1	-3	<b>1</b> Tu	0204	0.1	3
	0802	2.9	88		0728	2.9	88		0817	2.7	82
	1417	-0.1	-3		1344	-0.2	-6		1440	0.1	3
	2028	2.7	82		1950	2.8	85		2048	2.3	70
<b>2</b> M	0236	-0.1	-3	<b>17</b> Tu	0158	-0.1	-3	<b>2</b> W	0247	0.2	6
	0848	2.8	85		0816	2.9	88		0902	2.6	79
	1506	0.0	0		1434	-0.2	-6		1527	0.2	6
	2117	2.5	76		2041	2.7	82		2136	2.2	67
<b>3</b> Tu	0323	0.1	3	<b>18</b> W	0247	-0.1	-3	<b>3</b> Th	0334	0.3	9
	0936	2.6	79		0908	2.9	88		0949	2.4	73
	1558	0.2	6		1530	-0.2	-6		1617	0.3	9
	2208	2.3	70		2137	2.6	79		2228	2.0	61
<b>4</b> W	0412	0.3	9	<b>19</b> Th	0342	0.0	0	<b>4</b> F	0424	0.4	12
	1027	2.4	73		1005	2.9	88		1039	2.3	70
	1653	0.3	9		1630	-0.1	-3		1711	0.4	12
	2304	2.1	64		2238	2.5	76		2323	1.9	58
<b>5</b> Th	0505	0.4	12	<b>20</b> F	0443	0.1	3	<b>5</b> Sa	0517	0.5	15
	1122	2.3	70		1107	2.8	85		1133	2.2	67
	1752	0.4	12		1735	-0.1	-3		1806	0.4	12
	2344	2.4	73		2344	2.4	73		2332	2.6	79
<b>6</b> F	0004	2.0	61	<b>21</b> Sa	0549	0.1	3	<b>6</b> Su	0020	1.9	58
	0602	0.5	15		1213	2.8	85		0614	0.6	18
	1220	2.2	67		1841	-0.1	-3		1228	2.2	67
	1853	0.4	12		1900	0.4	12		1927	-0.2	-6
<b>7</b> Sa	0105	1.9	58	<b>22</b> Su	0051	2.5	76	<b>7</b> M	0115	1.9	58
	0701	0.5	15		0657	0.1	3		0709	0.6	18
	1318	2.2	67		1319	2.8	85		1321	2.2	67
	1950	0.4	12		1945	-0.2	-6		1949	0.4	12
<b>8</b> Su	0201	1.9	58	<b>23</b> M	0156	2.5	76	<b>8</b> Tu	0204	2.0	61
	0756	0.5	15		0802	0.0	0		0801	0.5	15
	1411	2.2	67		1422	2.9	88		1410	2.3	70
	2040	0.4	12		2044	-0.2	-6		2033	0.3	9
<b>9</b> M	0250	2.0	61	<b>24</b> Tu	0256	2.6	79	<b>9</b> W	0248	2.2	67
	0846	0.4	12		0903	-0.1	-3		0848	0.4	73
	1459	2.3	70		1520	2.9	88		1455	2.4	73
	2123	0.3	9		2139	-0.3	-9		2114	0.2	6
<b>10</b> Tu	0333	2.1	64	<b>25</b> W	0350	2.8	85	<b>10</b> Th	0329	2.3	70
	0930	0.4	12		0959	-0.1	-3		0933	0.3	9
	1541	2.4	73		1613	2.9	88		1539	2.5	76
	2202	0.2	6		2228	-0.3	-9		2153	0.1	3
<b>11</b> W	0411	2.3	70	<b>26</b> Th	0440	2.9	88	<b>11</b> F	0409	2.5	76
	1011	0.2	6		1050	-0.2	-6		1017	0.1	3
	1621	2.5	76		1703	2.9	88		1622	2.6	79
	2238	0.1	3		2315	-0.3	-9		2233	0.0	0
<b>12</b> Th	0448	2.4	73	<b>27</b> F	0526	2.9	88	<b>12</b> Sa	0450	2.7	82
	1051	0.1	3		1139	-0.2	-6		1101	0.0	0
	1659	2.6	79		1750	2.9	88		1706	2.7	82
	2314	0.0	0		2358	-0.2	-6		2315	-0.1	-3
<b>13</b> F	0525	2.6	79	<b>28</b> Sa	0610	2.9	88	<b>13</b> Su	0532	2.9	88
	1131	0.0	0		1225	-0.2	-6		1147	-0.2	-6
	1739	2.7	82		1834	2.8	85		1752	2.8	85
	2351	-0.1	-3		2003	2.5	76		2359	-0.2	-6
<b>14</b> Sa	0604	2.7	82	<b>29</b> Su	0040	-0.2	-6	<b>14</b> M	0617	3.0	91
	1213	-0.1	-3		0653	2.9	88		1235	-0.3	-9
	1820	2.8	85		1310	-0.1	-3		1840	2.8	85
	● 1903	2.8	85		1918	2.6	79		1931	2.8	85
<b>15</b> Su	0030	-0.1	-3	<b>30</b> M	0122	0.0	0	<b>15</b> Tu	0046	-0.2	-6
	0645	2.8	85		0735	2.8	85		0705	3.1	94
	1257	-0.2	-6		1354	0.0	0		1325	-0.4	-12
	● 1903	2.8	85		2003	2.5	76		● 1931	2.8	85

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pago Pago, American Samoa 2018

Times and Heights of High and Low Waters

July				August				September							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0312	0.4	12	<b>16</b> M	0355	-0.3	-9	<b>1</b> W	0409	0.4	12	<b>16</b> Th	0539	0.1	3
	0925	2.4	73		1015	3.1	94		1153	2.6	79		1136	2.3	70
	1552	0.3	9		1637	-0.4	-12		1805	0.0	0		1746	0.3	9
	2203	2.1	64		2250	2.8	85		2255	2.2	67				
<b>2</b> M	0357	0.4	12	<b>17</b> Tu	0459	-0.1	-3	<b>2</b> Th	0500	0.5	15	<b>17</b> F	0024	2.6	79
	1009	2.4	73		1116	2.9	88		1106	2.3	70		0646	0.2	6
	1635	0.3	9		1737	-0.3	-9		1723	0.3	9		1257	2.4	73
	2250	2.1	64		2352	2.8	85		2345	2.3	70		1906	0.2	6
<b>3</b> Tu	0446	0.5	15	<b>18</b> W	0605	0.0	0	<b>3</b> F	0556	0.4	12	<b>18</b> Sa	0126	2.5	76
	1055	2.3	70		1219	2.8	85		1200	2.3	70		0752	0.3	9
	1720	0.4	12		1837	-0.1	-3		1815	0.3	9		1400	2.3	70
	2338	2.1	64										2004	0.3	9
<b>4</b> W	0537	0.5	15	<b>19</b> Th	0055	2.7	82	<b>4</b> Sa	0040	2.4	73	<b>19</b> Su	0224	2.5	76
	1144	2.3	70		0711	0.1	3		0655	0.4	12		0852	0.3	9
	1806	0.4	12		1323	2.6	79		1258	2.3	70		1457	2.2	67
					1936	0.0	0		1910	0.2	6		2057	0.3	9
<b>5</b> Th	0027	2.2	67	<b>20</b> F	0156	2.7	82	<b>5</b> Su	0136	2.5	76	<b>20</b> M	0316	2.5	76
	0631	0.5	15		0816	0.2	6		0756	0.2	6		0943	0.2	6
	1235	2.3	70		1424	2.4	73		1358	2.3	70		1547	2.1	64
	1854	0.3	9		2032	0.1	3		2007	0.1	3		2144	0.3	9
<b>6</b> F	0117	2.3	70	<b>21</b> Sa	0252	2.6	79	<b>6</b> M	0233	2.7	82	<b>21</b> Tu	0401	2.5	76
	0726	0.4	12		0915	0.2	6		0854	0.0	0		1027	0.2	6
	1328	2.3	70		1520	2.3	70		1457	2.5	76		1630	2.1	64
	1943	0.2	6		2123	0.2	6		2103	0.0	0		2225	0.2	6
<b>7</b> Sa	0208	2.5	76	<b>22</b> Su	0343	2.6	79	<b>7</b> Tu	0329	2.9	88	<b>22</b> W	0441	2.5	76
	0821	0.3	9		1007	0.2	6		0951	-0.2	-6		1105	0.2	6
	1423	2.4	73		1610	2.3	70		1554	2.6	79		1708	2.2	67
	2034	0.1	3		2209	0.2	6		2159	-0.2	-6		2303	0.2	6
<b>8</b> Su	0258	2.7	82	<b>23</b> M	0427	2.6	79	<b>8</b> W	0423	3.1	94	<b>23</b> Th	0517	2.6	79
	0916	0.1	3		1052	0.2	6		1046	-0.4	-12		1140	0.1	3
	1518	2.5	76		1654	2.2	67		1650	2.8	85		1743	2.2	67
	2125	0.0	0		2250	0.2	6		2254	-0.4	-12		2339	0.2	6
<b>9</b> M	0350	2.9	88	<b>24</b> Tu	0507	2.6	79	<b>9</b> Th	0517	3.3	101	<b>24</b> F	0553	2.6	79
	1010	-0.1	-3		1132	0.2	6		1139	-0.6	-18		1213	0.1	3
	1612	2.6	79		1734	2.2	67		1744	2.9	88		1818	3.1	94
	2218	-0.2	-6		2328	0.2	6		2349	-0.5	-15				
<b>10</b> Tu	0441	3.1	94	<b>25</b> W	0544	2.6	79	<b>10</b> F	0610	3.4	104	<b>25</b> Tu	0120	-0.5	-15
	1103	-0.3	-9		1209	0.1	3		1232	-0.7	-21		0737	3.3	101
	1706	2.7	82		1811	2.2	67		1838	3.0	91		1352	-0.5	-15
	2311	-0.3	-9									2002	3.1	94	
<b>11</b> W	0534	3.3	101	<b>26</b> Th	0005	0.2	6	<b>11</b> Sa	0043	-0.5	-15	<b>11</b> Tu	0214	-0.4	-12
	1157	-0.5	-15		0620	2.6	79		0704	3.5	107		0829	3.1	94
	1801	2.8	85		1244	0.1	3		1325	-0.7	-21		1443	-0.4	-12
					1848	2.2	67		1932	3.0	91		2055	3.0	91
<b>12</b> Th	0005	-0.4	-12	<b>27</b> F	0042	0.2	6	<b>12</b> Su	0138	-0.5	-15	<b>12</b> W	0309	-0.2	-6
	0627	3.4	104		0657	2.6	79		0758	3.4	104		0924	2.8	85
	1251	-0.6	-18		1320	0.1	3		1418	-0.6	-18		1536	-0.2	-6
	1856	2.9	88		1925	2.2	67		2027	3.0	91		2150	2.8	85
<b>13</b> F	0100	-0.5	-15	<b>28</b> Sa	0120	0.2	6	<b>13</b> M	0235	-0.4	-12	<b>13</b> Tu	0211	0.2	6
	0722	3.4	104		0734	2.6	79		0853	3.3	101		1021	2.6	79
	1345	-0.7	-21		1357	0.1	3		1512	-0.5	-15		1631	0.0	0
	1952	2.9	88		2003	2.2	67		2123	3.0	91		2247	2.7	82
<b>14</b> Sa	0156	-0.5	-15	<b>29</b> Su	0159	0.2	6	<b>14</b> Tu	0333	-0.3	-9	<b>14</b> W	0253	0.2	6
	0818	3.4	104		0812	2.6	79		0950	3.0	91		0947	2.4	73
	1441	-0.6	-18		1434	0.2	6		1608	-0.3	-9		1515	0.2	6
	2050	2.9	88		2043	2.2	67		2221	2.9	88		2131	2.4	73
<b>15</b> Su	0254	-0.4	-12	<b>30</b> M	0240	0.3	9	<b>15</b> W	0435	-0.1	-3	<b>15</b> Th	0340	0.3	9
	0915	3.3	101		0851	2.5	76		1050	2.8	85		1600	0.3	9
	1538	-0.5	-15		1513	0.2	6		1706	-0.1	-3		2219	2.4	73
	2149	2.9	88		2124	2.2	67		2322	2.7	82				
<b>31</b> Tu	0323	0.4	12	<b>31</b> F	0323	0.4	12	<b>31</b> Tu	0433	0.3	9				
	0933	2.4	73		0593	0.3	9		1038	2.3	70		1649	0.3	9
	1553	0.3	9		1553	0.3	9		2208	2.2	67		2313	2.4	73

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Pago Pago, American Samoa 2018

Times and Heights of High and Low Waters

October					November					December												
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
h m 0620 M 1227 O 1832	ft 0.1 2.3 0.2	cm 3 70 6	16 Tu W O	0106 0739 1351 1946	2.2 0.4 2.0 0.5	cm 67 12 61 15	1 Th F	0147 0810 1422 2029	2.8 -0.2 2.6 0.0	cm 85 -6 79 0	16 Sa Su	0159 0824 1440 2039	2.2 0.3 2.2 0.4	cm 67 9 67 12	1 Sa 2 Su 3 M 4 Tu 5 W 6 Sa 7 M 8 Tu 9 W 10 Tu 11 W 12 M 13 Tu 14 W 15 Tu 16 W 17 M 18 Tu 19 W 20 Tu 21 W 22 M 23 Tu 24 W 25 Tu 26 W 27 M 28 Tu 29 W 30 M 31 W	0231 0847 1503 2116	2.8 -0.2 2.8 0.0	cm 85 -6 85 0	16 Su M 1518 2130	0156 0813 1435 2043	2.2 0.3 2.3 0.4	cm 67 9 70 12
0058 Tu 0724 1332 1937	2.7 0.0 2.4 0.1	82 0 73 3	17 W F	0200 0830 1441 2036	2.3 0.3 2.1 0.4	70 9 64 12	2 F	0246 0905 1517 2126	2.9 -0.3 2.8 -0.1	88 -9 85 -3	17 Sa Su	0245 0903 1520 2123	2.3 0.3 2.3 0.3	70 9 70 9	2 Su 3 M 4 Tu 5 W 6 Sa 7 M 8 Tu 9 W 10 Tu 11 W 12 M 13 Tu 14 W 15 Tu 16 W 17 M 18 Tu 19 W 20 Tu 21 W 22 M 23 Tu 24 W 25 Tu 26 W 27 M 28 Tu 29 W 30 M 31 W	0327 0939 1555 2211	2.8 -0.2 2.9 -0.1	85 -6 88 -3	17 M 1518 2130	0244 0856 1601 2217	2.3 0.2 2.7 0.1	70 6 76 9
0201 W 0825 1433 2039	2.8 -0.1 2.5 0.0	85 -3 76 0	18 Th F	0248 0912 1523 2120	2.3 0.3 2.1 0.4	70 9 64 12	3 Sa	0341 0957 1609 2220	3.0 -0.3 2.9 -0.2	91 -9 88 -6	18 Su M	0327 0941 1558 2205	2.4 0.2 2.5 0.2	73 6 76 6	3 M 4 Tu 5 W 6 Sa 7 M 8 Tu 9 W 10 Tu 11 W 12 M 13 Tu 14 W 15 Tu 16 W 17 M 18 Tu 19 W 20 Tu 21 W 22 M 23 Tu 24 W 25 Tu 26 W 27 M 28 Tu 29 W 30 M 31 W	0419 1027 1643 2301	2.8 -0.2 3.0 -0.1	85 -6 91 -3	18 Tu 1601 2217	0330 0939 1601 2217	2.4 0.1 2.7 0.1	73 3 82 3
0300 Th 0921 1530 2136	3.0 -0.3 2.7 -0.2	91 -9 82 -6	19 F	0330 0950 1601 2200	2.4 0.2 2.3 0.3	73 6 70 9	4 Su	0433 1045 1657 2311	3.0 -0.4 3.0 -0.3	91 -12 91 -9	19 M	0408 1018 1636 2246	2.5 0.1 2.6 0.1	76 3 79 3	4 Tu 5 W 6 Sa 7 M 8 Tu 9 W 10 Tu 11 W 12 M 13 Tu 14 W 15 Tu 16 W 17 M 18 Tu 19 W 20 Tu 21 W 22 M 23 Tu 24 W 25 Tu 26 W 27 M 28 Tu 29 W 30 M 31 W	0508 1112 1728 2348	2.7 -0.1 3.0 -0.1	82 -3 91 -3	19 W 1645 2304	0418 1024 1645 2304	2.5 0.0 2.9 -0.1	76 0 88 -3
0355 F 1014 1622 2230	3.1 -0.4 2.9 -0.3	94 -12 88 -9	20 Sa	0408 1025 1636 2239	2.5 0.2 2.4 0.2	76 6 73 6	5 M	0522 1131 1744 2359	3.0 -0.3 3.1 -0.3	91 -9 94 -9	20 Tu	0449 1057 1715 2329	2.6 0.0 2.8 -0.1	79 0 85 -3	5 W	0554 1155 1810 1852	2.6 -0.1 2.9 2.8	79 -3 88 85	20 Th 1732 2352	0506 1110 1732 2352	2.6 -0.2 3.0 -0.3	79 -6 91 -9
0447 Sa 1103 1712 2322	3.2 -0.5 3.0 -0.4	98 -15 91 -12	21 Su	0445 1059 1711 2317	2.5 0.1 2.5 0.1	76 3 76 3	6 Tu	0609 1215 1829	2.9 -0.3 3.0	88 -9 91	21 W	0532 1138 1756	2.6 -0.1 2.9	79 -3 88	6 Th	0033 0638 1236 1852	-0.1 2.5 0.0 2.8	-3 76 0 85	21 F	0555 1158 1820	2.7 -0.3 3.2	82 -9 98
0537 Su 1151 1801	3.2 -0.5	98 -15	22 M	0523 1133 1747 2356	2.6 0.0 2.7 0.0	79 0 82 0	7 W	0047 0656 1259 1913	-0.2 -2.7 -0.2 3.0	-6 82 -6 91	22 Th	0014 0617 1221 1841	-0.2 -2.7 -0.2 3.0	-6 82 -6 91	7 M	0116 0721 1318 1933	0.0 2.4 0.1 2.8	0 73 3 85	22 Sa	0042 0646 1249 1911	-0.4 2.8 -0.3 3.3	-12 85 91 101
0012 M 0626 1238 ● 1849	-0.4 3.1 -0.4 3.1	-12 94 -12 94	23 Tu	0601 1210 1825	2.7 0.0 2.8	82 0 85	8 Th	0134 0742 1344 1958	-0.1 2.6 0.0 2.8	-3 79 0 85	23 F	0101 0705 1308 1929	-0.3 2.7 -0.2 3.1	-9 82 -6 94	8 Sa	0159 0805 1400 2015	0.0 2.3 0.2 2.6	0 70 6 79	23 Su	0135 0740 1342 2004	-0.5 2.8 -0.3 3.3	-15 85 91 101
0103 Tu 0715 1325 1937	-0.4 3.0 -0.3 3.0	-12 91 -9 91	24 W	0037 0642 1249 1906	-0.1 2.7 0.0 2.8	-3 82 0 85	9 F	0222 0830 1429 2045	0.0 2.4 0.1 2.7	0 73 3 82	24 Sa	0152 0756 1359 2021	-0.3 2.6 -0.2 3.1	-9 79 -6 94	9 Su	0242 0850 1444 2059	0.1 2.2 0.3 2.5	3 67 9 76	24 M	0229 0836 1438 2100	-0.5 2.8 -0.3 3.2	-15 85 91 98
0153 W 0805 1413 2026	-0.3 2.8 -0.2 2.9	-9 85 -6 88	25 Th	0121 0726 1332 1950	-0.1 2.6 0.0 2.8	-3 79 0 85	10 Sa	0311 0920 1517 2133	0.1 2.2 0.3 2.5	3 67 9 76	25 M	0246 0852 1454 2117	-0.3 2.6 -0.1 3.0	-9 79 -3 91	10 Tu	0328 0937 1530 2145	0.2 2.1 0.4 2.4	6 64 64 73	25 W	0326 0934 1538 2200	-0.5 2.8 -0.2 3.1	-15 85 91 94
0245 Th 0857 1502 2117	-0.1 2.6 0.0 2.8	-3 79 0 85	26 F	0209 0814 1418 2039	-0.1 2.6 0.0 2.8	-3 79 0 85	11 Su	0403 1014 1609 2225	0.2 2.1 0.4 2.4	6 64 12 73	26 M	0344 0952 1554 2217	-0.3 2.6 0.0 3.0	-9 79 0 91	11 Tu	0415 1027 1619 2233	0.3 2.0 0.5 2.3	9 61 15 70	26 W	0425 1036 1642 2302	-0.4 2.7 -0.1 3.0	-12 82 -3 91
0340 F 0951 1554 2210	0.0 2.4 0.2 2.6	0 73 6 79	27 Sa	0301 0907 1510 2133	-0.1 2.5 0.1 2.8	-3 76 3 85	12 M	0458 1110 1704 2320	0.3 2.0 0.5 2.3	9 61 15 70	27 Tu	0445 1055 1658 2321	-0.2 2.5 0.0 2.9	-6 76 0 88	12 W	0504 1119 1712 2324	0.3 2.0 0.6 2.2	9 61 18 67	27 M	0526 1140 1748 2748	-0.3 2.7 0.0 0	-9 82 0 0
0438 Sa 1050 1650 2307	0.2 2.2 0.3 2.4	6 67 9 73	28 Su	0359 1005 1608 2233	-0.1 2.4 0.1 2.8	-3 73 3 85	13 Tu	0554 1209 1802 1859	0.4 1.9 0.6 0.6	12 58 18 18	28 W	0548 1201 1806 1913	-0.2 2.6 0.1 0.0	-6 79 3 0	13 Th	0554 1212 1807 1901	0.4 2.0 0.6 0.6	12 61 18 18	28 F	0006 0628 1245 1856	2.9 -0.2 2.7 0.0	88 -6 82 0
0539 Su 1152 1750	0.3 2.1 0.4 2.4	9 64 12 73	29 M	0501 1109 1712 2337	0.0 2.4 0.2 2.7	0 73 6 82	14 W	0016 0649 1305 1859	2.2 0.4 2.0 0.6	67 12 61 18	29 Th	0026 0651 1305 1913	2.9 -0.2 2.6 0.0	88 -6 79 0	14 F	0015 0643 1303 1901	2.2 0.4 2.1 0.6	67 64 64 18	29 Sa	0111 0729 1347 2003	2.8 -0.2 2.8 0.1	85 -6 85 3
0007 M 0641 1254 1850	2.3 0.4 2.0 0.5	70 12 61 15	30 Tu	0606 1216 1820	-0.1 2.4 0.1 2.7	-3 73 3 82	15 F	0110 0739 1355 1952	2.2 0.4 2.0 0.5	67 12 61 15	30 Sa	0130 0751 1406 2017	2.8 -0.2 2.7 0.0	85 -6 82 0	30 W	0214 0827 1446 2105	2.7 -0.1 2.8 0.1	82 -3 85 3				
0710 W O	0.1 -3 0.1	-3 -3 3	31 W	0043 0710 1321 1926	2.8 -0.1 2.5 0.1	85 -3 76 3									31 M	0313 0921 1540 2201	2.6 -0.1 2.8 0.0	79 -3 85 0				

Time meridian 165° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wellington, New Zealand, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0320	5.9	180	16 Tu 0415	5.2	160	1 Th 0454	6.2	190	1 Th 0504	4.9	150
0934	1.6	50	1036	2.6	80	1117	1.6	50	1132	2.6	80
1553	5.6	170	1640	4.9	150	1730	5.6	170	1735	4.9	150
2201	1.6	50	2240	2.6	80	2340	1.6	50	2335	2.6	80
2 Tu 0418	5.9	180	17 W 0459	5.2	160	20553	6.2	190	0433	5.9	180
1037	1.6	50	1125	2.6	80	1220	1.6	50	1053	2.0	60
1654	5.6	170	1727	4.9	150	1828	5.6	170	1707	5.6	170
2303	1.6	50	● 2327	2.6	80	● 2335	2.6	80	○ 2318	1.6	50
3 W 0517	6.2	190	18 Th 0544	4.9	150	0040	1.6	50	0531	5.9	180
1141	1.6	50	1215	2.6	80	0651	5.9	180	1155	2.0	60
1754	5.6	170	1814	4.9	150	1320	1.6	50	1805	5.6	170
4 Th 0003	1.6	50	19 F 0014	2.6	80	1925	5.6	170	1908	4.9	150
0616	6.2	190	0629	4.9	150	4 Su 0139	1.6	50	0018	1.6	50
1244	1.6	50	1304	2.3	70	0749	5.9	180	0629	5.9	180
1852	5.9	180	1859	4.9	150	1418	1.6	50	1255	2.0	60
5 F 0103	1.6	50	20 Sa 0101	2.6	80	2021	5.6	170	1901	5.6	170
0714	6.2	190	0714	5.2	160	5 M 0237	1.6	50	0118	1.6	50
1344	1.6	50	1351	2.3	70	0847	5.9	180	0727	5.6	170
1949	5.9	180	1943	4.9	150	1513	1.6	50	1352	2.0	60
6 Sa 0201	1.3	40	21 Su 0147	2.6	80	2116	5.6	170	1956	5.6	170
0811	6.2	190	0800	5.2	160	6 Tu 0334	1.6	50	0216	2.0	60
1441	1.6	50	1435	2.3	70	0942	5.6	170	0823	5.6	170
2044	5.9	180	2026	4.9	150	1605	1.6	50	1446	2.0	60
7 Su 0258	1.6	50	22 M 0232	2.3	70	2209	5.6	170	2050	5.6	170
0909	5.9	180	0845	5.2	160	7 W 0429	2.0	60	21 W 0254	2.3	70
1536	1.6	50	1517	2.3	70	1035	5.6	170	0906	5.2	160
2139	5.9	180	2108	4.9	150	1654	2.0	60	1530	2.3	70
8 M 0355	1.6	50	23 Tu 0317	2.3	70	2302	5.6	170	2127	5.2	160
1005	5.9	180	0930	5.2	160	8 Th 0521	2.0	60	6 Tu 0312	2.0	60
1629	1.6	50	1557	2.3	70	1126	5.2	160	0917	5.6	170
2233	5.6	170	2152	5.2	160	● 2352	5.6	170	1537	2.0	60
9 Tu 0450	1.6	50	24 W 0402	2.3	70	● 2304	5.6	170	2143	5.6	170
1059	5.9	180	1015	5.2	160	9 F 0610	2.0	60	7 W 0312	2.0	60
1719	1.6	50	1638	2.3	70	1214	5.2	160	0917	5.6	170
● 2327	5.6	170	2236	5.2	160	1825	2.0	60	1537	2.0	60
10 W 0544	2.0	60	25 Th 0448	2.0	60	● 2356	5.9	180	2233	5.2	160
1152	5.6	170	1101	5.2	160	10 Sa 0041	5.2	160	7 W 0405	2.0	60
1807	2.0	60	1719	2.0	60	0656	2.3	70	1008	5.2	160
● 2323	5.6	170	2323	5.6	170	1300	5.2	160	1625	2.0	60
11 Th 0019	5.6	170	26 F 0536	2.0	60	1907	2.3	70	2233	5.2	160
0636	2.0	60	1149	5.2	160	1111	2.3	70	9 F 0455	2.0	60
1242	5.2	160	1804	2.0	60	0740	2.3	70	1057	5.2	160
1854	2.0	60	12 M 0127	5.2	160	1344	4.9	150	● 2322	5.2	160
12 F 0110	5.2	160	0626	2.0	60	1949	2.3	70	9 F 0455	2.0	60
0725	2.0	60	1240	5.6	170	26 Su 0049	5.9	180	1057	5.2	160
1331	5.2	160	1851	2.0	60	0703	1.6	50	1709	2.0	60
1939	2.3	70	12 M 0210	5.2	160	1316	5.6	170	● 2322	5.2	160
13 Sa 0159	5.2	160	0626	2.0	60	1926	1.6	50	10 W 0522	2.0	60
0813	2.3	70	1240	5.6	170	1111	2.3	70	1111	5.6	170
1418	4.9	150	1851	2.0	60	0740	2.3	70	1111	5.6	170
2024	2.3	70	12 M 0127	5.2	160	1344	4.9	150	1111	5.6	170
14 Su 0246	5.2	160	0813	1.6	50	1949	2.3	70	1111	5.6	170
0900	2.3	70	1430	5.6	170	2034	2.3	70	1111	5.6	170
1505	4.9	150	2039	1.6	50	2113	2.3	70	1111	5.6	170
2109	2.3	70	14 M 0335	5.2	160	2119	1.6	50	1111	5.6	170
15 M 0331	5.2	160	0952	2.6	80	14 W 0239	5.9	180	1111	5.6	170
0947	2.3	70	1600	4.9	150	0853	1.6	50	1111	5.6	170
1552	4.9	150	2158	2.6	80	1510	5.6	170	1111	5.6	170
2154	2.6	80	2246	2.6	80	2119	1.6	50	1111	5.6	170
15 Th 0311	5.2	160	31 W 0356	6.2	190	14 W 0213	5.2	160	1111	5.6	170
0947	2.3	70	1014	1.6	50	0825	2.3	70	1111	5.6	170
1418	4.9	150	1630	5.6	170	1433	4.9	150	1111	5.6	170
2024	2.3	70	2239	1.6	50	2034	2.3	70	1111	5.6	170

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wellington, New Zealand, 2018

Times and Heights of High and Low Waters

April				May				June									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm						
<b>1</b> Su 1130 1742 O	0511 2.0 5.6 2.0	5.6 60 170 60	170	<b>16</b> M 1101 1711 ●	0444 2.3 5.2 2.3	5.2 70 160 70	<b>1</b> Tu 1200 1812 ●	0545 2.3 5.2 2.3	5.2 70 160 60	<b>1</b> F 1124 1735 2354	0512 5.6 2.0 2.0	5.2 170 60	<b>16</b> Sa 1307 1919	0033 2.3 5.2 5.2	1.6 170 160	50	
<b>2</b> M 1228 1837	0607 2.0 5.6	170	<b>17</b> Tu 1157 1803	0539 5.2 5.2	160	<b>2</b> W 1253 1902	0035 2.3 5.2	70	<b>17</b> Th 1830	0610 2.0 5.2	160	<b>2</b> Sa 2005	0151 2.3 5.2	70	50		
<b>3</b> Tu 0703 1324 1930	0057 2.3 5.6	60 160 170	<b>18</b> W 0634 1252 1856	0019 2.3 5.6	60	<b>3</b> Th 0729 1342 1951	0129 2.3 5.2	70	<b>18</b> F 0706 1318 1926	0055 1.6 5.9	50	<b>3</b> Su 0832 1437 2050	0238 2.3 5.2	70	50		
<b>4</b> W 0757 1416 2022	0153 2.3 5.2	60 160	<b>19</b> Th 0730 1346 1949	0117 2.0 5.6	60	<b>4</b> F 0819 1430 2039	0220 2.3 5.2	70	<b>19</b> Sa 0802 1414 2022	0154 1.6 5.9	50	<b>4</b> M 0915 1520 2133	0323 2.3 5.2	70	40		
<b>5</b> Th 0849 1505 2112	0247 2.3 5.2	60 160	<b>20</b> F 0824 1438 2043	0215 2.0 5.9	60	<b>5</b> Sa 0905 1515 2126	0309 2.3 5.2	70	<b>20</b> Su 0857 1509 2118	0251 1.6 5.9	50	<b>5</b> Tu 0957 1602 2216	0405 2.3 5.2	70	50		
<b>6</b> F 0938 1551 2201	0338 2.3 5.2	60 160	<b>21</b> Sa 0917 1530 2137	0310 1.6 5.9	50	<b>6</b> Su 0950 1557 2210	0355 2.3 5.2	70	<b>21</b> M 0951 1603 2214	0347 1.6 5.9	50	<b>6</b> W 1038 1644 2258	0444 2.3 5.2	70	50		
<b>7</b> Sa 1024 1635 2247	0426 2.3 5.2	60 160	<b>22</b> Su 1009 1622 2231	0404 1.6 5.9	50	<b>7</b> M 1032 1639 2253	0437 2.3 5.2	70	<b>22</b> Tu 1045 1658 2310	0440 1.6 5.9	50	<b>7</b> Th 1119 1725 2340	0522 2.3 5.2	70	50		
<b>8</b> Su 1108 1716 O	0509 2.3 5.2	70	<b>23</b> M 1101 1714 ●	0456 1.6 5.9	50	<b>8</b> Tu 1113 1719 ●	0517 2.3 5.2	70	<b>23</b> W 1139 1753	0532 1.6	50	<b>8</b> F 1201 1808	0601 2.3	70	50		
<b>9</b> M 1149 1756	0550 2.3 5.2	70	<b>24</b> Tu 1154 1807	0547 1.6	50	<b>9</b> W 1153 1759	0555 2.3 2.3	70	<b>24</b> Th 0624 1233 1848	0005 1.6 5.9	180	<b>9</b> Sa 0640 1246 1853	0023 2.3 5.2	160	50		
<b>10</b> Tu 0629 1230 1835	0013 2.3 4.9	160	<b>25</b> W 0638 1248 1900	0020 1.6	180	<b>10</b> Th 0633 1235 1840	0015 5.2 2.3	160	<b>25</b> F 0715 1328 1943	0100 5.9 2.0	180	<b>10</b> Su 0723 1334 1941	0109 5.2 2.3	160	50		
<b>11</b> W 0707 1311 1915	0053 2.3 4.9	160	<b>26</b> Th 0729 1342 1955	0114 1.6	180	<b>11</b> F 0712 1318 1923	0057 5.2 2.3	160	<b>26</b> Sa 0806 1423 2038	0153 5.6 2.0	170	<b>11</b> M 0810 1425 2033	0159 5.2 2.0	160	50		
<b>12</b> Th 0746 1354 1957	0134 2.3 4.9	160	<b>27</b> F 0821 1437 2050	0208 1.6	180	<b>12</b> Sa 0754 1405 2009	0141 5.2 2.3	160	<b>27</b> Su 0858 1516 2132	0246 5.6 2.0	170	<b>12</b> Tu 0902 1519 2130	0252 5.2 2.0	160	50		
<b>13</b> F 0828 1440 2042	0216 2.3 4.9	160	<b>28</b> Sa 0915 1533 2146	0302 1.6	170	<b>13</b> Su 0840 1454 2100	0228 5.2 2.3	160	<b>28</b> M 0949 1607 2225	0339 5.2 2.3	160	<b>13</b> W 0958 1614 2229	0349 5.2 2.0	160	50		
<b>14</b> Sa 0915 1528 2130	0302 2.3 4.9	160	<b>29</b> Su 1010 1627 2243	0357 2.0	170	<b>14</b> M 0931 1547 2155	0320 5.2 2.3	160	<b>29</b> Tu 1041 1657 2318	0431 5.2 2.3	160	<b>14</b> Th 1056 1710 ●	0447 5.6 1.6	170	50		
<b>15</b> Su 1006 1619 2224	0351 2.3 5.2	160	<b>30</b> M 1106 1720 ●	0451 2.0	160	<b>15</b> Tu 1027 1640 ●	0415 5.2 2.0	160	<b>30</b> W 1131 1745 ●	0522 4.9 5.2	150	<b>15</b> F 1155 1807 ●	0546 5.6 5.9	170	50		
									<b>31</b> Th 0612 1220 1833	0011 4.9 5.2	70	<b>30</b> Sa 0630 1233 1846	0032 4.9 5.2	70			

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wellington, New Zealand, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0120	2.3	70	<b>16</b> M	0111	1.6	50	<b>1</b> W	0218	2.3	70
	0715	4.9	150		0718	5.9	180		0810	4.9	150
	1318	2.6	80		1329	1.3	40		1416	2.3	70
	1931	5.2	160		1941	6.2	190		2029	4.9	150
<b>2</b> M	0206	2.3	70	<b>17</b> Tu	0210	1.6	50	<b>2</b> Th	0301	2.3	70
	0759	4.9	150		0814	5.9	180		0852	4.9	150
	1402	2.6	80		1428	1.3	40		1501	2.3	70
	2015	5.2	160		2039	6.2	190		2113	4.9	150
<b>3</b> Tu	0251	2.3	70	<b>18</b> W	0307	1.6	50	<b>3</b> F	0342	2.3	70
	0842	4.9	150		0910	5.9	180		0935	4.9	150
	1446	2.6	80		1526	1.6	50		1546	2.3	70
	2059	5.2	160		2136	5.9	180		2158	5.2	160
<b>4</b> W	0333	2.3	70	<b>19</b> Th	0402	1.6	50	<b>4</b> Sa	0422	2.3	70
	0923	4.9	150		1006	5.9	180		1018	5.2	160
	1529	2.6	80		1624	1.6	50		1632	2.3	70
	2142	4.9	150		2233	5.9	180		2243	5.2	160
<b>5</b> Th	0413	2.3	70	<b>20</b> F	0455	1.6	50	<b>5</b> Su	0503	2.3	70
	1005	4.9	150		1102	5.6	170		1104	5.2	160
	1612	2.3	70		1721	1.6	50		1718	2.3	70
	2226	5.2	160		2329	5.6	170		2330	5.2	160
<b>6</b> F	0452	2.3	70	<b>21</b> Sa	0547	1.6	50	<b>6</b> M	0546	2.0	60
	1047	4.9	150		1157	5.6	170		1152	5.6	170
	1656	2.3	70		1816	2.0	60		1806	2.0	60
	2309	5.2	160						2135	2.3	70
<b>7</b> Sa	0531	2.3	70	<b>22</b> Su	0023	5.6	170	<b>7</b> Tu	0019	5.2	160
	1131	5.2	160		0637	2.0	60		0631	2.0	60
	1741	2.3	70		1251	5.6	170		1243	5.6	170
	2354	5.2	160		1909	2.0	60		1857	2.0	60
<b>8</b> Su	0611	2.3	70	<b>23</b> M	0115	5.2	160	<b>8</b> W	0111	5.2	160
	1217	5.2	160		0726	2.0	60		0721	2.0	60
	1827	2.3	70		1343	5.6	170		1337	5.9	180
					2000	2.0	60		1950	1.6	50
<b>9</b> M	0042	5.2	160	<b>24</b> Tu	0205	5.2	160	<b>9</b> Th	0206	5.6	170
	0655	2.0	60		0813	2.3	70		0814	1.6	50
	1307	5.6	170		1432	5.2	160		1432	5.9	180
	1917	2.0	60		2048	2.3	70		2046	1.6	50
<b>10</b> Tu	0133	5.2	160	<b>25</b> W	0253	4.9	150	<b>10</b> F	0303	5.6	170
	0744	2.0	60		0859	2.3	70		0911	1.6	50
	1359	5.6	170		1519	5.2	160		1529	6.2	190
	2010	2.0	60		2136	2.3	70		2145	1.6	50
<b>11</b> W	0228	5.2	160	<b>26</b> Th	0340	4.9	150	<b>11</b> Sa	0402	5.6	170
	0836	2.0	60		0944	2.3	70		1010	1.6	50
	1454	5.9	180		1603	5.2	160		1626	6.2	190
	2107	1.6	50		2223	2.3	70		2246	1.6	50
<b>12</b> Th	0325	5.6	170	<b>27</b> F	0427	4.9	150	<b>12</b> Su	0501	5.6	170
	0933	1.6	50		1029	2.3	70		1110	1.6	50
	1550	5.9	180		1646	5.2	160		1724	6.2	190
	2207	1.6	50		2311	2.3	70		2348	1.6	50
<b>13</b> F	0424	5.6	170	<b>28</b> Sa	0513	4.9	150	<b>13</b> M	0559	5.9	180
	1032	1.6	50		1114	2.3	70		1210	1.3	40
	1647	6.2	190		1730	5.2	160		1822	6.2	190
	2308	1.6	50		2359	2.3	70				
<b>14</b> Sa	0523	5.6	170	<b>29</b> Su	0558	4.9	150	<b>14</b> Tu	0049	1.6	50
	1131	1.6	50		1159	2.3	70		0656	5.9	180
	1745	6.2	190		1814	5.2	160		1309	1.3	40
									1921	6.2	190
<b>15</b> Su	0010	1.6	50	<b>30</b> M	0047	2.3	70	<b>15</b> W	0148	1.6	50
	0621	5.6	170		0643	4.9	150		0752	5.9	180
	1230	1.6	50		1245	2.6	80		1408	1.6	50
	1843	6.2	190		1859	5.2	160		2019	5.9	180
				<b>31</b> Tu	0133	2.3	70	<b>16</b> F	0230	2.3	70
					0727	4.9	150		0823	4.9	150
					1330	2.6	80		1437	2.3	70
					1944	4.9	150		2048	5.2	160

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Wellington, New Zealand, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0329	2.0	60	<b>16</b> Tu	0418	2.0	60	<b>1</b> Th	0444	1.6	50
	0931	5.6	170		1031	5.6	170		0506	2.3	70
	1555	2.0	60		1654	2.0	60	F	1122	5.2	160
	2202	5.2	160		2253	5.2	160		1742	2.3	70
<b>2</b> Tu	0415	2.0	60	<b>17</b> W	0502	2.3	70	<b>2</b> F	0536	1.6	50
	1021	5.6	170		1117	5.2	160		1203	5.2	160
	1644	1.6	50		1737	2.0	60	Sa	1821	2.3	70
	2250	5.6	170		2337	5.2	160		1844	1.6	50
<b>3</b> W	0502	2.0	60	<b>18</b> Th	0544	2.3	70	<b>3</b> Sa	0016	5.6	170
	1112	5.9	180		1201	5.2	160		0629	1.6	50
	1733	1.6	50		1818	2.3	70		1243	5.9	180
	2340	5.6	170						1859	1.6	50
<b>4</b> Th	0552	1.6	50	<b>19</b> F	0019	4.9	150	<b>4</b> Su	0111	5.6	170
	1205	5.9	180		0626	2.3	70		0724	1.6	50
	1823	1.6	50		1244	5.2	160		1338	5.9	180
					1858	2.3	70		1952	1.6	50
<b>5</b> F	0033	5.6	170	<b>20</b> Sa	0102	4.9	150	<b>5</b> M	0208	5.6	170
	0644	1.6	50		0707	2.3	70		0822	1.6	50
	1259	5.9	180		1326	5.2	160		1435	5.6	170
	1914	1.6	50		1939	2.3	70		2047	2.0	60
<b>6</b> Sa	0127	5.6	170	<b>21</b> Su	0146	4.9	150	<b>6</b> Tu	0305	5.6	170
	0739	1.6	50		0750	2.3	70		0920	2.0	60
	1355	5.9	180		1409	5.2	160		1531	5.6	170
	2008	1.6	50		2022	2.3	70		2145	2.0	60
<b>7</b> Su	0224	5.6	170	<b>22</b> M	0233	4.9	150	<b>7</b> W	0402	5.6	170
	0836	1.6	50		0836	2.3	70		1019	2.0	60
	1451	5.9	180		1455	4.9	150		1628	5.6	170
	2105	1.6	50		2108	2.3	70		2243	2.0	60
<b>8</b> M	0323	5.6	170	<b>23</b> Tu	0320	4.9	150	<b>8</b> Th	0458	5.6	170
	0935	1.6	50		0924	2.3	70		1118	2.0	60
	1549	5.9	180		1543	4.9	150		1724	5.2	160
	2205	2.0	60		2158	2.3	70		2339	2.0	60
<b>9</b> Tu	0421	5.6	170	<b>24</b> W	0409	4.9	150	<b>9</b> F	0551	5.6	170
	1035	1.6	50		1016	2.3	70		1215	2.0	60
	1647	5.9	180		1634	4.9	150		1819	5.2	160
	2305	2.0	60		2251	2.3	70				
<b>10</b> W	0518	5.6	170	<b>25</b> Th	0459	5.2	160	<b>10</b> Sa	0034	2.0	60
	1135	1.6	50		1110	2.3	70		0644	5.6	170
	1744	5.6	170		1726	4.9	150		1310	2.0	60
					2344	2.3	70		1912	5.2	160
<b>11</b> Th	0004	2.0	60	<b>26</b> F	0549	5.2	160	<b>11</b> Su	0125	2.3	70
	0614	5.6	170		1205	2.3	70		0734	5.6	170
	1234	1.6	50		1819	5.2	160		1403	2.0	60
	1841	5.6	170						2002	5.2	160
<b>12</b> F	0100	2.0	60	<b>27</b> Sa	0036	2.3	70	<b>12</b> M	0213	2.3	70
	0708	5.6	170		0638	5.2	160		0823	5.6	170
	1331	1.6	50		1300	2.0	60		1453	2.0	60
	1936	5.6	170		1911	5.2	160		2049	5.2	160
<b>13</b> Sa	0154	2.0	60	<b>28</b> Su	0126	2.3	70	<b>13</b> Tu	0259	2.3	70
	0801	5.6	170		0728	5.6	170		0910	5.2	160
	1426	2.0	60		1354	2.0	60		1539	2.0	60
	2029	5.6	170		2002	5.2	160		2135	5.2	160
<b>14</b> Su	0245	2.0	60	<b>29</b> M	0215	2.0	60	<b>14</b> W	0343	2.3	70
	0852	5.6	170		0819	5.6	170		0956	5.2	160
	1519	2.0	60		1446	2.0	60		1623	2.0	60
	2119	5.2	160		2052	5.6	170		2218	5.2	160
<b>15</b> M	0333	2.0	60	<b>30</b> Tu	0304	2.0	60	<b>15</b> Th	0425	2.3	70
	0942	5.6	170		0910	5.9	180		1040	5.2	160
	1608	2.0	60		1538	1.6	50		1703	2.0	60
	2207	5.2	160		2142	5.6	170		2300	4.9	150
<b>31</b> W	0354	1.6	50	<b>31</b> W	0354	1.6	50				
	1002	5.9	180		1002	5.9	180				
	1628	1.6	50		1628	1.6	50				
	2232	5.6	170		2232	5.6	170				

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Auckland, New Zealand, 2018

Times and Heights of High and Low Waters

January				February				March											
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height								
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm								
<b>1</b> M	0612	10.8	330	<b>16</b> Tu	0037	2.6	80	<b>1</b> Th	0116	1.0	30	<b>16</b> F	0130	2.6	80				
1212	2.0	60	0705	9.8	300	0744	11.5	350	0757	10.2	310	0017	3.0	90					
1834	10.8	330	1257	3.0	90	1346	1.3	40	1352	2.6	80	0642	9.8	300					
			1916	9.5	290	O	2011	11.2	340	●	2013	9.8	300	1238	3.0	90			
<b>2</b> Tu	0040	1.0	30	<b>17</b> W	0119	2.6	80	<b>2</b> F	0209	0.7	20	<b>2</b> O	0058	1.3	40	<b>17</b> Sa	0059	2.6	80
0708	11.2	340	0746	10.2	310	0837	11.8	360	1432	2.6	80	0725	11.5	350	0723	10.2	310		
1308	1.3	40	1339	3.0	90	1440	1.3	40	2052	10.2	310	1329	1.6	50	1321	2.6	80		
O	1932	11.2	340	●	1959	9.5	290	2104	11.5	350	O	1954	11.2	340	1943	10.2	310		
<b>3</b> W	0134	0.7	20	<b>18</b> Th	0157	2.3	70	<b>3</b> Sa	0259	0.7	20	<b>18</b> Su	0247	2.3	70	<b>18</b> Su	0139	2.3	70
0802	11.8	360	0826	10.2	310	0928	11.8	360	0915	10.5	320	0816	11.8	360	0804	10.5	320		
1403	1.3	40	1419	2.6	80	1532	1.3	40	1512	2.3	70	1420	1.3	40	1402	2.3	70		
2028	11.5	350	2039	9.8	300	2155	11.5	350	2131	10.2	310	2045	11.5	350	●	2024	10.5	320	
<b>4</b> Th	0226	0.3	10	<b>19</b> F	0235	2.3	70	<b>4</b> Su	0349	1.0	30	<b>19</b> M	0325	2.0	60	<b>19</b> M	0219	2.3	70
0855	11.8	360	0904	10.2	310	1017	11.8	360	0954	10.5	320	0905	11.8	360	0845	10.8	330		
1457	1.0	30	1459	2.6	80	1622	1.3	40	1553	2.0	60	1509	1.3	40	1444	2.0	60		
2122	11.5	350	2118	9.8	300	2244	11.2	340	2210	10.5	320	2133	11.5	350	2105	10.8	330		
<b>5</b> F	0318	0.3	10	<b>20</b> Sa	0312	2.3	70	<b>5</b> M	0438	1.3	40	<b>20</b> Tu	0405	2.0	60	<b>20</b> Tu	0300	2.0	60
0947	11.8	360	0942	10.5	320	1106	11.5	350	1034	10.5	320	0953	11.5	350	0927	10.8	330		
1551	1.0	30	1539	2.6	80	1711	1.6	50	1634	2.0	60	1556	1.3	40	1526	1.6	50		
2215	11.5	350	2156	9.8	300	2333	10.8	330	2251	10.5	320	2220	11.2	340	2147	10.8	330		
<b>6</b> Sa	0409	0.7	20	<b>21</b> Su	0349	2.3	70	<b>6</b> Tu	0527	2.0	60	<b>21</b> W	0447	2.3	70	<b>21</b> W	0342	2.0	60
1039	11.8	360	1020	10.5	320	1155	10.8	330	1759	2.0	60	1117	10.5	320	1010	10.8	330		
1644	1.3	40	1619	2.3	70	●	2335	10.2	310	1717	2.0	60	1641	1.6	50	1610	1.6	50	
2306	11.2	340	2234	9.8	300	2335	10.2	310	2335	10.2	310	2305	10.8	330	2230	10.8	330		
<b>7</b> Su	0500	1.3	40	<b>22</b> M	0428	2.3	70	<b>7</b> W	0021	10.5	320	<b>22</b> Th	0533	2.3	70	<b>22</b> W	0427	2.0	60
1130	11.5	350	1100	10.2	310	0617	2.3	70	1202	10.5	320	1124	10.8	330	1056	10.8	330		
1737	1.6	50	1700	2.3	70	1243	10.5	320	1803	2.0	60	1726	2.0	60	1655	1.6	50		
2358	10.8	330	2314	9.8	300	1848	2.3	70	●	1854	2.3	70	2350	10.5	320	2316	10.8	330	
<b>8</b> M	0553	1.6	50	<b>23</b> Tu	0509	2.3	70	<b>8</b> Th	0112	9.8	300	<b>23</b> F	0023	10.2	310	<b>23</b> F	0516	2.3	70
1222	10.8	330	1141	10.2	310	0709	3.0	90	1332	9.8	300	1251	10.2	310	1743	2.0	60		
1830	2.0	60	1743	2.3	70	●	1938	2.6	80	O	1854	2.3	70	1810	2.6	80			
			2357	9.8	300	2032	3.0	90	2032	3.0	90	●	1857	3.0	90	2032	3.0	90	
<b>9</b> Tu	0051	10.2	310	<b>24</b> W	0554	2.6	80	<b>9</b> F	0205	9.5	290	<b>24</b> Sa	0117	10.2	310	<b>24</b> Sa	0006	10.5	320
0647	2.3	70	1225	10.2	310	0805	3.3	100	1422	9.5	290	0721	3.0	90	0609	2.6	80		
1315	10.5	320	1829	2.3	70	1422	9.5	290	2032	3.0	90	1345	10.2	310	1235	10.5	320		
O	1924	2.3	70	O	1938	2.6	80	2032	3.0	90	1951	2.3	70	●	1835	2.0	60		
<b>10</b> W	0145	9.8	300	<b>25</b> Th	0044	9.8	300	<b>10</b> Sa	0302	9.2	280	<b>25</b> Su	0218	9.8	300	<b>25</b> Su	0102	10.5	320
0744	2.6	80	0645	3.0	90	0902	3.6	110	1516	9.2	280	0824	3.0	90	0707	2.6	80		
1408	10.2	310	1314	10.2	310	2128	3.3	100	2128	3.3	100	1445	10.2	310	1331	10.2	310		
2188	2.6	80	●	1919	2.3	70	2054	2.3	70	2054	2.3	70	1947	3.3	100	●	1933	2.3	70
<b>11</b> Th	0242	9.5	290	<b>26</b> F	0137	9.5	290	<b>11</b> Su	0400	9.2	280	<b>26</b> M	0324	10.2	310	<b>26</b> M	0203	10.2	310
0843	3.0	90	0742	3.0	90	0959	3.6	110	1611	9.2	280	0930	3.0	90	0822	3.6	110		
1501	9.5	290	1407	9.8	300	2225	3.3	100	2225	3.3	100	1551	10.2	310	1434	9.2	280		
2114	3.0	90	2015	2.3	70	●	2159	2.3	70	2159	2.3	70	2044	3.6	110	2037	2.6	80	
<b>12</b> F	0341	9.5	290	<b>27</b> Sa	0238	9.8	300	<b>12</b> M	0456	9.2	280	<b>27</b> Tu	0430	10.2	310	<b>27</b> Tu	0309	10.2	310
0941	3.3	100	0845	3.0	90	1052	3.6	110	1706	9.2	280	1035	2.6	80	0916	3.0	90		
1555	9.5	290	1506	9.8	300	2319	3.3	100	2319	3.3	100	1657	10.2	310	1537	10.2	310		
2209	3.0	90	2116	2.3	70	●	2319	3.3	100	2319	3.3	100	2303	2.0	60	2143	2.6	80	
<b>13</b> Sa	0438	9.5	290	<b>28</b> Su	0344	9.8	300	<b>13</b> Tu	0547	9.5	290	<b>28</b> W	0533	10.8	330	<b>28</b> W	0413	10.5	320
1035	3.3	100	0949	2.6	80	1142	3.6	110	1759	9.2	280	1136	2.3	70	1020	2.6	80		
1649	9.2	280	1609	10.2	310	1847	9.5	290	1800	10.5	320	1627	8.9	270	1643	10.2	310		
2302	3.0	90	2219	2.0	60	O	1915	1.6	50	O	1931	9.5	290	2241	3.6	110	2247	2.3	70
<b>14</b> Su	0531	9.5	290	<b>29</b> M	0450	10.2	310	<b>14</b> W	0007	3.0	90	<b>14</b> W	0509	9.2	280	<b>29</b> Th	0514	10.8	330
1126	3.3	100	1052	2.6	80	0634	9.8	300	1228	3.3	100	1228	9.5	290	1120	2.3	70		
1741	9.2	280	1713	10.2	310	1847	9.5	290	1847	9.5	290	1723	9.2	280	1745	10.5	320		
2352	3.0	90	2321	1.6	50	O	1915	1.6	50	O	1931	9.5	290	2332	3.3	100	2346	2.0	60
<b>15</b> M	0620	9.5	290	<b>30</b> Tu	0551	10.8	330	<b>15</b> Th	0050	3.0	90	<b>15</b> Th	0557	9.5	290	<b>30</b> F	0611	10.8	330
1213	3.3	100	1153	2.0	60	0717	9.8	300	1311	3.0	90	1153	3.3	100	1216	2.0	60		
1830	9.2	280	1816	10.5	320	1931	9.5	290	1931	9.5	290	1814	9.5	290	1842	10.8	330		
			<b>31</b> W	0020	1.3	40									<b>31</b> Sa	0040	1.6	50	
			0649	11.2	340									1308	1.6	50			
			1251	1.6	50									1935	11.2	340			
			1915	11.2	340														

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Auckland, New Zealand, 2018

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0129 11.2 340	1.6	50	<b>16</b> M 0108 10.5 320	2.3	70	<b>1</b> Tu 0152 14.1 360	2.0	60	<b>16</b> F 0124 10.2 310	2.0	60
1358 1.6 50			0730 13.3 360			0815 10.8 330			0914 15.0 350		
O 2023 11.2 340			1331 11.2 340	2.0	60	1417 11.2 340	2.0	60	1510 12.3 310	2.3	70
			● 1955 11.2 340			2044 11.2 340			2140 10.5 320		
<b>2</b> M 0216 11.2 340	1.6	50	<b>17</b> Tu 0151 10.8 330	2.0	60	<b>2</b> W 0236 14.5 360	2.3	70	<b>17</b> Th 0212 11.2 340	1.6	50
0841 11.2 340			0815 11.2 340			0859 11.2 340			0954 11.5 350		
1444 11.2 340	1.6	50	1416 11.2 340	1.6	50	1459 11.2 340	2.0	60	1549 12.0 350	2.6	80
2109 11.2 340			2039 11.2 340			2126 11.2 340			2220 10.2 310		
<b>3</b> Tu 0301 11.2 340	1.6	50	<b>18</b> W 0235 11.2 340	2.0	60	<b>3</b> Th 0318 10.5 320	2.3	70	<b>18</b> F 0302 11.2 340	1.6	50
0926 11.2 340			0901 11.2 340			0941 11.2 340			1034 11.2 340		
1528 11.2 340	1.6	50	1501 11.2 340	1.3	40	1539 11.2 340	2.3	70	1527 11.2 340	1.0	30
2153 11.2 340			2124 11.2 340			2207 10.5 320			2154 11.5 350		
<b>4</b> W 0345 10.8 330	2.0	60	<b>19</b> Th 0322 11.2 340	2.0	60	<b>4</b> F 0400 10.5 320	2.6	80	<b>19</b> Sa 0355 11.2 340	1.6	50
1010 10.8 330			0948 11.2 340			1022 11.2 340			1021 11.2 340		
1610 10.8 330	2.0	60	1547 11.2 340	1.3	40	1618 11.2 340	2.3	70	1617 11.2 340	1.3	40
2236 10.8 330			2211 11.2 340			2248 10.5 320			2246 11.5 350		
<b>5</b> Th 0429 10.5 320	2.3	70	<b>20</b> F 0410 11.2 340	2.0	60	<b>5</b> Sa 0443 11.2 340	3.0	90	<b>20</b> Su 0449 11.2 340	2.0	60
1053 10.5 320			1037 11.2 340			1103 11.2 340			1114 11.2 340		
1651 10.5 320	2.3	70	1635 11.2 340	1.3	40	1658 11.2 340	2.6	80	1709 11.2 340	1.3	40
2318 10.5 320			2301 11.2 340			2329 11.2 340			2340 11.5 350		
<b>6</b> F 0513 10.2 310	2.6	80	<b>21</b> Sa 0502 11.2 340	2.0	60	<b>6</b> Su 0528 11.2 340	3.3	100	<b>21</b> M 0546 11.2 340	2.0	60
1135 10.2 310			1128 11.2 340	10.8	330	1145 11.2 340	9.5	290	1209 11.2 340		
1733 10.2 310	2.6	80	1725 11.2 340	1.6	50	1740 11.2 340	3.0	90	1805 11.2 340		
			2353 11.2 340	10.8	330				1240 11.2 340		
<b>7</b> Sa 0002 12.0 310	10.2	310	<b>22</b> Su 0557 11.2 340	2.3	70	<b>7</b> M 0014 11.2 340	9.8	300	<b>22</b> Tu 0037 11.2 340	11.2	340
0559 12.0 310	3.3	100	1222 11.2 340	10.5	320	0615 11.2 340	3.3	100	0645 11.2 340	2.3	70
1218 12.0 310	9.5	290	1819 11.2 340	2.0	60	1228 11.2 340	9.2	280	1306 11.2 340	10.5	320
1816 12.0 310	3.0	90				1826 11.2 340	3.3	100	1904 11.2 340	2.3	70
<b>8</b> Su 0048 10.2 310	9.8	300	<b>23</b> M 0050 11.2 340	10.8	330	<b>8</b> Tu 0101 11.2 340	9.5	290	<b>23</b> W 0136 11.2 340	10.8	330
0649 10.2 310	3.6	110	0657 11.2 340	2.6	80	0705 11.2 340	3.6	110	0746 11.2 340	2.3	70
1303 10.2 310	9.2	280	1319 11.2 340	10.2	310	1315 11.2 340	9.2	280	1406 11.2 340	10.2	310
O 1905 10.2 310	3.3	100	● 1918 11.2 340	2.3	70	● 1917 11.2 340	3.6	110	2006 11.2 340	2.6	80
<b>9</b> M 0139 10.2 310	9.5	290	<b>24</b> Tu 0151 11.2 340	10.5	320	<b>9</b> W 0152 11.2 340	9.5	290	<b>24</b> Th 0235 11.2 340	10.5	320
0742 10.2 310	3.6	110	0800 11.2 340	2.6	80	0757 11.2 340	3.6	110	0846 11.2 340	2.6	80
1353 10.2 310	9.2	280	1421 11.2 340	10.2	310	1406 11.2 340	8.9	270	1508 11.2 340	10.2	310
1959 10.2 310	3.6	110	2022 11.2 340	2.6	80	2013 11.2 340	3.6	110	2110 11.2 340	2.6	80
<b>10</b> Tu 0235 10.2 310	9.2	280	<b>25</b> W 0253 11.2 340	10.5	320	<b>10</b> Th 0245 11.2 340	9.5	290	<b>25</b> F 0334 11.2 340	10.5	320
0838 10.2 310	3.9	120	0903 11.2 340	2.6	80	0850 11.2 340	3.6	110	0945 11.2 340	2.6	80
1447 10.2 310	8.9	270	1524 11.2 340	10.2	310	1502 11.2 340	8.9	270	1609 11.2 340	10.2	310
2059 10.2 310	3.9	120	2128 11.2 340	2.6	80	2112 11.2 340	3.6	110	2210 11.2 340	2.6	80
<b>11</b> W 0331 10.2 310	9.2	280	<b>26</b> Th 0355 11.2 340	10.5	320	<b>11</b> F 0338 11.2 340	9.5	290	<b>26</b> M 0430 11.2 340	10.5	320
0933 10.2 310	3.6	110	1004 11.2 340	2.6	80	0943 11.2 340	3.3	100	1041 11.2 340	2.3	70
1545 10.2 310	8.9	270	1628 11.2 340	10.2	310	1559 11.2 340	9.2	280	1707 11.2 340	10.2	310
2158 10.2 310	3.6	110	2230 11.2 340	2.6	80	2208 11.2 340	3.6	110	2306 11.2 340	2.6	80
<b>12</b> Th 0425 10.2 310	9.5	290	<b>27</b> F 0453 11.2 340	10.5	320	<b>12</b> Sa 0429 11.2 340	9.5	290	<b>27</b> W 0523 11.2 340	10.5	320
1025 10.2 310	3.6	110	1102 11.2 340	2.3	70	1034 11.2 340	3.0	90	0532 11.2 340	2.0	60
1642 10.2 310	9.2	280	1728 11.2 340	10.5	320	1655 11.2 340	9.5	290	0636 11.2 340	2.9	300
2251 10.2 310	3.6	110	2327 11.2 340	2.3	70	2300 11.2 340	3.3	100	1141 11.2 340	2.0	60
<b>13</b> F 0515 10.2 310	9.5	290	<b>28</b> Sa 0548 11.2 340	10.8	330	<b>13</b> Tu 0519 11.2 340	9.8	300	<b>28</b> W 0614 11.2 340	10.5	320
1115 10.2 310	3.3	100	1156 11.2 340	2.3	70	1124 11.2 340	2.6	80	0627 11.2 340	10.8	330
1735 10.2 310	9.5	290	1823 11.2 340	10.5	320	1747 11.2 340	9.8	300	1233 11.2 340	1.6	50
2340 10.2 310	3.3	100				2348 11.2 340	3.0	90	1901 11.2 340	11.2	340
<b>14</b> Sa 0601 10.2 310	9.8	300	<b>29</b> Su 0019 11.2 340	2.3	70	<b>14</b> M 0608 11.2 340	10.2	310	<b>29</b> W 0043 11.2 340	2.6	80
1201 10.2 310	3.0	90	0640 11.2 340	10.8	330	1212 11.2 340	2.3	70	0702 11.2 340	10.2	310
1824 10.2 310	9.8	300	1246 11.2 340	2.0	60	1838 11.2 340	10.5	320	1308 11.2 340	2.3	70
			1913 11.2 340	10.8	330				1936 11.2 340	10.5	320
<b>15</b> Su 0024 10.2 310	3.0	90	<b>30</b> M 0107 11.2 340	2.0	60	<b>15</b> Tu 0036 11.2 340	2.3	70	<b>30</b> W 0128 11.2 340	2.6	80
0646 10.2 310	10.2	310	0728 11.2 340	10.8	330	0657 11.2 340	10.8	330	0816 11.2 340	11.2	340
1247 10.2 310	2.3	70	1333 11.2 340	2.0	60	1301 11.2 340	1.6	50	1351 11.2 340	2.3	70
1910 10.2 310	10.2	310	2000 11.2 340	11.2	340	● 1926 11.2 340	10.8	330	1417 11.2 340	1.0	30
									2045 11.2 340	11.8	360
									31 0210 11.2 340	2.6	80
									0832 11.2 340	10.2	310
									1431 11.2 340	2.3	70
									2100 11.2 340	10.5	320

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Auckland, New Zealand, 2018

Times and Heights of High and Low Waters

July				August				September				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0308	3.0	90	<b>16</b> M	0323	1.3	40	<b>1</b> W	0402	2.6	80	
	0928	9.8	300		0947	11.5	350		0446	1.3	40	
	1522	2.3	70		1542	0.7	20		1109	11.2	340	
	2153	10.2	310		2212	11.8	360		1612	2.3	70	
<b>2</b> M	0349	3.0	90	<b>17</b> Tu	0417	1.3	40	<b>2</b> Th	0442	2.6	80	
	1007	9.8	300		1040	11.5	350		1018	9.8	300	
	1600	2.6	80		1634	1.0	30		1651	2.6	80	
	2232	10.2	310		2304	11.8	360		2323	10.2	310	
<b>3</b> Tu	0430	3.0	90	<b>18</b> W	0511	1.3	40	<b>3</b> F	0524	2.6	80	
	1046	9.5	290		1133	11.2	340		1138	9.8	300	
	1639	2.6	80		1727	1.6	50		1734	2.6	80	
	2312	10.2	310		2357	11.2	340					
<b>4</b> W	0512	3.0	90	<b>19</b> Th	0605	1.6	50	<b>4</b> Sa	0006	9.8	300	
	1126	9.5	290		1226	10.8	330		0608	2.6	80	
	1720	3.0	90		1822	2.0	60		1223	9.5	290	
	2354	9.8	300						1822	3.0	90	
<b>5</b> Th	0556	3.0	90	<b>20</b> F	0051	10.8	330	<b>5</b> Su	0051	9.8	300	
	1208	9.5	290		0659	2.0	60		0655	2.6	80	
	1804	3.0	90		1321	10.2	310		1313	9.5	290	
					1920	2.6	80		1916	3.0	90	
<b>6</b> F	0037	9.8	300	<b>21</b> Sa	0144	10.5	320	<b>6</b> M	0142	9.8	300	
	0641	3.0	90		0754	2.3	70		0748	2.6	80	
	1253	9.2	280		1418	9.8	300		1410	9.5	290	
	1853	3.3	100		2019	3.0	90		2016	3.0	90	
<b>7</b> Sa	0124	9.8	300	<b>22</b> Su	0238	9.8	300	<b>7</b> Tu	0237	9.8	300	
	0730	3.0	90		0850	2.6	80		0847	2.3	70	
	1344	9.2	280		1516	9.8	300		1513	9.5	290	
	1948	3.3	100		2118	3.0	90		2119	3.0	90	
<b>8</b> Su	0214	9.8	300	<b>23</b> M	0333	9.8	300	<b>8</b> W	0338	9.8	300	
	0822	3.0	90		0946	3.0	90		0949	2.3	70	
	1440	9.5	290		1614	9.5	290		1618	10.2	310	
	2047	3.3	100		2213	3.3	100		2222	2.6	80	
<b>9</b> M	0307	9.8	300	<b>24</b> Tu	0427	9.5	290	<b>9</b> Th	0441	10.2	310	
	0918	2.6	80		1040	3.0	90		1051	2.0	60	
	1541	9.5	290		1709	9.5	290		1720	10.5	320	
	2147	3.0	90		2306	3.3	100		2323	2.3	70	
<b>10</b> Tu	0404	9.8	300	<b>25</b> W	0520	9.5	290	<b>10</b> F	0544	10.5	320	
	1016	2.3	70		1131	2.6	80		1151	1.3	40	
	1642	10.2	310		1759	9.8	300		1819	11.2	340	
	2245	2.6	80						1236	2.6	80	
<b>11</b> W	0503	10.2	310	<b>26</b> Th	0610	9.5	290	<b>11</b> Sa	0021	1.6	50	
	1114	2.0	60		1218	2.6	80		0645	10.8	330	
	1742	10.5	320		1846	9.8	300		1247	1.0	30	
	2343	2.3	70						1914	11.5	350	
<b>12</b> Th	0603	10.5	320	<b>27</b> F	0039	3.0	90	<b>12</b> Su	0117	1.3	40	
	1210	1.3	40		0658	9.5	290		0742	11.2	340	
	1838	11.2	340		1301	2.6	80		1340	0.7	20	
					1929	10.2	310		2007	11.8	360	
<b>13</b> F	0038	2.0	60	<b>28</b> Sa	0122	3.0	90	<b>13</b> M	0211	1.0	30	
	0701	10.8	330		0742	9.5	290		0836	11.5	350	
	1305	1.0	30		1342	2.3	70		1432	0.7	20	
	1933	11.5	350		2009	10.2	310		2059	11.8	360	
<b>14</b> Sa	0133	1.6	50	<b>29</b> Su	0203	2.6	80	<b>14</b> Tu	0304	1.0	30	
	0758	11.2	340		0823	9.8	300		0928	11.5	350	
	1358	0.7	20		1420	2.3	70		1522	0.7	20	
	2026	11.8	360		2048	10.2	310		2151	11.8	360	
<b>15</b> Su	0228	1.3	40	<b>30</b> M	0243	2.6	80	<b>15</b> W	0355	1.0	30	
	0853	11.5	350		0903	9.8	300		1019	11.5	350	
	1450	0.7	20						1612	1.0	30	
	2119	12.1	370						2241	11.5	350	
	31	0322	2.6	80	<b>31</b> Tu	0940	9.8	300	<b>14</b> F	0414	2.0	60
					1534	2.3	70		1031	10.2	310	
					2204	10.2	310		1626	2.3	70	
									2255	10.2	310	

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Auckland, New Zealand, 2018

Times and Heights of High and Low Waters

October				November				December											
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height								
h m	ft	cm		h m	ft	cm		h m	ft	cm									
1 M	0515	1.6	50	16 Tu	0003	9.5	290	1 Th	0047	9.8	300	1 Sa	0132	9.8	300	16 Su	0110	8.9	270
	1138	10.2	310		0600	2.6	80		0645	2.0	60		0731	2.3	70		0712	3.3	100
	1740	2.3	70		1233	9.5	290		1317	10.2	310		1402	10.5	320		1344	9.2	280
					1834	3.0	90	○	1926	2.3	70	○	1942	3.3	100		1950	3.3	100
2 Tu	0006	10.2	310	17 W	0050	9.2	280	2 F	0147	9.8	300	17 Sa	0152	8.5	260	2 Su	0234	9.8	300
	0605	2.0	60		0649	3.0	90		0748	2.3	70		0758	3.6	110		0836	2.3	70
	1231	10.2	310		1325	9.2	280		1420	10.2	310		1431	9.2	280		1502	10.2	310
○	1836	2.6	80	○	1928	3.3	100		2030	2.3	70		2036	3.3	100		2113	2.3	70
3 W	0100	9.8	300	18 Th	0141	8.9	270	3 Sa	0251	9.8	300	18 Su	0248	8.5	260	3 M	0337	9.8	300
	0701	2.3	70		0745	3.3	100		0854	2.3	70		0858	3.6	110		0939	2.3	70
	1331	9.8	300		1421	9.2	280		1523	10.2	310		1525	9.2	280		1600	10.2	310
	1938	2.6	80		2025	3.3	100		2133	2.3	70		2130	3.3	100		2212	2.0	60
4 Th	0200	9.5	290	19 F	0237	8.5	260	4 Su	0356	9.8	300	19 M	0346	8.5	260	4 Tu	0439	9.8	300
	0803	2.3	70		0846	3.6	110		1000	2.3	70		0955	3.3	100		1039	2.3	70
	1435	9.8	300		1519	8.9	270		1624	10.2	310		1616	9.2	280		1657	10.2	310
	2044	2.6	80		2122	3.3	100		2233	2.0	60		2221	3.0	90		2308	2.0	60
5 F	0305	9.5	290	20 Sa	0335	8.5	260	5 M	0459	10.2	310	20 Tu	0442	8.9	270	5 W	0536	10.2	310
	0911	2.3	70		0947	3.6	110		1100	2.0	60		1047	3.3	100		1133	2.3	70
	1541	10.2	310		1613	9.2	280		1721	10.5	320		1705	9.5	290		1751	10.2	310
	2149	2.3	70		2215	3.3	100		2329	1.6	50		2310	2.6	80		2321	2.3	70
6 Sa	0411	9.8	300	21 Su	0433	8.9	270	6 Tu	0556	10.5	320	21 W	0534	9.5	290	6 Th	0000	2.0	60
	1017	2.0	60		1042	3.3	100		1154	1.6	50		1135	3.0	90		0629	10.5	320
	1644	10.5	320		1703	9.2	280		1814	10.5	320		1753	9.8	300		1223	2.3	70
	2251	2.0	60		2305	3.0	90						2357	2.3	70		1842	10.2	310
7 Su	0515	10.2	310	22 M	0526	9.2	280	7 W	0022	1.3	40	22 Th	0623	9.8	300	7 F	0049	1.6	50
	1117	1.6	50		1130	3.0	90		0649	10.8	330		1221	2.3	70		0717	10.5	320
	1741	10.8	330		1749	9.5	290		1244	1.6	50		1840	10.2	310		1310	2.0	60
	2348	1.6	50		2350	2.6	80		1905	10.8	330					●	1930	10.2	310
8 M	0614	10.5	320	23 Tu	0613	9.5	290	8 Th	0111	1.3	40	23 Sa	0044	1.6	50	8 Su	0134	1.6	50
	1213	1.3	40		1213	2.6	80		0738	10.8	330		0709	10.2	310		0802	10.5	320
	1836	11.2	340		1832	9.8	300		1332	1.6	50		1306	2.0	60		1355	2.0	60
9 Tu	0042	1.3	40	24 W	0033	2.3	70	9 F	0157	1.3	40	24 Sa	0130	1.3	40	9 Su	0217	1.6	50
	0708	11.2	340		0657	9.8	300		0824	11.2	340		0755	10.8	330		0845	10.5	320
	1304	1.0	30		1254	2.3	70		1417	1.6	50		1352	1.6	50		1438	2.3	70
●	1927	11.2	340		1915	10.2	310		2039	10.5	320		2015	10.5	320		2100	9.8	300
10 W	0132	1.0	30	25 Th	0115	2.0	60	10 Sa	0241	1.3	40	25 Su	0216	1.0	30	10 M	0257	2.0	60
	0758	11.2	340		0739	10.2	310		0908	10.8	330		0842	11.2	340		0926	10.5	320
	1353	1.0	30		1335	2.0	60		1501	1.6	50		1440	1.6	50		1520	2.3	70
	2016	11.2	340		1957	10.5	320		2124	10.5	320		2104	10.8	330		2141	9.8	300
11 Th	0220	1.0	30	26 F	0157	1.6	50	11 Su	0322	1.6	50	26 M	0303	1.0	30	11 Tu	0336	2.0	60
	0846	11.5	350		0821	10.5	320		0950	10.8	330		0929	11.2	340		1007	10.5	320
	1439	1.0	30		1416	1.6	50		1544	2.0	60		1529	1.6	50		1602	2.6	80
	2103	11.2	340		2040	10.5	320		2207	10.2	310		2154	10.8	330		2222	9.8	300
12 F	0306	1.0	30	27 Sa	0240	1.3	40	12 M	0403	2.0	60	27 Tu	0351	1.0	30	12 W	0415	2.3	70
	0931	11.2	340		0903	10.8	330		1032	10.5	320		1018	11.2	340		1047	10.2	310
	1525	1.3	40		1500	1.6	50		1628	2.3	70		1621	1.6	50		1645	2.6	80
	2149	10.8	330		2124	10.5	320		2249	9.8	300		2245	10.8	330		2301	9.5	290
13 Sa	0350	1.3	40	28 Su	0324	1.0	30	13 Tu	0443	2.3	70	28 W	0441	1.0	30	13 Th	0454	2.6	80
	1016	10.8	330		0947	10.8	330		1115	10.2	310		1110	11.2	340		1128	9.8	300
	1610	1.6	50		1545	1.6	50		1713	2.6	80		1715	1.6	50		1728	3.0	90
	2234	10.5	320		2211	10.5	320		2331	9.5	290		2338	10.5	320		2342	9.2	280
14 Su	0433	1.6	50	29 M	0409	1.3	40	14 W	0525	2.6	80	29 Th	0533	1.3	40	14 F	0536	3.0	90
	1100	10.5	320		1034	10.8	330		1159	9.8	300		1205	10.8	330		1813	3.0	90
	1656	2.3	70		1634	2.0	60		1800	3.0	90		1812	2.0	60		1244	10.8	330
	2318	9.8	300		2300	10.5	320								○	1852	2.0	60	
15 M	0516	2.0	60	30 Tu	0457	1.3	40	15 Th	0014	9.2	280	30 F	0034	10.2	310	15 Sa	0024	9.2	280
	1145	10.2	310		1123	10.5	320		0610	3.0	90		0630	1.6	50		0621	3.0	90
	1743	2.6	80		1727	2.0	60		1246	9.5	290		1302	10.5	320		1256	9.5	290
					2351	10.2	310		1850	3.3	100		1911	2.0	60	○	1900	3.0	90
				31 W	0548	1.6	50									31 M	0213	10.2	310
					1218	10.5	320										0813	2.6	80
					1824	2.3	70										1437	10.2	310
																	2048	2.3	70

Time meridian 180° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dreger Harbor, New Guinea, 2018

Times and Heights of High and Low Waters

January					February					March													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	1427 2335	3.9 0.7	120 20	<b>16</b> Tu	1450 2242	3.6 1.0	110 30	<b>1</b> Th	1531	3.6	110	<b>16</b> F	0519 0828 1540 ● 2248	2.3 2.3 3.6 1.0	70 70 110 30	<b>1</b> Th	1508 2315	3.6 1.0	110 30	<b>16</b> F	0439 0846 1505 2159	2.6 2.3 3.6 1.3	80 70 110 40
<b>2</b> Tu	1457	3.9	120	<b>17</b> W	1517 2300	3.9	120	<b>2</b> F	0012	1.0	30	<b>17</b> Sa	0520 0910 1604 2254	2.6 2.0 3.6 1.0	80 60 110 30	<b>2</b> F	0541 0847 1538 ● 2320	2.6 2.6 3.6 1.3	80 80 110 40	<b>17</b> Sa	0431 0915 1535 ● 2202	3.0 2.3 3.6 1.3	90 70 110 40
O				●				<b>3</b> Sa	0011	1.0	30	<b>18</b> Su	0526 0950 1625 2306	2.6 2.0 3.6 1.3	80 60 110 40	<b>3</b> Sa	0540 0926 1600 2310	2.6 2.3 3.3 1.3	80 70 100 40	<b>18</b> Su	0434 0949 1603 2210	3.0 2.0 3.3 1.3	90 60 100 40
<b>3</b> W	0007 1525	0.7 3.9	20	<b>18</b> Th	0553 0738 1540 2313	2.0 2.0 3.9 1.0	60 60 120 30	<b>4</b> Su	0011 0708 0902 1618 2351	1.0 2.3 2.3 3.6 1.3	30 70 70 110 40	<b>18</b> M	0526 0950 1625 2306	2.6 2.0 3.6 1.3	80 60 110 40	<b>4</b> Su	0536 1005 1621 2254	3.0 2.0 3.3 1.6	90 60 100 50	<b>19</b> M	0442 1025 1629 2223	3.3 2.0 3.3 1.6	100 60 100 50
<b>4</b> Th	0037 1551	0.7 3.9	20	<b>19</b> F	0555 0821 1602 2322	2.0 2.0 3.9 1.0	60 60 120 30	<b>4</b> Su	0647 0954 1633 2339	2.3 2.3 3.3 1.3	70 70 100 40	<b>19</b> M	0534 1029 1646 2320	2.6 2.0 3.3 1.3	80 60 100 40	<b>4</b> Su	0536 1005 1621 2254	3.0 2.0 3.3 1.6	90 60 100 50	<b>19</b> M	0442 1025 1629 2223	3.3 2.0 3.3 1.6	100 60 100 50
<b>5</b> F	0052 1612	1.0 3.6	30	<b>20</b> Sa	1624 2337	3.6	110	<b>5</b> M	0651 1042 1617 2327	2.6 2.3 3.0 1.3	80 70 90 40	<b>20</b> Tu	0546 1108 1659 2327	3.0 2.0 3.0 1.3	90 60 90 40	<b>5</b> M	0537 1044 1638 2246	3.0 2.0 3.0 1.6	90 60 90 50	<b>20</b> Tu	0451 1101 1653 2232	3.3 2.0 3.0 1.6	100 60 90 50
<b>6</b> Sa	0040 1613	1.0 3.6	30	<b>21</b> Su	0618 0930 1644 2358	2.3 2.0 3.6 1.0	70 60 110 30	<b>6</b> Tu	0706 1129 1611 2320	2.6 2.3 3.0 1.3	80 70 90 40	<b>21</b> W	0602 1148 1647 2329	3.0 2.3 3.0 1.6	90 70 90 50	<b>6</b> Tu	0545 1122 1644 2239	3.0 2.0 2.6 1.6	90 60 80 50	<b>21</b> W	0503 1139 1711 2233	3.6 2.0 2.6 1.6	110 60 80 50
<b>7</b> Su	0026 1601	1.3 3.3	40	<b>22</b> M	0639 1007 1651	2.3 2.3 3.3	70 70 100	<b>7</b> W	0716 1221 1611 2309	3.0 2.3 2.6 1.3	90 70 80 40	<b>22</b> Th	0621 1239 1627 2318	3.3 2.3 2.6 1.6	100 70 80 50	<b>7</b> W	0553 1201 1625 2234	3.3 2.0 2.6 1.6	100 60 80 50	<b>22</b> Th	0517 1218 1715 2229	3.6 2.0 2.3 1.6	110 60 80 50
<b>8</b> M	0014 1611	1.3 3.3	40	<b>23</b> Tu	0017 0711 1049 1639	1.3 2.6 2.3 3.0	40 80 70 90	<b>8</b> Th	0715 1347 1528 ● 2248	3.0 2.6 2.6 1.3	90 80 80 40	<b>23</b> F	0636 2231	3.3 1.6	100 50	<b>8</b> Th	0556 1243 1621 2216	3.3 2.0 2.3 1.6	100 60 80 50	<b>23</b> F	0529 1307 1624 2157	3.6 2.0 2.3 1.6	110 60 80 50
<b>9</b> Tu	0001 1611	1.3 3.0	40	<b>24</b> W	0026 0758 1139 1627	1.3 2.6 2.6 3.0	40 80 80 90	<b>9</b> F	0737 2235	3.0 1.3	90 40	<b>24</b> Sa	0641 2138	3.3 1.3	100 40	<b>9</b> F	0600 1337 1550 ● 2207	3.3 2.3 2.3 1.6	100 70 70 50	<b>24</b> Sa	0534 2052	3.6 1.6	110 50
<b>10</b> W	1518 2325	3.0 1.3	90	<b>25</b> Th	0025 0919 2347	1.3 3.0 1.6	40 90 50	<b>10</b> Sa	1213 2223	3.0 1.3	90 40	<b>25</b> Su	0657 2147	3.3 1.0	100 30	<b>10</b> Sa	0606 2154	3.3 1.3	100 40	<b>25</b> Su	0543 2049	3.6 1.3	110 40
O				●																			
<b>11</b> Th	1224 2305	3.0 1.3	90	<b>26</b> F	1044 2216	3.0	90	<b>11</b> Su	1305 2230	3.3	100	<b>26</b> M	0728 0953 1254 2210	3.0 3.0 3.3 1.0	90 90 100 30	<b>11</b> Su	0613 2148	3.3 1.3	100 40	<b>26</b> M	0558 2109	3.3 1.3	100 40
<b>12</b> F	1256 2247	3.3 1.3	100	<b>27</b> Sa	1219 2210	3.3	100	<b>12</b> M	1342 2235	3.3	100	<b>27</b> Tu	0621 0958 1231 2156	3.0 3.0 3.0 1.3	90 90 90 40	<b>27</b> Tu	0602 1024 1238 2134	3.3 3.0 3.0 1.0	100 90 90 30				
<b>13</b> Sa	1325 2251	3.3 1.0	100	<b>28</b> Su	1306 2231	3.3 0.7	100 20	<b>13</b> Tu	1414 2221	3.6	110	<b>28</b> W	1432 2258	3.6 1.0	110 30	<b>13</b> Tu	1323 2154	3.3 1.3	100 40	<b>28</b> W	0535 1013 1348 2154	3.0 3.0 3.3 1.3	90 90 100 40
<b>14</b> Su	1352 2253	3.6 1.0	110	<b>29</b> M	1349 2259	3.6 0.7	110 20	<b>14</b> W	1445 2225	3.6	110	<b>14</b> W	0559 0827 1359 2143	2.6 2.6 3.3 1.3	80 80 100 40	<b>29</b> Th	0500 0936 1436 2208	3.0 2.6 3.3 1.3	90 80 100 40				
<b>15</b> M	1421 2233	3.6 1.0	110	<b>30</b> Tu	1427 2327	3.6 0.7	110 20	<b>15</b> Th	0528 0739 1514 2239	2.3 2.3 3.6 1.0	70 70 110 30	<b>15</b> Th	0456 0830 1433 2151	2.6 2.6 3.3 1.3	80 80 100 40	<b>30</b> F	0432 0940 1517 2216	3.0 2.6 3.3 1.6	90 80 100 50				
O				<b>31</b> W	1502 2354	3.9 0.7	120 20									<b>31</b> O	0430 0958 1550 2214	3.0 2.3 3.0 1.6	90 70 90 50				

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dreger Harbor, New Guinea, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0434	3.3	100	<b>16</b>	0345	3.6	110	<b>1</b>	0345	3.6	110
	1016	2.0	60	M	1022	2.0	60	Tu	1058	1.6	50
	1614	3.0	90		1608	3.0	90		1713	2.3	70
	2200	2.0	60	●	2118	2.0	60		2036	2.3	70
<b>2</b> M	0437	3.3	100	<b>17</b>	0357	3.6	110	<b>2</b>	0358	3.9	120
	1039	2.0	60	Tu	1051	1.6	50	W	1117	1.3	40
	1633	3.0	90		1644	3.0	90	Th	1729	2.3	70
	2152	2.0	60		2130	2.0	60		2036	2.3	70
<b>3</b> Tu	0444	3.6	110	<b>18</b>	0411	3.9	120	<b>3</b>	0409	3.9	120
	1107	1.6	50	W	1123	1.6	50	F	1138	1.3	40
	1651	2.6	80		1720	2.6	80	Th	1746	2.3	70
	2147	2.0	60		2132	2.0	60		2036	2.0	60
<b>4</b> W	0454	3.6	110	<b>19</b>	0427	3.9	120	<b>4</b>	0420	3.9	120
	1136	1.6	50	Th	1159	1.6	50	F	1159	1.3	40
	1702	2.3	70		1756	2.3	70	Sa	1750	2.0	60
	2145	2.0	60		2127	2.0	60		2036	2.0	60
<b>5</b> Th	0501	3.6	110	<b>20</b>	0440	3.9	120	<b>5</b>	0433	3.9	120
	1205	1.6	50	F	1238	1.6	50	Sa	1225	1.6	50
	1703	2.3	70		1751	2.0	60		1751	2.0	60
	2135	2.0	60		2039	2.0	60		2039	2.0	60
<b>6</b> F	0507	3.6	110	<b>21</b>	0448	3.9	120	<b>6</b>	0449	3.6	110
	1237	2.0	60	Sa	1328	1.6	50	Su	0416	3.9	120
	1657	2.3	70		1300	1.6	50	M	1727	1.6	50
	2126	2.0	60					W	1406	3.3	100
<b>7</b> Sa	0515	3.6	110	<b>22</b>	0451	3.9	120	<b>7</b>	0458	3.6	110
	1318	2.0	60	Su	1911	1.6	50	M	1349	1.6	50
	1644	2.0	60					Tu	1829	1.6	50
	2121	1.6	50						1829	1.6	50
<b>8</b> Su	0522	3.6	110	<b>23</b>	0502	3.6	110	<b>8</b>	0455	3.6	110
	1420	2.0	60	M	1947	1.6	50	Tu	1501	2.0	60
	1541	2.0	60						1910	2.0	60
	2101	1.6	50	●							
<b>9</b> M	0524	3.3	100	<b>24</b>	0508	3.6	110	<b>9</b>	0447	3.3	100
	2101	1.6	50	Tu	2018	1.6	50	W	1845	2.0	60
								Th	1931	2.0	60
									1931	2.0	60
<b>10</b> Tu	0524	3.3	100	<b>25</b>	0445	3.3	100	<b>10</b>	0412	3.3	100
	2059	1.6	50	W	2041	1.6	50	Th	1859	2.0	60
									1859	2.0	60
<b>11</b> W	0513	3.0	90	<b>26</b>	0418	3.3	100	<b>11</b>	0315	3.3	100
	1002	3.0	90	Th	1024	2.6	80	F	0948	2.6	80
	1237	3.0	90		1345	2.6	80		1250	2.6	80
	2041	1.6	50		2053	1.6	50		1859	2.0	60
<b>12</b> Th	0426	3.0	90	<b>27</b>	0333	3.3	100	<b>12</b>	0247	3.3	100
	0921	2.6	80	F	1032	2.3	70	Sa	0940	2.3	70
	1332	3.0	90		1449	3.0	90		1356	2.6	80
	2047	1.6	50		2101	2.0	60		1916	2.0	60
<b>13</b> F	0359	3.0	90	<b>28</b>	0320	3.3	100	<b>13</b>	0236	3.6	110
	0920	2.6	80	Sa	1030	2.0	60	W	0959	2.0	60
	1414	3.3	100		1538	2.6	80	Th	1451	2.6	80
	2053	1.6	50		2100	2.0	60		1937	2.0	60
<b>14</b> Sa	0340	3.3	100	<b>29</b>	0326	3.6	110	<b>14</b>	0243	3.6	110
	0938	2.3	70	Su	1030	2.0	60	M	1025	1.6	50
	1453	3.3	100		1620	2.6	80		1545	2.6	80
	2053	1.6	50		2047	2.3	70		1958	2.3	70
<b>15</b> Su	0337	3.3	100	<b>30</b>	0336	3.6	110	<b>15</b>	0258	3.9	120
	0959	2.0	60	M	1042	1.6	50	Tu	1054	1.3	40
	1531	3.0	90		1651	2.6	80		1638	2.6	80
	2103	2.0	60	○	2039	2.3	70	●	2013	2.3	70
<b>16</b> Sa	0340	3.3	100	<b>31</b>	0320	3.9	120				
	0938	2.3	70	M	1118	1.3	40	Th	1118	1.3	40
	1453	3.3	100								
	2053	1.6	50								

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dreger Harbor, New Guinea, 2018

Times and Heights of High and Low Waters

July					August					September													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> Su	0346 1137	3.9 1.0	120 30	<b>16</b> M	0401 1250	3.9 1.3	120 40	<b>1</b> W	0431 1141 1807 2218	3.6 1.3 2.6 2.3	110 40 80 70	<b>16</b> Th	0358 1106 1824 2320	3.0 1.6 3.0 2.3	90 50 90 70	<b>1</b> Sa	0448 1110 1751	2.6 1.6 3.3	80 50 100	<b>16</b> Su	0020 0402 0953 1727	2.0 2.3 1.6 3.6	60 70 50 110
<b>2</b> M	0411 1153	3.9 1.3	120 40	<b>17</b> Tu	0413 1230	3.6 1.3	110 40	<b>2</b> Th	0448 1201 1830 2301	3.3 1.3 2.6 2.3	100 40 80 70	<b>17</b> F	0349 1056 1827	3.0 1.6 3.0	90 50 90	<b>2</b> Su	0024 0428 1107 1806	2.3 2.6 1.6 3.3	70 80 50 100	<b>17</b> M	0112 0350 0950 1741	2.0 2.3 1.3 3.3	60 70 40 100
<b>3</b> Tu	0435 1217	3.6 1.3	110 40	<b>18</b> W	0344 1218 2046 2106	3.3 1.6 2.6 2.6	100 50 80 80	<b>3</b> F	0442 1214 1859 2356	3.0 1.3 3.0 2.6	90 40 90 80	<b>18</b> Sa	0014 0356 1049 1828	2.3 2.6 1.3 3.3	70 80 40 100	<b>3</b> M	0220 0320 1028	2.3 2.3 1.6	70 70 50	<b>18</b> Tu	0938 1755	1.3 3.3	40 100
<b>4</b> W	0450 1247	3.6 1.3	110 40	<b>19</b> Th	0353 1155	3.3 1.6	100 50	<b>4</b> Sa	0428 1217 1937	3.0 1.6 3.0	90 50 90	<b>19</b> Su	0143 0316 1036 1843	2.6 2.6 1.3 3.3	80 80 40 100	<b>4</b> Tu	0919 1833	1.3 3.3	40 100	<b>19</b> W	0930 1805	1.3 3.3	40 100
<b>5</b> Th	0441 1316	3.3 1.3	100 40	<b>20</b> F	0357 1146 2210	3.0 1.6 3.0	90 50 90	<b>5</b> Su	1201 2038	1.6 3.0	50 90	<b>20</b> M	1025 1920	1.3 3.3	40 100	<b>5</b> W	0920 1859	1.0 3.3	30 100	<b>20</b> Th	0933 1808 2139	1.3 3.0 3.0	40 90 90
<b>6</b> F	0426 1335	3.0 1.6	90 50	<b>21</b> Sa	1124 2324	1.6 3.0	50 90	<b>6</b> M	1019 2251	1.6 3.3	50 100	<b>21</b> Tu	1011	1.3	40	<b>6</b> Th	0940	1.0	30	<b>21</b> F	0050 0919 1743 2017	3.0 1.3 2.6 2.6	90 40 80 80
<b>7</b> Sa	0138 1332	3.0 2.0	90 60	<b>22</b> Su	1102	1.3	40	<b>7</b> Tu	0947	1.3	40	<b>22</b> W	0019 1016	3.3 1.3	100 40	<b>7</b> F	0101 1004	3.3 1.0	100 30	<b>22</b> Sa	0130 0902 1628 2018	3.3 1.3 2.6 2.6	100 40 80 80
<b>8</b> Su	0019 1151	3.3 2.0	100 60	<b>23</b> M	0011 1043	3.3 1.3	100 40	<b>8</b> W	0011 1006	3.3 1.0	100 30	<b>23</b> Th	0107 1021	3.3 1.3	100 40	<b>8</b> Sa	0149 1026 1743 1954	3.6 1.0 2.6 2.6	110 30 80 80	<b>23</b> Su	0203 0909 1604 2032	3.3 1.3 3.0 70	100 40 90 70
<b>9</b> M	0031 0956	3.3 1.6	100 50	<b>24</b> Tu	0048 1047	3.3 1.3	100 40	<b>9</b> Th	0105 1033	3.6 0.7	110 20	<b>24</b> F	0143 0952	3.6 1.3	110 40	<b>9</b> Su	0229 1043 1715 2034	3.6 1.0 2.6 2.6	110 30 80 80	<b>24</b> M	0236 0915 1554 2058	3.3 1.3 3.0 2.0	100 40 90 60
<b>10</b> Tu	0052 1015	3.6 1.3	110 40	<b>25</b> W	0121 1054	3.6 1.3	110 40	<b>10</b> F	0150 1104	3.6 0.7	110 20	<b>25</b> Sa	0216 0954 1658 1932	3.6 1.3 2.3 2.3	110 40 70 70	<b>10</b> M	0302 1049 1710 2110	3.3 1.3 2.6 2.3	100 40 80 70	<b>25</b> Tu	0306 0921 1559 2127	3.3 1.3 3.0 2.0	100 40 90 60
<b>11</b> W	0122 1044	3.6 1.0	110 30	<b>26</b> Th	0152 1033	3.6 1.0	110 30	<b>11</b> Sa	0229 1132	3.9 0.7	120 20	<b>26</b> Su	0247 1008 1642 2019	3.6 1.3 2.6 2.3	110 40 80 70	<b>11</b> Tu	0328 1036 1705 2146	3.3 1.6 3.0 2.0	100 50 90 60	<b>26</b> W	0333 0935 1608 2200	3.3 1.3 3.3 1.6	100 40 100 50
<b>12</b> Th	0156 1119	3.9 0.7	120 20	<b>27</b> F	0224 1028	3.6 1.0	110 30	<b>12</b> Su	0303 1153	3.6 1.0	110 30	<b>27</b> M	0315 1017 1645 2058	3.6 1.3 2.6 2.0	110 40 80 60	<b>12</b> W	0351 1019 1704 2223	3.0 1.6 3.0 2.0	90 50 90 60	<b>27</b> Th	0400 0950 1618 2235	3.0 1.6 3.6 1.6	90 50 110 50
<b>13</b> F	0232 1155	3.9 0.7	120 20	<b>28</b> Sa	0254 1044	3.9 1.0	120 30	<b>13</b> M	0332 1156	3.6 1.0	110 30	<b>28</b> Tu	0340 1025 1653 2137	3.6 1.3 2.6 2.0	110 40 80 60	<b>13</b> Th	0410 1011 1710 2301	3.0 1.6 3.3 2.0	90 50 100 60	<b>28</b> F	0425 1002 1632 2310	3.0 1.6 3.6 1.6	90 50 110 50
<b>14</b> Sa	0306 1228	3.9 0.7	120 20	<b>29</b> Su	0321 1059	3.9 1.0	120 30	<b>14</b> Tu	0356 1134 1818 2145	3.6 1.3 2.6 2.3	110 40 80 70	<b>29</b> W	0403 1039 1702 2215	3.6 1.3 3.0 2.0	110 40 90 60	<b>14</b> F	0417 1004 1718 2339	2.6 1.6 3.3 2.0	80 50 100 60	<b>29</b> Sa	0447 1006 1648 2346	2.6 1.6 3.6 1.6	80 50 110 50
<b>15</b> Su	0336 1251	3.9 1.0	120 30	<b>30</b> M	0345 1108	3.9 1.0	120 30	<b>15</b> W	0413 1119 1817 2232	3.3 1.6 2.6 2.3	100 50 80 70	<b>30</b> Th	0425 1055 1715 2254	3.3 1.3 3.0 2.0	100 40 90 60	<b>15</b> Sa	0357 0959 1722	2.3 1.6 3.6	70 50 110	<b>30</b> Su	0501 1007 1702	2.3 1.6 3.9	70 50 120
				<b>31</b> Tu	0409 1121 1751 2141	3.6 1.0 2.6 2.3	110 30 80 70					<b>31</b> F	0444 1106 1732 2334	3.0 1.3 3.3 2.0	90 40 100 60								

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dreger Harbor, New Guinea, 2018

Times and Heights of High and Low Waters

October					November					December							
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height			
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm		
<b>1</b> M	0029	1.6	50	<b>16</b> Tu	0047	1.6	50	<b>1</b> Th	0711	1.3	40	<b>16</b> F	0213	1.6	50		
0432	2.0	60		0432	2.0	60	1700	3.6	110	1642	3.3	100	1611	3.3	100		
0947	1.6	50		0904	1.6	50	O			1521	3.3	100	1557	3.0	90		
1713	3.6	110		1705	3.6	110				2347	2.0	60					
<b>2</b> Tu	0140	2.0	60	<b>17</b> W	0142	2.0	60	<b>2</b> F	0740	1.3	40	<b>17</b> Sa	0413	1.6	50		
0340	2.0	60		0347	2.0	60	1650	3.3	100	1621	3.3	100	1429	3.0	90		
0843	1.6	50		0844	1.6	50	O			1521	3.3	100					
1725	3.6	110		1712	3.3	100				2347	2.0	60					
<b>3</b> W	0824	1.3	40	<b>18</b> Th	0839	1.6	50	<b>3</b> Sa	0802	1.6	50	<b>18</b> Su	0535	2.0	60		
1740	3.6	110		1711	3.3	100	Sa	1621	3.3	100	1516	3.0	90	1335	3.3	100	
							2232	2.6	80	2209	2.3	70	2209	1.6	50		
<b>4</b> Th	0839	1.3	40	<b>19</b> F	0816	1.6	50	<b>4</b> Su	0047	2.6	80	<b>19</b> M	0019	2.3	70		
1750	3.3	100		1702	3.0	90	Su	0815	1.6	50	0606	2.0	60	2209	1.3	40	
							1526	3.3	100	1441	3.3	100					
							2225	2.3	70	2146	2.0	60					
<b>5</b> F	0859	1.3	40	<b>20</b> Sa	0756	1.6	50	<b>5</b> M	0158	2.6	80	<b>20</b> Tu	0131	2.3	70		
1728	3.3	100		1614	3.0	90	M	0817	2.0	60	0632	2.0	60	2228	1.0	30	
2209	3.0	90		2135	2.6	80	1459	3.3	100	1417	3.3	100					
							2223	2.0	60	2148	2.0	60					
<b>6</b> Sa	0055	3.0	90	<b>21</b> Su	0104	3.0	90	<b>6</b> Tu	0253	2.6	80	<b>21</b> W	0223	2.3	70		
0917	1.3	40		0758	1.6	50	Tu	0805	2.0	60	0656	2.0	60	2254	1.0	30	
1649	3.0	90		1536	3.0	90	1501	3.6	110	1423	3.6	110					
2131	2.6	80		2108	2.3	70	2214	1.6	50	2206	1.6	50					
<b>7</b> Su	0149	3.0	90	<b>22</b> M	0146	3.0	90	<b>7</b> W	0341	2.3	70	<b>22</b> Th	0312	2.3	70		
0928	1.3	40		0758	1.6	50	W	0754	2.0	60	0717	2.0	60	2257	1.0	30	
1610	3.0	90		1509	3.3	100	1511	3.6	110	1436	3.9	120					
2120	2.3	70		2119	2.0	60	2225	1.6	50	2229	1.3	40	O				
<b>8</b> M	0232	3.0	90	<b>23</b> Tu	0224	3.0	90	<b>8</b> Th	0422	2.3	70	<b>23</b> F	0401	2.3	70		
0936	1.6	50		0806	1.6	50	0742	2.0	60	0732	2.0	60	2308	1.0	30		
1601	3.0	90		1507	3.3	100	1520	3.9	120	1453	3.9	120					
2134	2.3	70		2136	2.0	60	●	2238	1.3	40	O	2253	1.0	30	O		
<b>9</b> Tu	0307	3.0	90	<b>24</b> W	0300	3.0	90	<b>9</b> F	0449	2.0	60	<b>24</b> Sa	0452	2.0	60		
0928	1.6	50		0823	1.6	50	0738	2.0	60	0739	2.0	60	2322	1.0	30		
1602	3.3	100		1515	3.6	110	1533	3.9	120	1515	4.3	130					
●	2152	2.0	60	2154	1.6	50	2254	1.3	40	2320	1.0	30					
<b>10</b> W	0336	3.0	90	<b>25</b> Th	0335	3.0	90	<b>10</b> Sa	0504	2.0	60	<b>25</b> Su	0553	2.0	60		
0914	2.0	60		0840	1.6	50	0737	2.0	60	0731	2.0	60	1537	4.3	130		
1606	3.3	100		1527	3.6	110	1547	3.9	120	2350	1.0	30					
2213	1.6	50		O	2218	1.3	40	2313	1.3	40							
<b>11</b> Th	0357	2.6	80	<b>26</b> F	0409	2.6	80	<b>11</b> Su	0518	2.0	60	<b>26</b> M	1555	4.3	130		
0906	2.0	60		0854	2.0	60	0746	2.0	60	0746	2.0	60	2351	1.0	30		
1612	3.6	110		1542	3.9	120	1559	3.9	120	2334	1.3	40					
2240	1.6	50		2249	1.3	40											
<b>12</b> F	0417	2.3	70	<b>27</b> Sa	0444	2.3	70	<b>12</b> M	0524	2.0	60	<b>27</b> Tu	0023	1.0	30		
0901	2.0	60		0900	2.0	60	0803	1.6	50	1608	3.9	120	1609	3.6	110		
1623	3.6	110		1559	3.9	120	1613	3.9	120								
2309	1.6	50		2321	1.3	40	2358	1.3	40								
<b>13</b> Sa	0432	2.3	70	<b>28</b> Su	0516	2.3	70	<b>13</b> Tu	0527	2.0	60	<b>28</b> W	0058	1.3	40		
0858	1.6	50		0900	2.0	60	0817	1.6	50	1613	3.9	120	1639	3.6	110		
1632	3.9	120		1615	4.3	130	1630	3.9	120								
2339	1.6	50		2356	1.3	40											
<b>14</b> Su	0432	2.0	60	<b>29</b> M	0548	2.0	60	<b>14</b> W	0029	1.3	40	<b>29</b> F	0050	1.3	40		
0858	1.6	50		0846	2.0	60	0546	2.0	60	1624	3.6	110	1640	3.6	110		
1639	3.9	120		1628	3.9	120	0808	2.0	60	1644	3.6	110				O	
							1644	3.6	110								
<b>15</b> M	0009	1.6	50	<b>30</b> Tu	0037	1.3	40	<b>15</b> Th	0112	1.6	50	<b>30</b> F	0554	1.6	50		
0428	2.0	60		1637	3.9	120	1648	3.6	110	1632	3.6	110	1632	3.3	100		
0903	1.6	50															
1651	3.6	110															
				<b>31</b> W	0138	1.6	50										
				0342	1.6	50											
				0637	1.6	50											
				1649	3.9	120											

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Darwin, Australia, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0433	21.0	640	<b>16</b> Tu	0014	10.5	320	<b>1</b> Th	0040	8.2	250	<b>16</b> F	0100	8.9	270
1134	3.0	90	0522	19.4	590	0607	22.3	680	0627	21.0	640	0011	9.2	280	
1808	24.3	740	1209	4.9	150	1257	2.0	60	1300	4.6	140	0543	20.3	620	
2355	9.2	280	1847	23.0	700	1929	26.2	800	● 1925	24.0	730	1210	6.2	190	
<b>2</b> Tu	0522	22.0	670	<b>17</b> W	0043	9.8	300	<b>2</b> F	0125	6.9	210	<b>2</b> F	0034	7.2	220
1220	1.6	50	0557	20.3	620	0657	23.3	710	0702	22.0	670	0612	22.6	690	
1856	25.6	780	1240	4.3	130	1339	1.6	50	1329	4.3	130	1247	3.0	90	
○	● 1918	23.6	720	2008	26.6	810	1952	24.6	750	1908	25.9	790	● 1854	24.0	730
<b>3</b> W	0042	8.2	250	<b>18</b> Th	0110	9.2	280	<b>3</b> Sa	0209	6.2	190	<b>3</b> Sa	0115	5.9	180
0608	22.6	690	0631	20.7	630	0744	23.6	720	0735	22.6	690	0700	24.0	700	
1304	1.0	30	1311	3.9	120	1417	2.3	70	1356	4.3	130	1325	3.0	90	
1940	26.2	800	1947	24.0	730	2042	26.2	800	2017	24.6	750	1942	26.2	800	
<b>4</b> Th	0128	7.5	230	<b>19</b> F	0138	8.9	270	<b>4</b> Su	0251	5.6	170	<b>4</b> Su	0153	4.6	140
0655	23.0	700	0705	21.3	650	0831	23.3	710	0809	22.6	690	0728	23.6	720	
1347	1.0	30	1340	3.9	120	1455	3.6	110	1422	4.9	150	1337	4.6	140	
2022	26.2	800	2014	24.0	730	2114	25.6	780	2039	24.3	740	1944	24.6	750	
<b>5</b> F	0215	7.2	220	<b>20</b> Sa	0209	8.2	250	<b>5</b> M	0333	5.6	170	<b>5</b> M	0229	4.3	130
0743	22.6	690	0739	21.3	650	0915	22.3	680	0845	22.6	690	0823	24.3	740	
1429	2.0	60	1409	4.3	130	1528	5.6	170	1448	5.6	170	1432	4.6	140	
2102	25.9	790	2041	24.0	730	2144	24.3	740	2102	24.0	730	2039	25.3	770	
<b>6</b> Sa	0304	7.2	220	<b>21</b> Su	0243	8.2	250	<b>6</b> Tu	0414	6.2	190	<b>6</b> Tu	0305	4.3	130
0832	22.3	680	0815	21.3	650	0959	21.0	640	0923	22.3	680	0900	23.6	720	
1510	3.6	110	1437	4.9	150	1558	7.9	240	1517	6.9	210	1501	6.2	190	
2140	24.9	760	2107	23.6	720	2211	22.6	690	2128	23.0	700	2103	24.0	730	
<b>7</b> Su	0354	7.2	220	<b>22</b> M	0319	7.9	240	<b>7</b> W	0455	7.2	220	<b>7</b> W	0338	4.9	150
0924	21.0	640	0852	21.0	640	1044	19.7	600	1006	21.3	650	0936	22.3	680	
1552	5.6	170	1505	5.9	180	1623	9.8	300	1550	8.5	260	1526	8.2	250	
2218	23.6	720	2133	23.0	700	2239	20.7	630	2156	21.7	660	2126	22.3	680	
<b>8</b> M	0445	7.9	240	<b>23</b> Tu	0359	8.2	250	<b>8</b> Th	0539	8.2	250	<b>8</b> Th	0413	6.2	190
1019	19.7	600	0933	20.3	620	1136	18.0	550	1057	20.0	610	1012	21.0	640	
1634	7.9	240	1535	7.2	220	1702	12.1	370	1633	10.5	320	1544	9.8	300	
2255	22.0	670	2202	22.3	680	● 2312	19.0	580	● 2230	20.3	620	2149	20.7	630	
<b>9</b> Tu	0540	8.2	250	<b>24</b> W	0442	8.2	250	<b>9</b> F	0631	9.2	280	<b>9</b> F	0446	7.5	230
1121	18.0	550	1022	19.4	590	1247	17.1	520	1202	19.0	580	1052	19.4	590	
1721	10.2	310	1611	8.9	270	1828	13.5	410	1740	12.5	380	1611	11.8	360	
● 2335	20.3	620	2234	21.3	650	2317	18.7	570	2317	18.7	570	● 2216	18.7	570	
<b>10</b> W	0640	8.9	270	<b>25</b> Th	0529	8.5	260	<b>10</b> Sa	0007	17.4	530	<b>10</b> Sa	0528	8.9	270
1235	17.1	520	1121	18.7	570	0742	9.8	300	1339	18.4	560	1144	17.7	540	
1824	11.8	360	1703	10.5	320	1454	17.1	520	1931	13.5	410	1722	13.5	410	
○	● 2314	20.0	610	2029	14.1	430	2029	14.1	430	2255	16.7	510	2255	16.7	510
<b>11</b> Th	0024	19.0	580	<b>26</b> F	0627	8.5	260	<b>11</b> Su	0154	16.1	490	<b>11</b> Su	0628	10.2	310
0748	8.9	270	1236	18.0	550	0915	9.5	290	0839	8.2	250	1309	16.7	510	
1408	17.1	520	1817	12.1	370	1632	18.4	560	1538	19.4	590	1930	14.4	440	
1947	13.1	400	2252	13.1	400	2252	13.1	400	2132	12.8	390	26	0627	8.5	260
<b>12</b> F	0131	17.7	540	<b>27</b> Sa	0009	19.0	580	<b>12</b> M	0336	16.7	510	<b>12</b> M	0047	15.4	470
0902	8.5	260	0744	8.2	250	1030	8.5	260	1011	6.9	210	0758	10.5	320	
1545	18.0	550	1418	18.4	560	1717	20.0	610	1650	21.3	650	1559	17.4	530	
2126	13.1	400	1958	12.8	390	2338	11.8	360	2254	11.2	340	2250	13.1	400	
<b>13</b> Sa	0252	17.7	540	<b>28</b> Su	0131	18.4	560	<b>13</b> Tu	0432	17.7	540	<b>13</b> Tu	0322	15.7	480
1007	7.5	230	0912	7.2	220	1119	7.2	220	1114	5.2	160	0949	9.8	300	
1648	19.7	600	1557	19.7	600	1754	21.3	650	1743	23.3	710	1649	19.0	580	
2248	12.5	380	2137	12.5	380	2349	9.2	280	2321	11.8	360	2248	9.8	300	
<b>14</b> Su	0356	18.0	550	<b>29</b> M	0309	18.7	570	<b>14</b> W	0009	10.8	330	<b>14</b> W	0424	17.1	520
1056	6.9	210	1025	5.6	170	0515	19.0	580	1157	6.2	190	1052	8.5	260	
1734	21.0	640	1703	22.0	670	1157	6.2	190	1826	22.3	680	1724	20.3	620	
2338	11.5	350	2251	11.2	340	1826	22.3	680	1857	23.3	710	2346	10.5	320	
<b>15</b> M	0443	18.7	570	<b>30</b> Tu	0419	19.7	600	<b>15</b> Th	0035	9.8	300	<b>15</b> Th	0506	18.7	570
1135	5.9	180	1122	3.9	120	0552	20.0	610	1230	5.2	160	1135	7.2	220	
1812	22.3	680	1758	23.6	720	1857	23.3	710	1857	21.7	660	1755	21.7	660	
○	● 1846	25.3	1846	25.3	770	31	0515	21.0	640	31	0018	5.9	180		
						W	1212	2.6	80	W	0612	23.0	700		
						○	1846	25.3	770	○	1231	4.6	140		
							● 1837	24.6	750		● 1837	24.6	750		

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Darwin, Australia, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0054	4.6	140	<b>16</b> M	0035	5.2	160	<b>1</b> Tu	0100	3.3	100	
	0655	24.3	740		0638	23.3	710		0038	2.6	80	
	1306	4.6	140		1245	5.9	180		W	0659	24.6	750
	1908	24.9	760	●	1840	24.0	730		1251	6.6	200	
<b>2</b> M	0128	3.6	110	<b>17</b> Tu	0107	3.9	120	<b>2</b> W	0130	3.0	90	
	0734	24.6	750		0715	24.3	740		0739	25.3	770	
	1338	4.9	150		1315	5.6	170		1326	6.6	200	
	1935	24.9	760		1906	24.0	730		1903	23.3	710	
<b>3</b> Tu	0201	3.3	100	<b>18</b> W	0140	3.0	90	<b>3</b> Th	0201	3.3	100	
	0809	24.6	750		0751	24.9	760		0824	24.0	730	
	1408	5.9	180		1345	5.9	180		1410	7.9	240	
	1958	24.3	740		1932	24.0	730		1947	22.0	670	
<b>4</b> W	0233	3.6	110	<b>19</b> Th	0214	2.6	80	<b>4</b> F	0232	3.9	120	
	0842	24.0	730		0827	24.9	760		0854	23.0	700	
	1435	7.2	220		1417	6.6	200		1438	8.9	270	
	2022	23.3	710		2001	23.6	720		2015	21.0	640	
<b>5</b> Th	0303	4.3	130	<b>20</b> F	0250	2.6	80	<b>5</b> Sa	0302	4.9	150	
	0914	23.0	700		0905	24.3	740		0924	22.0	670	
	1459	8.5	260		1453	7.5	230		1507	9.8	300	
	2046	22.0	670		2034	22.3	680		2046	19.7	600	
<b>6</b> F	0333	5.2	160	<b>21</b> Sa	0329	3.6	110	<b>6</b> Su	0336	6.2	190	
	0946	21.7	660		0946	23.3	710		0957	21.0	640	
	1523	9.8	300		1534	9.2	280		1543	10.8	330	
	2112	20.3	620		2110	21.0	640		2120	18.0	550	
<b>7</b> Sa	0406	6.9	210	<b>22</b> Su	0413	5.2	160	<b>7</b> M	0415	7.9	240	
	1021	20.3	620		1035	21.7	660		1036	19.7	600	
	1554	11.5	350		1625	10.8	330		1635	11.8	360	
	2140	18.4	560		2155	19.0	580		2204	16.7	510	
<b>8</b> Su	0445	8.2	250	<b>23</b> M	0505	6.9	210	<b>8</b> Tu	0503	9.2	280	
	1104	18.7	570		1134	20.0	610		1125	18.4	560	
	1653	12.8	390		1744	12.1	370		1753	10.5	320	
	2216	16.4	500	●	2306	17.1	520	●	2327	17.4	530	
<b>9</b> M	0539	9.8	300	<b>24</b> Tu	0617	8.5	260	<b>9</b> W	0607	10.5	320	
	1205	17.4	530		1257	19.0	580		1231	19.7	600	
	1845	13.8	420		1941	12.1	370		1923	10.2	310	
	2353	15.1	460		1949	12.1	370		1948	17.1	520	
<b>10</b> Tu	0655	10.8	330	<b>25</b> W	0123	16.4	500	<b>10</b> Th	0125	15.1	460	
	1350	17.1	520		0756	9.5	290		0728	10.8	330	
	2154	13.1	400		1434	19.0	580		1401	17.7	540	
					2121	10.5	320		2114	11.2	540	
<b>11</b> W	0249	15.1	460	<b>25</b> F	0123	16.4	500	<b>11</b> Sa	0354	19.4	590	
	0839	10.8	330		0930	17.7	540		1003	9.5	290	
	1551	18.0	550		1549	20.3	620		1520	18.4	560	
	2235	11.5	350		2225	8.5	260		2205	9.5	290	
<b>12</b> Th	0359	16.7	510	<b>26</b> Th	0309	17.7	540	<b>11</b> M	0411	19.7	600	
	1006	9.8	300		1037	8.2	250		1007	9.5	290	
	1635	19.4	590		1642	21.3	650		1557	20.0	610	
	2303	9.8	300		2313	6.6	200		2241	6.2	190	
<b>13</b> F	0442	18.7	570	<b>12</b> Sa	0403	18.0	550	<b>26</b> F	0452	20.7	630	
	1058	8.5	260		1005	9.5	290		1058	8.9	270	
	1710	20.7	630		1610	19.7	600		1642	20.7	630	
	2333	8.2	250		2246	7.5	230		2323	4.9	150	
<b>14</b> Sa	0522	20.3	620	<b>27</b> F	0417	19.7	600	<b>12</b> Tu	0506	21.3	650	
	1139	7.2	220		1037	8.2	250		1101	8.9	270	
	1741	22.0	670		1724	23.6	720		1641	20.7	630	
					1758	23.0	700		2329	3.6	110	
<b>15</b> Su	0003	6.6	200	<b>28</b> M	0512	21.3	650	<b>13</b> W	0449	20.0	610	
	0600	22.0	670		1127	7.2	220		1142	8.5	260	
	1214	6.2	190		1724	22.3	680		1649	21.0	640	
	1812	23.0	700	●	2353	5.2	160		2324	5.9	180	
<b>30</b> M	0028	3.9	120	<b>14</b> M	0001	4.3	130	<b>28</b> W	0541	22.0	670	
	0642	24.0	730		0617	23.6	720		1147	8.2	250	
	1242	6.6	200		1216	6.9	210		1718	21.0	640	
	1827	23.3	710	●	1758	22.6	690		2359	4.3	130	
<b>31</b> Th	0103	3.3	100	<b>29</b> Tu	0624	23.0	700	<b>13</b> M	0555	23.0	700	
	0736	23.3	710		1219	8.2	250		1722	21.7	660	
	1321	7.9	240		1750	21.3	650		1237	8.9	270	
	1850	21.3	650		1802	22.3	680	●	1758	20.0	610	
<b>30</b> Sa	0115	3.9	120	<b>14</b> Th	0012	2.3	70	<b>29</b> F	0643	24.3	740	
	0753	22.6	690		0643	24.3	740		1306	8.5	260	
	1335	8.2	250		1230	7.5	230		1831	20.3	620	
	1905	20.3	620	●	1802	22.3	680					
<b>31</b> Th	0103	3.3	100	<b>15</b> F	0032	3.6	110	<b>15</b> F	0054	1.3	40	
	0736	23.3	710		0702	23.3	710		0728	24.9	760	
	1321	7.9	240		1251	7.9	240		1311	7.2	220	
	1850	21.3	650		1820	21.3	650		1843	22.6	690	

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Darwin, Australia, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height										
1 Su	0147 4.3 130	16 M	0213 1.3 40	1 W	0230 4.6 140	16 Th	0317 4.6 140	1 Sa	0304 6.6 200	16 Su	0347 9.2 280
0822 22.6 690	0842 24.9 760	1439 5.9 180	0853 22.3 680	1501 6.9 210	0926 23.6 720	1551 4.6 140	0907 22.0 670	0933 20.0 610	1630 6.2 190	0933 20.0 610	
1406 8.2 250	1439 5.9 180	2014 22.3 680	2042 20.7 630	2145 21.7 660	2145 21.7 660	2147 21.0 640	2244 19.4 590	2244 19.4 590	2244 19.4 590	2244 19.4 590	
1940 20.3 620											
2 M	0219 4.6 140	17 Tu	0256 2.6 80	2 Th	0300 5.6 170	17 F	0353 6.6 200	2 Su	0338 7.9 240	17 M	0422 11.2 340
0850 22.3 680	0921 24.3 740	1528 5.9 180	0918 22.0 670	1538 6.9 210	1634 5.2 160	1629 6.2 190	0932 20.7 630	1713 7.9 240	1629 6.2 190	0959 18.0 550	
1439 8.2 250	2107 21.7 660	2121 20.0 610	2231 20.0 610				2235 20.0 610	2336 17.7 540		1713 7.9 240	
2016 20.0 610											
3 Tu	0251 5.2 160	18 W	0340 4.3 130	3 F	0330 6.6 200	18 Sa	0429 8.9 270	3 M	0420 9.8 300	18 Tu	0532 12.8 390
0918 21.7 660	0959 23.3 710	1618 6.2 190	0944 21.3 650	1619 7.2 220	1719 6.6 200	1719 6.6 200	1002 19.4 590	1716 6.9 210	1039 15.7 480	1815 9.5 290	
1517 8.5 260	2202 20.3 620	2206 19.4 590	2322 18.7 570				2334 18.7 570				
2055 19.4 590											
4 W	0325 6.2 190	19 Th	0424 6.2 190	4 Sa	0406 7.9 240	19 Su	0511 10.8 330	4 Tu	0521 11.5 350	19 W	0054 16.7 510
0948 21.0 640	1036 22.0 670	1711 6.6 200	1013 20.3 620	1704 7.5 230	1812 7.9 240	1056 18.4 560	1044 17.7 540	1819 7.5 230	0741 13.5 410	1245 14.1 430	
1600 8.9 270	2300 19.0 580	2300 19.0 580	2300 18.7 570						1945 10.2 310		
2138 18.4 560											
5 Th	0401 7.2 220	20 F	0510 8.2 250	5 Su	0452 9.5 290	20 M	0026 17.4 530	5 W	0054 18.0 550	20 Th	0321 17.1 520
1020 20.3 620	1115 20.3 620	1807 7.2 220	1048 19.0 580	1756 7.9 240	0621 12.5 380	0621 12.5 380	1037 11.8 360	1203 16.1 490	1530 15.1 460	1037 11.8 360	
1650 9.2 280					1148 16.4 500	1148 16.4 500	1952 7.9 240		2129 9.5 290		
2230 17.7 540					1918 8.5 260						
6 F	0443 8.5 260	21 Sa	0004 18.0 550	6 M	0004 18.0 550	21 Tu	0201 16.7 510	6 Th	0247 18.4 560	21 F	0427 18.4 560
1057 19.4 590	0605 10.2 310	1159 18.7 570	0555 10.8 330	1136 18.0 550	0811 13.1 400	0811 12.1 370	1433 16.1 490	1110 10.5 320	1623 16.7 510	1110 10.5 320	
1746 9.2 280	1910 7.9 240	1910 7.9 240	1901 7.9 240		1336 15.1 460	2045 8.9 270	2130 6.9 210		2234 8.5 260		
2332 17.1 520					1901 7.9 240						
7 Sa	0536 9.8 300	22 Su	0120 17.4 530	7 Tu	0125 17.7 540	22 W	0355 17.7 540	7 F	0412 20.3 620	22 Sa	0505 19.7 600
1142 18.7 570	0716 11.5 350	1300 17.4 530	0720 11.8 360	1250 17.1 520	1035 12.1 370	1035 12.1 370	1023 10.5 320	1557 18.0 550	2317 7.2 220	1134 9.2 280	
1848 8.9 270	2020 7.9 240	2020 7.9 240	2024 7.2 220		1528 15.7 480	2204 8.2 250	2240 5.2 160			1701 18.4 560	
					2204 8.2 250					2317 7.2 220	
8 Su	0046 17.1 520	23 M	0251 17.4 530	8 W	0307 18.7 570	23 Th	0454 19.0 580	8 Sa	0510 22.0 670	23 Su	0536 21.0 640
0643 10.5 320	0846 12.1 370	1423 16.7 510	0858 11.8 360	1435 17.1 520	1125 10.8 330	1125 10.8 330	1120 8.5 260	1656 20.0 610	2335 3.9 120	1158 7.9 240	
1240 18.0 550	1423 16.7 510	2130 7.5 230	2145 5.9 180	2145 5.9 180	1627 16.7 510	2258 7.2 220	2335 3.9 120			1734 20.0 610	
1957 8.2 250					2258 7.2 220					2353 6.2 190	
9 M	0211 17.7 540	24 Tu	0411 18.7 570	9 Th	0426 20.3 620	24 F	0535 20.3 620	9 Su	0559 23.6 720	24 M	0606 22.0 670
0803 11.2 340	1020 11.5 350	1538 16.7 510	1019 10.5 320	1554 18.4 560	1109 9.5 290	1109 9.5 290	1207 6.6 200	1748 22.0 670	1807 21.3 650	1221 6.6 200	
1353 17.7 540	2229 6.6 200	2229 6.6 200	2250 4.6 140		1708 18.0 550	2340 6.2 190	2340 6.2 190			1807 21.3 650	
2107 6.9 210					2340 6.2 190						
10 Tu	0336 19.0 580	25 W	0508 19.7 600	10 F	0526 22.0 670	25 Sa	0609 21.3 650	10 M	0021 3.0 90	25 Tu	0024 5.2 160
0924 10.8 330	1122 10.5 320	1630 17.4 530	1121 9.2 280	1651 20.0 610	1224 8.5 260	1224 8.5 260	0641 24.9 760	0641 24.9 760	1248 4.9 150	0633 22.6 690	
1508 18.4 560	2315 7.9 180	2315 7.9 180	2344 3.0 90		1743 19.4 590		1743 19.4 590	1836 23.3 710		1840 22.3 680	
2210 5.2 160											
11 W	0442 20.7 630	26 Th	0553 21.0 640	11 Sa	0618 23.6 720	26 Su	0015 5.2 160	11 M	0102 2.6 80	26 W	0053 4.9 150
1032 9.8 300	1202 9.8 300	1710 18.4 560	1213 7.5 230	1743 21.3 650	0641 22.3 680	0641 22.3 680	0641 22.3 680	0718 25.3 770	1327 3.3 100	0659 23.3 710	
1609 19.4 590	2354 5.2 160	2354 5.2 160			1247 7.5 230	1247 7.5 230	1247 7.5 230	1327 3.3 100	1922 24.3 740	1315 4.6 140	
2305 3.9 120					1817 20.3 620	1817 20.3 620	1817 20.3 620	1913 23.0 700		1913 23.0 700	
12 Th	0539 22.3 680	27 F	0631 21.7 660	12 Su	0033 2.0 60	27 M	0046 4.6 140	12 W	0140 3.0 90	27 Th	0121 4.9 150
1127 8.9 270	1233 8.9 270	1746 19.4 590	0704 24.9 760	1259 6.2 190	0735 23.3 710	0735 23.3 710	0749 25.3 770	1405 2.6 80	2004 24.3 740	0723 23.6 720	
1659 20.3 620			1834 22.6 690	1924 23.3 710	1338 5.9 180	1924 22.0 670	1442 2.6 80	2123 22.6 690	2145 23.6 720	1344 3.6 110	
2355 2.3 70					1924 22.0 670		1924 22.0 670				
13 F	0631 24.0 730	28 Sa	0029 4.6 140	13 M	0118 1.3 40	28 Tu	0115 4.3 130	13 Th	0215 3.9 120	28 F	0147 5.2 160
1217 7.9 240	0705 22.3 680	1259 8.2 250	0744 25.6 780	1344 4.9 150	0735 23.3 710	1338 5.9 180	0818 24.6 750	1414 3.3 100	2044 23.6 720	0744 23.3 710	
1747 21.3 650	1821 20.0 610	1821 20.0 610	1924 23.3 710	1924 23.3 710	1923 22.0 670	1923 22.0 670	1422 2.6 80	2123 22.6 690	2145 23.6 720	2018 23.6 720	
●											
14 Sa	0042 1.3 40	29 Su	0101 4.3 130	14 Tu	0159 1.6 50	29 W	0142 4.3 130	14 F	0248 5.6 170	29 Sa	0214 5.9 180
0718 24.9 760	0735 22.6 690	1325 7.9 240	0821 25.6 780	1427 4.3 130	0759 23.3 710	1408 5.2 160	0844 23.6 720	1518 3.3 100	1518 3.3 100	0808 23.0 700	
1304 6.9 210	1855 20.7 630	1855 20.7 630	2013 23.3 710		1956 22.0 670		1956 22.0 670	2123 22.6 690		1446 3.6 110	
1834 22.3 680										2053 23.3 710	
15 Su	0128 1.0 30	30 M	0132 3.9 120	15 W	0239 3.0 90	30 Th	0208 4.6 140	15 Sa	0319 7.2 220	30 Su	0245 7.2 220
0802 25.3 770	0803 22.6 690	1354 7.2 220	0855 24.9 760	1509 3.9 120	0822 23.3 710	1439 4.9 150	0909 22.0 670	1553 4.6 140	0909 22.0 670	0832 22.0 670	
1351 6.2 190	1930 20.7 630	1930 20.7 630	2059 22.6 690		1956 22.0 670	2030 22.0 670	2030 22.0 670	2202 21.0 640		1521 4.3 130	
1923 22.6 690										2133 22.3 680	
31 Tu	0201 4.3 130										
0829 22.6 690											
1426 6.9 210											
2006 20.7 630											
31 F	0235 5.6 170										
0843 22.6 690											
1513 5.2 160											
2107 21.7 660											

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Darwin, Australia, 2018

Times and Heights of High and Low Waters

October				November				December				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> M 0321 8.5 260	0352	11.2	340	<b>16</b> Tu 0900 20.7 630	0921 17.7 540	<b>1</b> Th 1021 16.7 510	0513 11.8 360	<b>16</b> F 1736 8.2 250	0600 12.5 380	<b>1</b> Sa 1224 16.7 510	0644 10.5 320	<b>16</b> Su 1147 15.7 480
	1601 5.2 160	1624 7.9 240	2256 18.7 570	<b>16</b> O	1720 9.5 290	1743 10.8 330	<b>16</b> O	1743 10.8 330	1842 9.8 300	1751 11.2 340		
	2218 21.0 640			<b>2</b> Tu 0405 10.2 310	0456 12.5 380	<b>2</b> F 0701 11.8 360	0019 19.4 590	<b>2</b> Sa 1228 15.7 480	0014 18.0 550	<b>2</b> Su 1910 11.5 350	0106 19.7 600	<b>17</b> M 0735 10.5 320
	1647 6.6 200	2357 17.4 530		<b>2</b> O 19.7 600	1912 9.5 290			<b>2</b> Su 1412 17.4 530	0810 9.2 280	<b>17</b> M 1327 15.7 480		
<b>3</b> W 0508 11.8 360	0654 13.1 400	<b>3</b> Th 1144 14.1 430	0150 19.4 590	<b>3</b> Sa 1843 10.8 330	0848 10.5 320	<b>3</b> M 1441 16.7 510	0135 17.7 540	<b>3</b> M 1515 16.1 490	0921 7.5 230	<b>18</b> Tu 0846 9.5 290	<b>18</b> Tu 0117 18.4 560	
	1016 17.1 520	1843 10.8 330		<b>3</b> Sa 2051 9.2 280				<b>3</b> M 2039 11.2 340	1531 19.0 580	1506 17.1 520		
	1752 8.2 250			<b>4</b> Th 0035 18.7 570	0132 17.1 520	<b>4</b> Su 0957 12.1 370	0309 20.0 610	<b>4</b> M 1553 19.0 580	0255 18.4 560	<b>4</b> Tu 1605 18.0 550	0321 20.0 610	<b>19</b> W 0228 18.4 560
	0656 12.8 390	1508 14.8 450	2027 10.8 330	<b>4</b> F 1932 8.9 270	2204 8.5 260			<b>4</b> M 2149 10.5 320	1000 9.2 280	1017 5.9 180	0945 7.9 240	
<b>5</b> F 0225 18.7 570	0327 17.7 540	<b>5</b> M 1030 10.5 320	0408 21.0 640	<b>5</b> M 1602 16.7 510	1047 6.2 190	<b>5</b> Tu 1649 21.0 640	0348 19.4 590	<b>5</b> W 2239 9.5 290	0411 20.7 630	<b>20</b> Th 1032 6.2 190	<b>20</b> M 0329 19.0 580	
	0905 11.5 350	1055 8.9 270	2150 9.8 300	<b>5</b> F 1447 16.1 490	2258 7.5 230			<b>5</b> W 1646 20.0 610	1103 4.6 140	1724 22.3 680	1658 21.0 640	
	2117 8.2 250			<b>6</b> Sa 0349 20.0 610	0416 19.0 580	<b>6</b> Tu 1128 4.6 140	0453 22.0 670	<b>6</b> W 1737 23.0 700	0428 20.3 620	<b>6</b> Th 1809 23.6 720	0452 21.0 640	<b>21</b> F 0418 20.0 610
	1019 9.5 290	1055 8.9 270	2241 8.9 270	<b>6</b> Sa 1602 18.4 560	2342 6.9 210			<b>6</b> M 1724 21.7 660	1111 5.6 170	1141 3.6 110	1115 4.3 130	
<b>7</b> Su 0445 21.7 660	0450 20.3 620	<b>7</b> M 1121 7.5 230	0530 22.6 690	<b>7</b> W 1714 20.0 610	1205 3.0 90	<b>7</b> Th 1821 24.3 740	0503 21.3 650	<b>7</b> F 2358 8.2 250	0002 9.2 280	<b>22</b> Sa 1156 3.0 90	<b>22</b> M 0501 21.0 640	
	1109 7.2 220	1121 7.5 230	2320 7.5 230	<b>7</b> M 1657 20.7 630	1714 20.0 610			<b>7</b> W 1804 23.3 710	1145 4.3 130	1216 3.0 90	1156 3.0 90	
	2320 5.6 170			<b>7</b> F 2320 7.5 230				<b>7</b> M 1849 24.3 740	1247 3.0 90	1925 24.3 740	1828 24.3 740	
				<b>8</b> M 0530 23.3 710	0521 21.3 650	<b>8</b> Tu 1148 5.9 180	0020 6.9 210	<b>8</b> F 1749 21.7 660	0536 22.0 670	<b>8</b> Sa 1236 2.0 60	<b>23</b> Su 0014 9.2 280	
<b>8</b> M 1151 5.2 160	0602 23.0 700	<b>8</b> Tu 1746 22.6 690	0602 23.0 700	<b>8</b> Th 1749 21.7 660	1238 2.3 70	<b>8</b> W 1901 24.9 760	0602 23.0 700	<b>8</b> M 1925 24.3 770	0037 8.9 270	<b>23</b> O 0541 22.0 670	<b>23</b> O 1911 25.3 770	
	1228 3.6 110	1824 23.0 700	2355 6.9 210	<b>8</b> F 1832 24.0 730	1901 24.9 760			<b>8</b> F 1937 24.9 760	1219 2.6 80	1247 3.0 90	1236 2.0 60	
	● 1832 24.0 730			<b>9</b> Tu 0004 4.6 140	0551 22.3 680	<b>9</b> W 1217 4.6 140	0054 6.9 210	<b>9</b> M 1824 23.0 700	0033 7.5 230	<b>9</b> Su 0633 21.3 650	<b>24</b> M 0055 8.5 260	
	0609 24.0 730	1824 23.0 700	200	<b>9</b> F 1824 23.0 700	1310 2.0 60	<b>9</b> F 1937 24.9 760	0608 22.6 690	<b>9</b> M 1921 25.3 770	0608 22.6 690	0110 8.9 270	0622 22.3 680	
<b>10</b> W 0042 4.3 130	0027 6.2 190	<b>10</b> Th 0617 23.0 700	0126 7.2 220	<b>10</b> Sa 1247 3.3 100	0659 22.6 690	<b>10</b> M 1859 24.0 730	0108 7.5 230	<b>10</b> W 2010 24.3 740	0142 8.9 270	<b>25</b> Tu 0706 21.0 640	<b>25</b> M 0137 8.2 250	
	0641 24.6 750	1247 3.3 100	2010 24.3 740	<b>10</b> O 1859 24.0 730	1341 2.3 70	<b>10</b> M 1959 25.3 770	0640 22.6 690	<b>10</b> M 1959 25.3 770	0142 8.9 270	0706 21.0 640	0704 22.6 690	
	1304 2.3 70			<b>10</b> O 1913 24.9 760	2010 24.3 740			<b>10</b> M 1959 25.3 770	1328 1.3 40	1349 3.6 110	1356 1.3 40	
	1913 24.9 760							<b>10</b> M 2028 23.6 720	1959 25.3 770	2028 23.6 720	2034 25.6 780	
<b>11</b> Th 0117 4.6 140	0057 6.2 190	<b>11</b> F 0643 23.3 710	0158 7.9 240	<b>11</b> Su 1317 2.6 80	0728 22.0 670	<b>11</b> M 1932 24.6 750	0144 7.5 230	<b>11</b> M 2043 23.6 720	0213 9.2 280	<b>26</b> W 0739 20.7 630	<b>26</b> W 1438 2.3 70	
	0710 24.3 740	1317 2.6 80	2043 24.6 750	<b>11</b> F 1932 24.6 750	1411 3.0 90	<b>11</b> M 2043 23.6 720	0715 22.6 690	<b>11</b> M 2043 23.6 720	0213 9.2 280	0739 20.7 630	0749 22.3 680	
	1337 2.0 60			<b>11</b> F 1951 24.9 760	1411 3.0 90			<b>11</b> M 2043 23.6 720	1405 1.6 50	1418 4.3 130	1438 2.3 70	
	1951 24.9 760							<b>11</b> M 2058 23.0 700	2038 24.9 760	2058 23.0 700	2114 25.3 770	
<b>12</b> F 0149 5.6 170	0125 6.2 190	<b>12</b> Sa 1349 2.0 60	0228 8.9 270	<b>12</b> M 1547 4.3 130	0758 21.0 640	<b>12</b> Tu 2114 22.6 690	0224 8.2 250	<b>12</b> W 2114 22.6 690	0247 9.5 290	<b>27</b> Th 0813 19.7 600	<b>27</b> W 1521 3.9 120	
	0737 24.0 730	1349 2.0 60	2007 24.6 750	<b>12</b> F 1547 4.3 130	1441 4.3 130	<b>12</b> M 2114 22.6 690	0754 22.0 670	<b>12</b> W 2114 22.6 690	0247 9.5 290	0813 19.7 600	0839 21.7 660	
	1410 2.3 70			<b>12</b> F 2027 24.3 740	2114 22.6 690			<b>12</b> M 2114 22.6 690	1448 5.6 170	2128 22.3 680	2156 24.3 740	
	2027 24.3 740							<b>12</b> M 2114 22.6 690	2119 24.3 740	2119 24.3 740		
<b>13</b> Sa 0220 6.9 210	0157 6.9 210	<b>13</b> Tu 0737 23.0 700	0300 9.8 300	<b>13</b> W 1512 5.9 180	0828 19.7 600	<b>13</b> M 2148 21.3 650	0310 9.2 280	<b>13</b> F 2205 23.0 700	0324 10.2 310	<b>28</b> Th 1520 6.9 210	<b>28</b> F 1607 5.9 180	
	0802 23.0 700	1512 2.3 70	2007 24.6 750	<b>13</b> F 1512 2.3 70	1512 5.9 180	<b>13</b> M 2148 21.3 650	0836 20.7 630	<b>13</b> F 2205 23.0 700	0324 10.2 310	0850 18.7 570	0933 20.3 620	
	1443 3.0 90			<b>13</b> F 2043 24.3 740	2148 21.3 650			<b>13</b> M 2205 23.0 700	1528 4.3 130	2205 23.0 700	2239 23.0 700	
	2101 23.3 710							<b>13</b> M 2205 23.0 700	2205 23.0 700	2205 23.0 700		
<b>14</b> Su 0250 8.2 250	0232 7.9 240	<b>14</b> W 1459 3.3 100	0337 10.8 330	<b>14</b> M 2124 23.3 710	0901 18.0 550	<b>14</b> Th 2226 20.0 610	0406 9.8 300	<b>14</b> F 2256 21.7 660	0411 10.8 330	<b>29</b> Sa 1658 8.2 250	<b>29</b> O 2324 21.7 660	
	0827 21.3 650	1459 3.3 100	2124 23.3 710	<b>14</b> F 2124 23.3 710	1547 7.5 230	<b>14</b> M 2226 20.0 610	0926 19.0 580	<b>14</b> F 2256 21.7 660	0406 9.8 300	0931 17.7 540	1038 19.0 580	
	1514 4.3 130			<b>14</b> F 2124 23.3 710	2226 20.0 610			<b>14</b> M 2256 21.7 660	1618 6.2 190	1557 8.2 250	1658 8.2 250	
	2136 22.0 670							<b>14</b> M 2256 21.7 660	2256 21.7 660	2237 20.3 620	2324 21.7 660	
<b>15</b> M 0318 9.8 300	0313 9.2 280	<b>15</b> Tu 0841 20.7 630	0431 11.8 360	<b>15</b> W 1540 4.6 140	0943 16.4 500	<b>15</b> Th 2210 22.0 670	0517 10.5 320	<b>15</b> F 2313 19.0 580	0517 10.5 320	<b>30</b> Sa 1644 9.8 300	<b>30</b> O 2320 19.4 590	
	0853 19.7 600	1540 4.6 140	2210 22.0 670	<b>15</b> W 2210 22.0 670	1634 9.2 280	<b>15</b> Th 2313 19.0 580	0943 16.4 500	<b>15</b> F 2313 19.0 580	0517 10.5 320	1027 16.4 500	1157 17.7 540	
	1545 6.2 190			<b>15</b> W 2306 20.7 630	1629 6.6 200	<b>15</b> Th 2306 20.7 630	1037 17.4 530	<b>15</b> F 2306 20.7 630	1037 17.4 530	1027 16.4 500	1157 17.7 540	
	2213 20.3 620			<b>15</b> W 2306 20.7 630	1629 6.6 200	<b>15</b> Th 2306 20.7 630	1037 17.4 530	<b>15</b> F 2306 20.7 630	1037 17.4 530	1027 16.4 500	1157 17.7 540	
<b>31</b> W 0402 10.5 320	0402 10.5 320			<b>31</b> W 0921 18.7 570	0921 18.7 570			<b>31</b> W 1629 6.6 200	0402 10.5 320	<b>31</b> M 1629 6.6 200	<b>31</b> M 0016 20.3 620	
	0921 18.7 570			<b>31</b> W 1629 6.6 200	1629 6.6 200			<b>31</b> W 2306 20.7 630	0921 18.7 570	<b>31</b> M 1629 6.6 200	<b>31</b> M 0723 8.5 260	
	1629 6.6 200			<b>31</b> W 2306 20.7 630	2306 20.7 630			<b>31</b> W 2306 20.7 630	1629 6.6 200	<b>31</b> M 1326 17.4 530	<b>31</b> M 19	

# Townsville, Australia, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0207 0.7 20	0.7 20	16 Tu 0210 2.6 80	2.6 80	1 Th 0319 1.0 30	1.0 30	16 F 0244 2.6 80	2.6 80	1 Th 0229 1.0 30	1.0 30	16 F 0204 3.0 90	3.0 90
0832 12.8 390		0902 10.8 330		0945 13.5 410		0929 11.2 340		0843 13.5 410		0829 11.2 340	
1506 3.3 100		1533 4.9 150		1625 3.0 90		1555 4.6 140		1519 2.6 80		1459 3.6 110	
2015 10.2 310		2027 8.9 270		2145 10.2 310		● 2113 9.5 290		2048 10.8 330		2028 10.2 310	
2 Tu 0246 0.7 20	0.7 20	17 W 0232 2.6 80	2.6 80	2 F 0401 1.3 40	1.3 40	17 Sa 0310 3.0 90	3.0 90	2 Tu 0305 1.3 40	1.3 40	17 Sa 0227 3.0 90	3.0 90
0917 13.1 400		0928 10.8 330		1028 12.8 390		0956 10.8 330		0921 13.1 400		0853 11.5 350	
1556 3.3 100		1559 4.9 150		1712 3.6 110		1622 4.6 140		1554 3.0 90		1519 3.6 110	
○ 2105 9.8 300		● 2055 8.5 260		2232 9.8 300		2147 9.2 280		○ 2129 10.8 330		● 2058 10.5 320	
3 W 0330 1.0 30	1.0 30	18 Th 0258 2.6 80	2.6 80	3 Sa 0444 2.3 70	2.3 70	18 Su 0338 3.3 100	3.3 100	3 Sa 0342 2.0 60	2.0 60	18 Su 0254 3.0 90	3.0 90
1004 13.1 400		0958 10.8 330		1112 11.8 360		1025 10.8 330		0959 12.5 380		0919 11.2 340	
1649 3.3 100		1631 4.9 150		1802 3.9 120		1654 4.6 140		1630 3.3 100		1540 3.6 110	
2157 9.5 290		2126 8.5 260		2322 8.9 270		2228 9.2 280		2210 10.5 320		2134 10.5 320	
4 Th 0417 1.3 40	1.3 40	19 F 0326 3.0 90	3.0 90	4 Su 0533 3.6 110	3.6 110	19 M 0408 3.9 120	3.9 120	4 Su 0419 3.0 90	3.0 90	19 M 0323 3.3 100	3.3 100
1054 12.5 380		1029 10.5 320		1157 10.8 330		1058 10.2 310		1036 11.5 350		0948 10.8 330	
1747 3.6 110		1709 5.2 160		1904 4.6 140		1739 4.9 150		1705 3.9 120		1604 3.6 110	
2253 8.9 270		2202 8.2 250		2022 4.9 150		2317 8.5 260		2253 9.8 300		2216 10.2 310	
5 F 0510 2.3 70	2.3 70	20 Sa 0354 3.3 100	3.3 100	5 M 0021 8.2 250	8.2 250	20 Tu 0444 4.6 140	4.6 140	5 M 0501 4.3 130	4.3 130	20 Tu 0357 3.9 120	3.9 120
1145 11.8 360		1102 10.2 310		0645 4.9 150		1136 9.5 290		1113 10.2 310		1022 10.2 310	
1852 4.3 130		1756 5.2 160		1248 9.5 290		1845 5.2 160		1743 4.6 140		1635 3.9 120	
2355 8.2 250		2245 7.9 240		2022 4.9 150		2340 8.9 270		2303 9.8 300			
6 Sa 0614 3.3 100	3.3 100	21 Su 0425 3.9 120	3.9 120	6 Tu 0204 7.5 230	7.5 230	21 W 0020 8.2 250	8.2 250	6 Tu 0602 5.6 170	5.6 170	21 W 0442 4.9 150	4.9 150
1242 10.8 330		1139 9.8 300		0841 5.9 180		0543 5.6 170		1153 8.9 270		1101 9.2 280	
2007 4.3 130		1855 5.6 170		1400 8.5 260		1226 8.9 270		1834 5.2 160		1725 4.6 140	
2343 7.5 230		2343 7.5 230		2154 4.9 150		2007 5.2 160					
7 Su 0118 7.5 230	7.5 230	22 M 0503 4.6 140	4.6 140	7 W 0433 7.9 240	7.9 240	22 Th 0151 7.9 240	7.9 240	7 W 0044 8.2 250	8.2 250	22 Th 0002 9.2 280	9.2 280
0742 4.6 140		1224 9.2 280		1040 5.9 180		0827 6.2 190		0804 6.2 190		0633 5.9 180	
1351 9.8 300		2007 5.6 170		1551 8.2 250		1344 8.2 250		1245 7.9 240		1154 8.2 250	
2126 4.3 130		2313 4.6 140		2313 4.6 140		2140 4.9 150		2015 5.6 170		1904 4.9 150	
8 M 0317 7.5 230	7.5 230	23 Tu 0059 7.2 220	7.2 220	8 Th 0558 8.9 270	8.9 270	23 F 0416 8.5 260	8.5 260	8 Th 0345 7.9 240	7.9 240	23 F 0126 8.9 270	8.9 270
0921 4.9 150		0611 5.6 170		1202 5.6 170		1046 5.9 180		1035 6.2 190		0846 6.2 190	
1515 9.2 280		1320 8.9 270		1717 8.2 250		1554 7.9 240		1443 7.2 220		1322 7.5 230	
2242 3.9 120		2126 4.9 150		● 2256 4.3 130		2256 4.3 130		2223 5.6 170		2053 4.9 150	
9 Tu 0454 8.2 250	8.2 250	24 W 0259 7.2 220	7.2 220	9 F 0005 4.3 130	4.3 130	24 Sa 0527 9.5 290	9.5 290	9 F 0542 8.9 270	8.9 270	24 Sa 0351 9.2 280	9.2 280
1053 5.2 160		0841 5.9 180		0636 9.5 290		1200 5.2 160		1155 5.6 170		1053 5.6 170	
1632 9.2 280		1440 8.5 260		1254 4.9 150		1719 8.2 250		1713 7.2 220		1614 7.5 230	
○ 2341 3.6 110		2231 4.6 140		1807 8.2 250		2351 3.3 100		2333 4.9 150		2230 4.6 140	
10 W 0600 8.9 270	8.9 270	25 Th 0439 8.2 250	8.2 250	10 Sa 0041 3.6 110	3.6 110	25 Su 0614 10.8 330	10.8 330	10 Sa 0613 9.5 290	9.5 290	25 Su 0509 10.2 310	10.2 310
1205 4.9 150		1037 5.9 180		0704 10.2 310		1249 4.3 130		1238 4.9 150		1155 4.6 140	
1729 8.9 270		1606 8.5 260		1332 4.6 140		1809 8.9 270		1801 7.9 240		1729 8.2 250	
○ 2322 3.6 110		1842 8.5 260		1842 8.5 260						○ 2336 3.6 110	
11 Th 0025 3.3 100	3.3 100	26 F 0537 9.2 280	9.2 280	11 Su 0108 3.6 110	3.6 110	26 M 0036 2.6 80	2.6 80	11 Su 0014 4.6 140	4.6 140	26 M 0558 11.2 340	11.2 340
0644 9.5 290		1154 5.2 160		0728 10.5 320		0652 11.8 360		0638 9.8 300		1240 3.6 110	
1259 4.9 150		1709 8.9 270		1402 4.6 140		1330 3.6 110		1310 4.6 140		1814 8.9 270	
1812 8.9 270		1909 8.5 260		1909 8.5 260		1850 9.5 290		1831 8.2 250			
12 F 0059 3.0 90	3.0 90	27 Sa 0005 3.0 90	3.0 90	12 M 0128 3.3 100	3.3 100	27 Tu 0115 2.0 60	2.0 60	12 M 0044 4.3 130	4.3 130	27 Tu 0025 3.0 90	3.0 90
0716 10.2 310		0621 10.5 320		0752 10.8 330		0729 12.5 380		0701 10.5 320		0636 11.8 360	
1341 4.6 140		1248 4.6 140		1427 4.6 140		1408 3.0 90		1337 4.3 130		1318 3.0 90	
1847 8.9 270		1758 9.2 280		1932 8.9 270		1929 10.2 310		1856 8.5 260		1850 9.8 300	
13 Sa 0125 3.0 90	3.0 90	28 Su 0045 2.3 70	2.3 70	13 Tu 0143 3.0 90	3.0 90	28 W 0152 1.3 40	1.3 40	13 Tu 0106 3.9 120	3.9 120	28 W 0106 2.3 70	2.3 70
0744 10.5 320		0702 11.5 350		0815 10.8 330		0806 13.1 400		0724 10.8 330		0710 12.5 380	
1415 4.6 140		1334 3.9 120		1448 4.3 130		1443 2.6 80		1359 4.3 130		1352 2.6 80	
1915 8.9 270		1843 9.8 300		1954 9.2 280		2008 10.8 330		1918 8.9 270		1925 10.5 320	
14 Su 0142 3.0 90	3.0 90	29 M 0123 1.3 40	1.3 40	14 W 0200 3.0 90	3.0 90			14 W 0125 3.3 100	3.3 100	29 W 0142 2.0 60	2.0 60
0810 10.5 320		0742 12.5 380		0839 11.2 340		1508 4.3 130		0745 10.8 330		0744 12.8 390	
1444 4.6 140		1417 3.3 100		2017 9.2 280				1419 3.9 120		1423 2.3 70	
1939 8.9 270		1928 10.2 310						1938 9.5 290		1959 10.8 330	
15 M 0154 2.6 80	2.6 80	30 Tu 0201 1.0 30	1.0 30	15 Th 0220 2.6 80	2.6 80			15 Th 0144 3.3 100	3.3 100	30 F 0217 2.0 60	2.0 60
0836 10.8 330		0822 13.1 400		0903 11.2 340				0807 11.2 340		0818 12.5 380	
1509 4.6 140		1459 3.0 90		1531 4.3 130				1439 3.9 120		1453 2.3 70	
2003 8.9 270		2013 10.5 320		2043 9.5 290				2001 9.8 300		2036 11.2 340	
31 W 0239 0.7 20	0.7 20									31 Sa 0252 2.3 70	2.3 70
0903 13.5 410										0853 12.1 370	
1541 3.0 90										1521 2.6 80	
○ 2058 10.5 320										○ 2114 11.2 340	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Townsville, Australia, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0326	3.0	90	<b>16</b>	0241	3.3	100	<b>1</b>	0359	4.6	140
	0926	11.5	350	M	0843	10.8	330	Tu	0924	9.5	290
	1545	3.0	90		1507	2.6	80		1524	3.0	90
	2152	10.8	330	●	2123	11.2	340		2213	10.5	320
<b>2</b> M	0403	3.6	110	<b>17</b>	0317	3.6	110	<b>2</b>	0443	5.2	160
	0959	10.5	320	Tu	0917	10.5	320	W	0952	8.5	260
	1606	3.6	110		1536	2.6	80	Th	1543	3.6	110
	2230	10.2	310		2207	11.2	340		2250	9.8	300
<b>3</b> Tu	0445	4.9	150	<b>18</b>	0404	4.3	130	<b>3</b>	0541	5.9	180
	1030	9.5	290	W	0956	9.8	300	Th	1025	7.5	230
	1624	3.9	120		1611	3.0	90		1606	3.9	120
	2310	9.5	290		2257	10.8	330		2332	9.2	280
<b>4</b> W	0547	5.9	180	<b>19</b>	0522	4.9	150	<b>4</b>	0710	6.2	190
	1103	8.2	250	Th	1043	8.9	270	F	1109	6.9	210
	1644	4.6	140		1703	3.6	110		1637	4.6	140
					2356	10.2	310				
<b>5</b> Th	0000	8.9	270	<b>20</b>	0659	5.6	170	<b>5</b>	0026	8.9	270
	0739	6.6	200	F	1147	7.5	230	Sa	0919	5.9	180
	1147	7.2	220		1832	4.3	130		1226	6.2	190
	1713	5.2	160						1731	5.2	160
<b>6</b> F	0122	8.2	250	<b>21</b>	0116	9.8	300	<b>6</b>	0204	8.5	260
	1019	6.2	190	Sa	0858	5.6	170	Th	1043	5.2	160
	1316	6.6	200		1332	6.9	210		1508	6.2	190
	1919	5.9	180		2019	4.6	140		1938	5.9	180
<b>7</b> Sa	0449	8.5	260	<b>22</b>	0318	9.8	300	<b>7</b>	0418	8.5	260
	1132	5.6	170	Su	1035	4.9	150	M	1124	4.9	150
	1651	6.6	200		1608	7.2	220		1650	6.6	200
	2229	5.9	180		2204	4.6	140		2211	5.6	170
<b>8</b> Su	0532	9.2	280	<b>23</b>	0440	10.5	320	<b>8</b>	0506	9.2	280
	1209	4.9	150	M	1135	3.9	120	Tu	1155	4.3	130
	1741	7.2	220		1718	8.2	250		1731	7.5	230
	●	2330	5.2	160	●	2316	3.9	120		2315	5.2
<b>9</b> M	0600	9.5	290	<b>24</b>	0532	11.2	340	<b>9</b>	0536	9.5	290
	1238	4.6	140	Tu	1220	3.3	100	W	1222	3.9	120
	1809	7.9	240		1805	8.9	270		1800	8.2	250
									2356	4.9	150
<b>10</b> Tu	0007	4.9	150	<b>25</b>	0011	3.3	100	<b>10</b>	0602	9.8	300
	0625	9.8	300	W	0612	11.5	350	Th	1247	3.6	110
	1302	4.3	130		1259	2.6	80		1826	8.9	270
	1833	8.5	260		1842	9.8	300				
<b>11</b> W	0035	4.3	130	<b>26</b>	0055	3.0	90	<b>11</b>	0028	4.6	140
	0647	10.5	320	Th	0647	11.5	350	M	0624	10.2	310
	1325	3.9	120		1332	2.3	70		1309	3.3	100
	1854	8.9	270		1916	10.2	310		1852	9.5	290
<b>12</b> Th	0059	3.9	120	<b>27</b>	0134	3.0	90	<b>12</b>	0059	3.9	120
	0708	10.5	320	F	0720	11.5	350	Sa	0646	10.2	310
	1346	3.6	110		1401	2.3	70		1332	2.6	80
	1917	9.5	290		1951	10.8	330		1922	10.2	310
<b>13</b> F	0122	3.6	110	<b>28</b>	0210	3.0	90	<b>13</b>	0130	3.6	110
	0729	10.8	330	Sa	0751	11.5	350	W	0710	10.5	320
	1406	3.3	100		1427	2.3	70		1354	2.3	70
	1942	10.2	310		2026	10.8	330		1955	10.8	330
<b>14</b> Sa	0146	3.3	100	<b>29</b>	0245	3.3	100	<b>14</b>	0203	3.6	110
	0750	11.2	340	Su	0823	10.8	330	W	0828	9.2	280
	1425	3.0	90		1448	2.6	80		1417	2.0	60
	2011	10.5	320		2102	10.8	330		2032	11.5	350
<b>15</b> Su	0212	3.3	100	<b>30</b>	0321	3.9	120	<b>15</b>	0241	3.6	110
	0818	11.2	340	M	0854	10.2	310	Tu	0815	10.5	320
	1445	2.6	80		1507	2.6	80		1446	2.0	60
	2044	10.8	330	○	2137	10.8	330	●	2114	11.8	360

# Townsville, Australia, 2018

Times and Heights of High and Low Waters

July				August				September															
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height												
h m 1 Su 0544 5.2 160	ft 1025 7.2 220	cm 1161 3.6 110	16 M 0617 3.3 100	h m W 1131 8.2 250	ft 1748 2.6 80	cm 1 W 0633 4.9 150	h m Th 1136 6.9 210	ft 1652 4.3 130	cm 2356 8.9 270	16 h m Sa 0021 9.5 290	ft 0745 3.9 120	cm 1951 5.9 180	1 Sa 0737 4.6 140	h m Su 0948 6.6 200	ft 1706 8.5 260	cm 2336 4.9 150	16 h m M 0228 6.6 200	ft 1103 4.3 130	cm 1752 9.2 280				
2 M 0640 5.2 160	1117 6.6 200	1647 3.9 120	17 Tu 0009 11.2 340	0724 3.6 110	1240 7.9 240	1857 3.6 110	2 Th 0736 4.9 150	1240 6.9 210	1741 4.9 150	17 F 0123 8.2 250	0907 3.9 120	1535 7.9 240	2200 5.2 160	2 Su 0052 7.2 220	0902 4.6 140	1541 7.9 240	2224 5.9 180	17 h m M 0455 6.6 200	1103 4.3 130	1752 9.2 280			
3 Tu 0003 9.2 280	0753 5.2 160	1220 6.6 200	1732 4.6 140	18 W 0107 10.2 310	0837 3.6 110	1415 7.5 230	2027 4.6 140	0041 8.2 250	0848 4.6 140	1413 6.9 210	1950 5.9 180	0311 7.5 230	1029 3.9 120	1719 8.5 260	2340 4.9 150	3 M 0307 6.9 210	1020 3.9 120	1702 8.9 270	2345 4.9 150	18 h m Tu 0024 4.3 130	0548 7.2 220	1152 3.6 110	1822 9.5 290
4 W 0050 8.5 260	0908 4.9 150	1343 6.2 190	1849 5.2 160	19 Th 0222 9.2 280	0951 3.6 110	1557 7.9 240	2208 4.9 150	0145 7.9 240	0956 4.3 130	1604 7.5 230	2201 5.9 180	0454 7.2 220	1132 3.6 110	1815 9.2 280	0456 7.2 220	1118 3.3 100	1751 9.8 300	19 W 0059 3.6 110	0619 7.5 230	1227 3.6 110	1849 9.8 300		
5 Th 0151 8.2 250	1005 4.6 140	1524 6.6 200	2033 5.6 170	20 F 0349 8.5 260	1058 3.3 100	1722 8.5 260	2339 4.9 150	0324 7.5 230	1050 3.6 110	1713 8.2 250	2339 5.2 160	0040 4.3 130	0553 7.5 230	1219 3.3 100	1850 9.8 300	0031 3.9 120	0547 7.9 240	1205 2.3 70	1831 10.8 330	20 Th 0128 3.3 100	0645 7.9 240	1253 3.3 100	1913 10.2 310
6 F 0310 8.2 250	1049 3.9 120	1637 7.2 220	2221 5.6 170	21 Sa 0501 8.2 250	1153 3.0 90	1822 9.2 280	0044 4.6 140	0441 7.5 230	1136 3.0 90	1802 9.5 290	0122 3.9 120	0631 7.5 230	1253 3.0 90	1918 10.2 310	0111 3.3 100	0627 8.5 260	1247 1.6 50	1907 11.8 360	21 F 0151 3.3 100	0709 8.2 250	1313 3.0 90	1936 10.5 320	
7 Sa 0413 8.2 250	1126 3.6 110	1729 8.2 250	2339 5.2 160	22 Su 0044 4.6 140	0554 8.2 250	1237 3.0 90	1904 9.8 300	0035 4.6 140	0534 8.2 250	1217 2.3 70	1843 10.5 320	0156 3.6 110	0701 7.9 240	1318 3.0 90	1944 10.2 310	0147 2.6 80	0704 9.2 280	1325 1.0 30	1944 12.5 380	22 Sa 0212 3.3 100	0730 8.5 260	1330 3.0 90	1957 10.5 320
8 Su 0459 8.5 260	1200 3.0 90	1812 9.2 280	0044 4.6 140	23 M 0132 4.3 130	0634 8.2 250	1311 2.6 80	1937 10.2 310	0119 3.9 120	0619 8.5 260	1257 1.6 50	1923 11.5 350	0222 3.6 110	0725 8.2 250	1335 2.6 80	2008 10.5 320	0222 2.0 60	0743 9.8 300	1404 0.7 20	2021 12.8 390	23 Su 0230 3.3 100	0751 8.9 270	1349 2.6 80	2019 10.5 320
9 M 0034 4.6 140	0539 8.9 270	1234 2.3 70	1852 10.2 310	24 Tu 0211 3.9 120	0707 8.2 250	1335 2.6 80	2005 10.2 310	0200 3.3 100	0703 9.2 280	1336 1.0 30	2002 12.5 380	0246 3.6 110	0748 8.2 250	1351 2.6 80	2032 10.5 320	0258 2.0 60	0824 10.2 310	1443 0.7 20	2059 12.8 390	24 M 0248 3.3 100	0815 9.2 280	1412 2.6 80	2040 10.5 320
10 Tu 0121 4.3 130	0620 9.2 280	1309 1.6 50	1932 11.2 340	25 W 0243 3.9 120	0736 8.2 250	1351 2.6 80	2032 10.5 320	0240 2.6 80	0749 9.5 290	1417 0.7 20	2043 12.8 390	0305 3.6 110	0810 8.5 260	1409 2.6 80	2055 10.5 320	0333 2.0 60	0907 10.2 310	1524 1.3 40	2138 12.1 370	25 Tu 0305 3.0 90	0843 9.2 280	1436 3.0 90	2102 10.2 310
11 W 0205 3.6 110	0703 9.2 280	1346 1.0 30	2015 12.1 370	26 Th 0310 4.3 130	0801 8.2 250	1407 2.6 80	2058 10.5 320	0321 2.3 70	0835 9.8 300	1459 0.7 20	2124 13.1 400	0324 3.6 110	0835 8.5 260	1432 2.6 80	2119 10.5 320	0409 2.3 70	0952 9.8 300	1607 2.3 70	2216 11.2 340	26 W 0321 3.3 100	0917 9.2 280	1503 3.3 100	2125 9.8 300
12 Th 0249 3.3 100	0750 9.5 290	1427 0.7 20	2058 12.5 380	27 F 0334 4.3 130	0827 7.9 240	1427 2.6 80	2124 10.5 320	0402 2.3 70	0924 9.8 300	1543 1.0 30	2206 12.8 390	0345 3.9 120	0903 8.5 260	1458 2.6 80	2144 10.2 310	0448 2.6 80	1039 9.5 290	1658 3.3 100	2255 9.8 300	27 Th 0338 3.3 100	0956 9.2 280	1534 3.9 120	2152 9.2 280
13 F 0336 3.0 90	0841 9.5 290	1511 0.7 20	2143 12.8 390	28 Sa 0358 4.3 130	0854 7.9 240	1453 2.6 80	2151 10.5 320	0447 2.6 80	1013 9.5 290	1629 1.6 50	2249 11.8 360	0409 3.9 120	0936 8.5 260	1524 3.0 90	2209 9.8 300	0532 3.3 100	1132 8.9 270	1806 4.6 140	2336 8.5 260	28 F 0401 3.6 110	1044 8.9 270	1613 4.6 140	2225 8.5 260
14 Sa 0425 3.0 90	0936 9.2 280	1559 1.0 30	2230 12.8 390	29 Su 0425 4.6 140	0924 7.9 240	1520 3.0 90	2220 10.2 310	0537 3.0 90	1106 8.9 270	1722 2.6 80	2334 10.8 330	0437 4.3 130	1015 8.2 250	1552 3.6 110	2236 9.2 280	0630 4.3 130	1242 8.2 250	1947 5.6 170	29 Sa 0433 3.9 120	1143 8.5 260	1807 5.6 170	2308 7.5 230	
15 Su 0518 3.0 90	1032 8.9 270	1650 1.6 50	2317 12.1 370	30 M 0458 4.6 140	0959 7.5 230	1549 3.3 100	2249 9.8 300	0635 3.6 110	1205 8.2 250	1828 3.9 120	2307 8.9 270	0514 4.3 130	1103 7.9 240	1624 4.3 130	2307 8.9 270	0028 7.5 230	0802 4.6 140	1504 7.9 240	2203 5.6 170	30 Su 0628 4.3 130	1300 8.2 250	2012 5.9 180	
31 Tu 0540 4.9 150	1042 7.2 220	1618 3.6 110	2321 9.2 280	31 F 0619 4.6 140	1203 7.5 230	1711 5.2 160	2347 7.9 240	0619 4.6 140	1203 7.5 230	1711 5.2 160	2347 7.9 240	0619 4.6 140	1203 7.5 230	1711 5.2 160	2347 7.9 240								

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Townsville, Australia, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0028 6.6 200	16 Tu 0444 6.2 190	1 Th 0455 7.2 220	16 F 0529 7.2 220	1 Sa 0523 8.5 260	16 Su 0527 7.5 230	2 Tu 0350 6.2 190	2 W 0530 6.9 210	2 Sa 0016 3.3 100	2 M 0012 2.3 70	2 Tu 0004 3.6 110	2 W 0559 8.2 250
0817 4.6 140	Tu 1015 4.9 150	1041 3.6 110	1106 4.9 150	1120 3.6 110	1104 5.2 160	0955 3.9 120	W 1113 4.6 140	1146 4.6 140	1215 3.6 110	M 1152 4.9 150	1733 9.2 280
1517 8.5 260	Tu 1713 8.9 270	1704 10.5 320	1728 9.2 280	1719 10.5 320	1703 8.9 270	1642 9.5 290	W 1745 9.2 280	1754 9.5 290	1800 10.5 320	M 1152 4.9 150	1733 9.2 280
2236 5.2 160	Tu 2355 3.9 120	2356 3.0 90	● O	● O	● O	2336 4.3 130	● O	1817 9.8 300	1835 10.5 320	Tu 1232 4.9 150	1759 9.2 280
3 W 0509 7.2 220	18 Th 0026 3.6 110	0034 2.3 70	18 Sa 0040 3.0 90	0050 2.0 60	18 M 0029 3.0 90	1102 3.3 100	0558 7.5 230	0622 8.5 260	0647 9.8 300	Tu 0628 9.2 280	1232 4.9 150
1102 10.5 320	Th 1152 4.3 130	1224 2.6 80	Su 1219 4.3 130	1303 3.6 110	1310 4.6 140	1732 10.5 320	1812 9.8 300	1823 11.5 350	1835 10.5 320	1759 9.2 280	1759 9.2 280
4 Th 0019 3.3 100	19 F 0053 3.3 100	0109 2.0 60	19 M 0102 2.6 80	0121 2.0 60	19 W 0054 2.6 80	0551 8.2 250	0624 7.9 240	0652 9.8 300	0724 10.5 320	0658 9.8 300	1232 4.9 150
1153 2.6 80	F 1222 3.6 110	1305 2.3 70	M 1248 3.9 120	1347 3.6 110	W 1310 4.6 140	1811 11.2 340	1836 9.8 300	1856 11.5 350	1837 9.8 300	1908 10.2 310	1826 9.5 290
5 F 0055 2.6 80	20 Sa 0116 3.0 90	0138 1.6 50	20 Tu 0123 2.6 80	0147 1.6 50	20 Th 0118 2.0 60	0626 8.9 270	0646 8.5 260	0727 10.5 320	0759 10.8 330	0730 10.5 320	1232 4.9 150
1236 2.0 60	Sa 1247 3.6 110	1344 2.6 80	M 1317 3.9 120	1427 3.6 110	W 1349 4.3 130	1847 11.8 360	1858 10.2 310	1929 11.2 340	1857 9.8 300	1940 9.8 300	1857 9.8 300
1921 12.1 370	● O	1929 11.2 340	● O	● O	● O	● O	● O	● O	● O	● O	● O
6 Sa 0129 2.0 60	21 Su 0137 3.0 90	0206 1.6 50	21 W 0142 2.0 60	0208 2.0 60	21 F 0143 1.6 50	0659 9.5 290	0709 8.9 270	0803 10.8 330	0835 10.8 330	0806 11.5 350	1232 4.9 150
1314 1.6 50	Su 1309 3.3 100	1423 3.0 90	Tu 1423 3.0 90	1507 4.3 130	W 1430 3.9 120	1921 12.1 370	1918 10.2 310	2002 10.8 330	2012 9.2 280	1934 9.8 300	1232 4.9 150
1921 12.1 370	● O	1918 10.2 310	● O	● O	● O	● O	● O	● O	● O	● O	● O
7 Su 0201 1.6 50	22 M 0155 2.6 80	0229 1.6 50	22 Th 0201 2.0 60	0227 2.0 60	22 Sa 0213 1.3 40	0735 10.2 310	0732 9.2 280	0841 10.8 330	0911 10.8 330	0846 11.8 360	1232 4.9 150
1351 1.3 40	M 1331 3.3 100	1504 3.3 100	Th 1422 3.6 110	1547 3.6 110	W 1516 3.9 120	1955 12.1 370	1937 10.2 310	2034 10.2 310	1951 9.8 300	1547 4.6 140	2017 9.5 290
1955 12.1 370	● O	1937 10.2 310	● O	● O	● O	● O	● O	● O	● O	● O	● O
8 M 0230 1.6 50	23 Tu 0212 2.6 80	0251 2.0 60	23 F 0223 1.6 50	0247 2.3 70	23 M 0248 1.3 40	0812 10.5 320	0757 9.8 300	0920 10.8 330	0947 10.8 330	0931 12.1 370	1232 4.9 150
1429 1.6 50	Tu 1355 3.3 100	1547 3.9 120	Th 1506 3.9 120	1630 4.9 150	W 1630 4.9 150	2030 11.8 360	1957 10.2 310	● O 2106 9.2 280	2112 8.2 250	2106 9.2 280	1232 4.9 150
2030 11.8 360	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
9 Tu 0259 1.6 50	24 W 0228 2.3 70	0310 2.3 70	24 Sa 0252 1.6 50	0309 2.6 80	24 M 0330 1.3 40	0852 10.8 330	0827 10.2 310	1002 10.2 310	1023 10.2 310	1018 12.1 370	1232 4.9 150
1508 2.3 70	W 1422 3.3 100	1638 4.6 140	Sa 1603 4.3 130	1717 5.2 160	W 1704 3.9 120	2105 11.2 340	2020 10.2 310	2137 8.2 250	2109 8.9 270	2145 7.5 230	2201 8.9 270
2105 11.2 340	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
10 W 0327 2.0 60	25 Th 0245 2.3 70	0329 3.0 90	25 Su 0329 2.0 60	0336 3.3 100	25 Tu 0420 2.0 60	0933 10.5 320	0902 10.2 310	1042 9.8 300	1028 11.2 340	1110 11.8 360	1232 4.9 150
1552 3.0 90	Th 1454 3.6 110	1740 5.2 160	Sa 1740 5.2 160	1712 4.6 140	W 1808 4.3 130	2140 10.2 310	2049 9.5 290	2210 7.5 230	2159 8.2 250	2224 6.9 210	2303 8.2 250
2140 10.2 310	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
11 Th 0352 2.6 80	26 F 0307 2.3 70	0352 3.3 100	26 M 0417 2.6 80	0406 3.6 110	26 W 0520 2.6 80	1017 9.8 300	0945 10.2 310	1129 9.2 280	1124 10.8 330	1207 11.5 350	1232 4.9 150
1644 4.3 130	F 1536 4.3 130	1909 5.6 170	M 1829 4.9 150	1145 9.2 280	W 1921 4.3 130	2214 9.2 280	2122 9.2 280	2253 6.6 200	2306 7.2 220	1942 5.6 170	2320 6.2 190
2214 9.2 280	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
12 F 0415 3.3 100	27 Sa 0336 2.6 80	0421 4.3 130	27 Tu 0532 3.3 100	0443 4.3 130	27 Th 0616 7.5 230	1104 9.2 280	1034 9.8 300	1229 8.5 260	1231 10.5 320	0637 3.6 110	1232 4.9 150
1753 4.9 150	Sa 1654 4.9 150	2103 5.6 170	Tu 2001 4.6 140	2112 5.2 160	W 2112 5.2 160	2250 7.9 240	2203 8.2 250	● O	● O	1311 10.8 330	2040 4.3 130
2250 7.9 240	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
13 Sa 0439 3.9 120	28 Su 0413 3.3 100	0509 5.9 180	28 W 0038 6.6 200	0049 5.9 180	28 M 0156 7.2 220	1201 8.5 260	1132 9.5 290	0509 4.9 150	0710 3.9 120	0810 4.3 130	1232 4.9 150
1936 5.6 170	Su 1831 5.2 160	1417 8.2 250	W 1356 10.2 310	1356 8.5 260	W 1431 10.2 310	2336 6.6 200	2258 7.2 220	2233 4.9 150	2130 4.3 130	2155 3.9 120	2155 3.9 120
2336 6.6 200	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
14 Su 0529 4.6 140	29 M 0536 3.9 120	0751 5.2 160	29 Th 0258 6.6 200	0316 6.2 190	29 F 0347 7.5 230	1347 8.2 250	1247 9.2 280	1605 8.5 260	1013 3.9 120	0943 4.6 140	1232 4.9 150
2154 5.2 160	M 2025 5.2 160	2317 4.3 130	W 1525 10.2 310	1526 8.5 260	W 1526 8.5 260	● O	● O	● O	● O	● O	● O
2317 4.3 130	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O
15 M 0116 5.9 180	30 Tu 0038 6.2 190	0453 6.6 200	30 F 0425 7.5 230	0443 6.9 210	30 M 0506 8.5 260	0817 5.2 160	0742 4.3 130	1441 9.2 280	1655 8.9 270	1106 4.6 140	1232 4.9 150
0817 5.2 160	Tu 1618 8.5 260	2212 4.6 140	Th 2349 3.9 120	2329 3.0 90	W 2336 3.9 120	2313 3.6 110	1609 9.8 300	2349 3.9 120	● O	● O	● O
2313 3.6 110	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O	● O

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Brisbane Bar, Australia, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0225 0.7 20 0852 8.5 260 1529 1.3 40 2100 6.6 200	<b>16</b> Tu 0246 1.3 40 0919 7.9 240 1552 2.0 60 2119 6.2 190		<b>1</b> Th 0352 0.7 20 1015 8.9 270 1658 1.0 30 2233 6.9 210		<b>16</b> F 0341 1.3 40 1004 7.9 240 1636 1.6 50 2211 6.6 200	<b>1</b> Th 0253 1.0 30 0910 8.5 260 1551 1.3 40 2132 6.9 210		<b>16</b> F 0244 1.6 50 0900 7.9 240 1530 1.6 50 2113 6.9 210
	<b>2</b> Tu 0314 0.7 20 0942 8.9 270 1624 1.3 40 O 2154 6.6 200	<b>17</b> W 0321 1.3 40 0954 7.9 240 1628 2.0 60 ● 2154 6.2 190	<b>2</b> F 0439 0.7 20 1059 8.9 270 1741 1.0 30 2319 6.9 210		<b>17</b> Sa 0418 1.3 40 1037 7.9 240 1708 1.6 50 2248 6.9 210	<b>2</b> O 0342 1.0 30 0954 8.5 260 1632 1.0 30 ● 2216 7.2 220		<b>17</b> Sa 0324 1.3 40 0935 7.9 240 1604 1.6 50 ● 2150 7.2 220
	<b>3</b> W 0402 0.7 20 1030 9.2 280 1715 1.3 40 2246 6.6 200	<b>18</b> Th 0355 1.3 40 1027 7.9 240 1701 2.0 60 2230 6.2 190	<b>3</b> Sa 0524 1.0 30 1141 8.5 260 1821 1.3 40		<b>18</b> Su 0454 1.3 40 1109 7.9 240 1741 1.6 50 2326 6.9 210	<b>3</b> Sa 0426 1.0 30 1035 8.5 260 1710 1.0 30 2257 7.2 220		<b>18</b> Su 0403 1.3 40 1009 7.9 240 1638 1.3 40 2228 7.5 230
	<b>4</b> Th 0449 0.7 20 1117 8.9 270 1805 1.3 40 2336 6.6 200	<b>19</b> F 0430 1.3 40 1100 7.9 240 1734 2.0 60 2306 6.2 190	<b>4</b> Su 0004 6.9 210 0607 1.3 40 1222 8.2 250 1858 1.3 40		<b>19</b> M 0531 1.6 50 1141 7.5 230 1813 1.6 50	<b>4</b> Su 0508 1.0 30 1114 8.2 250 1743 1.3 40 2337 7.2 220		<b>19</b> M 0442 1.3 40 1043 7.5 230 1711 1.3 40 2307 7.5 230
<b>5</b> F 0536 1.0 30 1204 8.9 270 1851 1.3 40	<b>20</b> Sa 0506 1.3 40 1132 7.9 240 1807 2.0 60 2344 6.2 190		<b>5</b> M 0049 6.6 200 0652 1.6 50 1302 7.5 230 1935 1.6 50		<b>20</b> Tu 0005 6.9 210 0609 1.6 50 1216 7.5 230 1847 1.6 50	<b>5</b> M 0548 1.3 40 1151 7.5 230 1815 1.3 40		<b>20</b> Tu 0521 1.6 50 1118 7.5 230 1743 1.3 40 2347 7.5 230
	<b>6</b> Sa 0027 6.2 190 0624 1.3 40 1250 8.2 250 1937 1.6 50	<b>21</b> Su 0542 1.6 50 1206 7.5 230 1842 2.0 60	<b>6</b> Tu 0135 6.6 200 0739 2.3 70 1342 6.9 210 2014 2.0 60		<b>21</b> W 0048 6.9 210 0652 2.0 60 1255 6.9 210 1925 2.0 60	<b>6</b> Tu 0017 7.2 220 0628 2.0 60 1226 7.2 220 1846 1.6 50		<b>21</b> W 0602 1.6 50 1155 7.2 220 1817 1.6 50
	<b>7</b> Su 0119 6.2 190 0714 1.6 50 1336 7.5 230 2022 1.6 50	<b>22</b> M 0025 6.2 190 0621 2.0 60 1241 7.5 230 1919 2.0 60	<b>7</b> W 0228 6.2 190 0834 3.0 90 1428 6.2 190 2058 2.3 70		<b>22</b> Th 0137 6.9 210 0745 2.3 70 1342 6.6 200 2013 2.0 60	<b>7</b> W 0057 6.9 210 0710 2.3 70 1302 6.6 200 1918 2.0 60		<b>22</b> Th 0030 7.5 230 0647 2.0 60 1237 6.6 200 1855 1.6 50
	<b>8</b> M 0215 6.2 190 0810 2.3 70 1424 7.2 220 2109 2.0 60	<b>23</b> Tu 0111 6.2 190 0706 2.3 70 1321 7.2 220 2002 2.0 60	<b>8</b> Th 0331 6.2 190 0943 3.0 90 1526 5.9 180 ● 2154 2.3 70		<b>23</b> F 0239 6.9 210 0853 2.6 80 1446 6.2 190 ● 2114 2.0 60	<b>8</b> Th 0140 6.9 210 0758 3.0 90 1343 5.9 180 1956 2.3 70		<b>23</b> F 0118 7.2 220 0740 2.3 70 1328 6.2 190 1943 2.0 60
<b>9</b> Tu 0318 6.2 190 0914 2.6 80 1518 6.6 200 O 2201 2.0 60	<b>24</b> W 0204 6.2 190 0801 2.6 80 1410 6.9 210 2053 2.0 60		<b>9</b> F 0445 6.2 190 1107 3.3 100 1639 5.6 170 2258 2.3 70		<b>24</b> Sa 0354 6.9 210 1018 3.0 90 1606 5.9 180 2230 2.0 60	<b>9</b> F 0234 6.6 200 0900 3.3 100 1438 5.2 160 ● 2048 2.6 80		<b>24</b> Sa 0218 7.2 220 0851 2.6 80 1436 5.6 170 2048 2.3 70
	<b>10</b> W 0427 6.2 190 1028 3.0 90 1618 6.2 190 2256 2.0 60	<b>25</b> Th 0310 6.2 190 0911 2.6 80 1512 6.6 200 ● 2154 2.0 60	<b>10</b> Sa 0553 6.6 200 1224 3.0 90 1753 5.6 170		<b>25</b> Su 0514 7.2 220 1149 2.6 80 1731 5.9 180 2346 2.0 60	<b>10</b> Sa 0343 6.2 190 1026 3.3 100 1556 5.2 160 2159 2.6 80		<b>25</b> Su 0333 7.2 220 1016 2.6 80 1604 5.6 170 ● 2209 2.3 70
	<b>11</b> Th 0533 6.6 200 1143 3.0 90 1722 5.9 180 2351 2.0 60	<b>26</b> F 0425 6.6 200 1032 2.6 80 1625 6.2 190 2302 1.6 50	<b>11</b> Su 0002 2.3 70 0650 6.9 210 1322 2.6 80 1854 5.6 170		<b>26</b> M 0626 7.5 230 1309 2.3 70 1846 6.2 190	<b>11</b> Su 0503 6.6 200 1148 3.0 90 1723 5.2 160 2318 2.6 80		<b>26</b> M 0453 7.2 220 1143 2.3 70 1730 5.9 180 2332 2.0 60
	<b>12</b> F 0631 6.9 210 1250 2.6 80 1822 5.9 180	<b>27</b> Sa 0539 7.2 220 1157 2.6 80 1740 6.2 190	<b>12</b> M 0058 2.0 60 0736 7.2 220 1409 2.3 70 1942 5.9 180		<b>27</b> Tu 0057 1.6 50 0728 8.2 250 1412 1.6 50 1950 6.6 200	<b>12</b> M 0609 6.6 200 1250 2.6 80 1828 5.6 170		<b>27</b> Tu 0606 7.5 230 1254 2.0 60 1842 6.2 190
<b>13</b> Sa 0043 1.6 50 0720 7.2 220 1344 2.6 80 1916 5.9 180	<b>28</b> Su 0009 1.3 40 0645 7.5 230 1316 2.3 70 1850 6.2 190		<b>13</b> Tu 0145 1.6 50 0817 7.5 230 1451 2.0 60 2023 6.2 190		<b>28</b> W 0159 1.3 40 0822 8.5 260 1505 1.3 40 2044 6.6 200	<b>13</b> Tu 0024 2.3 70 0701 7.2 220 1337 2.3 70 1917 5.9 180		<b>28</b> W 0045 2.0 60 0708 7.9 240 1352 1.6 50 1940 6.6 200
	<b>14</b> Su 0128 1.6 50 0803 7.5 230 1432 2.3 70 2002 5.9 180	<b>29</b> M 0111 1.3 40 0744 8.2 250 1422 2.0 60 1954 6.2 190	<b>14</b> W 0227 1.6 50 0855 7.9 240 1527 2.0 60 2100 6.2 190			<b>14</b> W 0118 2.0 60 0744 7.2 220 1417 2.0 60 1958 6.2 190		<b>29</b> Th 0148 1.3 40 0801 8.2 250 1441 1.3 40 2030 7.2 220
	<b>15</b> M 0209 1.3 40 0842 7.9 240 1514 2.0 60 2043 5.9 180	<b>30</b> Tu 0210 1.0 30 0838 8.5 260 1520 1.3 40 2053 6.6 200	<b>15</b> Th 0305 1.3 40 0931 7.9 240 1602 2.0 60 2136 6.6 200			<b>15</b> Th 0203 2.0 60 0823 7.5 230 1455 2.0 60 2036 6.6 200		<b>30</b> F 0241 1.3 40 0847 8.2 250 1523 1.3 40 2114 7.5 230
		<b>31</b> W 0303 0.7 20 0928 8.9 270 1611 1.3 40 O 2145 6.6 200						<b>31</b> Sa 0328 1.0 30 0928 8.2 250 1600 1.3 40 O 2154 7.5 230

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Brisbane Bar, Australia, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0411	1.3	40	<b>16</b> M	0346	1.3	40	<b>1</b> Tu	0433	1.6	50	
	1007	7.9	240	<b>16</b> W	0938	7.5	230	<b>16</b> W	0416	1.3	40	
	1633	1.3	40	<b>1</b> F	1013	6.9	210	<b>1</b> F	0529	2.0	60	
	2233	7.5	230	<b>16</b> Sa	1605	1.3	40	<b>16</b> Sa	1057	5.9	180	
	●	2207	7.9	240	<b>1</b> Tu	1624	1.3	40	<b>16</b> Su	1124	6.2	190
				<b>1</b> W	2244	7.9	240	<b>1</b> F	1652	1.6	50	
				<b>16</b> Sa	2232	8.5	260	<b>16</b> Tu	2327	7.9	240	
								<b>16</b> Su	0552	1.3	40	
<b>2</b> M	0451	1.3	40	<b>2</b> W	0510	2.0	60	<b>2</b> Sa	0604	2.3	70	
	1044	7.5	230	<b>2</b> Th	1048	6.6	200	<b>2</b> Su	1134	5.9	180	
	1703	1.3	40	<b>17</b> F	1652	1.6	50	<b>17</b> Su	1219	6.2	190	
	2310	7.5	230	<b>17</b> Sa	2318	7.9	240	<b>17</b> Tu	1813	1.3	40	
<b>3</b> Tu	0529	1.6	50	<b>3</b> Th	0547	2.0	60	<b>3</b> Su	0002	7.5	230	
	1118	7.2	220	<b>3</b> F	1122	6.2	190	<b>3</b> M	0640	2.3	70	
	1732	1.3	40	<b>18</b> W	1715	1.3	40	<b>18</b> M	1214	5.6	170	
	2346	7.5	230	<b>18</b> Sa	2331	8.2	250	<b>18</b> Tu	1803	2.0	60	
<b>4</b> W	0607	2.0	60	<b>4</b> F	0624	2.3	70	<b>4</b> M	0040	7.2	220	
	1152	6.6	200	<b>4</b> Sa	1140	6.6	200	<b>4</b> Tu	0722	2.6	80	
	1800	1.6	50	<b>19</b> W	1752	1.3	40	<b>19</b> M	1259	5.6	170	
				<b>19</b> Sa	1753	2.0	60	<b>19</b> Tu	1845	2.3	70	
<b>5</b> Th	0022	7.5	230	<b>5</b> F	0017	8.2	250	<b>5</b> Tu	0122	7.2	220	
	0645	2.3	70	<b>5</b> Sa	0647	2.0	60	<b>5</b> M	0810	2.6	80	
	1227	6.2	190	<b>5</b> W	1228	6.2	190	<b>5</b> Tu	1353	5.2	160	
	1831	2.0	60	<b>5</b> Sa	1834	1.6	50	<b>5</b> F	1937	2.6	80	
<b>6</b> F	0101	7.2	220	<b>6</b> W	0107	7.9	240	<b>6</b> M	0211	6.9	210	
	0729	2.6	80	<b>6</b> Sa	0746	2.3	70	<b>6</b> Tu	0905	2.6	80	
	1307	5.6	170	<b>6</b> W	1325	5.9	180	<b>6</b> W	1458	5.6	170	
	1906	2.3	70	<b>6</b> Sa	1925	2.0	60	<b>6</b> Tu	2041	3.0	90	
<b>7</b> Sa	0146	6.9	210	<b>7</b> M	0206	7.5	230	<b>7</b> W	0258	7.5	230	
	0823	3.0	90	<b>7</b> F	0856	2.3	70	<b>7</b> Tu	0956	2.0	60	
	1359	5.2	160	<b>7</b> Sa	1439	5.6	170	<b>7</b> W	1552	5.9	180	
	1954	2.6	80	<b>7</b> W	2033	2.3	70	<b>7</b> Sa	2140	2.3	70	
<b>8</b> Su	0243	6.6	200	<b>8</b> W	0317	7.5	230	<b>8</b> M	0258	7.5	230	
	0938	3.0	90	<b>8</b> Tu	1013	2.3	70	<b>8</b> Tu	1004	2.3	70	
	1513	4.9	150	<b>8</b> F	1605	5.6	170	<b>8</b> W	1609	5.9	180	
	2100	3.0	90	<b>8</b> Sa	2155	2.3	70	<b>8</b> F	2156	3.0	90	
<b>9</b> M	0358	6.6	200	<b>9</b> W	0431	7.5	230	<b>9</b> M	0513	6.6	200	
	1058	3.0	90	<b>9</b> Tu	1127	2.0	60	<b>9</b> Tu	1155	1.6	50	
	1642	5.2	160	<b>9</b> F	1723	5.9	180	<b>9</b> W	1806	6.6	200	
	2223	3.0	90	<b>9</b> Sa	2317	2.3	70	<b>9</b> Tu	2247	3.0	90	
<b>10</b> Tu	0512	6.6	200	<b>10</b> W	0541	7.5	230	<b>10</b> M	0009	2.3	70	
	1202	2.6	80	<b>10</b> Tu	1230	1.6	50	<b>10</b> Tu	0609	7.2	220	
	1751	5.6	170	<b>10</b> F	1828	6.6	200	<b>10</b> W	1247	1.3	40	
	2340	3.0	90	<b>10</b> Sa	2355	2.6	80	<b>10</b> Tu	1900	7.2	220	
<b>11</b> W	0612	6.9	210	<b>11</b> M	0607	6.9	210	<b>11</b> W	0117	2.6	80	
	1252	2.3	70	<b>11</b> Tu	0641	7.5	230	<b>11</b> Tu	0610	6.9	210	
	1842	5.9	180	<b>11</b> F	1323	1.3	40	<b>11</b> W	1245	1.3	40	
				<b>11</b> Sa	1923	6.9	210	<b>11</b> Tu	1904	7.5	230	
<b>12</b> Th	0040	2.3	70	<b>12</b> W	0131	1.6	50	<b>12</b> M	0217	2.0	60	
	0700	7.2	220	<b>12</b> Tu	0733	7.5	230	<b>12</b> Tu	0754	6.9	210	
	1335	2.0	60	<b>12</b> F	1409	1.3	40	<b>12</b> W	1420	1.0	30	
	1926	6.6	200	<b>12</b> Sa	2010	7.5	230	<b>12</b> Tu	2041	8.2	250	
<b>13</b> F	0132	2.0	60	<b>13</b> W	0054	2.3	70	<b>13</b> M	0217	2.0	60	
	0742	7.2	220	<b>13</b> Tu	0655	7.2	220	<b>13</b> Tu	0749	6.9	210	
	1415	1.6	50	<b>13</b> F	1330	1.6	50	<b>13</b> W	1413	1.3	40	
	2007	6.9	210	<b>13</b> Sa	1935	7.2	220	<b>13</b> Tu	2029	7.9	240	
<b>14</b> Sa	0218	2.0	60	<b>14</b> W	0239	1.6	50	<b>14</b> M	0205	2.0	60	
	0822	7.5	230	<b>14</b> Tu	0825	7.2	220	<b>14</b> Tu	0909	6.6	200	
	1453	1.3	40	<b>14</b> F	1453	1.0	30	<b>14</b> W	1520	1.3	40	
	2047	7.2	220	<b>14</b> Sa	2103	8.2	250	<b>14</b> F	2145	8.2	250	
<b>15</b> Su	0302	1.6	50	<b>15</b> W	0328	1.6	50	<b>15</b> M	0416	2.0	60	
	0900	7.5	230	<b>15</b> Tu	0909	7.2	220	<b>15</b> Tu	0947	6.2	190	
	1529	1.3	40	<b>15</b> F	1533	1.0	30	<b>15</b> W	1550	1.3	40	
	2127	7.5	230	<b>15</b> Sa	2208	7.9	240	<b>15</b> F	2220	8.2	250	
<b>16</b> Su	0353	1.6	50	<b>16</b> W	0454	2.0	60	<b>16</b> M	0459	1.3	40	
	0938	7.2	220	<b>16</b> Tu	1022	6.2	190	<b>16</b> Tu	1030	6.6	200	
	1555	1.3	40	<b>16</b> F	1621	1.3	40	<b>16</b> W	1637	1.0	30	
	2208	7.9	240	<b>16</b> Sa	2254	7.9	240	<b>16</b> F	2306	8.9	270	
<b>17</b> M	0416	1.6	50	<b>17</b> W	1022	6.2	190	<b>17</b> M	0510	2.0	60	
	1124	6.2	190	<b>17</b> Tu	1621	1.3	40	<b>17</b> Tu	1037	5.9	180	
	1723	1.0	30	<b>17</b> F	2233	7.9	240	<b>17</b> W	1631	1.6	50	
	2355	8.9	270	<b>17</b> Sa	2306	7.9	240	<b>17</b> F	2306	7.9	240	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Brisbane Bar, Australia, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0543	2.0	60	<b>16</b> M	0626	1.0	30	<b>1</b> W	0624	1.6	50
	1113	5.9	180		1205	6.6	200		1209	6.2	190
	1706	1.6	50		1803	1.0	30		1805	2.0	60
	2339	7.5	230								
<b>2</b> M	0617	2.0	60	<b>17</b> Tu	0026	8.5	260	<b>2</b> Th	0021	7.2	220
	1151	5.9	180		0713	1.3	40		0659	2.0	60
	1743	2.0	60		1257	6.2	190		1252	6.2	190
					1854	1.6	50		1847	2.0	60
<b>3</b> Tu	0014	7.5	230	<b>18</b> W	0112	7.9	240	<b>3</b> F	0057	6.9	210
	0653	2.0	60		0758	1.3	40		0737	2.0	60
	1233	5.9	180		1351	6.2	190		1342	6.2	190
	1824	2.0	60		1949	2.0	60		1937	2.3	70
<b>4</b> W	0050	7.2	220	<b>19</b> Th	0201	7.2	220	<b>4</b> Sa	0141	6.6	200
	0733	2.3	70		0845	1.6	50		0824	2.0	60
	1321	5.9	180		1451	6.2	190		1441	6.2	190
	1910	2.3	70		2051	2.3	70		2041	2.6	80
<b>5</b> Th	0132	6.9	210	<b>20</b> F	0253	6.6	200	<b>5</b> Su	0238	6.2	190
	0819	2.0	60		0934	1.6	50		0920	2.0	60
	1416	5.9	180		1557	6.6	200		1551	6.6	200
	2005	2.6	80		2202	2.6	80		2159	2.6	80
<b>6</b> F	0221	6.6	200	<b>21</b> Sa	0352	6.2	190	<b>6</b> M	0350	5.9	180
	0911	2.0	60		1027	1.6	50		1025	1.6	50
	1521	5.9	180		1704	6.6	200		1705	6.9	210
	2112	3.0	90		2320	3.0	90		2324	2.6	80
<b>7</b> Sa	0320	6.6	200	<b>22</b> Su	0457	5.9	180	<b>7</b> Tu	0507	5.9	180
	1008	2.0	60		1122	1.6	50		1132	1.3	40
	1630	6.2	190		1806	6.9	210		1812	7.5	230
	2229	2.6	80								
<b>8</b> Su	0427	6.2	190	<b>23</b> M	0031	2.6	80	<b>8</b> W	0043	2.3	70
	1107	1.6	50		0602	5.6	170		0618	5.9	180
	1736	6.9	210		1217	1.6	50		1236	1.3	40
	2345	2.6	80		1859	7.2	220		1913	7.9	240
<b>9</b> M	0532	6.2	190	<b>24</b> Tu	0130	2.3	70	<b>9</b> Th	0152	1.6	50
	1205	1.3	40		0659	5.6	170		0723	5.9	180
	1836	7.5	230		1306	1.6	50		1336	1.0	30
					1945	7.5	230		2009	8.5	260
<b>10</b> Tu	0057	2.3	70	<b>25</b> W	0218	2.0	60	<b>10</b> F	0251	1.3	40
	0634	6.2	190		0747	5.9	180		0822	6.2	190
	1300	1.0	30		1350	1.3	40		1433	0.7	20
	1931	7.9	240		2027	7.5	230		2100	8.9	270
<b>11</b> W	0202	2.0	60	<b>26</b> Th	0301	2.0	60	<b>11</b> Sa	0344	1.0	30
	0733	6.2	190		0829	5.9	180		0917	6.6	200
	1354	1.0	30		1429	1.3	40		1526	0.7	20
	2024	8.5	260		2104	7.9	240		2148	8.9	270
<b>12</b> Th	0302	1.6	50	<b>27</b> F	0339	2.0	60	<b>12</b> Su	0432	1.0	30
	0831	6.6	200		0907	5.9	180		1008	6.6	200
	1446	0.7	20		1506	1.3	40		1616	0.7	20
	2115	8.9	270		2139	7.9	240		2234	8.9	270
<b>13</b> F	0357	1.3	40	<b>28</b> Sa	0414	1.6	50	<b>13</b> M	0517	1.0	30
	0926	6.6	200		0943	5.9	180		1056	6.9	210
	1536	0.7	20		1541	1.3	40		1703	0.7	20
	2204	8.9	270		2212	7.9	240		2317	8.5	260
<b>14</b> Sa	0449	1.0	30	<b>29</b> Su	0447	1.6	50	<b>14</b> Tu	0558	1.0	30
	1021	6.6	200		1017	5.9	180		1143	6.9	210
	1625	0.7	20		1616	1.3	40		1749	1.0	30
	2252	8.9	270		2244	7.9	240				
<b>15</b> Su	0539	1.0	30	<b>30</b> M	0518	1.6	50	<b>15</b> W	0000	8.2	250
	1113	6.6	200		1052	6.2	190		0638	1.0	30
	1714	1.0	30		1651	1.3	40		1231	6.6	200
	2339	8.9	270		2315	7.5	230		1836	1.3	40
				<b>31</b> Tu	0551	1.6	50	<b>16</b> F	0624	1.3	40
					1130	6.2	190		1228	6.6	200
					1727	1.6	50		1832	2.0	60
					2348	7.5	230				

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Brisbane Bar, Australia, 2018

## Times and Heights of High and Low Waters

October					November					December									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time					
<b>1</b> M 0054 0711 1349 2018	5.6 1.6 6.9 2.3	ft 50 210 70	cm 170 50 200	<b>16</b> Tu 0144 0737 1434 2137	4.9 2.3 6.6 3.0	ft 150 70 200 90	cm 160 60 220 60	<b>1</b> Th 0325 0914 1554 2254	5.2 2.0 7.2 2.0	ft 160 60 220 60	cm 150 90 190 70	<b>16</b> Sa 0333 0906 1550 2252	4.9 3.0 6.2 2.3	ft 150 90 190 70	cm 180 70 220 40	<b>16</b> Su 0428 1017 1633 2325	5.9 2.3 7.2 1.3	ft 160 90 200 40	cm 160 90 200 60
	0157 0810 1458 2142	ft 2.0 6.9 2.6	cm 160 210 80	<b>17</b> W 0302 0842 1545 2254	4.6 2.6 6.2 2.6	ft 140 80 190 80	cm 150 200 200 80	<b>2</b> F 0449 1037 1705	5.6 2.0 7.2	ft 170 60 220	cm 170 60 200 60	<b>17</b> Sa 0449 1026 1653 2346	5.2 3.0 6.6 2.0	ft 160 90 200 60	cm 160 70 220 60	<b>17</b> M 0536 1132 1736	6.2 2.3 7.2	ft 190 70 220	cm 180 70 200 60
	0324 0928 1616 2310	ft 2.0 6.9 2.3	cm 150 210 70	<b>18</b> Th 0435 1006 1657 2354	4.9 2.6 6.2 2.3	ft 150 80 190 70	cm 150 200 200 70	<b>3</b> Sa 0000 0558 1153 1808	1.6 5.9 2.0 7.5	ft 50 180 60 230	cm 170 80 200 230	<b>18</b> Su 0548 1136 1749	5.6 2.6 6.6	ft 170 80 200	cm 180 200 210	<b>18</b> Tu 0555 1153 1747	6.2 2.6 6.6	ft 190 80 200	cm 180 200 200
	0456 1052 1731	ft 2.0 6.9	cm 160 220	<b>19</b> F 0543 1124 1756	5.2 2.6 6.6	ft 160 80 200	cm 160 200 200	<b>4</b> Su 0056 0656 1259 1904	1.0 6.6 1.6 7.5	ft 30 200 50 230	cm 170 200 70 230	<b>19</b> M 0032 0637 1236 1838	1.6 6.2 2.3 6.6	ft 50 190 70 200	cm 170 200 200 200	<b>19</b> W 0027 0647 1258 1841	1.6 6.9 2.3 6.6	ft 50 210 70 200	cm 160 210 70 200
<b>5</b> F 0024 0610 1207 1836	1.6 5.6 1.6 7.5	ft 50 170 50 230	cm 150 210 200 230	<b>20</b> Sa 0042 0633 1224 1845	2.0 5.6 2.3 6.9	ft 60 170 70 210	cm 160 200 200 230	<b>5</b> M 0144 0746 1356 1953	1.0 7.2 1.3 7.5	ft 30 220 40 230	cm 170 210 200 210	<b>20</b> Tu 0115 0721 1330 1922	1.3 6.9 2.0 6.9	ft 40 210 60 210	cm 150 230 60 200	<b>20</b> Th 0115 0737 1356 1933	1.3 7.5 2.0 6.6	ft 40 230 60 200	cm 150 230 60 200
	0123 0711 1313 1931	ft 6.2 1.3 7.9	cm 40 40 240	<b>21</b> Sa 0123 0715 1314 1926	1.6 6.2 2.0 6.9	ft 50 190 60 210	cm 150 210 200 210	<b>6</b> Tu 0226 0831 1448 2036	0.7 7.5 1.3 7.2	ft 20 230 40 220	cm 170 230 50 220	<b>21</b> W 0155 0804 1420 2006	1.0 7.2 1.6 6.9	ft 30 220 50 210	cm 170 240 50 200	<b>21</b> F 0201 0824 1452 2024	1.0 7.9 2.0 6.6	ft 30 240 60 200	cm 170 240 60 200
	0214 0803 1411 2020	ft 6.6 1.0 8.2	cm 30 30 250	<b>22</b> Su 0200 0754 1401 2005	1.3 6.6 1.6 7.2	ft 40 200 200 220	cm 150 200 200 220	<b>7</b> W 0304 0912 1534 2117	0.7 7.5 1.3 6.9	ft 20 230 40 210	cm 170 230 50 210	<b>22</b> Tu 0234 0846 1508 2048	1.0 7.5 1.6 6.9	ft 30 230 50 210	cm 170 240 50 200	<b>22</b> Th 0306 0933 1604 2133	1.0 7.9 1.6 6.2	ft 30 240 50 190	cm 170 240 50 200
	0258 0849 1502 2104	ft 0.7 7.2 1.0 7.9	cm 20 220 30 240	<b>23</b> M 0235 0832 1444 2041	1.0 6.9 1.3 7.2	ft 30 210 40 220	cm 150 210 200 220	<b>8</b> Th 0338 0952 1618 2155	0.7 7.9 1.3 6.6	ft 20 240 40 200	cm 170 240 50 200	<b>23</b> F 0312 0928 1556 2131	0.7 8.2 1.3 6.6	ft 20 250 40 200	cm 170 240 50 200	<b>23</b> W 0329 0957 1637 2205	0.7 8.5 1.3 6.2	ft 20 260 40 190	cm 170 240 50 200
<b>9</b> Tu 0337 0933 1549 2145	0.7 7.5 1.0 7.5	ft 20 230 30 230	cm 20 230 30 230	<b>24</b> W 0310 0909 1526 2118	1.0 7.2 1.3 7.2	ft 30 220 40 220	cm 150 210 200 220	<b>9</b> F 0409 1030 1659 2232	1.0 7.9 1.6 6.2	ft 30 240 50 190	cm 170 240 50 200	<b>24</b> Sa 0350 1011 1644 2216	0.7 8.2 1.3 6.6	ft 20 250 40 200	cm 170 240 50 200	<b>24</b> M 0413 1044 1729 2256	0.7 8.9 1.3 6.2	ft 20 270 40 190	cm 170 240 60 200
	0413 1013 1633 2223	ft 0.7 7.5 1.0 7.2	cm 20 230 30 220	<b>25</b> W 0344 0949 1609 2154	1.0 7.5 1.3 6.9	ft 30 230 40 210	cm 150 210 200 210	<b>10</b> Sa 0438 1107 1739 2308	1.0 7.9 2.0 5.9	ft 30 240 60 180	cm 170 240 50 180	<b>25</b> Tu 0428 1056 1733 2303	0.7 8.2 1.6 6.2	ft 20 250 50 190	cm 170 240 50 180	<b>25</b> M 0440 1120 1758 2322	1.3 7.9 2.0 5.6	ft 40 240 60 170	cm 170 240 60 190
	0445 1054 1715 2300	ft 0.7 7.5 1.3 6.9	cm 20 230 30 210	<b>26</b> F 0418 1028 1651 2232	1.0 7.5 1.3 6.6	ft 30 230 40 200	cm 150 210 200 200	<b>11</b> Su 0508 1143 1818 2344	1.3 7.5 2.0 5.6	ft 40 230 60 170	cm 170 230 50 170	<b>26</b> M 0508 1143 1824 2353	1.0 8.2 1.6 5.9	ft 30 250 50 180	cm 170 230 50 180	<b>26</b> W 0546 1220 1910	1.0 8.5 1.3	ft 30 260 40 190	cm 170 230 50 190
	0515 1133 1756 2336	ft 1.0 7.5 1.6 6.2	cm 30 230 50 190	<b>27</b> Sa 0451 1110 1736 2313	1.0 7.9 1.6 6.2	ft 30 240 50 190	cm 150 210 200 190	<b>12</b> M 0539 1221 1859	1.6 7.2 2.3	ft 50 220 70	cm 170 220 70	<b>27</b> Tu 0553 1232 1921	1.3 8.2 1.6	ft 40 250 50	cm 170 220 70	<b>27</b> W 0000 0548 1231 1912	5.6 2.0 7.2 2.3	ft 170 220 70 170	cm 190 250 50 170
<b>13</b> Sa 0545 1212 1838	1.3 7.2 2.0	ft 40 220 60	cm 150 230 200	<b>28</b> Su 0526 1153 1823 2357	1.0 7.5 2.0 5.9	ft 30 230 60 180	cm 150 230 200 180	<b>13</b> Tu 0024 0614 1301 1945	5.2 2.0 6.9 2.6	ft 160 60 210 80	cm 160 60 210 80	<b>28</b> F 0050 0644 1325 2020	5.6 1.6 7.9 2.0	ft 170 50 240 60	cm 160 60 220 60	<b>28</b> W 0142 0735 1402 2053	5.9 1.6 7.9 1.6	ft 180 50 240 50	cm 180 50 240 50
	0612 0616 1252 1924	ft 5.9 1.6 6.9 2.6	cm 180 50 210 80	<b>29</b> M 0605 1241 1917	1.3 7.5 2.0	ft 40 230 60	cm 150 230 200	<b>14</b> W 0111 0657 1348 2043	4.9 2.3 6.6 2.6	ft 150 70 200 80	cm 160 70 200 80	<b>29</b> Th 0156 0746 1424 2124	5.6 2.0 7.5 2.0	ft 170 60 230 60	cm 180 60 240 60	<b>29</b> F 0132 0717 1356 2047	5.2 2.6 6.9 2.3	ft 160 80 210 70	cm 180 80 220 70
	0652 0651 1338 2020	ft 2.0 2.0 6.6 2.6	cm 60 50 200 80	<b>30</b> Tu 0050 0652 1336 2023	5.6 1.6 7.5 2.3	ft 170 50 230 70	cm 160 80 200 70	<b>15</b> Th 0213 0753 1444 2150	4.9 2.6 6.6 2.6	ft 150 80 200 80	cm 160 80 200 80	<b>15</b> F 0312 0859 1528 2225	5.6 2.0 7.5 1.6	ft 160 80 230 50	cm 160 80 200 70	<b>30</b> Sa 0234 0816 1448 2144	5.2 2.6 6.6 2.3	ft 160 80 200 70	cm 160 80 200 70
	0755 0755 1442 1442	ft 2.0 2.0 7.2 7.2	cm 60 60 220 220	<b>31</b> W 0158 0755 1442 2140	5.2 2.0 7.2 2.0	ft 160 60 220 60	cm 150 60 200 60					<b>31</b> M 0506 1108 1700 2339	6.6 2.6 80 1.6	ft 200 80 200 50	cm 190 80 200 50				

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Sydney, Australia, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height										
1 M 0041 0.0 30	1.0 30	16 Tu 0113 1.6 50	1.6 50	1 Th 0215 1.0 30	1.0 30	16 F 0211 1.6 50	1.6 50	1 Th 0113 1.0 30	1.0 30	16 F 0114 1.6 50	1.6 50
0712 6.6 200		0746 5.6 170		0843 6.6 200		0836 5.9 180		0737 6.2 190		0732 5.6 170	
1351 0.7 20		1425 1.3 40		1518 0.3 10		1505 1.0 30		1411 0.7 20		1359 1.3 40	
1949 4.9 150		2016 4.3 130		2120 4.9 150		2103 4.6 140		2014 5.2 160		2000 4.9 150	
2 Tu 0133 1.0 30		17 W 0150 1.6 50		2 F 0307 1.0 30		17 Sa 0248 1.3 40		2 F 0204 1.0 30		17 Sa 0151 1.3 40	
0804 6.6 200		0822 5.9 180		0932 6.6 200		0912 5.9 180		0826 6.2 190		0809 5.6 170	
1444 0.3 10		1459 1.3 40		1605 0.3 10		1538 1.0 30		1455 0.7 20		1431 1.0 30	
○ 2044 4.9 150		2052 4.6 140		2210 4.9 150		2139 4.9 150		2100 5.2 160		2035 5.2 160	
3 W 0226 1.0 30		18 Th 0227 1.6 50		3 Sa 0359 1.0 30		18 Su 0327 1.3 40		3 Sa 0254 1.0 30		18 Su 0230 1.3 40	
0856 6.9 210		0858 5.9 180		1020 6.2 190		0947 5.6 170		0914 6.2 190		0846 5.6 170	
1536 0.3 10		1533 1.0 30		1650 0.7 20		1612 1.0 30		1536 0.7 20		1504 1.0 30	
2138 4.9 150		2129 4.6 140		2258 4.9 150		2216 4.9 150		2144 5.2 160		2111 5.2 160	
4 Th 0319 1.0 30		19 F 0304 1.6 50		4 Su 0450 1.3 40		19 M 0408 1.3 40		4 Su 0343 1.0 30		19 M 0311 1.3 40	
0947 6.6 200		0933 5.9 180		1107 5.9 180		1026 5.6 170		0959 5.9 180		0926 5.6 170	
1628 0.3 10		1608 1.3 40		1733 1.0 30		1646 1.3 40		1616 1.0 30		1538 1.0 30	
2231 4.9 150		2205 4.6 140		2345 4.9 150		2257 4.9 150		2227 5.2 160		2149 5.6 170	
5 F 0414 1.3 40		20 Sa 0344 1.6 50		5 M 0543 1.6 50		20 Tu 0453 1.6 50		5 M 0431 1.3 40		20 Tu 0355 1.3 40	
1039 6.6 200		1009 5.6 170		1154 5.2 160		1106 5.2 160		1043 5.6 170		1007 5.2 160	
1718 0.7 20		1643 1.3 40		1816 1.3 40		1724 1.3 40		1654 1.3 40		1615 1.3 40	
2325 4.9 150		2245 4.6 140		2340 4.9 150		2309 5.2 160		2352 5.2 160		2230 5.6 170	
6 Sa 0509 1.3 40		21 Su 0424 1.6 50		6 Tu 0034 4.9 150		21 W 0542 1.6 50		6 Tu 0519 1.6 50		21 W 0442 1.3 40	
1130 5.9 180		1046 5.6 170		0638 2.0 60		1150 4.9 150		1125 4.9 150		1051 5.2 160	
1809 1.0 30		1719 1.3 40		1241 4.9 150		1805 1.3 40		1730 1.6 50		1654 1.3 40	
2326 4.6 140		2326 4.6 140		1859 1.6 50		2352 5.2 160		2315 5.6 170			
7 Su 0020 4.6 140		22 M 0508 2.0 60		7 W 0126 4.9 150		22 Th 0028 4.9 150		7 W 0609 2.0 60		22 Th 0534 1.3 40	
0606 1.6 50		1126 5.2 160		0738 2.0 60		0638 2.0 60		1208 4.6 140		1140 4.9 150	
1221 5.6 170		1758 1.3 40		1331 4.3 130		1242 4.6 140		1807 2.0 60		1737 1.6 50	
1900 1.3 40		1945 2.0 60		1852 1.6 50							
8 M 0115 4.6 140		23 Tu 0011 4.6 140		8 Th 0220 4.6 140		23 F 0123 4.9 150		8 Th 0036 4.9 150		23 F 0003 5.6 170	
0706 2.0 60		0558 2.0 60		0845 2.3 70		0745 2.0 60		0703 2.0 60		0632 1.6 50	
1315 4.9 150		1210 4.9 150		1431 3.9 120		1345 4.3 130		1256 4.3 130		1235 4.6 140	
1949 1.3 40		1841 1.3 40		2036 2.0 60		1950 2.0 60		1848 2.3 70		1828 2.0 60	
9 Tu 0213 4.6 140		24 W 0101 4.6 140		9 F 0319 4.6 140		24 Sa 0227 4.9 150		9 F 0126 4.9 150		24 Sa 0100 5.2 160	
0813 2.3 70		0654 2.0 60		0957 2.3 70		0902 2.0 60		0804 2.3 70		0741 1.6 50	
1413 4.6 140		1300 4.9 150		1543 3.9 120		1502 4.3 130		1353 3.9 120		1343 4.3 130	
○ 2040 1.6 50		1929 1.6 50		2135 2.3 70		2100 2.0 60		1940 2.3 70		1930 2.0 60	
10 W 0311 4.6 140		25 Th 0157 4.6 140		10 Sa 0419 4.9 150		25 Su 0337 5.2 160		10 Sa 0224 4.6 140		25 Su 0206 5.2 160	
0923 2.3 70		0800 2.0 60		1105 2.0 60		1022 1.6 50		0914 2.3 70		0858 1.6 50	
1515 4.3 130		1401 4.6 140		1652 3.9 120		1624 4.3 130		1504 3.6 110		1502 4.3 130	
2130 2.0 60		2024 1.6 50		2234 2.3 70		2212 2.0 60		2046 2.6 80		2046 2.3 70	
11 Th 0408 4.9 150		26 F 0258 4.9 150		11 Su 0515 4.9 150		26 M 0446 5.6 170		11 Su 0330 4.6 140		26 M 0320 5.2 160	
1033 2.3 70		0916 2.0 60		1200 2.0 60		1132 1.3 40		1023 2.3 70		1012 1.6 50	
1620 3.9 120		1515 4.3 130		1751 3.9 120		1735 4.3 130		1621 3.9 120		1622 4.3 130	
2220 2.0 60		2125 1.6 50		2328 2.0 60		2318 1.6 50		2157 2.6 80		2203 2.0 60	
12 F 0500 4.9 150		27 Sa 0401 5.2 160		12 M 0602 5.2 160		27 Tu 0548 5.9 180		12 M 0433 4.9 150		27 Tu 0431 5.6 170	
1137 2.0 60		1033 1.6 50		1246 1.6 50		1231 1.0 30		1122 2.0 60		1117 1.3 40	
1720 3.9 120		1631 4.3 130		1838 4.3 130		1833 4.6 140		1724 3.9 120		1727 4.6 140	
2309 2.0 60		2229 1.6 50				2300 2.3 70		2311 2.0 60			
13 Sa 0547 5.2 160		28 Su 0503 5.6 170		13 Tu 0014 2.0 60		28 W 0018 1.3 40		13 Tu 0528 4.9 150		28 W 0534 5.9 180	
1229 2.0 60		1144 1.3 40		0645 5.2 160		0645 6.2 190		1211 1.6 50		1213 1.0 30	
1813 3.9 120		1741 4.6 140		1325 1.3 40		1324 0.7 20		1812 4.3 130		1821 4.9 150	
2353 2.0 60		2329 1.3 40		1918 4.3 130		1926 4.9 150		2351 2.0 60			
14 Su 0630 5.2 160		29 M 0602 5.9 180		14 W 0055 1.6 50				14 W 0615 5.2 160		29 Th 0011 1.6 50	
1311 1.6 50		1245 1.0 30		0724 5.6 170				1251 1.6 50		0629 5.9 180	
1858 4.3 130		1843 4.6 140		1400 1.3 40				1851 4.6 140		1300 1.0 30	
1938 4.3 130		1954 4.6 140						1909 5.2 160		1953 5.6 170	
15 M 0034 2.0 60		30 Tu 0027 1.3 40		15 Th 0133 1.6 50				15 Th 0034 2.0 60		30 F 0104 1.3 40	
0710 5.6 170		0658 6.2 190		0800 5.6 170				0655 5.2 160		0719 5.9 180	
1349 1.3 40		1340 0.7 20		1433 1.3 40				1326 1.3 40		1345 1.0 30	
1938 4.3 130		1938 4.9 150		2029 4.6 140				1927 4.6 140		1953 5.6 170	
16 ○ 2030 1.6 50		31 W 0751 6.6 200								31 Sa 0154 1.0 30	
1425 0.3 10		1430 0.3 10								0806 5.9 180	
1425 0.3 10		2030 4.9 150								1425 1.0 30	
1425 0.3 10										2035 5.6 170	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sydney, Australia, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0241	1.0	30	<b>16</b> M	0212	1.3	40	<b>1</b> Tu	0309	1.3	40	<b>16</b> W	0242	1.0	30
	0851	5.6	170		0819	5.6	170		0909	4.9	150		0844	5.2	160
	1502	1.0	30		1428	1.3	40		1459	1.6	50		1436	1.3	40
	2115	5.6	170	●	2043	5.9	180		2124	5.9	180		2101	6.6	200
<b>2</b> M	0327	1.3	40	<b>17</b> Tu	0256	1.3	40	<b>2</b> W	0351	1.3	40	<b>17</b> Th	0333	1.0	30
	0934	5.2	160		0903	5.2	160		0950	4.9	150		0936	4.9	150
	1538	1.3	40		1505	1.3	40		1532	2.0	60		1522	1.3	40
	2155	5.6	170		2124	5.9	180		2159	5.9	180		2149	6.6	200
<b>3</b> Tu	0412	1.3	40	<b>18</b> W	0344	1.0	30	<b>3</b> Th	0432	1.6	50	<b>18</b> F	0427	1.0	30
	1016	4.9	150		0950	5.2	160		1031	4.6	140		1031	4.9	150
	1613	1.6	50		1545	1.3	40		1606	2.0	60		1613	1.6	50
	2233	5.6	170		2208	6.2	190		2235	5.6	170		2240	6.6	200
<b>4</b> W	0456	1.6	50	<b>19</b> Th	0434	1.0	30	<b>4</b> F	0515	1.6	50	<b>19</b> Sa	0524	1.0	30
	1058	4.6	140		1041	4.9	150		1113	4.3	130		1130	4.6	140
	1645	2.0	60		1630	1.6	50		1642	2.3	70		1706	2.0	60
	2311	5.2	160		2255	6.2	190		2313	5.6	170		2334	6.2	190
<b>5</b> Th	0542	1.6	50	<b>20</b> F	0530	1.3	40	<b>5</b> Sa	0600	2.0	60	<b>20</b> Su	0625	1.3	40
	1140	4.3	130		1135	4.6	140		1158	4.3	130		1231	4.6	140
	1720	2.0	60		1718	2.0	60		1723	2.6	80		1806	2.0	60
	2350	5.2	160		2346	5.9	180		2355	5.2	160		1835	2.6	80
<b>6</b> F	0631	2.0	60	<b>21</b> Sa	0630	1.3	40	<b>6</b> Su	0650	2.0	60	<b>21</b> M	0033	5.9	180
	1226	4.3	130		1235	4.6	140		1249	4.3	130		0729	1.3	40
	1800	2.3	70		1815	2.0	60		1813	2.6	80		1338	4.6	140
												1914	2.3	70	
<b>7</b> Sa	0035	4.9	150	<b>22</b> Su	0045	5.9	180	<b>7</b> M	0044	4.9	150	<b>22</b> Tu	0138	5.6	170
	0726	2.0	60		0739	1.6	50		0745	2.0	60		0832	1.3	40
	1320	3.9	120		1345	4.3	130		1349	3.9	120		1446	4.6	140
	1851	2.6	80		1921	2.3	70		1914	3.0	90	●	2027	2.3	70
<b>8</b> Su	0130	4.9	150	<b>23</b> M	0152	5.6	170	<b>8</b> Tu	0143	4.9	150	<b>23</b> W	0246	5.6	170
	0829	2.3	70		0850	1.6	50		0845	2.0	60		0930	1.6	50
	1428	3.9	120		1501	4.3	130		1455	4.3	130		1550	4.9	150
	● 1958	2.6	80	●	2038	2.3	70	●	2025	3.0	90		2140	2.3	70
<b>9</b> M	0235	4.9	150	<b>24</b> Tu	0305	5.6	170	<b>9</b> W	0248	4.9	150	<b>24</b> Th	0352	5.2	160
	0934	2.3	70		0956	1.6	50		0941	2.0	60		1024	1.6	50
	1542	3.9	120		1612	4.6	140		1557	4.3	130		1646	4.9	150
	2114	2.6	80		2154	2.3	70		2135	2.6	80		2248	2.0	60
<b>10</b> Tu	0345	4.9	150	<b>25</b> W	0415	5.6	170	<b>10</b> Th	0352	4.9	150	<b>9</b> Sa	0357	4.9	150
	1034	2.0	60		1055	1.3	40		1030	2.0	60		1024	1.6	50
	1645	4.3	130		1711	4.9	150		1648	4.6	140		1647	4.9	150
	2222	2.6	80		2301	2.0	60		2238	2.6	80		2256	2.3	70
<b>11</b> W	0445	4.9	150	<b>26</b> Th	0515	5.6	170	<b>11</b> F	0446	4.9	150	<b>10</b> Su	0453	4.9	150
	1124	2.0	60		1145	1.3	40		1114	1.6	50		1106	1.6	50
	1735	4.6	140		1801	5.2	160		1732	4.9	150		1734	5.6	170
	2319	2.3	70						2331	2.3	70		2352	2.0	60
<b>12</b> Th	0534	5.2	160	<b>27</b> F	0001	1.6	50	<b>12</b> Sa	0535	5.2	160	<b>10</b> M	0453	4.9	150
	1205	1.6	50		0609	5.6	170		1153	1.6	50		0635	1.6	50
	1815	4.6	140		1230	1.3	40		1813	5.2	160		1236	1.6	50
					1847	5.6	170					1904	5.9	180	
<b>13</b> F	0006	2.0	60	<b>28</b> Sa	0054	1.6	50	<b>13</b> Su	0019	2.0	60	<b>12</b> Tu	0045	1.3	40
	0617	5.2	160		0658	5.6	170		0621	5.2	160		0640	4.9	150
	1243	1.3	40		1312	1.3	40		1232	1.3	40		1236	1.3	40
	1852	4.9	150		1930	5.6	170		1853	5.6	170		1934	5.9	180
<b>14</b> Sa	0048	1.6	50	<b>29</b> Su	0142	1.3	40	<b>14</b> M	0106	1.6	50	<b>13</b> W	0129	1.6	50
	0658	5.2	160		0744	5.2	160		0706	5.2	160		0720	4.9	150
	1317	1.3	40		1349	1.3	40		1311	1.3	40		1348	1.6	50
	1928	5.2	160		2009	5.9	180		1933	5.9	180		2019	5.9	180
<b>15</b> Su	0130	1.6	50	<b>30</b> M	0227	1.3	40	<b>15</b> Tu	0153	1.3	40	<b>14</b> F	0251	1.6	50
	0738	5.6	170		0827	5.2	160		0754	5.2	160		0845	4.6	140
	1351	1.3	40		1425	1.6	50		1352	1.3	40		1423	2.0	60
	2004	5.6	170	○	2047	5.9	180	●	2016	6.2	190	●	2055	5.9	180
												<b>31</b> Th	0330	1.6	50
												0925	4.6	140	
												1458	2.0	60	
												2130	5.9	180	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sydney, Australia, 2018

Times and Heights of High and Low Waters

July				August				September											
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height								
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm								
<b>1</b> Su	0422	1.3	40	<b>16</b> M	0452	0.7	20	<b>1</b> W	0502	1.3	40	<b>16</b> Sa	0540	1.3	40	<b>16</b> Su	0045	3.9	120
1019	4.3	130		1059	4.9	150	1109	4.6	140	1213	4.9	150	1203	4.9	150	0636	2.0	60	
1547	2.0	60		1642	1.3	40	1650	2.0	60	1818	1.6	50	1813	1.6	50	1312	4.9	150	
2217	5.6	170		2304	6.2	190	2307	5.2	160							1955	2.0	60	
<b>2</b> M	0500	1.6	50	<b>17</b> Tu	0544	0.7	20	<b>2</b> Th	0540	1.3	40	<b>17</b> F	0023	4.9	150	<b>2</b> Su	0015	4.6	140
1100	4.3	130		1153	4.9	150	1152	4.6	140	0640	1.3	40	1305	4.9	150	0625	1.6	50	
1629	2.3	70		1739	1.6	50	1737	2.0	60	1920	2.0	60	1255	4.9	150	1410	4.6	140	
2255	5.6	170		2357	5.9	180	2348	4.9	150							2104	2.0	60	
<b>3</b> Tu	0540	1.6	50	<b>18</b> W	0635	1.0	30	<b>3</b> F	0619	1.6	50	<b>18</b> Sa	0116	4.3	130	<b>3</b> M	0115	4.3	130
1144	4.3	130		1248	4.9	150	1239	4.6	140	0727	1.6	50	1400	4.9	150	0718	1.6	50	
1714	2.3	70		1841	2.0	60	1830	2.0	60	2030	2.0	60	2030	2.0	60	1515	4.6	140	
2335	5.2	160														2211	2.0	60	
<b>4</b> W	0621	1.6	50	<b>19</b> Th	0051	5.2	160	<b>4</b> Sa	0036	4.6	140	<b>19</b> Su	0218	3.9	120	<b>4</b> Tu	0228	3.9	120
1230	4.3	130		0726	1.3	40	0704	1.6	50	0818	2.0	60	1500	4.9	150	0823	2.0	60	
1803	2.3	70		1345	4.9	150	1330	4.6	140	2143	2.0	60	2150	5.2	160	1618	4.6	140	
				1946	2.0	60	1933	2.3	70							2308	1.6	50	
<b>5</b> Th	0020	4.9	150	<b>20</b> F	0149	4.9	150	<b>5</b> Su	0133	4.6	140	<b>20</b> M	0328	3.6	110	<b>5</b> W	0348	3.9	120
0706	1.6	50		0815	1.6	50	0755	1.6	50	0915	2.0	60	1600	4.9	150	0935	1.6	50	
1321	4.6	140		1445	4.9	150	1429	4.9	150	2250	2.0	60	2300	1.3	40	1612	5.2	160	
1900	2.6	80		2058	2.3	70	2046	2.0	60							2354	1.6	50	
<b>6</b> F	0111	4.9	150	<b>21</b> Sa	0252	4.3	130	<b>6</b> M	0243	4.3	130	<b>21</b> Tu	0436	3.6	110	<b>6</b> Th	0501	4.3	130
0753	1.6	50		0906	2.0	60	0852	1.6	50	1014	2.0	60	1657	4.9	150	1044	5.9	180	
1415	4.6	140		1543	4.9	150	1530	5.2	160	2203	2.0	60	2345	2.0	60	1134	2.0	60	
2004	2.6	80		2210	2.3	70										1759	4.9	150	
<b>7</b> Sa	0209	4.6	140	<b>22</b> Su	0357	4.3	130	<b>7</b> Tu	0357	4.3	130	<b>22</b> W	0534	3.9	120	<b>7</b> F	0000	1.0	30
0842	1.6	50		0957	2.0	60	0954	1.6	50	1108	2.0	60	1746	5.2	160	0601	4.6	140	
1511	4.9	150		1638	5.2	160	1632	5.6	170							1219	1.6	50	
2115	2.3	70		2316	2.0	60	2314	1.6	50							1839	5.2	160	
<b>8</b> Su	0313	4.6	140	<b>23</b> M	0500	3.9	120	<b>8</b> W	0508	4.3	130	<b>23</b> Th	0030	1.6	50	<b>8</b> Sa	0052	0.7	20
0933	1.6	50		1046	2.0	60	1056	1.6	50	0621	3.9	120	1156	2.0	60	0655	4.9	150	
1605	5.2	160		1729	5.2	160	1731	5.9	180	1830	5.2	160	1906	6.2	190	1241	1.0	30	
2225	2.0	60					1828	6.2	190	1908	5.6	170	1957	6.2	190	1906	6.2	190	
<b>9</b> M	0419	4.6	140	<b>24</b> Tu	0011	2.0	60	<b>9</b> Th	0015	1.0	30	<b>24</b> F	0109	1.3	40	<b>9</b> Su	0141	0.3	10
1025	1.6	50		0554	3.9	120	0611	4.6	140	1238	4.3	130	1238	4.3	130	0744	4.9	150	
1700	5.6	170		1132	2.0	60	1154	1.3	40	1908	5.6	170	1908	5.6	170	1336	1.3	40	
2330	1.6	50		1814	5.2	160	1828	6.2	190							1951	5.2	160	
<b>10</b> Tu	0522	4.6	140	<b>25</b> W	0056	1.6	50	<b>10</b> F	0110	0.7	20	<b>25</b> Sa	0144	1.3	40	<b>10</b> M	0226	0.3	10
1117	1.3	40		0641	4.3	130	0707	4.6	140	0738	4.3	130	1317	1.6	50	0831	5.2	160	
1752	5.9	180		1216	2.0	60	1250	1.0	30	1944	5.6	170	1944	5.6	170	1427	0.7	20	
				1854	5.6	170	1921	6.6	200							2045	6.2	190	
<b>11</b> W	0028	1.3	40	<b>26</b> Th	0134	1.6	50	<b>11</b> Sa	0200	0.3	10	<b>26</b> Su	0215	1.0	30	<b>11</b> Tu	0309	0.3	10
0622	4.6	140		0723	4.3	130	0800	4.9	150	0813	4.6	140	1354	1.3	40	0918	5.2	160	
1210	1.3	40		1256	2.0	60	1345	1.0	30	2019	5.6	170	2019	5.6	170	1517	0.7	20	
1844	6.2	190		1931	5.6	170	●									2133	5.9	180	
<b>12</b> Th	0123	1.0	30	<b>27</b> F	0210	1.3	40	<b>12</b> Su	0250	0.3	10	<b>27</b> W	0248	1.0	30	<b>12</b> M	0351	0.7	20
0719	4.9	150		0801	4.3	130	0852	4.9	150	1438	1.0	30	1431	1.3	40	1003	5.2	160	
1302	1.3	40		1334	1.6	50	2104	6.6	200	2053	5.6	170	2053	5.6	170	1608	1.0	30	
1936	6.6	200		2008	5.9	180										2220	5.6	170	
<b>13</b> F	0216	0.7	20	<b>28</b> Sa	0245	1.3	40	<b>13</b> M	0338	0.3	10	<b>28</b> Tu	0319	1.0	30	<b>13</b> Th	0432	1.0	30
0815	4.9	150		0838	4.3	130	0943	5.2	160	0922	4.6	140	1509	1.3	40	1049	5.2	160	
1357	1.3	40		1412	1.6	50	1531	1.0	30	2129	5.6	170	2129	5.6	170	1700	1.3	40	
2029	6.9	210		2043	5.9	180	2154	6.6	200	2204	5.2	160	2204	5.2	160	2306	4.9	150	
<b>14</b> Sa	0309	0.3	10	<b>29</b> Su	0318	1.3	40	<b>14</b> Tu	0425	0.7	20	<b>29</b> W	0352	1.0	30	<b>14</b> F	0512	1.3	40
0910	4.9	150		0915	4.6	140	1032	5.2	160	1626	1.0	30	1549	1.3	40	1007	5.2	160	
1450	1.3	40		1449	1.6	50	1626	1.0	30	2243	5.9	180	2243	5.9	180	1618	1.3	40	
2120	6.9	210		2117	5.9	180	2243	5.9	180	2204	5.2	160	2204	5.2	160	2225	4.9	150	
<b>15</b> Su	0400	0.3	10	<b>30</b> M	0352	1.3	40	<b>15</b> W	0510	0.7	20	<b>30</b> Th	0426	1.0	30	<b>15</b> Sa	0552	1.6	50
1004	4.9	150		0951	4.6	140	1036	4.9	150	1122	1.3	40	1036	4.9	150	1221	4.9	150	
1545	1.3	40		1528	1.6	50	1720	1.3	40	2332	5.6	170	2332	5.6	170	1851	1.6	50	
2212	6.6	200		2153	5.6	170										2326	4.9	150	
<b>31</b> Tu	0427	1.3	40													<b>31</b> F	0500	1.3	40
1607	2.0	60														1117	4.9	150	
2229	5.6	170														1719	1.6	50	

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to the chart datum of soundings.

# Sydney, Australia, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0005	4.3	130	16 Tu 0111	3.6	110	1 Th 0223	4.3	130	1 Sa 0314	4.6	140
0558	1.6	50	0640	2.3	70	0759	2.0	60	0900	2.0	60
1229	5.2	160	1315	4.6	140	1425	5.2	160	1515	5.2	160
1907	1.6	50	2017	2.0	60	2120	1.3	40	2151	1.3	40
2 Tu 0110	3.9	120	17 W 0218	3.6	110	2035	4.3	130	0414	4.9	150
0656	2.0	60	0745	2.6	80	0915	2.0	60	1013	2.0	60
1330	5.2	160	1418	4.6	140	1537	5.2	160	1620	4.9	150
2022	1.6	50	2121	2.0	60	2221	1.0	30	2243	1.3	40
3 W 0226	3.9	120	18 Th 0329	3.6	110	0437	4.6	140	0507	5.2	160
0808	2.0	60	0859	2.6	80	1026	1.6	50	1119	1.6	50
1443	5.2	160	1528	4.6	140	1643	5.2	160	1631	4.6	140
2138	1.3	40	2219	2.0	60	2314	1.0	30	2258	1.6	50
4 Th 0346	3.9	120	19 F 0430	3.9	120	0530	4.9	150	0556	5.2	160
0925	2.0	60	1007	2.3	70	1130	1.3	40	1218	1.3	40
1556	5.2	160	1630	4.6	140	1739	5.2	160	1813	4.9	150
2244	1.0	30	2308	1.6	50						
5 F 0453	4.3	130	20 Sa 0518	4.3	130	0001	1.0	30	0013	1.3	40
1036	1.6	50	1104	2.0	60	0617	5.2	160	0641	5.6	170
1700	5.6	170	1720	4.9	150	1226	1.3	40	1310	1.3	40
2340	1.0	30	2349	1.3	40	1831	5.2	160	1902	4.6	140
6 Sa 0548	4.6	140	21 Su 0600	4.6	140	0045	1.0	30	0053	1.3	40
1138	1.3	40	1153	2.0	60	0702	5.6	170	0723	5.9	180
1758	5.9	180	1803	4.9	150	1317	1.0	30	1356	1.3	40
						1919	5.2	160	1948	4.6	140
7 Su 0030	0.7	20	22 M 0026	1.3	40	0124	1.0	30	0131	1.3	40
0638	4.9	150	0636	4.9	150	0745	5.9	180	0802	5.9	180
1233	1.0	30	1235	1.6	50	1405	1.0	30	1438	1.0	30
1849	5.9	180	1843	4.9	150	2005	4.9	150	2031	4.6	140
8 M 0115	0.7	20	23 Tu 0059	1.0	30	0202	1.0	30	0208	1.6	50
0724	5.2	160	0711	4.9	150	0826	5.9	180	0841	5.9	180
1326	1.0	30	1315	1.3	40	1451	1.0	30	1518	1.0	30
1938	5.9	180	1921	5.2	160	2050	4.9	150	2113	4.3	130
9 Tu 0157	0.7	20	24 W 0131	1.0	30	0239	1.3	40	0245	1.6	50
0808	5.6	170	0745	5.2	160	0905	5.9	180	0917	5.9	180
1415	0.7	20	1355	1.0	30	1535	1.0	30	1557	1.3	40
2026	5.6	170	2000	5.2	160	2134	4.6	140	2153	4.3	130
10 W 0236	0.7	20	25 Th 0205	1.0	30	0315	1.6	50	0321	2.0	60
0851	5.6	170	0822	5.6	170	0944	5.9	180	0954	5.6	170
1503	0.7	20	1437	1.0	30	1618	1.0	30	1635	1.3	40
2111	5.2	160	2041	4.9	150	2216	4.3	130	2233	4.3	130
11 Th 0315	1.0	30	26 F 0241	1.0	30	0351	1.6	50	0400	2.0	60
0933	5.6	170	0900	5.9	180	1021	5.6	170	1030	5.6	170
1552	1.0	30	1521	1.0	30	1701	1.3	40	1715	1.3	40
2156	4.9	150	2125	4.9	150	2300	4.3	130	2315	4.3	130
12 F 0352	1.3	40	27 Sa 0318	1.3	40	0429	2.0	60	0440	2.0	60
1015	5.6	170	0942	5.9	180	1100	5.2	160	1109	5.2	160
1639	1.0	30	1608	1.0	30	1746	1.6	50	1757	1.6	50
2241	4.6	140	2213	4.6	140	2345	3.9	120			
13 Sa 0430	1.6	50	28 Su 0400	1.3	40	1310	2.3	70	0434	1.6	50
1056	5.2	160	1027	5.9	180	1141	5.2	160	1103	6.2	190
1728	1.3	40	1700	1.0	30	1834	1.6	50	1750	1.0	30
2327	4.3	130	2304	4.6	140				2357	4.3	130
14 Su 0507	2.0	60	29 M 0447	1.6	50	0036	3.9	120	0636	2.0	60
1137	5.2	160	1116	5.6	170	0559	2.3	70	1000	4.3	120
1818	1.6	50	1757	1.0	30	1228	4.9	150	0532	2.0	60
						1928	2.0	60	1159	5.9	180
15 M 0015	3.9	120	30 Tu 0002	4.3	130	0135	3.9	120	0208	4.3	120
0549	2.0	60	0542	2.0	60	0659	2.6	80	0746	2.0	60
1222	4.9	150	1211	5.6	170	1323	4.6	140	1405	5.2	160
1915	2.0	60	1901	1.3	40	2026	2.0	60	2055	1.3	40
			31 W 0109	4.3	130						
			0645	2.0	60						
			1314	5.2	160						
			2012	1.3	40						

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Phillip, Point Lonsdale, Australia, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M	0316 0946 1545 1.0 1.0 1.0	2.6 4.3 4.6 130 30 140	<b>16</b> Tu	0445 1052 1713 1.3 1.3 1.0	2.6 3.9 4.6 80 120 40	<b>1</b> Th	0002 0521 1146 1.3 1.3 1.0	4.9 2.3 4.6 150 70 140
2322 O	4.9 1.0	150 30		1749 ● 1804	0.7 1.0 20 30		1827 ● 1911	1.3 1.3 40 40
<b>2</b> Tu	0434 1057 1657 1.0 1.0 1.0	2.6 4.6 0.7 140 20 20	<b>17</b> W	0023 0549 1146 1.3 1.0 1.0	4.6 2.6 4.6 140 80 140	<b>2</b> F	0101 0630 1252 1.3 1.3 1.0	5.2 2.0 4.6 160 60 140
				1852 ● 1946	0.7 0.7 20 20		1911 ● 1948	1.3 1.3 40 40
<b>3</b> W	0024 0545 1204 1.0 1.0 1.0	5.2 2.3 4.6 160 70 140	<b>18</b> Th	0106 0642 1236 1.0 1.0 1.0	4.9 2.3 4.3 150 70 130	<b>3</b> Sa	0155 0730 1351 1.0 1.0 1.0	5.2 1.6 4.9 160 60 150
1802 O	0.3 1.0	10 30		1946 1849	0.7 1.0 20 30		1948 1942	1.3 1.0 40 30
<b>4</b> Th	0120 0646 1305 1.0 1.0 1.0	5.6 2.0 4.9 170 60 150	<b>19</b> F	0144 0725 1322 1.0 1.0 1.0	4.9 2.3 4.3 150 70 130	<b>4</b> Su	0243 0823 1446 1.0 1.0 1.0	5.6 1.3 4.9 170 40 150
1901 O	0.3 1.0	10 30		2037 ● 2123	0.7 1.0 20 30		2024 2123	1.3 1.0 40 30
<b>5</b> F	0213 0742 1400 1.0 1.0 1.0	5.6 2.0 4.9 170 60 150	<b>20</b> Sa	0218 0805 1405 1.0 1.0 1.0	5.2 2.0 4.6 160 60 140	<b>5</b> M	0327 0913 1539 1.0 1.0 1.0	5.6 1.0 4.9 170 30 150
1956 O	0.3 1.0	10 30		2123 2007	1.0 1.0 30 30		2059 ● 2123	1.0 1.0 40 30
<b>6</b> Sa	0301 0834 1454 1.0 1.0 1.0	5.9 1.6 4.9 180 50 150	<b>21</b> Su	0252 0842 1445 1.0 1.0 1.0	5.2 1.6 4.6 160 50 140	<b>6</b> Tu	0408 0959 1630 1.0 1.0 1.0	5.6 1.0 4.9 170 30 150
2047 O	0.7 1.0	20 30		2205 ● 2225	1.0 1.0 30 30		2136 ● 2122	1.3 1.0 40 30
<b>7</b> Su	0347 0926 1546 1.0 1.0 1.0	5.6 1.3 4.9 170 40 150	<b>22</b> M	0326 0917 1526 1.0 1.0 1.0	5.2 1.6 4.6 160 50 140	<b>7</b> W	0445 1042 1720 1.0 1.0 1.0	5.2 1.0 4.9 160 30 150
2136 O	0.7 1.0	20 30		2245 ● 2114	1.3 1.0 40 30		2214 ● 2114	1.3 1.0 40 30
<b>8</b> M	0431 1015 1640 1.0 1.0 1.0	5.6 1.0 4.9 170 30 150	<b>23</b> Tu	0359 0951 1605 1.0 1.0 1.0	5.2 1.3 4.6 160 40 140	<b>8</b> Th	0522 1122 1811 1.0 1.0 1.0	4.9 1.0 4.6 150 30 140
2222 O	1.0 1.0	30 30		2325 ● 2147	1.6 1.3 50 40		2325 ● 2254	1.6 1.6 50 50
<b>9</b> Tu	0514 1102 1737 1.0 1.0 1.0	5.2 1.0 4.6 160 40 140	<b>24</b> W	0432 1024 1646 1.0 1.0 1.0	5.2 1.3 4.6 160 40 140	<b>9</b> F	0559 1200 1900 1.0 1.0 1.0	4.9 0.7 4.6 150 30 140
● 2306 O	1.3 1.3	40 40		2225 ● 2225	1.3 1.3 40 40		2336 ● 2336	2.0 2.0 60 60
<b>10</b> W	0555 1148 1838 1.0 1.0 1.0	5.2 1.0 4.6 160 30 140	<b>25</b> Th	0506 1059 1731 1.0 1.0 1.0	4.9 1.3 4.6 150 40 140	<b>10</b> Sa	0004 0635 1240 2.0 4.6 1.0	2.0 4.6 1.0 60 140 30
2350 O	1.6 1.6	50 50		2040 ● 1952	4.3 4.3 130 130		1157 ● 1900	0.7 4.6 20 140
<b>11</b> Th	0637 1233 1939 1.0 1.0 1.0	4.9 1.0 4.3 150 30 130	<b>11</b> Su	0542 1136 1823 1.0 1.0 1.0	4.9 1.0 4.6 150 30 140	<b>26</b> M	0047 0716 1323 2.3 4.3 1.3	70 130 40
				2046 ● 2046	4.3 4.3 130 130		0021 1244 2004 2.0 4.6 4.6	60 140 140
<b>12</b> F	0034 0720 1320 2.0 4.6 1.3	60 140 40 140 140 40	<b>12</b> Sa	0622 1217 1922 4.6 1.0 4.6	4.6 3.0 1.3 140 140 40	<b>27</b> Tu	0137 0804 1415 2.6 3.9 1.3	80 130 40
2038 O	4.3 4.3	130 130		2145 ● 2145	4.3 4.3 130 130		0113 0741 1341 2.3 4.3 1.0	70 130 30
				2117 ● 2117	4.6 4.6 140 140		0015 0634 1239 2.3 4.3 1.3	70 130 40
<b>13</b> Sa	0124 0807 1413 2.3 4.3 1.3	70 130 40 130 130 40	<b>13</b> Tu	0038 0709 1306 2.3 4.6 1.0	2.6 3.9 1.3 80 120 40	<b>12</b> M	0237 0901 1518 2.6 3.9 1.3	80 130 40
2137 O	4.3 4.3	130 130		2245 ● 2245	4.3 4.3 130 130		0218 0853 1453 2.6 4.3 1.0	80 130 40
<b>14</b> Su	0222 0859 1511 2.6 4.3 1.3	80 130 40 130 130 40	<b>14</b> W	0134 0804 1404 2.3 4.3 1.0	2.6 3.9 1.3 80 120 40	<b>14</b> W	0352 1007 1630 2.6 3.9 1.0	80 130 40
2236 O	4.3 4.3	130 130		2144 ● 2342	4.6 4.3 140 130		0107 1630 2342 3.9 1.3 4.3	80 120 40
<b>15</b> M	0332 0955 1614 2.6 3.9 1.3	80 120 40 130 130 40	<b>15</b> Th	0243 0912 1515 2.6 4.3 1.0	2.6 3.9 1.3 80 120 40	<b>15</b> Th	0511 1112 1734 2.6 3.9 1.3	80 120 40
2333 O	4.6 4.6	140 140		2257 ● 2257	4.6 4.6 140 140		0257 1527 2248 2.6 2.0 4.3	80 60 130
				<b>31</b> W	0402 1030 1635 2.6 4.3 0.7		0451 1131 1723 2.0 4.6 1.6	60 140 50
				● 1635	80 20		O	1131 1723 1.6 140 50

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Phillip, Point Lonsdale, Australia, 2018

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0009 4.9 150	h m ft cm	16 M 0540 2.0 60	h m ft cm	1 Tu 0027 4.9 150	h m ft cm	16 W 0533 1.3 40	h m ft cm	1 F 0117 4.9 150	h m ft cm	16 Sa 0055 4.9 150	h m ft cm
0559 1.6 50		1219 4.6 140		0626 1.3 40		1245 5.2 160		0719 1.3 40		0645 1.0 30	
1238 4.9 150		1807 2.3 70		1321 5.2 160		1817 2.6 80		1423 5.6 170		1405 5.9 180	
1828 1.6 50	●			1858 2.3 70				1953 2.6 80		1930 2.6 80	
2 M 0101 4.9 150		17 Tu 0030 4.6 140		2 W 0112 4.9 150		17 Th 0035 4.9 150		2 Sa 0156 4.9 150		17 Su 0147 5.2 160	
0654 1.3 40		0624 1.6 50		0710 1.0 30		0624 1.0 30		0759 1.3 40		0739 0.7 20	
1335 5.2 160		1311 4.9 150		1408 5.6 170		1336 5.6 170		1458 5.6 170		1455 5.9 180	
1919 1.6 50		1854 2.0 60		1941 2.0 60		1907 2.3 70		2030 2.3 70		2020 2.3 70	
3 Tu 0146 4.9 150		18 W 0115 4.9 150		3 Th 0152 4.9 150		18 F 0124 4.9 150		3 Su 0233 4.9 150		18 M 0239 5.2 160	
0740 1.0 30		0705 1.3 40		0750 1.0 30		0713 1.0 30		0836 1.3 40		0832 1.0 30	
1426 5.6 170		1358 5.2 160		1448 5.6 170		1424 5.9 180		1530 5.6 170		1543 5.9 180	
2004 1.6 50		1937 2.0 60		2019 2.0 60		1954 2.3 70		2108 2.3 70		2111 2.0 60	
4 W 0227 5.2 160		19 Th 0157 4.9 150		4 F 0229 4.9 150		19 Sa 0211 4.9 150		4 M 0310 4.9 150		19 Tu 0330 5.2 160	
0822 1.0 30		0746 1.0 30		0829 1.0 30		0800 0.7 20		0912 1.3 40		0924 1.0 30	
1511 5.6 170		1443 5.6 170		1524 5.6 170		1511 5.9 180		1601 5.6 170		1630 5.9 180	
2045 1.6 50		2019 2.0 60		2056 2.0 60		2040 2.3 70		2145 2.3 70		2201 2.0 60	
5 Th 0303 4.9 150		20 F 0238 4.9 150		5 Sa 0303 4.9 150		20 Su 0256 5.2 160		5 Tu 0347 4.6 140		20 W 0422 5.2 160	
0901 1.0 30		0829 0.7 20		0905 1.0 30		0849 0.7 20		0946 1.6 50		1015 1.3 40	
1550 5.6 170		1526 5.9 180		1557 5.6 170		1556 5.9 180		1635 5.2 160		1715 5.6 170	
2121 1.6 50		2100 2.0 60		2131 2.0 60		2126 2.0 60		2220 2.3 70		2253 2.0 60	
6 F 0337 4.9 150		21 Sa 0317 4.9 150		6 Su 0338 4.9 150		21 M 0342 5.2 160		6 W 0426 4.6 140		21 Th 0519 4.9 150	
0939 1.0 30		0912 0.7 20		0942 1.3 40		0938 1.0 30		1018 1.6 50		1103 1.6 50	
1627 5.2 160		1609 5.6 170		1630 5.2 160		1642 5.9 180		1710 5.2 160		1802 5.6 170	
2157 2.0 60		2143 2.0 60		2208 2.3 70		2213 2.0 60		2256 2.3 70		2345 1.6 50	
7 Sa 0411 4.9 150		22 Su 0359 4.9 150		7 M 0415 4.6 140		22 Tu 0430 4.9 150		7 Th 0507 4.6 140		22 F 0626 4.9 150	
1015 1.0 30		0956 0.7 20		1016 1.3 40		1026 1.0 30		1052 2.0 60		1152 2.0 60	
1701 5.2 160		1653 5.6 170		1702 5.2 160		1730 5.6 170		1747 5.2 160		1850 5.2 160	
2232 2.0 60		2226 2.0 60		2244 2.3 70		2300 2.0 60		2331 2.3 70			
8 Su 0445 4.6 140		23 M 0441 4.9 150		8 Tu 0451 4.6 140		23 W 0522 4.9 150		8 F 0553 4.6 140		23 Sa 0039 1.6 50	
1049 1.0 30		1040 1.0 30		1050 1.3 40		1115 1.3 40		1128 2.0 60		0738 4.9 150	
1736 4.9 150		1739 5.2 160		1739 4.9 150		1819 5.2 160		1827 4.9 150		1242 2.3 70	
2309 2.0 60	●	2310 2.0 60		2319 2.3 70		2352 2.0 60				1939 4.9 150	
9 M 0521 4.6 140		24 Tu 0528 4.9 150		9 W 0531 4.6 140		24 Th 0624 4.6 140		9 Sa 0010 2.3 70		24 Su 0134 1.6 50	
1124 1.3 40		1126 1.0 30		1126 1.6 50		1205 1.6 50		0646 4.3 130		0844 4.9 150	
1814 4.9 150		1830 5.2 160		1818 4.9 150		1913 5.2 160		1211 2.3 70		1336 2.6 80	
2346 2.3 70		2358 2.0 60		2358 2.3 70				1911 4.9 150		2030 4.9 150	
10 Tu 0600 4.3 130		25 W 0623 4.6 140		10 Th 0617 4.3 130		25 F 0048 2.0 60		10 Su 0054 2.3 70		25 M 0232 1.6 50	
1200 1.3 40		1215 1.3 40		1200 2.0 60		0741 4.6 140		0750 4.3 130		0946 4.9 150	
1857 4.6 140		1930 4.9 150		1903 4.6 140		1300 2.0 60		1301 2.6 80		1438 3.0 90	
11 W 0026 2.3 70		26 Th 0051 2.3 70		11 F 0039 2.3 70		26 Sa 0153 2.0 60		2009 4.9 150		2123 4.6 140	
0645 4.3 130		0732 4.6 140		0713 4.3 130		0857 4.6 140				2216 4.6 140	
1238 1.6 50		1312 1.6 50		1243 2.3 70		1402 2.3 70					
1947 4.3 130		2033 4.6 140		1954 4.6 140		2106 4.9 150					
12 Th 0112 2.6 80		27 F 0200 2.3 70		12 Sa 0129 2.3 70		27 Su 0301 2.0 60		12 Tu 0244 2.0 60		27 W 0430 1.6 50	
0741 3.9 120		0857 4.3 130		0819 4.3 130		1006 4.9 150		1012 4.9 150		1144 4.9 150	
1325 2.0 60		1421 2.0 60		1336 2.3 70		1514 2.6 80		1515 3.0 90		1656 3.0 90	
2045 4.3 130		2137 4.6 140		2050 4.6 140		2202 4.9 150		2154 4.6 140		2310 4.6 140	
13 F 0208 2.6 80		28 Sa 0319 2.0 60		13 M 0227 2.3 70		28 W 0407 1.6 50		13 Th 0346 1.6 50		28 O 0522 1.3 40	
0849 3.9 120		1015 4.6 140		0934 4.3 130		1111 4.9 150		1118 5.2 160		1235 5.2 160	
1423 2.0 60		1543 2.3 70		1443 2.6 80		1629 2.6 80		1630 3.0 90		1755 3.0 90	
2148 4.3 130		2239 4.6 140		2148 4.6 140		2258 4.6 140		2256 4.6 140			
14 Sa 0319 2.6 80		29 Su 0433 2.0 60		14 M 0332 2.0 60		29 Tu 0505 1.6 50		14 Th 0450 1.3 40		29 F 0000 4.6 140	
1007 3.9 120		1125 4.9 150		1046 4.6 140		1210 5.2 160		1218 5.6 170		0610 1.3 40	
1537 2.3 70		1701 2.3 70		1600 2.6 80		1735 2.6 80		1738 3.0 90		1319 5.2 160	
2248 4.3 130		2335 4.9 150		2247 4.6 140		2349 4.6 140		2357 4.9 150		1844 3.0 90	
15 Su 0440 2.3 70		30 M 0535 1.6 50		15 Tu 0437 1.6 50		30 W 0554 1.3 40		15 F 0549 1.0 30		30 Sa 0045 4.6 140	
1118 4.3 130		1228 5.2 160		1150 4.9 150		1300 5.6 170		1314 5.9 180		0653 1.3 40	
1702 2.3 70		1806 2.3 70		1716 2.6 80		1829 2.6 80		1837 2.6 80		1358 5.6 170	
2343 4.6 140	O			2344 4.6 140		31 Th 0035 4.9 150				1928 2.6 80	
						0638 1.3 40				1928 2.6 80	
						1345 5.6 170					
						1913 2.6 80					

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Phillip, Point Lonsdale, Australia, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height										
1 Su	0127 4.6 140	16 M	0131 5.2 160	1 W	0229 4.6 140	16 Th	0313 5.2 160	1 Sa	0332 4.9 150	16 Su	0436 5.2 160
0733 1.3 40	0725 0.7 20	0827 1.3 40	0857 1.0 30	1511 5.2 160	1544 5.6 170	0916 1.6 50	1547 5.2 160	1001 1.6 50	1627 4.9 150	1001 1.6 50	
1432 5.6 170	1437 5.9 180	2101 2.0 60	2131 1.0 30	2101 2.0 60	2131 1.0 30	1547 5.2 160	2141 1.3 40	1627 4.9 150	2228 1.0 30	2228 1.0 30	
2007 2.6 80	2004 2.0 60										
2 M	0207 4.9 150	17 Tu	0227 5.2 160	2 Th	0308 4.9 150	17 F	0406 5.2 160	2 Su	0412 4.9 150	17 M	0520 5.2 160
0812 1.3 40	0819 1.0 30	0900 1.6 50	0943 1.3 40	1544 5.2 160	1624 5.6 170	0954 1.6 50	1621 4.9 150	1041 2.0 60	1703 4.9 150	1041 2.0 60	
1504 5.6 170	1525 5.9 180	2135 2.0 60	2218 1.0 30			2215 1.0 30		2307 1.0 30		2307 1.0 30	
2046 2.3 70	2058 2.0 60										
3 Tu	0246 4.9 150	18 W	0321 5.2 160	3 F	0347 4.9 150	18 Sa	0500 5.2 160	3 M	0454 4.9 150	18 Tu	0604 4.9 150
0847 1.3 40	0912 1.0 30	1610 5.9 180	1026 1.6 60	1616 5.2 160	1702 5.2 160	1032 2.0 60	1656 4.9 150	1119 2.0 60	1742 4.6 140	1119 2.0 60	
1537 5.6 170	2150 1.6 50	2209 1.6 50	2301 1.0 30			2252 1.0 30		2345 1.3 40		2345 1.3 40	
2123 2.3 70											
4 W	0326 4.6 140	19 Th	0415 5.2 160	4 Sa	0429 4.9 150	19 Su	0553 4.9 150	4 Tu	0540 4.9 150	19 W	0650 4.6 140
0920 1.6 50	1000 1.3 40	1654 5.6 170	1009 2.0 60	1649 5.2 160	1742 4.9 150	1107 2.0 60	1733 4.9 150	1113 2.0 60	1822 4.3 130	1200 2.3 70	
1610 5.6 170	2241 1.3 40	2242 1.6 50	2344 1.0 30			2331 1.0 30				1822 4.3 130	
2159 2.3 70											
5 Th	0405 4.6 140	20 F	0515 4.9 150	5 Su	0512 4.9 150	20 M	0645 4.9 150	5 W	0631 4.9 150	20 Th	0026 1.3 40
0953 1.6 50	1047 1.6 50	1736 5.6 170	1047 2.0 60	1724 4.9 150	1821 4.9 150	1148 2.3 70	1817 4.6 140	1156 2.3 70	1244 2.3 70	0741 4.3 130	
1644 5.2 160	2330 1.3 40	2317 1.3 40						1911 4.3 130			
2233 2.0 60											
6 F	0446 4.6 140	21 Sa	0616 4.9 150	6 M	0600 4.9 150	21 Tu	0026 1.3 40	6 Th	0016 1.0 30	21 F	0112 1.6 50
1027 2.0 60	1132 2.0 60	1818 5.2 160	1129 2.3 70	1801 4.9 150	1231 2.3 70	0739 4.6 140	1245 2.6 80	0732 4.6 140	1245 2.6 80	0836 4.3 130	
1718 5.2 160			2356 1.3 40	1905 4.6 140		1905 4.6 140		1911 4.6 140		1335 2.6 80	
2307 2.0 60										2008 3.9 120	
7 Sa	0531 4.6 140	22 Su	0016 1.3 40	7 Tu	0656 4.6 140	22 W	0110 1.3 40	7 F	0109 1.0 30	22 Sa	0208 2.0 60
1104 2.0 60	0718 4.9 150	1217 2.3 70	1215 2.6 80	1845 4.9 150	1319 2.6 80	0833 4.6 140	1344 2.6 80	0842 4.6 140	1443 2.6 80	0935 4.3 130	
1755 5.2 160	1902 4.9 150				1954 4.3 130		2017 4.3 130		2116 3.9 120		
2344 2.0 60											
8 Su	0623 4.6 140	23 M	0103 1.3 40	8 W	0041 1.3 40	23 Th	0201 1.6 50	8 Sa	0215 1.3 40	23 Su	0321 2.0 60
1147 2.3 70	0817 4.6 140	1304 2.6 80	0759 4.6 140	1306 2.6 80	1417 3.0 90	0930 4.6 140	2050 4.3 130	0956 4.6 140	1500 2.6 80	1034 4.3 130	
1834 4.9 150	1949 4.9 150		1935 4.6 140					2140 4.3 130		1607 2.6 80	
										2228 3.9 120	
9 M	0024 2.0 60	24 Tu	0154 1.6 50	9 Th	0134 1.3 40	24 F	0303 1.6 50	9 Su	0338 1.3 40	24 M	0441 2.0 60
0722 4.6 140	0915 4.6 140	1359 3.0 90	0908 4.6 140	1407 3.0 90	2037 4.6 140	1029 4.6 140	1530 3.0 90	1104 4.9 150	1623 2.3 70	1129 4.3 130	
1235 2.6 80						2152 4.3 130		2301 4.6 140		1721 2.3 70	
1919 4.9 150	2039 4.6 140									2331 4.3 130	
10 Tu	0110 1.6 50	25 W	0250 1.6 50	10 F	0239 1.3 40	25 Sa	0413 1.6 50	10 M	0500 1.3 40	25 Tu	0543 2.0 60
0829 4.6 140	1014 4.6 140	1502 3.0 90	1020 4.9 150	1521 3.0 90	2150 4.6 140	1125 4.6 140	1646 3.0 90	1205 4.9 150	1737 2.0 60	1215 4.6 140	
1331 3.0 90						2255 4.3 130			1737 2.0 60		
2011 4.6 140	2133 4.6 140									O	
11 W	0204 1.6 50	26 Th	0350 1.6 50	11 Sa	0354 1.0 30	26 Su	0515 1.6 50	11 Tu	0012 4.9 150	26 W	0026 4.6 140
0938 4.9 150	1111 4.9 150	1614 3.0 90	1129 4.9 150	1639 2.6 80	1215 4.6 140	1251 2.6 80	1300 5.2 160	0608 1.0 30	1300 5.2 160	0630 1.6 50	
1438 3.0 90				2309 4.6 140		2353 4.3 130		1839 1.6 50		1255 4.6 140	
2109 4.6 140	2230 4.3 130									1851 1.6 50	
12 Th	0308 1.3 40	27 F	0449 1.6 50	12 Su	0510 1.0 30	27 M	0609 1.6 50	12 W	0114 5.2 160	27 Th	0114 4.9 150
1047 4.9 150	1204 4.9 150	1720 3.0 70	1230 5.2 160	1750 2.3 70	1257 4.9 150	1842 2.3 70	1347 5.2 160	0704 1.0 30	1347 5.2 160	0709 1.6 50	
1551 3.0 90								1932 1.3 40		1332 4.9 150	
2215 4.6 140	2326 4.3 130									1927 1.3 40	
13 F	0417 1.0 30	28 Sa	0543 1.3 40	13 M	0019 4.9 150	28 Tu	0045 4.6 140	13 Th	0210 5.2 160	28 F	0156 4.9 150
1153 5.2 160	1250 4.9 150	1816 3.0 90	0616 1.0 30	1325 5.6 170	1853 2.0 60	1333 4.9 150	1923 2.0 60	1431 5.2 160	2020 1.0 30	0745 1.6 50	
1704 3.0 90										1408 4.9 150	
2327 4.9 150	O									2000 1.0 30	
14 Sa	0525 1.0 30	29 Su	0016 4.6 140	14 Tu	0121 5.2 160	29 W	0130 4.6 140	14 F	0301 5.6 170	29 Sa	0237 5.2 160
1252 5.6 170	0630 1.3 40	1330 5.2 160	0715 1.0 30	1415 5.6 170	1949 1.6 50	1408 5.2 160	2000 2.0 60	1512 5.2 160	2105 0.7 20	0821 1.6 50	
1810 2.6 80										1444 4.9 150	
15 Su	0032 4.9 150	30 M	0103 4.6 140	15 W	0218 5.2 160	30 Th	0213 4.9 150	15 Sa	0350 5.6 170	30 Su	0316 5.2 160
0627 1.0 30	0713 1.3 40	1405 5.2 160	0808 1.0 30	1500 5.6 170	2042 1.3 40	0806 1.3 40	1441 5.2 160	0921 1.3 40	1550 5.2 160	0859 1.6 50	
1346 5.9 180								2033 1.6 50		2111 1.0 30	
1908 2.3 70	1946 2.3 70										
31 Tu	0147 4.6 140							31 F	0253 4.9 150		
0751 1.3 40								0841 1.6 50			
1439 5.2 160								1515 5.2 160			
2025 2.3 70								2107 1.3 40			

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Phillip, Point Lonsdale, Australia, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0356	5.2	160	<b>16</b> Tu	0445	5.2	160	<b>1</b> Th	0508	5.2	160
	0937	1.6	50		1015	1.6	50		0522	4.9	150
	1555	4.9	150		1629	4.6	140		1104	2.0	60
	2148	0.7	20		2230	1.0	30		1043	2.0	60
<b>2</b> Tu	0437	5.2	160	<b>17</b> W	0521	4.9	150	<b>2</b> F	0556	4.9	150
	1016	2.0	60		1052	2.0	60		1128	2.0	60
	1632	4.9	150		1706	4.6	140		1751	4.6	140
	2228	1.0	30		2308	1.3	40		2343	1.3	40
<b>3</b> W	0522	4.9	150	<b>18</b> Th	0600	4.6	140	<b>3</b> Sa	0651	4.9	150
	1057	2.0	60		1130	2.0	60		1219	2.0	60
	1713	4.6	140		1746	4.3	130		1855	4.3	130
	2310	1.0	30		2345	1.3	40				
<b>4</b> Th	0612	4.9	150	<b>19</b> F	0645	4.6	140	<b>4</b> Su	0038	1.3	40
	1140	2.0	60		1211	2.3	70		0755	4.6	140
	1800	4.6	140		1833	3.9	120		1321	2.0	60
	2357	1.0	30						2018	4.3	130
<b>5</b> F	0710	4.6	140	<b>20</b> Sa	0027	1.6	50	<b>5</b> M	0145	2.0	60
	1229	2.3	70		0735	4.3	130		0901	4.6	140
	1858	4.3	130		1259	2.3	70		1439	2.0	60
					1931	3.9	120		2143	4.3	130
<b>6</b> Sa	0051	1.3	40	<b>21</b> Su	0115	2.0	60	<b>6</b> Tu	0306	2.0	60
	0818	4.6	140		0833	4.3	130		1004	4.6	140
	1329	2.3	70		1357	2.3	70		1558	1.6	50
	2013	4.3	130		2043	3.9	120		2255	4.6	140
<b>7</b> Su	0200	1.3	40	<b>22</b> M	0216	2.0	60	<b>7</b> W	0429	2.0	60
	0930	4.6	140		0933	4.3	130		1103	4.6	140
	1447	2.3	70		1512	2.3	70		1703	1.3	40
	2141	4.3	130		2159	3.9	120		2359	4.9	150
<b>8</b> M	0325	1.6	50	<b>23</b> Tu	0338	2.3	70	<b>8</b> Th	0538	2.0	60
	1036	4.6	140		1031	4.3	130		1157	4.6	140
	1613	2.0	60		1633	2.0	60		1757	1.0	30
	2300	4.6	140		2307	4.3	130				
<b>9</b> Tu	0449	1.6	50	<b>24</b> W	0502	2.3	70	<b>9</b> F	0054	5.2	160
	1136	4.6	140		1123	4.3	130		0632	2.0	60
	1724	1.6	50		1730	1.6	50		1245	4.9	150
									1844	0.7	20
<b>10</b> W	0007	4.9	150	<b>25</b> Th	0003	4.6	140	<b>10</b> Sa	0143	5.6	170
	0556	1.6	50		0559	2.0	60		0718	2.0	60
	1230	4.9	150		1210	4.6	140		1329	4.9	150
	1820	1.0	30		1810	1.3	40		1926	0.7	20
<b>11</b> Th	0106	5.2	160	<b>26</b> F	0052	4.9	150	<b>11</b> Su	0227	5.6	170
	0650	1.3	40		0642	2.0	60		0759	2.0	60
	1317	4.9	150		1253	4.6	140		1409	4.9	150
	1909	1.0	30		1847	1.0	30		2006	0.7	20
<b>12</b> F	0159	5.6	170	<b>27</b> Sa	0136	5.2	160	<b>12</b> M	0305	5.6	170
	0737	1.3	40		0720	2.0	60		0837	1.6	50
	1400	5.2	160		1334	4.9	150		1445	4.9	150
	1953	0.7	20		1925	1.0	30		2045	0.7	20
<b>13</b> Sa	0245	5.6	170	<b>28</b> Su	0219	5.6	170	<b>13</b> Tu	0340	5.6	170
	0819	1.6	50		0800	2.0	60		0914	1.6	50
	1440	4.9	150		1415	4.9	150		1522	4.6	140
	2035	0.7	20		2003	0.7	20		2122	1.0	30
<b>14</b> Su	0329	5.6	170	<b>29</b> M	0300	5.6	170	<b>14</b> W	0414	5.2	160
	0859	1.6	50		0839	1.6	50		0951	2.0	60
	1516	4.9	150		1454	4.9	150		1559	4.6	140
	2115	0.7	20		2044	0.7	20		2159	1.0	30
<b>15</b> M	0408	5.6	170	<b>30</b> Tu	0342	5.6	170	<b>15</b> Th	0447	5.2	160
	0937	1.6	50		0919	1.6	50		1028	2.0	60
	1552	4.9	150		1533	4.9	150		1636	4.3	130
	2153	0.7	20		2125	0.7	20		2234	1.3	40
	31	0424	5.6	170							
		1000	2.0	60							
		1615	4.6	140							
		2208	0.7	20							

Time meridian 150° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Adelaide, Australia, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 1 M 0402 1059 1710 2218	ft 7.9 0.7 5.9 2.6	cm 240 20 180 80	h m 16 Tu 0422 1108 1712 2235	ft 7.9 1.0 6.2 2.3	cm 240 30 190 70	h m 1 Th 0514 1201 1801 2324	ft 8.2 0.7 5.9 2.3	cm 250 20 180 70	h m 16 F 0513 1142 1746 2324	ft 8.2 0.7 6.9 1.6	cm 250 20 210 50
● 2246	2.6	80	● 2300	2.0	60	● 2346	2.0	60	● 2348	1.3	40
3 W 0505 1202 1758 2311	8.5 0.7 5.6 2.3	260 20 170 70	18 Th 0516 1153 1753 2325	8.5 0.7 6.6 2.0	260 20 200 60	3 Sa 0558 1232 1825	8.2 1.0 6.6	250 20 200	18 Su 0555 1218 1822	8.2 0.7 7.2	250 20 220
4 Th 0533 1228 1816 2337	8.5 1.0 5.6 2.3	260 30 170 70	19 F 0541 1214 1815 2352	8.5 0.7 6.6 1.6	260 20 200 50	4 Su 0011 0619 1244 1844	1.6 7.9 1.0 6.9	50 240 30 210	19 M 0015 0619 1238 1845	1.3 7.9 0.7 7.5	40 240 20 230
5 F 0600 1249 1835	8.2 1.0 5.9	250 30 180	20 Sa 0606 1237 1838	8.2 0.7 6.6	250 20 200	5 M 0036 0639 1255 1906	1.6 7.5 1.0 7.2	50 230 30 220	20 Tu 0043 0643 1257 1907	1.3 7.5 0.7 7.5	40 230 30 230
6 Sa 0003 0625 1304 1854	2.0 7.9 1.3 5.9	60 240 40 180	21 Su 0020 0631 1259 1903	1.6 8.2 0.7 6.9	50 250 20 210	6 Tu 0102 0701 1309 1932	1.6 7.2 1.0 7.5	50 220 30 230	21 W 0028 0621 1224 1843	1.3 7.2 1.0 7.9	40 220 30 250
7 Su 0029 0647 1316 1918	2.0 7.5 1.3 6.2	60 230 40 190	22 M 0049 0655 1321 1928	1.6 7.9 1.0 6.9	50 240 30 210	7 W 0131 0724 1328 2001	2.0 6.9 1.0 7.5	60 210 30 230	22 Th 0139 0728 1329 1954	1.6 6.9 1.0 7.5	40 210 30 250
8 M 0059 0711 1331 1949	2.3 7.2 1.3 6.6	70 220 40 200	23 Tu 0119 0721 1344 1957	2.0 7.5 1.0 6.9	60 230 30 210	8 Th 0205 0750 1352 2036	2.0 6.2 1.3 7.2	60 190	23 F 0210 0751 1344 2023	2.0 6.2 1.6 7.5	60 200 40 250
9 Tu 0135 0739 1354 2029	2.3 6.6 1.6 6.6	70 200 50 200	24 W 0154 0751 1408 2032	2.0 6.9 1.3 6.9	60 190	9 F 0246 0817 1417 2119	2.6 5.6 2.0 6.6	80 170	9 M 0247 0812 1354 2055	2.6 5.2 2.3 6.9	80 160 70 210
10 W 0223 0813 1426 2124	3.0 5.9 2.0 6.2	90 180 60 190	25 Th 0238 0825 1436 2117	2.3 6.2 2.0 6.6	70 190 60 200	10 Sa 0346 0835 1429 2232	3.3 4.6 3.0 5.9	100 140 90 180	10 M 0345 0756 1321 2136	3.6 4.3 3.0 5.9	110 130 90 180
11 Th 0331 0857 1506 2248	3.3 4.9 2.6 5.9	100 150 80 180	26 F 0339 0908 1502 2222	3.0 5.2 2.6 6.2	90 160 80 190	11 Su 1030 1030 1502 2222	3.3 4.6 2.6 6.2	100 150 140 200	11 M 1100 1807 1807 2149	2.6 4.9 4.9 4.6	80 150 150 140
12 F 0642 1101 1623	3.6 3.9 3.6	110 120 110	27 Sa 0632 1044 1429	3.6 3.9 3.6	110 120 110	12 M 0242 1019 1647 2140	5.9 2.3 5.2 3.6	180 70 160 110	12 Tu 0339 1049 1729 2224	6.2 1.6 5.6 3.6	190 150 170 110
13 Sa 0124 0926 1528 2017	6.2 3.0 4.6 3.6	190 90 140 110	28 Su 0118 0952 1655 2046	5.9 2.6 4.6 3.9	180 80 180 90	13 Tu 0347 1043 1659 2218	6.9 1.3 5.9 3.0	210 40 180 90	13 W 0423 1110 1733 2250	7.2 1.0 6.2 2.6	220 30 190 80
14 Su 0256 1007 1615 2126	6.9 2.0 5.2 3.0	210 60 160 90	29 M 0318 1036 1711 2157	6.9 1.3 5.2 3.3	210 40 160 100	14 W 0425 1106 1717 2244	7.5 1.0 6.2 2.3	230 30 190 70	14 Th 0345 1030 1705 2221	6.2 2.0 6.6 3.0	190 60 200 90
15 M 0346 1040 1647 2206	7.5 1.3 5.9 2.6	230 40 180 80	30 Tu 0411 1111 1734 2235	7.5 0.7 5.9 3.0	230 20 180 90	15 Th 0452 1126 1732 2305	7.9 0.7 6.6 2.0	240 20 200 60	15 F 0418 1049 1703 2242	7.2 1.3 6.6 2.3	220 40 200 70
31 W 0447 1139 1750 2302	7.9 0.7 5.9 2.6	240 20 180 80	31 O 0447 1139 1750 2302	7.9 0.7 5.9 2.6	240 20 180 80				31 M 0459 1109 1714 2315	7.5 1.3 7.2 1.6	230 40 220 50

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Port Adelaide, Australia, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0512	7.2	220	<b>16</b> M	0501	7.5	230	<b>1</b> Tu	0503	6.9	210
	1115	1.3	40		1059	1.3	40		1047	1.6	50
	1720	7.9	240		1709	8.2	250		1705	8.9	270
	2330	1.3	40	●	2327	1.0	30		2334	1.3	40
<b>2</b> M	0524	7.2	220	<b>17</b> Tu	0522	7.5	230	<b>2</b> W	0523	6.9	210
	1123	1.3	40		1116	1.3	40		1106	1.6	50
	1732	8.2	250		1729	8.5	260		1729	9.2	280
	2350	1.0	30		2354	1.0	30		2346	1.0	30
<b>3</b> Tu	0541	7.2	220	<b>18</b> W	0546	7.2	220	<b>3</b> Th	0000	1.3	40
	1136	1.3	40		1136	1.3	40		0549	6.9	210
	1753	8.5	260		1753	8.9	270		1129	1.6	50
									1756	9.2	280
<b>4</b> W	0014	1.0	30	<b>19</b> Th	0024	1.0	30	<b>4</b> F	0028	1.3	40
	0603	6.9	210		0611	6.9	210		0617	6.6	200
	1153	1.3	40		1153	1.6	50		1152	2.0	60
	1817	8.5	260		1817	8.9	270		1822	8.9	270
<b>5</b> Th	0039	1.3	40	<b>20</b> F	0051	1.3	40	<b>5</b> Sa	0054	1.6	50
	0626	6.9	210		0633	6.2	190		0641	6.6	200
	1212	1.3	40		1206	2.0	60		1214	2.0	60
	1841	8.5	260		1837	8.9	270		1846	8.5	260
<b>6</b> F	0102	1.3	40	<b>21</b> Sa	0113	1.6	50	<b>6</b> Su	0118	1.6	50
	0648	6.6	200		0649	5.9	180		0704	6.2	190
	1231	1.3	40		1216	2.0	60		1236	2.3	70
	1904	8.5	260		1856	8.5	260		1909	8.2	250
<b>7</b> Sa	0125	1.6	50	<b>22</b> Su	0132	2.0	60	<b>7</b> M	0142	2.0	60
	0709	6.2	190		0704	5.6	170		0730	5.9	180
	1251	1.6	50		1228	2.0	60		1301	2.6	80
	1925	8.2	250		1916	8.2	250		1935	7.9	240
<b>8</b> Su	0151	2.0	60	<b>23</b> M	0152	2.6	80	<b>8</b> Tu	0215	2.6	80
	0732	5.9	180		0719	5.2	160		0803	5.6	170
	1311	2.0	60		1242	2.6	80		1327	3.3	100
	● 1949	7.5	230	●	1937	7.2	220	●	2006	7.2	220
<b>9</b> M	0222	2.6	80	<b>24</b> Tu	0217	3.3	100	<b>9</b> W	0305	3.3	100
	0753	5.2	160		0723	4.6	140		0904	4.9	150
	1326	3.0	90		1236	3.3	100		1351	4.3	130
	2013	6.6	200		1941	6.2	190		2055	5.9	180
<b>10</b> Tu	0307	3.6	110	<b>25</b> W	0247	4.3	130	<b>10</b> Th	0553	3.6	110
	0756	4.6	140		0430	4.3	130		1509	5.2	160
	1252	3.6	110		1035	3.6	110		2013	4.6	140
	2009	5.6	170		1730	5.6	170		1730	4.6	140
<b>11</b> W	0943	3.3	100	<b>26</b> Th	0318	5.2	160	<b>11</b> F	0129	5.6	170
	1646	5.2	160		0943	3.0	90		0826	3.0	90
	2142	4.3	130		1619	6.2	190		1514	6.2	190
					2159	3.3	100		2115	3.6	110
<b>12</b> Th	0314	5.9	180	<b>27</b> F	0347	6.2	190	<b>12</b> Su	0302	6.2	190
	0951	2.3	70		0957	2.3	70		0912	2.6	80
	1619	6.2	190		1616	6.9	210		1538	7.2	220
	2159	3.3	100		2218	2.6	80		2150	2.6	80
<b>13</b> F	0352	6.6	200	<b>28</b> Sa	0413	6.9	210	<b>13</b> Su	0345	6.6	200
	1011	1.6	50		1013	2.0	60		0942	2.0	60
	1630	6.9	210		1625	7.5	230		1600	7.9	240
	2222	2.3	70		2237	2.0	60		2219	2.0	60
<b>14</b> Sa	0420	7.2	220	<b>29</b> Su	0432	6.9	210	<b>14</b> M	0416	7.2	220
	1029	1.3	40		1025	2.0	60		1005	2.0	60
	1642	7.5	230		1635	8.2	250		1621	8.5	260
	2242	1.6	50		2255	1.6	50		2247	1.3	40
<b>15</b> Su	0442	7.5	230	<b>30</b> M	0447	6.9	210	<b>15</b> Tu	0443	7.2	220
	1044	1.3	40		1034	2.0	60		1025	2.0	60
	1655	7.9	240		1647	8.5	260		1641	8.9	270
	2303	1.3	40	○	2313	1.3	40	●	2315	1.0	30

# Port Adelaide, Australia, 2018

Times and Heights of High and Low Waters

July			August			September		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0015 6.6 200	1.3	40	<b>16</b> M 0045 6.6 200	1.6	50	<b>1</b> W 0050 6.6 200	1.3	40
0609 6.6 200	6.6	200	0629 6.6 200	5.9	180	0650 6.6 200	6.9	210
1140 2.3 70	2.3	70	1154 2.6 80	2.6	80	1234 2.3 70	2.3	70
1804 8.9 270	8.9	270	1819 8.5 260	8.5	260	1844 8.2 250	8.2	250
<b>2</b> M 0042 6.6 200	1.3	40	<b>17</b> Tu 0105 6.6 200	2.0	60	<b>2</b> Th 0112 6.6 200	1.3	40
0638 6.6 200	6.6	200	0651 6.2 190	6.2	190	0717 7.2 220	7.2	220
1209 2.3 70	2.3	70	1222 2.6 80	2.6	80	1304 2.3 70	2.3	70
1831 8.9 270	8.9	270	1843 8.2 250	8.2	250	1909 7.9 240	7.9	240
<b>3</b> Tu 0108 6.6 200	1.6	50	<b>18</b> W 0119 6.6 200	2.0	60	<b>3</b> F 0135 7.2 220	1.6	50
0706 6.6 200	6.6	200	0714 6.6 200	6.6	200	0745 7.2 220	7.5	230
1239 2.6 80	2.6	80	1252 2.6 80	2.6	80	1338 2.6 80	2.6	80
1858 8.5 260	8.5	260	1906 7.5 230	7.5	230	1937 7.5 230	6.6	200
<b>4</b> W 0134 6.6 200	1.6	50	<b>19</b> Th 0132 6.9 210	2.0	60	<b>4</b> Sa 0158 6.9 210	1.6	50
0735 6.6 200	6.6	200	0742 6.9 210	6.9	210	0819 7.2 220	7.5	230
1311 2.6 80	2.6	80	1325 3.0 90	3.0	90	1419 2.6 80	2.6	80
1926 8.2 250	8.2	250	1931 7.2 220	7.2	220	2010 6.9 210	6.9	210
<b>5</b> Th 0201 6.6 200	2.0	60	<b>20</b> F 0150 6.9 210	2.0	60	<b>5</b> Su 0227 7.2 220	2.0	60
0810 6.6 200	6.6	200	0819 6.9 210	6.9	210	0900 7.2 220	7.2	220
1351 3.0 90	3.0	90	1408 3.3 100	3.3	100	1512 3.3 100	3.3	100
2000 7.5 230	7.5	230	2002 6.6 200	6.6	200	2051 5.9 180	5.9	180
<b>6</b> F 0236 6.6 200	2.0	60	<b>21</b> Sa 0217 6.9 210	2.3	70	<b>6</b> M 0259 6.9 210	2.6	80
0856 6.6 200	6.6	200	0907 6.9 210	6.9	210	1005 6.2 190	6.2	190
1444 3.3 100	3.3	100	1506 3.6 110	3.6	110	1643 3.9 120	3.9	120
2045 6.9 210	6.9	210	2041 5.9 180	5.9	180	2153 4.9 150	4.9	150
<b>7</b> Sa 0320 6.6 200	2.6	80	<b>22</b> Su 0255 6.9 210	2.6	80	<b>7</b> Tu 0334 6.6 200	3.6	110
0958 6.6 200	6.6	200	1012 6.9 210	6.9	210	1139 6.6 200	6.6	200
1604 3.9 120	3.9	120	1644 4.3 130	4.3	130	2056 3.3 100	3.3	100
2153 5.9 180	5.9	180	2147 4.9 150	4.9	150	2202 3.0 90	3.0	90
<b>8</b> Su 0424 6.6 200	3.0	90	<b>23</b> M 0350 6.6 200	3.3	100	<b>8</b> W 0402 4.6 140	4.6	140
1128 6.6 200	6.6	200	1209 6.6 200	6.6	200	0722 4.3 130	4.3	130
1832 3.9 120	3.9	120	2043 3.9 120	3.9	120	1434 6.9 210	6.9	210
						2207 2.3 70	2.3	70
<b>9</b> M 0002 6.6 200	5.2	160	<b>24</b> Tu 0144 4.6 140	5.2	160	<b>9</b> Th 0439 5.9 180	5.2	160
0615 3.6 110	3.6	110	0654 3.9 120	3.9	120	0915 3.9 120	3.9	120
1324 6.9 210	6.9	210	1417 7.2 220	7.2	220	1543 7.9 240	7.9	240
2043 3.0 90	3.0	90	2146 3.0 90	3.0	90	2249 1.3 40	1.3	40
<b>10</b> Tu 0240 6.6 200	5.2	160	<b>10</b> W 0340 5.2 160	5.9	180	<b>25</b> F 0509 5.9 180	5.9	180
0802 3.6 110	3.6	110	0846 3.6 110	3.6	110	1007 3.3 100	3.3	100
1444 7.5 230	7.5	230	1523 7.9 240	7.9	240	1626 8.2 250	8.2	250
2150 2.3 70	2.3	70	2224 2.0 60	2.0	60	2321 1.0 30	1.0	30
<b>11</b> W 0359 6.6 200	5.9	180	<b>26</b> Th 0423 5.9 180	5.9	180	<b>11</b> M 0532 5.9 180	6.6	200
0907 3.3 100	3.3	100	0940 3.3 100	3.3	100	1040 2.3 70	2.3	70
1537 8.2 250	8.2	250	1605 8.2 250	8.2	250	1658 8.2 250	8.2	250
2238 1.6 50	1.6	50	2254 1.6 50	1.6	50	2347 1.0 30	1.0	30
<b>12</b> Th 0446 6.6 200	5.9	180	<b>27</b> F 0453 6.2 190	6.2	190	<b>12</b> W 0546 6.2 190	6.9	210
0952 3.3 100	3.3	100	1016 2.6 80	2.6	80	1106 2.6 80	7.5	230
1617 8.9 270	8.9	270	1637 8.5 260	8.5	260	1723 8.5 260	8.5	260
2317 1.3 40	1.3	40	2320 1.3 40	1.3	40	2343 1.0 30	1.0	30
<b>13</b> F 0520 6.6 200	5.9	180	<b>13</b> M 0007 1.3 40	1.3	40	<b>28</b> Tu 0541 6.9 210	6.9	210
1026 3.0 90	3.0	90	0558 6.2 190	6.2	190	1127 1.6 50	1.6 50	50
1651 8.9 270	8.9	270	1129 2.3 70	2.3	70	1739 8.5 260	8.5	260
2350 1.0 30	1.0	30	1745 8.5 260	8.5	260	2354 1.3 40	1.3	40
<b>14</b> Sa 0545 6.6 200	5.9	180	<b>14</b> Tu 0538 6.6 200	6.6	200	<b>29</b> W 0022 1.3 40	1.0	30
1056 3.0 90	3.0	90	1109 2.3 70	2.3	70	0611 6.6 200	7.2	220
1722 9.2 280	9.2	280	1729 8.9 270	8.9	270	1154 2.0 60	1.6	50
						1806 8.2 250	8.2	250
<b>15</b> Su 0019 6.6 200	1.3	40	<b>30</b> M 0003 1.3 40	1.3	40	<b>30</b> W 0035 1.6 50	1.3	40
0607 5.9 180	5.9	180	0600 6.9 210	6.9	210	0629 6.9 210	7.5	230
1125 2.6 80	2.6	80	1136 2.0 60	2.0	60	1220 2.0 60	1.6	50
1751 8.9 270	8.9	270	1754 8.9 270	8.9	270	1826 7.9 240	7.9	240
			<b>31</b> Tu 0026 1.3 40	1.3	40	<b>31</b> F 0647 7.5 230	7.5	230
			0625 6.9 210	6.9	210	1249 2.0 60	2.0	60
			1205 2.0 60	2.0	60	1846 7.5 230	7.5	230
			1819 8.5 260	8.5	260			

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Adelaide, Australia, 2018

Times and Heights of High and Low Waters

October				November				December							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0029	1.6	50	<b>16</b> Tu	0026	1.6	50	<b>1</b> Th	0024	2.3	70	<b>16</b> Sa	0111	3.0	90
0658	7.9	240	0704	7.9	240	0718	6.9	210	0745	6.6	200	0221	3.3	100	
1321	2.0	60	1325	2.0	60	1354	3.0	90	1431	3.0	90	0832	6.2	190	
1901	5.9	180	1906	5.9	180	1911	4.6	140	2029	4.9	150	1518	2.6	80	
<b>2</b> Tu	0042	2.0	60	<b>17</b> W	0048	2.0	60	<b>2</b> F	0024	3.0	90	<b>2</b> Su	0132	4.3	130
0721	7.5	230	0728	7.2	220	0730	5.9	180	0826	5.6	170	0404	3.9	120	
1347	2.6	80	1353	2.6	80	1417	3.9	120	1621	3.6	110	0959	5.2	160	
● 1917	5.6	170	● 1928	5.2	160	1701	4.3	130	2088	3.3	100	1656	3.3	100	
<b>3</b> W	0052	2.3	70	<b>18</b> Th	0108	2.6	80	<b>3</b> Sa	0523	5.2	160	<b>3</b> M	0221	5.2	160
0745	7.2	220	0752	6.6	200	1020	4.6	140	0756	4.3	130	0031	5.6	170	
1416	3.3	100	1432	3.6	110	1505	4.9	150	1308	4.9	150	0735	3.6	110	
1914	4.6	140	1932	4.6	140	2125	3.0	90	2088	3.3	100	1311	4.9	150	
<b>4</b> Th	0041	3.0	90	<b>19</b> F	0050	3.6	110	<b>4</b> Su	0357	5.6	170	<b>4</b> Tu	0251	6.6	200
0759	6.2	190	0756	5.2	160	0937	3.3	100	0901	3.3	100	0207	6.6	200	
1448	4.6	140	2130	3.3	100	1533	5.9	180	1453	5.9	180	0900	2.6	80	
1554	4.6	140				2138	2.3	70	2055	2.6	80	1502	5.2	160	
2303	3.0	90							2102	2.6	80	2034	3.0	90	
<b>5</b> F	0548	5.2	160	<b>20</b> Sa	0417	5.2	160	<b>5</b> M	0354	6.6	200	<b>5</b> W	0320	7.2	220
1009	4.6	140	0918	3.9	120	0959	2.0	60	0935	2.3	70	0300	7.2	220	
1523	5.9	180	1501	5.6	170	1601	6.6	200	1536	6.2	190	0947	1.6	50	
2210	2.3	70	2132	2.6	80	2157	2.0	60	2126	2.0	60	1555	5.9	180	
<b>6</b> Sa	0442	5.9	180	<b>21</b> Su	0351	6.2	190	<b>6</b> Tu	0406	7.2	220	<b>6</b> Th	0345	7.9	240
0955	3.3	100	0939	3.0	90	1022	1.3	40	1004	1.3	40	0338	7.9	240	
1555	6.9	210	1538	6.6	200	1623	6.9	210	1607	6.6	200	1025	1.0	30	
2222	1.6	50	2152	2.0	60	2212	1.6	50	2151	2.0	60	1633	5.9	180	
<b>7</b> Su	0439	6.6	200	<b>22</b> M	0404	6.9	210	<b>7</b> W	0418	7.9	240	<b>7</b> F	0409	8.2	250
1018	2.3	70	1003	2.0	60	1042	1.0	30	1032	1.0	30	0409	8.2	250	
1623	7.5	230	1606	7.2	220	1639	6.6	200	1633	6.9	210	1101	0.7	20	
2240	1.3	40	2211	1.3	40	2221	1.6	50	2211	1.6	50	1705	5.9	180	
<b>8</b> M	0448	6.9	210	<b>23</b> Tu	0420	7.5	230	<b>8</b> Th	0430	8.2	250	<b>8</b> Sa	0432	8.5	260
1039	1.6	50	1025	1.3	40	1100	1.0	30	1058	0.7	20	1134	0.3	10	
1644	7.5	230	1628	7.5	230	1653	6.6	200	1657	6.6	200	1733	5.9	180	
2254	1.3	40	2227	1.3	40	● 2231	1.6	50	○ 2232	1.6	50	○ 2249	2.3	70	
<b>9</b> Tu	0454	7.2	220	<b>24</b> W	0434	7.9	240	<b>9</b> F	0445	8.5	260	<b>9</b> Su	0458	8.9	270
1057	1.3	40	1045	1.0	30	1647	7.5	230	1119	1.0	30	0510	8.9	270	
1659	7.5	230	2241	1.3	40	1709	6.6	200	1722	6.6	200	1206	0.7	20	
● 2301	1.3	40				2247	1.6	50	2254	2.0	60	1800	5.9	180	
<b>10</b> W	0500	7.5	230	<b>25</b> Th	0447	8.2	250	<b>10</b> Sa	0507	8.9	270	<b>10</b> M	0513	8.9	270
1113	1.3	40	1106	1.0	30	1143	1.0	30	1159	0.7	20	1238	0.7	20	
1710	7.2	220	1704	7.2	220	1731	6.6	200	1749	6.2	190	1826	5.6	170	
2306	1.3	40	○ 2256	1.3	40	2308	1.6	50	2316	2.0	60	2345	2.3	70	
<b>11</b> Th	0510	7.9	240	<b>26</b> F	0505	8.2	250	<b>11</b> Su	0534	8.9	270	<b>11</b> Tu	0557	8.5	260
1130	1.0	30	1131	0.7	20	1209	1.0	30	1231	1.0	30	0612	8.5	260	
1722	7.2	220	1726	7.2	220	1757	6.2	190	1815	5.9	180	1304	1.0	30	
2315	1.3	40	2314	1.3	40	2331	1.6	50	2336	2.0	60	1850	5.6	170	
<b>12</b> F	0528	8.2	250	<b>27</b> Sa	0527	8.5	260	<b>12</b> M	0601	8.5	260	<b>12</b> W	0625	8.2	250
1152	1.0	30	1159	1.0	30	1234	1.3	40	1258	1.3	40	0639	7.9	240	
1741	6.9	210	1750	6.6	200	1822	6.2	190	1837	5.6	170	1325	1.6	50	
2329	1.3	40	2332	1.6	50	2354	2.0	60	2353	2.3	70	1911	5.6	170	
<b>13</b> Sa	0551	8.2	250	<b>28</b> Su	0552	8.5	260	<b>13</b> Tu	0627	8.2	250	<b>13</b> W	0632	8.2	250
1216	1.3	40	1227	1.0	30	1257	1.6	50	1319	2.0	60	0651	7.9	240	
1802	6.6	200	1812	6.2	190	1846	5.9	180	1856	5.2	160	1325	1.3	40	
2346	1.3	40	2348	1.6	50				1923	5.9	180	1935	5.6	170	
<b>14</b> Su	0617	8.2	250	<b>29</b> M	0615	8.2	250	<b>14</b> W	0017	2.0	60	<b>14</b> F	0055	2.3	70
1239	1.6	50	1252	1.3	40	0651	7.9	240	1337	2.3	70	0106	2.6	80	
1824	6.6	200	1831	5.9	180	1321	2.0	60	1918	5.2	160	0727	6.9	210	
			2359	2.0	60	1911	5.9	180				Sa	1354	2.0	60
<b>15</b> M	0005	1.3	40	<b>30</b> Tu	0636	8.2	250	<b>15</b> Th	0043	2.3	70	<b>15</b> F	0130	2.6	80
0640	8.2	250	1311	2.0	60	0716	7.2	220	0720	6.9	210	0148	3.0	90	
1301	2.0	60	1847	5.6	170	1350	2.3	70	1401	2.6	80	0756	6.2	190	
1845	6.2	190				1941	5.2	160	○ 1953	4.9	150	1418	2.3	70	
			<b>31</b> W	0011	2.0	60						<b>31</b> M	0253	3.6	110
			0656	7.5	230							0834	5.2	160	
			1331	2.3	70							1452	2.6	80	
			1902	5.2	160							2229	5.6	170	

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Lincoln, Australia, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 1 0109 M 0834 1436 1841	ft 5.2 0.7 2.6 1.6	cm 160 20 80 50	h m 16 0123 Tu 0831 1429 1921	ft 4.9 0.7 3.0 1.3	cm 150 20 90 40	h m 1 Th 0227 0928 1526 2027	ft 5.2 0.7 2.6 1.3	cm 160 20 80 40	h m 16 0223 F 0905 1505 ● 2039	ft 5.2 0.3 3.3 1.0	cm 160 10 100 30
h m 2 0144 Tu 0907 1507 ○ 1918	ft 5.6 0.3 2.3 1.3	cm 170 10 70 40	h m 17 W 0155 0854 1452 ● 1958	ft 5.2 0.7 3.0 1.3	cm 160 20 90 40	h m 2 F 0253 0945 1540 2058	ft 5.2 0.7 3.0 1.0	cm 160 20 90 30	h m 2 0224 F 0901 1502 ○ 2036	ft 4.9 0.7 3.3 1.0	cm 150 20 100 30
h m 3 0217 W 0936 1532 1951	ft 5.6 0.7 2.3 1.3	cm 170 20 70 40	h m 18 Th 0225 0919 1514 2030	ft 5.2 0.7 3.0 1.0	cm 160 20 90 30	h m 3 Sa 0313 0959 1547 2126	ft 4.9 0.7 3.3 1.0	cm 150 20 100 30	h m 3 Sa 0246 0914 1514 2103	ft 4.9 0.7 3.6 1.0	cm 150 20 110 30
h m 4 0245 Th 1001 1548 2020	ft 5.6 0.7 2.3 1.3	cm 170 20 70 40	h m 19 F 0253 0943 1537 2059	ft 5.2 0.7 3.3 1.0	cm 160 20 100 30	h m 4 Su 0331 1011 1559 2151	ft 4.6 1.0 3.3 1.3	cm 140 30 100 40	h m 4 Su 0303 0928 1524 2201	ft 4.6 0.7 3.9 1.0	cm 150 20 120 30
h m 5 0309 F 1021 1553 2046	ft 5.2 1.0 2.6 1.3	cm 160 30 80 40	h m 20 Sa 0320 1006 1559 2127	ft 5.2 0.7 3.3 1.0	cm 160 20 100 30	h m 5 M 0349 1019 1621 2218	ft 4.3 0.7 3.6 1.3	cm 130 20 110 40	h m 5 M 0318 0938 1538 2152	ft 4.6 0.7 4.3 1.0	cm 140 20 130 30
h m 6 0333 Sa 1036 1606 2117	ft 4.9 1.0 2.6 1.3	cm 150 30 80 40	h m 21 Su 0345 1027 1622 2155	ft 4.9 0.7 3.3 1.3	cm 150 20 100 40	h m 6 Tu 0409 1029 1649 2249	ft 3.9 0.7 3.9 1.6	cm 120 20 120 50	h m 6 Tu 0335 0946 1559 2215	ft 4.3 0.7 4.6 1.3	cm 130 20 140 40
h m 7 0356 Su 1048 1632 2152	ft 4.6 1.3 3.0 1.6	cm 140 40 90 50	h m 22 M 0409 1048 1646 2225	ft 4.6 0.7 3.3 1.3	cm 140 20 100 40	h m 7 W 0427 1044 1722 2324	ft 3.6 1.0 3.9 2.0	cm 110 30 120 60	h m 7 W 0418 1032 1645 2258	ft 4.3 0.7 4.3 1.6	cm 130 20 130 50
h m 8 0418 M 1100 1709 2235	ft 3.9 1.3 3.0 2.0	cm 120 40 90 60	h m 23 Tu 0431 1108 1713 2258	ft 4.3 1.0 3.3 2.0	cm 130 30 100 60	h m 8 Th 0435 1058 1759 ● 2342	ft 3.6 1.0 3.6 2.3	cm 110 30 110 70	h m 8 Th 0443 1040 1739 ● 2311	ft 3.0 1.0 3.9 2.0	cm 90 30 120 60
h m 9 0436 Tu 1117 1758 ○ 2329	ft 3.6 1.3 3.0 2.6	cm 110 40 90 80	h m 24 W 0451 1127 1746 2342	ft 3.9 1.0 3.3 2.3	cm 120 30 100 70	h m 9 F 0007 0302 1057 1906	ft 2.6 3.0 1.3 3.3	cm 80 90 40 100	h m 9 F 0424 1024 1818 ● 2344	ft 1.3 1.3 3.6 2.3	cm 90 110 110 70
h m 10 0428 W 1139 1939	ft 3.3 1.3 3.3	cm 100 40 100	h m 25 Th 0508 1141 1834	ft 3.3 1.3 3.3	cm 100 40 100	h m 10 Sa 0508 1030 2300	ft 3.3 1.3 3.6	cm 100 40 110	h m 10 Sa 0926 0926 2305	ft 1.3 1.3 3.9	cm 90 40 120
h m 11 1156 Th 2256	ft 1.6 3.6	cm 50 110	h m 26 F 1131 2201	ft 1.6 3.6	cm 50 110	h m 11 Su 0904 0904	ft 1.6 1.6	cm 50 50	h m 11 M 0829 0829	ft 1.0 1.0	cm 30 30
h m 12 1047 F 2341	ft 1.6 3.9	cm 50 120	h m 27 Sa 0936 2326	ft 1.6 3.9	cm 50 120	h m 12 M 0005 0813 1417 1718	ft 3.9 1.3 2.3 2.3	cm 120 40 80 70	h m 12 Tu 0033 0818 1439 1855	ft 4.3 0.7 3.0 2.3	cm 130 20 90 70
h m 13 0805 Sa 1324 1627	ft 1.6 2.0 2.0	cm 50 60 60	h m 28 Su 0816 1436 1609	ft 1.3 2.3 2.3	cm 40 70 70	h m 13 Tu 0048 0812 1416 1851	ft 4.3 1.0 2.6 2.0	cm 130 30 80 60	h m 13 W 0120 0830 1439 1937	ft 4.6 0.7 3.0 1.6	cm 140 20 90 50
h m 14 0017 Su 0757 1343 1737	ft 4.3 1.3 2.3 1.6	cm 130 40 70 50	h m 29 M 0026 0821 1433 1734	ft 4.6 0.7 2.3 2.0	cm 140 20 80 60	h m 14 W 0123 0824 1429 1936	ft 4.6 0.7 3.0 1.6	cm 140 20 90 50	h m 14 W 0038 0751 1407 1910	ft 4.3 1.0 3.0 2.0	cm 130 30 90 60
h m 15 0051 M 0810 1406 1835	ft 4.9 1.0 2.6 1.6	cm 150 30 80 50	h m 30 Tu 0113 0843 1449 1855	ft 4.9 0.7 2.6 1.6	cm 150 20 80 50	h m 15 Th 0154 0843 1446 2009	ft 4.9 0.7 3.3 1.3	cm 150 20 100 40	h m 15 Th 0113 0803 1413 1939	ft 4.6 1.0 3.3 1.6	cm 140 30 100 50
			h m 31 W 0154 0907 1508 ○ 1949	ft 5.2 0.3 2.6 1.3	cm 160 10 80 40				h m 31 Sa 0206 0823 1429 ○ 2028	ft 4.6 1.0 4.3 1.0	cm 140 30 130 30

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Port Lincoln, Australia, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm
<b>1</b> Su	0227	4.3 130	<b>16</b> M	0221	4.6 140	<b>1</b> Tu	0222	3.6 110	<b>16</b> W	0236	3.6 110
	0836	1.0 30		0825	1.0 30		0809	1.0 30		0758	1.3 40
	1442	4.6 140		1432	4.9 150		1427	5.6 170		1424	5.9 180
	2054	1.0 30		2053	1.0 30		2106	1.0 30		2117	1.0 30
<b>2</b> M	0244	4.3 130	<b>17</b> Tu	0248	4.3 130	<b>2</b> W	0243	3.6 110	<b>17</b> Sa	0302	3.3 100
	0851	0.7 20		0841	1.0 30		0823	1.0 30		0811	1.3 40
	1455	4.9 150		1451	5.2 160		1448	5.6 170		1448	5.9 180
	2119	1.0 30		2122	1.0 30		2131	1.3 40		2148	1.3 40
<b>3</b> Tu	0300	3.9 120	<b>18</b> W	0311	3.9 120	<b>3</b> Th	0306	3.6 110	<b>18</b> F	0321	3.0 90
	0901	0.7 20		0855	1.0 30		0839	1.0 30		0820	1.3 40
	1514	5.2 160		1511	5.6 170		1513	5.6 170		1512	5.9 180
	2142	1.0 30		2150	1.0 30		2156	1.3 40		2219	1.6 50
<b>4</b> W	0319	3.9 120	<b>19</b> Th	0329	3.6 110	<b>4</b> F	0329	3.3 100	<b>19</b> Sa	0332	2.6 80
	0911	0.7 20		0902	1.0 30		0856	1.0 30		0827	1.3 40
	1536	5.2 160		1532	5.6 170		1538	5.6 170		1537	5.6 170
	2206	1.3 40		2218	1.3 40		2222	1.6 50		2250	2.0 60
<b>5</b> Th	0340	3.6 110	<b>20</b> F	0343	3.3 100	<b>5</b> Sa	0353	3.3 100	<b>20</b> W	0343	2.6 80
	0925	0.7 20		0905	1.0 30		0913	1.3 40		0836	1.6 50
	1559	5.2 160		1554	5.6 170		1603	5.2 160		1603	5.2 160
	2231	1.3 40		2247	1.6 50		2250	2.0 60		2322	2.3 70
<b>6</b> F	0401	3.3 100	<b>21</b> Sa	0352	3.0 90	<b>6</b> Su	0415	3.0 90	<b>21</b> Th	0450	3.0 90
	0940	1.0 30		0907	1.3 40		0923	1.6 50		0928	2.3 70
	1624	4.9 150		1618	5.2 160		1627	4.9 150		1640	4.9 150
	2258	1.6 50		2317	2.3 70		2323	2.0 60		2354	2.3 70
<b>7</b> Sa	0418	3.0 90	<b>22</b> Su	0347	2.6 80	<b>7</b> M	0435	3.0 90	<b>22</b> F	0048	2.3 70
	0948	1.3 40		0908	1.3 40		0924	2.0 60		0725	3.0 90
	1648	4.6 140		1643	4.9 150		1649	4.6 140		0916	3.0 90
	2331	2.3 70		2357	2.6 80					1736	3.9 120
<b>8</b> Su	0423	3.0 90	<b>23</b> M	0127	2.6 80	<b>8</b> Tu	0915	2.3 70	<b>23</b> Sa	0316	2.3 70
	0943	1.3 40		0851	1.6 50		1710	4.3 130		1220	3.3 100
	1710	4.3 130		1707	4.3 130					1519	3.3 100
										2005	3.6 110
<b>9</b> M	0929	1.6 50	<b>24</b> Tu	0756	1.6 50	<b>9</b> W	0648	2.3 70	<b>24</b> Sa	0419	2.3 70
	1729	3.9 120		1716	3.6 110		1727	3.6 110		1155	3.9 120
				1937	3.6 110					1817	3.0 90
				2144	3.6 110					2300	3.3 100
<b>10</b> Tu	0758	2.0 60	<b>25</b> W	0706	1.6 50	<b>10</b> Th	0555	2.0 60	<b>25</b> M	0504	2.3 70
	1738	3.3 100		1412	3.3 100		1334	3.3 100		1212	4.6 140
	1915	3.3 100		1850	3.0 90		1829	3.3 100		1855	2.3 70
	2232	3.6 110		2355	3.6 110		2245	3.6 110		1220	4.9 150
<b>11</b> W	0713	1.6 50	<b>26</b> Th	0701	1.6 50	<b>11</b> F	0611	2.0 60	<b>26</b> Tu	0026	3.3 100
	1407	3.0 90		1330	3.6 110		1257	3.6 110		0543	2.0 60
	1850	3.0 90		1905	2.3 70		1842	2.6 80		1238	4.9 150
										1932	2.0 60
<b>12</b> Th	0004	3.9 120	<b>27</b> F	0040	3.9 120	<b>12</b> Sa	0005	3.6 110	<b>27</b> W	0119	3.3 100
	0713	1.3 40		0711	1.6 50		0633	1.6 50		0617	2.0 60
	1339	3.3 100		1327	3.9 120		1302	4.3 130		1306	5.6 170
	1903	2.3 70		1927	2.0 60		1909	2.0 60		2009	1.3 40
<b>13</b> F	0046	4.3 130	<b>28</b> Sa	0112	3.9 120	<b>13</b> Su	0052	3.9 120	<b>28</b> W	0203	3.3 100
	0725	1.3 40		0722	1.3 40		0657	1.6 50		0647	2.0 60
	1342	3.9 120		1337	4.3 130		1317	4.6 140		1337	5.9 180
	1928	2.0 60		1950	1.6 50		1941	1.6 50		2046	1.3 40
<b>14</b> Sa	0121	4.3 130	<b>29</b> Su	0139	3.9 120	<b>14</b> M	0130	3.9 120	<b>29</b> F	0240	3.0 90
	0744	1.0 30		0736	1.3 40		0721	1.3 40		0702	1.6 50
	1355	4.3 130		1352	4.9 150		1338	5.2 160		1338	5.6 170
	1956	1.3 40		2015	1.3 40		2013	1.3 40		2029	1.3 40
<b>15</b> Su	0152	4.6 140	<b>30</b> M	0201	3.9 120	<b>15</b> Tu	0206	3.9 120	<b>30</b> F	0208	3.3 100
	0805	1.0 30		0753	1.3 40		0741	1.3 40		0727	1.6 50
	1413	4.6 140		1408	5.2 160		1401	5.6 170		1403	5.9 180
	2024	1.0 30		2040	1.0 30		2046	1.0 30		2055	1.3 40
<b>31</b> Th 0234 1.3 40  <b>31</b> Th 0751 1.3 40 1429 5.9 180 2122 1.3 40											

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Lincoln, Australia, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su	0329 3.3 100	16 M	0359 3.0 90	1 W	0409 3.6 110	16 Th	0404 3.9 120	1 Sa	0427 4.3 130	16 Su	0429 4.6 140
0839 1.6 50	0848 1.6 50	W	0948 1.6 50	W	0948 1.6 50	1009 1.6 50	1009 1.6 50	1042 1.6 50	1054 2.0 60	1054 2.0 60	
1517 5.9 180	1531 5.6 170	M	1602 5.2 160	1602 5.2 160	1557 4.3 130	1557 4.3 130	1623 3.9 120	1606 3.3 100	1606 3.3 100		
2210 1.6 50	2237 1.6 50	W	2237 1.3 40	2237 1.3 40	2214 1.3 40	2214 1.3 40	2225 1.3 40	2154 1.0 30	2154 1.0 30		
2 M	0355 3.3 100	17 Tu	0405 3.0 90	2 Th	0432 3.9 120	17 F	0430 4.3 130	2 Su	0451 4.3 130	17 M	0456 4.3 130
0906 1.6 50	0918 2.0 60	Tu	1016 1.6 50	1016 1.6 50	1036 2.0 60	1614 3.9 120	1113 2.0 60	1113 2.0 60	1125 2.3 70	1432 3.0 90	
1543 5.6 170	1552 4.9 150	F	1623 4.9 150	1623 4.9 150	2256 1.3 40	2225 1.3 40	1635 3.3 100	2149 1.3 40	1432 3.0 90		
2236 1.6 50	2249 2.0 60	W	2256 1.3 40	2256 1.3 40	2226 1.3 40	2226 1.3 40	2226 1.3 40	2226 1.3 40	2149 1.3 40		
3 Tu	0422 3.3 100	18 W	0423 3.3 100	3 F	0458 3.9 120	18 Sa	0501 4.3 130	3 M	0517 4.3 130	18 Tu	0523 3.9 120
0933 2.0 60	0951 2.0 60	Sa	1048 2.0 60	1048 2.0 60	1108 2.3 70	1108 2.3 70	1153 2.6 80	1446 3.0 90	1446 3.0 90		
1609 5.2 160	1614 4.6 140	F	1644 4.3 130	1644 4.3 130	1623 3.6 110	1623 3.6 110	1623 3.6 110	2213 1.6 50	2213 1.6 50		
2302 1.6 50	2258 2.0 60	W	2315 1.6 50	2315 1.6 50	2238 1.3 40	2238 1.3 40	2238 1.3 40	2238 1.3 40	2238 1.3 40		
4 W	0451 3.3 100	19 Th	0454 3.6 110	4 Sa	0527 3.9 120	19 Su	0536 3.9 120	4 Tu	0551 3.9 120	19 W	0548 3.3 100
1000 2.0 60	1029 2.3 70	Th	1125 2.3 70	1125 2.3 70	1147 3.0 90	1147 3.0 90	1147 3.0 90	2112 1.6 50	2112 1.6 50	0749 3.3 100	
1635 4.9 150	1634 4.3 130	F	1703 3.6 110	1703 3.6 110	1451 3.3 100	1451 3.3 100	1451 3.3 100	2008 1.6 50	2008 1.6 50	0932 3.3 100	
2329 2.0 60	2310 2.0 60	W	2332 1.6 50	2332 1.6 50	2242 1.6 50	2242 1.6 50	2242 1.6 50	2008 1.6 50	2008 1.6 50	2008 1.6 50	
5 Th	0524 3.3 100	20 F	0536 3.6 110	5 Su	0604 3.9 120	20 M	0621 3.6 110	5 W	1021 3.9 120	20 Th	1138 3.6 110
1032 2.6 80	1115 3.0 90	F	1218 3.0 90	1218 3.0 90	2223 1.6 50	2223 1.6 50	2006 1.3 40	1928 1.6 50	1928 1.6 50	1928 1.6 50	
1700 4.6 140	1644 3.6 110	W	2339 2.0 60	2339 2.0 60	2339 2.0 60	2339 2.0 60	2339 2.0 60	1928 1.6 50	1928 1.6 50	1928 1.6 50	
6 F	0000 2.0 60	21 Sa	0635 3.6 110	6 M	0835 3.6 110	21 Tu	1032 3.9 120	6 Th	1200 4.3 130	21 F	0153 3.0 90
0609 3.3 100	1217 3.3 100	Sa	1505 3.3 100	M	2247 2.0 60	21 Tu	2114 2.0 60	W	1954 1.0 30	0631 2.6 80	
1122 3.0 90	1505 3.3 100	F	2349 2.0 60	W	2349 2.0 60	21 Tu	2114 2.0 60	Th	1227 3.9 120	1227 3.9 120	
1727 3.9 120	1727 3.9 120	W	2349 2.0 60	W	2349 2.0 60	21 Tu	2114 2.0 60	F	1929 1.3 40	1929 1.3 40	
7 Sa	0036 2.3 70	22 Su	0954 3.9 120	7 Tu	1042 4.3 130	22 W	1148 4.3 130	7 F	0217 3.0 90	22 Sa	0140 3.3 100
0754 3.6 110	2351 2.0 60	Su	2351 2.0 60	Th	2018 2.0 60	W	1959 1.6 50	F	0532 2.6 80	0659 2.0 60	
1250 3.3 100	1250 3.3 100	F	2351 2.0 60	W	2351 2.0 60	W	2351 2.0 60	W	1256 4.9 150	1256 4.9 150	
1755 3.6 110	1755 3.6 110	W	2351 2.0 60	W	2351 2.0 60	W	2351 2.0 60	W	2008 1.0 30	1941 1.0 30	
8 Su	0128 2.3 70	23 M	1111 4.3 130	8 W	1153 4.6 140	23 Th	0201 2.6 80	8 Sa	0217 3.0 90	23 Su	0148 3.3 100
1025 3.9 120	2212 2.3 70	M	1111 4.3 130	W	2004 1.3 40	Th	0451 2.6 80	W	0718 2.0 60	0725 1.6 50	
2001 2.0 60	1157 4.6 140	F	1234 4.6 140	Th	1234 4.6 140	F	1335 4.9 150	W	1328 4.6 140	1328 4.6 140	
1905 2.3 70	2001 2.0 60	W	1957 1.6 50	W	1957 1.6 50	W	2027 0.7 20	W	1959 1.0 30	1959 1.0 30	
9 M	0305 2.3 70	24 Tu	0136 2.3 70	9 Th	0219 2.6 80	24 F	0156 3.0 90	9 Su	0228 3.3 100	24 M	0201 3.6 110
1121 4.6 140	1157 4.6 140	Tu	0308 2.3 70	Th	0454 2.3 70	F	0628 2.3 70	W	0752 1.3 40	0752 1.3 40	
1905 2.3 70	2001 2.0 60	F	1250 5.2 160	Th	1250 5.2 160	F	1310 4.9 150	W	1408 5.2 160	1356 4.9 150	
2001 2.0 60	2001 2.0 60	W	2026 1.0 30	W	2026 1.0 30	W	2009 1.3 40	W	2044 1.0 30	2019 1.0 30	
10 Tu	0039 2.6 80	25 W	0130 2.6 80	10 F	0233 3.0 90	25 Sa	0210 3.3 100	10 M	0243 3.6 110	25 Tu	0218 3.9 120
0423 2.3 70	0452 2.3 70	W	1235 4.9 150	F	0612 2.3 70	Sa	0722 2.0 60	M	0822 1.0 30	0820 1.0 30	
1206 4.9 150	1235 4.9 150	F	1335 5.6 170	F	1335 5.6 170	Sa	1341 4.9 150	M	1434 4.9 150	1422 4.9 150	
1942 1.6 50	2005 1.6 50	W	2051 1.0 30	W	2051 1.0 30	W	2028 1.0 30	W	2100 1.0 30	2039 0.7 20	
11 W	0139 3.0 90	26 Th	0153 3.0 90	11 Sa	0253 3.0 90	26 Su	0227 3.3 100	11 Tu	0256 3.9 120	26 W	0237 4.3 130
0517 2.3 70	0558 2.0 60	Th	1311 5.2 160	Sa	0730 2.0 60	W	0756 1.3 40	W	0850 1.0 30	0847 0.7 20	
1248 5.6 170	1311 5.2 160	F	2022 1.6 50	F	1413 5.6 170	W	1410 5.2 160	W	1454 4.6 140	1447 4.6 140	
2020 1.3 40	2116 1.0 30	W	2116 1.0 30	W	2116 1.0 30	W	2048 1.0 30	W	2113 1.0 30	2057 0.7 20	
12 Th	0221 3.0 90	27 F	0216 3.0 90	12 Su	0312 3.0 90	27 M	0245 3.6 110	12 W	0307 4.3 130	27 Th	0257 4.6 140
0605 2.3 70	0659 2.0 60	F	1344 5.6 170	Su	0814 1.6 50	M	0827 1.3 40	F	0914 0.7 20	0914 0.7 20	
1328 5.9 180	1344 5.6 170	W	2044 1.3 40	W	1444 5.6 170	W	1437 5.2 160	W	1508 4.3 130	1510 4.6 140	
2055 1.3 40	2044 1.3 40	F	2136 1.0 30	F	2136 1.0 30	W	2110 1.0 30	W	2122 1.0 30	2112 0.7 20	
13 F	0255 3.0 90	28 Sa	0239 3.3 100	13 M	0328 3.3 100	28 Tu	0305 3.9 120	13 Th	0319 4.3 130	28 F	0317 4.9 150
0653 2.0 60	0745 1.6 50	Sa	1415 5.6 170	M	0848 1.3 40	W	0855 1.0 30	W	0940 1.0 30	0940 0.7 20	
1406 5.9 180	1415 5.6 170	F	2151 1.3 40	F	1508 5.2 160	W	1502 5.2 160	W	1521 4.3 130	1531 4.3 130	
2128 1.3 40	2109 1.3 40	W	2151 1.3 40	W	2151 1.3 40	W	2130 1.0 30	W	2126 1.0 30	2124 1.0 30	
14 Sa	0324 3.0 90	29 Su	0302 3.3 100	14 Tu	0339 3.3 100	29 W	0325 3.9 120	14 F	0338 4.6 140	29 Sa	0336 4.9 150
0737 2.0 60	0821 1.6 50	Su	1445 5.6 170	Th	0918 1.3 40	W	0921 1.0 30	F	1003 1.3 40	1006 1.0 30	
1440 5.9 180	1445 5.6 170	F	2133 1.3 40	F	1525 4.9 150	W	1526 4.9 150	W	1538 3.9 120	1547 3.6 110	
2157 1.3 40	2133 1.3 40	W	2203 1.3 40	W	2203 1.3 40	W	2148 1.0 30	W	2132 1.0 30	2131 1.0 30	
15 Su	0346 3.0 90	30 M	0324 3.6 110	15 W	0347 3.6 110	30 Th	0345 4.3 130	15 Sa	0403 4.6 140	30 Su	0357 4.9 150
0816 1.6 50	0852 1.3 40	M	1512 5.6 170	W	0944 1.3 40	W	0947 1.0 30	Sa	1026 1.6 50	1033 1.3 40	
1508 5.9 180	1512 5.6 170	F	2155 1.3 40	F	1540 4.6 140	W	1547 4.6 140	W	1555 3.6 110	1601 3.3 100	
2219 1.6 50	2155 1.3 40	W	2210 1.3 40	W	2210 1.3 40	W	2204 1.0 30	W	2143 1.0 30	2131 1.0 30	
31 Tu	0346 3.6 110	31 F	0346 3.6 110	31 W	0406 4.3 130	31 F	0406 4.3 130	31 W	1014 1.3 40	30 Su	0357 4.9 150
1538 5.2 160	1538 5.2 160	F	1538 5.2 160	F	1606 4.3 130	W	1606 4.3 130	W	1606 4.3 130	1601 3.3 100	
2217 1.3 40	2217 1.3 40	W	2217 1.3 40	W	2217 1.3 40	W	2216 1.0 30	W	2131 1.0 30	2131 1.0 30	

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Lincoln, Australia, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0419 M 1102 1605 2128	ft 4.6 1.6 2.6 1.3	cm 140 50 80 40	h m <b>16</b> Tu 1110 1430 2113	ft 4.6 2.0 2.6 1.3	cm 140 60 80 40	h m <b>1</b> Th 1918 0	ft 3.9 1.3	cm 120 40	h m <b>16</b> F 1701 0	ft 3.6 2.0	cm 110 60
0444 Tu 1138 1400 O 2111	4.6 2.3 2.6 1.3	140 70 80 40	0448 W 1149 1354 O 2055	3.9 2.3 2.6 1.6	120 70 80 50	0444 Sa 1726 1841	3.3 1.3	100 40	0447 Su 1706 1721	3.6 2.0	110 60
0510 W 2001	3.9 1.3	120 40	<b>18</b> Th 1916	3.6 1.6	110 50	<b>3</b> Sa 0144 0643 1139 1836	3.0 2.6 3.3 1.3	90 80 100 40	<b>18</b> 0100 Su 0647 1057 1746	3.0 2.6 1.6	90 80 50
0534 Th 0732 1012 1929	3.6 3.3 3.6 1.3	110 100 100 40	<b>19</b> F 0711 1051 1844	3.0 3.3 1.6	90 100 50	<b>4</b> Su 0105 0651 1227 1848	3.3 2.0 3.6 1.3	100 60 110 40	<b>4</b> Tu 0023 0641 1202 1808	3.9 2.0 2.6 1.3	120 60 80 50
0228 F 0638 1201 1921	3.0 3.0 3.9 1.0	90 90 120 30	<b>20</b> Sa 0128 0645 1200 1847	3.0 2.6 3.6 1.3	90 80 110 40	<b>5</b> M 0103 0714 1301 1902	3.6 1.6 3.6 1.3	110 50 100 40	<b>5</b> W 0038 0702 1243 1831	3.9 1.6 3.3 1.3	120 50 80 40
0147 Sa 0654 1247 1933	3.0 2.3 4.3	90 70 130 30	<b>21</b> Su 0111 0654 1236 1902	3.3 2.0 3.9 1.3	100 60 120 40	<b>6</b> Tu 0114 0739 1329 1914	4.3 1.0 3.6 1.3	130 30 110 40	<b>6</b> Th 0058 0758 1341 1836	4.9 1.0 2.6 1.3	150 30 80 40
0143 Su 0721 1321 1949	3.3 1.6 4.3	100 50 130 30	<b>22</b> M 0116 0715 1307 1921	3.6 1.6 3.9 1.0	110 50 120 30	<b>7</b> W 0130 0803 1353 1929	4.6 1.0 3.3 1.0	140 30 100 30	<b>7</b> F 0115 0758 1352 1916	4.9 0.7 3.3 1.0	150 20 80 30
0153 M 0748 1350 2004	3.6 1.0 4.3	110 30 130 30	<b>23</b> Tu 0129 0740 1337 1941	4.3 1.0 4.3 1.0	130 30 120 30	<b>8</b> Th 0146 0828 1413 ● 1944	4.9 0.7 3.3 1.0	150 20 100 30	<b>23</b> Sa 0138 0829 1423 O 1935	5.2 0.7 3.3 1.0	160 20 80 30
0206 Tu 0814 1414 ● 2017	4.3 1.0 4.3	130 30 130 30	<b>24</b> W 0147 0808 1405 2001	4.6 0.7 4.3 1.0	140 20 130 30	<b>9</b> F 0205 0853 1432 1956	5.2 0.7 3.3 1.0	160 20 100 30	<b>9</b> Su 0203 0900 1451 1951	5.6 0.3 3.0 1.0	170 20 90 30
0220 W 0840 1433 2029	4.6 0.7 3.9	140 20 120 30	<b>25</b> Th 0207 0836 1432 O 2017	4.9 0.7 3.9 1.0	150 20 120 30	<b>10</b> Sa 0227 0918 1451 2010	5.6 0.7 3.0 1.0	170 20 100 30	<b>10</b> M 0228 0931 1514 2005	5.6 0.7 2.6 1.0	170 20 80 30
0234 Th 0905 1448 2038	4.9 0.7 3.6	150 20 110 30	<b>26</b> F 0227 0905 1455 2031	5.2 0.3 3.6 1.0	160 10 110 30	<b>11</b> Su 0251 0942 1513 2029	5.6 1.0 3.0 1.0	170 30 100 30	<b>11</b> Tu 0253 1002 1531 2015	5.6 1.0 2.3 1.0	160 30 90 40
0251 F 0928 1503 2043	4.9 0.7 3.6	150 20 110 30	<b>27</b> Sa 0248 0932 1516 2040	5.2 0.7 3.3 1.0	160 20 100 30	<b>12</b> M 0317 1006 1537 2048	5.2 1.0 3.0 1.0	160 30 100 40	<b>12</b> Tu 0334 1032 1543 2024	5.2 1.3 2.3 1.3	160 30 80 40
0312 Sa 0951 1521 2055	5.2 1.0 0.7	160 30 100 20	<b>28</b> Su 0310 1000 1532 2045	5.2 1.0 3.0 1.0	160 20 90 30	<b>13</b> Tu 0343 1033 1601 2100	4.9 1.3 2.6 1.3	150 40 80 40	<b>13</b> W 0345 1103 1557 2032	4.9 1.6 2.0 1.3	150 50 60 40
0337 Su 1014 1541 2109	4.9 1.3 3.0	160 40 90 30	<b>29</b> M 0332 1028 1544 2046	5.2 1.3 2.6 1.0	160 20 80 30	<b>14</b> W 0407 1103 1625 2101	4.6 1.6 2.6 1.6	140 60 60 50	<b>14</b> Th 0411 1138 1339 2022	4.6 2.0 2.0 1.6	130 40 60 60
0402 M 1040 1559 2118	4.9 1.6 3.0	150 50 90 30	<b>30</b> Tu 0356 1058 1546 2046	4.9 1.6 2.3 1.3	150 20 70 40	<b>15</b> Th 0429 1141 1436 2051	4.3 2.0 2.3 2.0	130 60 70 60	<b>15</b> Sa 0447 1205 1828 2120	3.9 1.6 2.6 2.3	120 50 80 70
0421 W 1135 1329 2022	4.6 2.0 1.3	140 60 70 40	<b>31</b> W 0421 1135 1329 2022	4.6 2.0 2.3 1.3	140 60 70 40	O					

Time meridian 142° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Port Hedland, Australia, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0356	5.2	160	<b>16</b> Tu	0451	5.9	180	<b>1</b> Th	0523	3.0	90	<b>16</b> F	0538	4.6	140
1024	19.0	580	1110	19.0	580	1147	21.3	650	1156	20.7	630				
1610	6.9	210	1700	7.5	230	1738	4.6	140	1748	5.6	170				
2222	21.7	660	2303	20.7	630	2352	23.3	710	● 2357	21.7	660				
<b>2</b> Tu	0444	3.6	110	<b>17</b> W	0523	4.9	150	<b>2</b> F	0602	2.0	60	<b>2</b> F	0511	3.6	110
1111	20.3	620	1141	19.7	600	1227	22.3	680	1224	21.7	660				
1658	5.6	170	1731	6.6	200	1818	3.6	110	1816	4.9	150				
○ 2310	22.6	690	● 2337	21.0	640										
<b>3</b> W	0529	2.3	70	<b>18</b> Th	0553	4.3	130	<b>3</b> Sa	0033	23.6	720	<b>18</b> Su	0027	22.3	680
1153	21.3	650	1211	20.3	620	0640	1.6	50	0631	3.3	100				
1743	4.9	150	1801	6.2	190	1302	23.0	700	1251	22.0	670				
2356	23.3	710				1856	3.3	100	1844	4.3	130				
<b>4</b> Th	0611	2.0	60	<b>19</b> F	0008	21.7	660	<b>4</b> Su	0112	23.3	710	<b>19</b> M	0056	22.3	680
1234	21.7	660	0621	3.9	120	0715	2.0	60	0659	3.3	100				
1825	4.3	130	1240	20.7	630	1335	23.0	700	1317	22.3	680				
			1830	5.9	180	1932	3.6	110	1913	4.3	130				
<b>5</b> F	0038	23.3	710	<b>20</b> Sa	0039	21.7	660	<b>5</b> M	0146	22.6	690	<b>20</b> Tu	0124	22.3	680
0651	2.0	60	0649	3.6	110	0748	3.0	90	0726	3.3	100				
1313	22.0	670	1308	21.0	640	1407	22.3	680	1343	22.3	680				
1906	4.3	130	1859	5.6	170	2008	4.6	140	1942	4.3	130				
<b>6</b> Sa	0119	22.6	690	<b>21</b> Su	0107	21.7	660	<b>6</b> Tu	0218	21.3	650	<b>21</b> W	0127	22.6	690
0730	2.6	80	0716	3.9	120	0821	4.3	130	0753	4.3	130				
1350	21.7	660	1334	21.0	640	1437	21.7	660	1408	22.0	670				
1947	4.9	150	1928	5.9	180	2043	5.9	180	2012	4.9	150				
<b>7</b> Su	0159	22.0	670	<b>22</b> M	0136	21.3	650	<b>7</b> W	0251	20.0	610	<b>22</b> Th	0219	20.7	630
0808	3.6	110	0744	4.3	130	0852	5.9	180	0822	5.2	160				
1427	21.0	640	1401	21.0	640	1508	20.3	620	1434	21.3	650				
2029	5.9	180	1959	6.2	190	● 2119	7.5	230	2045	6.2	190				
<b>8</b> M	0237	20.3	620	<b>23</b> Tu	0205	20.7	630	<b>8</b> Th	0324	18.0	550	<b>23</b> F	0250	19.4	590
0846	5.2	160	0813	4.9	150	0924	7.9	240	0853	6.6	200				
1504	20.3	620	1430	20.7	630	1542	19.0	580	1506	20.3	620				
2112	7.2	220	2031	6.6	200	2202	9.2	280	● 2125	7.5	230				
<b>9</b> Tu	0317	19.0	580	<b>24</b> W	0236	19.7	600	<b>9</b> F	0401	16.4	500	<b>24</b> Sa	0330	17.7	540
0926	6.9	210	0844	6.2	190	1000	9.8	300	0929	8.5	260				
1545	19.0	580	1500	20.0	610	1625	17.4	530	1548	19.0	580				
○ 2202	8.5	260	2109	7.5	230	2315	10.5	320	2223	9.2	280				
<b>10</b> W	0404	17.4	530	<b>25</b> Th	0313	18.4	560	<b>10</b> Sa	0504	14.8	450	<b>10</b> Sa	0316	17.1	520
1011	8.9	270	0919	7.5	230	1103	11.8	360	1023	10.5	320				
1637	18.0	550	1539	19.0	580	1758	16.1	490	1702	17.4	530				
2313	9.8	300	● 2159	8.5	260										
<b>11</b> Th	0508	15.7	480	<b>26</b> F	0400	17.1	520	<b>11</b> Su	0128	10.8	330	<b>26</b> M	0024	10.2	310
1117	10.2	310	1005	8.9	270	0812	14.1	430	0650	14.8	450				
1758	17.1	520	1633	18.0	550	1354	12.1	370	1250	11.8	360				
			2317	9.5	290	2016	16.1	490	1927	17.1	520				
<b>12</b> F	0057	10.2	310	<b>27</b> Sa	0519	15.7	480	<b>12</b> M	0316	9.8	300	<b>12</b> Tu	0222	9.2	280
0706	15.1	460	1125	10.5	320	0953	15.7	480	0915	16.1	490				
1307	11.2	340	1811	17.4	530	1534	11.2	340	1455	10.5	320				
1938	17.1	520				2133	17.4	530	2112	18.4	560				
<b>13</b> Sa	0229	9.5	290	<b>28</b> Su	0106	9.5	290	<b>13</b> Tu	0406	8.2	250	<b>13</b> Tu	0345	7.2	220
0859	15.4	470	0727	15.4	470	1030	17.1	520	1016	18.0	550				
1445	10.8	330	1324	10.8	330	1617	9.5	290	1603	8.2	250				
2055	17.7	540	1953	18.0	550	2217	18.7	570	2215	20.3	620				
<b>14</b> Su	0331	8.2	250	<b>29</b> M	0233	8.2	250	<b>14</b> W	0440	6.9	210	<b>14</b> W	0347	9.2	280
0959	16.7	510	0913	16.4	500	1100	18.7	570	1650	8.2	250				
1544	9.5	290	1454	9.8	300	2253	20.0	610	2202	18.0	550				
2147	18.7	570	2113	19.4	590										
<b>15</b> M	0415	6.9	210	<b>30</b> Tu	0346	6.6	200	<b>15</b> Th	0510	5.6	170	<b>15</b> Th	0419	7.5	230
1037	18.0	550	1019	18.4	560	1128	19.7	600	1719	6.9	210				
1626	8.5	260	1603	8.2	250	2326	21.0	640	2236	19.4	590				
2228	19.7	600	2215	20.7	630										
			<b>31</b> W	0439	4.6	140									
			1106	20.0	610										
			1654	6.2	190										
			○ 2307	22.3	680										

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Port Hedland, Australia, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0526	3.0	90	<b>16</b> M	0510	4.3	130	<b>1</b> Tu	0533	3.9	120
	1146	23.3	710		1129	22.3	680		1149	23.0	700
	1745	2.6	80		1729	3.6	110		1755	2.6	80
				●	2345	22.3	680				
<b>2</b> M	0003	23.0	700	<b>17</b> Tu	0540	3.6	110	<b>2</b> W	0012	22.0	670
	0559	2.6	80		1158	23.3	710		0604	3.9	120
	1217	23.6	720		1759	2.6	80		1218	23.0	700
	1817	2.3	70						1824	3.0	90
<b>3</b> Tu	0034	23.0	700	<b>18</b> W	0017	22.6	690	<b>3</b> Th	0041	21.7	660
	0629	3.0	90		0610	3.3	100		0632	4.6	140
	1245	23.6	720		1227	23.6	720		1245	22.6	690
	1847	2.6	80		1830	2.0	60		1852	3.6	110
<b>4</b> W	0103	22.3	680	<b>19</b> Th	0047	22.3	680	<b>4</b> F	0107	21.0	640
	0657	3.6	110		0641	3.3	100		0700	5.2	160
	1312	23.3	710		1256	23.6	720		1311	22.0	670
	1916	3.3	100		1902	2.3	70		1919	4.3	130
<b>5</b> Th	0130	21.7	660	<b>20</b> F	0117	22.0	670	<b>5</b> Sa	0133	20.0	610
	0724	4.6	140		0712	4.3	130		0725	6.2	190
	1337	22.3	680		1324	23.3	710		1336	21.0	640
	1944	4.3	130		1935	3.3	100		1946	5.6	170
<b>6</b> F	0155	20.3	620	<b>21</b> Sa	0148	21.0	640	<b>6</b> Su	0159	19.0	580
	0749	5.9	180		0744	5.6	170		0751	7.5	230
	1401	21.3	650		1355	22.0	670		1403	20.0	610
	2010	5.9	180		2010	4.9	150		2014	6.9	210
<b>7</b> Sa	0219	19.0	580	<b>22</b> Su	0221	19.4	590	<b>7</b> M	0228	18.0	550
	0814	7.5	230		0819	7.2	220		0819	8.9	270
	1426	20.0	610		1430	20.7	630		1432	18.7	570
	2036	7.5	230		2051	6.9	210		2045	8.5	260
<b>8</b> Su	0246	17.7	540	<b>23</b> M	0303	17.7	540	<b>8</b> Tu	0303	18.0	550
	0838	9.2	280		0901	9.2	280		0853	10.5	320
	1453	18.4	560		1517	18.7	570		1509	17.1	520
	2106	9.2	280	●	2148	8.9	270	●	2129	9.8	300
<b>9</b> M	0319	16.1	490	<b>9</b> W	0359	15.4	470	<b>23</b> W	0410	17.1	520
	0904	10.8	330		0954	11.8	360		1027	10.2	310
	1527	16.7	510		1632	16.7	510		1509	17.1	520
	2155	11.2	340		2342	10.2	310		2332	11.2	340
<b>10</b> Tu	0424	14.4	440	<b>24</b> Tu	0407	16.1	490	<b>9</b> W	0359	15.4	470
	0957	12.8	390		1016	10.8	330		0954	11.8	360
	1654	15.1	460		1632	16.7	510		1613	15.7	480
					2342	10.2	310		2332	11.2	340
<b>11</b> W	0120	11.5	350	<b>25</b> W	0631	15.4	470	<b>24</b> Sa	0553	16.4	500
	0833	14.8	450		1243	11.5	350		1248	12.1	370
	1422	12.5	380		1908	16.1	490		1858	15.1	460
	2030	15.4	470								
<b>12</b> Th	0304	10.2	310	<b>26</b> Th	0153	9.8	300	<b>11</b> F	0137	10.8	330
	0931	16.4	500		0836	16.7	510		0817	16.1	490
	1528	10.5	320		1438	9.8	300		1421	10.8	330
	2131	17.1	520		2056	17.7	540		2034	16.4	500
<b>13</b> F	0344	8.5	260	<b>12</b> Sa	0245	9.5	290	<b>26</b> Sa	0226	8.9	270
	1002	18.0	550		0930	18.7	570		0848	18.4	560
	1600	8.5	260		1533	7.5	230		1502	7.9	240
	2209	18.7	570		2150	19.4	590		2122	18.0	550
<b>14</b> Sa	0413	6.9	210	<b>27</b> F	0306	8.2	250	<b>12</b> Tu	0319	7.5	230
	1030	19.7	600		0930	18.7	570		0935	19.7	600
	1630	6.6	200		1533	7.5	230		1548	6.2	190
	2242	20.3	620		2150	19.4	590		2207	19.4	590
<b>15</b> Su	0441	5.6	170	<b>28</b> Sa	0350	6.6	200	<b>27</b> W	0319	7.5	230
	1059	21.3	650		1010	20.7	630		0935	20.0	610
	1659	4.9	150		1649	4.3	130		1514	8.9	270
	2314	21.3	650		2307	20.7	630		2128	17.7	540
<b>16</b> Su	0501	4.3	130	<b>13</b> Su	0327	7.9	240	<b>13</b> M	0400	6.6	200
	1118	22.6	690		0945	19.4	590		1015	20.7	630
	1723	3.3	100		1551	6.9	210		1627	4.9	150
	2341	22.0	670		2207	19.4	590		2245	20.0	610
<b>17</b> M	0512	5.2	160	<b>14</b> M	0402	6.6	200	<b>29</b> F	0438	5.9	180
	1052	22.0	670		1018	20.7	630		1050	21.7	660
	1700	3.3	100		1626	4.9	150		1701	3.9	120
	2319	21.3	650		2244	20.7	630	●	2320	20.3	620
<b>18</b> W	0544	5.2	160	<b>30</b> W	0512	5.2	160	<b>14</b> Th	0447	5.2	160
	1118	22.6	690		1052	22.0	670		1101	22.3	680
	1723	3.3	100		1735	3.6	110		1717	2.6	80
	2341	22.0	670		2352	20.7	630	●	2339	21.0	640
<b>19</b> Tu	0550	4.6	150	<b>31</b> Th	0544	5.2	160	<b>29</b> F	0530	5.9	180
	1118	22.6	690		1154	22.0	670		1138	21.0	640
	1723	3.3	100		1806	3.6	110		1754	4.3	130
	2341	22.0	670								
<b>20</b> W	0602	5.9	180	<b>30</b> Sa	0009	19.7	600	<b>30</b> Sa	0602	5.9	180
	1210	21.0	640		1210	21.0	640		1210	21.0	640
	1824	3.9	120		1824	3.9	120		1824	3.9	120

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Hedland, Australia, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0039	20.0	610	<b>16</b> M	0053	21.3	650	<b>1</b> W	0121	20.3	620
	0632	5.9	180		0647	3.6	110		0716	4.9	150
	1241	21.0	640		1303	22.6	690		1327	20.7	630
	1853	4.3	130		1913	2.0	60		1931	3.9	120
<b>2</b> M	0108	19.7	600	<b>17</b> Tu	0131	21.3	650	<b>2</b> Th	0147	20.3	620
	0700	5.9	180		0729	3.6	110		0745	5.2	160
	1311	20.7	630		1345	22.0	670		1355	20.3	620
	1921	4.6	140		1951	3.0	90		1959	4.6	140
<b>3</b> Tu	0136	19.4	590	<b>18</b> W	0209	21.0	640	<b>3</b> F	0214	20.0	610
	0730	6.2	190		0810	4.6	140		0815	5.6	170
	1340	20.0	610		1424	21.0	640		1424	19.4	590
	1949	5.2	160		2030	3.9	120		2028	5.6	170
<b>4</b> W	0204	19.0	580	<b>19</b> Th	0246	20.3	620	<b>4</b> Sa	0242	19.4	590
	0800	6.9	210		0852	5.6	170		0848	6.6	200
	1410	19.4	590		1503	19.4	590		1457	18.4	560
	2019	5.9	180		2109	5.6	170		2100	6.6	200
<b>5</b> Th	0235	18.7	570	<b>20</b> F	0327	19.4	590	<b>5</b> Su	0315	18.7	570
	0834	7.5	230		0938	6.9	210		0930	7.5	230
	1444	18.7	570		1547	18.0	550		1537	17.1	520
	2052	6.9	210		2152	7.5	230		2140	8.2	250
<b>6</b> F	0311	18.0	550	<b>21</b> Sa	0414	18.0	550	<b>6</b> M	0400	17.4	530
	0915	8.2	250		1035	8.2	250		1030	8.5	260
	1523	17.4	530		1642	16.4	500		1637	15.4	470
	2132	8.2	250		2248	9.2	280		2240	9.8	300
<b>7</b> Sa	0356	17.4	530	<b>22</b> Su	0517	17.1	520	<b>7</b> Tu	0516	16.7	510
	1010	9.2	280		1203	9.2	280		1217	9.2	280
	1616	16.4	500		1812	15.1	460		1837	14.8	450
	2227	9.2	280								
<b>8</b> Su	0502	16.7	510	<b>23</b> M	0024	10.2	310	<b>8</b> W	0044	10.5	320
	1138	9.5	290		0652	16.4	500		0713	16.7	510
	1744	15.4	470		1341	9.2	280		1351	8.5	260
					2009	15.1	460		2029	15.4	470
<b>9</b> M	0003	9.8	300	<b>24</b> Tu	0208	10.2	310	<b>9</b> Th	0217	9.8	300
	0638	16.7	510		0822	16.7	510		0839	17.5	520
	1313	8.9	270		1502	8.2	250		1451	9.5	290
	1930	15.7	480		2132	16.1	490		2133	15.1	460
<b>10</b> Tu	0134	9.5	290	<b>25</b> W	0322	9.2	280	<b>10</b> F	0335	8.2	250
	0756	17.7	540		0928	17.7	540		0947	19.4	590
	1423	7.5	230		1557	7.2	220		1614	4.9	150
	2050	16.4	500		2219	17.1	520		2239	18.7	570
<b>11</b> W	0242	8.5	260	<b>26</b> Th	0411	8.2	250	<b>11</b> Sa	0430	6.2	190
	0859	19.0	580		1014	18.7	570		1043	21.0	640
	1525	6.2	190		1637	5.9	180		1700	3.3	100
	2153	17.7	540		2255	18.4	560		2323	20.3	620
<b>12</b> Th	0342	7.2	220	<b>27</b> F	0448	7.2	220	<b>12</b> Su	0516	4.3	130
	0955	20.3	620		1052	19.7	600		0947	19.4	590
	1619	4.6	140		1711	4.9	150		1614	4.9	150
	2244	19.0	580		2327	19.0	580		2339	19.0	580
<b>13</b> F	0434	5.9	180	<b>28</b> Sa	0521	6.2	190	<b>13</b> M	0002	21.7	660
	1046	21.3	650		1127	20.3	620		0558	3.0	90
	1707	3.0	90		1743	4.3	130		1214	23.0	700
	● 2330	20.3	620		2357	19.7	600		1820	1.3	40
<b>14</b> Sa	0521	4.9	150	<b>29</b> Su	0552	5.6	170	<b>14</b> Tu	0041	22.3	680
	1135	22.3	680		1200	20.7	630		0636	2.3	70
	1751	2.0	60		1812	3.6	110		1254	23.0	700
									1856	1.3	40
<b>15</b> Su	0013	21.0	640	<b>30</b> M	0026	20.0	610	<b>15</b> W	0115	22.3	680
	0605	3.9	120		0621	4.9	150		0714	2.3	70
	1220	22.6	690		1230	21.0	640		1330	22.3	680
	1832	1.6	50		1839	3.6	110		1930	2.0	60
<b>31</b> Tu	0054	20.3	620	<b>31</b> F	0648	4.9	150	<b>16</b> Su	0124	21.3	650
					1259	21.0	640		0724	3.6	110
					1905	3.6	110		1335	21.0	640
									1935	3.6	110

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Port Hedland, Australia, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0146	21.3	650	<b>16</b> Tu	0210	19.4	590	<b>1</b> Th	0244	18.4	560
	0800	4.3	130		0823	6.6	200		0912	7.9	240
	1410	19.4	590		1435	17.4	530		1530	16.1	490
	2007	6.2	190		2026	8.9	270	<b>O</b>	2135	10.5	320
<b>2</b> Tu	0215	20.0	610	<b>17</b> W	0237	17.7	540	<b>2</b> F	0348	16.4	500
	0834	5.9	180		0853	8.5	260		1039	9.8	300
	1444	17.7	540		1509	15.7	480		1729	15.1	460
	2040	8.2	250	<b>O</b>	2054	10.8	330				
<b>3</b> W	0251	18.4	560	<b>18</b> Th	0311	15.7	480	<b>3</b> Sa	0001	11.5	350
	0918	7.9	240		0937	10.5	320		0617	15.4	470
	1530	15.7	480		1615	14.1	430		1304	9.8	300
	2126	10.2	310		2211	12.5	380		2001	16.4	500
<b>4</b> Th	0347	16.4	500	<b>19</b> F	0442	14.1	430	<b>4</b> Su	0208	9.8	300
	1048	9.8	300		1309	11.2	340		0826	16.7	510
	1732	14.1	430		2030	14.4	440		1436	8.5	260
									2104	18.4	560
<b>5</b> F	0000	11.5	350	<b>20</b> Sa	0230	11.5	350	<b>5</b> M	0310	7.5	230
	0632	15.4	470		0831	14.8	450		0927	18.4	560
	1333	9.8	300		1454	9.8	300		1526	6.6	200
	2037	15.4	470		2119	16.1	490		2145	20.0	610
<b>6</b> Sa	0228	10.2	310	<b>21</b> Su	0320	9.8	300	<b>6</b> Tu	0351	5.2	160
	0844	16.7	510		0926	16.4	500		1011	20.0	610
	1506	7.9	240		1531	8.2	250		1605	5.2	160
	2134	17.7	540		2147	17.7	540		2221	21.7	660
<b>7</b> Su	0331	7.5	230	<b>22</b> M	0350	7.9	240	<b>7</b> W	0429	3.6	110
	0945	19.0	580		0959	18.0	550		1048	21.0	640
	1552	5.9	180		1600	6.9	210		1641	4.3	130
	2213	20.0	610		2214	19.4	590		2255	22.6	690
<b>8</b> M	0412	5.2	160	<b>23</b> Tu	0417	5.9	180	<b>8</b> Th	0503	2.3	70
	1028	20.7	630		1030	19.7	600		1124	21.7	660
	1630	3.9	120		1628	5.6	170		1715	3.6	110
	2248	21.7	660		2241	20.7	630	<b>O</b>	2328	23.0	700
<b>9</b> Tu	0449	3.0	90	<b>24</b> W	0445	4.3	130	<b>9</b> F	0537	2.0	60
	1107	22.0	670		1100	20.7	630		1157	21.7	660
	1704	2.6	80		1655	4.6	140		1746	3.9	120
	●	2322	23.0		2309	22.0	670		2358	23.0	700
<b>10</b> W	0524	1.6	50	<b>25</b> Th	0513	3.0	90	<b>10</b> Sa	0608	2.0	60
	1143	22.6	690		1130	21.7	660		1227	21.3	650
	1738	2.0	60		1722	3.6	110		1817	4.3	130
	2354	23.6	720	<b>O</b>	2336	22.6	690				
<b>11</b> Th	0558	1.0	30	<b>26</b> F	0542	2.0	60	<b>11</b> Su	0027	22.6	690
	1216	22.6	690		1200	22.0	670		0638	2.6	80
	1810	2.3	70		1751	3.3	100		1255	21.0	640
									1845	4.9	150
<b>12</b> F	0024	23.6	720	<b>27</b> Sa	0004	23.0	700	<b>12</b> M	0054	22.0	670
	0630	1.3	40		0611	1.6	50		0707	3.6	110
	1246	22.3	680		1230	22.0	670		1322	20.0	610
	1840	3.0	90		1821	3.6	110		1914	6.2	190
<b>13</b> Sa	0052	23.0	700	<b>28</b> Su	0121	20.7	630	<b>13</b> Tu	0047	22.6	690
	0700	2.0	60		0642	2.0	60		0734	4.9	150
	1315	21.3	650		1259	21.3	650		1349	19.0	580
	1908	3.9	120		1850	4.3	130		1941	7.5	230
<b>14</b> Su	0118	22.0	670	<b>29</b> M	0100	22.6	690	<b>14</b> W	0148	19.7	600
	0728	3.3	100		0713	2.6	80		0802	6.2	190
	1341	20.0	610		1328	20.7	630		1418	18.0	550
	1934	5.6	170		1921	5.2	160		2009	8.9	270
<b>15</b> M	0144	21.0	640	<b>30</b> Tu	0129	21.7	660	<b>15</b> Th	0217	18.0	550
	0756	4.9	150		0746	3.9	120		0832	7.9	240
	1407	18.7	570		1359	19.4	590		1452	16.7	510
	2000	7.2	220		1954	6.6	200	<b>O</b>	2043	10.2	310
<b>31</b> W	0202	20.3	620	<b>31</b> W	0823	5.9	180		1436	17.7	540
					1436	17.7	540		2033	8.5	260

Time meridian 120° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mergui, Burma, 2018

Times and Heights of High and Low Waters

January				February				March									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm						
<b>1</b> M	0402	0.4	13	<b>16</b> Tu	0427	1.7	52	<b>1</b> Th	0527	-1.7	-52	<b>16</b> Th	0431	-0.2	-7		
1000	16.1	491	1028	14.4	439	1127	17.5	532	1030	16.9	514	0421	0.7	22			
1616	0.2	7	1637	1.7	51	1740	-1.3	-41	1645	-0.7	-20	1024	15.8	482			
2220	18.2	554	2240	16.3	497	2342	18.9	575	2330	17.5	533	1637	0.6	17			
<b>2</b> Tu	0451	-0.6	-18	<b>17</b> W	0501	1.0	30	<b>2</b> F	0608	-2.2	-66	<b>2</b> F	0512	-1.9	-57		
1049	16.9	514	1102	15.0	458	1207	17.8	542	1149	16.6	507	1057	17.0	517			
1704	-0.5	-15	1711	1.0	32	1819	-1.4	-43	1801	-0.5	-15	1711	-0.4	-13			
○	2308	18.7	570	●	2313	16.8	512	●	2330	17.5	533	2311	17.8	544			
<b>3</b> W	0536	-1.2	-37	<b>18</b> Th	0533	0.4	13	<b>3</b> Sa	0019	18.6	568	<b>18</b> Su	0000	17.7	538		
1136	17.3	526	1133	15.5	472	0645	-1.9	-58	0619	-1.1	-33	1129	17.7	540			
1747	-0.8	-23	1742	0.6	19	1242	17.5	533	1217	16.8	513	1744	-1.0	-30			
2351	18.8	572	2344	17.0	519	1855	-0.8	-24	1832	-0.4	-13	2342	18.1	552			
<b>4</b> Th	0619	-1.3	-40	<b>19</b> F	0604	0.1	2	<b>4</b> Su	0053	17.7	541	<b>4</b> Su	0001	18.6	568		
1218	17.2	524	1203	15.7	479	0717	-1.0	-30	0648	-0.9	-27	0600	-1.6	-49			
1829	-0.5	-14	1812	0.5	16	1314	16.7	508	1245	16.6	507	1158	18.0	548			
○	0.4	11	1842	0.8	24	1926	0.3	10	1900	0.1	3	1817	-1.0	-31			
<b>5</b> F	0032	18.3	557	<b>20</b> Sa	0014	17.0	518	<b>5</b> M	0123	16.4	501	<b>20</b> Tu	0056	16.7	509		
0659	-0.8	-25	0634	0.0	1	0745	0.4	11	0714	-0.3	-8	0650	-1.2	-37			
1259	16.6	507	1231	15.7	478	1345	15.5	472	1310	16.1	492	1248	17.4	529			
1907	0.4	11	1842	0.8	24	1957	1.8	55	1930	1.0	29	1902	-0.1	-4			
<b>6</b> Sa	0110	17.3	526	<b>21</b> Su	0042	16.6	506	<b>6</b> Tu	0151	14.9	453	<b>21</b> W	0057	16.6	506		
0737	0.2	5	0703	0.4	11	0812	1.9	58	0742	0.7	21	0656	-0.7	-20			
1337	15.7	479	1259	15.4	469	1413	14.1	430	1338	15.4	469	1253	17.2	524			
1945	1.6	49	1913	1.4	43	2025	3.3	102	1959	2.1	63	1916	0.4	13			
<b>7</b> Su	0145	15.9	484	<b>22</b> M	0110	15.9	485	<b>7</b> W	0218	13.2	403	<b>22</b> Th	0154	14.6	445		
0812	1.5	45	0731	1.0	29	0837	3.5	106	0811	1.8	56	0735	1.5	45			
1415	14.5	443	1328	14.9	453	1447	12.7	387	1411	14.4	440	1334	14.9	455			
2023	3.1	93	1944	2.3	69	○	2100	4.9	149	2034	3.3	101	1949	2.7	81		
<b>8</b> M	0223	14.3	436	<b>23</b> Tu	0141	15.0	457	<b>8</b> Th	0251	11.5	352	<b>23</b> F	0232	13.3	404		
0850	3.0	90	0802	1.8	54	0908	5.0	152	0846	3.2	97	0754	3.0	91			
1458	13.3	405	1401	14.2	433	1539	11.3	345	1456	13.3	404	1357	13.5	412			
2107	4.5	138	2018	3.2	99	2202	6.2	189	○	2124	4.6	141	2013	4.1	126		
<b>9</b> Tu	0307	12.7	388	<b>24</b> W	0218	13.9	425	<b>9</b> F	0355	10.0	306	<b>24</b> F	0328	11.8	360		
0935	4.3	132	0837	2.7	83	1020	6.3	192	0939	4.6	140	0812	4.5	136			
1559	12.2	373	1443	13.5	410	1750	10.7	326	1613	12.1	370	1423	12.0	366			
○	2212	5.7	174	2103	4.3	131	○	2103	5.6	170	2309	5.6	170	○	2046	5.6	171
<b>10</b> W	0413	11.4	347	<b>25</b> Th	0305	12.8	391	<b>10</b> Sa	0019	6.5	198	<b>25</b> Su	0522	10.8	330		
1047	5.4	164	0924	3.7	113	0634	9.7	295	1142	5.5	169	0842	6.0	183			
1730	11.7	358	1542	12.7	388	1256	6.3	193	1832	12.2	371	1519	10.5	321			
2353	6.1	186	○	2210	5.2	157	1921	11.3	345	2005	13.6	414	2220	6.9	211		
<b>11</b> Th	0558	10.8	329	<b>26</b> F	0414	11.8	360	<b>11</b> Su	0149	5.6	170	<b>26</b> M	0124	4.9	148		
1227	5.6	170	1034	4.6	139	0801	10.6	322	0727	11.6	353	0912	5.1	156			
1855	12.2	371	1718	12.4	378	1413	5.3	162	1349	4.6	140	1543	12.2	371			
○	12.2	371	○	1855	12.2	371	2023	12.5	380	2005	13.6	414	2245	5.9	179		
<b>12</b> F	0120	5.5	167	<b>27</b> Sa	0011	5.2	159	<b>12</b> M	0250	4.3	132	<b>27</b> Tu	0244	3.1	94		
0724	11.2	341	0607	11.5	352	0857	11.8	359	0846	13.3	406	0720	11.7	357			
1341	5.0	152	1234	4.6	141	1505	4.1	124	1504	2.8	84	1341	5.2	159			
1957	13.0	397	1904	13.2	401	2110	13.7	419	2111	15.4	470	1952	11.6	354			
<b>13</b> Sa	0220	4.5	136	<b>28</b> Su	0145	4.1	125	<b>13</b> Tu	0334	3.1	93	<b>13</b> W	0343	1.1	33		
0825	12.0	365	0742	12.4	378	0938	13.0	397	0943	15.3	465	0834	11.4	346			
1436	4.1	126	1404	3.6	109	1546	2.8	86	1559	0.9	27	1443	4.9	149			
2044	14.0	426	2019	14.5	443	2149	15.0	456	2203	17.1	521	2044	13.1	400			
<b>14</b> Su	0308	3.5	106	<b>29</b> M	0254	2.6	78	<b>14</b> W	0412	1.8	56	<b>14</b> W	0308	3.6	109		
0911	12.8	391	0853	13.8	420	1014	14.2	433	1623	1.6	50	0915	12.9	394			
1521	3.2	99	1511	2.1	65	2224	16.0	489	2224	16.0	489	1524	3.3	102			
2127	14.9	453	2119	16.0	489	○	2213	17.4	531	○	2213	14.6	446				
<b>15</b> M	0349	2.5	77	<b>30</b> Tu	0352	0.9	26	<b>15</b> Th	0445	0.7	22	<b>15</b> Th	0346	2.1	64		
0952	13.7	417	0952	15.3	465	1047	15.3	465	1657	0.6	19	0950	14.5	441			
1600	2.4	74	1607	0.6	19	2258	16.9	516	2258	16.9	516	1602	1.9	57			
2204	15.6	476	2213	17.4	531	○	2259	18.4	562	○	2259	16.0	487				
<b>31</b> W	0442	-0.7	-20	<b>31</b> W	1042	16.6	505	○	2304	18.3	558	○	1048	18.3	558		
1657	-0.6	-19	1657	-0.6	-19	○	2259	18.4	562	○	1705	-0.9	-28				
○	2259	18.4	562	○	2304	18.3	558	○	2304	18.3	558	○	1048	18.3	558		

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mergui, Burma, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0525	-1.6	-49	<b>16</b> M	0504	-1.0	-30	<b>1</b> Tu	0529	0.1	4
	1123	18.6	568		1105	18.5	564		1127	18.1	553
	1740	-1.0	-32		1723	-0.8	-24		1747	0.6	18
	2336	18.1	551	●	2320	18.2	554		2342	16.6	507
<b>2</b> M	0556	-1.3	-40	<b>17</b> Tu	0537	-1.3	-41	<b>2</b> W	0556	0.7	21
	1154	18.4	560		1137	18.8	573		1156	17.6	537
	1811	-0.6	-18		1758	-0.9	-27		1814	1.1	35
					2354	18.0	548				
<b>3</b> Tu	0005	17.4	529	<b>18</b> W	0610	-1.1	-34	<b>3</b> Th	0008	15.9	486
	0622	-0.5	-16		1208	18.6	567		0619	1.4	43
	1221	17.7	539		1831	-0.4	-13		1219	16.9	515
	1838	0.3	9						1839	1.9	58
<b>4</b> W	0031	16.4	499	<b>19</b> Th	0027	17.3	528	<b>4</b> F	0032	15.2	462
	0646	0.5	16		0641	-0.4	-11		0641	2.3	69
	1243	16.7	509		1238	17.9	545		1242	16.0	489
	1900	1.4	42		1903	0.5	16		1902	2.8	84
<b>5</b> Th	0052	15.2	464	<b>20</b> F	0056	16.3	496	<b>5</b> Sa	0055	14.3	435
	0704	1.7	53		0709	0.9	26		0702	3.2	98
	1303	15.6	475		1307	16.8	513		1306	15.1	459
	1921	2.6	78		1935	1.8	55		1926	3.7	113
<b>6</b> F	0112	14.0	426	<b>21</b> Sa	0128	15.0	456	<b>6</b> Su	0120	13.3	404
	0721	3.0	91		0740	2.4	72		0724	4.3	131
	1324	14.3	437		1340	15.5	472		1333	13.9	425
	1944	3.8	116		2011	3.3	101		1957	4.8	146
<b>7</b> Sa	0134	12.7	386	<b>22</b> Su	0208	13.5	411	<b>7</b> M	0152	12.2	371
	0741	4.3	132		0815	4.0	123		0755	5.5	169
	1349	13.0	395		1423	13.9	425		1413	12.7	388
	2012	5.2	157		2103	4.9	148		2044	5.9	180
<b>8</b> Su	0204	11.3	344	<b>23</b> M	0312	12.0	366	<b>8</b> Tu	0249	11.1	338
	0808	5.8	176		0914	5.7	175		0849	6.9	209
	1429	11.5	351		1546	12.5	382		1538	11.7	357
	2105	6.5	199	●	2245	5.8	178	●	2223	6.6	202
<b>9</b> M	0304	9.9	301	<b>24</b> Tu	0512	11.4	347	<b>9</b> W	0502	10.7	326
	0903	7.3	221		1122	6.6	201		1115	7.4	227
	1712	10.5	321		1756	12.4	378		1746	11.8	359
	2358	6.9	211								
<b>10</b> Tu	0631	9.9	302	<b>25</b> W	0049	5.2	159	<b>10</b> Th	0024	6.1	186
	1248	7.2	220		0703	12.5	380		0650	11.7	358
	1900	11.4	347		1323	5.5	168		1307	6.4	195
					1930	13.6	415		1907	12.8	391
<b>11</b> W	0134	5.8	176	<b>26</b> Th	0206	3.6	110	<b>11</b> F	0135	4.8	147
	0754	11.4	347		0813	14.3	436		0752	13.4	408
	1404	5.7	175		1430	3.7	113		1408	4.9	148
	2004	12.9	392		2032	15.1	461		2005	14.2	432
<b>12</b> Th	0229	4.2	128	<b>27</b> F	0258	2.0	61	<b>12</b> Sa	0227	3.3	102
	0840	13.1	400		0903	16.1	490		0839	15.1	460
	1451	4.1	128		1519	2.1	64		1457	3.2	99
	2050	14.4	440		2119	16.4	499		2053	15.5	473
<b>13</b> F	0311	2.6	80	<b>28</b> Sa	0342	0.8	24	<b>13</b> Su	0314	1.9	59
	0918	14.9	453		0943	17.4	529		0921	16.7	508
	1532	2.4	74		1603	1.0	30		1541	1.8	55
	2131	15.9	484		2200	17.1	521		2136	16.6	507
<b>14</b> Sa	0350	1.1	35	<b>29</b> Su	0421	0.1	3	<b>14</b> M	0356	0.7	22
	0955	16.4	500		1021	18.1	552		1000	17.9	547
	1610	1.0	31		1641	0.4	11		1621	0.7	20
	2209	17.1	520		2238	17.3	528		2219	17.5	532
<b>15</b> Su	0427	-0.1	-4	<b>30</b> M	0457	-0.1	-3	<b>15</b> Tu	0435	-0.2	-5
	1030	17.7	539		1057	18.3	559		1040	18.8	572
	1648	-0.1	-4		1716	0.3	8		1702	-0.1	-2
	2245	17.8	544	○	2312	17.1	522	●	2259	17.8	544
<b>31</b> Th	0533	1.8	55	<b>31</b> Th	1134	17.4	529	<b>16</b> F	0539	0.2	6
					1756	2.0	60		1142	19.1	583
					2350	15.6	476		1810	0.2	6

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mergui, Burma, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0005	15.6	475	<b>16</b>	0041	17.8	543	<b>1</b>	0045	16.3	497
	0614	2.5	75	M	0652	0.7	20	W	0659	2.4	72
	1217	17.1	520		1255	18.8	573		1257	17.1	520
	1838	2.4	72		1921	0.5	16		1919	2.1	63
<b>2</b> M	0034	15.4	470	<b>17</b>	0120	17.2	524	<b>2</b>	0113	15.9	484
	0642	2.8	84	Tu	0730	1.6	50	Th	0728	3.1	95
	1245	16.7	509		1333	17.7	541		1327	16.2	495
	1906	2.7	81		1958	1.6	48		1947	2.8	85
<b>3</b> Tu	0102	15.1	460	<b>18</b>	0158	16.2	494	<b>3</b>	0144	15.3	466
	0710	3.3	101	W	0808	3.0	90	F	0801	4.0	123
	1314	16.1	491		1409	16.3	498		1359	15.3	465
	1935	3.2	97		2034	3.0	90		2020	3.7	112
<b>4</b> W	0133	14.6	445	<b>19</b>	0240	15.1	459	<b>4</b>	0220	14.6	444
	0742	4.1	126	Th	0849	4.4	134	Sa	0840	5.1	155
	1348	15.3	466		1450	14.8	451		1442	14.1	431
	2009	3.9	118		2117	4.4	133		2101	4.6	141
<b>5</b> Th	0209	14.0	427	<b>20</b>	0331	13.9	424	<b>5</b>	0311	13.8	421
	0822	5.1	154	F	0941	5.8	176	Su	0936	6.0	184
	1429	14.4	439		1545	13.3	406		1541	13.1	400
	2051	4.6	140	O	2213	5.6	172		2159	5.5	168
<b>6</b> F	0258	13.4	409	<b>21</b>	0447	13.1	399	<b>6</b>	0431	13.3	405
	0914	5.9	181	Sa	1102	6.7	203	M	1116	6.5	199
	1524	13.5	413		1711	12.3	375		1718	12.6	384
	2148	5.2	160		2343	6.3	192		2344	5.9	179
<b>7</b> Sa	0409	13.1	399	<b>22</b>	0618	13.1	399	<b>7</b>	0625	13.7	418
	1034	6.5	197	Su	1238	6.6	200	Tu	1304	5.8	177
	1640	13.0	397		1845	12.2	372		1903	13.1	399
	2308	5.5	167								
<b>8</b> Su	0546	13.4	409	<b>23</b>	0109	6.1	185	<b>8</b>	0126	5.1	156
	1222	6.1	186	M	0728	13.7	418	W	0745	14.9	455
	1815	13.2	403		1351	5.8	177		1420	4.5	136
					1957	12.8	390		2019	14.3	436
<b>9</b> M	0043	5.0	153	<b>24</b>	0213	5.3	163	<b>9</b>	0239	3.8	116
	0709	14.5	441	Tu	0825	14.6	445	Th	0850	16.4	501
	1338	5.0	153		1447	4.9	150		1522	2.9	87
	1933	14.0	426		2051	13.5	413		2121	15.7	480
<b>10</b> Tu	0155	4.0	123	<b>25</b>	0304	4.5	138	<b>10</b>	0339	2.3	71
	0811	15.8	481	W	0911	15.5	471	F	0945	17.9	547
	1440	3.7	114		1535	4.0	123		1617	1.3	39
	2036	15.0	458		2136	14.3	437		2214	17.2	523
<b>11</b> W	0256	2.9	89	<b>26</b>	0348	3.7	114	<b>11</b>	0431	1.0	29
	0905	17.0	519	Th	0952	16.2	495	Sa	1035	19.2	584
	1536	2.5	75		1616	3.3	100		1704	0.0	-1
	2134	16.0	489		2214	15.0	458		2302	18.2	556
<b>12</b> Th	0350	1.8	56	<b>27</b>	0426	3.0	92	<b>12</b>	0516	0.0	-1
	0957	18.1	553	F	1028	16.9	515	M	1119	19.9	606
	1628	1.3	39		1651	2.6	80		1747	-0.8	-24
	2226	17.0	518		2249	15.6	476		2344	18.8	574
<b>13</b> F	0441	0.9	28	<b>28</b>	0459	2.4	74	<b>13</b>	0558	-0.4	-12
	1047	19.0	579	Sa	1102	17.4	531	M	1200	20.0	609
	1716	0.4	11		1723	2.1	63		1825	-0.9	-27
	● 2315	17.7	539	O	2320	16.1	490		2357	17.7	538
<b>14</b> Sa	0529	0.3	9	<b>29</b>	0530	2.0	61	<b>14</b>	0022	18.8	572
	1133	19.5	593	Su	1133	17.7	541	Th	1142	18.5	564
	1801	-0.2	-5		1753	1.7	51		1801	0.6	17
					2350	16.4	499		1900	-0.2	-7
<b>15</b> Su	0000	18.0	548	<b>30</b>	0600	1.8	55	<b>15</b>	0057	18.2	554
	0611	0.2	6	M	1201	17.8	543	W	0710	0.9	27
	1215	19.4	591		1822	1.5	46		1309	18.2	555
	1842	-0.1	-3						1931	1.0	29
<b>31</b> Tu	0018	16.5	502	<b>31</b>	0018	16.5	502	<b>16</b>	0117	16.3	497
	0629	1.9	58	Su	0629	1.9	58	M	0740	3.2	99
	1229	17.6	536		1229	17.6	536		1334	15.6	477
	1850	1.6	50		1850	1.6	50		1951	3.1	96

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mergui, Burma, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0123	15.7	480	16 Tu 0133	13.3	404	1 Th 0303	12.9	392	1 Sa 0438	12.6	384
0752	4.1	125	0759	6.2	189	1000	6.3	192	1125	5.2	157
1347	14.2	434	1351	11.6	354	1633	11.7	358	1753	12.9	392
1959	4.5	136	1954	7.0	214	2240	7.2	218	2322	7.9	240
2 Tu 0159	14.4	438	17 W 0209	11.7	356	2 0518	12.4	379	2 Su 0011	5.8	176
0833	5.5	169	0853	7.6	232	1211	5.9	179	0618	13.0	395
1434	12.7	387	1508	10.2	311	1831	12.7	388	1253	4.3	132
0 2046	6.1	185	0 2056	8.5	259	1845	11.8	359	1909	14.1	431
3 W 0304	12.9	393	18 0529	10.9	332	3 Sa 0050	6.1	185	3 M 0130	4.4	134
0959	6.9	209	1208	7.7	234	0659	13.6	416	0731	13.9	425
1630	11.6	353	1839	10.8	329	1334	4.3	130	1355	3.2	97
2238	7.3	222	1942	14.6	446	1940	13.4	409	2005	15.6	475
4 Th 0539	12.5	381	19 0100	7.7	236	4 Su 0201	4.1	126	4 Tu 0225	3.0	91
1234	6.4	195	0700	12.0	365	0802	15.3	466	0825	14.9	455
1846	12.5	380	1328	6.4	194	1429	2.5	77	1444	2.2	67
			1945	12.3	376	2033	16.5	504	2050	16.7	510
5 F 0107	6.3	191	20 0157	6.1	187	5 M 0251	2.3	70	5 W 0312	1.9	57
0721	14.0	426	0754	13.5	411	0851	16.7	509	0911	15.6	476
1358	4.5	138	1415	4.8	147	1514	1.1	35	1529	1.5	46
2004	14.4	440	2025	14.0	427	2115	18.0	549	2132	17.5	532
6 Sa 0220	4.2	128	21 0236	4.5	137	6 Tu 0336	1.0	29	6 Th 0355	1.2	36
0825	15.9	486	0834	15.0	456	0934	17.6	537	0953	15.9	486
1454	2.5	76	1451	3.3	102	1555	0.3	9	1610	1.2	36
2056	16.5	504	2058	15.6	476	2155	18.9	576	2210	17.7	541
7 Su 0314	2.2	66	22 0312	3.0	90	7 W 0416	0.2	6	7 F 0435	0.9	27
0915	17.7	539	0911	16.3	498	1014	17.9	547	1033	16.0	487
1541	0.8	23	1528	2.0	60	1633	0.0	0	1647	1.2	36
2141	18.2	556	2132	17.0	519	● 2231	19.2	584	● 2247	17.7	538
8 M 0359	0.6	18	23 0349	1.6	49	8 Th 0454	0.0	0	8 Sa 0511	0.9	28
0957	18.9	576	0946	17.4	530	1051	17.7	541	1108	15.8	481
1621	-0.4	-12	1603	0.9	26	1708	0.2	7	1720	1.4	43
2220	19.4	591	2206	18.1	553	2305	18.9	575	2320	17.3	527
9 Tu 0440	-0.4	-12	24 0424	0.6	18	9 F 0527	0.3	10	9 Su 0543	1.2	36
1037	19.4	591	1023	18.1	553	1123	17.2	523	1140	15.4	470
1659	-0.9	-27	1638	0.1	2	1739	0.9	26	1750	1.8	55
● 2257	19.8	603	○ 2240	18.9	575	2336	18.2	555	2350	16.8	511
10 W 0516	-0.6	-19	25 0501	0.0	-1	10 Sa 0558	1.0	31	10 M 0612	1.6	49
1113	19.2	586	1057	18.4	561	1154	16.3	497	1208	14.9	455
1734	-0.7	-21	1713	-0.3	-9	1807	1.7	52	1817	2.3	71
2330	19.6	596	2312	19.1	582						
11 Th 0550	-0.2	-7	26 0534	-0.2	-6	11 Su 0004	17.3	526	11 Tu 0017	16.1	492
1146	18.5	563	1130	18.2	555	0627	1.9	58	0639	2.2	66
1804	0.1	3	1746	-0.1	-4	1219	15.4	468	1229	16.3	498
			2343	18.9	575	1829	2.7	83	1841	1.3	39
12 F 0001	18.8	572	27 0608	0.2	6	12 M 0028	16.2	493	12 Tu 0042	15.4	470
0621	0.7	22	1203	17.6	536	0650	2.9	89	0704	2.8	85
1214	17.3	528	1817	0.5	16	1243	14.3	436	1300	13.7	419
1831	1.3	39				1850	3.8	115	1904	3.7	113
13 Sa 0027	17.6	537	28 0012	18.1	553	13 Tu 0050	15.0	458	13 W 0038	17.2	525
0648	2.0	60	0639	1.0	32	0713	4.0	122	0710	1.5	46
1239	16.0	487	1234	16.6	506	1307	13.2	403	1307	15.3	467
1853	2.7	81	1848	1.6	49	1912	4.9	149	1916	2.5	77
14 Su 0049	16.2	495	29 0041	17.1	522	14 W 0116	13.8	420	14 Th 0159	14.6	445
0710	3.3	102	0712	2.3	69	0741	5.1	155	0839	4.0	122
1300	14.5	443	1304	15.4	468	1338	12.1	369	1447	13.0	396
1912	4.1	125	1917	3.0	91	1940	6.1	187	2051	5.3	163
15 M 0110	14.8	451	30 0112	15.8	483	15 Th 0152	12.5	381	15 F 0304	13.3	405
0733	4.8	146	0745	3.7	113	0825	6.2	189	0948	5.0	152
1321	13.1	399	1341	13.9	425	1433	11.0	336	1612	12.4	378
1930	5.5	169	1951	4.6	139	● 2030	7.4	225	● 2220	6.2	190
16 W 0151	14.3	437	31 0151	14.3	437						
0832	5.2	158	W 1439	12.5	382						
1439	12.5	382	● 2043	6.2	188						

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Rangoon, Burma, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0324	18.8	574	16 0418	17.5	532	1 Th 0012	1.3	41	16 0017	1.7	53
1128 0.6	18		Tu 1204	0.9	26	0444	19.1	583	0503	17.9	547
1559 17.6	536		1649	16.5	502	1300	0.5	14	1252	1.0	30
2325 1.2	38		2353	1.7	52	1715	18.2	556	● 1719	17.4	531
2 Tu 0409	19.4	590	17 0451	17.8	544	2 0058	1.3	40	17 0049	1.7	52
1221 0.6	17		W 1237	0.8	25	0524	19.3	587	0526	18.2	555
1642 18.0	550		1716	16.9	514	1340	0.5	15	1318	1.0	32
○			●			1752	18.4	562	1742	17.8	542
3 W 0017	1.2	38	18 0026	1.5	46	3 Sa 0141	1.4	43	18 0124	1.8	54
0452 19.6	597		Th 0518	18.1	551	0606	19.1	582	0554	18.3	557
1309 0.6	19		1306	0.9	26	1416	0.5	16	1348	1.0	31
1723 18.3	557		1739	17.1	520	1831	18.4	561	1810	18.0	549
4 Th 0103	1.4	42	19 0057	1.5	47	4 Su 0223	1.5	47	19 0159	1.8	54
0535 19.5	595		0545	18.1	552	0649	18.6	568	0625	18.2	556
1352 0.7	21		1334	1.0	29	1450	0.6	19	1418	0.9	28
1806 18.2	556		1806	17.1	522	1916	18.1	553	1845	18.2	554
5 F 0147	1.6	49	20 0129	1.7	52	5 M 0302	1.8	54	20 0236	1.6	50
0619 19.2	584		Sa 0613	17.9	547	0735	17.9	545	0701	18.0	548
1433 0.8	23		1404	1.0	31	M 1521	0.9	28	1447	0.9	26
1855 18.0	549		1836	17.2	523	2004	17.6	537	1925	18.2	555
6 Sa 0230	1.9	58	21 0204	1.9	59	6 Tu 0338	2.1	65	21 W 0311	1.5	45
0708 18.5	564		Su 0643	17.7	539	0822	16.8	513	0740	17.5	533
1512 0.9	28		1435	1.0	32	Tu 1550	1.6	48	1515	1.0	31
1947 17.6	537		1909	17.2	523	2050	16.8	512	2007	17.9	546
7 Su 0312	2.3	70	22 0240	2.0	62	7 W 0411	2.7	82	22 Th 0343	1.4	44
0801 17.6	536		M 0720	17.3	528	0911	15.4	470	0823	16.6	505
1548 1.3	39		1503	1.1	34	1617	2.6	80	1543	1.5	46
2042 17.0	519		1950	17.1	522	● 2140	15.7	479	2050	17.2	525
8 M 0356	2.8	86	23 0315	2.1	64	8 Th 0452	3.4	105	23 F 0419	1.8	55
0855 16.4	500		Tu 0758	16.8	511	1008	13.9	423	0914	15.3	466
1625 2.0	60		1532	1.3	40	1654	3.9	120	1620	2.5	75
2139 16.3	497		2030	17.0	517	2238	14.5	443	● 2142	16.1	491
9 Tu 0446	3.4	105	24 0351	2.2	66	9 F 0602	4.0	123	24 Sa 0518	2.5	76
0955 15.1	460		W 0843	16.0	487	1131	12.6	384	1031	13.9	423
1708 2.9	87		1604	1.7	53	1805	5.0	153	1728	3.6	111
● 2238 15.5	473		2117	16.6	505				2305	15.0	457
10 W 0552	3.9	118	25 0439	2.4	73	10 M 0004	13.8	420	24 Sa 0404	2.9	88
1108 13.9	424		Th 0939	15.0	456	0740	3.8	117	0921	14.2	432
1808 3.7	112		1649	2.4	73	1315	12.5	380	1552	3.9	119
2352 15.0	457		● 2216	16.0	487	1944	5.2	159	● 2137	14.7	448
11 Th 0714	3.7	114	26 0552	2.6	79	11 Su 0136	14.0	427	25 F 0659	2.8	86
1238 13.4	408		M 1102	14.0	427	0900	3.0	92	0231	13.4	408
1920 4.0	123		1803	3.0	92	1431	13.3	404	1917	4.1	126
2341 15.6	475		2341	15.6	475	2108	4.5	159			
12 F 0109	15.1	459	27 0727	2.4	72	12 M 0058	15.0	457	10 Sa 0446	3.9	119
0830 3.1	93		Sa 1246	13.9	425	0843	2.2	67	1029	12.7	386
1357 13.7	418		1935	3.1	94	M 1405	14.3	436	1640	5.4	165
2030 3.8	117					2057	3.5	107	2249	13.4	407
13 Sa 0209	15.6	476	28 0112	15.9	486	11 Su 0629	4.5	138	25 M 0501	2.7	81
0935 2.2	67		Su 0858	1.6	50	0900	3.0	92	1027	14.0	428
1452 14.4	440		1408	14.8	451	1431	13.3	404	1709	4.4	133
2134 3.3	101		2102	2.6	80	1944	5.2	159	2250	14.8	450
14 Su 0258	16.3	497	29 0221	16.9	515	12 M 0217	16.0	489	12 M 0043	13.0	396
1034 1.5	46		M 1014	1.0	30	1008	2.1	64	0816	4.0	122
1539 15.2	464		1509	15.9	485	1524	14.3	437	1353	12.8	389
2229 2.7	82		2215	2.0	62	2211	3.5	107	2033	5.6	170
15 M 0341	16.9	516	30 0316	17.9	545	13 M 0240	14.9	453	12 Tu 0043	13.0	396
1123 1.0	32		Tu 1120	0.6	17	1103	1.4	44	0827	2.6	80
1617 15.9	485		1558	17.0	517	1605	15.4	469	1401	14.7	447
2316 2.1	64		2320	1.6	48	2302	2.7	81	2053	4.0	122
31 W 0402	18.6	568	31 0402	18.6	568	13 W 0312	17.3	527	27 0052	14.6	445
W 1214	0.4	13	W 1214	0.4	13	1108	0.8	24	Tu 0827	2.6	80
1638	17.7	541	O			1554	17.0	519	1401	14.7	447
						2316	1.9	58	2053	4.0	122

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Rangoon, Burma, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0033	1.7	53	<b>16</b> M	0010	2.0	61	<b>1</b> Tu	0046	2.1	64	
	0457	19.0	578		0440	18.6	568		0027	2.1	64	
	1248	1.0	30		1219	1.3	39		W	0448	19.0	579
	1711	19.2	586	●	1651	19.4	592		1222	1.7	52	
<b>2</b> M	0111	1.8	54	<b>17</b> Tu	0050	1.9	57	<b>2</b> W	0121	2.0	62	
	0533	18.8	574		0510	18.9	576		0110	2.0	62	
	1319	1.0	32		1252	1.2	37		0527	19.1	581	
	1746	19.2	585		1723	19.8	605		1259	1.9	57	
<b>3</b> Tu	0146	1.7	53	<b>18</b> W	0131	1.7	52	<b>3</b> Th	0153	1.8	56	
	0611	18.5	564		0546	18.9	577		0154	2.0	60	
	1347	1.1	33		1325	1.2	38		F	0613	18.8	573
	1823	19.0	580		1801	20.0	609		1337	2.2	67	
<b>4</b> W	0222	1.6	49	<b>19</b> Th	0211	1.5	46	<b>18</b> F	0225	2.4	74	
	0650	18.0	548		0628	18.7	569		0717	17.1	521	
	1412	1.2	37		1359	1.4	43		1358	3.3	101	
	1901	18.6	568		1844	19.8	603		1824	20.2	617	
<b>5</b> Th	0250	1.5	46	<b>20</b> F	0249	1.4	42	<b>3</b> Sa	0245	1.8	54	
	0728	17.2	524		0716	18.0	550		0317	2.1	63	
	1433	1.6	50		1431	1.8	56		Su	0801	17.6	537
	1939	17.9	545		1931	19.1	582		1456	3.4	103	
<b>6</b> F	0312	1.7	53	<b>21</b> Sa	0324	1.5	46	<b>4</b> Su	0305	2.3	69	
	0807	16.1	491		0808	17.1	521		0906	16.8	513	
	1449	2.5	76		1507	2.6	79		1546	4.2	128	
	2014	16.8	511		2020	17.9	547		2113	17.3	527	
<b>7</b> Sa	0329	2.4	73	<b>22</b> Su	0401	2.0	62	<b>5</b> M	0359	2.5	75	
	0848	14.7	449		0910	15.9	484		0352	3.9	120	
	1510	3.8	115		1551	3.7	113		0927	15.9	483	
	2054	15.3	466		2120	16.5	502		1554	5.5	168	
<b>8</b> Su	0356	3.4	105	<b>23</b> M	0457	2.9	88	<b>6</b> W	0359	2.5	75	
	0946	13.4	408		1032	14.8	451		0440	4.5	137	
	1548	5.3	161		1704	4.8	147		1025	15.9	484	
	●	2154	13.8		2246	15.2	462		1655	5.0	152	
<b>9</b> M	0501	4.6	139	<b>8</b> Tu	0416	4.2	127	<b>7</b> M	0450	3.1	93	
	1117	12.6	385		1020	14.1	429		1022	16.2	494	
	1711	6.4	196		1624	6.0	183		2231	16.2	494	
	2330	13.0	397		2225	14.1	431		2240	15.4	470	
<b>10</b> Tu	0701	4.8	145	<b>24</b> Tu	0625	3.4	103	<b>8</b> W	0600	3.5	106	
	1253	13.0	397		1215	14.6	446		1143	16.0	489	
	1929	6.2	190		1856	5.1	155		1829	5.2	157	
									●	1133	16.2	494
<b>11</b> W	0111	13.5	411	<b>9</b> W	0532	4.8	146	<b>9</b> Sa	0001	15.7	479	
	0827	4.0	123		1137	14.2	432		0718	3.4	105	
	1405	14.2	434		1807	6.2	188		1302	16.6	505	
	2056	5.0	153		2354	14.1	429		2000	4.5	137	
<b>12</b> Th	0220	14.7	449	<b>10</b> Th	0702	4.6	140	<b>10</b> Su	0125	16.0	489	
	0929	3.1	96		1253	15.0	457		0826	3.1	94	
	1454	15.6	477		1946	5.3	163		1401	17.5	533	
	2157	3.8	115		2035	4.2	127		2113	3.6	111	
<b>13</b> W	0111	13.5	411	<b>11</b> Th	0158	15.8	483	<b>11</b> Sa	0116	14.9	453	
	0827	4.0	123		0911	2.2	67		0925	2.8	84	
	1405	14.2	434		1436	16.9	516		1444	18.4	561	
	2056	5.0	153		2146	3.1	94		2212	3.0	92	
<b>14</b> F	0220	14.7	449	<b>12</b> Sa	0215	16.0	489	<b>11</b> M	0216	17.1	521	
	0929	3.1	96		0918	3.0	91		0917	3.2	97	
	1454	15.6	477		1438	17.5	533		1432	18.9	577	
	2157	3.8	115		2201	3.1	96		2216	3.1	93	
<b>15</b> F	0305	16.0	489	<b>13</b> Su	0332	17.9	547	<b>12</b> Tu	0309	17.6	535	
	1023	2.4	72		1058	1.5	45		1015	2.6	79	
	1529	16.9	516		1547	18.9	577		1519	19.0	580	
	2246	2.8	86		2330	2.1	64		2300	2.7	83	
<b>16</b> Sa	0341	17.2	524	<b>14</b> M	0338	18.0	550	<b>12</b> W	0306	17.9	547	
	1108	1.8	54		1059	1.9	57		1017	2.8	85	
	1557	18.0	548		1550	19.4	592		1516	19.8	603	
	2330	2.3	69		2341	2.2	67		2313	2.8	84	
<b>17</b> Su	0410	18.0	550	<b>15</b> Tu	0414	18.7	569	<b>13</b> W	0347	18.0	549	
	1146	1.4	44		1143	1.7	51		1059	2.6	78	
	1622	18.8	573		1625	20.1	612		1552	19.4	590	
				●					2343	2.7	81	
<b>18</b> M	0008	2.1	63	<b>16</b> W	0021	2.7	81	<b>13</b> W	0349	18.6	567	
	0441	18.6	568		0459	18.2	555		1110	2.6	80	
	1213	1.6	48		1211	2.5	77		1558	20.4	622	
	1649	19.5	593		1703	19.6	596		●	1639	20.8	634
<b>19</b> F	0008	2.1	63	<b>17</b> Th	0056	2.6	79	<b>14</b> Th	0007	2.7	83	
	0441	18.6	568		0533	18.1	552		0430	19.0	580	
	1213	1.6	48		1241	2.5	77		1158	2.7	83	
	1649	19.5	593		1738	19.5	595		●	1639	20.8	634
<b>20</b> W	0008	2.1	63	<b>18</b> M	0021	2.7	81	<b>15</b> F	0055	2.8	85	
	0441	18.6	568		0459	18.2	555		0510	19.2	585	
	1213	1.6	48		1211	2.5	77		1243	2.9	89	
	1649	19.5	593		1703	19.6	596		1719	20.9	636	
<b>21</b> W	0008	2.1	63	<b>16</b> W	0056	2.6	79	<b>16</b> F	0040	3.4	104	
	0441	18.6	568		0533	18.1	552		0515	18.2	554	
	1213	1.6	48		1241	2.5	77		1223	3.7	112	
	1649	19.5	593		1738	19.5	595		●	1715	19.7	600
<b>22</b> F	0008	2.1	63	<b>17</b> Th	0056	2.6	79	<b>17</b> M	0111	3.4	105	
	0441	18.6	568		0533	18.1	552		0546	18.2	555	
	1213	1.6	48		1241	2.5	77		1251	3.7	113	
	1649	19.5	593		1738	19.5	595		1746	19.7	599	

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Rangoon, Burma, 2018

Times and Heights of High and Low Waters

July				August				September							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> Su	0141	3.4	105	<b>16</b> M	0214	3.7	112	<b>1</b> W	0223	4.4	134	<b>16</b> Sa	0258	4.5	137
0616	18.1	552	0622	19.8	604	0645	19.1	581	0307	4.2	127	0327	5.3	163	
1319	3.9	119	1404	4.4	133	1417	5.0	153	0728	20.1	614	0824	18.4	560	
1816	19.5	593	1830	20.9	637	1851	19.7	599	1517	5.1	154	1554	5.5	169	
<b>2</b> M	0210	3.5	106	<b>17</b> Tu	0255	3.6	110	<b>2</b> Th	0250	4.3	132	<b>2</b> Su	0324	4.8	145
0648	18.0	548	0713	19.7	600	0721	19.1	582	0818	19.5	594	0810	19.3	589	
1350	4.2	128	1447	4.6	140	1452	5.0	153	1554	5.4	165	1547	4.8	147	
1846	19.1	582	1923	20.4	621	1926	19.3	588	2035	18.8	572	2029	18.0	549	
<b>3</b> Tu	0239	3.6	109	<b>18</b> W	0333	3.6	111	<b>3</b> F	0317	4.3	132	<b>3</b> M	0357	5.4	166
0722	17.8	544	0807	19.4	592	0759	19.1	581	0408	5.3	161	0857	18.4	560	
1422	4.6	139	1530	4.9	149	1525	5.0	153	0909	18.5	564	1634	5.4	164	
1920	18.6	568	2018	19.6	596	2007	18.7	570	2131	17.3	527	2133	16.7	510	
<b>4</b> W	0307	3.8	115	<b>19</b> Th	0410	4.0	121	<b>4</b> Sa	0344	4.6	140	<b>4</b> Tu	0449	6.4	194
0759	17.7	541	0903	18.9	577	0841	18.8	573	0443	6.4	196	1004	17.3	528	
1457	4.9	150	1616	5.3	163	1603	5.2	157	1727	6.7	205	1756	5.9	181	
1959	18.1	552	2116	18.4	562	2055	17.8	544	2245	15.9	484	2317	15.9	485	
<b>5</b> Th	0335	4.0	123	<b>20</b> F	0447	4.6	141	<b>5</b> Su	0420	5.1	155	<b>5</b> M	0541	7.6	231
0840	17.7	539	1001	18.2	556	0930	18.3	558	1121	16.4	499	1121	7.0	214	
1536	5.2	159	1711	5.8	178	1659	5.4	166	1857	7.0	212	1151	16.9	515	
2044	17.5	534	2220	17.2	524	2201	16.9	514	0621	7.0	214	0812	8.1	248	
<b>6</b> F	0408	4.4	134	<b>21</b> Sa	0536	5.5	167	<b>6</b> M	0516	5.7	174	<b>6</b> Th	0104	16.4	500
0925	17.6	536	1104	17.5	534	1038	17.7	541	0712	8.1	246	0809	6.7	203	
1627	5.4	165	1823	6.1	187	1823	5.6	171	1254	16.2	495	1322	17.7	540	
●	2139	16.9	515	2339	16.2	493	2337	16.3	496	2023	6.5	197	2117	5.0	151
<b>7</b> Sa	0453	4.8	145	<b>22</b> Su	0640	6.2	189	<b>7</b> Tu	0640	6.1	186	<b>7</b> F	0217	17.7	538
1022	17.5	533	1220	17.2	523	1210	17.7	540	0838	7.7	234	0935	5.8	176	
1739	5.4	165	1945	5.9	181	2001	5.3	162	1403	16.9	516	1425	19.0	580	
2252	16.4	499							2135	5.7	174	2231	4.3	132	
<b>8</b> Su	0559	5.0	151	<b>23</b> M	0106	15.9	485	<b>8</b> W	0111	16.6	507	<b>8</b> Sa	0246	16.6	505
1135	17.6	536	0753	6.5	197	0813	5.9	180	0948	6.8	208	1043	5.0	151	
1907	5.1	154	1330	17.4	530	1330	18.4	562	1453	17.8	544	1511	20.2	616	
			2058	5.4	165	2128	4.8	145	2238	5.1	155	2331	4.0	122	
<b>9</b> M	0020	16.3	498	<b>24</b> Tu	0213	16.3	497	<b>9</b> Th	0223	17.6	537	<b>9</b> Su	0350	20.0	611
0717	4.9	148	0902	6.2	190	0934	5.4	165	1044	6.0	182	1136	4.6	139	
1249	18.1	551	1424	17.9	547	1430	19.5	593	1534	18.7	571	1551	21.0	640	
2031	4.4	135	2204	4.8	147	2243	4.3	132	2329	4.8	145	0551	21.0	640	
<b>10</b> Tu	0137	16.9	516	<b>25</b> W	0306	16.9	516	<b>10</b> F	0319	18.7	569	<b>10</b> Sa	0408	18.4	560
0835	4.5	137	1004	5.8	176	1044	4.9	150	1044	5.4	164	1127	5.4	164	
1353	18.9	576	1510	18.6	566	1521	20.4	622	1534	18.7	571	1606	19.5	593	
2147	3.9	119	2302	4.4	135	2346	4.2	127	2329	4.8	145	1627	21.4	651	
<b>11</b> W	0238	17.7	541	<b>26</b> Th	0350	17.6	536	<b>11</b> Sa	0403	19.6	596	<b>11</b> Tu	0018	4.0	121
0947	4.2	127	1056	5.2	160	1142	4.7	143	0433	19.0	579	0423	20.7	631	
1447	19.8	602	1551	19.1	583	1604	21.1	643	1201	5.1	155	1223	4.5	136	
2254	3.6	111	2350	4.3	130	●			1632	19.9	608	1627	21.4	651	
<b>12</b> Th	0329	18.5	565	<b>27</b> F	0427	18.1	553	<b>12</b> Su	0036	4.2	127	<b>12</b> W	0132	4.1	125
1051	3.9	120	1140	4.9	148	0439	20.2	615	0454	19.4	592	0529	21.0	640	
1536	20.5	624	1625	19.6	597	1232	4.6	141	1231	5.0	153	1344	4.6	141	
						1642	21.5	654	1656	20.2	617	1745	21.1	642	
<b>13</b> F	0414	19.2	584	<b>28</b> Sa	0028	4.2	129	<b>13</b> M	0119	4.2	128	<b>13</b> Tu	0039	4.7	144
1146	3.9	119	0457	18.5	565	0515	20.5	625	0515	19.7	600	0609	20.8	633	
1618	21.0	639	1213	4.7	142	1315	4.7	144	1303	5.1	154	1424	4.6	141	
●			1655	19.9	606	1722	21.5	656	1722	20.3	620	1830	20.5	625	
<b>14</b> Sa	0045	3.7	112	<b>29</b> Su	0059	4.3	132	<b>14</b> Tu	0157	4.2	128	<b>14</b> W	0132	4.2	128
0455	19.6	597	0522	18.8	573	0554	20.6	628	0540	19.9	606	0654	20.3	619	
1235	4.0	122	1243	4.7	142	1357	4.8	147	1336	5.1	155	1458	4.7	142	
1700	21.2	646	1722	20.0	610	1807	21.3	649	1751	20.3	620	1917	19.7	599	
<b>15</b> Su	0132	3.7	113	<b>30</b> M	0126	4.4	135	<b>15</b> W	0234	4.1	126	<b>15</b> Th	0200	4.6	141
0537	19.8	603	0545	18.9	577	0638	20.5	625	0613	20.0	610	0740	19.5	595	
1320	4.2	127	1311	4.8	146	1439	4.9	149	1411	5.0	151	1527	4.9	149	
1743	21.2	646	1748	20.0	610	1854	20.8	633	1824	20.1	614	2001	18.4	562	
			<b>31</b> Tu	0154	4.4	135			<b>31</b> F	0230	4.5	137			
			1613	19.0	579				0650	20.0	611				
			1344	5.0	151				1446	4.8	145				
			1818	19.9	606				1901	19.8	603				

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Rangoon, Burma, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0305	4.6	141	<b>16</b> Tu	0311	5.8	177	<b>1</b> Th	0433	5.8	178
	0750	19.2	584		0833	16.5	502		0953	15.9	486
	1538	4.2	129		1551	5.3	163		1738	4.6	140
	2019	17.6	535		2125	15.1	461		2316	15.6	477
<b>2</b> Tu	0340	5.4	166	<b>17</b> W	0351	7.2	218	<b>2</b> F	0614	6.1	185
	0840	17.9	545		0935	15.0	457		1140	15.5	472
	1623	5.0	151		1657	6.4	194		1914	4.3	131
<b>O</b>	2130	16.3	496	<b>●</b>	2252	14.4	439				
<b>3</b> W	0435	6.5	198	<b>18</b> Th	0519	8.1	243	<b>3</b> Sa	0048	16.4	499
	0953	16.5	504		1111	14.2	433		0757	5.2	157
	1745	5.6	172		1844	6.5	199		1312	16.2	495
	2318	15.6	476						2032	3.4	105
<b>4</b> Th	0618	7.1	215	<b>19</b> F	0020	14.7	447	<b>4</b> Su	0154	17.7	539
	1148	16.1	490		0722	7.7	236		0915	3.8	117
	1936	5.3	162		1246	14.6	445		1412	17.5	533
					2003	5.9	180		2134	2.7	83
<b>5</b> F	0101	16.4	499	<b>20</b> Sa	0130	15.7	478	<b>5</b> M	0239	19.0	578
	0811	6.3	192		0840	6.5	199		1014	2.9	87
	1321	17.0	519		1352	15.7	479		1456	18.6	566
	2100	4.4	133		2105	5.1	154		2227	2.3	71
<b>6</b> Sa	0209	17.8	543	<b>21</b> Su	0221	17.0	517	<b>6</b> Tu	0314	19.8	604
	0932	5.0	153		0939	5.2	73		1104	2.4	73
	1421	18.4	562		1438	17.0	518		1533	19.2	585
	2207	3.6	109		2159	4.3	130		2313	2.3	69
<b>7</b> Su	0256	19.2	586	<b>22</b> M	0300	18.1	553	<b>7</b> W	0347	20.2	617
	1034	4.1	124		1028	4.2	128		1147	2.4	72
	1504	19.7	599		1514	18.1	551		1608	19.4	592
	2304	3.2	98		2244	3.6	111	<b>●</b>	2352	2.4	72
<b>8</b> M	0333	20.2	617	<b>23</b> Tu	0330	19.1	582	<b>8</b> Th	0421	20.3	619
	1125	3.6	111		1110	3.5	108		1224	2.5	75
	1541	20.4	622		1544	18.9	577		1644	19.3	588
	2349	3.1	96		2324	3.2	98				
<b>9</b> Tu	0404	20.8	633	<b>24</b> W	0358	19.8	603	<b>9</b> F	0028	2.5	76
	1207	3.6	109		1147	3.2	98		0457	20.1	614
	1616	20.7	631		1611	19.5	593		1301	2.5	76
<b>●</b>				<b>○</b>	2358	3.0	91		1721	19.0	578
<b>10</b> W	0027	3.3	100	<b>25</b> Th	0425	20.3	618	<b>10</b> Sa	0100	2.6	79
	0435	20.9	638		1225	3.1	93		0534	19.8	605
	1246	3.7	113		1640	19.7	600		1336	2.5	75
	1651	20.6	627						1800	18.5	563
<b>11</b> Th	0101	3.4	104	<b>26</b> F	0032	2.9	89	<b>11</b> Su	0130	2.7	83
	0511	20.8	635		0456	20.5	626		0612	19.4	590
	1325	3.7	114		1303	3.0	91		1408	2.4	73
	1731	20.2	616		1712	19.7	600		1839	17.8	543
<b>12</b> F	0131	3.5	106	<b>27</b> Sa	0106	3.0	91	<b>12</b> M	0155	3.0	92
	0549	20.5	625		0531	20.6	628		0647	18.6	567
	1401	3.7	113		1343	2.9	89		1436	2.5	76
	1813	19.6	598		1750	19.4	592		1919	17.0	518
<b>13</b> Sa	0202	3.6	110	<b>28</b> Su	0139	3.2	97	<b>13</b> Tu	0218	3.6	110
	0630	20.0	609		0610	20.3	620		0722	17.6	535
	1433	3.6	111		1422	2.9	87		1459	3.0	90
	1854	18.8	573		1834	18.9	575		2002	16.0	489
<b>14</b> Su	0227	4.0	121	<b>29</b> M	0212	3.5	108	<b>14</b> W	0243	4.5	137
	0710	19.2	584		0652	19.7	600		0802	16.3	496
	1501	3.8	116		1458	3.0	91		1524	3.8	115
	1937	17.7	540		1923	18.0	549		2054	15.1	460
<b>15</b> M	0248	4.7	143	<b>30</b> Tu	0248	4.1	126	<b>15</b> Th	0319	5.6	171
	0749	18.0	548		0739	18.6	567		0855	15.0	456
	1522	4.4	133		1535	3.4	103		1606	4.8	145
	2023	16.4	500		2022	16.9	516	<b>●</b>	2159	14.5	442
<b>31</b> W	0331	5.0	151	<b>31</b> W	0835	17.2	525				
					1622	4.1	124				
<b>●</b>	2138	15.9	486		1622	4.1	124				

Time meridian 97° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sagar, Hooghly River, India, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0335	3.6	109	<b>16</b> Tu 0415	4.5	137	<b>1</b> Th 0509	1.8	54	<b>16</b> F 0459	2.9	89
0901	15.8	481	0946	13.8	420	1034	16.2	495	1028	14.6	444
1547	2.6	79	1622	3.7	113	1718	1.5	47	1707	2.6	78
2129	17.6	537	2207	15.6	474	2256	17.5	532	● 2244	15.8	483
<b>2</b> Tu 0426	2.9	87	<b>17</b> W 0444	4.1	124	<b>2</b> F 0551	1.6	48	<b>17</b> Sa 0528	2.5	75
0951	16.4	499	1015	14.2	433	1118	16.3	497	1057	15.0	458
1636	2.1	64	1651	3.3	102	1759	1.7	51	1736	2.3	71
○ 2216	18.0	548	● 2235	15.7	479	2337	17.1	521	2312	16.0	487
<b>3</b> W 0513	2.5	75	<b>18</b> Th 0513	3.7	114	<b>3</b> Sa 0630	1.8	55	<b>18</b> Su 0558	2.2	66
1041	16.6	506	1045	14.5	441	1200	16.0	488	1128	15.3	467
1721	2.0	62	1719	3.1	96	1837	2.2	68	1806	2.3	70
2303	17.8	544	2302	15.8	481	2344	15.9	485	2315	16.8	512
<b>4</b> Th 0559	2.4	74	<b>19</b> F 0542	3.5	107	<b>4</b> Su 0017	16.4	500	<b>19</b> M 0630	2.1	63
1129	16.4	500	1116	14.6	446	0706	2.3	71	1203	15.4	470
1804	2.4	72	1747	3.1	94	1239	15.5	471	1837	2.5	77
2349	17.3	528	2333	15.7	479	1910	3.0	91	1907	2.9	89
<b>5</b> F 0645	2.8	84	<b>20</b> Sa 0615	3.4	103	<b>5</b> M 0053	15.5	473	<b>20</b> Tu 0016	15.7	478
1217	15.9	484	1149	14.7	447	0737	3.0	92	0702	2.2	66
1847	3.1	93	1819	3.2	99	1316	14.8	450	1238	15.3	467
● 1941	3.9	120	1941	3.9	119	1941	3.9	119	1907	2.9	89
<b>6</b> Sa 0036	16.5	502	<b>21</b> Su 0005	15.6	474	<b>6</b> Tu 0127	14.6	445	<b>21</b> W 0051	15.3	467
0729	3.3	102	0649	3.4	103	0805	3.8	115	0731	2.4	74
1303	15.2	462	1224	14.6	445	1351	14.0	427	1312	15.0	458
1930	3.9	120	1851	3.6	109	2011	4.8	147	1940	3.5	106
<b>7</b> Su 0122	15.6	474	<b>22</b> M 0039	15.3	467	<b>7</b> W 0202	13.6	414	<b>22</b> Th 0129	14.7	449
0809	4.1	124	0722	3.5	106	0833	4.5	138	0803	2.9	89
1351	14.4	439	1259	14.5	442	1428	13.2	401	1351	14.5	442
2011	4.9	150	1923	4.0	123	● 2046	5.8	177	2022	4.2	129
<b>8</b> M 0207	14.6	445	<b>23</b> Tu 0113	15.0	457	<b>8</b> Th 0241	12.5	381	<b>23</b> F 0846	3.6	110
0847	4.8	146	0753	3.6	110	0908	5.4	164	1521	12.2	373
1438	13.7	417	1336	14.3	436	1521	12.2	373	2138	6.8	206
2054	5.9	179	1959	4.5	138	2318	7.3	224	● 2118	5.1	156
<b>9</b> Tu 0256	13.6	415	<b>24</b> W 0152	14.6	444	<b>9</b> F 0339	11.4	346	<b>24</b> Sa 0312	12.8	389
0929	5.4	166	0829	3.8	117	1009	6.2	189	0946	4.5	136
1530	13.0	396	1418	14.0	427	1649	11.6	353	1604	13.0	396
○ 2150	6.7	204	2045	5.1	155	2318	7.3	224	2245	5.8	176
<b>10</b> W 0351	12.7	386	<b>25</b> Th 0240	13.9	424	<b>10</b> Sa 0516	10.6	323	<b>25</b> Su 0453	12.0	365
1024	6.0	184	0916	4.2	128	1156	6.5	197	1122	5.0	152
1637	12.5	382	1516	13.6	414	1838	11.8	361	1750	13.1	400
2309	7.2	220	● 2149	5.6	172	● 2149	5.6	172	● 2150	7.3	221
<b>11</b> Th 0502	11.9	363	<b>26</b> F 0347	13.1	400	<b>11</b> Su 0111	7.0	212	<b>26</b> M 0043	5.5	168
1137	6.3	193	1022	4.6	141	0717	10.9	331	0634	12.2	373
1803	12.5	381	1641	13.4	407	1332	5.9	179	1306	4.6	139
● 2316	5.9	181	2316	5.9	181	1952	12.8	390	1918	14.1	431
<b>12</b> F 0035	7.2	219	<b>27</b> Sa 0517	12.7	387	<b>12</b> M 0232	6.0	182	<b>27</b> Tu 0222	4.4	133
0630	11.7	356	1150	4.7	144	0819	11.7	357	0757	13.3	405
1254	6.2	188	1812	13.8	421	1441	5.0	151	1434	3.6	109
1920	13.1	398	2039	13.8	420	2039	13.8	420	2024	15.4	469
<b>13</b> Sa 0156	6.6	202	<b>28</b> Su 0056	5.5	167	<b>13</b> Tu 0322	5.0	151	<b>28</b> W 0328	3.1	93
0744	12.0	367	0643	13.0	396	0901	12.6	384	0854	14.5	442
1408	5.6	170	1320	4.2	129	1530	4.1	125	1537	2.6	78
2015	13.8	422	1929	14.8	451	2119	14.6	444	2116	16.4	500
<b>14</b> Su 0256	5.8	177	<b>29</b> M 0224	4.5	137	<b>14</b> W 0401	4.1	126	<b>14</b> W 0251	5.1	154
0833	12.6	385	0758	13.8	422	0934	13.4	408	0837	12.5	380
1503	4.9	148	1438	3.4	103	1608	3.4	105	1502	4.4	135
2059	14.6	445	2032	15.9	485	2151	15.2	462	2047	14.3	437
<b>15</b> M 0339	5.1	155	<b>30</b> Tu 0332	3.4	103	<b>15</b> Th 0431	3.4	105	<b>15</b> Th 0334	4.0	122
0913	13.3	404	0857	14.9	453	1001	14.0	427	0910	13.5	410
1547	4.2	128	1542	2.5	77	1640	3.0	90	1544	3.6	110
2136	15.2	463	2125	16.8	513	2218	15.6	474	2120	15.1	460
<b>31</b> W 0424	2.4	73	<b>31</b> W 0949	15.7	479	● 2212	17.4	530	<b>31</b> O 1644	1.8	55
1634	1.8	56	1634	1.8	56	● 2213	16.7	508	1644	2.2	66
○ 2212	17.4	530	○ 2213	16.7	508				○ 2213	16.7	508

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sagar, Hooghly River, India, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0504	1.7	51	<b>16</b> M	0434	2.0	61	<b>1</b> Tu	0455	2.9	87
	1029	16.6	506	<b>16</b> M	0958	16.9	515	<b>16</b> W	1028	16.8	513
	1715	2.3	69	<b>16</b> M	1646	2.4	74	<b>1</b> W	1710	3.6	111
	2246	16.4	501	●	2215	16.8	513	<b>16</b> W	2243	15.8	481
<b>2</b> M	0530	1.8	56	<b>17</b> Tu	0504	1.5	47	<b>2</b> W	0518	3.0	92
	1100	16.5	504	<b>17</b> Tu	1031	17.4	531	<b>2</b> W	1057	16.6	507
	1743	2.6	80	<b>17</b> Tu	1720	2.2	67	<b>17</b> Th	1736	3.9	120
	2315	15.9	486	<b>17</b> Tu	2251	16.9	515	<b>17</b> Th	2311	15.4	470
<b>3</b> Tu	0555	2.2	67	<b>18</b> W	0535	1.4	44	<b>3</b> Th	0541	3.3	102
	1130	16.2	495	<b>18</b> W	1107	17.6	535	<b>18</b> F	0544	2.4	72
	1810	3.1	94	<b>18</b> W	1756	2.4	72	<b>3</b> Su	1126	16.2	495
	2343	15.4	468	<b>18</b> W	2329	16.6	505	<b>18</b> F	1820	3.4	103
<b>4</b> W	0617	2.7	82	<b>19</b> Th	0608	1.8	54	<b>4</b> F	0606	3.8	116
	1159	15.7	480	<b>19</b> Th	1147	17.2	524	<b>4</b> F	1157	15.7	478
	1833	3.7	112	<b>19</b> Th	1834	2.9	87	<b>19</b> Sa	1216	17.1	520
				<b>19</b> Sa				<b>4</b> M	1905	4.2	127
<b>5</b> Th	0010	14.7	447	<b>20</b> F	0009	15.8	483	<b>5</b> Sa	0008	14.3	437
	0640	3.3	100	<b>20</b> F	0642	2.5	76	<b>5</b> Sa	0632	4.5	137
	1229	15.1	460	<b>20</b> F	1230	16.4	501	<b>5</b> Sa	1231	15.0	458
	1857	4.3	132	<b>20</b> F	1912	3.7	112	<b>5</b> Sa	1859	5.4	166
<b>6</b> F	0037	13.9	424	<b>21</b> Sa	0054	14.9	454	<b>6</b> Su	0042	13.6	416
	0705	4.1	124	<b>21</b> Sa	0721	3.5	107	<b>6</b> Su	0703	5.4	164
	1259	14.3	435	<b>21</b> Sa	1316	15.4	470	<b>6</b> Su	1307	14.2	434
	1925	5.2	158	<b>21</b> Sa	1958	4.7	142	<b>6</b> Su	1935	6.2	189
<b>7</b> Sa	0108	13.1	398	<b>22</b> Su	0146	13.8	421	<b>7</b> M	0121	12.9	392
	0733	5.0	153	<b>22</b> Su	0809	4.7	143	<b>22</b> M	0741	6.3	193
	1335	13.3	405	<b>22</b> Su	1413	14.3	436	<b>22</b> M	1352	13.5	410
	2002	6.2	188	<b>22</b> Su	2100	5.6	171	<b>22</b> M	2025	6.9	211
<b>8</b> Su	0147	12.0	367	<b>23</b> M	0259	12.8	389	<b>8</b> Tu	0216	12.1	370
	0814	6.1	186	<b>23</b> M	0916	5.8	178	<b>23</b> W	0842	7.2	220
	1428	12.3	374	<b>23</b> M	1544	13.5	411	<b>8</b> Tu	1506	12.8	391
	● 2059	7.1	217	<b>23</b> M	2237	6.1	186	<b>8</b> Tu	2141	7.3	223
<b>9</b> M	0249	11.0	336	<b>24</b> Tu	0440	12.4	377	<b>9</b> W	0351	11.7	358
	0926	7.1	216	<b>24</b> Tu	1106	6.3	192	<b>9</b> W	1016	7.6	233
	1622	11.7	356	<b>24</b> Tu	1723	13.5	413	<b>9</b> W	1648	12.9	392
	2249	7.5	228	<b>24</b> Tu				<b>9</b> W	2322	7.0	214
<b>10</b> Tu	0508	10.6	324	<b>25</b> W	0016	5.6	172	<b>10</b> Th	0538	12.3	374
	1139	7.2	220	<b>25</b> W	0619	13.0	396	<b>10</b> Th	1200	7.2	218
	1806	12.2	372	<b>25</b> W	1242	5.8	176	<b>10</b> Th	1804	13.5	412
				<b>25</b> W	1846	14.3	436	<b>10</b> Th			
<b>11</b> W	0050	6.7	204	<b>26</b> Th	0137	4.8	145	<b>11</b> F	0045	6.1	186
	0658	11.5	351	<b>26</b> Th	0730	14.1	431	<b>11</b> F	0650	13.4	408
	1316	6.3	192	<b>26</b> Th	1401	4.9	149	<b>11</b> F	1317	6.2	189
	1915	13.3	404	<b>26</b> Th	1943	15.2	462	<b>11</b> F	1902	14.4	439
<b>12</b> Th	0201	5.5	169	<b>27</b> F	0238	3.9	119	<b>12</b> Su	0150	5.1	155
	0754	12.8	389	<b>27</b> F	0818	15.2	464	<b>12</b> Su	0739	14.7	447
	1418	5.2	160	<b>27</b> F	1457	4.1	125	<b>12</b> Su	1414	5.2	159
	2001	14.3	436	<b>27</b> F	2029	15.7	480	<b>12</b> Su	1948	15.3	466
<b>13</b> F	0251	4.4	135	<b>28</b> Sa	0325	3.3	100	<b>13</b> Su	0240	4.1	126
	0830	13.9	425	<b>28</b> Sa	0856	16.0	488	<b>13</b> Su	0818	15.8	483
	1504	4.3	131	<b>28</b> Sa	1540	3.6	111	<b>13</b> Su	1459	4.4	133
	2037	15.2	463	<b>28</b> Sa	2108	16.1	490	<b>13</b> Su	2028	16.0	489
<b>14</b> Sa	0330	3.5	106	<b>29</b> Su	0401	3.0	90	<b>14</b> M	0323	3.3	100
	0901	15.0	458	<b>29</b> Su	0930	16.5	504	<b>29</b> M	0853	16.9	516
	1542	3.5	107	<b>29</b> Su	1615	3.4	105	<b>29</b> M	1538	3.6	110
	2111	15.9	485	<b>29</b> Su	2143	16.1	492	<b>29</b> M	2107	16.7	510
<b>15</b> Su	0404	2.7	82	<b>30</b> M	0430	2.8	86	<b>15</b> Tu	0359	2.6	78
	0929	16.0	489	<b>30</b> M	0959	16.8	512	<b>15</b> Tu	0927	17.8	543
	1613	2.9	89	<b>30</b> M	1643	3.5	106	<b>15</b> Tu	1615	3.1	94
	2141	16.5	502	<b>30</b> M	2215	16.0	489	<b>15</b> Tu	2146	17.2	524
<b>31</b> Th	0449	3.9	119	<b>31</b> Th	1033	16.9	515	<b>31</b> Th	1707	4.7	142
				<b>31</b> Th	1707	4.7	142	<b>31</b> Th	2246	15.6	475
				<b>31</b> Th	2246	16.0	489	<b>31</b> Th			
				<b>31</b> Th				<b>31</b> Th			

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sagar, Hooghly River, India, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0523	4.4	135	<b>16</b>	0605	3.3	102	<b>1</b>	0609	4.7	142
	1114	16.8	512	M	1150	18.3	559	W	1158	16.8	511
	1747	5.0	153		1842	3.7	112		1836	4.7	143
	2332	15.6	475								
<b>2</b> M	0552	4.8	145	<b>17</b>	0023	17.1	521	<b>2</b>	0020	16.0	489
	1147	16.5	502	Tu	0649	4.2	128	Th	0640	5.2	158
	1821	5.2	159		1237	17.4	531		1231	16.4	499
					1925	4.4	133		1909	5.0	151
<b>3</b> Tu	0006	15.3	466	<b>18</b>	0110	16.3	497	<b>3</b>	0055	15.8	481
	0624	5.3	161	W	0731	5.2	159	F	0713	5.7	175
	1222	16.1	491		1326	16.4	500		1308	15.9	485
	1858	5.5	169		2007	5.2	157		1943	5.3	161
<b>4</b> W	0042	15.0	456	<b>19</b>	0158	15.5	472	<b>4</b>	0133	15.5	472
	0658	5.9	179	Th	0815	6.2	189	Sa	0754	6.3	193
	1258	15.7	478		1416	15.4	470		1352	15.3	466
	1935	5.8	178		2050	5.9	180		2025	5.6	172
<b>5</b> Th	0122	14.7	447	<b>20</b>	0251	14.8	450	<b>5</b>	0223	15.1	459
	0738	6.5	198	F	0907	7.1	217	Su	0851	6.9	210
	1339	15.3	465		1512	14.5	441	O	1451	14.6	445
	2016	6.1	186		2144	6.6	201		2126	6.1	185
<b>6</b> F	0209	14.4	440	<b>21</b>	0357	14.2	433	<b>6</b>	0340	14.8	450
	0829	7.0	213	Sa	1019	7.7	236	M	1011	7.2	219
	1433	14.8	450		1625	13.7	417		1622	14.1	431
	O	2108	6.2		2253	7.0	214		2251	6.2	189
<b>7</b> Sa	0312	14.3	436	<b>22</b>	0520	14.1	429	<b>7</b>	0518	15.1	461
	0936	7.3	222	Su	1143	7.8	238	Tu	1152	6.8	207
	1544	14.4	439		1753	13.4	408		1754	14.5	441
	2216	6.2	190								
<b>8</b> Su	0436	14.6	445	<b>23</b>	0011	7.0	213	<b>8</b>	0025	5.7	173
	1100	7.2	218	M	0640	14.5	443	W	0638	16.1	492
	1707	14.5	441		1306	7.3	224		1320	5.8	177
	2336	5.9	180		1909	13.7	417		1911	15.4	469
<b>9</b> M	0554	15.4	469	<b>24</b>	0126	6.5	199	<b>9</b>	0144	4.8	145
	1225	6.5	198	Tu	0737	15.3	466	Th	0743	17.4	530
	1819	15.0	456		1412	6.6	202		1431	4.6	141
					2003	14.3	436		2013	16.6	505
<b>10</b> Tu	0054	5.2	159	<b>25</b>	0225	5.9	179	<b>10</b>	0249	3.8	115
	0700	16.5	502	W	0823	16.1	490	F	0839	18.5	564
	1338	5.5	169		1459	5.9	180		1527	3.6	109
	1923	15.8	481		2043	15.0	456		2105	17.7	538
<b>11</b> W	0202	4.4	134	<b>26</b>	0312	5.2	159	<b>11</b>	0344	3.0	91
	0756	17.6	537	Th	0902	16.7	510	Sa	0925	19.3	588
	1440	4.6	140		1535	5.3	163		1616	2.8	85
	2018	16.7	509		2119	15.5	473		2152	18.4	560
<b>12</b> Th	0300	3.6	109	<b>27</b>	0350	4.7	144	<b>12</b>	0432	2.6	78
	0845	18.6	566	F	0935	17.2	523	Su	1009	19.6	596
	1532	3.8	115		1605	4.9	150		1657	2.5	75
	2110	17.5	534						2235	18.6	568
<b>13</b> F	0350	3.0	90	<b>28</b>	0419	4.4	134	<b>13</b>	0515	2.6	78
	0933	19.2	585	Sa	1004	17.4	529	M	1051	19.3	588
	1621	3.2	98		1632	4.7	142		1739	2.6	79
	2159	18.0	549		2215	16.2	494		2318	18.4	562
<b>14</b> Sa	0437	2.7	81	<b>29</b>	0444	4.2	128	<b>14</b>	0554	3.1	93
	1019	19.4	590	Su	1029	17.4	531	Tu	1131	18.6	567
	1708	3.0	91		1659	4.5	137		1818	3.1	96
	2246	18.1	552		2242	16.4	499		2358	17.8	543
<b>15</b> Su	0522	2.8	85	<b>30</b>	0510	4.2	127	<b>15</b>	0631	3.9	118
	1104	19.0	580	M	1057	17.3	528	W	1211	17.6	537
	1755	3.2	97		1729	4.4	135		1854	4.0	121
	2334	17.7	541		2314	16.4	499				
<b>31</b> Tu	0539	4.3	131	<b>31</b>	0625	4.5	138	<b>16</b>	0110	15.3	467
	1125	17.1	521	Sa	1125	4.5	137	W	1207	16.7	510
	1803	4.5	137		2347	16.3	496		1844	4.2	129

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Sagar, Hooghly River, India, 2018

Times and Heights of High and Low Waters

October				November				December							
	Time	Height			Time	Height			Time	Height					
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm				
<b>1</b> M	0049	16.5	503	<b>16</b> Tu	0114	14.5	441	<b>1</b> Th	0255	14.4	438	<b>16</b> Sa	0417	14.1	430
	0724	5.6	171		0741	7.4	227		0947	6.9	211		1105	6.0	182
	1311	15.2	462		1330	13.1	398		1558	13.3	405		1541	12.1	369
	1940	5.5	168		1953	7.7	236		2222	7.4	226		2203	8.5	260
<b>2</b> Tu	0136	15.5	472	<b>17</b> W	0204	13.3	406	<b>2</b> F	0441	14.1	431	<b>17</b> Su	0434	12.9	392
	0816	6.6	200		0840	8.4	255		1133	6.6	200		1102	7.7	235
	1411	14.1	429		1438	12.1	368		1739	13.8	421		1727	12.6	383
	2039	6.6	200	<b>O</b>	2110	8.7	265				2355	8.1	246		
<b>3</b> W	0249	14.4	440	<b>18</b> Th	0408	12.6	385	<b>3</b> Sa	0007	6.9	210	<b>18</b> Su	0553	13.4	408
	0938	7.3	222		1038	8.7	264		0609	14.8	451		1227	6.9	209
	1555	13.3	405		1707	11.9	363		1253	5.6	171		1842	13.6	415
	2220	7.3	221		2339	8.7	264		1859	15.0	458				
<b>4</b> Th	0449	14.2	434	<b>19</b> F	0553	13.2	401	<b>4</b> Su	0128	5.9	180	<b>19</b> M	0113	7.1	216
	1142	7.0	212		1230	7.8	237		0713	15.7	479		0651	14.1	431
	1749	13.8	420		1851	13.0	395		1401	4.7	142		1331	5.8	178
									1954	16.2	495		1933	14.8	451
<b>5</b> F	0017	6.7	204	<b>20</b> Sa	0107	7.5	230	<b>5</b> M	0233	4.9	150	<b>20</b> Tu	0208	6.0	184
	0624	15.3	465		0659	14.2	434		0803	16.4	501		0738	14.9	454
	1314	5.7	174		1333	6.6	200		1453	4.0	121		1422	4.9	150
	1914	15.2	463		1942	14.3	435		2036	17.1	522		2012	15.9	484
<b>6</b> Sa	0142	5.5	167	<b>21</b> Su	0204	6.4	194	<b>6</b> Tu	0321	4.3	131	<b>21</b> W	0253	5.2	158
	0730	16.6	505		0745	15.3	466		0846	16.8	513		0819	15.6	475
	1422	4.4	133		1423	5.5	167		1535	3.6	109		1506	4.1	126
	2008	16.6	507		2018	15.4	470		2112	17.7	539		2046	16.8	512
<b>7</b> Su	0245	4.3	131	<b>22</b> M	0249	5.3	163	<b>7</b> W	0359	4.0	122	<b>22</b> Th	0332	4.5	137
	0820	17.7	538		0821	16.1	490		0922	16.9	516		0855	16.2	493
	1513	3.3	102		1504	4.6	140		1608	3.5	106		1543	3.5	106
	2052	17.7	541		2047	16.4	499	<b>O</b>	2143	17.9	546		2119	17.6	536
<b>8</b> M	0334	3.5	106	<b>23</b> Tu	0325	4.6	141	<b>8</b> Th	0431	4.0	122	<b>23</b> F	0407	3.9	120
	0903	18.3	557		0853	16.7	508		0957	16.8	512		0933	16.7	508
	1554	2.8	84		1537	3.9	119		1637	3.5	108		1619	3.0	91
	2128	18.4	562		2113	17.2	524		2214	17.9	545	<b>O</b>	2153	18.1	552
<b>9</b> Tu	0414	3.1	95	<b>24</b> W	0357	4.1	126	<b>9</b> F	0501	4.2	128	<b>24</b> Sa	0444	3.6	109
	0941	18.4	562		0922	17.1	521		1029	16.5	502		1012	16.9	516
	1628	2.6	80		1607	3.4	103		1704	3.8	115		1653	2.8	84
	2201	18.7	571	<b>O</b>	2140	17.8	544		2245	17.6	535		2231	18.3	557
<b>10</b> W	0448	3.2	97	<b>25</b> Th	0425	3.8	115	<b>10</b> Sa	0529	4.5	138	<b>25</b> Tu	0524	3.5	106
	1015	18.2	555		0951	17.4	530		1100	16.0	487		1053	16.8	513
	1657	2.8	86		1636	3.0	91		1729	4.2	128		1730	2.9	88
	2234	18.6	566		2209	18.3	558		2317	17.0	518		2313	18.0	548
<b>11</b> Th	0519	3.5	108	<b>26</b> F	0456	3.6	109	<b>11</b> Su	0556	5.0	152	<b>26</b> M	0605	3.7	113
	1048	17.6	537		1025	17.5	532		1130	15.4	469		1139	16.3	498
	1725	3.3	101		1706	2.9	88		1755	4.7	144		1809	3.4	105
	2305	18.1	552		2244	18.4	561		2348	16.3	497		2359	17.3	527
<b>12</b> F	0547	4.2	127	<b>27</b> Sa	0530	3.6	111	<b>12</b> M	0624	5.5	168	<b>27</b> W	0650	4.2	129
	1119	16.8	513		1101	17.2	524		1200	14.7	449		1229	5.3	163
	1751	4.0	122		1738	3.1	95		1822	5.4	164		1226	4.1	129
	2336	17.4	530		2320	18.1	552						1846	5.3	161
<b>13</b> Sa	0614	4.9	148	<b>28</b> Su	0607	4.0	122	<b>13</b> Tu	0022	15.6	474	<b>28</b> F	0049	14.9	454
	1148	15.9	486		1141	16.6	507		0653	6.1	187		0720	5.7	175
	1816	4.8	146		1813	3.7	113		1234	14.0	428		1304	13.6	414
									1854	6.2	189		1942	5.3	163
<b>14</b> Su	0007	16.5	503	<b>29</b> M	0001	17.4	531	<b>14</b> W	0058	14.7	448	<b>29</b> Th	0146	15.4	470
	0640	5.6	172		0644	4.7	142		1313	13.3	404		0834	5.6	171
	1218	15.0	458		1225	15.8	481		1932	7.1	217		1427	13.9	425
	1841	5.6	172		1850	4.6	141					2044	6.3	193	
<b>15</b> M	0039	15.6	474	<b>30</b> Tu	0045	16.5	502	<b>15</b> Th	0141	13.8	421	<b>30</b> F	0256	14.6	444
	0707	6.5	198		0728	5.5	167		0815	7.5	229		0946	6.0	183
	1249	14.1	429		1313	14.8	451		1408	12.5	382		1545	13.5	413
	1911	6.7	203		1937	5.7	174	<b>O</b>	2031	8.0	245	<b>O</b>	2210	6.9	211
<b>31</b> W	0137	15.4	468	<b>31</b> W	0137	15.4	468								
	0823	6.4	194		1419	13.8	420								
					2040	6.8	207								

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Madras, India, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0123 1.0 29 0712 3.6 109 1319 0.3 9 1955 4.4 134			<b>16</b> Tu 0213 1.0 30 0755 2.8 86 1351 0.6 17 2026 3.6 109			<b>1</b> Th 0254 0.1 2 0850 3.3 100 1447 -0.1 -3 2114 4.0 122		
<b>2</b> Tu 0213 0.7 22 0805 3.7 112 O 1408 0.2 7 2042 4.5 136			<b>17</b> W 0244 0.9 26 0826 2.9 89 1422 0.5 15 2054 3.6 111			<b>16</b> F 0338 0.0 0 0935 3.3 100 1532 0.0 1 2155 3.9 119		
<b>3</b> W 0304 0.6 18 0856 3.7 112 1456 0.3 9 2127 4.5 136			<b>18</b> Th 0312 0.8 23 0856 3.0 90 1453 0.5 14 2122 3.7 112			<b>17</b> Sa 0419 0.0 1 1017 3.2 97 1614 0.2 7 2233 3.7 112		
<b>4</b> Th 0352 0.5 16 0945 3.6 109 1543 0.4 13 2212 4.3 132			<b>19</b> F 0342 0.7 21 0927 3.0 91 1524 0.5 14 2150 3.7 112			<b>18</b> Su 0459 0.2 5 1101 3.1 93 1659 0.5 14 2312 3.4 104		
<b>5</b> F 0440 0.6 18 1034 3.4 105 1631 0.7 20 2257 4.1 125			<b>20</b> Sa 0412 0.6 19 0959 3.0 91 1557 0.6 17 2220 3.6 110			<b>19</b> M 0448 0.1 2 1059 2.9 89 1658 0.4 13 2304 3.1 94		
<b>6</b> Sa 0529 0.7 21 1126 3.3 100 1720 1.0 29 2343 3.8 117			<b>21</b> Su 0444 0.6 19 1037 3.0 90 1633 0.7 21 2254 3.5 107			<b>20</b> Tu 0526 0.1 3 1146 2.9 87 1743 0.6 19 2344 2.9 88		
<b>7</b> Su 0619 0.9 26 1222 3.1 94 1815 1.3 39			<b>22</b> M 0518 0.6 19 1120 2.9 89 1712 0.9 26 2330 3.3 102			<b>21</b> W 0526 0.1 3 1146 2.9 87 1743 0.6 19 2344 2.9 88		
<b>8</b> M 0032 3.5 107 0713 1.0 32 1326 3.0 90 1917 1.5 47			<b>23</b> Tu 0557 0.7 20 1211 2.9 87 1758 1.0 32			<b>22</b> Th 0035 2.7 82 0707 0.8 23 1333 2.5 77 O 1933 1.3 39		
<b>9</b> Tu 0126 3.2 97 0812 1.2 36 1442 2.9 87 O 2034 1.7 53			<b>24</b> W 0012 3.1 96 0643 0.7 20 1312 2.8 86 1859 1.2 38			<b>23</b> F 0036 2.6 80 0704 0.3 10 1345 2.7 81 O 1954 1.0 30		
<b>10</b> W 0229 2.9 88 0917 1.3 39 1556 2.9 88 2200 1.8 55			<b>25</b> Th 0107 3.0 90 0742 0.7 21 1420 2.8 86 O 2020 1.4 42			<b>24</b> Sa 0357 2.0 60 1027 1.0 29 1720 2.5 75 2350 1.2 38		
<b>11</b> Th 0341 2.7 81 1019 1.2 38 1702 3.0 90 2315 1.7 52			<b>26</b> F 0213 2.8 84 0853 0.7 20 1539 2.9 88 2149 1.3 41			<b>25</b> Su 0314 2.2 67 0942 0.5 15 1637 2.7 82 2302 0.9 27		
<b>12</b> F 0449 2.6 79 1113 1.2 36 1758 3.1 94			<b>27</b> Sa 0334 2.6 80 1007 0.6 17 1655 3.1 94 2311 1.1 35			<b>26</b> M 0046 1.0 31 0624 2.1 65 1222 0.6 19 1903 2.8 86		
<b>13</b> Sa 0015 1.5 47 0551 2.6 79 1200 1.0 31 1843 3.2 99			<b>28</b> W 0457 2.7 81 1115 0.4 12 1801 3.3 101			<b>27</b> Tu 0017 0.6 17 0611 2.5 75 1211 0.2 6 1848 3.2 99		
<b>14</b> Su 0103 1.3 41 0641 2.7 81 1241 0.9 26 1921 3.4 103			<b>29</b> M 0019 0.9 26 0608 2.8 86 1215 0.2 6 1857 3.6 110			<b>28</b> M 0047 1.8 54 1051 0.9 27 1740 2.4 73 2311 1.2 36		
<b>15</b> M 0141 1.1 35 0720 2.8 84 1317 0.7 21 1955 3.5 106			<b>30</b> Tu 0117 0.5 16 0709 3.0 92 1310 0.0 0 1947 3.8 117			<b>29</b> Th 0226 0.4 13 0815 2.6 80 1408 0.2 5 2036 3.3 101		
			<b>31</b> W 0208 0.3 8 0802 3.2 97 1401 -0.1 -3 O 2032 4.0 121			<b>30</b> F 0059 0.7 21 0650 2.2 68 1241 0.5 16 1910 2.9 87		
						<b>31</b> Sa 0137 0.5 16 0747 3.2 98 1341 0.2 7 1955 3.5 108		
						<b>31</b> O 0212 -0.1 -3 0823 3.4 103 1420 0.2 6 O 2030 3.5 108		

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Madras, India, 2018

Times and Heights of High and Low Waters

April			May			June					
Time	Height		Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> Su 0246 0.1 -4 0857 3.5 106 1458 0.2 7 2101 3.4 105	<b>16</b> M 0212 0.0 -1 0830 3.7 112 1433 0.4 13 2030 3.5 108	<b>1</b> Tu 0242 0.3 9 0905 3.8 115 1517 0.8 23 2104 3.2 99	<b>16</b> W 0216 0.0 1 0846 4.1 126 1458 0.7 20 2047 3.6 109	<b>1</b> F 0318 0.6 19 0953 3.7 112 1613 1.0 32 2149 3.0 90	<b>16</b> Sa 0331 0.2 5 1006 4.1 126 1631 0.6 18 2220 3.3 100						
			<b>2</b> M 0317 -0.1 -2 0929 3.5 106 1535 0.3 10 2134 3.3 100	<b>17</b> Tu 0243 -0.1 -4 0905 3.8 115 1512 0.4 12 2105 3.5 107	<b>2</b> W 0312 0.4 11 0938 3.7 113 1552 0.8 25 2136 3.1 94	<b>17</b> Th 0257 0.0 1 0928 4.2 127 1546 0.7 20 2132 3.4 105	<b>2</b> Sa 0352 0.7 21 1028 3.6 110 1649 1.1 33 2224 2.9 87	<b>17</b> Su 0421 0.4 11 1055 4.0 123 1725 0.6 19 2318 3.1 95			
			<b>3</b> Tu 0346 0.1 2 1003 3.4 103 1612 0.5 15 2204 3.1 93	<b>18</b> W 0319 -0.1 -4 0943 3.8 116 1555 0.5 14 2145 3.4 103	<b>3</b> Th 0343 0.5 15 1013 3.6 109 1630 0.9 28 2209 2.9 89	<b>18</b> F 0342 0.2 5 1014 4.1 124 1637 0.7 22 2223 3.3 100	<b>3</b> Su 0427 0.8 24 1104 3.5 107 1729 1.1 35 2304 2.8 84	<b>18</b> M 0515 0.6 19 1147 3.8 117 1821 0.7 22			
			<b>4</b> W 0417 0.2 7 1038 3.2 99 1649 0.7 20 2238 2.8 86	<b>19</b> Th 0357 0.0 -1 1026 3.7 114 1641 0.6 18 2228 3.2 97	<b>4</b> F 0416 0.6 19 1049 3.4 105 1708 1.0 30 2244 2.8 84	<b>19</b> Sa 0430 0.4 12 1105 3.9 120 1732 0.8 25 2319 3.1 94	<b>4</b> M 0505 1.0 29 1143 3.4 104 1811 1.2 37 2350 2.7 81	<b>19</b> Tu 0018 3.0 91 0612 0.9 28 1242 3.6 111 1921 0.9 26			
<b>5</b> Th 0448 0.4 12 1116 3.1 93 1729 0.9 26 2311 2.6 78	<b>20</b> F 0441 0.2 5 1113 3.6 109 1732 0.7 22 2319 3.0 90	<b>5</b> Sa 0449 0.8 23 1127 3.3 100 1749 1.2 36 2322 2.6 79	<b>20</b> Su 0522 0.7 20 1158 3.7 114 1832 0.9 28	<b>5</b> Tu 0544 1.1 35 1225 3.3 100 1859 1.3 39	<b>20</b> W 0127 2.9 87 0717 1.2 37 1341 3.4 103 2026 1.0 29						
<b>6</b> F 0520 0.6 18 1157 2.9 88 1811 1.0 31 2346 2.3 71	<b>21</b> Sa 0530 0.4 12 1207 3.4 104 1832 0.9 27	<b>6</b> Su 0526 1.0 29 1210 3.1 96 1836 1.3 39	<b>21</b> M 0024 2.9 88 0621 1.0 30 1300 3.5 108 1941 1.0 31	<b>6</b> W 0049 2.6 78 0634 1.4 42 1314 3.1 96 1959 1.3 39	<b>21</b> Th 0247 2.8 86 0833 1.4 44 1447 3.1 96 2132 1.0 31						
<b>7</b> Sa 0557 0.8 24 1243 2.7 82 1903 1.2 37	<b>22</b> Su 0019 2.7 82 0628 0.7 22 1312 3.2 98 1947 1.0 31	<b>7</b> M 0008 2.4 74 0610 1.1 35 1300 3.0 91 1938 1.4 42	<b>22</b> Tu 0144 2.7 83 0734 1.3 39 1411 3.4 103 2058 1.1 33	<b>7</b> Th 0202 2.5 77 0744 1.6 48 1413 3.1 93 2105 1.2 37	<b>22</b> F 0402 2.9 88 0953 1.6 48 1555 3.0 90 2233 1.0 31						
<b>8</b> Su 0031 2.1 65 0645 1.0 30 1347 2.5 77 2020 1.3 40	<b>23</b> M 0140 2.5 75 0742 1.0 31 1432 3.1 94 2118 1.0 32	<b>8</b> Tu 0117 2.3 70 0709 1.4 42 1406 2.9 88 2057 1.4 43	<b>23</b> W 0318 2.8 84 0900 1.5 45 1527 3.2 99 2213 1.0 31	<b>8</b> F 0327 2.7 81 0914 1.7 51 1521 3.0 91 2207 1.1 33	<b>23</b> Sa 0508 3.0 91 1106 1.5 47 1658 2.9 87 2325 1.0 29						
<b>9</b> M 0148 1.9 59 0804 1.2 36 1518 2.5 75 2206 1.3 40	<b>24</b> Tu 0328 2.4 74 0917 1.2 36 1557 3.1 93 2244 0.9 28	<b>9</b> W 0301 2.3 69 0844 1.5 47 1527 2.9 87 2214 1.3 39	<b>24</b> Th 0438 2.9 89 1024 1.5 46 1634 3.2 98 2312 0.9 28	<b>9</b> Sa 0438 2.9 88 1030 1.6 49 1624 3.0 92 2258 0.9 26	<b>24</b> Su 0603 3.1 96 1205 1.4 43 1753 2.8 86						
<b>10</b> Tu 0403 1.9 59 0950 1.2 38 1641 2.6 78 2326 1.1 34	<b>25</b> W 0458 2.6 80 1045 1.2 36 1709 3.2 97 2346 0.7 22	<b>10</b> Th 0435 2.5 75 1016 1.6 48 1635 2.9 89 2313 1.1 33	<b>25</b> F 0540 3.1 96 1132 1.4 44 1733 3.2 98 2358 0.8 25	<b>10</b> Su 0533 3.2 98 1132 1.4 43 1719 3.1 95 2343 0.6 18	<b>25</b> M 0008 0.9 26 0646 3.3 100 1255 1.3 39 1839 2.8 86						
<b>11</b> W 0527 2.2 66 1112 1.1 35 1742 2.7 83	<b>26</b> Th 0603 3.0 90 1153 1.0 32 1805 3.3 101	<b>11</b> F 0537 2.8 85 1123 1.4 44 1727 3.1 94 2356 0.8 25	<b>26</b> Sa 0629 3.4 103 1227 1.3 40 1822 3.2 99	<b>11</b> M 0618 3.5 108 1222 1.2 36 1810 3.3 100	<b>26</b> Tu 0046 0.8 23 0724 3.4 104 1337 1.1 35 1919 2.9 87						
<b>12</b> Th 0014 0.9 27 0622 2.5 75 1208 1.0 30 1827 3.0 90	<b>27</b> F 0031 0.5 16 0650 3.2 99 1243 0.9 28 1850 3.4 105	<b>12</b> Sa 0621 3.1 96 1212 1.2 38 1810 3.2 99	<b>27</b> Su 0038 0.7 22 0709 3.6 109 1310 1.2 36 1902 3.2 99	<b>12</b> Tu 0027 0.3 10 0702 3.8 116 1310 1.0 29 1857 3.4 104	<b>27</b> W 0121 0.7 20 0758 3.5 106 1413 1.0 32 1952 2.9 87						
<b>13</b> F 0048 0.6 19 0700 2.8 86 1249 0.8 24 1900 3.1 96	<b>28</b> Sa 0109 0.4 11 0730 3.5 107 1327 0.8 24 1928 3.5 106	<b>13</b> Su 0029 0.6 17 0656 3.5 106 1255 1.0 32 1846 3.4 104	<b>28</b> M 0112 0.6 19 0742 3.7 113 1349 1.1 33 1937 3.2 98	<b>13</b> W 0110 0.1 4 0745 4.0 123 1358 0.8 23 1945 3.5 106	<b>28</b> Th 0154 0.6 17 0830 3.5 108 1449 1.0 30 2027 2.9 87						
<b>14</b> Sa 0117 0.4 11 0730 3.1 96 1324 0.6 19 1928 3.3 102	<b>29</b> Su 0142 0.3 9 0804 3.7 112 1405 0.7 22 2002 3.4 105	<b>14</b> M 0103 0.3 9 0730 3.8 116 1334 0.9 26 1924 3.5 108	<b>29</b> Tu 0142 0.6 18 0813 3.8 115 1426 1.0 31 2009 3.2 97	<b>14</b> Th 0155 0.0 1 0830 4.2 127 1449 0.6 19 2036 3.5 106	<b>29</b> F 0227 0.5 15 0904 3.6 109 1521 0.9 28 2100 2.9 88						
<b>15</b> Su 0144 0.2 5 0759 3.4 105 1358 0.5 15 1958 3.5 106	<b>30</b> M 0213 0.3 8 0834 3.8 115 1442 0.7 22 2033 3.4 103	<b>15</b> Tu 0137 0.1 3 0806 4.0 123 1415 0.7 22 2004 3.6 110	<b>30</b> W 0213 0.6 17 0844 3.8 115 1501 1.0 31 2042 3.1 95	<b>15</b> F 0243 0.1 2 0917 4.2 128 1536 1.0 31 2127 3.4 104	<b>30</b> Sa 0301 0.5 15 0936 3.6 109 1555 0.9 27 2134 2.9 87						
				<b>31</b> Th 0246 0.6 17 0918 3.7 114 1536 1.0 31 2115 3.0 92							

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Madras, India, 2018

Times and Heights of High and Low Waters

July				August				September										
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height							
h m 0335 1009 1630 2207	ft 0.5 3.5 0.9 2.8	cm 16 108 27 86	h m <b>16</b> M 1040 1708 2304	ft 0.2 3.9 0.3 3.1	cm 5 120 9 96	h m <b>1</b> W 1045 1705 2302	ft 0.5 3.4 0.6 2.9	cm 15 103 17 87	h m <b>16</b> Th 1139 1804	ft 0.6 3.3 0.6 17	cm 18 102 17 17							
<b>1</b> Su 0335 1009 1630 2207				<b>2</b> M 0409 1041 1704 2245				<b>2</b> Su 0005 0605 1207 1831										
0335 1009 1630 2207	0.5 3.5 0.9 2.8	16 M 1040 1708 2304	0.2 3.9 0.3 3.1	0459 Tu 1126 1757 2357	0.7 3.2 0.4 2.8	0424 W 1118 1740 2346	0.5 3.2 0.6 2.8	0527 F 0615 1222 1849	0.6 0.9 3.0 0.8	0518 Sa 1122 1742	0.8 3.2 0.6 17	0017 Su 0628 1219 1835	3.1 1.3 2.7 1.2	93 41 83 38				
<b>2</b> M 0409 1041 1704 2245				<b>3</b> Tu 0444 1115 1740 2329				<b>3</b> M 0104 0707 1306 O 1942				<b>17</b> M 0112 1309 1934	2.8 2.5 1.4	86 75 43				
0409 1041 1704 2245	0.6 3.5 0.9 2.8	17 Tu 0502 1126 1757 2357	0.4 3.7 0.4 3.0	0554 W 1214 1848	0.7 3.5 0.6 19	0539 F 1154 1819	0.9 3.1 0.6 19	0012 Sa 0710 1309 O 1942	3.0 1.2 2.6 1.0	0106 Sa 0710 1309 O 1942	2.7 3.6 31	0232 Tu 0858 1440 2112	2.7 1.7 1.5	81 53 46				
<b>4</b> W 0522 1151 1819				<b>4</b> Sa 0055 0650 1304 1942				<b>4</b> Tu 0038 0628 1239 1909				<b>19</b> W 0409 1044 1631 2245	2.7 1.7 2.3 1.4	81 52 71 44				
0522 1151 1819	0.9 3.3 0.9	19 Th 0055 0650 1304 1942	2.9 1.0 3.1 0.8	0159 F 0755 1401 O 2043	2.7 1.3 2.8 1.0	0140 Su 0733 1337 O 2013	2.7 1.2 2.8 0.7	0336 M 0953 1535 2210	2.5 1.5 2.2 1.1	0352 W 1013 1609 2227	2.9 1.3 0.8	0525 Th 1154 1744 2347	2.8 1.5 1.3	86 47 39				
<b>5</b> Th 0018 0605 1234 1906				<b>5</b> Su 0140 0733 1337 O 2013				<b>5</b> W 0352 1013 1733 2340				<b>20</b> F 0525 1154 1241 1835	2.8 1.5 1.3 2.8	86 47 77 85				
0018 0605 1234 1906	2.7 1.1 3.1 1.0	20 F 0159 0755 1401 O 2043	2.7 1.3 2.8 1.0	0253 M 0857 1450 2128	2.7 1.3 2.6 0.6	0212 Su 0822 1408 2050	2.6 1.4 2.4 1.1	0458 Tu 1120 1701 2319	2.5 1.4 1.0	0515 Th 1136 1733 2340	3.1 1.1 0.6	0619 F 1241 1835	3.1 1.3 2.8	93 40 85				
<b>6</b> F 0117 0700 1321 O 2002				<b>6</b> M 0253 0857 1450 2128				<b>6</b> Th 0458 1120 1701 2319				<b>21</b> F 0619 1241 1835	3.1 1.3 2.8	93 40 85				
0117 0700 1321 O 2002	2.6 1.3 3.0 0.9	21 Sa 0314 0912 1507 2148	2.7 1.4 2.6 1.0	0427 Su 1034 1619 2249	2.7 1.5 2.4 1.0	0414 Tu 1024 1614 2241	2.8 1.2 2.6 0.5	0604 W 1224 1807	2.7 1.3 2.3	0618 F 1238 1838	3.4 0.8 3.1	0034 Sa 0659 1314 1913	1.1 3.3 3.1	33 100 93				
<b>7</b> Sa 0226 0816 1422 2105				<b>7</b> Tu 0427 1034 1619 2249				<b>7</b> F 0618 1238 1838				<b>22</b> Sa 0034 0659 1314 1913	1.1 3.3 1.1 3.1	33 100 93				
0226 0816 1422 2105	2.7 1.5 2.9 0.9	22 Su 0427 1034 1619 2249	2.7 1.5 2.4 1.0	0533 M 1146 1726 2343	2.8 2.4 0.9	0526 W 1142 1732 2346	3.1 1.0 0.3	0012 Th 0652 1310 1853	0.9 2.9 2.5	0039 Sa 0710 1328 1930	0.4 3.7 3.4	0110 Su 0731 1342 1944	0.9 0.9 3.3	28 107 101				
<b>8</b> Su 0341 0939 1529 2209				<b>8</b> W 0533 1146 1726 2343				<b>8</b> Th 0628 1245 1836				<b>23</b> M 0053 0728 1344 1930	0.7 3.1 0.9 2.7	028 Su 0754 1412 2015	0.2 4.0 3.6	0141 M 0758 1408 2011	0.8 3.7 3.5	24 112 108
0341 0939 1529 2209	2.8 1.5 2.8 0.7	23 M 0533 1146 1726 2343	2.8 1.4 2.4 0.9	0627 Tu 1241 1822	2.9 1.2 2.4	0628 Th 1245 1836	3.3 0.7 2.9	0012 F 0728 1344 1930	0.7 3.1 2.7	0128 Su 0754 1412 2015	0.2 4.0 111	0141 M 0758 1408 2011	0.8 3.7 108	24 112 108				
<b>9</b> M 0448 1052 1640 2306				<b>9</b> Th 0628 1245 1836				<b>9</b> F 0053 0728 1344 1930				<b>24</b> M 0053 0728 1344 1930	0.7 3.1 0.9 2.7	0128 Su 0754 1412 2015	0.2 4.0 111	0141 M 0758 1408 2011	0.8 3.7 108	24 112 108
0448 1052 1640 2306	3.0 1.3 2.9 0.5	24 Tu 0627 1241 1822	2.9 1.2 2.4	0028 W 0710 1326 1906	0.7 1.1 2.5	0043 F 0721 1340 1934	0.1 3.6 3.1	0128 Sa 0801 1413 2002	0.5 3.2 2.9	0213 M 0834 1451 2056	0.2 4.1 3.8	0211 Tu 0823 1433 2037	0.7 0.6 3.7	22 116 113				
<b>10</b> Tu 0547 1157 1743				<b>10</b> F 0043 0721 1340 1934				<b>10</b> Sa 0043 0721 1340 1934				<b>25</b> M 0128 0801 1413 2025	0.5 3.2 0.8 3.3	0213 M 0834 1451 2056	0.2 4.1 3.8	0211 Tu 0823 1433 2037	0.7 0.6 3.7	22 116 113
0547 1157 1743	3.3 1.1 3.0	25 W 0028 0710 1326 1906	0.7 3.0 1.1 2.5	0107 Th 0747 1402 1942	0.6 1.0 2.6	0137 Sa 0809 1429 O 2025	-0.1 3.9 0.2 3.3	0201 Su 0829 1440 O 2032	0.4 3.4 0.6	0257 Tu 0912 1529 2135	0.2 4.1 3.8	0240 W 0847 1458 2105	0.7 0.5 3.8	20 118 117				
<b>11</b> W 0001 0641 1253 1842				<b>11</b> Th 0107 0747 1402 1942				<b>11</b> F 0137 0809 1429 O 2025				<b>26</b> W 0201 0829 1440 O 2032	0.4 3.4 0.6 3.0	0257 Tu 0912 1529 2135	0.2 4.1 3.8	0240 W 0847 1458 2105	0.7 0.5 3.8	20 118 117
0001 0641 1253 1842	0.3 3.5 0.9 3.1	26 Th 0107 0747 1402 1942	0.6 3.1 1.0 2.6	0226 Su 0854 1514 2112	-0.1 0.1 3.4	0226 F 0854 1514 2112	-0.1 0.1 3.4	0230 M 0854 1507 2100	0.3 3.5 3.1	0338 W 0949 1604 2213	0.3 3.9 3.7	0311 Th 0914 1527 2136	0.7 3.9 3.9	21 118 118				
<b>12</b> Th 0053 0731 1347 1937				<b>12</b> F 0226 0854 1514 2112				<b>12</b> W 0226 0854 1507 2100				<b>27</b> W 0338 0949 1604 2213	0.3 3.9 3.0 3.7	0338 Th 0914 1527 2136	0.3 3.9 3.7	0311 Th 0914 1527 2136	0.7 3.9 3.9	21 118 118
0053 0731 1347 1937	0.1 3.8 0.6 3.2	27 F 0142 0819 1434 2016	0.5 3.3 0.8 2.7	0215 Su 0850 1504 2118	0.4 0.7 2.9	0312 M 0936 1557 2157	-0.1 0.0 3.4	0300 Tu 0918 1532 2129	0.3 3.6 3.2	0338 F 0945 1600 2200	0.3 3.6 3.2	0311 W 0949 1604 2332	0.7 3.9 3.3	21 118 118				
<b>13</b> F 0144 0820 1439 ● 2030				<b>13</b> M 0312 0936 1557 2157				<b>13</b> Th 0312 0918 1532 2129				<b>28</b> F 0419 1024 1641 2251	0.5 3.7 0.5 3.5	0419 Th 1024 1641 2251	0.5 3.7 3.5	0345 F 0945 1557 2213	0.8 0.5 3.8	23 115 116
0144 0820 1439 ● 2030	0.0 4.0 0.4 3.3	28 Tu 0215 0850 1504 O 2047	0.4 3.4 0.7 2.8	0441 W 0946 1058 1603 2150	0.3 3.5 0.6 2.9	0441 M 0946 1058 1603 2150	-0.1 0.0 1.1 3.1	0403 Th 1014 1630 2237	0.5 3.5 0.4 3.2	0459 F 1045 1600 2200 2316	0.8 3.6 1.0 0.6	0421 Sa 1019 1633 2254	0.9 0.6 3.7	27 111 119				
<b>14</b> Sa 0234 0907 1529 2122				<b>14</b> W 0357 1017 1640 2241				<b>14</b> F 0357 1017 1640 2241				<b>29</b> F 0459 1101 1716 2332	0.8 3.4 0.8 3.3	0459 F 1101 1716 2332	0.8 2.3 3.3	0421 Sa 1019 1633 2254	0.9 0.6 3.7	27 111 114
0234 0907 1529 2122	-0.1 4.1 0.3 3.3	29 Tu 0247 0918 1534 2118	0.3 3.4 0.6 2.9	0441 W 0946 1058 1603 2150	0.3 3.5 0.6 2.9	0441 M 0946 1058 1603 2150	0.3 3.6 1.0 3.1	0403 Th 1014 1630 2237	0.5 3.5 0.4 3.2	0459 F 1045 1600 2200 2316	0.8 3.6 1.0 0.6	0421 Sa 1019 1633 2254	0.9 0.6 3.7	27 111 114				
<b>15</b> Su 0324 0955 1619 2213	0.0 4.0 0.3 3.2	30 Tu 0318 0946 1058 2150	0.3 3.5 0.6 2.9	0441 W 0946 1058 1603 2150	0.3 3.5 0.6 2.9	0441 M 0946 1058 1603 2150	0.3 3.6 1.0 3.1	0403 Th 1014 1630 2237	0.5 3.5 0.4 3.2	0459 F 1045 1600 2200 2316	0.8 3.6 1.0 0.6	0504 Sa 1058 1713 2342	1.1 0.8 3.6	33 105 109				
0324 0955 1619 2213	0.0 4.0 0.3 3.2	31 Tu 0350 1014 1634 2224	0.4 3.4 0.6 2.9	0441 W 0946 1058 1603 2150	0.4 3.5 0.6 2.9	0441 M 0946 1058 1603 2150	0.4 3.6 1.0 3.1	0403 Th 1014 1630 2237	0.6 3.4 0.5 1.0	0459 F 1045 1600 2200 2316	0.8 3.6 1.0 0.6	0504 Sa 1058 1713 2342	1.1 0.8 3.6	33 105 109				

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Madras, India, 2018

Times and Heights of High and Low Waters

October					November					December													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	0554 1147 1804	1.3 3.2 1.0	39 98 30	<b>16</b> Tu	0025 0646 1224 1832	3.3 1.9 2.8 1.7	102 57 86 53	<b>1</b> Th	0145 0827 1437 2034	3.7 1.8 3.1 1.9	114 54 96 57	<b>16</b> F	0144 0833 1447 2030	3.4 2.1 3.0 2.3	105 63 90 69	<b>1</b> Sa	0243 0931 1600 2150	3.8 1.6 3.5 2.1	115 48 106 63	<b>16</b> Su	0144 0837 1507 2053	3.3 1.7 3.0 2.2	102 51 92 66
<b>2</b> Tu	0042 0659 1253 O	3.4 1.5 3.0 1.2	104 45 91 38	<b>17</b> W	0128 0801 1344 1955	3.1 2.0 2.7 1.9	96 61 81 59	<b>2</b> F	0315 0959 1619 2210	3.7 1.7 3.3 1.9	112 51 102 58	<b>17</b> Sa	0307 0953 1623 2207	3.4 2.0 3.1 2.3	103 60 95 69	<b>2</b> Su	0359 1038 1711 2306	3.7 1.5 3.7 2.0	113 45 113 60	<b>17</b> M	0253 0943 1626 2219	3.2 1.6 3.2 2.1	98 48 98 65
<b>3</b> W	0159 0829 1426 2044	3.2 1.6 2.8 1.4	99 49 86 43	<b>18</b> Th	0303 0943 1550 2148	3.1 2.0 2.7 2.0	93 61 82 60	<b>3</b> Sa	0434 1109 1729 2325	3.8 1.5 3.6 1.8	115 45 111 54	<b>18</b> Su	0421 1055 1726 2318	3.4 1.8 3.4 2.1	104 55 104 65	<b>3</b> M	0505 1132 1805	3.7 1.3 3.9	113 41 120	<b>18</b> Tu	0404 1041 1723 2325	3.2 1.4 3.5 1.9	98 42 106 59
<b>4</b> Th	0336 1010 1617 2221	3.3 1.5 2.9 1.4	100 47 89 42	<b>19</b> F	0427 1105 1712 2308	3.1 1.9 2.9 1.9	96 57 89 57	<b>4</b> Su	0536 1201 1822	3.9 1.2 4.0	120 38 121	<b>19</b> M	0518 1142 1811	3.5 1.6 3.7	108 48 114	<b>4</b> Tu	0007 0600 1215 1849	1.8 3.7 1.2 4.2	55 113 37 127	<b>19</b> W	0505 1127 1807	3.3 1.1 3.8	100 35 115
<b>5</b> F	0459 1129 1736 2334	3.5 1.3 3.2 1.2	106 39 98 37	<b>20</b> Sa	0529 1157 1807	3.3 1.6 3.2	101 50 98	<b>5</b> M	0019 0627 1243 1906	1.6 4.1 1.1 4.3	48 124 33 130	<b>20</b> Tu	0008 0601 1217 1845	1.9 3.7 1.3 4.1	59 113 40 124	<b>5</b> W	0055 0646 1253 1926	1.6 3.7 1.1 4.3	50 114 34 131	<b>20</b> Th	0015 0556 1210 1846	1.7 3.4 0.9 4.1	51 104 26 124
<b>6</b> Sa	0601 1225 1834	3.7 1.0 3.6	114 22 109	<b>21</b> Su	0003 0615 1234 1846	1.7 3.5 1.4 3.5	52 108 43 108	<b>6</b> Tu	0106 0709 1320 1942	1.4 4.2 1.0 4.5	43 127 29 137	<b>21</b> W	0048 0638 1248 1916	1.7 3.8 1.1 4.3	52 117 33 132	<b>6</b> Th	0135 0724 1327 1958	1.5 3.7 1.0 4.4	46 114 32 134	<b>21</b> F	0059 0641 1250 1926	1.4 3.5 0.6 4.3	43 108 19 131
<b>7</b> Su	0031 0650 1309 1920	1.0 4.0 0.7 3.9	30 122 119	<b>22</b> M	0043 0652 1303 1919	1.5 3.7 1.2 3.8	46 114 36 117	<b>7</b> W	0147 0745 1352 ● 2015	1.3 4.2 0.9 4.6	39 128 27 140	<b>22</b> Th	0123 0710 1320 1947	1.5 4.0 0.9 4.6	46 121 113 139	<b>7</b> F	0212 0758 1358 ● 2029	1.4 3.7 1.0 4.4	43 113 14 133	<b>22</b> Sa	0141 0726 1333 ● 2006	1.1 3.7 0.5 4.5	35 112 14 136
<b>8</b> M	0119 0733 1347 1959	0.8 4.2 0.6 4.2	25 28 17 127	<b>23</b> Tu	0117 0720 1330 1945	1.3 3.9 1.0 4.1	41 119 30 125	<b>8</b> Th	0225 0819 1423 2047	1.2 4.1 0.9 4.6	38 126 28 139	<b>23</b> F	0159 0747 1354 ● 2022	1.3 4.1 0.7 4.7	40 124 22 143	<b>8</b> Sa	0247 0830 1429 2100	1.4 3.6 1.0 4.3	42 110 31 132	<b>23</b> Su	0226 0812 1416 2050	1.0 3.7 0.4 4.5	30 113 12 138
<b>9</b> Tu	0201 0811 1423 ● 2036	0.7 4.3 0.5 4.3	22 130 15 131	<b>24</b> W	0148 0747 1355 ● 2012	1.2 4.0 0.8 4.3	37 123 25 132	<b>9</b> F	0300 0850 1454 2118	1.3 4.0 1.0 4.5	39 122 31 137	<b>24</b> Sa	0237 0825 1432 2100	1.2 4.1 0.7 4.7	37 125 21 144	<b>9</b> Su	0321 0903 1503 2134	1.4 3.5 1.1 4.2	42 108 33 129	<b>24</b> M	0312 0900 1503 2135	0.9 3.7 0.5 4.5	26 113 14 137
<b>10</b> W	0240 0846 1456 2110	0.7 4.2 0.6 4.3	22 128 17 131	<b>25</b> Th	0219 0815 1423 2042	1.1 4.1 0.7 4.5	34 125 21 136	<b>10</b> Sa	0335 0922 1527 2152	1.4 3.8 1.1 4.3	42 122 35 132	<b>25</b> Tu	0319 0905 1512 2142	1.2 4.0 0.8 4.7	36 122 23 142	<b>10</b> M	0356 0936 1535 2209	1.4 3.4 1.1 4.1	43 105 35 125	<b>25</b> Tu	0402 0950 1550 2223	0.8 3.6 0.6 4.4	25 111 19 134
<b>11</b> Th	0318 0918 1528 2143	0.8 4.1 0.7 4.2	25 124 21 128	<b>26</b> F	0253 0846 1454 2117	1.1 4.1 0.7 4.5	33 125 21 137	<b>11</b> Su	0413 0956 1559 2228	1.5 3.6 1.3 4.1	46 110 40 126	<b>26</b> M	0406 0952 1557 2230	1.2 3.9 0.9 4.5	38 118 28 138	<b>11</b> Tu	0433 1012 1610 2245	1.5 3.3 1.3 4.0	45 101 39 121	<b>26</b> W	0452 1045 1642 2312	0.8 3.5 0.9 4.2	25 107 26 129
<b>12</b> F	0355 0952 1600 2219	1.0 3.8 0.9 4.0	30 116 123 123	<b>27</b> Sa	0329 0921 1531 2155	1.1 4.0 0.7 4.4	34 123 22 135	<b>12</b> M	0451 1031 1633 2308	1.6 3.4 1.5 3.9	50 105 45 120	<b>27</b> Tu	0457 1045 1648 2322	1.3 3.7 1.2 4.3	40 113 36 117	<b>12</b> W	0511 1051 1647 2322	1.5 3.2 1.4 3.8	46 98 43 117	<b>27</b> Th	0546 1144 1737 ● 1737	0.9 3.4 1.1 1.1	27 103 34 134
<b>13</b> Sa	0433 1026 1633 2257	1.2 3.5 1.1 3.8	37 108 33 116	<b>28</b> Su	0412 1000 1610 2238	1.2 3.9 0.9 4.3	37 118 27 131	<b>13</b> Tu	0532 1109 1711 2350	1.8 3.2 1.7 3.7	54 99 51 114	<b>28</b> F	0554 1147 1744 ● 1744	1.4 3.5 1.5 4.5	43 94 49 144	<b>13</b> Th	0551 1134 1727 ● 1727	1.6 3.1 1.6 4.6	48 94 49 144	<b>28</b> Sa	0005 0642 1249 1839	4.0 1.0 3.2 1.4	122 30 99 44
<b>14</b> Su	0512 1059 1706 2337	1.4 3.3 1.3 3.5	44 100 40 108	<b>29</b> M	0458 1045 1657 2329	1.3 3.7 1.1 4.1	41 112 34 125	<b>14</b> W	0618 1157 1754	1.9 3.1 1.9	58 95 57	<b>29</b> Th	0021 0659 1302 1853	4.1 1.5 3.3 1.8	126 46 102 54	<b>14</b> F	0001 0636 1229 1814	3.7 1.6 3.0 1.8	112 50 91 56	<b>14</b> Sa	0100 0744 1405 ● 1954	3.7 1.1 3.1 1.7	114 34 96 52
<b>15</b> M	0556 1137 1743	1.6 3.1 1.5	50 93 47	<b>30</b> Tu	0553 1143 1750	1.5 3.4 1.4	46 105 42	<b>15</b> Th	0041 0716 1303 ● 1853	3.6 2.0 3.0 2.1	109 62 91 64	<b>30</b> F	0127 0813 1432 ● 2019	3.9 1.6 3.3 2.0	120 48 102 61	<b>15</b> Sa	0048 0731 1340 ● 1919	3.5 1.7 3.0 2.1	107 52 90 63	<b>30</b> Su	0205 0851 1527 2118	3.4 1.2 3.2 1.8	105 37 97 56
				<b>31</b> W	0031 0702 1257 ● 1900	3.9 1.7 3.2 1.7	119 51 99 51					<b>31</b> M	0317 0959 1641 2242	3.2 1.2 3.3 1.8	97 38 100 55								

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Colombo, Sri Lanka, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 1 M 0145 0800 1356 1928	ft 2.8 0.8 2.0 0.6	cm 85 24 61 17	h m 16 Tu 0201 0841 1422 2001	ft 2.6 0.7 2.0 0.7	cm 78 21 60 21	h m 1 Th 0248 0905 1515 2058	ft 2.8 0.4 2.3 0.5	cm 84 13 69 15	h m 16 F 0254 0903 1515 2048	ft 2.6 0.4 2.1 0.5	cm 78 13 65 15	
○ 2013	0.5	16	● 2028	0.6	19	● 2135	0.5	15	● 2048	0.5	15	
2 Tu 0222 0837 1437 ○ 2013	2.9 0.7 2.1 0.5	17 W 0233 0903 1456 ● 2028	2.6 0.6 2.0 0.6	2 Sa 0320 0935 1546 2135	2.7 0.3 2.3 0.5	83 10 11 71 15	17 Sa 0322 0920 1543 2115	2.5 0.4 2.2 0.5	77 11 68 14	2 F 0237 0846 1503 ○ 2054	2.6 0.3 2.4 0.4	78 10 73 13
3 W 0256 0913 1515 2056	2.9 0.6 2.2 0.5	18 Th 0305 0920 1528 2052	2.7 0.6 2.1 0.6	3 Sa 0348 1007 1620 2211	2.7 0.3 2.4 0.6	81 9 9 72 18	18 Su 0348 0941 1609 2145	2.5 0.3 2.3 0.5	76 9 69 14	3 Sa 0303 0915 1531 2128	2.6 0.2 2.5 0.4	79 7 76 13
4 Th 0330 0948 1552 2135	2.9 0.5 2.2 0.6	19 F 0335 0939 1558 2120	2.6 0.5 2.1 0.6	4 Su 0416 1035 1652 2243	2.6 0.3 2.3 0.7	80 9 9 71 21	19 M 0411 1005 1635 2216	2.4 0.3 2.3 0.5	73 8 70 15	4 Su 0330 0943 1600 2158	2.6 0.2 2.5 0.5	78 5 77 14
5 F 0401 1024 1630 2215	2.8 0.5 2.2 0.7	20 Sa 0403 1001 1626 2152	2.6 0.5 2.1 0.6	5 M 0445 1103 1726 2313	2.4 0.4 2.3 0.8	78 11 11 69 25	20 Tu 0430 1031 1701 2250	2.3 0.3 2.3 0.6	70 8 69 19	5 M 0356 1009 1628 2226	2.5 0.2 2.5 0.5	75 6 76 16
6 Sa 0433 1058 1709 2254	2.6 0.6 2.2 0.9	21 Su 0428 1028 1656 2226	2.5 0.5 2.1 0.7	6 Tu 0513 1130 1801 2343	2.2 0.5 2.1 1.0	75 14 14 65 30	21 W 0446 1101 1731 2326	2.2 0.3 2.2 0.8	66 9 68 24	6 Tu 0422 1031 1656 2250	2.4 0.2 2.4 0.7	72 7 73 20
7 Su 0505 1131 1750 2333	2.4 0.6 2.1 1.0	22 M 0450 1056 1726 2301	2.3 0.5 2.1 0.8	7 W 0543 1156 1845 ○	2.0 0.6 2.0 0.8	71 14 14 61	22 Th 0503 1133 1807	2.0 0.4 2.1	62 13 65	7 W 0450 1054 1728 2315	2.2 0.3 2.3 0.8	67 8 69 24
8 M 0537 1207 1839	2.2 0.7 2.0	23 Tu 0511 1130 1801 2343	2.2 0.5 2.0 1.0	8 Th 0015 0613 1222 1941	1.1 1.8 0.8 1.9	67 16 56 23 57	23 F 0007 0522 1209 ○ 1858	1.0 1.9 0.6 2.0	31 57 57 18 61	8 Th 0516 1115 1801 2339	2.0 0.5 2.1 0.9	62 15 64 28
9 Tu 0016 0613 1246 ○ 1941	1.2 2.0 0.8 1.9	24 W 0530 1205 1848	2.0 0.6 2.0	9 F 0100 0650 1300 2115	1.3 1.6 0.9 1.8	38 18 49 28 54	24 Sa 0105 0539 1258 2043	1.3 1.7 0.8 1.8	39 51 51 25 56	9 F 0543 1137 1843 ○	1.8 0.7 1.9 0.9	56 59 59 28
10 W 0120 0658 1339 ○ 2109	1.4 1.8 1.0 1.9	25 Th 0033 0550 1252 ○ 2005	1.2 1.9 0.7 1.9	10 Sa 0624 0828 1433 2326	1.3 1.4 1.1 1.8	43 36 42 34 56	25 Su 0324 0526 1448 2350	1.4 1.4 1.0 2.0	44 44 32 60	10 Sa 0011 0605 1201 1946	1.1 1.6 0.9 1.7	34 53 49 53
11 Th 0435 0811 1522 2258	1.5 1.6 1.0 2.0	26 F 0152 0615 1358 2224	1.4 1.7 0.9 2.0	11 Su 0716 1158 1811	1.1 1.4 1.0	45 34 43 32 60	26 M 0713 1241 1733	1.2 1.5 1.0	36 45 45 31	11 Su 0101 0409 1231 2207	1.3 1.4 1.0 1.7	40 51 43 51
12 F 0618 1018 1715	1.3 1.5 1.0	27 Sa 0448 0735 1543	1.4 1.4 1.0	12 M 0035 0746 1305 1901	2.0 0.9 1.6 0.9	44 62 28 48 27	27 Tu 0052 0724 1328 1848	2.2 0.9 1.8 0.8	67 67 62 54 25	12 M 0716 1207 1813	1.1 1.3 1.2	35 36 40 36
13 Sa 0007 0709 1205 1816	2.1 1.1 1.6 0.9	28 Su 0003 0654 1218 1728	2.2 1.2 1.5 0.9	13 Tu 0116 0813 1343 1935	2.2 0.8 1.8 0.8	67 68 23 54 23	28 W 0133 0750 1401 1937	2.4 0.7 2.0 0.7	72 72 21 62 20	13 Tu 0007 0735 1300 1901	1.8 0.9 1.5 1.0	56 50 28 47 30
14 Su 0050 0745 1303 1900	2.3 1.0 1.7 0.8	29 M 0058 0728 1318 1839	2.4 1.0 1.7 0.8	14 W 0150 0833 1416 2001	2.4 0.6 1.9 0.7	74 73 19 59 20	14 W 0056 0754 1331 1931	2.0 0.8 1.8 0.8	66 66 20 54 25	14 W 0056 0754 1331 1931	2.0 0.8 1.8 0.8	66 21 20 22 21
15 M 0128 0816 1345 1933	2.5 0.8 1.9 0.7	30 Tu 0139 0800 1401 1931	2.6 0.8 1.9 0.6	15 Th 0224 0850 1446 2024	2.5 0.5 2.1 0.6	75 76 16 63 17	15 Th 0133 0809 1400 1954	2.2 0.6 2.0 0.7	68 61 19 20	15 Th 0133 0809 1400 1954	2.2 0.6 2.0 0.7	70 16 14 20 14
		31 W 0216 0831 1439 ○ 2016	2.7 0.6 2.1 0.5									
		31 W 0216 0831 1439 ○ 2016	2.7 0.6 2.1 0.5									

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Colombo, Sri Lanka, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0243	2.4	73	<b>16</b> M	0237	2.2	68	<b>1</b> Tu	0245	2.1	65	
	0848	0.2	7	<b>16</b> Tu	0818	0.3	9	<b>16</b> W	0818	0.2	6	
	1509	2.6	80	<b>1458</b>	2.6	79	<b>1511</b>	2.6	80	<b>1509</b>	2.6	80
	2115	0.4	13	● 2050	0.4	12	2126	0.4	13	2113	0.4	11
<b>2</b> M	0309	2.4	73	<b>17</b> Tu	0303	2.2	68	<b>2</b> W	0315	2.1	64	
	0915	0.2	6	<b>17</b> W	0845	0.2	6	<b>17</b> Th	0313	1.9	58	
	1535	2.6	80	<b>1526</b>	2.7	81	<b>1539</b>	2.6	78	<b>1541</b>	2.6	80
	2143	0.4	13	2122	0.4	12	2150	0.4	13	2148	0.4	12
<b>3</b> Tu	0335	2.3	71	<b>18</b> W	0328	2.2	66	<b>3</b> Th	0345	2.0	62	
	0939	0.2	6	<b>0915</b>	0.2	6	<b>0931</b>	0.3	10	<b>1613</b>	2.5	77
	1601	2.6	79	<b>1556</b>	2.7	81	1607	2.5	76	2226	0.4	13
	2207	0.5	14	2154	0.4	13	2215	0.5	15	2258	0.4	12
<b>4</b> W	0401	2.3	69	<b>19</b> Th	0352	2.1	64	<b>4</b> F	0415	1.9	59	
	1000	0.3	8	<b>0946</b>	0.2	7	<b>0954</b>	0.4	12	<b>1007</b>	0.4	11
	1630	2.5	76	<b>1624</b>	2.6	79	<b>1639</b>	2.4	73	<b>1645</b>	2.4	73
	2230	0.6	17	2230	0.5	16	2239	0.5	16	2303	0.5	16
<b>5</b> Th	0430	2.1	65	<b>20</b> F	0415	2.0	61	<b>5</b> Sa	0446	1.8	55	
	1022	0.4	11	<b>1018</b>	0.3	10	<b>1018</b>	0.5	15	<b>1046</b>	0.5	16
	1700	2.4	72	<b>1654</b>	2.5	75	1709	2.2	67	1720	2.2	67
	2252	0.7	20	2305	0.7	20	2305	0.6	19	2346	0.6	19
<b>6</b> F	0458	2.0	60	<b>21</b> Sa	0441	1.9	57	<b>6</b> Su	0518	1.7	51	
	1043	0.5	15	<b>1052</b>	0.5	15	<b>1046</b>	0.6	19	<b>1130</b>	0.8	31
	1730	2.2	67	<b>1726</b>	2.3	70	<b>1743</b>	2.0	62	<b>1758</b>	2.0	61
	2318	0.8	24	2346	0.9	26	2339	0.7	22	1845	1.6	49
<b>7</b> Sa	0524	1.8	54	<b>22</b> Su	0513	1.7	53	<b>7</b> M	0558	1.5	46	
	1105	0.7	20	<b>1126</b>	0.7	22	<b>1118</b>	0.8	24	<b>1228</b>	1.0	56
	1805	2.0	61	1805	2.1	63	1822	1.8	56	1848	1.8	54
	2348	0.9	28	● 1901	1.8	56	● 1928	1.6	50	● 1948	1.4	44
<b>8</b> Su	0552	1.6	48	<b>23</b> M	0037	1.0	31	<b>8</b> Tu	0022	0.9	26	
	1131	0.8	25	<b>0556</b>	1.6	48	<b>0658</b>	1.4	42	<b>0839</b>	1.5	45
	1852	1.8	55	<b>1211</b>	1.0	31	1200	1.0	30	1430	1.2	36
	●	●	●	● 1901	1.8	56	● 1928	1.6	50	2007	1.6	48
<b>9</b> M	0033	1.1	34	<b>24</b> Tu	0213	1.1	35	<b>9</b> W	0130	1.0	30	
	0618	1.4	42	<b>0800</b>	1.4	43	<b>0922</b>	1.3	41	<b>1326</b>	1.2	36
	1201	1.0	32	<b>1430</b>	1.3	39	1326	1.2	36	2128	1.6	48
	2033	1.6	50	2139	1.7	51	2128	1.5	47	2131	1.3	41
<b>10</b> Tu	0637	1.2	36	<b>25</b> W	0505	1.1	33	<b>10</b> Th	0401	1.0	31	
	1105	1.3	40	<b>1216</b>	1.7	51	<b>1124</b>	1.5	47	<b>1213</b>	1.9	57
	1756	1.3	39	<b>1746</b>	1.2	36	<b>1756</b>	1.1	35	<b>1824</b>	0.9	28
	2307	1.7	51	2354	1.8	54	2315	1.6	49	2348	1.5	47
<b>11</b> W	0658	1.0	31	<b>26</b> Th	0607	0.9	26	<b>11</b> F	0539	0.9	26	
	1230	1.6	48	<b>1254</b>	2.0	60	<b>1218</b>	1.8	55	<b>1909</b>	0.8	29
	1845	1.1	33	1846	1.0	29	● 1837	1.0	29	● 1909	0.8	23
	●	●	●	● 1846	1.0	29	● 1837	1.0	29	● 1909	0.8	23
<b>12</b> Th	0020	1.8	56	<b>27</b> F	0043	1.9	58	<b>12</b> Sa	0016	1.7	52	
	0713	0.9	26	<b>0646</b>	0.7	20	<b>0611</b>	0.7	21	<b>1256</b>	2.1	63
	1301	1.8	56	<b>1324</b>	2.2	68	1905	0.8	24	1945	0.6	18
	1913	0.9	27	1926	0.8	23	● 1905	0.8	24	1952	0.5	14
<b>13</b> F	0101	2.0	62	<b>28</b> Sa	0118	2.0	61	<b>28</b> M	0116	1.7	52	
	0724	0.7	21	<b>0720</b>	0.5	14	<b>0641</b>	0.5	16	<b>1331</b>	2.3	70
	1331	2.1	64	<b>1350</b>	2.4	74	1935	0.6	19	1418	2.4	73
	1935	0.7	22	2000	0.6	18	1935	0.6	19	2030	0.3	10
<b>14</b> Sa	0137	2.2	66	<b>29</b> Su	0148	2.1	64	<b>29</b> M	0137	1.9	58	
	0735	0.6	17	<b>0750</b>	0.3	10	<b>0713</b>	0.4	12	<b>1403</b>	2.5	75
	1401	2.3	70	<b>1416</b>	2.5	77	1403	2.5	75	2005	0.5	15
	1958	0.6	18	2031	0.5	15	2005	0.5	15	● 2048	0.4	12
<b>15</b> Su	0209	2.2	68	<b>30</b> M	0216	2.1	65	<b>15</b> Tu	0211	1.9	59	
	0754	0.4	13	<b>0818</b>	0.3	8	<b>0745</b>	0.3	8	<b>1420</b>	2.4	79
	1430	2.5	75	<b>1443</b>	2.6	79	1437	2.6	79	2116	0.4	11
	2022	0.5	14	○ 2100	0.4	13	● 2037	0.4	13	● 2107	0.3	8
<b>31</b> Th	0300	1.8	54	<b>31</b> Th	0845	0.3	8	<b>31</b> Th	0300	1.8	54	
	0845	0.3	8	<b>1520</b>	2.4	73	<b>1520</b>	2.4	73	2141	0.3	10
	1541	2.1	64	● 2100	0.4	13	● 2037	0.4	13	● 2107	0.3	8
	2158	0.1	3	● 2100	0.4	13	● 2037	0.4	13	● 2107	0.3	8

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Colombo, Sri Lanka, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0403	1.4	44	<b>16</b>	0426	1.6	49	<b>1</b> W	0454	1.4	44
	0926	0.2	5	M	1007	0.1	2		1018	0.0	1
	1613	2.0	62		1628	2.0	61		1650	1.7	51
	2220	0.1	3		2248	-0.1	-4		2248	-0.2	-5
<b>2</b> M	0439	1.4	44	<b>17</b>	0503	1.6	49	<b>2</b> Th	0524	1.4	44
	0956	0.2	6	Tu	1048	0.2	5		1054	0.1	3
	1643	1.9	59		1700	1.9	57		1713	1.5	47
	2245	0.1	2		2324	-0.1	-3		2318	-0.2	-5
<b>3</b> Tu	0513	1.4	43	<b>18</b>	0545	1.6	48	<b>3</b> F	0556	1.4	44
	1030	0.3	8	W	1130	0.3	10		1131	0.2	7
	1713	1.8	55		1730	1.7	52		1731	1.4	43
	2315	0.1	3		2358	-0.1	-2		2352	-0.1	-3
<b>4</b> W	0548	1.4	42	<b>19</b>	0626	1.5	46	<b>4</b> Sa	0635	1.4	43
	1107	0.3	10	Th	1213	0.5	15		1216	0.4	12
	1741	1.6	50		1803	1.5	46		1752	1.3	39
	2348	0.1	4								
<b>5</b> Th	0630	1.4	42	<b>20</b>	0035	0.0	1	<b>5</b> Su	0031	0.0	0
	1150	0.5	14	F	0716	1.4	44		0730	1.4	42
	1809	1.5	46		1305	0.7	20		1316	0.6	18
				O	1841	1.3	40		1815	1.1	34
<b>6</b> F	0026	0.2	5	<b>21</b>	0116	0.2	5	<b>6</b> M	0122	0.1	4
	0720	1.3	41	Sa	0820	1.4	42		0900	1.3	41
	1243	0.6	19		1433	0.8	24		1452	0.8	23
	O	1839	1.3	41		1930	1.1	34		1856	0.9
<b>7</b> Sa	0115	0.2	7	<b>22</b>	0216	0.3	9	<b>21</b>	0200	0.4	13
	0835	1.3	41	Su	0946	1.3	41	<b>6</b> Tu	1022	1.2	38
	1358	0.8	23		1713	0.8	23		1835	0.6	19
	1926	1.1	35		2052	1.0	29		2233	0.8	24
<b>8</b> Su	0216	0.3	9	<b>23</b>	0354	0.4	11	<b>21</b>	0242	0.6	17
	1013	1.4	44	M	1120	1.4	43	<b>22</b>	0520	0.5	15
	1552	0.8	25		1839	0.6	18	<b>7</b> W	1158	1.4	42
	2109	1.0	31		2300	0.9	27		1920	0.4	13
<b>9</b> M	0335	0.3	10	<b>24</b>	0531	0.3	10	<b>8</b> Sa	0426	1.0	29
	1137	1.6	50	Tu	1224	1.5	47		0635	0.4	11
	1758	0.7	22		1928	0.4	13		1252	1.5	47
	2324	1.0	31							1952	0.2
<b>10</b> Tu	0458	0.3	8	<b>25</b>	0033	1.0	30	<b>23</b>	0035	1.0	29
	1237	1.8	56	W	0635	0.3	8	<b>8</b> W	0426	1.4	44
	1900	0.5	16		1309	1.7	51		0635	0.2	7
					2003	0.3	8		1341	1.9	58
<b>11</b> W	0043	1.1	34	<b>26</b>	0128	1.1	34	<b>9</b> Su	0211	1.7	52
	0605	0.2	6	Th	0720	0.2	6	<b>24</b>	0207	1.8	54
	1324	2.0	61		1346	1.8	55	<b>M</b>	0752	0.1	3
	1945	0.3	10		2035	0.1	4		1415	2.0	61
<b>12</b> Th	0139	1.2	38	<b>27</b>	0209	1.2	37	<b>24</b>	0207	1.8	54
	0701	0.1	25	F	0754	0.1	4	<b>25</b>	0235	1.9	59
	1407	2.1	65		1422	1.9	57	<b>25</b>	0824	0.1	4
	2022	0.2	5		2101	0.0	1	<b>O</b>	1443	2.0	61
<b>13</b> F	0224	1.4	42	<b>28</b>	0246	1.3	40	<b>11</b>	0313	2.0	61
	0752	0.0	0	Sa	0824	0.1	2	<b>26</b>	0303	2.0	62
	1445	2.2	67		1456	1.9	59	<b>26</b>	0848	0.1	3
	2100	0.0	1	O	2122	0.0	-1	<b>26</b>	1509	2.0	60
<b>14</b> Sa	0307	1.5	45	<b>29</b>	0320	1.4	42	<b>11</b>	0909	0.0	0
	0839	0.0	-1	Su	0850	0.0	1	<b>11</b>	1513	2.0	61
	1520	2.2	67		1528	1.9	58		2122	-0.3	-8
	2137	-0.1	-2		2141	-0.1	-3				
<b>15</b> Su	0346	1.5	47	<b>30</b>	0352	1.4	43	<b>12</b> W	0343	2.1	63
	0924	0.0	0	M	0918	0.0	0		0943	0.0	0
	1556	2.1	65		1558	1.9	57		1541	1.9	59
	2213	-0.1	-4		2200	-0.1	-4		2150	-0.2	-7
<b>31</b> Tu	0424	1.4	44	<b>27</b>	0300	1.6	48	<b>12</b> Th	0343	2.1	64
	0946	0.0	0	Su	0839	-0.1	-3		0943	0.0	0
					1507	2.0	62		1535	1.9	58
					2118	-0.2	-7		2111	-0.1	-4
<b>31</b> Tu	0424	1.4	44	<b>28</b>	0335	1.7	51	<b>13</b> W	0330	2.1	64
	0946	0.0	0	Sa	0920	-0.1	-3		0943	0.0	0
					1537	2.0	61		1541	1.9	59
					2152	-0.3	-9		2218	-0.2	-6
<b>31</b> Tu	0424	1.4	44	<b>29</b>	0409	1.7	53	<b>14</b> F	0443	2.0	61
	0946	0.0	0	Su	1000	-0.1	-2		1043	0.2	7
					1607	1.9	58		1635	1.7	53
					2222	-0.3	-10		2243	-0.1	-2
<b>31</b> Tu	0424	1.4	44	<b>30</b>	0443	1.7	53	<b>15</b> Sa	0516	1.9	57
	0946	0.0	0	M	1035	0.0	1		1111	0.4	11
					1635	1.8	54		1705	1.6	48
					2254	-0.3	-9		2307	0.1	2
<b>31</b> Tu	0424	1.4	44	<b>31</b>	0452	1.7	52				
	0946	0.0	0	Sa	1035	0.1	2				
					1641	1.6	48				
					2245	-0.2	-6				

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
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# Colombo, Sri Lanka, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0524 M 1133 1652 2320	ft 1.9 0.6 1.5 0.3	cm 59 18 45 10	h m <b>16</b> Tu 1143 1752 2316	ft 1.9 0.8 1.4 0.8	cm 57 24 43 23	h m <b>1</b> Th 1337 1939	ft 1.9 1.4	cm 57 34 44	h m <b>16</b> F 0715 2113	ft 1.8 1.5	cm 55 34 46
0603 Tu 1224 ● 1718	1.8 0.8 1.3	55 24 41	<b>17</b> W 1230 ● 2350	1.7 1.0 2.9	51 38 29	<b>2</b> F 0139 1609 2339	1.3 1.1 1.7	39 33 51	<b>17</b> Sa 0103 1646 2307	1.4 1.1 1.7	42 34 52
0001 W 0707 1350 1803	0.6 1.6 1.0 1.1	18 49 30 35	<b>18</b> Th 0816 2231	1.5 1.2	47 38	<b>3</b> Sa 0505 1111 1728	1.2 1.8 0.9	38 53 27	<b>18</b> Tu 0550 1048 2358	1.3 1.7 2.0	39 55 60
0131 Th 1001 1722	0.9 1.5 0.9	27 46 28	<b>19</b> F 0158 1030 1818	1.2 1.5 0.9	36 47 26	<b>4</b> Su 0024 0615 1211 1813	2.0 1.0 1.9 0.7	61 31 21	<b>19</b> M 0628 1152 1758	1.1 1.9 0.9	35 57 26
0000 F 0454 1152 1815	1.2 0.9 1.7 0.7	38 28 51 21	<b>20</b> Sa 0003 0622 1148 1843	1.5 1.0 1.7 0.7	45 30 52 22	<b>5</b> M 0058 0658 1250 1848	2.3 0.8 2.0 0.5	69 25 62 16	<b>20</b> W 0103 0724 1237 1824	2.6 0.9 2.0 0.7	79 28 61 19
0046 Sa 0620 1243 1848	1.6 0.7 1.8	49 56 56	<b>21</b> Su 0039 0654 1235 1900	1.7 0.8 1.9 0.6	53 24 57 18	<b>6</b> Tu 0128 0735 1322 1920	2.5 0.7 2.1 0.4	76 25 64 12	<b>21</b> F 0133 0758 1331 1930	2.7 0.8 2.1 0.6	83 25 63 17
0120 Su 0707 1318 1920	1.9 0.5 2.0	58 16 61	<b>22</b> M 0109 0718 1313 1915	2.0 0.7 2.0 0.5	61 20 61 14	<b>7</b> W 0154 0807 1352 ● 1952	2.7 0.6 2.2 0.3	81 18 66 10	<b>22</b> Th 0143 0746 1348 1922	2.7 0.7 2.1 0.5	81 22 64 15
0150 M 0746 1350 1952	2.1 0.4 2.1	65 11 63	<b>23</b> Tu 0139 0741 1345 1931	2.2 0.5 2.1 0.4	67 16 63 11	<b>8</b> Th 0222 0839 1422 2020	2.7 0.5 2.2 0.3	83 16 66 9	<b>23</b> Sa 0215 0816 1420 ○ 1954	2.8 0.7 2.1 0.4	85 21 65 13
0218 Tu 0820 1418 ● 2022	2.3 0.3 2.1	71 8 65	<b>24</b> W 0207 0803 1415 ○ 1954	2.4 0.4 2.1 0.3	72 24 64 8	<b>9</b> F 0250 0907 1452 2048	2.8 0.5 2.2 0.3	84 16 66 10	<b>24</b> Sa 0246 0848 1450 2028	2.9 0.6 2.1 0.4	87 20 64 12
0246 W 0854 1446 2050	2.4 0.2 2.1	74 7 65	<b>25</b> Th 0237 0830 1443 2020	2.5 0.4 2.1 0.2	76 12 64 6	<b>10</b> Sa 0318 0935 1522 2113	2.7 0.6 2.1 0.4	82 17 64 13	<b>25</b> M 0316 0924 1520 2103	2.8 0.6 2.1 0.5	83 21 62 14
0315 Th 0924 1513 2116	2.5 0.3 2.1	75 8 63	<b>26</b> F 0305 0900 1507 2048	2.6 0.4 2.0 0.2	78 11 62 6	<b>11</b> Su 0348 1000 1554 2137	2.6 0.6 2.0 0.5	80 19 61 16	<b>26</b> W 0403 1015 1552 2141	2.6 0.7 2.0 0.6	80 21 60 23
0343 F 0952 1543 2143	2.4 0.3 2.0	74 10 61	<b>27</b> Sa 0333 0931 1530 2120	2.6 0.4 2.0 0.2	78 13 60 7	<b>12</b> M 0418 1026 1628 2201	2.5 0.7 1.9 0.7	76 21 58 20	<b>27</b> W 0420 1039 1628 2218	2.7 0.8 1.9 0.8	81 23 59 23
0413 Sa 1018 1611 2205	2.3 0.4 1.9	71 13 58	<b>28</b> Su 0401 1005 1554 2152	2.5 0.5 1.9 0.3	77 15 57 10	<b>13</b> Tu 0452 1054 1703 2228	2.3 0.8 1.8 0.8	71 24 54 24	<b>28</b> W 0454 1120 1711 2301	2.5 0.8 1.9 1.0	76 25 57 29
0443 Su 1043 1641 2228	2.2 0.5 1.7	68 16 53	<b>29</b> M 0431 1043 1618 2226	2.4 0.6 1.8 0.5	74 19 55 15	<b>14</b> W 0528 1126 1748 2258	2.2 0.9 1.6 1.0	66 27 50 30	<b>29</b> F 0531 1209 1811 2356	2.3 1.0 1.8 1.2	66 27 53 37
0516 M 1111 1715 2250	2.1 0.7 0.5	63 20 16	<b>30</b> Tu 0503 1124 1650 2303	2.3 0.8 1.7 0.7	69 24 51 22	<b>15</b> Th 0609 1209 1858 ● 2339	2.0 1.0 1.5 1.2	60 31 46 36	<b>30</b> F 0616 1313 2003 ● 2339	2.1 1.0 1.7 1.7	63 32 52 35
0541 W 1215 1735 ● 2348	2.1 1.5 1.0	64 47 30	<b>31</b> W 0541 1215 1735 ● 2348	2.1 1.0 1.5 1.0	64 29 47 30						

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Bombay, India, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0500 5.5 169	16 0556 6.4 194	1 Th 0027 16.6 506	16 0028 14.4 438	1 Th 0525 3.7 112	16 0527 4.5 138						
1050 13.6 415	Tu 1134 11.9 364	0629 3.6 110	0629 4.7 144	1126 14.0 428	1130 12.5 382						
1707 0.5 16	Tu 1733 2.6 78	1225 14.7 447	1228 12.9 394	1736 1.1 35	1724 2.9 89						
2355 16.3 497	● 1831 0.4 11	1818 2.2 68	● 1819 1.1 34	2356 14.1 429							
2 Tu 0553 4.9 149	17 0020 14.2 433	2 F 0109 16.8 513	17 0054 14.7 448	2 0008 16.0 489	17 0556 3.7 112						
1142 14.2 432	W 0625 6.0 182	0717 2.9 89	0700 4.1 126	0610 2.6 80	1208 13.4 407						
1753 0.1 3	1210 12.3 376	1313 15.0 456	1302 13.4 408	1214 14.8 450	1757 2.7 81						
● 1803 2.3 71	1913 0.8 25	1847 2.3 70	● 1819 1.1 34	● 1819 1.1 34							
3 W 0041 16.8 513	18 0050 14.5 443	3 Sa 0150 16.7 509	18 0123 14.9 453	3 Sa 0046 16.2 495	18 0024 14.5 441						
0644 4.3 131	Th 0655 5.5 169	0800 2.6 78	0729 3.6 110	0651 1.9 59	0627 2.9 87						
1232 14.5 443	1245 12.7 387	1400 14.8 451	1337 13.6 415	1300 15.1 461	1243 14.0 427						
1839 0.1 4	1834 2.3 69	1952 1.8 54	1917 2.6 80	1856 1.5 46	1830 2.6 80						
4 Th 0126 17.0 517	19 0120 14.8 450	4 Su 0230 16.2 493	19 0152 14.8 452	4 Su 0122 16.1 490	19 0051 14.7 447						
0733 3.8 117	F 0726 5.2 158	0840 2.6 79	M 0758 3.2 99	0729 1.6 49	0655 2.2 68						
1321 14.6 446	1319 12.9 393	1447 14.2 432	1415 13.6 414	1342 15.0 457	1320 14.4 439						
1924 0.7 20	1904 2.5 75	2032 3.1 95	1951 3.2 98	1933 2.4 72	1903 2.9 88						
5 F 0212 16.8 512	20 0150 14.9 453	5 M 0310 15.3 465	20 0223 14.6 444	5 M 0158 15.5 472	20 0120 14.6 446						
0821 3.6 110	Sa 0758 4.9 149	0921 3.1 93	Tu 0828 3.1 94	0804 1.7 53	0725 1.8 55						
1412 14.3 437	1355 12.9 392	1534 13.2 403	1455 13.3 405	1425 14.5 441	1357 14.5 443						
2008 1.7 51	1933 2.9 88	2113 4.8 145	2031 4.1 125	2008 3.5 108	1939 3.4 104						
6 Sa 0257 16.3 496	21 0221 14.8 450	6 Tu 0350 14.1 429	21 0255 14.1 429	6 Tu 0236 14.6 444	21 0152 14.3 437						
0908 3.7 112	Su 0828 4.7 144	1001 3.8 116	W 0901 3.1 95	0837 2.3 71	0757 1.7 51						
1503 13.7 417	1433 12.6 384	1623 12.1 368	1543 12.8 390	1506 13.6 414	1438 14.3 436						
2054 3.1 95	2006 3.5 108	2200 6.3 193	2118 5.2 157	2044 5.0 151	2020 4.2 128						
7 Su 0341 15.4 469	22 0253 14.5 441	7 W 0429 12.8 389	22 0332 13.4 407	7 W 0311 13.4 408	22 0228 13.8 420						
0958 4.0 122	M 0900 4.7 142	1047 4.6 140	0942 3.4 103	0908 3.2 98	0832 1.9 59						
1600 12.7 388	1516 12.2 372	1720 11.1 337	1638 12.2 372	1547 12.5 382	1525 13.7 419						
2146 4.8 145	2046 4.4 134	● 2301 7.6 233	2213 6.3 191	2124 6.3 192	2107 5.2 159						
8 M 0426 14.3 435	23 0327 14.0 427	8 Th 0507 11.5 351	23 0413 12.5 381	8 Th 0346 12.1 370	23 0307 13.0 396						
1053 4.5 137	Tu 0938 4.6 141	1144 5.2 158	1035 3.7 114	0942 4.2 128	0914 2.5 77						
1702 11.7 357	1608 11.7 358	1835 10.5 319	F 1745 11.7 357	1632 11.5 351	1617 13.0 396						
2248 6.3 193	2133 5.4 165	● 2326 7.2 219	2213 7.5 228	2204 6.3 191	2204 6.3 191						
9 Tu 0513 13.1 399	24 0403 13.4 409	9 F 0035 8.4 256	24 0503 11.7 356	9 0420 11.0 334	24 0353 12.0 367						
1153 4.9 148	W 1024 4.7 142	0557 10.5 321	Sa 1149 4.0 122	1026 5.0 153	1007 3.3 102						
1818 11.0 335	1707 11.4 346	1256 5.3 163	1915 11.6 355	1724 10.7 327	1723 12.3 374						
● 2329 6.4 196	2233 6.4 196	2031 10.6 323	● 2329 8.2 251	2329 8.2 251	2322 7.0 214						
10 W 0008 7.5 229	25 0446 12.8 389	10 Sa 0226 8.4 255	25 0102 7.5 229	10 0500 10.0 305	25 0449 11.1 338						
0607 12.0 366	Th 1123 4.6 139	0723 10.0 304	Su 0614 11.0 335	Sa 1132 5.6 170	Su 1123 4.1 124						
1301 5.0 152	1819 11.2 342	1409 5.1 156	1318 3.8 116	1847 10.4 316	1851 11.9 364						
2001 10.9 332	● 2349 7.2 220	2136 11.3 344	2045 12.3 376								
11 Th 0139 8.0 245	26 0536 12.1 370	11 Su 0339 7.9 240	26 0232 7.1 217	11 0137 8.3 254	26 0101 7.1 217						
0711 11.3 343	F 1235 4.2 129	0849 10.1 307	M 0803 11.0 335	0614 9.3 284	0614 10.4 318						
1404 4.8 146	1950 11.6 355	1506 4.6 140	M 1442 3.2 97	1300 5.6 172	1303 4.2 129						
2119 11.5 349		2220 12.0 367	2149 13.4 409	2043 10.8 328	2022 12.3 376						
12 F 0257 8.0 243	27 0122 7.5 229	12 M 0430 7.2 220	27 0341 6.1 187	12 0308 7.8 238	27 0225 6.5 197						
0824 11.0 334	Sa 0645 11.7 356	0947 10.5 320	Tu 0929 11.8 361	0813 9.4 286	0812 10.7 327						
1457 4.4 133	1351 3.6 110	1555 4.0 121	1549 2.4 72	1421 5.2 160	1427 3.8 117						
2208 12.1 370	2108 12.6 385	2256 12.8 389	2241 14.5 442	2140 11.5 350	2127 13.2 402						
13 Sa 0357 7.6 232	28 0244 7.2 220	13 Tu 0505 6.6 201	28 0436 4.9 150	12 0358 7.1 215	28 0329 5.3 162						
0924 11.0 335	Su 0815 11.7 356	1033 11.1 338	W 1033 13.0 396	Tu 0923 10.0 306	0929 11.8 360						
1544 3.8 117	1500 2.7 83	1638 3.4 103	1646 1.6 49	1520 4.6 141	1535 3.2 98						
2246 12.8 390	2206 13.8 422	2329 13.4 408	2327 15.5 471	2222 12.2 373	2220 14.1 429						
14 Su 0446 7.2 219	29 0350 6.5 198	14 W 0532 6.0 183	14 0431 6.2 190	14 0421 4.0 122	29 0421 4.0 122						
1014 11.2 342	M 0935 12.3 375	1114 11.7 357	W 1011 10.8 330	1027 13.0 397	1027 13.0 397						
1624 3.3 102	1601 1.7 53	1715 2.9 87	1606 4.0 121	1630 2.7 82	1630 2.7 82						
2319 13.4 407	2255 15.0 458	2359 13.9 424	2342 16.0 487	2306 14.8 451	2306 14.8 451						
15 M 0524 6.8 206	30 0448 5.5 169	15 Th 0600 5.4 164	15 0500 5.4 165	1042 4.0 122	30 0505 2.8 85						
1055 11.5 352	Tu 1038 13.2 402	1152 12.3 376	Th 1053 11.7 356	1027 13.0 397	1117 14.0 428						
1700 2.9 89	1657 0.9 28	1747 2.4 74	1648 3.4 103	1630 2.7 82	1719 2.4 73						
2351 13.8 421	2342 16.0 487		2327 13.5 413	2345 15.2 464	2345 15.2 464						
31 W 0541 4.5 138	W 1133 14.0 428										
● 1747 0.4 13	O 1801 2.5 75										

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Bombay, India, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0022	15.3	467	<b>16</b>	0552	1.8	55	<b>1</b> Tu	0028	13.9	423
	0623	1.3	40	M	1222	14.7	447		0625	1.4	42
	1244	15.0	457		1812	3.4	105		1303	14.7	447
	1838	2.9	87	●					1859	4.8	145
<b>2</b> M	0054	15.1	459	<b>17</b>	0019	14.4	439	<b>2</b> W	0059	13.5	410
	0656	1.1	35	Tu	0624	1.1	34		0652	1.6	49
	1324	14.9	455		1302	15.2	462		1338	14.5	441
	1914	3.5	106		1850	3.6	109		1932	5.2	160
<b>3</b> Tu	0127	14.5	449	<b>18</b>	0052	14.4	438	<b>3</b> Th	0131	12.9	394
	0727	1.4	43	W	0656	0.8	24		0720	2.1	64
	1400	14.5	443		1344	15.3	467		1415	14.1	429
	1947	4.4	133		1930	3.9	120		2007	5.8	177
<b>4</b> W	0200	13.7	417	<b>19</b>	0127	14.1	429	<b>4</b> F	0204	12.2	373
	0755	2.0	61	Tu	0732	0.9	26		0749	2.8	86
	1438	13.9	423		1427	15.1	461		1451	13.5	413
	2022	5.3	163		2013	4.6	139		2044	6.4	195
<b>5</b> Th	0235	12.7	387	<b>20</b>	0207	13.5	412	<b>5</b> Sa	0241	11.4	348
	0825	2.9	87	W	0811	1.4	42		0822	3.7	112
	1516	13.0	397		1514	14.6	444		1529	12.9	394
	2101	6.4	194		2103	5.3	163		2129	7.0	213
<b>6</b> F	0310	11.6	354	<b>21</b>	0254	12.7	387	<b>6</b> Su	0321	10.6	324
	0855	3.8	117	W	0857	2.3	70		0857	4.6	139
	1556	12.2	371		1606	13.8	421		1610	12.3	375
	2146	7.3	221		2205	6.1	187		2229	7.4	227
<b>7</b> Sa	0345	10.6	323	<b>22</b>	0349	11.7	358	<b>7</b> M	0406	9.9	303
	0932	4.8	146	W	0953	3.4	104		0945	5.4	165
	1639	11.5	349		1709	13.1	398		1656	11.8	359
	2253	7.8	239		2332	6.6	200		2343	7.5	230
<b>8</b> Su	0427	9.8	298	<b>23</b>	0455	10.9	332	<b>8</b> Tu	0503	9.4	288
	1029	5.5	169	W	1116	4.4	134		1101	6.0	184
	1736	10.9	333		1829	12.6	384		1754	11.5	350
	●			●				●			
<b>9</b> M	0029	8.0	243	<b>24</b>	0056	6.3	193	<b>9</b> W	0101	7.2	220
	0527	9.2	279	Tu	0630	10.5	319		0633	9.4	285
	1157	5.9	181		1253	4.8	145		1230	6.3	191
	1913	10.8	329		1954	12.7	386		1913	11.5	350
<b>10</b> Tu	0212	7.6	231	<b>25</b>	0211	5.6	171	<b>10</b> Th	0209	6.5	199
	0730	9.1	278	W	0817	11.0	335		0813	9.9	302
	1325	5.8	177		1413	4.7	142		1345	6.1	187
	2041	11.3	343		2059	13.1	399		2021	11.8	359
<b>11</b> W	0309	6.8	208	<b>26</b>	0310	4.5	138	<b>11</b> M	0258	5.6	170
	0855	9.8	300	Th	0926	12.1	368		0913	10.9	333
	1437	5.4	164		1517	4.4	133		1447	5.8	176
	2132	11.9	362		2152	13.6	415		2113	12.3	374
<b>12</b> Th	0347	5.9	179	<b>27</b>	0400	3.4	103	<b>12</b> Sa	0337	4.4	135
	0945	10.8	330	F	1020	13.1	400		0957	12.1	369
	1529	4.8	147		1611	4.1	124		1538	5.4	164
	2211	12.5	382		2240	14.0	427		2158	12.9	392
<b>13</b> F	0420	4.9	148	<b>28</b>	0443	2.4	73	<b>13</b> Su	0412	3.2	99
	1027	11.8	361	Tu	1106	14.0	426		1038	13.3	404
	1615	4.3	131		1700	4.0	121		1625	5.0	151
	2245	13.2	402		2321	14.2	433		2239	13.4	409
<b>14</b> Sa	0450	3.7	114	<b>29</b>	0522	1.7	52	<b>14</b> M	0447	2.1	65
	1106	12.9	393	Tu	1148	14.5	442		1119	14.3	436
	1655	3.8	117		1743	4.1	125		1711	4.6	140
	2317	13.7	419		2357	14.1	431		2316	13.8	422
<b>15</b> Su	0521	2.7	82	<b>30</b>	0555	1.4	42	<b>15</b> M	0520	1.2	37
	1143	13.9	423	Tu	1227	14.7	448		1201	15.2	462
	1734	3.5	108		1823	4.4	133		1756	4.4	133
	2349	14.2	432	○				●	2353	14.1	430
<b>16</b> Sa	0105	14.0	428	<b>31</b>	0035	12.7	386	<b>16</b> F	0624	2.1	64
	0704	0.6	18	Th	0624	2.1	64		1317	14.3	435
	1406	16.1	491		1919	5.9	180		1918	4.5	138
	2008	4.5	136					●			
<b>17</b> Su	0152	13.8	421	<b>32</b>	0048	12.3	375	<b>17</b> M	0841	2.4	73
	0751	1.3	40	Tu	0751	1.3	40		1547	15.3	465
	1456	15.8	482		1430	13.9	423		2101	4.5	138
	2101	4.5	138		2029	6.3	193				
<b>18</b> M	0247	13.3	406	<b>33</b>	0057	12.8	390	<b>18</b> W	0841	2.4	73
	1041	3.7	114	Tu	0841	2.4	73		1640	14.5	441
	1737	13.6	415		1625	12.6	383		2300	4.8	147
	●				2254	6.9	211				
<b>19</b> Tu	0345	12.6	385	<b>34</b>	0005	4.9	148	<b>19</b> W	0612	11.4	346
	1041	3.7	114	Tu	1132	6.5	198		1211	6.0	183
	1744	12.2	373		1801	12.0	365		1838	12.8	391
	●										
<b>20</b> W	0451	11.9	362	<b>35</b>	0111	4.7	142	<b>20</b> F	0743	11.4	347
	1052	5.0	153	Tu	1130	6.6	200		1330	6.6	200
	1944	12.2	373		1894	12.0	365		1944	12.2	373
	●										
<b>21</b> Th	0005	4.9	148	<b>36</b>	0111	4.7	142	<b>21</b> F	0612	11.4	346
	0612	11.4	346	Tu	1132	6.5	198		1211	6.0	183
	1838	12.8	391		1801	12.0	365		1838	12.8	391
	●										
<b>22</b> F	0050	3.8	115	<b>37</b>	0305	4.3	130	<b>22</b> W	1152	13.8	420
	0953	12.6	383	Tu	1039	11.1	338		1038	13.1	400
	1539	6.6	202		1402	6.6	202		1632	6.5	198
	2141	11.9	362		2007	12.1	368		2229	11.9	362
<b>23</b> Sa	0305	3.8	115	<b>38</b>	0305	3.8	115	<b>23</b> M	0431	2.9	88
	0953	12.6	383	Tu	1116	13.5	413		1116	13.5	413
	1539	6.6	202		1719	6.4	194		2309	11.9	364
	●				2159	12.9	394				
<b>24</b> Su	0305	3.8	115	<b>39</b>	0431	2.9	88	<b>24</b> W	1152	13.8	420
	0953	12.6	383	Tu	1116	13.5	413		1152	13.8	420
	1539	6.6	202		1719	6.4	194		1758	6.3	191
	●				2344	12.0	367				
<b>25</b> M	0352	3.3	100	<b>40</b>	0414	2.0	60	<b>25</b> W	1152	13.8	420
	1038	13.1	400	Tu	1056	14.5	442		1056	14.5	442
	1632	6.5	198		1647	5.5	167		1647	5.5	167
	2229	11.9	362		2248	13.4	409		2248	13.4	409
<b>26</b> Tu	0431	2.9	88	<b>41</b>	0414	2.0	60	<b>26</b> W	1152	13.8	420
	1116	13.5	413	Tu	1056	14.5	442		1056	14.5	442
	1719	6.4	194		1647	5.5	167		1647	5.5	167
	2309	11.9	364		2248						

# Bombay, India, 2018

Times and Heights of High and Low Waters

July				August				September																				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height																	
h m 0125 0704 1407 2008	12.3 2.8 14.0 5.9	ft 375 86 426 179	cm 375 86 426 179	<b>16</b> M W	0147 0741 1437 2044	14.4 1.2 16.0 3.4	ft 439 38 489 104	cm 439 38 489 104	<b>1</b> W Th	0217 0747 1443 2044	12.5 3.7 13.7 4.6	ft 380 113 419 141	cm 380 113 419 141	<b>16</b> Sa Su	0309 0851 1536 2139	13.7 4.1 14.0 3.3	ft 417 125 427 101	cm 417 125 427 101	<b>1</b> Sa Su	0315 0847 1516 2115	12.5 5.2 12.7 3.6	ft 382 159 387 110	cm 382 159 387 110	<b>16</b> M Tu	0415 1007 1621 2212	11.7 7.3 10.6 5.1	ft 358 224 324 156	cm 358 224 324 156
<b>2</b> M 1442 2044	0201 13.8 421 5.9	ft 370 72 470 110	cm 370 72 470 110	<b>17</b> Tu Th	0238 0824 1525 2117	14.0 4.5 15.4 4.6	ft 427 137 408 141	cm 427 137 408 141	<b>2</b> F F	0257 0943 1518 2226	12.1 5.7 13.4 4.2	ft 370 175 386 129	cm 370 175 386 129	<b>2</b> Su Tu	0401 0941 1620 2202	12.6 6.2 12.7 4.0	ft 384 189 386 123	cm 384 189 386 123	<b>17</b> M ○	0509 1150 1711 2326	10.8 8.1 9.5 5.9	ft 328 248 291 180	cm 328 248 291 180					
<b>3</b> Tu 1517 2121	0240 4.0 123 5.9	ft 359 38 411 181	cm 359 38 411 181	<b>18</b> W F	0331 0919 1613 2224	13.3 3.8 14.5 4.0	ft 404 117 441 122	cm 404 117 441 122	<b>3</b> M ○	0343 0908 1554 2158	11.7 5.4 12.9 4.7	ft 356 164 392 143	cm 356 164 392 143	<b>18</b> Tu ○	0639 1356 1836	10.3 8.1 9.0	ft 313 246 273	cm 313 246 273										
<b>4</b> W 1553 2203	0323 4.9 148 13.1 400 5.9	ft 345 164 406 136	cm 345 164 406 136	<b>19</b> Th Sa	0431 1021 1702 2322	12.3 5.4 13.3 4.5	ft 376 164 374 136	cm 376 164 374 136	<b>4</b> Sa Su	0437 1004 1634 2250	11.2 6.3 12.3 4.8	ft 342 192 244 145	cm 342 192 244 145	<b>19</b> Tu W	0607 1234 1800	10.7 8.0 10.3	ft 326 244 313	cm 326 244 313										
<b>5</b> Th 1633 2255	0412 5.7 173 12.7 388 5.8	ft 332 204 371	cm 332 204 371	<b>20</b> F ○	0538 1138 1753	11.5 6.7 12.2	ft 350 204 371	cm 350 204 371	<b>5</b> Su M ○	0542 1116 1721 2359	11.0 7.1 11.7 4.6	ft 334 216 356 141	cm 334 216 356 141	<b>20</b> Th W	0041 0758 1415 1922	5.3 10.6 8.0 9.7	ft 163 322 244 296	cm 163 322 244 296										
<b>6</b> F 1716 ○	0512 6.5 197 12.3 375 5.5	ft 323 337 226	cm 323 337 226	<b>21</b> Sa Sa	0025 0703 1305 1853	4.7 11.1 7.4 11.3	ft 144 337 226 344	cm 144 337 226 344	<b>6</b> M Tu	0703 1246 1821	11.1 7.4 11.2	ft 338 226 342	cm 338 226 342	<b>21</b> Th F	0207 0913 1510 2107	3.8 12.7 6.2 11.3	ft 116 388 229 344	cm 116 388 229 344										
<b>7</b> Sa 1806	0623 7.0 214 12.0 365	ft 323 344	cm 323 344	<b>22</b> Sa	0132 0834 1426 2006	4.7 11.3 7.5 10.8	ft 144 344 226 329	cm 144 344 226 329	<b>7</b> Tu W	0114 0827 1409 1945	4.2 11.8 7.2 11.1	ft 127 361 220 339	cm 127 361 220 339	<b>22</b> Sa F	0252 0957 1611 2145	4.8 11.7 6.9 10.4	ft 145 358 210 316	cm 145 358 210 316										
<b>8</b> Su 1907	0059 11.1 339 7.2 218 11.8 359	ft 151 344	cm 151 344	<b>23</b> M W	0231 0935 1531 2112	4.5 11.8 7.3 10.7	ft 136 361 223 327	cm 136 361 223 327	<b>8</b> W Th	0226 0931 1517 2110	3.4 12.9 6.6 11.6	ft 103 394 200 355	cm 103 394 200 355	<b>23</b> Sa Su	0340 1035 1645 2228	4.2 12.3 6.3 334	ft 128 376 192 334	cm 128 376 192 334										
<b>9</b> M 1430	0159 12.1 369 7.0 212 11.9 362	ft 125 379	cm 125 379	<b>24</b> Tu Th	0322 1020 1623 2204	4.0 12.4 6.9 11.0	ft 123 379 211 334	cm 123 379 211 334	<b>9</b> Th F	0327 1023 1614 2214	2.4 14.1 5.7 12.6	ft 74 429 173 383	cm 74 429 173 383	<b>24</b> M F	0421 1109 1715 2308	3.6 12.9 5.7 11.5	ft 110 392 175 352	cm 110 392 175 352										
<b>10</b> Tu 1531	0255 13.3 404 6.5 198 12.3 375	ft 95 394	cm 95 394	<b>25</b> W F	0406 1059 1706 2247	3.5 12.9 6.5 11.3	ft 108 394 199 344	cm 108 394 199 344	<b>10</b> Sa Sa	0425 1111 1707 2309	1.5 15.1 4.7 13.5	ft 46 460 142 412	cm 46 460 142 412	<b>25</b> M Tu	0458 1141 1742 2343	3.1 13.3 5.2 12.1	ft 96 405 159 370	cm 96 405 159 370										
<b>11</b> W 1628	0347 14.3 437 5.9 179 12.9 394	ft 64 405	cm 64 405	<b>26</b> Th ○	0444 1134 1740 2326	3.1 13.3 6.2 11.6	ft 96 405 190 355	cm 96 405 190 355	<b>11</b> Sa ○	0514 1156 1758	0.8 15.8 3.7	ft 25 482 113	cm 25 482 113	<b>26</b> W ○	0530 1209 1810	2.8 13.6 4.7	ft 85 415 142	cm 85 415 142										
<b>12</b> Th 1721	0436 15.3 465 5.2 158 13.6 414	ft 37 413	cm 37 413	<b>27</b> F F	0518 1205 1809	2.8 13.5 5.9	ft 86 413	cm 86 413	<b>27</b> M W	0001 0602 1241 1846	14.3 0.5 16.2 2.9	ft 437 16 495 88	cm 437 16 495 88	<b>27</b> Th W	0016 0600 1236 1839	12.7 2.6 13.9 4.1	ft 386 80 424 125	cm 386 80 424 125										
<b>13</b> F 1814	0524 15.9 485 4.5 138 ●	ft 18 80	cm 18 80	<b>28</b> Sa	0000 0549 1236 1839	12.0 2.6 13.8 5.6	ft 367 80 420 170	cm 367 80 420 170	<b>28</b> M ○	0048 0645 1326 1932	14.8 0.7 16.3 2.4	ft 451 21 496 72	cm 451 21 496 72	<b>28</b> F ○	0049 0628 1305 1910	13.1 2.7 14.1 3.6	ft 399 82 429 111	cm 399 82 429 111										
<b>14</b> Sa 1302	0009 14.1 430 0.4 11 16.3 496 4.0 121 1906	ft 1430 11 496 121 1906	cm 1430 11 496 121 1906	<b>29</b> Su	0035 0618 1307 1911	12.4 2.5 13.9 5.2	ft 378 77 425 159	cm 378 77 425 159	<b>29</b> W	0135 0726 1408 2015	14.9 1.4 15.9 2.3	ft 454 42 485 69	cm 454 42 485 69	<b>29</b> Sa	0122 0728 1406 2008	13.3 3.5 13.8 3.2	ft 406 108 421 98	cm 406 108 421 98										
<b>15</b> Su 1349	0058 14.4 439 0.6 17 16.3 497 3.6 109	ft 439 17 497 109	cm 439 17 497 109	<b>30</b> M	0107 0647 1338 1941	12.6 2.7 14.0 4.9	ft 385 82 428 150	cm 385 82 428 150	<b>30</b> W	0223 0807 1452 2057	14.5 2.6 15.2 2.6	ft 442 78 462 79	cm 442 78 462 79	<b>30</b> Sa	0155 0728 1406 2008	13.3 108 421 98	ft 405 108 421 98	cm 405 108 421 98										
				<b>31</b> Tu	0142 0716 1411 2013	12.7 3.1 14.0 4.7	ft 386 94 426 144	cm 386 94 426 144	<b>31</b> F	0232 0805 1440 2039	13.0 4.3 13.4 3.3	ft 397 130 407 101	cm 397 130 407 101															

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Bombay, India, 2018

Times and Heights of High and Low Waters

October				November				December				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm	
1 M 0342	12.9	392	16 Tu 0424	11.4	348	1 Th 0541	12.5	382	1 Sa 0628	13.1	398	
0929	6.3	191	1053	7.9	242	1220	6.6	201	1308	5.1	154	
1531	11.6	353	1633	9.4	288	1755	10.3	315	1935	11.3	345	
2134	3.6	111	2216	6.1	186	F 1842	9.3	282	16 Su 1238	6.2	190	
2 Tu 0442	12.1	370	17 W 0523	10.7	327	2 0016	5.2	160	17 M 0524	12.1	369	
1041	7.1	216	1258	8.0	243	0709	12.5	380	0739	12.8	391	
1627	10.7	327	1748	8.9	271	1338	5.8	178	1413	4.3	130	
● 2241	4.5	136	2358	6.6	201	1948	10.8	329	2054	12.2	372	
3 W 0602	11.7	356	18 Th 0706	10.6	323	3 Sa 0145	5.2	157	3 M 0233	6.1	186	
1226	7.3	221	1418	7.4	226	0820	12.9	392	0842	12.8	391	
1748	10.1	308	1953	9.1	277	1442	4.7	144	1508	3.3	101	
4 Th 0025	4.8	146	19 F 0132	6.4	196	2105	12.0	366	2153	13.2	403	
0740	11.9	364	0828	11.0	336	4 Su 0251	4.8	145	4 Tu 0333	5.9	181	
1356	6.6	202	1504	6.6	202	0917	13.4	408	0937	13.0	395	
1946	10.3	315	2105	10.0	304	1533	3.5	106	1557	2.5	76	
5 F 0158	4.4	133	20 Sa 0234	5.9	180	2202	13.3	405	2241	14.1	430	
0850	12.8	389	0913	11.6	353	5 M 0347	4.4	133	5 W 0428	5.8	176	
1500	5.5	167	1537	5.7	174	1007	13.8	422	0936	12.4	378	
2108	11.5	351	2148	11.0	335	1618	2.3	71	1601	3.5	107	
6 Sa 0306	3.6	111	21 Su 0322	5.3	163	2249	14.4	438	2233	13.2	402	
0946	13.7	417	0951	12.2	371	6 Tu 0437	4.1	126	2322	14.7	449	
1551	4.1	125	1607	4.8	145	1051	14.1	431	2309	14.2	434	
2207	12.9	393	2224	12.0	365	1700	1.4	44	6 Th 0516	5.7	173	
7 Su 0401	2.9	89	22 M 0403	4.8	147	2330	15.1	460	1109	13.1	399	
1032	14.5	442	1025	12.8	389	21 W 0415	5.6	171	1718	1.6	49	
1637	2.8	85	1637	3.8	115	1131	14.2	433	21 F 0436	6.2	189	
2255	14.1	431	2258	12.9	394	1737	1.0	31	1024	12.8	391	
8 M 0450	2.5	76	23 Tu 0442	4.4	133	● 222	056	13.4	407	1640	1.6	48
1116	15.0	458	1058	13.3	405	7 W 0524	4.1	126	2309	14.7	466	
1720	1.7	52	1707	2.8	86	1131	14.2	433	2233	12.9	397	
2341	15.0	457	2332	13.8	421	1737	1.0	31	2309	14.7	466	
9 Tu 0535	2.4	73	24 Sa 0519	4.0	123	8 Th 0010	15.4	469	2233	13.0	397	
1155	15.2	463	1131	13.7	417	0606	4.3	132	1721	0.9	26	
● 1759	1.0	31	1735	2.0	62	1208	14.0	427	● 1749	1.6	49	
10 W 0022	15.5	471	○ 24 F 0047	15.4	468	1810	1.0	29	22 M 0523	5.7	173	
0616	2.7	82	0645	4.7	143	23 F 0539	4.9	149	1111	13.3	406	
1231	15.0	458	1241	13.6	415	1134	13.6	416	1721	0.9	26	
1835	0.8	24	1840	1.2	38	1741	1.0	30	● 1749	1.6	49	
11 Th 0102	15.5	471	○ 25 Sa 0027	15.7	479	○ 222	0000	15.0	457	22 F 0523	5.7	173
0654	3.3	100	0645	4.7	143	0720	5.2	157	0601	5.6	172	
1306	14.5	442	1241	13.6	415	1316	13.1	399	1148	13.0	399	
1908	1.0	31	1840	1.2	38	1909	1.9	57	● 1749	1.6	49	
12 F 0140	15.1	459	26 Tu 0122	15.1	460	25 M 0107	16.0	487	2233	12.9	397	
0730	4.1	126	1201	13.9	423	0720	5.2	157	2309	14.7	466	
1343	13.7	418	1233	13.9	423	1316	13.1	399	2309	14.7	466	
1941	1.7	51	1837	1.2	36	1316	1.9	57	2309	14.7	466	
13 Sa 0043	15.1	459	26 M 0157	14.6	445	25 Su 0107	16.0	487	2309	14.7	466	
0632	3.9	120	0755	5.7	173	0720	5.2	157	2309	14.7	466	
1233	13.9	423	1352	12.4	378	1250	13.7	418	2309	14.7	466	
1837	1.2	36	1939	2.7	83	1853	0.8	24	2309	14.7	466	
14 W 0220	14.4	438	27 Tu 0234	13.9	425	26 M 0149	15.9	485	2309	14.7	466	
0807	5.2	157	0708	4.2	129	0746	4.9	150	2309	14.7	466	
1421	12.7	386	1306	13.6	415	1352	12.4	378	2309	14.7	466	
2011	2.7	81	1910	1.2	37	1935	1.3	39	2309	14.7	466	
14 Su 0259	13.4	409	28 Tu 0234	13.9	425	27 Tu 0234	15.6	474	2309	14.7	466	
0847	6.2	190	0747	4.7	144	0833	5.2	159	2309	14.7	466	
1501	11.5	351	1344	13.2	401	1432	11.5	352	2309	14.7	466	
2042	3.9	118	1947	1.6	50	2011	3.7	114	2309	14.7	466	
15 M 0339	12.4	377	29 W 0350	12.4	379	27 Tu 0234	15.6	474	2309	14.7	466	
0935	7.3	221	0832	5.4	165	1013	7.4	225	2309	14.7	466	
1543	10.4	316	1429	12.4	379	1603	9.9	302	2309	14.7	466	
2119	5.1	155	2029	2.4	74	1514	10.7	325	2309	14.7	466	
14 Su 0242	14.6	446	29 M 0350	12.4	379	2127	5.9	180	2309	14.7	466	
0847	6.2	190	0832	5.4	165	1947	1.6	50	2309	14.7	466	
1501	11.5	351	1429	12.4	379	2029	2.4	74	2309	14.7	466	
2042	3.9	118	2029	2.4	74	2127	5.9	180	2309	14.7	466	
15 M 0339	12.4	377	30 Tu 0433	11.8	359	2127	4.8	145	2309	14.7	466	
0935	7.3	221	0927	6.2	188	1132	7.5	230	2309	14.7	466	
1543	10.4	316	1521	11.6	354	1705	9.4	285	2309	14.7	466	
2119	5.1	155	2118	3.5	108	2241	6.7	205	2309	14.7	466	
15 Tu 0433	11.8	359	31 W 0428	13.1	400	2241	6.7	205	2309	14.7	466	
0935	7.3	221	1046	6.7	204	2230	4.7	142	2309	14.7	466	
1543	10.4	316	1627	10.8	329	2230	4.7	142	2309	14.7	466	
2119	5.1	155	● 2230	4.7	142	2309	4.7	142	2309	14.7	466	

Time meridian 82° 30' E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Karachi, Pakistan, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0344	3.9	120	16 Tu 0444	4.3	130	1 Th 0519	2.6	80	1 Th 0413	2.6	80
0910	8.9	270	0959	7.9	240	1052	8.9	270	0955	8.5	260
1551	- 0.7	- 20	1617	0.7	20	1715	- 0.7	- 20	1614	- 0.3	- 10
2250	9.8	300	2327	9.2	280	2355	10.5	320	2251	10.2	310
●			●			●			●		
2 Tu 0437	3.6	110	17 W 0520	3.9	120	2 0603	2.0	60	2 0500	1.6	50
1004	8.9	270	1038	7.9	240	1138	8.9	270	1047	8.9	270
1640	- 1.0	- 30	1654	0.7	20	1758	- 0.3	- 10	1659	0.0	0
O 2332	10.2	310	● 2359	9.5	290	1744	1.0	30	2328	10.5	320
3 W 0525	3.3	100	18 Th 0552	3.6	110	3 Sa 0033	10.5	320	3 Sa 0542	1.3	40
1053	9.2	280	1115	8.2	250	0645	1.6	50	1132	9.2	280
1726	- 1.0	- 30	1729	0.7	20	1223	8.5	260	1740	0.3	10
1139	8.9	270	1803	0.7	20	1838	0.3	10	1818	1.3	40
1810	- 0.7	- 20									
4 Th 0013	10.5	320	19 F 0029	9.8	300	4 Su 0111	10.5	320	4 Su 0004	10.5	320
0610	2.6	80	0621	3.3	100	0729	1.6	50	0623	1.0	30
1139	8.9	270	1150	8.2	250	1306	8.2	250	1214	8.9	270
1810	- 0.7	- 20	1803	0.7	20	1920	1.3	40	1818	1.0	30
5 F 0054	10.5	320	20 Sa 0056	9.8	300	5 M 0149	10.2	310	5 M 0039	10.2	310
0655	2.6	80	0651	3.3	100	0815	1.6	50	0703	1.0	30
1224	8.5	260	1226	8.2	250	1352	7.9	240	1255	8.9	270
1854	0.0	0	1838	1.0	30	2003	2.3	70	1855	2.0	60
6 Sa 0135	10.2	310	21 Su 0123	9.8	300	6 Tu 0228	9.5	290	6 Tu 0113	9.8	300
0743	2.3	70	0725	3.0	90	0903	2.0	60	0743	1.0	30
1309	8.2	250	1302	8.2	250	1445	7.2	220	1336	8.2	250
1940	0.7	20	1914	1.6	50	2050	3.3	100	1933	3.0	90
7 Su 0218	9.8	300	22 M 0151	9.5	290	7 W 0309	8.9	270	7 W 0148	9.2	280
0834	2.6	80	0803	3.0	90	0954	2.0	60	0825	1.6	50
1359	7.5	230	1342	7.9	240	1553	6.6	200	1420	7.5	230
2029	2.0	60	1954	2.3	70	● 2145	4.3	130	2013	3.9	120
8 M 0303	9.5	290	23 Tu 0223	9.5	290	8 Th 0353	8.2	250	8 Th 0224	8.5	260
0930	2.6	80	0848	2.6	80	1049	2.3	70	0908	2.0	60
1503	6.9	210	1430	7.2	220	1758	6.2	190	1514	7.2	220
2124	3.0	90	2039	3.0	90	2301	5.2	160	2214	4.6	140
9 Tu 0351	8.9	270	24 W 0300	9.2	280	9 F 0444	7.5	230	9 F 0352	8.2	250
1030	2.6	80	0940	2.6	80	1150	2.3	70	1111	1.6	50
1639	6.2	190	1535	6.9	210	1940	6.9	210	1815	7.2	220
O 2225	3.9	120	2132	3.9	120				2338	4.9	150
10 W 0443	8.2	250	25 Th 0342	8.9	270	10 Sa 0033	5.6	170	10 Sa 0457	7.9	240
1134	2.6	80	1038	2.3	70	0547	7.2	220	1225	1.3	40
1835	6.6	200	1703	6.9	210	1252	2.3	70	1943	7.9	240
2339	4.6	140	● 2238	4.6	140	2038	7.2	220			
11 Th 0542	7.9	240	26 F 0432	8.5	260	11 Su 0151	5.2	160	26 M 0111	4.6	140
1238	2.3	70	1145	2.0	60	0656	6.9	210	0620	7.5	230
1952	6.9	210	1848	6.9	210	1346	2.0	60	1333	0.7	20
12 F 0058	4.9	150	27 Sa 0000	4.9	150	2120	7.9	240	2041	8.5	260
0643	7.5	230	0534	8.2	250						
1333	2.0	60	1251	1.3	40	1259	6.9	210	1274	4.3	130
2048	7.5	230	2005	7.5	230	1432	1.6	50	1432	0.3	10
13 Sa 0208	5.2	160	28 Su 0124	4.9	150	2156	8.2	250	2128	9.2	280
0739	7.5	230	0644	8.2	250				2048	7.9	240
1419	1.6	50	1352	0.3	10						
2134	7.9	240	2103	8.5	260	1514	1.3	40	2211	9.5	290
14 Su 0310	4.9	150	29 M 0235	4.6	140	1555	1.0	30			
0829	7.5	230	0752	8.2	250	2302	9.2	280			
1500	1.3	40	1447	0.0	0						
2215	8.5	260	2152	9.2	280						
15 M 0402	4.6	140	30 Tu 0337	3.9	120	1027	7.9	240	1545	1.0	30
0916	7.5	230	0858	8.2	250	1633	1.0	30	1526	0.0	0
1539	1.0	30	1541	- 0.7	- 20	2332	9.5	290	2211	8.9	270
2252	8.9	270	2236	9.8	300						
31 W 0431	3.3	100									
0959	8.5	260									
1630	- 1.0	- 30									
O 2317	10.2	310									

Time meridian 75° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Karachi, Pakistan, 2018

## Times and Heights of High and Low Waters

April					May					June							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time			
<b>1</b> Su 0514 1121 1719 2328	0.7 9.5 1.6 9.8	20 290 50 300	<b>16</b> M 0440 1110 1654 ● 2259	1.3 9.8 2.6 9.5	40 300 80 290	<b>1</b> Tu 0521 1149 1739 2323	0.3 9.5 3.6 9.2	10 290 110 280	<b>16</b> W 0452 1137 1718 2255	0.3 10.2 3.6 9.5	10 310 110 290	<b>1</b> F 0602 1255 1846 2355	1.0 9.5 4.9 8.2	30 290 150 250	<b>16</b> Sa 0605 1253 1843	-0.3 10.5 3.6	-10 320 110
	0553 1201 1756	0.7 9.5 2.3	<b>17</b> Tu 0518 1150 1732 2330	0.7 9.8 3.0 9.8	20 300 90 300	<b>2</b> W 0555 1226 1815 2352	0.7 9.5 4.3 8.9	20 290 130 270	<b>17</b> Th 0534 1218 1800 2332	0.0 10.2 3.9 9.5	0 310 120 290	<b>2</b> Sa 0634 1330 1922	1.3 9.2 5.2	40 280 160	<b>17</b> Su 0004 0650 1339 1932	8.9 0.0 10.2 3.6	270 0 310 110
	0001 0629 1239 1831	9.5 0.7 9.2 3.3	<b>18</b> W 0557 1228 1811	0.3 9.8 3.3	10 300 100	<b>3</b> Th 0627 1302 1849	1.0 9.2 4.6	30 280 140	<b>18</b> F 0616 1301 1844	0.0 10.2 3.9	0 310 120	<b>3</b> Su 0028 0708 1406 2002	7.9 2.0 9.2 5.2	240 60 280 160	<b>18</b> M 0050 0739 1428 2030	8.5 0.7 9.8 3.6	260 20 300 110
	0033 0704 1317 1905	9.2 1.0 8.9 3.9	<b>19</b> Th 0001 0636 1308 1851	9.5 0.3 9.8 3.6	290 10 300 110	<b>4</b> F 0021 0659 1339 1924	8.2 1.3 8.9 5.2	250 40 270 160	<b>19</b> Sa 0010 0700 1348 1933	9.2 0.3 9.8 4.3	280 10 300 130	<b>4</b> M 0105 0745 1445 2055	7.5 2.3 8.9 5.2	230 70 270 160	<b>19</b> Tu 0143 0833 1520 2135	7.9 1.6 9.8 3.6	240 50 300 110
<b>5</b> Th 0103 0738 1356 1941	8.5 1.3 8.2 4.6	260 40 250 140	<b>20</b> F 0034 0719 1352 1938	9.5 0.7 9.2 3.9	290 20 280 120	<b>5</b> Sa 0050 0733 1419 2010	7.9 2.0 8.5 5.6	240 60 260 170	<b>20</b> Su 0049 0750 1442 2034	8.5 0.7 9.5 4.3	260 20 290 130	<b>5</b> Tu 0151 0828 1528 2158	6.9 3.0 8.9 5.2	210 90 270 160	<b>20</b> W 0300 0934 1614 2245	7.2 2.3 9.5 3.3	220 70 290 100
	0132 0815 1442 2027	7.9 2.0 7.9 5.2	<b>21</b> Sa 0108 0807 1448 2037	8.9 1.0 8.9 4.6	270 30 270 140	<b>6</b> Su 0123 0812 1509 2118	7.2 2.6 8.2 5.9	220 80 250 180	<b>21</b> M 0136 0847 1542 2148	7.9 1.3 9.2 4.3	240 40 280 130	<b>6</b> W 0258 0921 1615 2306	6.6 3.6 8.5 4.9	200 110 260 150	<b>21</b> Th 0444 1040 1709 2355	6.9 3.3 9.2 3.0	210 100 280 90
	0203 0858 1542 2141	7.5 2.6 7.5 5.9	<b>22</b> Sa 0150 0906 1558 2152	8.2 1.3 8.5 4.6	250 40 260 140	<b>7</b> M 0205 0900 1611 2301	6.9 3.3 8.2 5.6	210 100 250 170	<b>22</b> Tu 0246 0953 1644 2307	7.2 2.3 9.2 3.9	220 70 280 120	<b>7</b> Th 0430 1029 1705	6.6 4.3 8.5	200 130 260	<b>22</b> F 0613 1151 1805	7.2 3.9 8.9	220 120 270
	0244 0950 1708 ● 2349	6.9 3.0 7.2 5.9	<b>23</b> Su 0249 1014 1711 ● 2322	7.5 2.0 8.5 4.6	230 60 260 140	<b>8</b> Tu 0318 1002 1715 ● 2322	6.6 3.6 8.2 5.6	200 110 250 170	<b>23</b> W 0447 1104 1744 ● 2322	6.9 3.0 9.2 280	210 90 280 175	<b>8</b> F 0008 0557 1146 1755	4.3 6.9 4.6 8.9	130 210 140 270	<b>23</b> Sa 0058 0723 1300 1858	2.3 7.5 4.3 8.9	230 230 130 270
<b>9</b> M 0358 1054 1856	6.6 3.3 7.5	200 100 230	<b>24</b> Tu 0433 1129 1820	7.2 2.3 8.5	220 70 260	<b>9</b> W 0015 0504 1117 1811	5.2 6.6 3.9 8.2	160 200 120 250	<b>24</b> Th 0021 0621 1217 1839	3.3 7.2 3.3 9.2	100 220 100 280	<b>9</b> Sa 0058 0706 1255 1842	3.3 7.5 4.6 8.9	100 230 140 270	<b>24</b> Su 0152 0822 1403 1947	1.6 8.2 4.6 8.5	250 250 140 260
	0102 0538 1210 1944	5.2 6.2 3.3 7.9	<b>25</b> Tu 0042 0621 1244 1918	3.9 7.2 2.3 8.9	120 220 70 270	<b>10</b> Th 0103 0627 1230 1858	4.6 6.9 3.9 8.5	140 210 120 260	<b>25</b> F 0122 0733 1322 1930	2.6 7.5 3.6 9.2	80 230 110 280	<b>10</b> Su 0140 0805 1352 1928	2.6 8.2 4.6 9.2	80 250 140 280	<b>25</b> M 0238 0916 1501 2033	1.3 8.5 4.6 8.5	40 260 140 260
	0147 0657 1315 2016	4.9 6.9 3.3 8.2	<b>26</b> Th 0143 0738 1346 2007	3.0 7.5 2.3 9.2	90 230 70 280	<b>11</b> F 0139 0732 1330 1938	3.9 7.5 3.9 8.9	120 230 120 270	<b>26</b> Sa 0212 0832 1419 2016	1.6 8.2 3.6 9.2	50 250 110 280	<b>11</b> M 0222 0900 1444 2013	1.6 8.9 4.6 9.2	50 270 140 280	<b>26</b> Tu 0321 1006 1555 2117	1.0 8.9 4.6 8.5	30 270 140 260
	0222 0759 1406 2047	3.9 7.2 3.0 8.5	<b>27</b> Th 0234 0842 1441 2052	2.0 8.2 2.3 9.5	60 250 70 290	<b>12</b> F 0213 0828 1420 2017	3.0 8.2 3.9 9.2	90 250 120 280	<b>27</b> Sa 0257 0926 1513 2059	1.0 8.9 3.9 9.2	30 280 120 280	<b>12</b> Tu 0305 0953 1535 2100	1.0 9.2 4.3 9.5	30 280 130 290	<b>27</b> W 0401 1050 1644 2158	0.7 9.2 4.6 8.2	20 280 140 250
<b>13</b> F 0254 0854 1452 2120	3.3 7.9 2.6 8.9	120 240 80 270	<b>28</b> Sa 0321 0937 1531 2135	1.3 8.9 2.6 9.5	40 270 80 290	<b>13</b> Su 0250 0920 1506 2057	2.0 8.9 3.6 9.2	60 270 110 280	<b>28</b> M 0339 1016 1603 2140	0.7 9.2 3.9 9.2	20 280 120 280	<b>13</b> W 0350 1041 1625 2148	0.3 9.8 4.3 9.5	10 300 130 290	<b>28</b> Th 0438 1130 1727 ● 2236	0.7 9.5 4.6 8.2	20 290 140 250
	0328 0943 1535 2154	2.6 8.5 2.6 9.2	<b>29</b> Su 0404 1026 1618 2214	0.7 9.2 3.0 9.5	80 260 90 290	<b>14</b> M 0329 1009 1551 2137	1.3 9.5 3.6 9.5	40 290 110 290	<b>29</b> Tu 0419 1100 1650 ● 2218	0.7 9.5 4.3 8.9	20 290 130 270	<b>14</b> O 0436 1126 1712 ● 2235	-0.3 10.2 3.9 9.5	-10 310 120 290	<b>29</b> F 0512 1208 1805 2311	0.7 9.5 4.6 8.2	20 290 140 250
	0403 1029 1615 2227	2.0 9.2 2.6 9.5	<b>30</b> M 0444 1109 1701 ● 2250	0.7 9.5 3.3 9.5	60 290 100 290	<b>15</b> Tu 0410 1055 1635 ● 2217	0.7 9.8 3.6 9.5	20 300 110 290	<b>30</b> W 0455 1140 1733 ● 2252	0.7 9.5 4.6 8.5	20 290 140 260	<b>15</b> F 0521 1210 1757 ● 2320	-0.3 10.5 3.9 9.2	-10 320 120 280	<b>30</b> Sa 0545 1243 1839 ● 2346	1.0 9.5 4.6 8.2	30 290 140 250
	1029 1615 2227	9.2 2.6 9.5							<b>31</b> Th 0529 1218 1811 ● 2323	0.7 9.5 4.6 8.5	20 290 140 260						

Time meridian 75° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Karachi, Pakistan, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 1 Su 0618 1315 1912	ft 1.3 9.5 4.6	cm 40 290 140	h m 16 M 0006 0640 1317 1924	ft 8.9 0.0 10.2 2.6	cm 270 0 310 80	h m 1 W 0052 0706 1336 1948	ft 8.2 2.0 9.2 3.3	cm 250 60 280 100	h m 16 Th 0135 0750 1405 2041	ft 8.2 2.3 9.2 2.0	cm 250 70 280 60
h m 2 M 0021 0652 1345 1945	ft 7.9 1.6 9.2 4.6	cm 240 50 280 140	h m 17 Tu 0054 0726 1401 2016	ft 8.5 0.7 9.8 2.6	cm 260 20 300 80	h m 2 Th 0132 0743 1406 2028	ft 7.9 2.6 8.9 3.3	cm 240 80 270 100	h m 2 Su 0230 0840 1449 2136	ft 7.5 3.3 8.5 2.3	cm 230 100 260 70
h m 3 Tu 0100 0728 1415 2024	ft 7.5 2.3 9.2 4.6	cm 220 70 280 140	h m 18 W 0147 0816 1447 2113	ft 7.9 1.6 9.5 2.6	cm 240 50 290 80	h m 3 F 0220 0826 1441 2116	ft 7.5 3.3 8.9 3.3	cm 230 100 270 100	h m 3 M 0343 0941 1539 2237	ft 7.2 4.3 7.9 2.3	cm 220 130 240 70
h m 4 W 0144 0808 1448 2111	ft 7.2 3.0 8.9 4.3	cm 220 90 270 130	h m 19 Th 0254 0912 1537 2215	ft 7.2 2.6 9.2 2.6	cm 220 80 280 80	h m 4 Sa 0324 0916 1523 2213	ft 7.2 4.3 8.5 3.0	cm 220 130 260 90	h m 4 Tu 0530 1101 1639 2348	ft 6.9 4.9 7.2 2.6	cm 210 150 220 80
h m 5 Th 0241 0854 1527 2206	ft 7.2 3.6 8.9 4.3	cm 220 110 270 130	h m 20 F 0422 1014 1630 2322	ft 6.9 3.6 8.5 2.6	cm 210 110 260 80	h m 5 Su 0446 1016 1614 2322	ft 6.9 4.6 8.2 2.6	cm 210 140 250 80	h m 5 W 0701 1232 1751	ft 6.9 5.2 6.9	cm 210 160 220
h m 6 F 0357 0949 1612 2309	ft 6.9 4.3 8.9 3.6	cm 210 130 270 110	h m 21 Sa 0556 1127 1728	ft 6.9 4.3 8.2	cm 210 130 250	h m 6 M 0617 1139 1715	ft 7.2 5.2 8.2	cm 220 160 250	h m 6 Th 0101 0803 1351 1901	ft 2.6 7.5 4.9 6.9	cm 80 230 150 210
h m 7 Sa 0523 1059 1703	ft 6.9 4.6 8.5	cm 210 140 260	h m 22 Su 0030 0712 1244 1828	ft 2.3 7.2 4.9 7.9	cm 70 220 150 240	h m 7 Tu 0037 0730 1311 1821	ft 2.0 7.5 4.9 8.2	cm 60 230 150 250	h m 7 W 0200 0850 1448 1959	ft 2.3 7.9 4.6 7.2	cm 70 240 140 220
h m 8 Su 0013 0642 1220 1757	ft 3.0 7.2 4.9 8.5	cm 90 220 150 260	h m 23 M 0131 0813 1354 1924	ft 2.0 7.9 4.9 7.9	cm 60 240 150 240	h m 8 F 0142 0828 1420 1927	ft 1.3 8.2 4.6 8.2	cm 40 250 140 250	h m 8 Sa 0246 0930 1531 2049	ft 2.0 8.2 4.3 7.2	cm 60 250 130 220
h m 9 M 0110 0747 1330 1851	ft 2.3 7.9 4.9 8.9	cm 70 240 150 270	h m 24 Tu 0222 0905 1454 2015	ft 1.6 8.2 4.6 7.9	cm 50 250 140 240	h m 9 Th 0237 0919 1518 2030	ft 0.7 8.9 3.9 8.2	cm 20 270 120 250	h m 9 Su 0324 1006 1608 2134	ft 1.6 8.5 3.9 7.5	cm 50 260 120 230
h m 10 Tu 0201 0844 1430 1945	ft 1.3 8.5 4.9 8.9	cm 40 260 150 270	h m 25 W 0306 0952 1547 2104	ft 1.3 8.5 4.6 7.9	cm 40 260 140 240	h m 10 F 0328 1006 1609 2132	ft 0.0 9.5 3.3 8.5	cm 0 290 100 260	h m 10 Sa 0400 1039 1642 2215	ft 1.3 8.9 3.6 8.2	cm 40 270 110 250
h m 11 W 0249 0938 1527 2039	ft 0.7 9.2 4.6 8.9	cm 20 280 140 270	h m 26 Th 0345 1033 1632 2148	ft 1.0 8.9 4.3 7.9	cm 30 270 130 240	h m 11 Sa 0416 1048 1656 2228	ft -0.3 9.8 2.6 8.9	cm -10 300 80 270	h m 11 M 0433 1110 1713 2252	ft 1.3 8.9 3.0 8.5	cm 40 270 90 260
h m 12 Th 0338 1027 1620 2135	ft 0.0 9.5 4.3 8.9	cm 0 290 130 270	h m 27 F 0422 1111 1710 2229	ft 1.0 9.2 3.9 7.9	cm 30 280 120 240	h m 12 Su 0501 1128 1740 2317	ft -0.3 10.2 2.3 9.2	cm -10 310 70 280	h m 12 M 0505 1137 1742 2327	ft 1.3 9.2 3.0 8.5	cm 40 280 90 260
h m 13 F 0426 1112 1708 ● 2230	ft -0.3 9.8 3.6 9.2	cm -10 300 120 280	h m 28 Sa 0456 1145 1745 2305	ft 1.0 9.2 3.9 8.2	cm 30 280 120 250	h m 13 M 0543 1207 1822	ft -0.3 10.2 1.6	cm -10 310 50	h m 13 Tu 0536 1201 1809	ft 1.3 9.2 2.6	cm 40 280 80
h m 14 Sa 0512 1154 1753 2319	ft -0.7 10.2 3.3 8.9	cm -20 310 100 270	h m 29 Su 0529 1217 1816 2340	ft 1.0 9.5 3.6 8.2	cm 30 290 110 250	h m 14 Tu 0003 0624 1245 1905	ft 9.2 0.3 10.2 1.6	cm 280 10 310 50	h m 14 F 0002 0606 1226 1837	ft 8.9 1.6 9.2 2.3	cm 270 50 280 70
h m 15 Su 0557 1235 1838	ft -0.3 10.5 3.0	cm -10 320 90	h m 30 M 0601 1244 1845	ft 1.3 9.2 3.6	cm 40 280 110	h m 15 W 0048 0705 1324 1951	ft 8.9 1.0 9.8 1.6	cm 270 30 300 50	h m 15 Th 0037 0638 1252 1910	ft 8.9 2.3 9.2 2.3	cm 270 70 280 70
h m 31 Tu 0015 0633 1309 1915	ft 8.2 1.6 9.2 3.3	cm 250 50 280 100	h m 31 F 0112 0713 1320 1948	ft 8.5 2.6 8.9 2.3	cm 260 80 270 70						

Time meridian 75° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Karachi, Pakistan, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0219 7.9 240	16 0322 7.2 220	1 Th 0434 7.9 240	16 0455 7.5 230	1 Sa 0504 8.5 260	16 0425 8.2 250						
0812 4.3 130	Tu 0852 5.6 170	1017 4.6 140	1115 5.2 160	1123 3.6 110	1109 4.3 130						
1343 8.2 250	1353 6.6 200	1504 6.9 210	1549 5.9 180	1732 6.6 200	1711 6.2 190						
2048 1.6 50	● 2118 3.0 90	2242 2.3 70	2234 3.9 120	2329 3.0 90	2255 4.6 140						
2 Tu 0335 7.5 230	17 0515 6.9 210	2 0549 7.9 240	17 0602 7.5 230	2 Su 0606 8.5 260	17 0522 7.9 240						
0915 4.9 150	W 1126 5.9 180	1152 4.3 130	1233 4.9 150	1237 2.6 80	1211 3.6 110						
1428 7.9 240	1433 5.9 180	1735 6.6 200	1812 6.2 190	1908 6.9 210	1850 6.6 200						
● 2154 2.0 60	2222 3.6 110	2355 4.3 130									
3 W 0511 7.2 220	18 0700 7.2 220	3 Sa 0005 2.6 80	18 0651 7.9 240	3 M 0044 3.3 100	18 0013 4.6 140						
1036 4.9 150	Th 1354 5.6 170	0651 8.5 260	1315 4.3 130	0702 8.5 260	0619 8.2 250						
1538 7.2 220	1729 5.9 180	1309 3.3 100	1924 6.9 210	1338 2.0 60	1304 3.0 90						
2315 2.0 60	2349 3.6 110	1913 7.2 220		2013 7.9 240	1956 7.2 220						
4 Th 0635 7.5 230	19 0742 7.5 230	4 Su 0119 2.6 80	19 0105 4.3 130	4 Tu 0150 3.6 110	19 0121 4.6 140						
1223 4.6 140	F 1357 4.9 150	0741 8.9 270	0730 8.2 250	0752 8.9 270	0710 8.2 250						
1739 6.9 210	1900 6.2 190	1406 2.3 70	1350 3.3 100	1429 1.3 40	1350 2.0 60						
5 F 0043 2.0 60	20 0110 3.6 110	5 M 0218 2.3 70	20 0159 3.9 120	5 W 0249 3.6 110	20 0219 4.6 140						
0733 8.2 250	Sa 0808 7.9 240	0825 9.2 280	0807 8.5 260	0837 8.9 270	0758 8.5 260						
1339 3.9 120	1420 4.3 130	1455 1.3 40	1425 2.3 70	1515 0.7 20	1435 1.0 30						
1915 7.2 220	1956 6.9 210	2113 8.5 260	2107 8.2 250	2157 8.9 270	2142 8.9 270						
6 Sa 0152 1.6 50	21 0202 3.3 100	6 Tu 0310 2.3 70	21 0246 3.6 110	6 Th 0344 3.6 110	21 0313 4.3 130						
0818 8.9 270	Su 0834 8.2 250	0907 9.5 290	0843 8.9 270	0921 8.9 270	0845 8.9 270						
1435 3.0 90	1445 3.6 110	1540 0.7 20	1502 1.6 50	1558 0.3 10	1521 0.3 10						
2024 7.9 240	2043 7.5 230	2202 9.2 280	2153 8.9 270	2242 9.2 280	2229 9.2 280						
7 Su 0247 1.3 40	22 0243 3.0 90	7 W 0358 2.6 80	22 0330 3.6 110	7 F 0435 3.9 120	22 0404 4.3 130						
0900 9.2 280	M 0902 8.5 260	0947 9.5 290	0920 9.2 280	1001 8.9 270	0933 8.9 270						
1523 2.0 60	1512 3.0 90	1622 0.3 10	1543 1.0 30	1638 0.0 0	1608 0.0 0						
2121 8.5 260	2128 8.5 260	● 2247 9.5 290	2237 9.5 290	● 2323 9.5 290	O 2312 9.8 300						
8 M 0335 1.3 40	23 0321 2.6 80	8 Th 0442 3.0 90	23 0414 3.6 110	8 Sa 0519 3.9 120	23 0452 3.9 120						
0941 9.5 290	Tu 0932 8.9 270	1024 9.5 290	0958 9.2 280	1037 8.5 260	1019 9.2 280						
1608 1.0 30	1542 2.0 60	1701 0.0 0	1625 0.3 10	1713 0.3 10	1654 -0.7 -20						
2212 9.2 280	2210 8.9 270	2327 9.5 290	O 2318 9.8 300		2352 10.2 310						
9 Tu 0419 1.3 40	24 0358 2.6 80	9 F 0521 3.3 100	24 0455 3.6 110	9 Su 0001 9.5 290	24 0536 3.6 110						
1020 9.8 300	W 1003 9.2 280	1059 9.2 280	1035 9.5 290	0557 3.9 120	1103 9.2 280						
1650 0.7 20	1615 1.6 50	1736 0.3 10	1706 0.0 0	1111 8.5 260	1103 9.2 280						
● 2257 9.5 290	O 2251 9.5 290		2358 9.8 300	1745 0.3 10	1738 -0.7 -20						
10 W 0500 1.6 50	25 0434 2.6 80	10 Sa 0005 9.5 290	25 0536 3.6 110	10 M 0038 9.5 290	25 0031 10.2 310						
1056 9.8 300	Th 1033 9.5 290	0557 3.6 110	1112 9.5 290	0632 4.3 130	0618 3.3 100						
1730 0.3 10	1651 1.0 30	1130 8.9 270	1748 -0.3 -10	1144 8.2 250	1146 8.9 270						
2338 9.5 290	2328 9.5 290	1807 0.7 20		1816 1.0 30	1821 -0.3 -10						
11 Th 0537 2.3 70	26 0510 2.6 80	11 Su 0042 9.2 280	26 0036 9.8 300	11 Tu 0111 9.2 280	26 0112 10.2 310						
1130 9.5 290	F 1103 9.5 290	0629 4.3 130	0616 3.6 110	0705 4.3 130	0703 3.0 90						
1806 0.3 10	1728 0.7 20	1200 8.5 260	1148 9.2 280	1216 7.9 240	1228 8.5 260						
12 F 0016 9.2 280	27 0004 9.5 290	1838 1.0 30	1829 0.0 0	1848 1.3 40	1905 0.0 0						
0611 3.0 90	Sa 0546 3.0 90										
1203 9.2 280	1134 9.5 290										
1840 0.7 20	1805 0.3 10										
13 Sa 0055 8.9 270	28 0041 9.5 290	12 M 0117 8.9 270	27 0117 9.5 290	12 W 0144 8.9 270	27 0154 9.8 300						
0644 3.6 110	Su 0623 3.3 100	0702 4.6 140	0700 3.6 110	0738 4.6 140	0752 3.0 90						
1232 8.5 260	1205 9.5 290	1229 7.9 240	1224 8.9 270	1250 7.5 230	1312 8.2 250						
1913 1.3 40	1844 0.7 20	1910 1.6 50	1914 0.3 10	1921 2.0 60	1954 1.0 30						
14 Su 0133 8.2 250	29 0119 9.2 280	14 W 0237 7.9 240	29 0257 8.9 270	14 F 0252 8.5 260	29 0327 9.2 280						
0718 4.3 130	M 0705 3.9 120	0826 5.2 160	0852 3.9 120	0907 4.6 140	0949 2.6 80						
1259 7.9 240	1237 8.9 270	1329 6.9 210	1351 7.5 230	1414 6.6 200	1520 6.9 210						
1948 2.0 60	1928 1.0 30	2026 3.0 90	2106 1.6 50	2044 3.3 100	2149 2.6 80						
15 M 0218 7.5 230	30 0205 8.5 260	15 Th 0339 7.5 230	30 0359 8.5 260	15 F 0334 8.2 250	30 0420 8.9 270						
0757 4.9 150	Tu 0754 4.3 130	0935 5.6 170	1004 3.9 120	1005 4.6 140	1056 2.6 80						
1326 7.2 220	1312 8.5 260	1409 6.2 190	1504 6.9 210	1524 6.2 190	1717 6.6 200						
2028 2.6 80	2020 1.3 40	● 2121 3.6 110	● 2214 2.6 80	● 2142 3.9 120	2257 3.6 110						
31 W 0311 8.2 250	31 0311 8.2 250										
0857 4.6 140	W 0857 4.6 140										
1355 7.5 230	1355 7.5 230										
● 2126 2.0 60	● 2126 2.0 60										

Time meridian 75° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shatt Al Arab (Outer Bar), Iraq, 2018

Times and Heights of High and Low Waters

January				February				March							
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm				
<b>1</b> M	0422	0.3	10	<b>16</b> Tu	0514	0.3	10	<b>1</b> Th	0553	- 1.0	- 30	<b>16</b> F	0552	0.7	20
1037	7.9	240	1115	7.9	240	1156	8.9	270	1154	8.5	260				
1532	4.3	130	1611	5.2	160	1735	3.9	120	1722	4.6	140				
2141	10.8	330	2215	9.8	300	2309	10.5	320	● 2307	9.5	290				
<b>2</b> Tu	0517	- 0.7	- 20	<b>17</b> W	0551	0.3	10	<b>2</b> F	0636	- 1.0	- 30	<b>17</b> Sa	0619	0.7	20
1127	8.2	250	1152	8.2	250	1235	9.2	280	1219	8.5	260				
1635	4.6	140	1657	5.2	160	1829	3.6	110	1758	4.3	130				
○ 2228	10.8	330	● 2248	9.8	300	2356	10.2	310	2341	9.5	290				
<b>3</b> W	0607	- 1.0	- 30	<b>18</b> Th	0624	0.3	10	<b>3</b> Sa	0716	- 1.0	- 30	<b>18</b> Su	0644	0.7	20
1214	8.5	260	1226	8.2	250	1312	9.2	280	1243	8.9	270				
1737	4.6	140	1738	5.2	160	1918	3.0	90	1833	3.9	120				
2315	10.8	330	2321	9.8	300										
<b>4</b> Th	0653	- 1.3	- 40	<b>19</b> F	0653	0.3	10	<b>4</b> Su	0041	9.8	300	<b>19</b> M	0016	9.5	290
1258	8.9	270	1255	8.5	260	0751	- 0.3	- 10	0708	0.7	20				
1835	4.3	130	1815	4.9	150	1346	9.5	290	1308	9.2	280				
			2353	9.8	300	2004	2.6	80	1909	3.3	100				
<b>5</b> F	0000	10.5	320	<b>20</b> Sa	0718	0.3	10	<b>5</b> M	0125	9.5	290	<b>20</b> Tu	0053	9.5	290
0736	- 1.0	- 30	1322	8.5	260	0825	0.3	10	0734	1.0	30				
1340	8.9	270	1851	4.6	140	1420	9.5	290	1334	9.5	290				
1929	3.9	120				2049	2.6	80	1950	2.6	80				
<b>6</b> Sa	0046	10.2	310	<b>21</b> Su	0026	9.5	290	<b>6</b> Tu	0208	8.5	260	<b>21</b> W	0133	8.9	270
0816	- 0.7	- 20	0742	0.3	10	0856	1.0	30	0803	1.3	40				
1420	8.9	270	1348	8.9	270	1454	9.2	280	1404	9.8	300				
2019	3.9	120	1928	4.3	130	2136	2.6	80	2037	2.3	70				
<b>7</b> Su	0131	9.5	290	<b>22</b> M	0102	9.5	290	<b>7</b> W	0255	7.9	240	<b>22</b> Th	0217	8.2	250
0854	- 0.3	- 10	0808	0.7	20	0927	2.0	60	0837	2.0	60				
1459	8.9	270	1415	8.9	270	1530	9.2	280	1439	9.8	300				
2110	3.6	110	2010	3.9	120	● 2229	2.6	80	2133	2.3	70				
<b>8</b> M	0218	8.9	270	<b>23</b> Tu	0141	9.2	280	<b>8</b> Th	0351	6.9	210	<b>23</b> F	0311	7.2	220
0931	0.7	20	0837	1.0	30	1002	2.6	80	0918	2.6	80				
1540	8.9	270	1445	9.2	280	1612	8.9	270	1520	9.8	300				
2203	3.3	100	2058	3.6	110	2331	2.6	80	● 2242	2.0	60				
<b>9</b> Tu	0310	7.9	240	<b>24</b> W	0224	8.5	260	<b>9</b> F	0517	5.9	180	<b>24</b> Sa	0429	6.2	190
1009	1.3	40	0912	1.6	50	1044	3.6	110	1012	3.6	130				
1626	8.9	270	1521	9.2	280	1707	8.5	260	1611	9.5	290				
○ 2303	3.3	100	2157	3.3	100										
<b>10</b> W	0417	6.9	210	<b>25</b> Th	0318	7.5	230	<b>10</b> Sa	0047	2.6	80	<b>25</b> Su	0005	2.0	60
1050	2.3	70	0955	2.3	70	0715	5.9	180	0646	5.9	180				
1720	8.5	260	1604	9.2	280	1137	4.3	130	1122	4.3	130				
			● 2307	3.0	90	1821	8.5	260	1723	8.9	270				
<b>11</b> Th	0012	3.0	90	<b>26</b> F	0437	6.6	200	<b>11</b> Su	0210	2.0	60	<b>26</b> M	0134	2.3	70
0557	6.2	190	1047	3.0	90	0839	6.2	190	0827	6.6	200				
1137	3.3	100	1700	9.2	280	1241	4.9	150	1244	4.6	140				
1821	8.9	270				1936	8.5	260	1859	8.9	270				
<b>12</b> F	0129	2.6	80	<b>27</b> Sa	0028	2.3	70	<b>12</b> M	0317	1.6	50	<b>27</b> Tu	0253	0.7	20
0741	6.2	190	0650	5.9	180	0934	6.9	210	0926	7.5	230				
1230	3.9	120	1149	3.6	110	1351	5.2	160	1409	4.6	140				
1921	8.9	270	1810	9.2	280	2033	8.9	270	2021	9.2	280				
<b>13</b> Sa	0243	2.0	60	<b>13</b> Tu	0153	1.6	50	<b>28</b> W	0408	1.0	30	<b>13</b> Tu	0354	0.0	0
0853	6.6	200	0833	6.6	200	1017	7.5	230	1012	8.2	250				
1326	4.3	130	1258	4.3	130	1500	5.2	160	1528	4.3	130				
2014	9.2	280	1925	9.5	290	2119	8.9	270	2124	9.8	300				
<b>14</b> Su	0344	1.3	40	<b>14</b> W	0310	0.7	20	<b>14</b> W	0448	0.7	20	<b>14</b> Th	0326	1.6	50
0948	7.2	220	0938	7.2	220	1054	7.9	240	1557	5.2	160				
1424	4.6	140	1411	4.6	140	2158	9.2	280							
2059	9.5	290	2032	9.8	300										
<b>15</b> M	0432	0.7	20	<b>15</b> Th	0412	0.0	0	<b>15</b> Th	0522	0.7	20	<b>15</b> Th	0406	1.3	40
1034	7.5	230	1029	7.9	240	1126	8.2	250	1643	4.9	150	1021	8.2	250	
1520	4.9	150	1525	4.6	140	2129	10.2	310	2233	9.5	290	1543	4.9	150	
2139	9.5	290										2140	8.9	270	
			<b>31</b> W	0505	- 0.7	- 20						<b>31</b> Sa	0458	0.7	20
			1115	8.5	260							1054	9.5	290	
			1634	4.3	130							1715	2.0	60	
			○ 2221	10.5	320							2257	9.5	290	

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Shatt Al Arab (Outer Bar), Iraq, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0537	1.0	30	<b>16</b> M	0449	2.3	70	<b>1</b> Tu	0533	3.0	90	<b>16</b> W	0442	3.6	110
	1126	9.8	300		1054	9.8	300		1122	10.5	320		1048	10.8	330
	1800	1.6	50		1722	2.3	70		1826	0.7	20		1757	1.0	30
	2341	9.5	290	●	2321	9.2	280								
<b>2</b> M	0613	1.3	40	<b>17</b> Tu	0522	2.6	80	<b>2</b> W	0012	8.9	270	<b>17</b> Th	0000	8.9	270
	1158	10.2	310		1122	10.2	310		0606	3.3	100		0525	3.9	120
	1843	1.3	40		1803	1.6	50		1153	10.5	320		1124	11.2	340
									1906	0.7	20		1844	0.3	10
<b>3</b> Tu	0023	9.2	280	<b>18</b> W	0002	8.9	270	<b>3</b> Th	0054	8.5	260	<b>18</b> F	0047	8.9	270
	0645	2.0	60		0555	3.0	90		0638	3.9	120		0610	4.3	130
	1229	10.2	310		1153	10.5	320		1224	10.5	320		1201	11.2	340
	1923	1.0	30		1846	1.0	30		1945	0.7	20		1931	0.0	0
<b>4</b> W	0104	8.9	270	<b>19</b> Th	0046	8.9	270	<b>4</b> F	0135	8.2	250	<b>19</b> Sa	0135	8.5	260
	0714	2.6	80		0631	3.3	100		0708	4.3	130		0658	4.6	140
	1259	10.2	310		1225	10.8	330		1253	10.2	310		1241	11.2	340
	2003	1.0	30		1931	0.7	20		2023	1.0	30		2019	0.0	0
<b>5</b> Th	0145	8.5	260	<b>20</b> F	0131	8.5	260	<b>5</b> Sa	0218	7.9	240	<b>20</b> Su	0226	8.2	250
	0742	3.0	90		0709	3.6	110		0740	4.6	140		0750	4.9	150
	1328	9.8	300		1300	10.8	330		1322	9.8	300		1323	10.8	330
	2043	1.3	40		2020	0.7	20		2101	1.3	40		2109	0.0	0
<b>6</b> F	0228	7.9	240	<b>21</b> Sa	0221	7.9	240	<b>6</b> Su	0303	7.5	230	<b>21</b> M	0321	8.2	250
	0811	3.6	110		0752	3.9	120		0816	4.9	150		0849	4.9	150
	1357	9.5	290		1339	10.5	320		1351	9.5	290		1408	9.8	300
	2126	1.6	50		2114	0.7	20		2141	1.6	50		2201	0.7	20
<b>7</b> Sa	0316	7.2	220	<b>22</b> Su	0320	7.5	230	<b>7</b> M	0357	7.2	220	<b>22</b> Tu	0426	7.9	240
	0843	4.3	130		0844	4.6	140		0901	5.6	170		0957	5.2	160
	1427	9.2	280		1421	9.8	300		1423	8.9	270		1502	9.2	280
	2215	2.0	60		2215	1.0	30		2227	2.0	60		2258	1.0	30
<b>8</b> Su	0422	6.6	200	<b>23</b> M	0439	7.2	220	<b>8</b> Tu	0510	7.2	220	<b>23</b> W	0542	7.9	240
	0925	4.9	150		0952	4.9	150		1001	5.9	180		1113	4.9	150
	1501	8.5	260		1513	9.2	280		1501	8.2	250		1616	8.2	250
	2313	2.3	70	●	2324	1.0	30	●	2319	2.3	70		2357	1.6	50
<b>9</b> M	0608	6.6	200	<b>24</b> Tu	0623	7.2	220	<b>9</b> W	0634	7.5	230	<b>24</b> Th	0651	8.5	260
	1025	5.2	160		1116	5.2	160		1114	5.9	180		1234	4.6	140
	1543	7.9	240		1628	8.2	250		1558	7.5	230		1812	7.5	230
												<b>9</b> Sa	0000	3.0	90
<b>10</b> Tu	0019	2.3	70	<b>25</b> W	0037	1.3	40	<b>10</b> Th	0014	2.6	80	<b>24</b> Sa	0055	3.0	90
	0741	6.9	210		0739	7.9	240		0733	7.9	240		0655	8.9	170
	1143	5.6	170		1247	4.9	150		1232	5.6	170		1302	4.6	140
	1703	7.5	230		1830	7.9	240		1802	7.2	220		1901	7.2	220
<b>11</b> W	0126	2.3	70	<b>26</b> Th	0146	1.3	40	<b>11</b> F	0108	2.6	80	<b>26</b> Sa	0155	2.6	80
	0833	7.5	230		0829	8.5	260		0813	8.5	260		0828	9.5	290
	1308	5.6	170		1411	3.9	120		1345	4.9	150		1501	2.6	80
	1922	7.5	230		2007	8.2	250		1951	7.5	230		2057	7.9	240
<b>12</b> Th	0222	2.3	70	<b>27</b> F	0245	1.3	40	<b>12</b> Sa	0157	2.6	80	<b>27</b> Su	0246	3.0	90
	0909	8.2	250		0908	9.2	280		0845	8.9	270		0906	10.2	310
	1422	5.2	160		1518	3.0	90		1445	4.3	130		1556	2.0	60
	2030	7.9	240		2110	8.5	260		2052	7.9	240		2149	8.2	250
<b>13</b> F	0306	2.0	60	<b>28</b> Sa	0335	1.6	50	<b>13</b> Su	0240	3.0	90	<b>28</b> W	0332	4.3	130
	0938	8.5	260		0944	9.8	300		0914	9.5	290		0942	10.5	320
	1518	4.6	140		1612	2.3	70		1536	3.3	100		1645	1.3	40
	2118	8.2	250		2201	8.9	270		2142	8.2	250		2236	8.5	260
<b>14</b> Sa	0343	2.0	60	<b>29</b> Su	0418	2.0	60	<b>14</b> M	0321	3.0	90	<b>29</b> W	0414	3.6	110
	1004	9.2	280		1017	10.2	310		0943	10.2	310		1050	10.8	330
	1602	3.9	120		1700	1.3	40		1623	2.3	70		1730	1.0	30
	2200	8.5	260		2247	9.2	280		2228	8.5	260		2320	8.5	260
<b>15</b> Su	0417	2.0	60	<b>30</b> M	0457	2.3	70	<b>15</b> Tu	0401	3.3	100	<b>30</b> F	0507	4.9	150
	1029	9.5	290		1050	10.5	320		1014	10.5	320		1104	11.5	350
	1642	3.0	90		1744	1.0	30		1710	1.6	50		1813	0.7	20
	2240	8.9	270	●	2330	9.2	280	●	2314	8.9	270		31	0003	8.5
<b>16</b> Sa	0046	8.9	270					<b>16</b> F	0045	8.5	260	<b>30</b> Sa	0033	8.5	260
	0603	4.9	150					<b>16</b> Sa	0606	4.9	150		0545	5.6	170
	1147	11.5	350					<b>16</b> Sa	1154	10.8	330		1133	10.8	330
	1928	-0.3	-10					<b>16</b> Sa	1930	0.7	20		1912	0.7	20
<p>Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.</p>															

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shatt Al Arab (Outer Bar), Iraq, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0110	8.9	270	<b>16</b> M	0117	9.5	290	<b>1</b> W	0135	9.2	280
	0624	5.6	170		0700	4.6	140		0715	4.9	150
	1205	10.5	320		1228	11.2	340		1254	10.2	310
	1942	1.0	30		1957	-0.3	-10		1959	1.6	50
<b>2</b> M	0143	8.9	270	<b>17</b> Tu	0157	9.5	290	<b>2</b> Th	0159	9.5	290
	0700	5.6	170		0751	4.3	130		0751	4.6	140
	1236	10.5	320		1313	10.8	330		1329	9.8	300
	2009	1.0	30		2035	0.3	10		2024	2.0	60
<b>3</b> Tu	0214	8.9	270	<b>18</b> W	0235	9.5	290	<b>3</b> F	0226	9.5	290
	0737	5.6	170		0841	3.9	120		0832	4.3	130
	1307	10.2	310		1359	9.8	300		1407	9.2	280
	2035	1.3	40		2112	1.0	30		2054	2.3	70
<b>4</b> W	0243	8.9	270	<b>19</b> Th	0313	9.5	290	<b>4</b> Sa	0256	9.8	300
	0816	5.6	170		0933	3.9	120		0923	3.9	120
	1341	9.8	300		1448	9.2	280		1453	8.5	260
	2104	1.6	50		2150	2.0	60		2130	3.0	90
<b>5</b> Th	0314	8.9	270	<b>20</b> F	0355	9.5	290	<b>5</b> Su	0334	9.8	300
	0902	5.2	160		1030	3.6	110		1026	3.9	120
	1420	9.2	280		1546	8.2	250		1554	7.5	230
	2137	2.0	60		2229	2.6	80		2216	3.6	110
<b>6</b> F	0350	8.9	270	<b>21</b> Sa	0444	9.2	280	<b>6</b> M	0422	9.8	300
	0958	4.9	150		1135	3.6	110		1143	3.6	110
	1506	8.5	260		1709	7.2	220		1744	6.9	210
	2216	2.6	80		2313	3.6	110		2314	4.3	130
<b>7</b> Sa	0434	9.2	280	<b>22</b> Su	0544	9.2	280	<b>21</b> Tu	0544	8.9	270
	1104	4.6	140		1251	3.3	100		1336	3.0	90
	1613	7.5	230		1901	6.9	210		2011	6.9	210
	2303	3.3	100								
<b>8</b> Su	0528	9.2	280	<b>23</b> M	0004	4.3	130	<b>8</b> W	0021	4.9	150
	1219	4.3	130		0650	9.5	290		0645	9.8	300
	1812	6.9	210		1412	3.0	90		1436	2.0	60
	2357	3.9	120		2026	7.2	220		2111	7.5	230
<b>9</b> M	0630	9.5	290	<b>24</b> Tu	0102	4.9	150	<b>9</b> Th	0135	5.2	160
	1338	3.3	100		0752	9.5	290		0802	10.2	310
	2007	7.2	220		1522	2.3	70		1545	1.0	30
					2127	7.5	230		2205	8.2	250
<b>10</b> Tu	0055	4.3	130	<b>25</b> W	0203	5.2	160	<b>10</b> F	0250	5.2	160
	0731	10.2	310		0843	9.8	300		0905	10.8	330
	1454	2.3	70		1616	1.6	50		1641	0.3	10
	2118	7.5	230		2216	7.9	240		2251	8.9	270
<b>11</b> W	0155	4.6	140	<b>26</b> Th	0304	5.6	170	<b>11</b> Sa	0401	4.9	150
	0826	10.8	330		0927	10.2	310		1000	11.2	340
	1559	1.3	40		1701	1.3	40		1730	0.0	0
	2214	8.2	250		2258	8.5	260		●	2333	9.2
<b>12</b> Th	0257	4.9	150	<b>27</b> F	0400	5.6	170	<b>12</b> Su	0505	4.6	140
	0918	11.2	340		1007	10.5	320		1050	11.2	340
	1655	0.7	20		1741	1.0	30		1815	-0.3	-10
	2305	8.5	260		○	2337	8.5	260			
<b>13</b> F	0400	5.2	160	<b>28</b> Sa	0450	5.6	170	<b>13</b> M	0012	9.5	290
	1006	11.5	350		1043	10.5	320		0601	3.9	120
	1746	0.0	0		1816	1.0	30		1138	11.2	340
	●	2352	8.9						1855	0.0	0
<b>14</b> Sa	0504	5.2	160	<b>29</b> Tu	0012	8.9	270	<b>14</b> W	0049	9.8	300
	1054	11.5	350		0532	5.6	170		0651	3.6	110
	1833	-0.3	-10		1118	10.5	320		1224	10.8	330
					1846	1.0	30		1933	0.3	10
<b>15</b> Su	0035	9.2	280	<b>30</b> M	0043	8.9	270	<b>15</b> W	0123	9.8	300
	0604	4.9	150		0608	5.6	170		0738	3.3	100
	1141	11.5	350		1150	10.5	320		1308	10.5	320
	1916	-0.3	-10		1912	1.0	30		2008	1.0	30
	31	0110	9.2	280				<b>31</b> F	0115	9.8	300
	Tu	0642	5.2	160					0728	3.3	100
		1222	10.5	320					1319	9.5	290
		1936	1.3	40					1946	2.3	70

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Shatt Al Arab (Outer Bar), Iraq, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0138	10.8	330	<b>16</b> Tu	0211	9.5	290	<b>1</b> Th	0243	9.5	290
	0844	1.6	50		0955	1.6	50		1043	1.0	30
	1447	7.9	240		1604	7.2	220		1728	7.5	230
	2027	4.3	130	●	2121	5.2	160		2241	5.2	160
<b>2</b> Tu	0216	10.5	320	<b>17</b> W	0245	8.9	270	<b>2</b> F	0347	8.5	260
	0945	1.6	50		1049	2.3	70		1153	1.3	40
	1554	7.2	220		1732	7.2	220		1855	7.9	240
	●	2121	4.6	140	2219	5.6	170				
<b>3</b> W	0302	9.8	300	<b>18</b> Th	0327	8.2	250	<b>3</b> Sa	0009	4.9	150
	1059	2.0	60		1152	2.6	80		0531	7.9	240
	1741	6.9	210		1908	7.2	220		1303	1.6	50
	2237	5.2	160		2335	5.9	180		1954	8.5	260
<b>4</b> Th	0404	9.2	280	<b>19</b> F	0442	7.5	230	<b>4</b> Su	0134	3.9	120
	1222	1.6	50		1258	2.6	80		0731	7.9	240
	1931	7.2	220		2008	7.9	240		1407	1.6	50
									2038	9.2	280
<b>5</b> F	0007	5.2	160	<b>20</b> Sa	0101	5.6	170	<b>5</b> M	0246	3.0	90
	0546	8.5	260		0710	7.2	220		0846	8.2	250
	1343	1.6	50		1359	2.6	80		1502	2.0	60
	2032	8.2	250		2048	8.2	250		2116	9.8	300
<b>6</b> Sa	0138	4.9	150	<b>21</b> Su	0219	5.2	160	<b>6</b> Tu	0345	2.0	60
	0741	8.5	260		0824	7.9	240		0942	8.9	270
	1450	1.3	40		1447	2.6	80		1550	2.3	70
	2116	8.9	270		2120	8.9	270		2152	10.2	310
<b>7</b> Su	0256	3.9	120	<b>22</b> M	0314	4.6	140	<b>7</b> W	0435	1.3	40
	0855	9.2	280		0913	8.2	270		1030	8.9	270
	1544	1.0	30		1526	2.6	80		1633	2.6	80
	2154	9.5	290		2147	9.2	280	●	2226	10.5	320
<b>8</b> M	0357	3.0	90	<b>23</b> Tu	0355	3.9	120	<b>8</b> Th	0522	0.7	20
	0951	9.5	290		0954	8.5	260		1116	9.2	280
	1631	1.3	40		1559	2.6	80		1713	3.3	100
	2229	9.8	300		2211	9.5	290		2259	10.5	320
<b>9</b> Tu	0449	2.3	70	<b>24</b> W	0431	3.3	100	<b>9</b> F	0607	0.3	10
	1039	9.8	300		1033	8.9	270		1200	8.9	270
	1713	1.3	40		1630	3.0	90		1750	3.6	110
	●	2302	10.2	310	○	2235	9.8	300		2332	10.5
<b>10</b> W	0536	1.6	50	<b>25</b> Th	0507	2.6	80	<b>10</b> Sa	0649	0.0	0
	1125	9.8	300		1111	8.9	270		1243	8.9	270
	1752	2.0	60		1701	3.3	100		1826	3.9	120
	2335	10.5	320		2301	10.2	310				
<b>11</b> Th	0621	1.0	30	<b>26</b> F	0545	2.0	60	<b>11</b> Su	0004	10.5	320
	1208	9.8	300		1150	8.9	270		0729	0.0	0
	1828	2.6	80		1733	3.6	110		1326	8.5	260
					2329	10.5	320		1901	4.6	140
<b>12</b> F	0007	10.5	320	<b>27</b> Sa	0624	1.3	40	<b>12</b> M	0037	10.2	310
	0703	1.0	30		1231	8.9	270		0809	0.3	10
	1251	9.5	290		1808	3.6	110		1408	8.2	250
	1900	3.0	90						1936	4.9	150
<b>13</b> Sa	0038	10.5	320	<b>28</b> Su	0000	10.8	330	<b>13</b> Tu	0108	9.8	300
	0745	0.7	20		0706	0.7	20		0847	0.7	20
	1334	8.9	270		1315	8.5	260		1453	7.9	240
	1931	3.6	110		1845	3.9	120		2016	4.9	150
<b>14</b> Su	0109	10.2	310	<b>29</b> M	0035	10.8	330	<b>14</b> W	0140	9.5	290
	0826	1.0	30		0752	0.7	20		0927	1.0	30
	1417	8.5	260		1401	8.2	250		1544	7.5	230
	2002	3.9	120		1927	4.3	130		2102	5.2	160
<b>15</b> M	0140	9.8	300	<b>30</b> Tu	0113	10.8	330	<b>15</b> Th	0213	8.9	270
	0908	1.3	40		0842	0.7	20		1009	1.6	50
	1505	7.9	240		1454	7.9	240		1646	7.5	230
	2037	4.6	140		2018	4.6	140	●	2159	5.6	170
<b>31</b> W	0154	10.2	310	<b>31</b> W	0939	0.7	20		1600	7.5	230
					1600	7.5	230		2122	4.9	150

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

**Mina Al Ahmadi, Kuwait, 2018**

## Times and Heights of High and Low Waters

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Mina Al Ahmadi, Kuwait, 2018

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0000 0601 1231 1822	ft 8.5 2.0 8.9 2.3	cm 260 60 270 70	h m 0525 M 1150 1756	ft 2.6 8.5 2.0	cm 80 260 60	h m 0052 Tu 0603 1209 1843	ft 7.9 3.3 8.5 1.0	cm 240 100 260 30	h m 0018 W 0523 1131 1813	ft 7.5 3.6 9.2 0.7	cm 230 110 280 20
<b>1</b> Su ●		<b>16</b> M		<b>1</b> Tu		<b>16</b> W		<b>1</b> F		<b>16</b> Sa	
0050 0634 1256 1901	8.5 2.3 8.9 2.0	260 70 270 60	0023 Tu 0555 1214 1830	7.9 3.0 8.9 1.3	240 90 270 40	0137 W 0637 1235 1918	7.5 3.6 8.9 1.0	230 110 280 30	0213 F 0646 1229 1940	7.5 4.9 8.9 1.0	230 150 270 30
<b>2</b> M		<b>17</b> Tu		<b>2</b> W		<b>17</b> Th		<b>2</b> Sa		<b>17</b> Su	
0137 0707 1321 1939	8.5 3.0 8.9 1.6	260 90 270 50	0110 Th 0628 1240 1909	7.9 3.3 9.2 1.0	240 100 280 30	0250 F 0646 1242 1944	7.2 4.3 9.2 0.0	220 130 280 0	0254 M 0720 1259 2016	7.9 4.9 8.9 1.3	240 150 270 40
<b>3</b> Tu		<b>18</b> W		<b>3</b> Th		<b>18</b> F		<b>3</b> Su		<b>18</b> M	
0222 0739 1346 2017	8.2 3.6 8.9 1.6	250 110 270 50	0110 Th 0705 1310 1952	7.9 3.6 9.2 0.7	240 110 280 20	0203 F 0710 1300 1953	7.9 4.3 9.2 1.0	240 130 280 30	0328 M 0755 1330 2054	7.2 5.2 8.5 1.3	220 160 260 40
<b>4</b> W		<b>19</b> Th		<b>4</b> F		<b>19</b> Sa		<b>4</b> M		<b>19</b> Tu	
0307 0811 1411 2058	7.5 3.9 8.9 1.6	230 120 270 50	0159 F 0745 1344 2043	7.9 3.9 9.2 0.7	240 120 280 20	0257 M 0734 1326 2031	7.5 4.6 8.5 0.0	230 140 280 0	0408 M 0835 1405 2135	7.2 5.2 8.2 1.6	220 160 250 50
<b>5</b> Th		<b>20</b> F		<b>5</b> Sa		<b>20</b> Su		<b>5</b> Tu		<b>20</b> W	
0354 0844 1438 2144	7.2 4.6 8.5 2.0	220 140 260 60	0252 F 0745 1344 2043	7.9 3.9 9.2 0.7	240 120 280 20	0354 M 0827 1413 2137	7.5 4.6 8.9 0.3	230 140 270 10	0452 M 0921 1445 2217	7.2 5.2 7.9 2.0	220 160 240 60
<b>6</b> F		<b>21</b> Sa		<b>6</b> Su		<b>21</b> M		<b>6</b> W		<b>21</b> Th	
0450 0919 1508 2239	6.9 5.2 8.2 2.3	210 160 250 70	0352 Sa 0831 1425 2142	7.5 4.6 8.9 0.7	230 140 270 20	0455 M 0929 1509 2240	7.2 4.9 8.2 0.7	220 150 250 20	0540 W 1019 1534 2303	7.2 5.6 7.5 2.3	220 170 230 70
<b>7</b> Sa		<b>22</b> Su		<b>7</b> M		<b>22</b> Tu		<b>7</b> Th		<b>22</b> F	
0455 0927 1513 2250	6.9 4.9 8.5 0.7	210 150 260 20	0459 Su 0927 1513 2250	7.2 3.9 8.5 20	220 150 270 60	0559 M 0945 1505 2256	7.2 5.6 7.5 2.0	220 150 270 60	0630 Th 1130 1617 2345	7.2 5.2 7.9 1.0	220 160 270 30
<b>8</b> Su		<b>23</b> M		<b>8</b> Tu		<b>23</b> W		<b>8</b> F		<b>23</b> Sa	
0601 1003 1545 ● 2346	6.6 5.6 7.9 2.3	200 170 240 70	0617 M 1036 1615	6.9 5.2 7.9	210 160 240	0634 Tu 1050 1554 2358	6.6 5.6 7.2	200 170 220	0717 F 1205 1741	7.5 4.9 7.2	230 150 200
<b>9</b> M		<b>24</b> Tu		<b>9</b> W		<b>24</b> Th		<b>9</b> Sa		<b>24</b> Su	
0731 1112 1634	6.6 5.9 7.5	200 180 230	0006 Tu 0737 1206 1737	1.0 6.9 5.2	30 210 160	0738 W 1220 1703	6.9 5.6 6.6	210 170 200	0051 Th 0758 1337 1919	1.3 7.5 4.3	40 230 130
<b>10</b> Tu		<b>25</b> W		<b>10</b> Th		<b>25</b> F		<b>10</b> Su		<b>25</b> M	
0103 0849 1308 1749	2.3 6.9 5.9 6.9	70 210 180 210	0124 W 0842 1347 1919	1.3 7.2 4.9	40 220 150	0104 Th 0828 1355 1841	2.3 7.2 5.2	70 220 190	0139 Su 0834 1506 2049	3.3 8.2 6.9	100 250 210
<b>11</b> W		<b>26</b> Th		<b>11</b> F		<b>26</b> Sa		<b>11</b> M		<b>26</b> Tu	
0215 0938 1444 1937	2.3 7.2 5.6 6.9	70 220 170 210	0231 Th 0932 1506 2053	1.3 7.5 4.3	40 230 190	0203 F 0907 1458 2025	2.6 7.5 6.2	80 230 190	0231 M 0909 1552 2204	3.6 8.9 6.9	110 270 210
<b>12</b> Th		<b>27</b> F		<b>12</b> Sa		<b>27</b> Su		<b>12</b> Tu		<b>27</b> W	
0310 1013 1538 2103	2.3 7.5 4.9 6.9	70 230 150 210	0326 F 1012 1603 2207	1.6 7.9 3.3	50 240 100 7.5	0251 Sa 0939 1543 2137	2.6 7.9 3.6	80 240 210	0321 Tu 0944 1640 2308	3.9 9.2 7.2	120 280 220
<b>13</b> F		<b>28</b> Sa		<b>13</b> Su		<b>28</b> M		<b>13</b> W		<b>28</b> Th	
0352 1042 1618 2203	2.3 7.9 4.3 7.2	70 240 130 220	0412 Sa 1046 1650 2308	2.0 2.6 7.5	60 250 70	0331 Su 1006 1621 2235	3.0 2.6 6.9	90 260 210	0418 M 1033 1722 1758	3.3 8.5 1.3	100 260 40
<b>14</b> Sa		<b>29</b> Su		<b>14</b> M		<b>29</b> Tu		<b>14</b> O		<b>29</b> F	
0427 1106 1651 2252	2.3 8.2 3.6 7.5	70 250 110 230	0452 Su 1116 1731	2.3 8.5 2.0	70 260 60	0408 M 1033 1657 2327	3.0 2.0 7.2	90 260 220	0004 Tu 0458 1104 1758	7.2 3.9 1.3	220 120 40
<b>15</b> Su		<b>30</b> M		<b>15</b> Tu		<b>30</b> W		<b>15</b> O		<b>30</b> Sa	
0457 1129 1723 2338	2.3 8.2 2.6 7.9	70 250 80 240	0003 M 0528 1144 1808	7.5 2.6 8.5 1.3	230 80 260 40	0445 Tu 1100 1734	3.3 8.9 1.3	100 270 40	0053 W 0536 1133 1833	7.5 4.3 8.9	230 130 40
<b>31</b> Th				<b>31</b>				<b>15</b> F		<b>30</b> Sa	
0135 0612 1201 1906				0135 Th 0612 1201 1906				0111 F 0544 1143 1854		0203 Sa 0626 1211 1932	
0135 0612 1201 1906				0135 Th 0612 1201 1906				0111 F 0544 1143 1854		0203 Sa 0626 1211 1932	

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Al Ahmadi, Kuwait, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0235	7.5	230	<b>16</b> M	0238	8.5	260	<b>1</b> W	0254	8.5	260
	0659	5.6	170		0717	4.9	150		0751	5.2	160
	1243	9.2	280		1319	10.2	310		1343	9.2	280
	2003	1.6	50		2022	0.7	20		2026	2.3	70
<b>2</b> M	0306	7.9	240	<b>17</b> Tu	0320	8.5	260	<b>2</b> Th	0319	8.5	260
	0734	5.6	170		0810	4.6	140		0832	4.9	150
	1316	9.2	280		1413	9.8	300		1424	8.9	270
	2034	1.6	50		2106	1.0	30		2053	2.6	80
<b>3</b> Tu	0338	7.9	240	<b>18</b> W	0402	8.5	260	<b>3</b> F	0346	8.9	270
	0812	5.6	170		0907	4.6	140		0920	4.6	140
	1352	8.9	270		1510	9.2	280		1510	8.2	250
	2105	2.0	60		2150	1.6	50		2124	3.3	100
<b>4</b> W	0411	7.9	240	<b>19</b> ○	0443	8.9	270	<b>4</b> Sa	0416	8.9	270
	0856	5.6	170		1010	4.6	140		1016	4.6	140
	1433	8.5	260		1611	8.5	260		1606	7.5	230
	2137	2.3	70		2235	2.6	80		2200	3.6	110
<b>5</b> Th	0446	7.9	240	<b>20</b> F	0526	8.9	270	<b>5</b> Su	0452	9.2	280
	0948	5.2	160		1123	4.3	130		1124	4.3	130
	1519	8.2	250		1722	7.5	230		1719	6.9	210
	2212	2.6	80		2322	3.3	100		2243	4.3	130
<b>6</b> F	0523	8.2	250	<b>21</b> ○	0611	8.9	270	<b>6</b> M	0535	9.2	280
	1049	5.2	160		1246	4.3	130		1245	3.9	120
	1615	7.5	230		1849	6.9	210		1900	6.6	200
	2251	3.3	100						2337	4.9	150
<b>7</b> Sa	0603	8.5	260	<b>22</b> Su	0013	4.3	130	<b>7</b> Tu	0627	9.5	290
	1203	4.9	150		0658	9.2	280		1407	3.3	100
	1728	6.9	210		1410	3.6	110		2053	6.6	200
	2336	3.6	110		2026	6.9	210				
<b>8</b> Su	0645	8.9	270	<b>23</b> M	0113	4.9	150	<b>8</b> W	0049	5.6	170
	1323	4.3	130		0748	9.2	280		0726	9.8	300
	1906	6.6	200		1521	3.3	100		1518	2.3	70
					2156	6.9	210		2218	7.2	220
<b>9</b> M	0030	4.3	130	<b>24</b> Tu	0217	5.6	170	<b>9</b> Th	0214	5.9	180
	0729	9.2	280		0837	9.2	280		0830	9.8	300
	1434	3.6	110		1617	2.6	80		1616	1.6	50
	2049	6.6	200		2308	7.2	220		2319	7.5	230
<b>10</b> Tu	0133	4.6	140	<b>25</b> W	0319	5.9	180	<b>10</b> F	0330	5.9	180
	0815	9.5	290		0923	9.5	290		0933	10.2	310
	1534	2.6	80		1702	2.3	70		1706	1.0	30
	2212	6.9	210								
<b>11</b> W	0239	5.2	160	<b>26</b> Th	0001	7.5	230	<b>11</b> Sa	0008	8.2	250
	0903	9.8	300		0413	5.9	180		0433	5.6	170
	1626	2.0	60		1007	9.5	290		1033	10.5	320
	2319	7.2	220		1739	2.0	60		●	1751	0.7
<b>12</b> Th	0341	5.2	160	<b>27</b> F	0041	7.9	240	<b>12</b> Su	0051	8.5	260
	0952	10.2	310		0458	5.9	180		0527	4.9	150
	1716	1.3	40		1047	9.5	290		1130	10.5	320
					1812	2.0	60		1833	0.7	20
<b>13</b> F	0017	7.9	240	<b>28</b> Sa	0113	7.9	240	<b>13</b> M	0129	8.5	260
	0438	5.2	160		0536	5.9	180		0617	4.6	140
	1042	10.5	320		1124	9.8	300		1224	10.5	320
	●	1804	0.7		1843	1.6	50		1913	0.7	20
<b>14</b> Sa	0108	8.2	250	<b>29</b> Su	0141	8.2	250	<b>14</b> Tu	0205	8.9	270
	0532	5.2	160		0610	5.6	170		0706	4.3	130
	1133	10.5	320		1158	9.8	300		1317	10.2	310
	1850	0.3	10		1910	1.6	50		1953	1.3	40
<b>15</b> Su	0154	8.2	250	<b>30</b> M	0206	8.2	250	<b>15</b> W	0239	8.9	270
	0624	4.9	150		0642	5.6	170		0756	3.9	120
	1225	10.5	320		1231	9.8	300		1410	9.5	290
	1936	0.3	10		1936	2.0	60		2031	2.0	60
	31	0230	8.2	250				<b>16</b> F	0220	8.9	270
	0715	5.2	160		0716	9.5	290		0809	3.6	110
	1306	9.5	290		1307	2.0	60		1421	8.5	260
	2001	2.0	60						2011	3.3	100

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Al Ahmadi, Kuwait, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0223 <b>1</b> M 0922 1.6 50 Tu 1623 6.9 210 2058 4.9 150 ●	ft 9.2 50 Tu 1023 2.0 60 1751 6.6 200 2157 5.6 170	cm 280 1023 200 1751 5.6 170	<b>16</b> 0250 W 1129 2.3 70 1917 6.6 200 2312 5.9 180	h m 0334 <b>1</b> Th 1126 1.0 30 1904 6.9 210 2321 5.2 160	ft 8.2 30 1126 1.0 30 1904 6.9 210 2321 5.2 160	cm 250 30 1904 6.9 210 2321 5.2 160	<b>16</b> 0335 F 1141 2.3 70 1922 6.9 210	h m 0455 <b>1</b> Sa 1212 1.3 40 1926 7.5 230	ft 7.5 40 1212 1.3 40 1926 7.5 230	cm 230 40 1926 7.5 230	<b>16</b> 0410 Su 1128 3.0 90 1855 7.5 230
<b>2</b> Tu 1026 1.6 50 ● 2152 5.2 160	0302 1026 1.6 50 ● 2152 5.2 160	8.9 1129 2.3 70 1917 6.6 200 2312 5.9 180	<b>17</b> 0326 W 1244 7.2 220 2012 7.2 220	0450 1244 F 2012 7.2 220	7.5 30 1244 7.2 220 2012 7.2 220	230 30 1244 7.2 220 2012 7.2 220	<b>17</b> 0052 Su 1246 2.3 70 2012 7.2 220	0052 0631 Su 1316 2.0 60 2016 7.9 240	4.6 6.9 210 1316 2.0 60 2016 7.9 240	140 210 210 80	<b>17</b> 0030 M 1219 3.3 100 1938 7.9 240
<b>3</b> W 1145 1.6 50 1924 6.6 200 2309 5.9 180	0352 1145 1.6 50 ● 2152 5.2 160	8.5 1244 2.3 70 2033 6.9 210	<b>18</b> 0414 Th 1244 2.3 70 2033 6.9 210	0103 0630 Sa 1355 2.1 40 2102 7.5 230	4.9 150 7.2 220 1355 1.3 40 2102 7.5 230	150 220 190 80	<b>18</b> 0144 Su 1023 6.2 190 1346 2.6 80 2052 7.5 230	5.2 160 6.2 190 1415 2.6 80 2058 8.2 250	120 210 210 80	<b>18</b> 0155 Tu 1313 3.9 120 2016 8.5 260	
<b>4</b> Th 1312 1.3 40 2047 6.9 210	0459 1312 1.3 40 ● 2152 5.2 160	8.2 1312 1.3 40 2047 6.9 210	<b>19</b> 0105 F 0532 6.9 210 1356 2.3 70 2121 7.2 220	0232 0814 Su 1454 1.3 40 2143 7.9 240	4.3 130 7.2 220 1454 1.3 40 2143 7.9 240	130 220 190 80	<b>19</b> 0251 M 0814 6.2 190 1436 3.0 90 2124 7.9 240	4.6 140 6.2 190 1507 3.0 90 2136 8.5 260	120 210 210 80	<b>19</b> 0257 W 0855 6.2 190 1408 4.3 130 2052 8.9 270	
<b>5</b> F 0629 7.9 240 1428 1.3 40 2143 7.5 230	0054 0629 7.9 240 ● 2152 5.2 160	5.9 0729 6.6 200 1453 2.3 70 2156 7.5 230	<b>20</b> 0238 Sa 0729 6.6 200 1453 2.3 70 2156 7.5 230	0335 0935 M 1542 1.6 50 2218 8.2 250	3.3 100 7.2 220 1542 1.6 50 2218 8.2 250	100 220 90 80	<b>20</b> 0336 Tu 0928 6.6 200 1517 3.0 90 2152 8.2 250	3.6 110 6.6 200 1554 3.6 110 2211 8.9 270	70 220 110 90	<b>20</b> 0346 Th 1008 6.6 200 1459 4.6 140 2126 9.2 280	
<b>6</b> Sa 0809 7.9 240 1527 1.0 30 2226 7.9 240	0233 0809 7.9 240 ● 2152 5.2 160	5.2 0856 6.6 200 1536 2.3 70 2224 7.9 240	<b>21</b> 0332 Su 0856 6.6 200 1536 2.3 70 2224 7.9 240	0425 1041 Tu 1625 2.3 70 2250 8.5 260	2.3 70 7.5 230 1625 2.3 70 2250 8.5 260	70 260 210 80	<b>21</b> 0413 W 1025 6.9 210 1553 3.3 100 2217 8.5 260	3.0 90 6.9 210 1637 3.9 120 2244 9.2 280	50 220 220 80	<b>21</b> 0429 F 1109 6.9 210 1548 4.6 140 2202 9.5 290	
<b>7</b> Su 0931 8.2 250 1615 1.0 30 2302 8.2 250	0340 0931 8.2 250 ● 2152 5.2 160	4.3 0955 M 1612 2.3 70 2249 8.2 250	<b>22</b> 0410 M 0955 6.9 210 1612 2.3 70 2249 8.2 250	0509 1139 W 1704 2.6 80 ● 2319 8.9 270	1.6 50 7.5 230 1704 2.6 80 ● 2319 8.9 270	50 270 80 80	<b>22</b> 0448 Th 1116 7.2 220 1628 3.6 110 2242 8.9 270	2.0 60 7.2 220 1718 4.3 130 ● 2316 9.2 280	40 230 130 80	<b>22</b> 0510 Sa 1204 7.5 230 1635 4.9 150 ● 2240 9.8 300	
<b>8</b> M 1036 8.5 260 1656 1.3 40 2333 8.5 260	0432 1036 8.5 260 ● 2152 5.2 160	3.3 1043 Tu 1642 2.6 80 2310 8.2 250	<b>23</b> 0442 Tu 1043 7.2 220 1642 2.6 80 2310 8.2 250	0549 1232 Th 1741 3.3 100 2347 8.9 270	1.0 30 7.9 240 1741 3.3 100 2347 8.9 270	30 240 80 80	<b>23</b> 0522 F 1205 7.5 230 1703 3.9 120 ○ 2310 9.2 280	1.3 40 7.5 230 1756 4.6 140 2347 9.2 280	40 30 130 80	<b>23</b> 0552 Sa 1254 7.9 240 1722 4.9 150 ● 2321 10.2 310	
<b>9</b> Tu 1134 8.5 260 ● 1734 1.6 50	0517 1134 8.5 260 ● 1734 1.6 50	2.6 1127 7.5 230 1709 2.6 80 ○ 2331 8.5 260	<b>24</b> 0512 W 1127 7.5 230 1709 2.6 80 ○ 2331 8.5 260	0627 1320 F 1817 3.6 110	0.7 20 7.5 230 1320 3.6 110	20 80 90 110	<b>24</b> 0558 Sa 1253 7.5 230 1741 4.3 130 2341 9.2 280	0.7 20 7.5 230 1402 7.5 230 1833 4.9 150	30 150 90 150	<b>24</b> 0636 M 1342 7.9 240 1809 4.9 150	
<b>10</b> W 0002 8.9 270 0558 2.0 60 1228 8.5 260 1809 2.3 70	0002 0558 2.0 60 ● 1228 8.5 260 1809 2.3 70	8.9 0542 Th 1210 7.9 240 1737 3.0 90 2351 8.9 270	<b>25</b> 0542 Th 1210 7.9 240 1737 3.0 90 2351 8.9 270	0015 0703 Sa 1406 4.3 130	8.9 270 7.5 230 1406 4.3 130	10 80 230 130	<b>25</b> 0637 Su 1342 7.5 230 1821 4.3 130	0.3 10 7.5 230 1439 7.5 230 1908 4.9 150	10 30 230 150	<b>25</b> 0005 Tu 0722 0.3 10 1430 7.9 240 1858 4.9 150	
<b>11</b> Th 0030 8.9 270 0639 1.3 40 1319 8.2 250 1844 3.0 90	0030 0639 1.3 40 ● 1319 8.2 250 1844 3.0 90	8.9 0614 F 1253 7.9 240 1807 3.3 100	<b>26</b> 0043 Su 0740 0.7 20 1449 7.2 220 1927 4.6 140	8.9 270 0.7 20 1449 7.2 220 1927 4.6 140	8.9 270 0.0 20 7.5 230 4.6 140	10 80 0 20 230 130	<b>26</b> 0049 M 0720 0.0 20 1434 7.5 230 1905 4.6 140	8.9 270 1.3 40 7.2 220 5.2 160	10 40 230 150	<b>26</b> 0053 W 0809 0.3 10 1518 7.9 240 1950 4.9 150	
<b>12</b> F 0056 8.9 270 0719 1.3 40 1407 7.9 240 1919 3.3 100	0056 0719 1.3 40 ● 1407 7.9 240 1919 3.3 100	8.9 0015 Sa 0648 1.0 30 1340 7.9 240 1840 3.9 120	<b>27</b> 0011 M 0818 1.0 30 1532 7.2 220 2004 4.9 150	8.5 260 1.0 30 1620 7.2 220 2004 4.9 150	260 290 0 30 7.2 220 4.9 150	10 80 0 20 230 130	<b>27</b> 0121 W 0810 0.0 20 1528 7.5 230 1955 4.9 150	8.9 270 1.3 40 7.2 220 5.2 160	10 40 230 150	<b>27</b> 0144 Th 0858 0.3 10 1605 8.2 250 2047 4.9 150	
<b>13</b> Sa 0123 8.9 270 0759 1.3 40 1455 7.5 230 1953 3.9 120	0123 0759 1.3 40 ● 1455 7.5 230 1953 3.9 120	8.9 0042 Su 0727 0.7 20 1430 7.5 230 1917 4.3 130	<b>28</b> 0140 Tu 0901 1.3 40 1620 6.9 210 2044 5.2 160	8.5 280 1.3 40 1625 7.2 220 2052 4.9 150	280 280 10 10 7.2 220 4.9 150	20 80 10 10 220 130	<b>28</b> 0154 Th 0921 1.6 50 1634 7.2 220 2104 5.6 170	8.5 280 50 50 220 130	20 80 10 10 220 130	<b>28</b> 0240 F 0948 1.0 30 1654 8.2 250 2149 4.9 150	
<b>14</b> Su 0150 8.9 270 0842 1.3 40 1546 7.2 220 2029 4.6 140	0150 0842 1.3 40 ● 1546 7.2 220 2029 4.6 140	8.9 0114 M 0813 0.3 10 1526 7.2 220 2000 4.6 140	<b>29</b> 0212 W 0948 1.6 50 1714 6.9 210 2132 5.6 170	7.9 240 50 50 6.9 210 5.6 170	234 234 20 20 6.9 210 5.6 170	270 270 20 20 220 130	<b>29</b> 0231 Th 1004 0.7 20 1726 7.2 220 2158 5.2 170	8.2 250 60 60 7.2 220 5.6 170	20 80 10 10 220 130	<b>29</b> 0341 Sa 1039 1.6 50 1744 8.2 250 ● 2302 4.6 140	
<b>15</b> M 0219 8.5 260 0929 1.6 50 1642 6.9 210 2109 5.2 160	0219 0929 1.6 50 ● 1642 6.9 210 2109 5.2 160	8.5 0151 Tu 0908 0.7 20 1631 6.9 210 2051 4.9 150	<b>30</b> 0249 F 1041 2.0 60 1818 6.9 210 ● 2236 5.6 170	7.5 230 60 60 6.9 210 5.6 170	303 303 30 30 6.9 210 5.6 170	250 250 30 30 220 130	<b>30</b> 0315 Sa 1043 2.3 70 1829 7.5 230 ● 2305 5.6 170	7.5 230 70 70 7.5 230 5.6 170	20 80 10 10 220 130	<b>30</b> 0453 Su 1132 2.3 70 1834 8.5 260	
			<b>31</b> 0236 W 1012 0.7 20 1745 6.9 210 ● 2157 5.2 160	8.5 260 20 20 6.9 210 5.2 160					<b>31</b> 0029 M 0621 7.2 220 1229 3.0 90 1922 8.9 270		

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Ras At Tannurah, Saudi Arabia, 2018

Times and Heights of High and Low Waters

January				February				March				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 0322 M 0942 1617 2232	ft 6.0 0.7 6.9 2.3	cm 183 21 210 70	h m 16 Tu 1036 1713 2331	ft 5.5 1.1 6.3 2.5	cm 168 34 192 76	h m 1 Th 1115 1749	ft 6.4 0.1 7.5	cm 195 3 229	h m 16 F 1127 1755	ft 5.8 0.7 6.5	cm 177 21 198	
●												
2 0417 Tu 1033 O 1710 ● 2328	6.2 0.4 7.3 2.2	17 0500 W 1112 1746	5.6 1.0 6.4	2 F 0011 1202 1833	1.8 0.0 7.5	55 0 229	17 0010 Sa 0546 1157 1823	1.9 6.0 0.6 6.5	58 183 18 198	2 0446 F 1104 O 1732 ● 2352	6.5 0.2 7.2 1.4	198 6 219 43
3 0508 W 1123 1800	6.5 0.2 7.6	18 0003 Th 0533 1144 1817	2.4 5.7 0.8 6.6	3 Sa 0054 0633 1246 1916	1.6 6.8 0.1 7.4	49 207 3 226	18 Su 0037 0618 1226 1851	1.7 6.1 0.6 6.6	52 186 18 201	3 Sa 0533 1148 1812	6.7 0.2 7.3	204 6 223
4 0020 Th 0558 1212 1848	2.1 6.6 0.1 7.7	19 0033 F 0606 1215 1847	2.3 5.9 0.8 6.6	4 Su 0135 0718 1329 1957	1.4 6.7 0.4 7.2	43 204 12 219	19 M 0103 0651 1254 1920	1.6 6.2 0.7 6.5	49 189 19 198	4 Su 0029 0616 1228 1850	1.2 6.9 0.3 7.2	37 210 9 219
5 0110 F 0646 1300 1935	2.0 6.6 0.2 7.6	20 Sa 0102 0638 1246 1916	2.2 5.9 0.8 6.6	5 M 0216 0804 1411 2037	1.4 6.4 0.8 6.7	43 195 24 204	20 Tu 0130 0727 1324 1951	1.5 6.2 0.9 6.4	46 189 27 195	5 M 0105 0658 1306 1926	1.0 6.8 0.6 6.9	30 207 18 210
6 0158 Sa 0735 1348 2022	2.0 6.5 0.5 7.3	21 Su 0130 0711 1316 1947	2.1 5.9 0.8 6.5	6 Tu 0258 0850 1453 2118	1.4 6.1 1.3 6.3	43 186 40 192	21 W 0200 0806 1357 2026	1.4 6.1 1.2 6.3	43 186 37 192	6 Tu 0140 0739 1342 2002	1.0 6.6 1.1 6.5	30 201 34 198
7 0248 Su 0826 1437 2110	1.9 6.3 0.9 6.9	22 M 0200 0747 1347 2020	2.0 5.9 0.9 6.4	7 W 0342 0940 1538 ● 2201	1.6 5.7 1.9 5.7	49 174 58 174	22 Th 0236 0850 1436 2105	1.3 6.0 1.6 6.0	40 183 49 183	7 W 0215 0820 1419 2037	1.1 6.3 1.6 6.1	34 192 49 186
8 0339 M 0919 1528 2159	2.0 5.9 1.4 6.4	23 Tu 0233 0827 1422 2056	1.9 5.8 1.2 6.2	8 Th 0431 1036 1633 2252	1.7 5.3 2.5 5.3	52 162 76 162	23 F 0320 0942 1524 ● 2152	1.4 5.7 2.1 5.6	43 174 64 171	8 Th 0253 0904 1459 2114	1.3 5.9 2.1 5.6	40 180 64 171
9 0434 Tu 1017 1624 ● 2253	2.0 5.6 1.9 5.9	24 W 0310 0912 1502 2137	1.8 5.6 1.5 5.9	9 F 0528 1147 1747 2355	1.9 5.0 2.9 4.9	55 152 88 149	24 Sa 0416 1048 1630 2254	1.5 5.5 2.7 5.3	46 168 82 162	9 F 0335 0953 1547 ● 2157	1.6 5.5 2.7 5.2	49 168 82 158
10 0531 W 1123 1728 2352	2.0 5.3 2.4 5.5	25 Th 0357 1005 1551 ● 2225	1.8 5.4 1.9 5.7	10 Sa 0633 1313 1925	1.9 4.9 3.2	55 149 98	25 Su 0528 1211 1814	1.6 5.4 3.1	49 165 94	10 Sa 0427 1054 1656 2254	1.9 5.1 3.1 4.8	58 155 94 146
11 0631 Th 1239 1844	1.9 5.1 2.7	26 F 0453 1111 1656 2325	1.7 5.3 2.4 5.4	11 Su 0111 0741 1435 2054	4.7 1.8 5.1 3.1	52 143 155 94	26 M 0015 0653 1343 2012	5.1 1.5 5.6 3.0	155 46 171 91	11 Su 0533 1218 1840	2.0 4.9 3.3	61 149 101
12 0056 F 0731 1355 2005	5.3 1.8 5.2 2.9	27 Sa 0601 1230 1823	1.6 5.4 2.8	12 M 0222 0843 1535 2154	4.8 1.7 5.5 2.8	146 152 168 85	27 Tu 0143 0813 1500 2131	5.2 1.2 6.1 2.7	158 37 186 82	12 M 0015 0650 1353 2017	4.6 2.1 5.0 3.2	140 64 152 98
13 0200 Sa 0826 1501 2116	5.1 1.6 5.4 2.8	28 Su 0039 0715 1355 2004	5.3 1.4 5.7 2.9	13 Tu 0318 0934 1619 2237	5.0 1.4 5.8 2.6	152 43 177 79	28 W 0256 0920 1600 2226	5.6 0.8 6.6 2.2	171 24 201 67	13 Tu 0140 0802 1501 2119	4.6 1.9 5.3 2.9	140 58 162 88
14 0255 Su 0915 1554 2211	5.2 1.4 5.7 2.7	29 M 0157 0825 1509 2129	5.4 1.1 6.2 2.7	14 W 0402 1017 1655 2311	5.3 1.1 6.1 2.3	165 34 186 70				14 W 0245 0901 1548 2203	4.9 1.6 5.6 2.5	149 49 171 76
15 0343 M 0958 1636 2254	5.3 1.3 6.0 2.6	30 Tu 0306 0928 1610 2233	5.7 0.7 6.7 2.4	15 Th 0440 1054 1726 2342	5.5 0.9 6.3 2.1	168 27 192 64				15 Th 0333 0947 1624 2238	5.2 1.3 5.9 2.2	158 40 180 67
		31 W 1024 1702 ● 2325	6.1 0.3 2.0	31 W 0405 1024 1702 ● 2325	6.1 0.3 2.2	186 9 61				31 Sa 0432 1049 1708 ● 2326	6.5 0.7 7.0 1.2	198 21 213 37

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

## Ras At Tannurah, Saudi Arabia, 2018

## Times and Heights of High and Low Waters

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

# Ras At Tannurah, Saudi Arabia, 2018

Times and Heights of High and Low Waters

July				August				September															
	Time	Height			Time	Height			Time	Height													
	h m	ft	cm		h m	ft	cm		h m	ft	cm												
<b>1</b> Su	0023	1.5	46	<b>16</b> M	0038	0.8	24	<b>1</b> W	0106	1.6	49	<b>16</b> Th	0152	1.4	43	<b>1</b> Sa	0140	2.1	64	<b>16</b> Su	0250	2.8	85
	0657	7.0	213		0712	8.1	247		0735	7.1	216		0816	7.6	232		0805	6.9	210		0901	6.4	195
	1309	3.0	91		1332	2.5	76		1345	2.7	82		1433	2.1	64		1410	2.2	67		1517	2.3	70
	1847	6.4	195		1911	7.3	223		1933	6.7	204		2029	7.2	219		2026	6.8	207		2139	6.4	195
<b>2</b> M	0056	1.6	49	<b>17</b> Tu	0126	0.9	27	<b>2</b> Th	0137	1.7	52	<b>17</b> F	0237	2.0	61	<b>2</b> Su	0215	2.4	73	<b>17</b> M	0343	3.4	104
	0730	7.0	213		0759	8.0	244		0806	7.0	213		0859	7.2	219		0842	6.7	204		0948	6.0	183
	1342	3.0	91		1421	2.5	76		1416	2.6	79		1519	2.2	67		1450	2.3	70		1611	2.6	79
	1921	6.3	192		2001	7.2	219		2010	6.6	201		2119	6.8	207		2114	6.6	201		2240	6.0	183
<b>3</b> Tu	0130	1.6	49	<b>18</b> W	0216	1.3	40	<b>3</b> F	0209	1.9	58	<b>18</b> Sa	0325	2.6	79	<b>3</b> M	0259	2.9	88	<b>18</b> Tu	0458	3.8	116
	0803	6.9	210		0846	7.6	232		0839	6.8	207		0944	6.7	204		0926	6.4	195		1049	5.6	171
	1417	3.0	91		1511	2.5	76		1451	2.6	79		1609	2.4	73		1541	2.4	73		1719	2.8	85
	1958	6.3	192		2054	6.9	210		2051	6.4	195		2216	6.4	195		2213	6.4	195				
<b>4</b> W	0206	1.7	52	<b>19</b> Th	0306	1.7	52	<b>4</b> Sa	0246	2.2	67	<b>19</b> Su	0422	3.1	94	<b>4</b> Tu	0358	3.4	104	<b>19</b> W	0002	5.8	177
	0839	6.7	204		0935	7.2	219		0916	6.6	201		1036	6.2	189		1022	6.1	186		0638	3.9	119
	1455	2.9	88		1604	2.5	76		1532	2.5	76		1707	2.6	79		1648	2.5	76		1210	5.4	165
	2038	6.1	186		2150	6.6	201		2140	6.3	192		2324	6.0	183		2328	6.2	189		1837	2.9	88
<b>5</b> Th	0244	1.9	58	<b>20</b> F	0401	2.2	67	<b>5</b> Su	0330	2.6	79	<b>20</b> M	0536	3.6	110	<b>5</b> W	0528	3.8	116	<b>20</b> Th	0133	5.8	177
	0916	6.6	201		1027	6.8	207		1000	6.4	195		1139	5.8	177		1138	5.9	180		0804	3.8	116
	1537	2.9	88		1700	2.5	76		1623	2.5	76		1813	2.7	82		1811	2.4	73		1331	5.5	168
	2122	6.0	183		2252	6.2	189		2238	6.1	186									1949	2.7	82	
<b>6</b> F	0326	2.1	64	<b>21</b> Sa	0502	2.8	85	<b>6</b> M	0426	3.0	91	<b>21</b> Tu	0047	5.9	180	<b>6</b> Th	0057	6.3	192	<b>21</b> F	0242	6.1	186
	0958	6.4	195		1124	6.4	195		1054	6.2	189		1254	5.6	171		0723	3.8	116		0902	3.5	107
	1624	2.8	85		1800	2.5	76		1725	2.5	76		1923	2.7	82		1305	6.0	183		1434	5.7	174
	2214	5.9	180						2349	6.1	186						1934	2.2	67		2047	2.4	73
<b>7</b> Sa	0414	2.4	73	<b>22</b> Su	0004	6.0	183	<b>7</b> Tu	0541	3.4	104	<b>22</b> W	0211	6.0	183	<b>7</b> F	0220	6.7	204	<b>22</b> Sa	0330	6.3	192
	1045	6.2	189		0614	3.2	98		1202	6.0	183		0835	3.8	116		0849	3.5	107		0944	3.1	94
	1718	2.7	82		1227	6.1	186		1837	2.4	73		1406	5.7	174		1422	6.3	192		1521	6.0	183
	2315	5.8	177		1902	2.4	73					2027	2.5	76		2045	1.8	55		2134	2.1	64	
<b>8</b> Su	0512	2.7	82	<b>23</b> M	0121	6.0	183	<b>8</b> W	0112	6.2	189	<b>23</b> Th	0315	6.3	192	<b>8</b> Sa	0324	7.2	219	<b>23</b> Su	0406	6.6	201
	1140	6.1	186		0735	3.5	107		0717	3.6	110		0935	3.6	110		0949	3.0	91		1018	2.8	85
	1816	2.5	76		1333	5.9	180		1319	6.1	186		1503	5.9	180		1524	6.8	207		1600	6.4	195
					2002	2.4	73		1949	2.1	64		2120	2.3	70		2144	1.4	43		2212	1.9	58
<b>9</b> M	0024	5.9	180	<b>24</b> Tu	0234	6.1	186	<b>9</b> Th	0231	6.6	201	<b>24</b> F	0402	6.6	201	<b>9</b> Su	0417	7.6	232	<b>24</b> M	0438	6.8	207
	0621	3.0	91		0851	3.5	107		0847	3.5	107		1018	3.3	101		1037	2.6	79		1048	2.5	76
	1243	6.0	183		1433	5.9	180		1432	6.3	192		1549	6.2	189		1618	7.2	219		1634	6.7	204
	1916	2.2	67		2056	2.2	67		2056	1.7	52		2203	2.0	61		2236	1.1	34		2246	1.7	52
<b>10</b> Tu	0138	6.1	186	<b>25</b> W	0333	6.4	195	<b>10</b> F	0337	7.2	219	<b>25</b> Sa	0439	6.8	207	<b>10</b> M	0503	7.9	241	<b>25</b> Tu	0507	6.9	210
	0737	3.2	98		0952	3.5	107		0956	3.3	101		1053	3.1	94		1119	2.2	67		1117	2.2	67
	1349	6.1	186		1525	6.0	183		1534	6.7	204		1627	6.4	195		1706	7.6	232		1707	6.9	210
	2016	1.9	58		2143	2.1	64		2155	1.3	40		2241	1.8	40		2322	1.0	30		2318	1.6	49
<b>11</b> W	0247	6.6	201	<b>26</b> Th	0420	6.6	201	<b>11</b> Sa	0432	7.6	232	<b>26</b> Su	0512	7.0	213	<b>11</b> Tu	0545	8.0	244	<b>26</b> W	0534	7.0	213
	0852	3.2	98		1039	3.3	101		1052	2.9	88		1123	2.9	88		1159	1.9	58		1143	2.0	61
	1451	6.3	192		1609	6.2	189		1629	7.1	216		1701	6.6	201		1751	7.8	238		1739	7.1	216
	2112	1.6	49		2224	1.9	58		2248	1.0	30		2314	1.6	49						2347	1.6	49
<b>12</b> Th	0348	7.1	216	<b>27</b> F	0500	6.9	210	<b>12</b> Su	0522	8.0	244	<b>27</b> M	0541	7.1	216	<b>12</b> W	0005	1.1	34	<b>27</b> Th	0602	7.0	213
	0959	3.1	94		1117	3.2	98		1140	2.6	79		1151	2.7	82		0625	7.9	241		1209	1.9	58
	1548	6.6	201		1647	6.3	192		1720	7.5	229		1732	6.8	207		1237	1.7	52		1812	7.2	219
	2206	1.2	37		2301	1.8	55		2337	0.8	24		2344	1.5	46		1835	7.8	238				
<b>13</b> F	0444	7.5	229	<b>28</b> Sa	0535	7.0	213	<b>13</b> M	0607	8.2	250	<b>28</b> Tu	0608	7.2	219	<b>13</b> Th	0046	1.3	40	<b>28</b> F	0016	1.8	55
	1059	2.9	88		1149	3.1	94		1224	2.3	70		1808	7.7	235		0704	7.7	235		0631	7.0	213
	1642	6.9	210		1722	6.5	198		1808	7.7	235									1236	1.8	55	
	2258	1.0	30		2334	1.6	49													1848	7.3	223	
<b>14</b> Sa	0535	7.9	241	<b>29</b> Su	0606	7.1	216	<b>14</b> Tu	0023	0.8	24	<b>29</b> W	0013	1.5	46	<b>14</b> F	0126	1.8	55	<b>29</b> Sa	0045	2.0	61
	1152	2.8	85		1219	3.0	91		0651	8.2	250		1244	2.4	73		0635	7.2	219		0702	6.9	210
	1732	7.2	219		1755	6.6	201		1307	2.2	67		1835	7.0	213</td								

# Ras At Tannurah, Saudi Arabia, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0157 2.7 82	16 Tu 0313 3.4 104	1 Th 0418 3.4 104	16 F 0458 3.3 101	1 Sa 0536 2.7 82	16 Su 0500 2.6 79	2 Tu 0246 3.1 94	2 W 0423 3.7 113	2 M 0001 6.2 189	2 M 0559 2.5 76	3 W 0012 5.4 165	3 Tu 0655 2.2 67
0816 6.5 198	Tu 0907 5.8 177	1001 5.7 174	1024 5.1 155	1106 5.6 171	1036 5.0 152	0904 6.2 189	W 1002 5.4 165	1121 5.6 171	1225 5.6 171	1141 5.0 152	1643 2.2 67
1422 1.9 58	Tu 1522 2.4 73	1618 2.1 64	1641 2.4 73	1723 2.0 61	2314 5.5 168	1516 2.1 64	W 1625 2.7 82	1744 2.2 67	1842 2.1 64	1746 2.4 73	2200 6.5 198
2059 6.8 207	● 2159 6.1 186	2308 6.4 195	2322 5.7 174			2309 5.8 177					
4 Th 0547 3.8 116	18 Th 0553 3.7 113	3 Sa 0029 6.3 192	18 Su 0031 5.6 171	3 M 0109 6.2 189	18 Tu 0012 5.4 165	0106 5.9 194	Th 1116 5.2 158	0716 3.0 91	0748 2.0 61	0655 2.2 67	1251 5.1 155
1128 5.7 174	F 0713 3.5 107	1245 5.7 174	1248 5.1 155	1340 5.8 177	1854 2.5 76	1757 2.4 73	F 1240 5.2 158	1857 2.7 82	1956 2.2 67	1854 2.5 76	2317 6.3 192
1257 5.8 177	F 1359 5.7 174	2017 2.0 61	1959 2.3 70	2101 2.2 67		1923 2.2 67	F 1359 5.7 174	2017 2.0 61	2101 2.2 67	0748 1.9 58	
2034 1.8 55	Sa 2001 2.5 76			2101 2.2 67						0748 1.9 58	
6 Sa 0206 6.6 201	21 Su 0240 6.0 183	6 Tu 0330 6.8 207	21 W 0305 5.9 180	6 Th 0349 6.2 189	21 F 0301 5.7 174	0840 3.1 194	Su 0858 2.8 85	0952 1.6 49	1008 1.1 34	0923 1.2 37	1412 6.2 189
1412 6.2 189	Su 1442 5.8 177	1552 6.9 210	1531 6.2 189	1628 6.7 204	21 M 0350 5.5 168	2034 1.8 55	Su 1442 5.8 177	2052 2.2 67	2244 2.3 70	1550 6.3 192	2158 2.4 73
2132 1.5 46		2207 1.8 55	2138 2.1 64	2244 2.3 70							
7 Su 0306 7.0 213	22 M 0321 6.2 189	7 W 0414 6.9 210	22 Th 0344 6.1 186	7 F 0431 6.2 189	22 O 0350 5.9 180	0932 2.5 76	M 0935 2.4 73	1031 1.3 40	0431 6.2 189	1007 0.9 27	1513 6.7 204
1513 6.7 204	M 1525 6.1 186	1638 7.2 219	1613 6.6 201	1710 6.9 210	1007 0.9 27	2132 1.5 46	2136 2.0 61	● 2251 1.8 55	2221 2.1 64	1639 6.8 207	O 2250 2.4 73
2221 1.4 43				● 2326 2.4 73							
8 M 0356 7.3 223	23 Tu 0355 6.4 195	8 Th 0453 6.9 210	23 F 0421 6.3 192	8 Sa 0509 6.2 189	23 M 0437 6.2 189	1016 2.1 64	Tu 1008 2.1 64	1106 1.1 34	1120 1.0 30	1051 0.6 18	1605 7.2 219
1605 7.2 219	Tu 1604 6.5 198	1721 7.3 223	1655 7.0 213	1750 7.0 213	23 O 2339 2.3 70	2221 1.4 43	Tu 1604 6.5 198	2214 1.9 58	2302 2.2 67	1726 7.2 219	2339 2.3 70
2221 1.4 43											
9 Tu 0439 7.5 229	24 W 0427 6.5 198	9 F 0530 6.8 207	24 O 0500 6.4 195	9 Su 0004 2.5 76	24 M 0523 6.4 195	1055 1.7 55	W 1038 1.8 55	1140 1.1 34	1153 1.0 30	1135 0.4 226	2306 1.3 40
1651 7.5 229	W 1640 6.8 207	1801 7.4 226	1737 7.3 223	1826 7.0 213	24 F 1135 0.4 226	● 2306 1.3 40	W 1640 6.8 207	2248 1.8 55	2343 2.2 67	1181 2.4 226	
● 2306 1.3 40											
10 W 0519 7.5 229	25 Th 0457 6.7 204	10 Sa 0010 2.2 67	25 Su 0539 6.5 198	10 M 0039 2.6 79	25 Tu 0027 2.3 70	1132 1.4 43	Th 1107 1.5 46	0606 6.7 204	1148 0.8 24	0620 6.1 186	1735 7.7 235
1735 7.7 235	Th 1716 7.1 216	1213 1.1 34	1820 7.4 226	1226 1.1 34	25 M 0620 6.1 186	2346 1.5 46	Th 1716 7.1 216	2322 1.9 58	1902 6.9 210	1220 0.3 229	2346 1.5 46
2346 1.5 46											
11 Th 0557 7.4 226	26 F 0529 6.8 207	11 Su 0046 2.5 76	26 M 0027 2.4 73	11 Tu 0114 2.6 79	26 W 0116 2.2 67	1207 1.3 40	F 1137 1.4 43	0641 6.4 195	0621 6.5 198	0655 6.0 183	1817 7.7 235
1817 7.7 235	F 1753 7.3 223	1246 1.3 40	1228 0.8 24	1300 1.2 37	26 F 0657 2.2 67	● 1817 7.7 235	F 1753 7.3 223	2355 2.0 61	1906 7.5 229	1308 0.4 12	
● 1817 7.7 235				1937 6.7 204							
12 F 0025 1.8 55	27 Sa 0602 6.8 207	12 M 0123 2.7 82	27 Tu 0114 2.5 76	12 W 0150 2.7 82	27 Th 0207 2.2 67	0633 7.2 219	Sa 1208 1.3 40	0716 6.2 189	0705 6.4 195	0731 5.8 195	1241 1.3 40
1241 1.3 40	Sa 1831 7.4 226	1321 1.5 46	1313 0.9 27	1336 1.3 40	27 M 1357 0.6 18	1857 7.5 229	Sa 1208 1.3 40	2255 2.0 61	1954 7.3 223	2035 7.2 219	
1857 7.5 229											
13 Sa 0102 2.1 64	28 Su 0030 2.2 67	13 Tu 0204 3.0 91	28 W 0207 2.7 82	13 Th 0230 2.7 82	28 F 0301 2.2 67	0709 6.9 210	Su 0637 6.7 204	0753 5.9 180	1403 1.1 34	0840 6.2 189	1315 1.5 46
1315 1.5 46	Su 1242 1.3 40	1400 1.7 52	2047 7.1 216	1415 1.5 46	28 F 1450 1.0 30	1938 7.3 223	Su 1242 1.3 40	1913 7.4 226	2052 6.5 198	2127 6.8 207	
1938 7.3 223											
14 Su 0140 2.6 79	29 M 0110 2.5 76	14 W 0251 3.2 98	29 Th 0309 2.8 85	14 F 0314 2.8 85	29 M 0359 2.2 67	0745 6.5 198	M 0717 6.6 201	0834 5.6 171	1500 1.4 43	0851 5.4 165	0823 6.1 186
1352 1.8 55	M 1321 1.4 43	1444 2.0 61	2145 6.8 207	1458 1.7 52	29 M 1548 1.4 43	2020 6.9 210	M 1959 7.2 219	1959 7.2 219	2214 5.9 180	2134 6.0 183	2223 6.4 195
2020 6.9 210											
15 M 0222 3.0 91	30 Tu 0156 2.9 88	15 W 0349 3.3 101	30 F 0421 2.9 88	15 F 0404 2.7 82	30 M 0502 2.1 64	0823 6.1 186	Tu 0801 6.3 192	0923 5.4 165	1607 1.7 52	0939 5.2 158	0823 6.1 186
1433 2.1 64	Tu 1408 1.6 49	1538 2.2 67	1607 1.7 52	1547 1.9 58	30 M 1654 1.9 58	2105 6.5 198	Tu 1408 1.6 49	2052 7.0 213	2218 5.9 180	1548 1.4 43	2223 6.4 195
2105 6.5 198											
16 M 0255 3.2 98	31 W 0255 3.2 98	16 W 0355 3.2 98	31 F 0607 1.9 58	16 O 2221 5.7 174	31 M 1159 5.5 168	0855 6.0 183	W 1505 1.8 55	1505 1.8 55	2154 6.6 201	1810 2.3 70	1810 2.3 70
1505 1.8 55											

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Salman, Bahrain, Persian Gulf, 2018

Times and Heights of High and Low Waters

January				February				March					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m 0407 M 1043 1647 2311	ft 7.5 1.3 7.2 2.0	cm 230 40 220 60	h m 0501 Tu 1130 1742 2348	ft 6.9 2.0 6.6 2.6	cm 210 60 200 80	h m 0535 Th 1214 1816 ● 1823	ft 8.2 0.7 7.5 6.9	cm 250 20 230 210	h m 0001 F 0550 1216 ● 1823	ft 2.3 7.2 1.3 6.9	cm 70 220 40 210		
1 M	16	17 W	17 0537 W 1202 1815	7.2 1.6 6.6	220 250 200	1 Th	0037 F 0622 1300 1901	1.6 8.2 0.7 7.9	50 250 20 240	16 F	0449 F 1116 1716 2334	6.9 1.3 7.2 2.0	210 40 200 60
2 Tu	17 O	18 W	18 0021 W 0608 1234 1844	2.0 7.2 1.6 6.9	60 220 50 210	2 F	0033 Sa 0621 1247 1850	2.0 7.2 1.3 6.9	60 220 40 210	2 F	0522 F 1158 1800	7.9 0.7 7.5	240 20 230
3 W	19 O	20 Th	20 0122 Th 0650 1343 1943	8.2 2.2 1.6 7.9	250 230 50 240	3 Sa	0103 Su 0650 1317 1917	2.0 7.5 1.0 7.2	60 230 30 220	3 Sa	0018 Su 0607 1241 1840	1.3 8.2 0.3 7.9	40 250 10 240
4 Th	21 M	22 F	21 0054 F 0639 1304 1912	2.0 7.2 1.6 6.9	60 220 50 210	4 Su	0206 M 0751 1424 2025	1.6 8.2 1.0 7.5	50 250 30 230	4 Su	0100 M 0649 1348 1945	1.3 8.2 1.0 7.9	40 250 30 230
5 F	23 M	24 Sa	20 0125 Sa 0708 1335 1940	2.0 7.2 1.3 6.9	60 220 40 210	5 M	0248 M 0834 1505 2106	1.6 7.9 1.3 7.2	50 240 40 220	5 M	0139 M 0730 1421 2018	1.3 7.9 1.3 7.5	40 230 30 230
6 Sa	25 W	26 Tu	21 0156 Tu 0740 1407 2011	8.2 7.2 1.3 7.2	70 220 40 220	6 Tu	0330 Tu 0919 1545 2149	2.0 7.2 1.6 6.9	60 220 50 210	6 Tu	0217 Tu 0809 1434 2029	1.3 7.5 1.3 7.2	40 230 40 230
7 Su	27 M	28 W	22 0230 M 0814 1441 2045	2.3 7.2 1.6 7.2	70 220 50 220	7 W	0414 W 1006 1627 ● 2237	2.3 6.6 2.3 6.6	70 200 70 200	7 W	0254 W 0848 1536 2142	1.6 7.2 1.6 6.9	50 220 50 210
8 M	29 Tu	30 Th	23 0306 Tu 0852 1519 2125	2.3 7.2 1.6 6.9	70 220 50 210	8 Th	0503 Th 1059 1713 2333	2.3 5.9 2.6 6.2	70 180 80 190	8 Th	0332 Th 0930 1544 ● 2236	2.0 6.6 2.3 6.9	60 200 70 200
9 Tu	31 W	32 F	24 0348 W 0936 1602 2212	2.6 6.9 2.0 6.9	80 210 60 210	9 F	0602 F 1206 1812	2.6 5.6 3.0	80 190 90	9 F	0414 F 1114 1723 2344	2.3 6.2 2.6 6.6	70 180 80 200
10 W	33 O	34 Th	25 0437 Th 1030 1652 ● 2310	2.6 6.2 2.3 6.6	80 190 70 200	10 Sa	0040 Sa 0717 1329 1935	5.9 3.0 5.2 3.3	180 90 160 100	10 Sa	0503 Sa 1116 1712 2334	2.6 5.6 3.0 5.9	80 190 90 180
11 Th	35 M	36 F	26 0536 F 1136 1755	6.6 6.2 2.6	200 190 80	11 Su	0153 Su 0839 1449 2101	5.9 2.6 5.2 3.3	180 80 160 100	11 Su	0612 Su 1238 1829	2.6 5.2 3.3	80 160 100
12 F	37 Sa	38 Tu	27 0018 Sa 0648 1255 1913	6.2 2.6 6.2 2.6	200 70 190 80	12 M	0259 M 0944 1552 2203	5.9 2.3 5.6 3.0	180 70 170 90	12 M	0052 M 0747 1523 2143	5.6 2.6 6.2 80	200 60 190 90
13 Sa	39 W	40 Th	28 0133 W 0808 1417 2039	6.6 2.3 6.2 2.6	200 70 190 80	13 Tu	0353 Tu 1032 1641 2249	6.2 2.0 5.9 2.6	190 60 180 80	13 Tu	0212 Tu 0905 1625 2244	5.9 2.6 6.9 20	180 50 200 80
14 Su	41 M	42 F	29 0244 M 0925 1531 2155	6.6 2.0 6.6 2.6	210 60 200 80	14 W	0438 W 1110 1721 2327	6.6 1.6 6.2 2.6	200 50 190 80	14 W	0317 W 0959 1611 2219	5.9 2.0 5.9 80	220 40 210 60
15 M	43 Tu	44 Th	30 0348 Tu 1029 1634 2257	6.6 2.0 6.9 2.0	220 60 210 60	15 Th	0517 Th 1144 1755	6.9 1.6 6.6 6.6	210 50 200 200	15 Th	0407 Th 1040 1652 2259	6.6 1.6 6.2 2.3	230 30 190 70
			31 0444 W 1124 1728 ● 2350	6.6 1.0 7.5 1.6	240 30 230 50					31 0507 Sa 1138 1739 ● 2356	7.9 1.0 7.5 1.3	240 30 230 40	

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Salman, Bahrain, Persian Gulf, 2018

Times and Heights of High and Low Waters

April				May				June												
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height									
h m 0550 Su 1217 1815	ft 7.9 1.0 7.9	cm 240 30 240	h m 16 0530 M 1156 1751	ft 7.5 1.3 7.5	cm 230 40 230	h m 1 Tu 0009 0610 1229 1821	ft 1.6 7.5 1.6 7.9	cm 50 230 50 240	h m 16 0545 W 1210 1758	ft 7.9 2.0 8.2	cm 240 60 250	h m 1 F 0056 0704 1316 1901	ft 2.0 7.2 3.0 7.9	cm 60 220 90 240	h m 16 0100 Sa 0706 1330 1911	ft 1.6 8.2 2.6 8.5	cm 50 250 80 260			
●																				
2 0034 M 0630 1254 1849	1.3 7.9 1.0 7.9	40 240 30 240	17 0012 Tu 0606 1232 1823	1.6 7.9 1.3 7.9	50 240 40 240	2 W 0044 0646 1303 1852	1.6 7.5 2.0 7.9	50 230 60 250	17 0027 Th 0628 1253 1838	1.6 7.9 2.3 8.2	50 240 70 250	2 Sa 0129 0739 1352 1935	2.3 7.2 3.3 7.5	70 220 100 230	17 0149 Su 0757 1420 2000	1.6 8.2 3.0 8.5	50 250 90 260			
3 0111 Tu 0707 1329 1921	1.3 7.9 1.3 7.5	40 240 40 230	18 0048 W 0643 1309 1857	1.3 7.9 1.6 7.9	40 240 50 240	3 Th 0118 0721 1336 1924	1.6 7.2 2.3 7.5	50 220 70 230	18 F 0110 0713 1337 1921	1.3 7.9 2.3 8.2	40 240 70 250	3 Su 0203 0815 1429 2011	2.3 7.2 3.3 7.5	70 220 100 230	18 M 0239 0850 1513 2052	1.6 8.2 3.0 8.2	50 250 90 250			
4 0146 W 0743 1403 1954	1.3 7.5 1.6 7.5	40 230 50 230	19 0124 Th 0723 1347 1935	1.3 7.9 1.6 7.9	40 240 50 240	4 F 0151 0756 1410 1958	2.0 7.2 2.6 7.5	60 220 80 230	19 Sa 0155 0802 1424 2008	1.6 7.9 2.6 8.2	50 240 80 250	4 M 0240 0856 1510 2051	2.6 6.9 3.6 7.2	80 210 110 220	19 Tu 0332 0948 1609 2149	2.0 7.9 3.3 7.9	60 240 100 240			
5 0221 Th 0820 1436 2029	1.6 6.9 2.0 7.2	50 210 60 220	20 0204 F 0807 1428 2018	1.3 7.5 2.0 7.9	40 230 60 240	5 Sa 0226 0835 1446 2035	2.0 6.9 3.0 7.2	60 210 90 220	20 Su 0243 0856 1516 2100	1.6 7.5 3.0 7.9	50 230 90 240	5 Tu 0321 0942 1557 2136	2.6 6.9 3.6 7.9	80 210 110 230	20 W 0428 1050 1708 ● 2251	2.3 7.9 3.3 7.5	70 240 100 230			
6 0256 F 0859 1510 2106	2.0 6.6 2.6 6.9	60 200 80 210	21 0248 Sa 0858 1514 2107	1.3 7.2 2.6 7.5	40 220 80 230	6 Su 0303 0918 1527 2117	2.3 6.6 3.3 6.9	70 200 100 210	21 M 0337 0957 1614 2158	2.0 7.5 3.3 7.5	60 230 100 230	6 W 0408 1035 1651 ● 2229	3.0 6.9 3.9 7.9	90 210 120 210	21 Th 0529 1155 1812	2.6 7.5 3.3	80 230 100			
7 0334 Sa 0944 1548 2149	2.0 6.2 3.0 6.6	60 190 90 200	22 0339 Su 0957 1608 2204	1.6 6.9 3.0 7.2	50 220 90 220	7 M 0346 1011 1617 2206	2.6 6.2 3.6 6.6	80 190 100 200	22 Tu 0439 1107 1722 ● 2306	2.3 7.2 3.3 7.2	70 220 100 220	7 Th 0503 1134 1752 2330	3.0 6.9 3.9 6.6	90 210 120 200	22 F 0000 0634 1300 1918	7.2 3.0 7.5 3.3	220 90 230 100			
8 0419 Su 1040 1637 ● 2243	2.3 5.6 3.3 6.2	70 170 100 190	23 0440 M 1108 1717 ● 2313	2.0 6.6 3.3 6.9	60 200 100 210	8 Tu 0440 1116 1723 ● 2308	2.6 6.2 3.6 6.2	80 190 110 190	23 W 0551 1223 1837	2.3 7.2 3.3	70 220 100	8 F 0606 1237 1857	3.0 6.9 3.6	90 210 110	23 Sa 0113 0740 1400 2021	7.2 3.0 7.5 3.0	220 90 230 90			
9 0519 M 1155 1750 2354	2.6 5.6 3.6 5.9	80 170 110 180	24 0558 Tu 1233 1844	2.3 6.6 3.3 6.6	70 200 100 200	9 W 0549 1231 1841	3.0 6.2 3.6	90 190 110	24 Th 0022 0707 1335 1948	7.2 2.6 7.2 3.3	220 80 220 100	9 Sa 0038 0713 1338 1958	6.6 3.0 6.9 3.3	200 90 210 100	24 M 0221 0843 1454 2118	7.2 3.0 7.5 3.0	220 90 230 90			
10 0645 Tu 1324 1929	3.0 5.6 3.6	90 170 110	25 0035 W 0728 1356 2009	6.9 2.3 6.6 3.0	210 70 200 90	10 Th 0021 0707 1341 1953	6.2 3.0 6.2 3.6	190 90 190 110	25 F 0140 0816 1435 2050	7.2 2.6 7.5 3.0	220 80 230 90	10 Su 0146 0818 1432 2055	6.9 3.0 7.2 3.0	210 90 220 90	25 M 0322 0938 1541 2208	7.2 3.0 7.5 2.6	220 90 230 80			
11 0117 W 0811 1437 2045	5.9 2.6 5.9 3.3	180 80 180 100	26 0157 Th 0844 1501 2115	6.9 2.0 6.9 2.6	210 60 210 80	11 F 0135 0816 1437 2051	6.2 2.6 6.6 3.3	190 80 200 100	26 Sa 0247 0915 1525 2143	7.2 2.3 7.5 2.6	220 70 230 80	11 M 0248 0918 1521 2147	7.2 3.0 7.5 2.6	220 90 230 80	26 Tu 0415 1027 1624 2252	7.2 3.3 7.9 2.6	220 100 240 80			
12 0231 Th 0912 1530 2139	5.9 2.3 6.2 3.0	180 70 190 90	27 0306 F 0943 1552 2207	7.2 1.6 7.2 2.3	220 50 220 70	12 Sa 0239 0912 1524 2140	6.6 2.6 6.9 2.6	200 80 210 80	27 Su 0344 1006 1609 2229	7.5 2.3 7.9 2.3	230 70 240 70	12 Tu 0344 1012 1607 2237	7.5 2.6 7.9 2.3	230 80 240 70	27 W 0502 1110 1703 2332	7.2 3.3 7.9 2.3	220 100 240 70			
13 0327 F 1000 1612 2222	6.6 2.0 6.6 2.6	200 60 200 80	28 0402 Sa 1031 1636 2252	7.5 1.6 7.5 2.0	230 50 230 70	13 Su 0332 1001 1605 2224	6.9 2.3 7.2 2.3	210 70 220 70	28 M 0433 1050 1648 2310	7.5 2.3 7.9 2.0	230 70 240 60	13 Th 0437 1103 1653 ● 2325	7.9 2.6 8.2 2.0	240 80 250 60	28 F 0543 1149 1739 ● O	7.2 3.3 100 240	220 100 240 70			
14 0413 Sa 1041 1648 2300	6.9 1.6 6.9 2.3	210 50 210 70	29 0450 Su 1114 1714 2332	7.5 1.6 7.9 1.6	230 50 240 50	14 M 0418 1046 1643 2305	7.2 2.0 7.5 2.0	220 60 230 60	29 Tu 0516 1129 1724 ● 2347	7.5 2.6 7.9 2.0	230 80 240 60	14 Th 0527 1152 1738 ● O	7.9 2.6 8.5 2.0	240 80 260 60	29 F 0007 0619 1226 1812	2.3 7.2 3.3 7.9	70 220 100 240			
15 0453 Su 1119 1720 2336	7.2 1.6 7.2 2.0	220 50 220 60	30 M 0532 W 1152 1749	7.9 1.6 7.9 1.6	230 50 240 50	15 Tu 0502 1128 1720 ● 2346	7.5 2.0 6.0 1.6	230 60 240 50	30 W 0555 1206 1757	7.5 2.6 8.0 7.9	230 80 240 60	15 F 0012 0616 1241 1823	1.6 8.2 2.6 8.5	50 250 80 260	30 Sa 0041 0652 1301 1845	2.3 7.2 3.3 7.9	70 220 100 240			
● O												31 0022 Th 0630 1242 1829	2.0 7.5 3.0 7.9	60 230 90 240						

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# Mina Salman, Bahrain, Persian Gulf, 2018

Times and Heights of High and Low Waters

July			August			September		
Time	Height		Time	Height		Time	Height	
h m 0113 0725 1336 1918	ft 2.3 7.2 3.3 7.9	cm 70 220 100 240	16 M 0140 0746 1408 1949	ft 1.3 8.5 2.6 8.9	cm 40 260 80 270	1 W 0200 0806 1422 2004	ft 2.3 7.5 3.3 7.9	cm 70 230 100 240
h m 0146 0758 1411 1952	ft 2.3 7.2 3.6 7.5	cm 70 220 110 230	17 Tu 0228 0835 1457 2038	ft 1.6 8.5 2.6 8.5	cm 50 260 80 260	2 Th 0233 0838 1458 2040	ft 2.3 7.5 3.3 7.5	cm 70 230 100 230
h m 0221 0833 1449 2028	ft 2.6 7.2 3.6 7.5	cm 80 220 110 230	18 W 0316 0925 1547 2130	ft 2.0 8.2 3.0 8.2	cm 60 250 90 250	3 F 0309 0915 1537 2121	ft 2.3 7.5 3.3 7.5	cm 70 230 100 230
h m 0257 0911 1529 2108	ft 2.6 7.2 3.6 7.5	cm 80 220 110 230	19 Th 0405 1018 1639 2226	ft 2.3 7.9 3.0 7.9	cm 70 240 90 240	4 Sa 0348 0958 1622 2210	ft 2.6 7.5 3.3 7.2	cm 80 230 100 220
h m 0338 0953 1614 2153	ft 2.6 7.2 3.6 7.2	cm 80 220 110 220	20 F 0456 1114 1736 2327	ft 2.6 7.5 3.3 7.2	cm 80 230 100 220	5 Su 0433 1049 1715 2310	ft 3.0 7.5 3.3 6.9	cm 90 230 100 210
h m 0423 1042 1705 O	ft 3.0 7.2 3.6 7.2	cm 90 220 110 220	21 Sa 0552 1215 1839	ft 3.0 7.5 3.3	cm 90 230 100	6 M 0527 1151 1820	ft 3.3 7.2 3.3	cm 100 220 100
h m 0514 1138 1802 2348	ft 3.0 7.2 3.6 6.9	cm 90 220 110 210	22 Sa 0036 0654 1318 1947	ft 6.9 3.3 7.2 3.3	cm 210 100 220 100	7 Tu 0023 0635 1301 1936	ft 6.6 3.3 7.2 3.0	cm 200 100 220 90
h m 0614 1239 1906	ft 3.3 7.2 3.3	cm 100 220 100	23 M 0150 0804 1418 2054	ft 6.6 3.6 7.2 3.0	cm 200 110 220 90	8 W 0144 0758 1412 2054	ft 6.6 3.6 7.5 2.6	cm 200 110 220 80
h m 0058 0722 1342 2012	ft 6.9 3.3 7.5 3.3	cm 210 100 230 100	24 Tu 0259 0911 1513 2152	ft 6.6 3.6 7.2 3.0	cm 200 100 220 90	9 Th 0301 0920 1517 2203	ft 6.9 3.3 7.9 2.3	cm 210 100 220 70
h m 0210 0834 1442 2116	ft 6.9 3.3 7.5 2.6	cm 210 100 230 80	25 W 0359 1008 1601 2240	ft 6.6 3.6 7.5 2.6	cm 200 110 230 80	10 F 0408 1028 1616 2301	ft 7.5 3.0 8.2 1.6	cm 230 90 250 50
h m 0317 0941 1539 2215	ft 7.2 3.3 7.9 2.3	cm 220 100 240 70	26 Th 0449 1055 1645 2321	ft 6.9 3.6 7.5 2.6	cm 210 110 230 80	11 Sa 0505 1124 1710 ● 2352	ft 7.9 2.6 8.9 1.3	cm 240 80 270 40
h m 0418 1042 1632 2310	ft 7.5 3.0 8.5 2.0	cm 230 90 260 60	27 F 0532 1136 1723 ● 2356	ft 6.9 3.3 7.9 2.3	cm 210 100 240 70	12 Su 0555 1215 1800 ● 2356	ft 8.2 2.3 8.9 1.0	cm 250 70 270 70
h m 0514 1137 1722 ●	ft 7.9 3.0 8.5 8.9	cm 240 90 260 270	28 M 0608 1211 1758	ft 7.2 3.3 7.9	cm 220 100 240	13 W 0039 0642 1302 1846	ft 1.3 8.5 2.3 9.2	cm 40 260 70 280
h m 0002 0606 1230 1811	ft 1.6 8.2 2.6 8.9	cm 50 250 80 270	29 Su 0027 0640 1245 1830	ft 2.3 7.2 3.3 7.9	cm 70 220 100 240	14 Tu 0125 0726 1347 1932	ft 1.0 8.5 2.3 8.9	cm 30 260 70 80 270
h m 0052 0656 1319 1900	ft 1.3 8.5 2.6 8.9	cm 40 260 80 270	30 M 0058 0709 1317 1901	ft 2.3 7.5 3.3 7.9	cm 70 230 100 240	15 W 0208 0809 1432 2018	ft 1.3 8.5 2.3 8.5	cm 40 260 70 260
h m 0129 0737 1349 1932	ft 2.3 7.5 3.3 7.9	cm 70 230 100 240	31 Tu 0129 0737 1349 1932	ft 2.3 7.5 3.3 7.9	cm 70 230 100 240	31 F 0209 0806 1428 2016	ft 2.0 7.9 2.6 7.9	cm 60 240 80 240
h m 0338 0937 1609 2211	ft 2.6 7.5 2.6 6.6	cm 80 230 80 200	16 Su 0338 0937 1609 2211	ft 2.6 7.5 2.6 6.6	cm 80 230 80 200	17 M 0421 1025 1701 ● 2314	ft 3.3 6.9 3.0 6.2	cm 100 210 90 190
h m 0040 0636 1244 1948	ft 5.9 3.9 6.2 3.3	cm 180 120 190 100	18 Tu 1126 1814	ft 3.6 6.6 3.3 6.6	cm 110 200 100 100	19 W 0040 0636 1244 1948	ft 5.9 3.9 6.2 3.3	cm 180 120 190 100
h m 0209 0816 1403 2102	ft 5.9 3.9 6.2 3.0	cm 180 120 190 90	20 Th 0209 0816 1403 2102	ft 5.9 3.9 6.2 3.0	cm 180 120 190 90	21 F 0316 0924 1508 2153	ft 6.2 3.6 6.6 2.6	cm 190 110 200 80
h m 0406 1012 1559 2233	ft 6.6 3.3 6.9 2.3	cm 200 100 210 70	22 Sa 0406 1012 1559 2233	ft 6.6 3.3 6.9 2.0	cm 200 100 210 60	23 M 0446 1051 1641 2308	ft 6.6 3.0 7.2 2.0	cm 210 90 220 60
h m 0454 1110 1658 ● 2337	ft 7.9 2.3 8.5 1.0	cm 240 70 260 30	24 Su 0454 1110 1658 ● 2337	ft 7.9 2.3 8.5 1.0	cm 240 70 260 30	25 M 0519 1125 1718 2340	ft 7.2 2.6 7.5 2.0	cm 220 80 230 60
h m 0540 1157 1746 O	ft 8.2 2.0 8.9	cm 250 60 270 70	26 Tu 0549 1157 1746 O	ft 8.2 2.0 8.9	cm 250 60 270 70	27 W 0043 0640 1258 1849	ft 7.5 2.3 7.9	cm 230 70 240 70
h m 0012 0615 1228 1819	ft 1.6 7.9 2.3 7.9	cm 50 240 70 240	28 M 0012 0615 1228 1819	ft 1.6 7.9 2.3 7.9	cm 50 240 70 240	29 W 0012 0615 1228 1819	ft 1.6 7.9 2.3 7.9	cm 50 240 70 240

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Heights are referred to the chart datum of soundings.

# Mina Salman, Bahrain, Persian Gulf, 2018

Times and Heights of High and Low Waters

October			November			December											
Time	Height		Time	Height		Time	Height		Time	Height							
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm						
<b>1</b> M 0258 0855 1523 2132	2.6 7.5 2.3 7.2	80 230 70 220	<b>16</b> Tu 0345 0938 1612 2236	3.3 6.9 2.6 6.2	100 210 80 190	<b>1</b> Th 0444 1035 1716 2355	3.6 6.9 2.3 6.6	110 210 70 200	<b>16</b> Sa 0513 1047 1728 1821	3.9 6.2 3.0 2.3	120 190 90 70						
	●	2236	6.2	190													
	2	0344 0946 1617 ●	3.0 7.5 2.3 6.6	90 230 70 200	17 W 0437 1031 1713 2355	3.9 6.2 3.0 5.9	120 190 90 180	<b>2</b> F 0607 1154 1845	3.6 6.9 2.6	110 210 80	<b>2</b> Su 0019 0633 1204 1849	5.9 3.9 5.9 3.0	180 120 180 90				
	3	0442 1050 1727 2359	3.3 7.2 2.6 6.6	100 220 80 200	<b>18</b> Th 0556 1143 1842	3.9 5.9 3.3	120 180 100	<b>3</b> Sa 0122 0737 1322 2010	6.9 3.3 6.9 2.3	210 110 210 70	<b>3</b> M 0203 0821 1417 2047	7.2 2.6 6.9 2.3	220 80 210 70				
<b>4</b> Th 1209 1900	3.6 6.9	110 210	<b>19</b> F 0125 0734 1311 2007	5.9 3.9 5.9 3.0	180 120 180 90	<b>4</b> Su 0233 0849 1438 2115	7.2 3.0 7.2 2.0	220 90 220 60	<b>4</b> Tu 0230 0845 1433 2100	6.6 3.3 6.2 2.6	200 100 190 80	<b>18</b> Tu 0115 0738 1325 1955	6.2 3.3 5.9 3.0	190 100 180 90			
	5	0132 0744 1336 2031	6.6 3.6 6.9 2.3	200 110 210 70	<b>20</b> Sa 0235 0845 1427 2106	6.2 3.6 6.2 2.6	190 110 190 80	<b>5</b> M 0328 0945 1540 2208	7.5 2.3 7.5 1.6	230 70 230 50	<b>5</b> W 0348 1011 1616 2233	7.5 2.0 7.2 2.3	230 60 220 70	<b>20</b> Th 0306 0933 1532 2156	6.9 2.3 6.6 2.6	210 70 200 80	
	6	0250 0905 1452 2138	6.9 3.3 7.5 2.0	210 100 230 60	<b>21</b> Sa 0326 0936 1524 2152	6.6 3.3 6.6 2.3	200 100 200 70	<b>6</b> Tu 0414 1032 1631 2254	7.9 2.0 7.9 1.6	240 60 240 50	<b>6</b> Th 0431 1055 1703 2316	7.5 1.6 7.2 2.3	230 50 220 70	<b>21</b> F 0353 1022 1624 2247	7.2 2.0 6.9 2.3	220 60 210 70	
	7	0349 1004 1553 2231	7.5 2.6 7.9 1.3	210 80 240 40	<b>22</b> Su 0407 1016 1610 2232	6.9 3.0 6.9 2.0	210 90 210 60	<b>7</b> W 0455 1115 1717 ●	8.2 1.6 7.9 1.6	250 50 220 50	<b>7</b> F 0433 1054 1654 2315	7.5 2.0 7.2 2.3	230 60 220 70	<b>22</b> Sa 0437 1108 1712 ●	7.5 1.6 7.2 2.3	230 50 220 70	
<b>8</b> M 1053 1645 2316	7.9 8.2 1.3	240 250 40	<b>23</b> M 0442 1053 1649 2308	7.2 2.3 7.2 2.0	220 70 220 60	<b>8</b> Th 0532 1154 1758	8.2 1.3 7.9	250 40 240	<b>23</b> F 0507 1132 1734 ●	7.5 1.6 7.5 2.0	230 50 230 60	<b>23</b> Sa 0544 1211 1821 2355	7.9 1.6 7.2 2.3	240 50 220 70			
	9	0519 1136 ●	8.2 1.6 1.0	250 250 30	<b>24</b> Tu 0512 1127 1724 ●	7.5 2.0 7.5 2.0	230 60 230 60	<b>9</b> F 0014 0605 1231 1835	1.6 8.2 1.3 7.9	50 250 40 240	<b>9</b> Sa 0032 1210 1813	2.3 1.3 7.9	70 230 220	<b>24</b> M 0021 0603 1238 1844	2.3 8.2 1.0 7.9	70 250 30 240	
	10	0557 1217 1814	8.5 1.3 8.5	260 40 260	<b>25</b> W 0541 1200 1757	7.9 2.0 7.9	240 60 240	<b>10</b> Th 0051 0638 1307 1912	2.0 7.9 1.3 7.5	60 240 40 230	<b>10</b> Sa 0035 0618 1250 1854	2.3 8.2 1.3 7.9	70 250 40 240	<b>25</b> Tu 0107 0650 1319 1929	2.3 7.5 1.6 210	70 250 30 240	
	11	0038 0632 1256 1853	1.3 8.5 1.3 8.2	40 260 40 250	<b>26</b> Th 0018 0609 1233 1830	2.0 7.9 1.6 7.9	60 240 50 240	<b>11</b> Su 0127 0711 1341 1948	2.3 7.9 1.6 7.2	70 240 40 220	<b>11</b> M 0116 0658 1331 1939	2.3 8.2 1.3 7.9	70 250 40 240	<b>26</b> W 0153 0733 1351 2004	2.3 8.2 2.0 210	70 250 30 240	
<b>12</b> F 0707 1333 1932	1.6 8.2 1.3	50 250 40	<b>27</b> Sa 0053 0640 1307 1906	2.0 7.9 1.6 7.9	60 240 50 240	<b>12</b> M 0202 0745 1415 2026	2.6 7.5 2.0 6.9	80 230 60 210	<b>27</b> Tu 0159 0741 1414 2027	2.6 7.9 1.3 7.5	80 240 40 230	<b>27</b> W 0217 0757 1425 2041	3.0 7.2 2.0 6.9	90 240 60 210	<b>27</b> Th 0240 0821 1457 2109	2.3 7.9 1.3 7.5	70 240 30 230
	13	0152 0741 1410 2011	2.0 8.2 1.6 7.5	60 250 50 230	<b>28</b> Sa 0128 0714 1343 1946	2.3 8.2 1.6 7.9	70 220 50 240	<b>13</b> Tu 0238 0821 1451 2108	3.0 7.2 2.3 6.6	90 240 50 220	<b>13</b> F 0247 0828 1503 2122	2.6 7.9 1.6 7.2	80 240 50 220	<b>28</b> M 0331 0912 1549 2205	2.6 7.5 1.6 7.2	80 230 50 220	
	14	0228 0816 1447 2052	2.3 7.5 2.0 7.2	70 230 60 220	<b>29</b> Su 0206 0753 1423 2032	2.6 7.9 1.6 7.5	80 240 50 230	<b>14</b> W 0319 0901 1532 2158	3.3 6.9 2.6 6.2	100 230 80 210	<b>14</b> Th 0340 0922 1559 2225	3.0 7.5 2.0 7.2	90 240 60 200	<b>29</b> Sa 0426 1009 1644 2306	2.6 7.2 2.0 7.2	80 220 60 220	
	15	0305 0854 1526 2138	3.0 7.2 2.3 6.6	90 220 70 200	<b>30</b> Tu 0249 0837 1509 2127	3.0 7.5 2.0 7.2	100 230 60 220	<b>15</b> F 0408 0948 1622 ●	3.6 6.6 2.6 6.2	110 200 80 210	<b>15</b> Sa 0443 1024 1704 ●	3.3 7.2 2.3 6.9	100 220 80 190	<b>30</b> Su 0527 1114 1747 ●	2.6 6.9 2.3 7.2	80 210 60 220	
			<b>31</b> W 0340 0930 1605 ●	3.3 7.2 2.3 6.9	100 220 70 210							<b>31</b> M 0014 0634 1229 ●	6.9 2.6 6.6 2.6	210 80 200 80			

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Musay'id Outer Channel Entrance, Qatar, 2018

Times and Heights of High and Low Waters

January				February				March															
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height												
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm												
<b>1</b> M	0507 1156 1506 2228	6.6 3.3 3.9 1.0	200 100 120 30	<b>16</b> Tu W O	0544 1315 1533 2223	6.2 3.0 3.3 1.6	190 90 100 50	<b>1</b> Th	0613 1320 1654 2351	7.2 2.3 3.6 1.3	220 70 110 40	<b>16</b> F	0601 1328 1653 2333	5.9 2.3 3.3 1.3	180 70 100 40	<b>1</b> Th	0509 1215 1616 2255	6.6 2.3 3.3 1.3	200 70 100 40	<b>16</b> F	0454 1215 1621 2242	5.9 2.3 3.3 2.0	180 70 100 60
<b>2</b> Tu	0549 1248 1600 O	7.2 3.0 3.9 1.3	220 90 120 40	<b>17</b> W	0607 1344 1618 ●	6.2 2.6 3.0 1.3	190 80 90 40	<b>2</b> F	0654 1400 1753	7.2 2.0 3.3	220 60 100	<b>17</b> Sa	0627 1345 1738	5.9 2.3 3.3	180 70 100	<b>2</b> F	0548 1249 1720 O	6.6 2.0 3.6 1.3	200 60 110 40	<b>17</b> Sa	0523 1228 1705 ●	5.6 2.3 3.6 1.6	170 70 110 50
<b>3</b> W	0632 1337 1652	7.5 2.6 3.6	230 80 110	<b>18</b> Th	0629 1409 1702 2327	6.2 2.6 3.0 1.3	190 80 90 40	<b>3</b> Sa	0040 0733 1439 1908	1.3 6.9 2.0 3.3	40 210 60 100	<b>18</b> Su	0018 0655 1408 1823	1.3 5.9 2.0 3.3	40 180 60 100	<b>3</b> Sa	0625 1323 1820	6.6 1.6 3.6	200 50 110	<b>18</b> Su	0552 1250 1749	5.6 2.0 3.9	170 60 120
<b>4</b> Th	0001 0715 1426 1745	1.3 7.5 2.3 3.3	40 230 70 100	<b>19</b> F	0654 1433 1745	6.2 2.3 3.0	190 70 90	<b>4</b> Su	0129 0809 1517 2033	2.0 6.6 2.0 3.6	60 200 60 110	<b>19</b> M	0104 0724 1437 1914	1.6 5.6 2.0 3.6	50 170 60 110	<b>4</b> Su	0035 0659 1356 1917	1.6 5.9 1.6 3.9	50 180 50 120	<b>19</b> M	0019 0620 1319 1836	1.6 5.2 1.6 3.9	50 160 50 120
<b>5</b> F	0049 0759 1513 1844	1.6 7.5 2.3 3.3	50 230 70 100	<b>20</b> Sa	0008 0721 1457 1828	1.6 6.2 2.3 3.0	50 190 70 90	<b>5</b> M	0218 0841 1555 2154	2.3 5.9 2.0 3.6	70 180 60 110	<b>20</b> Tu	0152 0749 1509 2024	2.0 5.2 1.6 3.6	60 160 50 110	<b>5</b> M	0123 0727 1429 2014	2.0 5.6 1.6 4.3	60 170 50 130	<b>20</b> Tu	0107 0646 1351 1928	2.0 4.9 1.6 4.3	60 150 50 130
<b>6</b> Sa	0137 0841 1600 2033	2.0 7.2 2.0 3.3	60 220 60 100	<b>21</b> Su	0053 0752 1524 1915	1.6 5.9 2.3 3.0	50 180 70 90	<b>6</b> Tu	0309 0907 1634 2332	3.0 5.2 2.0 3.9	90 160 60 120	<b>21</b> W	0243 0803 1544 2148	2.3 4.9 1.6 3.9	70 150 50 120	<b>6</b> Tu	0212 0750 1502 2115	2.3 4.9 1.6 4.3	70 150 50 130	<b>21</b> W	0157 0705 1423 2027	2.3 4.6 1.6 4.6	70 140 50 140
<b>7</b> Su	0227 0922 1647 2241	2.3 6.6 2.0 3.3	70 200 60 100	<b>22</b> M	0142 0821 1555 2017	2.0 5.6 2.0 3.0	60 170 60 90	<b>7</b> W	0405 0927 1715 ●	3.3 4.9 2.0	100 150 60 ●	<b>22</b> Th	0338 0807 1621 2312	2.6 4.6 1.6 4.3	80 140 60 130	<b>7</b> W	0304 0806 1537 2226	3.0 4.6 2.0 4.3	90 130 60 130	<b>22</b> Th	0251 0715 1457 2132	2.6 4.3 1.6 4.9	80 130 50 150
<b>8</b> M	0318 0959 1733	3.0 5.9 2.0	90 180 60	<b>23</b> Tu	0236 0847 1630 2211	2.3 5.2 2.0 3.3	70 160 60 100	<b>8</b> Th	0110 0519 0937 1756	4.3 3.9 4.3 2.0	130 120 130 60	<b>23</b> F	0444 0830 1703 ●	3.3 4.3 1.6 60	100 130 50 ●	<b>8</b> Th	0404 0811 1611 2344	3.3 4.3 2.0 4.6	100 130 60 140	<b>23</b> F	0352 0735 1532 2245	3.0 3.9 1.6 4.9	90 120 50 150
<b>9</b> Tu	0201 0414 1032 ●	3.6 3.3 5.6 2.0	110 100 170 60	<b>24</b> W	0335 0857 1809	3.0 4.9 1.6	90 150 50	<b>9</b> F	0231 1839	4.6 2.0	140 60	<b>24</b> Sa	0050 0611 0901 1750	4.6 3.6 3.9 1.6	140 110 120 50	<b>24</b> O	0507 0805 1643 ●	3.3 3.6 2.0 ●	100 110 60 ●				
<b>10</b> W	0258 0527 1104 1903	3.9 3.9 4.9 2.0	120 120 150 60	<b>25</b> Th	0125 0438 0912 1749	3.6 3.3 4.6 1.6	110 100 140 50	<b>10</b> Sa	0316 1922	4.9 2.0	150 60	<b>25</b> Sa	0204 0833 0909 1845	5.2 3.6 3.6 1.3	160 110 110 40	<b>10</b> Sa	0055 1714	4.9 2.3	150 70	<b>25</b> Su	0007 0642 0837 1705	5.2 3.3 3.3 2.0	160 100 100 60
<b>11</b> Th	0333 0859 1140 1945	4.6 4.3 4.3 1.6	140 130 130 50	<b>26</b> F	0219 0554 0947 1834	4.3 3.6 4.3 1.3	130 110 130 40	<b>11</b> Su	0350 2004	5.2 2.0	160 60	<b>11</b> M	0258 1029 1235 1948	5.6 3.3 3.3 1.3	170 100 100 40	<b>11</b> Su	0156 1749	5.2 2.3	160 70	<b>26</b> M	0120 0931 1007 1809	5.6 3.0 3.0 2.0	170 90 90 60
<b>12</b> F	0359 1037 1222 2025	4.9 3.9 3.9 1.6	150 120 120 50	<b>27</b> Sa	0256 0750 1045 1924	4.9 3.9 3.9 1.3	150 120 120 40	<b>12</b> M	0420 1213 1332 2044	5.6 3.0 3.0 1.6	170 90 90 50	<b>27</b> Tu	0344 1102 1404 2057	6.2 2.6 3.3 1.3	190 80 100 40	<b>12</b> M	0244 1841	5.2 2.3	160 70	<b>27</b> Tu	0219 0958 1317 1927	5.9 2.6 3.0 2.0	180 80 90 60
<b>13</b> Sa	0425 1131 1310 2101	5.2 3.6 3.6 1.6	160 110 110 50	<b>28</b> Tu	0332 1008 1232 2017	5.6 3.6 3.6 1.3	170 110 110 50	<b>13</b> W	0448 1230 1430 2124	5.9 3.0 3.0 1.6	180 90 90 50	<b>13</b> Tu	0427 1138 1512 2200	6.6 2.3 3.3 1.3	200 70 100 40	<b>13</b> W	0322 1141 1334 1946	5.6 2.6 3.0 2.3	170 80 90 70	<b>28</b> W	0310 1033 1455 2053	6.2 2.3 3.0 2.0	190 70 90 60
<b>14</b> Su	0453 1212 1358 2134	5.6 3.3 3.3 1.6	170 100 100 50	<b>29</b> M	0410 1110 1357 2112	6.2 3.3 3.6 1.0	190 100 110 30	<b>14</b> W	0513 1252 1521 2205	5.9 2.6 3.0 1.6	180 80 90 50	<b>14</b> W	0355 1149 1440 2052	5.6 2.6 3.0 2.0	170 80 90 60	<b>29</b> Th	0356 1107 1602 2200	6.2 2.0 3.3 2.0	190 60 100 60				
<b>15</b> M	0520 1245 1446 2200	5.9 3.0 3.3 1.6	180 90 100 50	<b>30</b> Tu	0451 1156 1500 2208	6.9 3.0 3.6 1.0	210 90 110 30	<b>15</b> Th	0537 1311 1608 2248	5.9 2.6 3.0 1.3	180 80 90 40	<b>15</b> Th	0425 1204 1535 2151	5.9 2.6 3.0 2.0	180 80 90 60	<b>30</b> F	0437 1139 1653 2255	6.2 2.0 3.9 2.0	190 60 120 60				
				<b>31</b> W	0532 1239 1557 ●	7.2 2.6 3.6 1.0	220 80 110 30					<b>31</b> O	0513 1208 1739 2346	5.9 1.6 4.3 2.0	180 50 130 60								

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Musay'id Outer Channel Entrance, Qatar, 2018

Times and Heights of High and Low Waters

April				May				June				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 1 Su 0545 5.6 170 1237 1.6 50 1824 4.6 140	ft ●	h m 16 M 0504 5.2 160 1201 1.6 50 1805 4.9 150	cm 160 50 150	h m 1 Tu 0042 3.0 90 0508 4.6 140 1215 1.6 50 1855 5.9 180	ft 140 50 180	cm 90 100 50 200	h m 16 W 0020 3.3 100 0426 4.9 150 1152 1.6 50 1841 6.6 200	ft 150 50 200 200	cm 100 100 50 200	h m 1 F 0235 3.6 110 0522 3.9 120 1158 2.0 60 1937 6.9 210	ft 120 60 210	cm 110 120 60 250
2 M 0035 2.3 70 0610 5.2 160 1306 1.6 50 1907 4.9 150	ft ●	2 W 0133 3.0 90 0534 4.3 130 1240 2.0 60 1930 5.9 180	cm 80 130 60 180	2 Th 0116 3.3 100 0501 4.6 140 1226 1.6 50 1924 6.9 210	ft 140 130 50 210	cm 100 100 50 210	2 Sa 0325 3.3 100 0557 3.6 110 1211 2.3 70 2007 6.9 210	ft 100 110 70 210	cm 100 110 70 240	17 Su 0312 3.3 100 0617 3.9 120 1315 2.3 70 2041 7.9 240		
3 Tu 0124 2.3 70 0632 4.6 140 1335 1.6 50 1952 4.9 150	ft ●	3 W 0110 2.6 80 0552 4.6 140 1307 1.6 50 1931 5.6 170	cm 80 140 50 170	3 Th 0224 3.3 100 0600 3.9 120 1258 2.0 60 2007 6.2 190	ft 120 130 60 190	cm 100 100 50 190	18 F 0214 3.3 100 0541 4.3 130 1259 1.6 50 2011 7.2 220	ft 130 130 50 220	cm 100 110 70 220	18 M 0409 3.0 90 0715 3.6 110 1402 2.6 80 2129 7.5 230		
4 W 0215 2.6 80 0652 4.3 130 1403 2.0 60 2040 5.2 160	ft ●	4 Th 0205 2.6 80 0614 4.3 130 1339 1.6 50 2021 5.9 180	cm 80 130 50 180	4 F 0320 3.3 100 0624 3.6 110 1307 2.3 70 2044 6.2 190	ft 120 130 70 190	cm 100 100 70 190	19 Sa 0315 3.3 100 0625 3.9 120 1333 2.0 60 2101 7.2 220	ft 120 120 60 220	cm 100 110 80 220	19 Tu 0508 3.0 90 0831 3.6 110 1453 3.0 90 2217 7.2 220		
5 Th 0309 3.0 90 0707 3.9 120 1427 2.0 60 2131 5.2 160	ft ●	5 F 0304 3.0 90 0643 3.9 120 1410 1.6 50 2117 5.9 180	cm 90 120 50 180	5 Sa 0423 3.3 100 0644 3.6 110 1309 2.3 70 2124 6.2 190	ft 120 120 70 190	cm 100 100 70 190	20 W 0420 3.3 100 0716 3.6 110 1408 2.3 70 2157 7.2 220	ft 120 110 70 220	cm 100 100 90 200	20 W 0607 2.6 80 1418 3.6 110 1555 3.6 110 2304 6.6 200		
6 F 0413 3.3 100 0715 3.6 110 1442 2.3 70 2229 5.2 160	ft ●	6 Sa 0411 3.0 90 0719 3.6 110 1444 2.0 60 2221 6.2 190	cm 100 110 60 190	6 Su 1232 2.6 80 2208 6.2 190	ft 120 120 60 190	cm 80 190	21 M 0534 3.0 90 0817 3.3 100 1447 2.6 80 2256 6.9 210	ft 120 120 80 210	cm 90 100 100 210	21 Th 0700 2.3 70 1511 4.3 130 1710 4.3 130 2347 6.2 190		
7 Sa 0543 3.6 110 0643 3.6 110 1438 2.3 70 2333 5.2 160	ft ●	7 Su 0529 3.0 90 0805 3.3 100 1523 2.3 70 2332 6.2 190	cm 110 100 70 190	7 M 1221 2.6 80 2258 5.9 180	ft 120 120 70 180	cm 80 180	22 Tu 0653 2.6 80 1457 3.3 100 1552 3.3 100 2355 6.6 200	ft 120 120 100 200	cm 80 100 100 200	22 F 0745 2.3 70 1545 4.9 150 1912 4.6 140		
8 Su 1415 2.3 70 ●	ft ●	8 M 0717 3.0 90 0916 3.0 90 1620 2.3 70	cm 90 90 70	8 Tu 1140 3.0 90 2354 5.9 180 ●	ft 120 120 70	cm 90 180	23 W 0753 2.3 70 1534 3.6 110 1715 3.6 110 2340 5.6 170	ft 120 120 110 210	cm 70 110 110 170	23 Sa 0024 5.6 170 0821 2.0 60 1608 5.6 170 2124 4.6 140		
9 M 0032 5.6 170 1401 2.6 80	ft ●	9 Tu 0039 6.2 190 0834 2.6 80 1358 3.0 90 1735 2.6 80	cm 190 80 90 80	9 W 0902 2.6 80	ft 190 80 90 80	cm 80 80 90 80	24 Th 0049 6.2 190 0837 2.3 70 1555 4.3 130 1910 3.9 120	ft 190 70 130 120	cm 190 70 130 120	24 Su 0058 4.9 150 0854 2.0 60 1632 5.9 180 2248 4.3 130		
10 Tu 0125 5.6 170 1116 2.6 80	ft ●	10 W 0138 6.2 190 0918 2.3 70 1510 3.3 100 1913 3.0 90	cm 190 70 100 90	10 Th 0048 5.6 170 0913 2.6 80 1656 3.6 110 1809 3.6 110	ft 190 70 100 90	cm 170 80 110 110	25 F 0137 5.9 180 0913 2.0 60 1612 4.6 140 2059 3.9 120	ft 190 70 140 120	cm 180 60 140 120	25 M 0135 4.6 140 0926 2.0 60 1701 6.2 190 2347 3.9 120		
11 W 0211 5.6 170 1034 2.6 80 1534 3.0 90 1854 3.0 90	ft ●	11 Th 0229 5.9 180 0955 2.0 60 1552 3.6 110 2055 3.0 90	cm 180 60 110 90	11 F 0136 5.6 170 0923 2.3 70 1609 4.3 130 1956 3.9 120	ft 180 60 110 120	cm 170 60 130 120	26 Sa 0216 5.6 170 0943 2.0 60 1639 5.2 160 2215 3.9 120	ft 180 60 160 130	cm 160 60 160 130	26 Tu 0214 4.3 130 0958 2.0 60 1731 6.6 200		
12 Th 0251 5.6 170 1044 2.6 80 1558 3.3 100 2024 3.0 90	ft ●	12 F 0314 5.9 180 1027 2.0 60 1630 4.3 130 2203 3.0 90	cm 180 60 130 90	12 Sa 0217 5.6 170 0942 2.3 70 1628 4.6 140 2123 3.6 110	ft 180 60 130 110	cm 170 70 140 110	27 W 0245 4.9 150 1010 1.6 50 1710 5.6 170 2316 3.6 110	ft 150 50 170 110	cm 150 50 170 110	27 Th 0036 3.9 120 0255 4.3 130 1027 2.0 60 1759 6.9 210		
13 F 0328 5.6 170 1053 2.3 70 1626 3.6 110 2137 2.6 80	ft ●	13 W 0352 5.6 170 1056 1.6 50 1707 4.6 140 2300 3.0 90	cm 170 50 140 90	13 Su 0253 5.2 160 1010 2.0 60 1655 5.2 160 2227 3.6 110	ft 170 50 140 110	cm 160 50 160 110	28 M 0311 4.6 140 1037 1.6 50 1741 5.9 180 ●	ft 140 50 180 ●	cm 140 50 180 ●	28 Th 0254 4.9 150 1036 1.6 50 1749 7.2 220 ●		
14 Sa 0403 5.6 170 1107 2.3 70 1656 3.9 120 2234 2.6 80	ft ●	14 W 0422 5.2 160 1122 1.6 50 1743 5.2 160 2352 3.0 90	cm 160 50 160 90	14 M 0325 5.2 160 1043 2.0 60 1726 5.6 170 2324 3.3 100	ft 160 60 170 100	cm 160 50 170 100	29 Th 0010 3.6 110 0341 4.3 130 1105 1.6 50 1812 6.2 190	ft 110 130 50 190	cm 110 130 50 240	29 F 0026 3.9 120 0344 4.6 140 1114 1.6 50 1829 7.9 240		
15 Su 0434 5.2 160 1131 2.0 60 1729 4.6 140 2327 2.6 80	ft ●	15 W 0355 4.9 150 1117 1.6 50 1802 6.2 190 ●	cm 150 50 140 80	15 M 0100 3.6 110 0414 4.3 130 1130 2.0 60 1841 6.6 200	ft 150 50 140 200	cm 110 130 60 200	30 Th 0147 3.6 110 0448 3.9 120 1148 2.0 60 1909 6.9 210	ft 110 120 60 210	cm 110 120 60 220	30 Sa 0234 3.6 110 0500 3.6 110 1123 2.0 60 1910 7.2 220		
16 ●	ft ●			16 W 0445 4.9 150 1149 1.6 50 1819 5.6 170 ●	ft 150 50 170 ●	cm 150 50 170 ●	31 Th 0147 3.6 110 0448 3.9 120 1148 2.0 60 1909 6.9 210	ft 110 120 60 210	cm 110 120 60 220			

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Musay'id Outer Channel Entrance, Qatar, 2018

Times and Heights of High and Low Waters

July			August			September								
Time	Height		Time	Height		Time	Height		Time	Height				
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm			
<b>1</b> Su 0308 0542 1152 1937	3.3	100	<b>16</b> M 0249 0617 1310 2015	3.0	90	<b>1</b> W 0300 0704 1327 2002	3.0	90	<b>16</b> Th 0326 0920 1454 2045	2.3	70	<b>1</b> Sa 0259 0921 1526 1925	2.3	70
	3.6	110		3.9	120		3.9	120		4.6	140		5.6	170
	2.3	70		2.3	70		2.6	80		3.3	100			
	7.2	220		7.9	240		6.2	190		5.9	180			
<b>2</b> M 0339 0625 1225 2005	3.3	100	<b>17</b> Tu 0335 0726 1401 2056	3.0	90	<b>2</b> Th 0326 0803 1419 2023	2.6	80	<b>17</b> F 0405 1054 1559 2105	2.3	70	<b>2</b> Su 0331 1037 1633 1946	2.3	70
	3.6	110		3.9	120		3.9	120		4.6	140		5.9	180
	2.3	70		2.6	80		3.0	90		3.9	120			
	6.9	210		7.5	230		5.9	180		5.2	160			
<b>3</b> Tu 0406 0711 1259 2035	3.3	100	<b>18</b> W 0420 0933 1455 2134	2.6	80	<b>3</b> F 0358 0938 1516 2024	2.6	80	<b>18</b> Sa 0447 1232 1729 2118	2.3	70	<b>3</b> M 0407 1209 1812 2010	2.0	60
	3.6	110		3.9	120		3.9	120		4.3	130		5.9	180
	2.6	80		3.3	100		3.6	110		4.6	140			
	6.6	200		6.9	210		5.6	170						
<b>4</b> W 0433 0805 1328 2103	3.0	90	<b>19</b> Th 0506 1208 1555 2207	2.6	80	<b>4</b> Sa 0434 1312 1620 2033	2.3	70	<b>19</b> Su 0531 1347	2.6	80	<b>4</b> Tu 0452 1329	2.0	60
	3.6	110		4.3	130		4.3	130		5.2	160		6.2	190
	2.3	70		5.9	180		6.2	190						
<b>5</b> Th 0504 0954 1122 2127	3.0	90	<b>20</b> F 0552 1413 1715 2236	2.6	80	<b>5</b> Su 0513 1403 1740 2100	2.3	70	<b>20</b> M 0617 1441	2.6	80	<b>5</b> W 0549 1423	2.0	60
	3.6	110		4.9	150		4.9	150		5.9	180		6.2	190
	3.6	110		4.6	140		4.3	130						
	5.9	180		5.6	170		4.9	150						
<b>6</b> F 1441 1614 2144	2.6	80	<b>21</b> Sa 0637 1502 1929 2307	2.3	70	<b>6</b> M 0558 1439 1946 2131	2.3	70	<b>21</b> Tu 0704 1522	2.6	80	<b>6</b> Th 0655 1510 2240	2.0	60
	4.3	130		5.2	160		5.6	170		6.2	190		6.2	190
	4.3	130		4.6	140		4.6	140						
	5.9	180		4.9	150		4.6	140						
<b>7</b> Sa 1506 1735 2209	2.6	80	<b>22</b> Su 0722 1536 2222 2346	2.3	70	<b>7</b> Tu 0647 1512	2.0	60	<b>22</b> W 0751 1557	2.6	80	<b>7</b> F 0138 0809 1554 2311	3.3	100
	4.6	140		5.9	180		6.2	190		6.6	200		6.2	190
	4.6	140		4.6	140		4.6	140						
	5.6	170		4.6	140		4.6	140						
<b>8</b> Su 1528 1926 2254	2.3	70	<b>23</b> M 0804 1606 2329	2.3	70	<b>8</b> W 0741 1547 2259	2.0	60	<b>23</b> Th 0002 0115 0834 1627	3.3	100	<b>8</b> Sa 0257 0923 1635 2345	3.6	110
	5.2	160		6.2	190		6.9	210		3.3	100		2.6	80
	4.9	150		4.3	130		5.9	180		7.0	220		6.2	190
	5.2	160		6.6	200		6.6	200		2.6	80		2.6	80
<b>9</b> M 1551 2117 2359	2.0	60	<b>24</b> Tu 0036 0844 1637	4.3	130	<b>9</b> Th 0055 0837 1626 2336	3.9	120	<b>24</b> F 0017 0219 0913 1653	3.3	100	<b>9</b> Su 0408 1026 1716	3.9	120
	5.9	180		2.3	70		1.6	50		2.3	70		2.6	80
	4.6	140		6.6	200		7.5	230		2.3	70		2.6	80
	4.9	150		6.6	200		3.6	110		6.6	200			
<b>10</b> Tu 1619 2240	2.0	60	<b>25</b> W 0011 0133 0921 1707	3.9	120	<b>10</b> F 0229 0934 1705	3.9	120	<b>25</b> Sa 0037 0313 0952 1717	3.0	90	<b>10</b> M 0018 0510 0952 1754	2.3	70
	6.9	210		3.9	120		1.6	50		2.3	70		3.9	120
	4.6	140		2.0	60		7.9	240		2.3	70		2.3	70
				6.9	210								5.6	170
<b>11</b> W 0915 1653 2339	4.6	140	<b>26</b> Th 0045 0226 0952 1734	3.6	110	<b>11</b> Sa 0015 0333 1030 ● 1745	3.3	100	<b>26</b> Su 0055 0401 1034 1741	3.0	90	<b>11</b> Tu 0051 0606 1213 1830	2.3	70
	1.6	50		3.6	110		1.6	50		2.3	70		4.3	130
	7.2	220		2.0	60		1.6	50		2.3	70		2.3	70
	4.3	130		6.9	210		7.9	240		6.6	200		5.2	160
<b>12</b> Th 1730	4.6	140	<b>27</b> F 0114 0315 1017 ○ 1757	3.6	110	<b>12</b> Su 0054 0433 1123 1825	3.0	90	<b>27</b> W 0109 0447 1118 1806	3.0	90	<b>12</b> M 0123 0701 1305 1902	2.0	60
	1.6	50		3.6	110		3.9	120		3.6	110		4.6	140
	7.9	240		2.0	60		1.6	50		2.3	70		2.6	80
				7.2	220		7.9	240		6.2	190			
<b>13</b> F 0328 1046 ● 1810	3.9	120	<b>28</b> Sa 0140 0402 1042 1817	3.3	100	<b>13</b> M 0132 0535 1215 1905	2.6	80	<b>28</b> W 0120 0531 1203 1833	2.6	80	<b>13</b> Th 0156 0756 1359 1927	2.0	60
	4.3	130		3.6	110		4.3	130		3.9	120		4.9	150
	1.6	50		2.0	60		2.0	60		2.3	70		2.6	80
	8.2	250		6.9	210		7.5	230		6.2	190		4.6	140
<b>14</b> Sa 1133 1851	3.6	110	<b>29</b> Su 0203 0447 1115 1840	3.3	100	<b>14</b> Tu 0210 0646 1306 1943	2.6	80	<b>29</b> W 0137 0617 1249 1900	2.6	80	<b>14</b> F 0230 0855 1458 1944	2.0	60
	4.3	130		3.6	110		4.3	130		3.9	120		5.2	160
	1.6	50		2.0	60		2.3	70		2.3	70		3.3	100
	8.2	250		6.9	210		7.2	220		5.9	180			
<b>15</b> Su 1220 1933	3.3	100	<b>30</b> M 0223 0532 1155 1907	3.3	100	<b>15</b> W 0247 0802 1358 2017	2.6	80	<b>30</b> Th 0201 0709 1338 1923	2.3	70	<b>15</b> Sa 0305 1002 1609 1952	2.3	70
	4.3	130		3.6	110		4.3	130		4.3	130		5.6	170
	2.0	60		2.3	70		3.0	90		2.6	80		3.3	100
	8.2	250		6.9	210		6.6	200		5.2	160		3.9	120
<b>31</b> Tu 1239 1935	3.0	90	<b>31</b> Tu 0240 0616 1239 1935	3.6	110				<b>31</b> F 0229 0810 1429 1926	2.3	70			
	2.3	70		2.3	70					4.3	130			
	7.0	270		3.0	90					3.0	90			
	6.6	200		6.6	200					4.9	150			

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Musay'id Outer Channel Entrance, Qatar, 2018

Times and Heights of High and Low Waters

October				November				December					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m 0233 M 1007 1658 1912	ft 2.0 5.6 3.3 3.6	cm 60 170 100 110	16 Tu 0042 1108 1150 2019	ft 2.6 5.9 6.6 2.3	cm 80 180 200 70	1 Th 0239 1150 2019	ft 2.3 6.6 200 70	cm 70 180 70	16 F 1120 2049 2.3	ft 5.9 2.3 70	cm 180 70		
1 M ●				2 Tu ●	0307 1119	2.0 5.9	60 180	17 W 0028 1205	2.6 5.9	80 180	2 F 0253 0427 1252 2055	2.6 2.6 6.2 2.0	80 80 190 60
3 W ●	0353 1234	2.3 6.2	70 190	18 Th 0014 1256 2158	2.6 5.9 2.6	80 180 80	3 Sa 0317 0559 1346 2129	3.3 3.0 6.2 2.0	100 90 190 60	18 Su 0117 1253 2117	5.2 2.3 70	130 110 70	
4 Th	0459 1337 2138	2.3 6.6 2.6	70 200 80	19 F 1342 2210	5.9 2.3	180 70	4 Su 0343 0807 1434 2200	3.6 3.3 5.9 1.6	110 100 180 50	19 Tu 0417 0716 1335 2127	3.9 3.9 5.2 2.0	120 120 160 60	
5 F ●	0056 0618 1430 2206	3.0 2.3 6.6 2.3	90 70 200 70	20 Sa 1423 2227	5.9 2.3	180 70	5 M 0414 0936 1515 2229	4.3 3.0 5.6 1.6	130 90 170 50	20 Th 0424 0907 1410 2150	4.6 3.6 4.9 2.0	140 110 150 60	
6 Sa	0302 0756 1518 2237	3.3 2.6 6.6 2.0	100 80 200 60	21 Su 0422 0749 1459 2239	3.6 3.3 5.6 2.3	110 100 170 70	6 Tu 0449 1038 1549 2257	4.6 3.0 5.2 1.6	140 100 160 50	21 F 0522 1016 1443 2219	5.9 3.6 4.6 1.6	180 110 120 40	
7 Su	0356 0927 1601 2308	3.6 2.6 6.6 2.0	110 80 200 60	22 M 0434 0923 1533 2250	3.9 3.3 5.6 2.3	120 100 170 70	7 W 0526 1134 1616 ● 2324	5.2 3.0 4.6 1.6	160 90 140 50	22 Th 0514 1114 1515 2251	5.6 3.3 4.6 1.6	170 100 140 50	
8 M	0441 1030 1640 2338	4.3 2.3 6.2 1.6	130 70 190 50	23 Tu 0458 1022 1603 2308	4.3 3.0 5.2 2.0	130 90 160 60	8 Th 0603 1228 1640 2353	5.6 3.0 4.3 1.6	170 90 130 50	23 Sa 0546 1208 1549 ○ 2322	5.9 3.3 4.3 1.6	200 100 140 50	
9 Tu ●	0525 1125 1715	4.6 2.3 5.9	140 180	24 W 0525 1115 1630 ○ 2334	4.6 3.0 4.9 2.0	140 90 150 60	9 F 0641 1321 1707	5.9 3.0 3.9	180 90 120	24 Su 0621 1302 1626 2351	6.6 3.0 3.9 1.6	200 100 140 50	
10 W	0006 0609 1218 1744	1.6 4.9 2.6 5.2	50 150 80 160	25 Th 0556 1205 1651	5.2 3.0 4.6	160 90 140	10 Sa 0019 0718 1415 1734	1.6 6.2 3.0 3.6	50 190 90 110	25 M 0700 1357 1707	6.9 3.0 3.9	210 90 120	
11 Th	0036 0653 1310 1807	1.6 5.2 2.6 4.9	50 160 80 150	26 F 0003 0630 1257 1708	1.6 5.6 3.0 4.3	50 170 90 130	11 Su 0040 0755 1513 1801	2.0 6.6 3.0 3.3	60 200 90 100	26 M 0018 0743 1454 1752	1.6 6.9 3.0 3.6	50 210 90 110	
12 F	0106 0739 1406 1825	1.6 5.6 3.0 4.3	50 170 90 130	27 Sa 0032 0710 1351	1.6 5.9 3.0	50 180 90 130	12 M 0042 0832 1353	2.0 6.6 2.3	60 200 70	27 W 0045 0829 1554 1843	1.6 5.2 2.6 3.3	50 200 80 100	
13 Sa	0135 0826 1506 1841	2.0 5.9 3.3 3.9	60 180	28 Tu 0056 0756 1449 1757	1.6 6.2 3.0 3.9	60 200 90 120	13 W 0911 2334	6.6 2.3	200 70	28 Th 0115 0920 1700 1948	2.0 6.9 2.6 3.0	60 190 80 90	
14 Su	0159 0915 1621 1841	2.3 5.9 3.3 3.6	70 180	29 M 0117 0846 1554 1830	1.6 6.2 3.0 3.6	70 200 90 110	14 W 0951 2334	6.2 2.3	70	29 F 0144 1013 1817 2159	2.3 6.9 2.3 2.6	70	
15 M	0208 1009	2.3 5.9	70 180	30 Tu 0140 0942 1711 1907	2.0 6.6 3.0 3.0	60 200 90 90	15 Th 0239 1109 1921 ●	2.6 6.6 2.0	80 200 60	30 Sa 1006 1840	5.6 2.3	170 70	
				31 W 0207 1044 1939 ○ 2033	2.0 6.6 2.6 2.6	60 200 80 80				31 M 0301 0557 1153 1946	3.9 3.6 4.9 1.6	120 110 150 50	

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Jebel Ali, United Arab Emirates, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m 0438 M 1119 1837	ft 2.3 6.2 0.0	cm 70 190 0	h m 0053 Tu 0511 1203 1908	ft 3.9 2.6 5.6 0.7	cm 120 80 170 20	h m 0125 Th 0610 1249 1952 - 0.3	ft 4.6 2.0 6.2 - 10	cm 140 60 190 - 10	h m 0131 F 0616 1251 1942	ft 4.3 2.3 5.6 0.3	cm 130 70 170 10
<b>1</b> M 1837		<b>16</b> Tu 1908		<b>1</b> Th		<b>16</b> F		<b>1</b> Th		<b>16</b> F	
0.0		0.7		0610		0616		0023		0029	
0		20		1249		1251		0515		0530	
		190		1952	- 0.3	1942	0.3	1150	5.9	1152	5.2
						●		1849	0.0	1836	0.7
								0		20	
<b>2</b> Tu 1209 ○	0046 0527 1209 1923	4.6 2.3 6.6 - 0.3	140 70 200 - 10	<b>17</b> W 1236 ●	0125 0548 1337 1939	4.3 2.6 6.2 0.3	130 80 190 10	<b>2</b> F 1325 2030	0103 0653 1325 2012	4.6 2.0 5.6 0.3	140 60 170 10
								<b>17</b> Sa 1308 ●			
								0157 1359 2040	4.6 5.6 0.7	140 170 20	
								<b>18</b> Sa 1308 2010	4.3 0.3	150 10	
								<b>3</b> Sa 0755 1422 2107	0222 6.2 0.0	4.6 190 0	
								<b>3</b> Sa 1359 2040	4.9 0.7	150 20	
								<b>19</b> M 0810 1433 2108	0247 5.6 0.7	4.6 170 20	
								<b>4</b> Su 0846 1505 2142	0216 5.9 0.7	5.2 180 20	
								<b>4</b> Su 1433 2108	0748 5.9	160 20	
								<b>19</b> M 1412 2035	0145 0.7	4.9 30	
								<b>5</b> M 0834 1452 2102	0250 5.6 1.0	5.2 170 30	
								<b>20</b> Tu 1423 2030	0211 2030	4.9 30	
								<b>20</b> Tu 1423 2030	0800 2030	1.0 30	
<b>6</b> Sa 1515 2217	0356 0855 1515 2217	4.9 2.6 5.9 0.3	150 80 180 10	<b>21</b> Su 0822 1442 2141	0323 2.3 0.7	4.6 170 20	140	<b>6</b> Tu 0919 1531 2201	0323 1.3 1.3	5.2 40 40	
								<b>21</b> W 0937 1548 2201	0345 4.9 1.3	5.2 150 40	
								<b>6</b> Tu 1531 2125	0323 1.3	5.2 40	
								<b>21</b> W 0842 1501 2053	0239 4.9 1.3	5.2 150 40	
<b>7</b> Su 1604 2259	0442 0953 1604 2259	4.9 2.6 5.6 1.0	150 80 170 30	<b>22</b> M 1517 2213	0353 2.3 1.0	4.6 170 30	140	<b>7</b> W 1030 2233	0356 4.3	4.9 130	
								<b>22</b> Th 1723 2338	0421 1.6	150 50	
								<b>7</b> W 1635 2142	1005 1.6	4.9 50	
								<b>22</b> Th 1543 2119	0310 1.6	5.2 50	
<b>8</b> M 1659 2342	0529 1059 1659 2342	4.9 2.6 4.9 1.3	150 80 150 40	<b>23</b> Tu 1558 2248	0426 2.3 1.0	4.6 170 30	140	<b>8</b> Th 1736 2317	0505 3.6	4.9 110	
								<b>23</b> F 1736 2202	0429 2.0	150 60	
								<b>8</b> Th 1653 2202	1059 2.0	4.9 60	
								<b>23</b> F 1633 2155	0347 2.0	5.2 60	
<b>9</b> Tu 1802 ○	0617 1220 1802 ●	4.9 2.6 4.3	150 80 130 40	<b>24</b> W 1647 2325	0504 2.3 1.3	4.6 170 40	140	<b>9</b> F 1443 2325	0558 3.3	4.6 100	
								<b>24</b> F 1310 2229	0506 2.3	4.6 70	
								<b>24</b> Sa 1745 2229	0431 2.3	5.2 70	
<b>10</b> W 1919	0025 0708 1410 1919	1.6 4.9 2.6 3.6	50 150 80 110	<b>25</b> Th 1157 1750	0548 2.0 3.9	4.6 160 120	80	<b>10</b> Sa 0757 1604 2220	0020 1.6 3.0	2.3 50 90	
								<b>10</b> Sa 1341 1901 2307	0550 3.0 2.6	4.6 60 80	
								<b>25</b> Su 1303 1916 2355	0527 3.3 2.6	4.9 100 80	
<b>11</b> Th 2102	0112 0804 1551 2102	2.3 4.9 2.3 3.6	70 150 70 110	<b>26</b> F 0640 1334 1926	0010 2.0 3.6	1.6 60 110	80	<b>11</b> Su 0909 1658 2319	0146 1.3 3.3	2.3 40 110	
								<b>11</b> Su 1502 2157	0649 3.0	4.3 90	
								<b>26</b> M 1436 2110	0644 3.6	4.9 110	
<b>12</b> F 2234	0204 0904 1649 2234	2.6 4.9 1.6 3.6	80 150 50 110	<b>27</b> Sa 0744 1530 2120	0105 1.6 3.3	2.0 50 100	90	<b>12</b> M 0805 1607 2337	0010 1.3 3.9	2.6 40 120	
								<b>12</b> M 1607 2255	0140 3.3	2.6 100	
								<b>27</b> Tu 1551 2228	0815 3.9	4.9 120	
<b>13</b> Sa 2332	0300 1000 1731 2332	2.6 5.2 1.3 3.6	80 160 40 110	<b>28</b> Su 0856 1641 2242	0212 1.0 3.6	2.3 5.2 110	70	<b>13</b> Tu 1053 1806	0419 0.0	3.0 90	
								<b>13</b> Tu 1654 2331	0925 3.6	4.6 110	
								<b>28</b> W 1650 2318	0318 4.3	2.6 130	
<b>14</b> Su 1805	0349 1046 1805	2.6 5.2 1.0	80 160 30	<b>29</b> M 1003 1736 2346	0320 0.3 3.9	2.3 10 120	70	<b>14</b> W 1140 1842	0033 0.7	2.6 20	
								<b>14</b> W 1732	1025 0.7	80 20	
								<b>29</b> Th 1738 2358	0426 4.6	2.3 140	
<b>15</b> M 1837	0017 0432 1127 1837	3.9 2.6 5.6 0.7	120 80 170 20	<b>30</b> Tu 1103 1825	0421 0.0	2.3 - 10	70	<b>15</b> Th 1216 1912	0001 0.3	3.9 20	
								<b>15</b> Th 1112 1804	0450 0.7	120 20	
								<b>30</b> F 1141 1821	0522 0.7	1.6 20	
								<b>31</b> Sa 1232 1857	0611 0.7	5.6 20	
								<b>31</b> Sa 1232 1857	0035 0.7	4.9 20	

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Mina Jebel Ali, United Arab Emirates, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0110	5.2	160	<b>16</b> M	0040	5.2	160	<b>1</b> Tu	0111	5.6	170
	0658	1.0	30		0636	1.3	40		0738	1.0	30
	1318	5.6	170		1251	5.2	160		1345	4.9	150
	1929	1.0	30	●	1854	1.3	40		1907	2.0	60
<b>2</b> M	0143	5.2	160	<b>17</b> Tu	0108	5.6	170	<b>2</b> W	0143	5.6	170
	0742	1.0	30		0715	1.0	30		0817	1.0	30
	1359	5.2	160		1332	5.2	160		1422	4.9	150
	1956	1.3	40		1922	1.3	40		1929	2.0	60
<b>3</b> Tu	0215	5.2	160	<b>18</b> W	0137	5.6	170	<b>3</b> Th	0212	5.6	170
	0824	1.0	30		0757	0.7	20		0854	1.0	30
	1437	5.2	160		1414	5.2	160		1459	4.6	140
	2017	1.3	40		1947	1.6	50		1954	2.3	70
<b>4</b> W	0245	5.2	160	<b>19</b> Th	0209	5.9	180	<b>4</b> F	0239	5.6	170
	0904	1.0	30		0841	0.7	20		0929	1.0	30
	1514	4.6	140		1456	4.9	150		1536	4.3	130
	2035	1.6	50		2016	2.0	60		2023	2.3	70
<b>5</b> Th	0314	5.2	160	<b>20</b> F	0243	5.9	180	<b>5</b> Sa	0304	5.6	170
	0944	1.0	30		0930	0.7	20		1007	1.0	30
	1551	4.3	130		1544	4.6	140		1618	3.9	120
	2056	2.0	60		2050	2.3	70		2054	2.6	80
<b>6</b> F	0342	5.2	160	<b>21</b> Sa	0322	5.9	180	<b>6</b> Su	0330	5.2	160
	1028	1.3	40		1028	0.7	20		1050	1.3	40
	1632	3.9	120		1641	4.3	130		1707	3.9	120
	2122	2.3	70		2133	2.3	70		2128	3.0	90
<b>7</b> Sa	0413	4.9	150	<b>22</b> Su	0409	5.6	170	<b>7</b> M	0403	4.9	150
	1124	1.3	40		1138	1.0	30		1143	1.3	40
	1722	3.6	110		1753	3.9	120		1807	3.9	120
	2151	2.6	80		2230	2.6	80		2212	3.3	100
<b>8</b> Su	0452	4.6	140	<b>23</b> M	0510	5.2	160	<b>8</b> Tu	0450	4.6	140
	1239	1.6	50		1254	1.0	30		1243	1.6	50
	1828	3.3	100		1920	3.9	120		1917	3.9	120
	● 2230	3.0	90	●	2352	3.0	90	●	2317	3.3	100
<b>9</b> M	0549	4.6	140	<b>24</b> Tu	0632	4.9	150	<b>9</b> W	0606	4.6	140
	1356	1.6	50		1410	1.3	40		1346	1.6	50
	2015	3.3	100		2053	4.3	130		2034	3.9	120
	2334	3.3	100						2118	4.9	150
<b>10</b> Tu	0706	4.3	130	<b>25</b> W	0149	3.0	90	<b>10</b> Th	0055	3.6	110
	1504	1.6	50		0802	4.9	150		0732	4.3	130
	2209	3.6	110		1520	1.3	40		1445	1.6	50
					2200	4.6	140		2134	4.3	130
<b>11</b> W	0221	3.3	100	<b>26</b> Th	0330	2.6	80	<b>11</b> F	0319	3.3	100
	0829	4.3	130		0925	4.9	150		0853	4.6	140
	1557	1.3	40		1617	1.3	40		1535	1.6	50
	2246	3.9	120		2247	4.9	150		2216	4.6	140
<b>12</b> Th	0349	3.0	90	<b>27</b> F	0438	2.3	70	<b>12</b> Sa	0421	2.6	80
	0941	4.6	140		1033	4.9	150		0959	4.6	140
	1640	1.3	40		1704	1.3	40		1618	1.6	50
	2316	4.3	130		2327	5.2	160		2252	4.9	150
<b>13</b> F	0438	2.6	80	<b>28</b> Sa	0530	1.6	50	<b>13</b> M	0533	2.0	60
	1036	4.9	150		1130	5.2	160		1120	4.9	150
	1716	1.0	30		1743	1.3	40		1654	2.3	70
	2344	4.6	140						2330	5.9	180
<b>14</b> Sa	0519	2.3	70	<b>29</b> Su	0003	5.2	160	<b>14</b> M	0548	1.6	50
	1124	4.9	150		0615	1.3	40		1145	4.9	150
	1750	1.0	30		1221	5.2	160		1730	1.6	50
					1816	1.6	50		2358	5.9	180
<b>15</b> Su	0012	4.9	150	<b>30</b> M	0038	5.6	170	<b>15</b> Tu	0630	1.3	40
	0557	1.6	50		0658	1.0	30		1233	4.9	150
	1208	5.2	160		1305	5.2	160		1803	2.0	60
	1823	1.0	30	○	1844	1.6	50	●			

# Mina Jebel Ali, United Arab Emirates, 2018

Times and Heights of High and Low Waters

July			August			September								
Time	Height													
h m	ft	cm												
<b>1</b> Su 0148 0853 1508 1941	6.2	190	<b>16</b> M 0207 0912 1530 2030	7.2	220	<b>1</b> W 0229 0923 1538 2053	5.9	180	<b>16</b> Th 0332 0957 1620 2218	5.9	180	<b>1</b> Sa 0327 0931 1556 2215	5.2	160
	1.0	30		0.3	10		1.3	40		2.0	60	<b>16</b> Su 0447 0938 1649	4.3	130
	4.6	140		5.2	160		4.9	150		5.6	170		2.6	80
	3.0	90		2.6	80		2.6	80		2.0	60		5.2	160
<b>2</b> M 0215 0923 1543 2022	5.9	180	<b>17</b> Tu 0255 0955 1616 2128	6.9	210	<b>2</b> Th 0301 0952 1608 2139	5.6	170	<b>17</b> F 0420 1029 1702 2325	5.2	160	<b>2</b> Su 0410 0956 1636 2316	4.6	140
	1.0	30		0.7	20		1.3	40		2.0	60		3.6	110
	4.6	140		5.6	170		5.2	160		5.6	170		3.0	90
	3.0	90		2.6	80		2.6	80		2.0	60		5.2	160
<b>3</b> Tu 0243 0956 1620 2105	5.9	180	<b>18</b> W 0345 1039 1703 2231	6.2	190	<b>3</b> F 0337 1023 1642 2231	5.2	160	<b>18</b> Sa 0513 1056 1746 ●	4.6	140	<b>3</b> M 0507 1032 1726 ●	4.3	130
	1.3	40		1.3	40		1.6	40		2.6	80		3.3	100
	4.6	140		5.6	170		5.2	160		5.6	170		3.3	100
	3.3	100		3.0	90		2.6	80		5.2	160		4.9	150
<b>4</b> W 0314 1032 1658 2154	5.6	170	<b>19</b> Th 0439 1123 1751 ●	5.6	170	<b>4</b> Sa 0421 1056 1723 ●	4.9	150	<b>19</b> Su 0045 0618 1119 1835	2.3	70	<b>4</b> Tu 0041 0642 1131 1830	2.0	60
	1.3	40		1.6	50		2.0	60		3.6	110		3.6	110
	4.9	150		5.6	170		5.2	160		5.2	160		1120	3.6
	3.3	100		3.0	90		2.6	80		3.0	90		1948	4.9
<b>5</b> Th 0352 1111 1738 2250	5.2	160	<b>20</b> F 0540 1208 1840	4.9	150	<b>5</b> Su 0518 1135 1811	4.3	130	<b>20</b> M 0218 0809 1154 1935	2.3	70	<b>5</b> W 0231 0846 1301 1952	1.6	50
	1.6	50		2.3	70		2.3	70		3.6	110		3.9	120
	4.9	150		5.6	170		5.2	160		5.2	160		3.6	110
	3.3	100		3.0	90		2.6	80		3.0	90		4.9	150
<b>6</b> F 0440 1153 1820 ●	4.9	150	<b>21</b> Sa 0113 0653 1255 1933	3.0	90	<b>6</b> M 0053 0642 1226 1909	2.6	80	<b>21</b> Tu 0347 1021 1404 2047	2.0	60	<b>6</b> Th 0351 1020 1443 2112	1.3	40
	1.6	50		4.6	140		3.9	120		3.6	110		4.3	130
	4.9	150		5.6	170		5.6	170		5.6	170		3.3	100
	3.3	100		3.0	90		2.6	80		3.0	90		5.2	160
<b>7</b> Sa 0543 1238 1907	4.6	140	<b>22</b> Su 0302 0829 1348 2033	2.6	80	<b>7</b> Tu 0254 0844 1333 2018	2.3	70	<b>22</b> W 0448 1118 1517 2155	1.6	50	<b>7</b> F 0450 1116 1557 2220	0.7	20
	2.0	60		3.9	120		3.6	110		3.9	120		4.6	140
	5.2	160		3.0	90		3.0	90		3.6	110		3.0	90
	5.6	170		5.6	170		5.6	170		5.6	170		5.6	170
<b>8</b> Su 0121 0710 1326 2000	3.0	90	<b>23</b> M 0423 1012 1443 2134	2.3	70	<b>8</b> W 0415 1013 1447 2129	1.6	50	<b>23</b> Th 0530 1156 1609 2246	1.3	40	<b>8</b> Sa 0540 1200 1656 2320	0.3	10
	4.3	130		3.9	120		3.9	120		4.3	130		4.9	150
	2.3	70		3.3	100		3.0	90		3.3	100		2.6	80
	5.2	160		5.6	170		5.9	180		5.6	170		5.6	170
<b>9</b> M 0324 0856 1420 2059	2.6	80	<b>24</b> Tu 0516 1119 1534 2227	1.6	50	<b>9</b> Th 0512 1119 1553 2231	1.0	30	<b>24</b> F 0602 1227 1653 2327	1.0	30	<b>9</b> Su 0624 1239 1749 ●	0.3	10
	3.9	120		4.3	130		4.3	130		4.6	140		4.9	150
	2.3	70		3.3	100		3.0	90		3.3	100		2.6	80
	5.6	170		5.9	180		6.2	190		5.9	180		5.6	170
<b>10</b> Tu 0435 1015 1514 2156	2.0	60	<b>25</b> W 0556 1207 1618 2312	1.3	40	<b>10</b> F 0601 1213 1650 2328	0.7	20	<b>25</b> M 0630 1254 1732 1841	1.0	30	<b>10</b> M 0014 0703 1317 1841	6.6	200
	4.3	130		4.3	130		4.6	140		4.6	140		5.2	160
	2.6	80		3.3	100		2.6	80		3.0	90		2.0	60
	6.2	190		5.9	180		6.6	200		5.6	170		5.2	160
<b>11</b> W 0528 1120 1606 2250	1.3	40	<b>26</b> Th 0629 1245 1657 2351	1.3	40	<b>11</b> Sa 0646 1259 1745 ●	0.3	10	<b>26</b> Su 0003 0658 1320 1809	5.9	180	<b>11</b> Tu 0105 0741 1353 1931	6.6	200
	4.3	130		4.3	130		4.9	150		1.0	30		4.6	140
	2.6	80		3.3	100		2.6	80		4.9	150		5.2	160
	6.6	200		6.2	190		6.2	190		5.6	170		5.2	160
<b>12</b> Th 0616 1217 1656 2341	0.7	20	<b>27</b> F 0700 1317 1735 ●	1.0	30	<b>12</b> Su 0021 0727 1342 1839	6.9	210	<b>27</b> M 0038 0726 1345 1845	5.9	180	<b>12</b> W 0151 0815 1428 2021	6.2	190
	4.6	140		4.6	140		5.2	160		1.0	30		1.3	40
	2.6	80		3.3	100		2.6	80		5.9	180		5.6	170
	6.9	210		5.6	170		2.3	70		5.6	170		1.6	50
<b>13</b> F 0702 1309 1746	0.3	10	<b>28</b> Sa 0026 0729 1347 1813	6.2	190	<b>13</b> M 0112 0807 1422 1933	6.9	210	<b>28</b> Tu 0111 0754 1409 1922	5.9	180	<b>13</b> Th 0235 0845 1502 2110	5.9	180
	4.9	150		1.0	30		0.3	10		1.0	30		1.3	40
	2.6	80		4.6	140		5.6	170		5.2	160		5.6	170
	●			3.0	90		2.3	70		2.3	70		1.3	40
<b>14</b> Sa 0031 0746 1358 1839	7.2	220	<b>29</b> Su 0058 0758 1415 1851	6.2	190	<b>14</b> Tu 0200 0845 1501 2027	6.9	210	<b>29</b> W 0144 0821 1432 2000	5.9	180	<b>14</b> F 0317 0909 1536 2201	5.6	170
	0.3	10		1.0	30		0.7	20		1.0	30		1.6	50
	5.2	160		4.9	150		5.6	170		5.2	160		5.9	180
	2.6	80		3.0	90		2.3	70		2.3	70		1.6	50
<b>15</b> Su 0120 0829 1444 1934	7.2	220	<b>30</b> M 0129 0826 1443 1931	6.2	190	<b>15</b> W 0246 0922 1540 2121	6.6	200	<b>30</b> Th 0216 0846 1456 2040	5.9	180	<b>15</b> Sa 0400 0924 1611 2301	4.9	150
	0.3	10		1.0	30		1.0	30		1.3	40		2.0	60
	5.2	160		4.9	150		5.6	170		5.2	160		5.6	170
	2.6	80		3.0	90		2.3	70		2.0	60		1.6	50
<b>31</b> Tu 0159 0854 1511 2011	6.2	190		1.0	30				<b>31</b> F 0250 0909 1523 2124	5.6	170			
	1.0	30		4.9	150					1.6	50			
	4.9	150		3.0	90					5.2	160			
	3.0	90		3.0	90					2.0	60			

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Mina Jebel Ali, United Arab Emirates, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0409 4.3 130 0918 2.3 70 1559 5.6 170 2312 1.3 40	16 Tu 0522 3.6 110 0923 3.0 90 1634 4.9 150	1 Th 0024 1.0 30 0656 3.9 120 1112 3.3 100 1750 5.2 160	16 F 0028 1.3 40 0716 3.9 120 1054 3.6 110 1742 4.3 130	1 Sa 0101 1.3 40 0741 4.6 140 1318 3.0 90 1907 4.6 140	16 Su 0019 1.3 40 0706 4.3 130 1207 3.3 100 1800 3.9 120						
2 Tu 0515 3.9 120 0959 2.6 80 1651 5.6 170	17 W 0035 1.6 50 0641 3.6 110 0951 3.3 100 1729 4.6 140	2 F 0138 1.0 30 0828 4.3 130 1318 3.3 100 1925 4.9 150	17 Sa 0126 1.6 50 0833 3.9 120 1326 3.6 110 1914 4.3 130	2 Su 0202 1.3 40 0843 4.9 150 1514 2.6 80 2037 4.6 140	17 M 0109 1.6 50 0758 4.6 140 1431 3.0 90 1937 3.9 120						
3 W 0036 1.3 40 0654 3.6 110 1107 3.0 90 1803 5.2 160	18 Th 0146 1.6 50 0947 3.6 110 1049 3.6 110 1848 4.6 140	3 Sa 0249 1.3 40 0937 4.6 140 1513 3.0 90 2053 4.9 150	18 Su 0225 1.6 50 0928 4.3 130 1547 3.3 100 2041 4.3 130	3 M 0302 1.6 50 0937 5.2 160 1624 2.0 60 2157 4.6 140	18 Tu 0201 1.6 50 0850 4.6 140 1604 2.6 80 2110 3.9 120						
4 Th 0207 1.3 40 0853 3.9 120 1258 3.3 100 1937 5.2 160	19 F 0252 1.6 50 1022 3.9 120 1452 3.6 110 2015 4.6 140	4 Su 0350 1.3 40 1023 4.9 150 1623 2.3 70 2206 4.9 150	19 M 0317 1.6 50 1006 4.6 140 1633 2.6 80 2151 4.3 130	4 Tu 0354 2.0 60 1023 5.2 160 1715 1.6 60 2303 4.6 140	19 W 0253 2.0 60 0937 4.9 150 1652 2.0 60 2221 3.9 120						
5 F 0324 1.0 30 1013 4.3 130 1458 3.0 90 2103 5.2 160	20 Sa 0346 1.3 40 1046 4.3 130 1603 3.3 100 2131 4.6 140	5 M 0440 1.3 40 1102 5.2 160 1715 2.0 60 2307 5.2 160	20 Tu 0402 1.6 50 1040 4.9 150 1710 2.3 70 2247 4.6 140	5 W 0436 2.0 60 1104 5.6 170 1759 1.0 30 2359 4.6 140	20 Th 0340 2.0 60 1020 5.2 160 1735 1.3 40 2320 4.3 130						
6 Sa 0424 1.0 30 1058 4.6 140 1610 2.6 80 2213 5.6 170	21 Su 0428 1.3 40 1110 4.6 140 1645 3.0 90 2227 4.9 150	6 Tu 0523 1.3 40 1138 5.6 170 1800 1.3 40	21 W 0441 1.6 50 1111 5.2 160 1747 1.6 50 2336 4.6 140	6 Th 0511 2.3 70 1143 5.6 170 1840 0.7 20	21 F 0422 2.3 70 1101 5.6 170 1816 0.7 20						
7 Su 0513 0.7 20 1135 4.9 150 1706 2.3 70 2313 5.9 180	22 M 0503 1.3 40 1134 4.9 150 1721 2.3 70 2313 5.2 160	7 W 0001 5.2 160 0559 1.6 50 1214 5.9 180 ● 1844 1.0 30	22 Th 0516 2.0 60 1142 5.6 170 1825 1.0 30	7 F 0047 4.6 140 0540 2.6 80 1220 5.9 180 ● 1919 0.7 20	22 O 0013 4.3 130 0501 2.3 70 1143 6.2 190 ● 1857 0.3 10						
8 M 0557 0.7 20 1211 5.2 160 1756 1.6 50	23 Tu 0535 1.3 40 1200 5.2 160 1756 2.0 60 2355 5.2 160	8 Th 0050 5.2 160 0630 2.0 60 1249 5.9 180 1926 0.7 20	23 F 0023 4.9 150 0546 2.0 60 1214 5.9 180 ○ 1904 0.7 20	8 Sa 0130 4.6 140 0608 2.6 80 1255 5.9 180 1955 0.3 10	23 Su 0103 4.6 140 0541 2.3 70 1224 6.2 190 1939 0.0 0						
9 Tu 0007 5.9 180 0635 1.0 30 1246 5.6 170 ● 1843 1.3 40	24 W 0607 1.3 40 1226 5.6 170 1832 1.6 50 ○ 1843 1.3 40	9 F 0133 4.9 150 0655 2.0 60 1322 5.9 180 2006 0.7 20	24 Sa 0109 4.9 150 0616 2.0 60 1247 6.2 190 1945 0.3 10	9 Su 0207 4.6 140 0638 2.6 80 1327 5.9 180 2030 0.3 10	24 M 0150 4.6 140 0624 2.3 70 1307 6.6 200 2022 - 0.3 - 10						
10 W 0056 5.9 180 0710 1.0 30 1321 5.9 180 1929 1.0 30	25 Th 0037 5.2 160 0636 1.6 50 1252 5.6 170 1908 1.3 40	10 Sa 0213 4.9 150 0715 2.3 70 1353 5.9 180 2045 0.7 20	25 Su 0153 4.9 150 0647 2.3 70 1322 6.2 190 2028 0.3 10	10 M 0243 4.3 130 0711 2.6 80 1356 5.9 180 2103 0.3 10	25 Tu 0237 4.6 140 0712 2.6 80 1350 6.6 200 2106 0.0 0						
11 Th 0141 5.6 170 0739 1.3 40 1354 5.9 180 2014 1.0 30	26 F 0117 5.2 160 0702 1.6 50 1319 5.9 180 1947 1.0 30	11 Su 0252 4.6 140 0739 2.6 80 1422 5.9 180 2124 0.7 20	26 M 0239 4.6 140 0724 2.6 80 1400 6.2 190 2115 0.3 10	11 Tu 0318 4.3 130 0746 3.0 90 1424 5.6 170 2135 0.7 20	26 W 0324 4.6 140 0804 2.6 80 1436 6.6 200 2152 0.0 0						
12 F 0223 5.2 160 0802 2.0 60 1426 5.9 180 2058 1.0 30	27 Sa 0157 5.2 160 0725 2.0 60 1347 5.9 180 2028 0.7 20	12 M 0330 4.3 130 0805 2.6 80 1449 5.6 170 2203 1.0 30	27 Tu 0328 4.6 140 0806 2.6 80 1441 6.2 190 2206 0.3 10	12 W 0357 4.3 130 0822 3.0 90 1450 5.2 160 2209 0.7 20	27 Th 0413 4.6 140 0901 2.6 80 1524 5.9 180 2240 0.3 10						
13 Sa 0303 4.9 150 0819 2.3 70 1456 5.9 180 2143 1.0 30	28 Su 0238 4.9 150 0749 2.3 70 1418 5.9 180 2114 0.7 20	13 Tu 0413 4.3 130 0835 3.0 90 1516 5.2 160 2245 1.0 30	28 W 0424 4.6 140 0856 3.0 90 1527 5.9 180 2302 0.7 20	13 Th 0439 4.3 130 0902 3.0 90 1520 5.2 160 2248 1.0 30	28 F 0505 4.9 150 1006 2.6 80 1620 5.6 170 2329 1.0 30						
14 Su 0343 4.6 140 0836 2.3 70 1525 5.6 170 2232 1.3 40	29 M 0323 4.6 140 0820 2.3 70 1454 5.9 180 2208 0.7 20	14 W 0503 3.9 120 0907 3.3 100 1546 4.9 150 2333 1.3 40	29 Th 0528 4.3 130 0959 3.0 90 1625 5.6 170	14 F 0526 4.3 130 0948 3.3 100 1556 4.9 150 2331 1.0 30	29 O 0558 4.9 150 1123 2.6 80 1725 4.9 150 ● 0						
15 M 0428 3.9 120 0858 2.6 80 1556 5.2 160 2330 1.3 40	30 Tu 0418 4.3 130 0900 2.6 80 1536 5.9 180 2312 1.0 30	15 Th 0604 3.9 120 0948 3.3 100 1630 4.6 140 ● 1740 4.9 150	30 F 0000 1.0 30 0635 4.6 140 1126 3.3 100 ● 1740 4.9 150	15 Sa 0615 4.3 130 1048 3.3 100 1647 4.3 130 ● 1740 4.9 150	30 Su 0018 1.3 40 0651 4.9 150 1256 2.6 80 1841 4.3 130						
31 W 0529 3.9 120 0952 3.0 90 1631 5.6 170 ● 0	31 W 0529 3.9 120 0952 3.0 90 1631 5.6 170 ● 0				31 M 0110 1.6 50 0746 4.9 150 1449 2.3 70 2012 3.9 120						

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Aden, Yemen, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0019 0558 1320 2018	4.3 7.9 - 0.7 7.2	130 240 - 20 220	<b>16</b> Tu 0109 0620 1337 2037	4.9 6.9 1.0 6.6	150 210 30 200	<b>1</b> Th 0211 0737 1435 2120	3.6 7.5 0.0 7.9	110 230 0 240	<b>16</b> Th 0204 0728 1410 2047	3.9 6.9 1.3 7.2	120 210 40 220
<b>2</b> Tu 0118 0648 1405 O	4.3 7.9 - 0.7 7.5	130 240 - 20 230	<b>17</b> W 0146 0656 1406 2101	4.6 6.9 1.0 6.6	140 210 30 200	<b>2</b> F 0302 0828 1515 2156	3.6 7.2 0.7 7.9	110 220 20 220	<b>2</b> F 0202 0738 1414 O	3.0 7.5 1.0 7.9	90 230 30 240
<b>3</b> W 0214 0739 1450 2146	4.3 7.9 - 0.3 7.5	130 240 - 10 230	<b>18</b> Th 0221 0732 1434 2127	4.6 6.9 1.0 6.9	140 210 30 210	<b>3</b> Sa 0353 0919 1554 2231	3.3 6.9 1.3 7.5	100 210 40 230	<b>3</b> Sa 0246 0843 1507 2135	2.6 6.6 2.0 7.2	80 220 60 220
<b>4</b> Th 0311 0829 1534 2230	3.9 7.5 0.0 7.5	120 230 0 230	<b>19</b> F 0256 0806 1503 2153	4.3 6.6 1.0 6.9	130 200 30 210	<b>4</b> Su 0444 1010 1630 2306	3.3 6.2 2.3 7.5	100 190 200 230	<b>4</b> Su 0329 0914 1533 2200	2.6 6.9 2.3 7.2	80 210 70 220
<b>5</b> F 0410 0921 1618 2315	3.9 6.9 0.7 7.5	120 210 20 230	<b>20</b> Sa 0333 0842 1531 2220	4.3 6.6 1.3 6.9	130 200 40 210	<b>5</b> M 0538 1106 1703 2340	3.0 5.6 3.0 7.2	90 170 90 220	<b>5</b> M 0427 1007 1559 2229	3.0 5.9 2.6 7.2	90 190 80 230
<b>6</b> Sa 0512 1017 1702 2359	3.9 6.2 1.6 7.2	120 190 50 220	<b>21</b> Su 0412 0919 1558 2247	4.3 6.2 2.0 6.9	130 190 60 210	<b>6</b> Tu 0637 1213 1728 2304	3.0 4.9 3.9 7.2	90 150 120 220	<b>6</b> Tu 0454 1050 1626 2304	2.6 5.9 3.3 7.2	80 190 110 220
<b>7</b> Su 0619 1122 1746	3.6 5.6 2.6	110 170 80	<b>22</b> M 0457 1004 1623 2317	3.9 5.9 2.3 6.9	120 180 70 210	<b>7</b> W 0013 0743 1349 O	6.9 3.0 4.6 4.6	210 90 140 140	<b>7</b> W 0540 1146 1659 2348	2.6 5.2 3.9 7.2	80 160 120 220
<b>8</b> M 0044 0732 1245 1831	7.2 3.6 4.9 3.6	220 110 150 110	<b>23</b> Tu 0553 1101 1652 2354	3.6 5.2 3.0 6.9	110 160 90 210	<b>8</b> Th 0049 0855 1419 O	6.6 3.0 4.9 4.6	200 90 150 140	<b>8</b> Th 0733 1419 1753 O	2.3 4.9 4.6 7.2	70 150 140 220
<b>9</b> Tu 0130 0849 1441 O	6.9 3.3 4.6 4.3	210 100 140 130	<b>24</b> W 0701 1224 1730	3.3 4.9 3.3	100 150 100 130	<b>9</b> F 0135 1003 1003	6.2 2.6 80	190	<b>9</b> F 0047 0852 1631 2006	6.9 2.0 5.2 4.9	210 180 160 150
<b>10</b> W 0216 1001 1819 2028	6.6 2.6 4.9 4.9	200 80 150 150	<b>25</b> Th 0039 0815 1420 O	6.9 3.0 4.6 3.9	210 90 140 120	<b>10</b> Sa 0236 1055 1945 2230	6.2 2.3 5.6 5.6	190 70 170 170	<b>10</b> Sa 0206 1007 1742 2159	6.9 1.6 5.9 4.9	210 50 180 150
<b>11</b> Th 0300 1055 1917 2142	6.6 2.3 5.2 5.2	200 70 160 160	<b>26</b> F 0135 0928 1632 2005	7.2 2.0 4.9 4.6	220 60 150 140	<b>11</b> Su 0341 1135 1929 2336	6.2 2.0 5.9 5.2	190 60 180 160	<b>11</b> Su 0331 1110 1827 2321	6.9 1.0 6.6 4.6	210 30 200 140
<b>12</b> F 0343 1135 1941 2249	6.6 2.0 5.6 5.2	200 60 170 160	<b>27</b> Sa 0240 1033 1751 2150	7.2 1.3 5.6 4.9	220 40 170 150	<b>12</b> M 0437 1209 1931 2150	6.2 1.6 6.2 6.6	190 50 190 150	<b>12</b> M 0446 1204 1905 2239	5.6 0.7 7.2 4.9	170 20 220 150
<b>13</b> Sa 0424 1207 1946 2343	6.6 1.6 5.9 5.2	200 50 180 160	<b>28</b> Su 0346 1129 1843 2311	7.5 0.7 6.2 4.6	230 20 190 140	<b>13</b> Tu 0022 0526 1241 1944	4.9 6.6 1.3 6.6	150 200 40 200	<b>13</b> Tu 0023 0550 1251 1940	3.9 7.2 0.7 7.5	120 220 20 230
<b>14</b> Su 0504 1238 1956	6.6 1.3 5.9	200 40 180	<b>29</b> M 0450 1220 1926	7.5 0.0 6.9	230 0 210	<b>14</b> W 0059 0609 1312 2002	4.6 6.6 1.3 6.6	140 200 40 200	<b>14</b> W 0013 0513 1206 1859	4.6 5.9 2.0 6.6	140 180 60 200
<b>15</b> M 0028 0542 1308 2014	4.9 6.9 1.0 6.2	150 210 30 190	<b>30</b> Tu 0018 0548 1307 2005	4.6 7.9 - 0.3 7.2	130 210 - 10 220	<b>15</b> Th 0132 0650 1341 2023	4.3 6.9 1.3 6.9	130 210 40 210	<b>15</b> Th 0043 0600 1238 1916	4.3 6.2 2.0 6.9	130 190 60 210
			<b>31</b> W 0118 0644 1352 O	4.3 7.9 - 0.3 7.5	130 240 - 10 230				<b>31</b> Sa 0148 0744 1350 O	2.3 7.2 2.3 7.9	70 220 70 240

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Aden, Yemen, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0226	2.0	60	<b>16</b> M	0146	2.0	60	<b>1</b> Tu	0238	1.3	40
	0828	6.9	210		0801	6.9	210		0909	6.6	200
	1424	2.6	80		1339	3.0	90		1425	4.3	130
	2028	7.9	240	●	1943	7.9	240		2007	7.5	230
<b>2</b> M	0303	2.0	60	<b>17</b> Tu	0222	1.3	40	<b>2</b> W	0309	1.3	40
	0910	6.9	210		0846	6.9	210		0947	6.2	190
	1454	3.3	100		1416	3.3	100		1451	4.6	140
	2053	7.5	230		2012	7.9	240		2029	7.2	220
<b>3</b> Tu	0338	2.0	60	<b>18</b> W	0302	1.0	30	<b>3</b> Th	0339	1.6	50
	0953	6.6	200		0934	6.9	210		1027	6.2	190
	1520	3.9	120		1454	3.6	110		1518	4.6	140
	2116	7.5	230		2044	7.9	240		2049	6.9	210
<b>4</b> W	0413	2.0	60	<b>19</b> Th	0346	1.0	30	<b>4</b> F	0409	1.6	50
	1037	5.9	180		1027	6.6	200		1111	5.9	180
	1542	4.3	130		1537	4.3	130		1548	4.9	150
	2135	7.2	220		2120	7.9	240		2112	6.6	200
<b>5</b> Th	0448	2.3	70	<b>20</b> F	0436	1.0	30	<b>5</b> Sa	0443	2.0	60
	1126	5.6	170		1129	6.2	190		1203	5.9	180
	1559	4.6	140		1628	4.6	140		1627	5.2	160
	2152	6.9	210		2201	7.5	230		2137	6.2	190
<b>6</b> F	0527	2.3	70	<b>21</b> Sa	0533	1.3	40	<b>6</b> Su	0523	2.3	70
	1230	5.2	160		1244	6.2	190		1311	5.9	180
	1611	4.9	150		1738	4.9	150		1739	5.2	160
	2210	6.2	190		2252	6.9	210		2204	5.9	180
<b>7</b> Sa	0615	2.6	80	<b>22</b> Su	0638	1.6	50	<b>7</b> M	0612	2.6	80
	1439	5.2	160		1412	6.2	190		1432	5.9	180
	1601	5.2	160		1916	5.2	160		2010	5.2	160
	2230	5.9	180						2243	5.2	160
<b>8</b> Su	0717	3.0	90	<b>23</b> M	0004	6.2	190	<b>8</b> Tu	0711	3.0	90
	1712	5.6	170		0752	2.0	60		1529	5.9	180
	2035	5.6	170		1534	6.6	200		2158	4.9	150
	2253	5.6	170	●	2110	4.9	150	●	2222	3.3	100
<b>9</b> M	0832	3.0	90	<b>24</b> Tu	0156	5.9	180	<b>9</b> W	0107	4.9	150
	1712	5.9	180		0911	2.3	70		0817	3.0	90
	2256	5.2	160		1633	6.9	210		1604	6.2	190
					2236	4.3	130		2241	4.3	130
<b>10</b> Tu	0207	5.2	160	<b>25</b> W	0353	5.9	180	<b>10</b> Th	0315	4.9	150
	0940	3.0	90		1020	2.6	80		0920	3.3	100
	1729	6.2	190		1716	7.2	220		1632	6.6	200
	2325	4.6	140		2331	3.3	100		2312	3.6	110
<b>11</b> W	0352	5.2	160	<b>26</b> Th	0517	6.2	190	<b>11</b> F	0438	5.2	160
	1033	2.6	80		1117	2.6	80		1014	3.3	100
	1745	6.6	200		1752	7.5	230		1658	6.9	210
	2350	4.3	130						2342	3.0	90
<b>12</b> Th	0459	5.6	170	<b>27</b> F	0015	2.6	80	<b>12</b> Sa	0537	5.6	170
	1117	2.6	80		0618	6.6	200		1102	3.3	100
	1802	6.9	210		1205	3.0	90		1728	7.2	220
					1823	7.5	230				
<b>13</b> F	0017	3.6	110	<b>28</b> Sa	0054	2.3	70	<b>13</b> Su	0014	2.3	70
	0550	6.2	190		0707	6.6	200		0626	6.2	190
	1155	2.6	80		1246	3.3	100		1146	3.3	100
	1824	7.2	220		1851	7.9	240		1758	7.5	230
<b>14</b> Sa	0045	3.0	90	<b>14</b> Su	0130	1.6	50	<b>29</b> M	0048	1.6	50
	0635	6.6	200		0751	6.9	210		0831	6.2	190
	1230	2.6	80		1322	3.6	110		1228	3.6	110
	1849	7.5	230		1918	7.9	240		1831	7.9	240
<b>15</b> Su	0114	2.3	70	<b>30</b> M	0205	1.6	50	<b>15</b> Tu	0125	1.0	30
	0718	6.9	210		0830	6.6	200		0800	6.9	210
	1304	2.6	80		1355	3.9	120		1311	3.6	110
	1916	7.5	230	●	1943	7.5	230	●	1906	8.2	250

# Aden, Yemen, 2018

Times and Heights of High and Low Waters

July				August				September			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0321	1.0	30	<b>16</b> M	0359	0.3	10	<b>1</b> W	0355	1.6	50
	1022	6.2	190		1047	7.2	220		0429	6.2	190
	1541	4.6	140		1638	3.3	100		1120	6.6	200
	2043	6.2	190		2201	6.6	200		1805	2.3	70
<b>2</b> M	0351	1.3	40	<b>17</b> Tu	0444	1.0	30	<b>2</b> Th	0421	2.0	60
	1053	6.2	190		1131	7.2	220		1155	6.2	190
	1624	4.6	140		1741	3.3	100		1909	2.3	70
	2120	5.9	180		2302	5.9	180		2244	5.2	160
<b>3</b> Tu	0423	1.6	50	<b>18</b> W	0530	2.0	60	<b>3</b> F	0446	2.6	80
	1123	6.2	190		1215	6.9	210		0120	4.6	140
	1713	4.3	130		1849	3.0	90		0610	3.9	120
	2202	5.6	170						1230	5.9	180
<b>4</b> W	0455	2.0	60	<b>19</b> ○	0014	5.2	160	<b>4</b> Sa	0515	3.0	90
	1153	6.2	190		0617	3.0	90		0549	4.6	140
	1810	4.3	130		1301	6.6	200		0658	4.6	140
	2253	5.2	160		2002	3.0	90		1207	6.2	190
<b>5</b> Th	0529	2.6	80	<b>20</b> F	0146	4.6	140	<b>5</b> Su	0119	4.6	140
	1227	6.2	190		0707	3.6	110		0559	3.6	110
	1915	3.9	120		1348	6.6	200		1255	6.6	200
					2116	2.6	80		2044	2.0	60
<b>6</b> F	0003	4.9	150	<b>21</b> ○	0437	4.6	140	<b>6</b> M	0335	4.6	140
	0608	3.0	90		0808	4.3	130		0718	5.2	160
	1307	6.2	190		1436	6.2	190		1045	4.9	150
	2024	3.3	100		2222	2.3	70		1356	6.6	200
<b>7</b> Sa	0142	4.6	140	<b>22</b> Su	0630	4.9	150	<b>21</b> Tu	0515	4.9	150
	0700	3.3	100		0921	4.6	140		0653	4.9	150
	1354	6.6	200		1524	6.2	190		0847	4.9	150
	2129	2.6	80		2315	2.0	60		1413	5.6	170
<b>8</b> Su	0343	4.6	140	<b>23</b> M	0721	5.2	160	<b>22</b> W	0725	5.2	160
	0808	3.9	120		1035	4.9	150		1146	4.6	140
	1445	6.9	210		1611	6.2	190		1632	5.6	170
	2227	2.0	60		2356	1.6	50		2258	0.7	20
<b>9</b> M	0514	4.9	150	<b>24</b> Tu	0746	5.6	170	<b>23</b> Th	0003	1.6	50
	0923	3.9	120		1134	4.9	150		0722	5.6	170
	1541	7.2	220		1654	6.2	190		1222	4.3	130
	2320	1.0	30						1722	5.9	180
<b>10</b> Tu	0617	5.6	170	<b>25</b> W	0030	1.3	40	<b>24</b> F	0034	1.3	40
	1035	4.3	130		0754	5.6	170		0731	5.9	180
	1636	7.2	220		1220	4.6	140		1252	3.9	120
					1734	6.2	190		1805	5.9	180
<b>11</b> W	0009	0.3	10	<b>26</b> Th	0101	1.0	30	<b>9</b> Sa	0129	- 0.3	- 10
	0707	5.9	180		0807	5.9	180		0816	6.9	210
	1142	4.3	130		1259	4.6	140		1342	3.3	100
	1731	7.5	230		1813	6.2	190		1917	7.2	220
<b>12</b> Th	0057	- 0.3	- 10	<b>27</b> F	0131	1.0	30	<b>26</b> ○	0132	1.3	40
	0753	6.6	200		0826	5.9	180		0809	6.2	190
	1244	3.9	120		1335	4.3	130		1351	3.3	100
	1825	7.9	240		1851	6.6	200		1923	6.2	190
<b>13</b> F	0143	- 0.7	- 20	<b>28</b> Sa	0200	1.0	30	<b>11</b> O	0233	1.0	30
	0837	6.9	210		0850	6.2	190		0851	7.2	220
	1343	3.9	120		1410	3.9	120		1504	1.6	50
	1918	7.9	240		1928	6.6	200		2101	6.9	210
<b>14</b> Sa	0229	- 0.7	- 20	<b>29</b> Su	0228	1.0	30	<b>12</b> W	0311	1.6	50
	0920	7.2	220		0916	6.2	190		0922	7.2	220
	1441	3.6	110		1444	3.9	120		1548	1.6	50
	2011	7.5	230		2004	6.2	190		2150	6.2	190
<b>15</b> Su	0314	- 0.3	- 10	<b>30</b> M	0257	1.0	30	<b>13</b> Tu	0229	1.3	40
	1003	7.2	220		0942	6.2	190		0855	6.6	200
	1538	3.6	110		1519	3.6	110		1452	3.0	90
	2105	7.2	220		2039	6.2	190		2036	6.2	190
<b>31</b> Tu	0326	1.3	40	<b>14</b> W	0338	0.7	20	<b>13</b> F	0346	2.6	80
	1006	6.2	190		1008	7.2	220		0952	6.9	210
	1556	3.6	110		1615	2.3	70		1632	1.6	50
	2116	5.9	180		2157	6.2	190		2242	5.9	180

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Aden, Yemen, 2018

Times and Heights of High and Low Waters

October					November					December													
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height									
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm								
<b>1</b> M	0429 1033 1817	4.3 6.6 1.6	130 200 50	<b>16</b> Tu ●	0226 0352 1857	4.9 4.9 2.6	150 150 80	<b>1</b> Th	0253 0828 1301 2026	6.2 4.6 5.2 2.0	190 140 160 60	<b>16</b> F	0309 1122 1257 1953	5.9 4.3 4.3 3.0	180 130 130 90	<b>1</b> Sa	0306 0955 1523 2104	6.9 3.3 4.9 3.3	210 100 150 100	<b>16</b> Su	0206 0933 1413 1922	6.2 3.9 4.3 3.6	190 120 130 110
<b>2</b> Tu	0135 0549 ●	5.2 4.6 1.6	160 140 50	<b>17</b> W	0503 2012	5.2 2.6	160 80	<b>2</b> F	0357 1013 1509 2142	6.6 3.9 5.2 2.3	200 120 160 70	<b>17</b> Sa	0348 1112 1517 2102	5.9 3.9 4.3 3.3	180 120 130 100	<b>2</b> Su	0356 1053 1708 2211	7.2 2.6 5.6 3.6	220 80 170 110	<b>17</b> M	0246 1019 1614 2035	6.6 3.0 4.6 3.9	200 90 140 120
<b>3</b> W	0328 0755 1301 2058	5.2 4.6 5.6 1.6	160 140 170 50	<b>18</b> Th	0459 1149 1352 2124	5.6 4.3 4.6 3.0	170 130 140 90	<b>3</b> Sa	0445 1109 1653 2246	6.9 3.0 5.6 2.6	190 90 170 80	<b>18</b> Su	0417 1118 1650 2159	6.2 3.3 4.9 3.3	190 100 150 100	<b>3</b> M	0439 1138 1815 2309	7.2 2.0 5.9 3.9	220 60 180 120	<b>18</b> Tu	0326 1057 1729 2142	6.6 2.3 4.9 4.3	200 70 150 130
<b>4</b> Th	0441 0950 1449 2213	5.9 4.3 5.6 1.6	180 130 140 50	<b>19</b> F	0512 1151 1603 2222	5.9 3.9 4.6 2.6	180 120 140 80	<b>4</b> Su	0524 1152 1802 2339	7.2 2.3 5.9 2.6	220 70 180 80	<b>19</b> M	0442 1139 1743 2248	6.6 2.6 5.2 3.6	200 80 160 110	<b>4</b> Tu	0515 1217 1907 2358	7.2 1.3 6.2 4.3	220 40 190 130	<b>19</b> W	0405 1134 1821 2242	6.9 1.6 5.6 4.3	210 50 170 130
<b>5</b> F	0527 1108 1629 2315	6.2 3.6 5.9 1.3	190 110 180 40	<b>20</b> Sa	0530 1158 1710 2306	5.9 3.6 4.9 2.6	180 110 150 80	<b>5</b> M	0558 1232 1855	7.2 1.6 6.6	220 50 200	<b>20</b> Tu	0508 1206 1826 2331	6.9 2.0 5.9 3.6	210 60 180 110	<b>5</b> W	0547 1253 1950	7.2 1.0 6.6	220 30 200	<b>20</b> Th	0446 1212 1905 2336	7.2 0.7 5.9 4.3	220 20 180 130
<b>6</b> Sa	0604 1159 1743	6.9 3.0 6.2	210 90 190	<b>21</b> Su	0549 1213 1754 2344	6.2 3.0 5.6 2.6	190 90 170 80	<b>6</b> Tu	0024 0629 1309 1941	3.0 7.5 1.0 6.6	90 230 30 200	<b>21</b> W	0536 1236 1908 1941	7.2 1.3 6.2 6.6	220 220 190 200	<b>6</b> Th	0041 0615 1328 2028	4.6 7.2 0.7 6.6	140 220 20 200	<b>21</b> F	0527 1251 1948	7.5 0.0 6.6	230 0 200
<b>7</b> Su	0005 0638 1243 1840	1.3 7.2 2.3 6.6	40 220 70 200	<b>22</b> M	0609 1236 1834	6.6 2.3 5.9	200 70 180	<b>7</b> W	0105 0657 1346 ●	3.3 7.5 0.7 6.6	100 230 20 200	<b>22</b> Th	0012 0606 1309 1949	3.6 7.5 0.7 6.6	110 230 20 200	<b>7</b> F	0119 0642 1401 ●	4.6 7.2 0.7 6.6	140 220 20 200	<b>22</b> Sa	0029 0610 1332 2030	4.6 7.9 -0.3 6.9	140 240 -10 210
<b>8</b> M	0050 0709 1324 1930	1.6 7.2 1.6 6.9	50 220 50 210	<b>23</b> Tu	0018 0631 1302 1912	2.6 6.9 2.0 6.2	80 210 60 190	<b>8</b> Th	0142 0722 1421 2104	3.6 7.2 0.7 6.6	110 220 20 200	<b>23</b> F	0052 0637 1345 ●	3.9 7.5 0.3 6.6	120 230 10 200	<b>8</b> Sa	0156 0709 1432 2137	4.6 7.2 0.7 6.6	140 220 20 200	<b>23</b> Su	0122 0654 1414 2113	4.6 7.9 -0.7 7.2	140 240 -20 220
<b>9</b> Tu	0130 0739 1404 ●	2.0 7.5 1.0 6.9	60 230 30 210	<b>24</b> W	0051 0654 1331 ●	3.0 6.9 1.3 6.6	90 210 40 200	<b>9</b> F	0216 0746 1454 2144	3.9 7.2 0.7 6.2	120 220 20 190	<b>24</b> Sa	0134 0711 1424 2119	3.9 7.9 0.0 6.9	120 240 0 200	<b>9</b> Su	0231 0736 1502 2211	4.9 6.9 0.7 6.6	150 210 20 200	<b>24</b> M	0215 0740 1457 2158	4.3 7.9 -0.3 7.2	130 240 -10 220
<b>10</b> W	0208 0807 1442 2101	2.3 7.2 1.0 6.6	70 220 30 200	<b>25</b> Th	0124 0717 1402 2033	3.0 7.2 1.0 6.6	90 220 30 200	<b>10</b> Sa	0248 0809 1526 2225	4.3 6.9 1.0 6.2	130 230 30 190	<b>25</b> Su	0220 0748 1506 2208	4.3 7.5 0.0 6.9	130 230 0 200	<b>10</b> M	0307 0804 1530 2245	4.9 6.6 1.0 6.2	150 200 30 190	<b>25</b> Tu	0312 0829 1542 2245	4.3 7.5 0.0 7.2	130 230 0 220
<b>11</b> Th	0242 0833 1520 2146	3.0 7.2 1.0 6.2	90 220 30 190	<b>26</b> F	0157 0743 1438 2117	3.3 7.2 0.7 6.6	100 220 20 200	<b>11</b> Su	0318 0830 1557 2309	4.6 6.6 1.3 5.9	140 230 40 180	<b>26</b> M	0310 0829 1552 2302	4.3 7.5 0.0 6.9	130 230 20 200	<b>11</b> Tu	0348 0833 1557 2320	4.9 6.2 1.3 6.2	150 200 40 190	<b>26</b> W	0414 0921 1629 2334	4.3 6.9 0.7 7.2	130 210 20 220
<b>12</b> F	0314 0857 1556 2232	3.6 6.9 1.0 5.9	110 210 30 180	<b>27</b> Sa	0233 0812 1518 2205	3.6 7.2 0.7 6.2	110 220 20 190	<b>12</b> M	0352 0851 1628 2359	4.9 6.2 1.6 5.9	150 190 50 180	<b>27</b> W	0438 0903 1626 2359	4.9 5.9 1.6 6.2	150 180 20 190	<b>27</b> Th	0522 1021 1719	4.3 6.2 1.3	130 190 40				
<b>13</b> Sa	0343 0916 1633 2324	3.9 6.6 1.3 5.6	120 200 40 170	<b>28</b> Su	0312 0845 1603 2301	3.9 7.2 0.7 6.2	120 220 20 190	<b>13</b> Tu	0438 0910 1702 2301	4.9 5.9 2.0 6.2	150 180 60 190	<b>28</b> F	0000 0521 1011 1738	6.6 4.6 0.0 1.3	200 240 0 40	<b>13</b> Th	0542 0935 1657 1738	4.9 5.6 2.3 40	150 170 70 70	<b>28</b> Sa	0024 0637 1136 1812	7.2 3.9 5.6 2.3	220 120 170 70
<b>14</b> Su	0408 0933 1633 1712	4.6 6.2 1.3 1.6	140 190 40 50	<b>29</b> M	0358 0924 1655	4.3 6.9 1.0	130 210 30	<b>14</b> W	0101 0605 0918 1744	5.6 5.2 5.2 2.3	170 160 170 70	<b>29</b> Th	0103 0649 1126 1841	6.6 4.6 5.6 2.0	200 140 170 60	<b>14</b> F	0040 0659 1017 1733	6.2 4.6 4.9 2.6	190 140 150 80	<b>29</b> Sa	0117 0759 1314 1911	7.2 3.6 4.9 3.3	220 110 150 100
<b>15</b> M	0029 0427 0948 1757	5.2 4.9 5.9 2.3	160 150 180 70	<b>30</b> Tu	0009 0502 1012 1755	5.9 4.6 6.6 1.3	180 140 200 40	<b>15</b> Th	0212 1841 1313 ●	5.6 2.6 5.2 2.6	170 80 160 80	<b>30</b> Sa	0207 0829 1313 1951	6.9 3.9 5.2 2.6	210 120 160 100	<b>15</b> ○	0123 0823 1206 1819	6.2 4.3 4.6 3.3	190 130 140 100	<b>30</b> Su	0210 0919 1522 2019	7.2 3.0 4.9 3.9	220 90 150 120
				<b>31</b> W	0130 0634 1119 ●	5.9 4.9 5.9 1.6	180 150 180 50					<b>31</b> M	0301 1026 1732 2130	7.2 2.3 5.2 4.6	220 70 160 140								

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suez, Egypt, 2018

Times and Heights of High and Low Waters

January				February				March								
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height					
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm					
1 M	0416	1.3	41	16 Tu	0511	2.5	76	1 Th	0548	0.9	26	16 F	0550	2.1	64	
1030	6.9	211	Tu	1143	6.0	182	1201	7.3	221	1207	6.2	189				
1650	1.5	45		1731	2.6	78	1818	0.9	27	1811	2.1	63				
2246	6.6	200		2354	5.5	169				2326	6.6	201				
2 Tu	0507	1.1	34	17 W	0539	2.4	74	2 F	0028	6.8	207	2 F	0537	0.9	28	
1120	7.2	219		1207	6.1	185	0639	0.8	25	1252	7.3	222	1148	7.1	215	
1739	1.2	37		1800	2.4	74	1909	0.8	25	1233	6.3	192	1803	1.0	29	
O 2341	6.7	205	●							1845	1.9	59	O 2352	6.0	184	
3 W	0558	1.0	29	18 Th	0018	5.6	172	3 Sa	0122	6.8	207	18 17	0526	2.0	61	
1213	7.3	224		0609	2.3	70	0730	0.9	28	1343	7.2	218	1137 Sa	0526	6.2	190
1831	1.0	32		1231	6.1	187	2000	0.9	28	2000	1.8	56	1743 2.0	6.2	61	
4 Th	0035	6.8	207	19 F	0045	5.7	175	4 Su	0215	6.7	204	3 Sa	0016	6.8	206	
0650	0.9	38		0645	2.2	67	0822	1.2	36	1435	6.9	210	0626	0.9	28	
1305	7.3	224		1258	6.2	190	2050	1.1	35	2050	1.1	35	1237	7.1	216	
1924	1.0	30		1907	2.1	65							1850	1.0	29	
5 F	0131	6.8	206	20 Sa	0113	5.8	177	5 M	0311	6.5	197	4 Su	0107	6.8	207	
0745	1.0	31		0720	2.1	65	0915	1.5	47	1530	6.5	198	0713 M	0022	6.2	189
1400	7.2	220		1328	6.3	191	2143	1.5	46	2037	1.8	56	0635	1.8	55	
2016	1.0	31		1945	2.0	62						1326	7.0	213		
6 Sa	0231	6.6	202	21 Su	0145	5.8	178	6 Tu	0409	6.1	187	1937	1.1	33		
0841	1.2	38		0800	2.1	65	1011	2.0	60	1626	6.1	185	1413	6.7	205	
1456	6.9	211		1401	6.2	190	2241	1.9	58	2022	1.4	42	2022	1.4	42	
2113	1.2	37		2024	2.0	62										
7 Su	0331	6.4	195	22 M	0222	5.8	177	7 W	0513	5.8	178	2122	1.9	58		
0941	1.6	48		0843	2.2	68	1115	2.4	73	1730	5.6	172	0245	6.4	195	
1554	6.6	200		1439	6.1	187	2346	2.3	69	1454	6.1	187	0846	1.7	53	
2213	1.5	45		2105	2.1	63				2122	1.9	58	1501	6.4	194	
8 M	0437	6.1	187	23 Tu	0305	5.7	175	8 Th	0620	5.6	170	2109	1.7	53		
1045	1.9	59		0926	2.4	72	1226	2.7	83	1839	5.3	162	0133 W	0218	6.3	193
1658	6.2	188		1522	6.0	182						0754	1.8	56		
2320	1.8	55		2152	2.1	65						1350	6.4	196		
9 Tu	0548	5.9	181	24 W	0354	5.6	172	9 F	0058	2.5	77	2015	1.7	53		
1158	2.3	69		1016	2.5	76	0730	5.4	166	1343	2.9	88	0218 Th	0218	6.2	190
1807	5.8	178		1611	5.8	177	1343	2.9	88	1948	5.2	157	1433	6.3	191	
O				2245	2.2	68						2101	1.8	55		
10 W	0031	2.1	63	25 Th	0454	5.6	170	10 Sa	0209	2.7	81	2254	2.5	76		
0700	5.8	177		1118	2.6	80	0835	5.4	166	1448	2.9	89	0337 6.1	185	6.1	185
1313	2.5	76		1709	5.6	172	2054	5.2	157	2054	5.2	157	0928 F	0426	2.4	74
1916	5.6	171		O 2346	2.3	69						1526	6.0	183		
11 Th	0143	2.2	68	26 F	0601	5.6	171	11 M	0303	2.7	81	2156	1.9	59		
0807	5.8	176		1230	2.6	80	0928	5.5	168	1535	2.9	87	0520 Su	0309	2.1	78
1424	2.6	79		1816	5.6	170	1535	2.9	87	2146	5.2	158	1143	2.3	71	
2024	5.5	167										1745	5.5	169		
12 F	0246	2.3	71	27 Sa	0058	2.2	66	12 M	0345	2.6	80	0022 5.7	022	2.1	63	
0907	5.8	177		0713	5.8	176	1013	5.6	172	0909	1.6	49	0639 M	0216	2.8	86
1522	2.6	80		1341	2.5	75	1611	2.8	84	1531	1.7	52	0752 Tu	0141	1.9	57
2122	5.4	166		1926	5.6	172	2230	5.3	161	2131	6.0	182	1418	5.9	180	
13 Sa	0335	2.4	74	28 Su	0205	1.9	59	13 Tu	0416	2.5	77	2146	3.0	91		
0958	5.9	179		0820	6.0	184	1046	5.7	175	209	5.1	156	2148	2.0	60	
1607	2.7	81		1446	2.1	65	1639	2.6	80				2020	5.7	175	
2213	5.5	167		2035	5.8	177	2303	5.4	165							
14 Su	0415	2.5	76	29 M	0307	1.6	50	14 W	0446	2.4	73	1115 5.2	0343	2.5	77	
1039	5.9	180		0920	6.4	195	1116	5.9	179	1737	2.5	75	0954 6.5	0345	1.3	41
1641	2.7	82		1545	1.8	54	2139	6.1	186	2356	5.7	173	1613 1.4	0954	6.5	197
2252	5.5	167										2222	6.4	194		
15 M	0443	2.5	77	30 Tu	0403	1.3	40	15 Th	0516	2.3	69	1043 5.9	0437	1.2	36	
1113	5.9	181		1016	6.8	206	1143	6.0	184	1737	2.3	69	1046 6.7	0437	1.2	36
1707	2.7	81		1637	1.4	42						1635 2.4	73	2258 5.6	172	204
2326	5.5	168		2237	6.4	195	O 2356	5.7	173				2315 6.6	204	204	
31 W	0456	1.0	31													
1111	7.1	215														
1728	1.1	33														
O 2333	6.6	202														

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suez, Egypt, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft cm		h m	ft cm		h m	ft cm		h m	ft cm	
<b>1</b> <b>Su</b>	0001	6.7 203		<b>16</b> <b>M</b>	0533 1.8 55		<b>1</b> <b>Tu</b>	0028 6.3 193		<b>16</b> <b>F</b>	0546 1.4 44	
	0609	1.2 38		1133 6.4 195			0630 1.8 54		W	1145 6.3 193		
	1220	6.8 207		1748 1.8 55			1245 6.2 188		1805 1.4 44			
	1830	1.3 41	●	2352 6.4 195			1845 2.0 60			1337 5.3 162		
<b>2</b> <b>M</b>	0048	6.7 203		<b>17</b> <b>Tu</b>	0611 1.7 52		<b>2</b> <b>W</b>	0107 6.2 188		<b>2</b> <b>Sa</b>	0150 5.4 164	
	0652	1.4 44		1209 6.5 198			0705 2.0 61			0745 2.1 63		
	1305	6.7 203		1828 1.7 52			1326 6.0 182			1413 5.2 159		
	1913	1.5 47					1922 2.2 66			2005 2.3 70		
<b>3</b> <b>Tu</b>	0133	6.5 198		<b>18</b> <b>W</b>	0031 6.5 198		<b>3</b> <b>Th</b>	0146 6.0 182		<b>3</b> <b>Su</b>	0226 5.2 160	
	0733	1.7 52		0652 1.7 51			0741 2.2 67			0824 2.1 63		
	1348	6.4 196		1248 6.5 199			1405 5.8 176			1452 5.1 156		
	1952	1.8 55		1911 1.6 50			2000 2.3 71			2050 2.3 70		
<b>4</b> <b>W</b>	0216	6.3 191		<b>19</b> <b>Th</b>	0115 6.5 198		<b>4</b> <b>F</b>	0226 5.7 174		<b>4</b> <b>M</b>	0307 5.1 156	
	0815	2.0 61		0735 1.7 51			0818 2.4 72			0909 2.1 64		
	1433	6.1 187		1333 6.4 196			1445 5.5 169			1537 5.0 153		
	2035	2.1 64		1956 1.6 50			2039 2.5 76			2141 2.3 70		
<b>5</b> <b>Th</b>	0303	5.9 181		<b>20</b> <b>F</b>	0203 6.4 195		<b>5</b> <b>Sa</b>	0309 5.5 167		<b>5</b> <b>Tu</b>	0354 5.0 153	
	0856	2.3 71		0824 1.7 53			0900 2.5 76			1000 2.1 65		
	1518	5.8 176		1424 6.3 191			1530 5.3 163			1630 5.0 152		
	2118	2.4 73		2048 1.7 52			2126 2.6 80			2237 2.3 71		
<b>6</b> <b>F</b>	0352	5.6 172		<b>21</b> <b>Sa</b>	0258 6.2 189		<b>6</b> <b>Su</b>	0356 5.3 161		<b>6</b> <b>W</b>	0448 4.9 150	
	0939	2.6 80		0918 1.8 56			0945 2.6 79			1054 2.2 66		
	1609	5.4 166		1522 6.0 183			1622 5.2 157			1726 5.0 151		
	2205	2.7 81		2148 1.8 55			2220 2.7 82			2337 2.3 70		
<b>7</b> <b>Sa</b>	0446	5.3 163		<b>22</b> <b>Su</b>	0401 6.0 183		<b>7</b> <b>M</b>	0450 5.1 156		<b>7</b> <b>Th</b>	0545 4.9 149	
	1030	2.9 87		1022 2.0 60			1039 2.7 82			1152 2.2 66		
	1709	5.2 158		1630 5.8 176			1722 5.1 154			1822 5.0 153		
	2303	2.9 87	●	2300 1.9 58			2320 2.7 83					
<b>8</b> <b>Su</b>	0548	5.2 157		<b>23</b> <b>M</b>	0515 5.8 177		<b>8</b> <b>Tu</b>	0550 5.1 154		<b>8</b> <b>F</b>	0039 2.2 67	
	1131	3.0 92		1135 2.0 62			1141 2.7 83			0641 5.0 151		
	1815	5.0 153		1746 5.6 172			1824 5.1 154			1252 2.1 64		
			●							1913 5.2 157		
<b>9</b> <b>M</b>	0013	2.9 89		<b>24</b> <b>Tu</b>	0018 1.9 58		<b>9</b> <b>W</b>	0026 2.7 81		<b>9</b> <b>Sa</b>	0135 2.1 63	
	0654	5.1 156		0630 5.8 176			0650 5.1 155			0731 5.1 154		
	1241	3.1 93		1254 2.0 60			1245 2.7 81			1346 2.0 60		
	1922	5.0 153		1905 5.7 173			1920 5.2 157			2000 5.3 163		
<b>10</b> <b>Tu</b>	0120	2.9 87		<b>25</b> <b>W</b>	0133 1.7 53		<b>10</b> <b>Th</b>	0126 2.5 77		<b>10</b> <b>Su</b>	0226 1.9 57	
	0752	5.2 159		0741 5.9 179			0743 5.2 159			0818 5.2 159		
	1345	3.0 90		1405 1.8 54			1343 2.5 77			1437 1.8 55		
	2018	5.2 157		2015 5.9 179			2011 5.3 163			2045 5.6 171		
<b>11</b> <b>W</b>	0216	2.7 82		<b>26</b> <b>Th</b>	0239 1.5 47		<b>11</b> <b>F</b>	0218 2.3 71		<b>11</b> <b>M</b>	0311 1.6 50	
	0843	5.4 164		0845 6.0 184			0830 5.4 165			0903 5.4 166		
	1437	2.8 84		1505 1.6 49			1433 2.3 71			1524 1.6 48		
	2105	5.3 163		2116 6.1 186			2052 5.5 169			2128 5.8 178		
<b>12</b> <b>Th</b>	0301	2.5 75		<b>27</b> <b>F</b>	0335 1.4 43		<b>12</b> <b>Sa</b>	0303 2.1 64		<b>12</b> <b>Tu</b>	0356 1.4 43	
	0924	5.6 170		0941 6.2 190			0909 5.6 171			0948 5.6 172		
	1520	2.5 77		1558 1.5 45			1518 2.1 65			1609 1.4 42		
	2143	5.5 169		2211 6.3 192			2130 5.8 177			2245 6.0 184		
<b>13</b> <b>F</b>	0343	2.3 69		<b>28</b> <b>Sa</b>	0424 1.3 41		<b>13</b> <b>Su</b>	0345 1.9 58		<b>13</b> <b>M</b>	0456 1.5 47	
	1000	5.8 177		1033 6.3 193			0946 5.8 178			1105 5.7 175		
	1558	2.3 71		1645 1.5 45			1558 1.9 59			1709 1.8 54		
	2216	5.8 176		2300 6.4 196			2205 6.0 184			2328 5.9 181		
<b>14</b> <b>Sa</b>	0420	2.1 63		<b>29</b> <b>Su</b>	0509 1.4 43		<b>14</b> <b>M</b>	0426 1.7 53		<b>14</b> <b>Th</b>	0526 1.0 30	
	1030	6.0 184		1120 6.4 194			1022 6.0 184			1148 5.6 172		
	1635	2.1 65		1728 1.6 48			1639 1.8 54			1745 2.0 60		
	2246	6.0 183		2345 6.4 196			2243 6.3 191			2352 6.4 194		
<b>15</b> <b>Su</b>	0456	1.9 58		<b>30</b> <b>M</b>	0550 1.6 48		<b>15</b> <b>Tu</b>	0505 1.6 48		<b>15</b> <b>F</b>	0615 0.8 24	
	1101	6.2 190		1203 6.3 192			1101 6.2 189			0607 1.9 58		
	1711	2.0 60		1807 1.8 54			1720 1.6 48			1226 5.5 168		
	2318	6.2 190	○				2324 6.4 196			1818 2.1 65		
										<b>31</b> <b>Th</b>	0043 5.7 173	
										0637 2.0 61		
										1303 5.4 165		
										1850 2.2 68		

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suez, Egypt, 2018

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 Su 0115 5.1 155	16 0126 6.1 187	1 W 0145 5.0 151	16 0300 5.5 169	1 Sa 0226 5.0 152	16 0433 4.8 145						
0715 1.6 49	M 0746 0.0 1	W 0803 1.1 34	Th 0913 0.3 9	Sa 0854 1.2 37	Su 1037 1.6 50						
1341 4.9 149	1403 5.8 178	1415 4.9 149	1543 5.5 169	1503 5.1 154	1718 5.1 154						
1935 1.9 57	2016 0.4 12	2031 1.5 45	2152 0.8 25	2131 1.6 49	2330 2.0 60						
2 M 0146 5.0 153	17 0224 5.9 181	2 Th 0222 4.9 149	17 0400 5.2 157	2 Su 0315 4.8 145	17 0546 4.5 136						
0754 1.5 47	Tu 0843 0.1 4	W 0845 1.1 35	F 1013 0.7 21	Su 0943 1.3 41	M 1150 2.0 60						
1415 4.9 149	1503 5.7 175	1454 4.9 148	1646 5.3 161	1558 5.0 151	1828 4.9 148	O					
2018 1.8 56	2116 0.5 16	2116 1.5 47	2258 1.1 35	2228 1.7 52							
3 Tu 0222 5.0 153	18 0324 5.6 172	3 F 0303 4.8 145	18 0507 4.8 145	3 M 0413 4.5 138	18 0048 2.1 64						
0835 1.5 46	W 0941 0.3 10	W 0930 1.2 38	Sa 1118 1.1 34	M 1043 1.5 45	Tu 0703 4.3 132						
1454 4.9 148	1607 5.6 170	1541 4.8 146	Sa 1754 5.1 154	1705 4.9 148	1307 2.1 65						
2105 1.8 56	2220 0.8 23	2209 1.6 49	O	2337 1.7 53	1933 4.8 146						
4 W 0305 4.9 149	19 0428 5.3 162	4 Sa 0354 4.6 140	19 0013 1.4 43	4 Tu 0524 4.4 134	19 0158 2.1 63						
0922 1.5 47	Th 1043 0.6 19	Sa 1020 1.3 41	Su 0618 4.5 136	W 0811 4.4 133	W 0811 4.4 133						
1539 4.8 147	1713 5.4 165	1635 4.8 145	1233 1.4 43	Tu 1413 2.1 65	1413 2.1 65						
2156 1.8 56	O 2330 1.0 30	2305 1.7 51	1901 4.9 149	2030 4.8 150	2030 4.8 150						
5 Th 0352 4.8 145	20 0535 5.0 153	5 Su 0450 4.5 136	20 0128 1.5 47	5 W 0054 1.6 48	20 0250 2.0 60						
1011 1.6 49	F 1152 0.9 27	Su 1118 1.4 43	M 0731 4.3 132	W 0643 4.4 135	Th 0907 4.5 138						
1630 4.8 147	1820 5.3 161	1737 4.8 145	1345 1.6 48	1315 1.3 41	1500 2.0 62						
2252 1.9 57			2005 4.8 147	2116 5.1 156	2116 4.9 150						
6 F 0445 4.7 142	21 0043 1.1 35	6 M 0011 1.6 50	21 0233 1.5 47	6 Th 0203 1.2 38	21 0326 1.8 56						
1105 1.7 51	Sa 0645 4.8 146	M 0554 4.4 134	Tu 0839 4.3 132	W 0758 4.7 143	F 0950 4.7 143						
1724 4.8 147	1303 1.1 34	1224 1.4 43	1446 1.6 50	1422 1.1 33	1535 1.9 59						
O 2350 1.9 57	1928 5.2 158	1841 4.9 148	2101 4.8 147	2030 5.4 165	2154 5.1 154						
7 Sa 0541 4.6 141	22 0152 1.2 38	7 Tu 0118 1.5 45	22 0324 1.5 47	7 F 0301 0.8 25	22 0356 1.7 52						
1203 1.7 51	Su 0754 4.7 142	W 0701 4.5 136	W 0935 4.4 134	W 0901 5.1 154	Sa 1024 4.9 149						
1820 4.9 149	1411 1.3 39	1331 1.2 38	1531 1.7 51	1522 0.7 22	1607 1.8 55						
	2030 5.1 156	1945 5.1 155	2148 4.8 147	2128 5.7 175	2224 5.2 159						
8 Su 0052 1.8 54	23 0254 1.3 40	8 W 0218 1.2 36	23 0401 1.5 46	8 Sa 0354 0.4 13	23 0422 1.5 47						
0637 4.7 142	M 0858 4.6 140	W 0807 4.7 142	Th 1020 4.5 136	Sa 1000 5.5 167	Su 1054 5.1 155						
1303 1.6 49	1507 1.4 43	1433 1.0 30	1607 1.7 51	1615 0.4 13	1637 1.7 52						
1916 5.1 154	2124 5.1 155	2043 5.3 163	2226 4.9 148	2220 6.1 185	2252 5.3 163						
9 M 0148 1.6 48	24 0345 1.3 41	9 Th 0315 0.8 24	24 0430 1.5 45	9 Su 0443 0.1 3	24 0450 1.4 43						
0733 4.8 145	Tu 0952 4.6 140	W 0909 5.0 151	F 1056 4.6 139	Su 1054 5.8 178	M 1118 5.2 160						
1400 1.4 44	1554 1.5 47	1531 0.7 21	1635 1.6 50	1705 0.3 8	1709 1.6 48						
2009 5.3 161	2211 5.0 153	2137 5.6 172	2256 4.9 150	O 2311 6.3 191	2316 5.5 168						
10 Tu 0243 1.3 41	25 0424 1.4 43	10 F 0405 0.4 13	25 0454 1.4 42	10 M 0530 -0.1 -2	25 0522 1.3 39						
0830 5.0 151	W 1039 4.6 139	Sa 1007 5.2 160	Sa 1124 4.7 142	M 1145 6.1 186	Tu 1141 5.4 166						
1454 1.2 36	1631 1.6 50	1624 0.4 12	Sa 1703 1.6 48	1754 0.2 6	1741 1.5 46						
2101 5.5 169	2250 5.0 151	2231 5.9 181	2322 5.0 152		O 2341 5.6 171						
11 W 0331 1.0 31	26 0456 1.5 45	11 Sa 0456 0.1 2	26 0518 1.3 39	11 Tu 0000 6.3 193	26 0554 1.2 37						
0924 5.2 158	Th 1118 4.6 139	Sa 1101 5.6 170	Su 1150 4.8 146	Su 0616 -0.1 -3	W 1207 5.6 171						
1546 0.9 28	1701 1.7 52	1716 0.2 5	1733 1.5 45	1235 6.2 189	1816 1.5 45						
2152 5.8 177	2322 4.9 150	O 2324 6.1 186	O 2346 5.1 155	1843 0.3 9							
12 Th 0420 0.7 22	27 0520 1.5 45	12 Su 0545 -0.2 -5	27 0548 1.1 35	12 W 0050 6.2 190	27 0009 5.7 173						
1016 5.4 165	F 1150 4.6 139	Su 1156 5.8 177	M 1213 4.9 150	W 0628 1.2 36	W 0628 1.2 36						
1637 0.7 21	1728 1.7 52	1809 0.1 2	1805 1.4 42	1326 6.2 188	1235 5.7 174						
2245 6.0 184	O 2350 4.9 149			1933 0.5 16	1852 1.5 45						
13 F 0509 0.4 13	28 0546 1.4 43	13 M 0016 6.2 188	28 0011 5.2 158	12 0050 6.2 190	27 0009 5.7 173						
1113 5.6 172	Sa 1216 4.6 141	W 0635 -0.3 -8	Tu 0620 1.0 32	W 0628 1.2 36	W 0628 1.2 36						
1730 0.5 14	1758 1.6 50	1250 5.9 181	1237 5.1 154	1309 6.0 182	1309 6.0 182						
O 2337 6.2 188		1901 0.1 2	1841 1.3 41	2024 0.9 27	1931 1.5 47						
14 Sa 0600 0.2 6	29 0016 4.9 150	14 Tu 0109 6.1 186	29 0039 5.2 160	13 0141 6.0 182	28 0041 5.7 173						
1207 5.8 176	Su 0615 1.3 40	W 0726 -0.2 -6	W 0656 1.0 31	Th 0752 0.4 11	F 0703 1.2 37						
1822 0.4 11	1243 4.7 143	1346 5.9 180	1305 5.2 157	1418 6.0 182	1309 5.8 176						
	1831 1.5 47	1956 0.2 7	1918 1.3 41	2024 0.9 27	1931 1.5 47						
15 Su 0031 6.2 189	30 0043 5.0 151	15 W 0203 5.9 179	30 0111 5.2 159	13 0141 6.0 182	28 0041 5.7 173						
0652 0.1 22	M 0648 1.2 37	W 0818 0.0 0	Th 0731 1.0 31	Th 0752 0.4 11	F 0703 1.2 37						
1303 5.9 179	1309 4.8 146	1443 5.8 176	1339 5.2 158	1418 6.0 182	1309 5.8 176						
1918 0.3 9	1907 1.5 45	2052 0.5 15	2000 1.4 42	2118 1.3 39	2103 1.6 50						
	31 0111 5.0 152		31 0145 5.2 157								
Tu 0724 1.1 34			F 0811 1.1 33								
1339 4.9 148			1416 5.2 157								
1948 1.4 44			2043 1.5 45								

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Suez, Egypt, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0248	5.2	157	16 Tu 0505	4.7	142	1 Th 0505	5.2	158	1 Sa 0000	1.9	57
0916	1.6	48	Tu 1052	2.6	78	1130	2.0	62	F 1209	5.7	174
1533	5.4	164	1739	5.0	153	1746	5.7	173	1839	5.2	159
2201	1.9	58	● 2343	2.6	80				1237	2.1	64
2 Tu 0352	4.9	149	17 W 0620	4.6	139				1843	6.0	183
1020	1.7	53	1207	2.7	82	2 F 0020	1.9	58	2 Su 0113	1.8	54
1643	5.2	160	1845	4.9	150	0631	5.3	161	0731	5.9	180
● 2315	1.9	59				1254	2.0	60	1315	2.9	89
3 W 0509	4.7	143				1900	5.8	176	1935	5.3	162
1141	1.8	55	18 Th 0056	2.6	80	3 Sa 0133	1.7	51	18 Su 0141	2.6	80
1801	5.2	159	0730	4.6	141	0746	5.6	170	0820	5.3	161
			1318	2.7	81	1405	1.7	53	1409	2.8	84
			1945	5.0	152	2007	6.0	182	2022	5.5	167
4 Th 0037	1.8	54	19 F 0154	2.5	75	4 Su 0235	1.4	42	3 M 0218	1.6	50
0635	4.8	145	0826	4.8	147	0848	5.9	181	0837	6.2	188
1303	1.7	57	1413	2.5	77	1503	1.5	45	M 1454	1.9	57
1915	5.4	165	2033	5.2	157	2105	6.2	189	2101	5.7	174
5 F 0148	1.4	44	20 Sa 0239	2.3	69	5 M 0328	1.1	35	4 Tu 0316	1.5	47
0752	5.1	154	0911	5.1	154	0945	6.3	192	0935	6.4	196
1415	1.4	42	1456	2.4	72	1556	1.3	41	1545	2.6	78
2020	5.7	174	2113	5.3	163	2158	6.4	195	2146	6.2	190
6 Sa 0250	1.0	32	21 Su 0315	2.1	63	6 Tu 0416	1.0	31	6 Th 0448	1.6	50
0858	5.5	167	0946	5.3	162	1033	6.6	200	1111	6.6	202
1513	1.0	32	1533	2.2	66	1643	1.3	40	1718	1.9	59
2116	6.0	184	2146	5.5	169	2246	6.5	198	2322	6.2	189
7 Su 0341	0.7	22	22 M 0348	1.9	58	7 W 0500	1.0	32	7 F 0528	1.8	55
0952	5.9	180	1016	5.6	170	1120	6.7	205	1152	6.6	201
1605	0.8	25	1607	2.0	61	1728	1.4	43	1756	2.1	64
2209	6.3	192	2216	5.7	175	● 2331	6.5	197	●		
8 M 0430	0.5	15	23 Tu 0420	1.7	53	8 Th 0541	1.2	37	8 Sa 0005	6.1	186
1043	6.3	191	1045	5.8	177	1203	6.7	205	0603	2.0	61
1654	0.7	21	1641	1.9	57	1809	1.6	48	1231	6.5	197
2258	6.5	197	2243	5.9	180				1831	2.3	69
9 Tu 0515	0.4	12	24 W 0454	1.6	49	9 F 0016	6.3	193	9 Su 0045	5.9	181
1131	6.5	198	1111	6.0	184	0620	1.4	44	0637	2.2	67
1739	0.7	22	1716	1.8	55	1246	6.6	201	1307	6.3	193
● 2345	6.5	198	○ 2311	6.1	185	1848	1.8	55	1903	2.4	73
10 W 0558	0.5	15	25 Th 0528	1.5	46	10 Sa 0058	6.1	186	10 M 0120	5.8	176
1218	6.6	200	1139	6.2	189	0700	1.7	53	0711	2.4	72
1826	0.9	27	1752	1.7	53	1328	6.4	194	1341	6.1	187
			2343	6.1	187	1928	2.1	63	1937	2.5	75
11 Th 0031	6.4	194	26 F 0603	1.5	45	11 Su 0141	5.8	178	11 Tu 0158	5.6	171
0641	0.7	22	1211	6.3	193	0737	2.0	62	0746	2.5	76
1305	6.5	197	1830	1.7	52	1411	6.1	186	1416	6.0	182
1911	1.1	35				2009	2.3	70	2013	2.5	77
12 F 0118	6.1	186	27 Sa 0018	6.1	187	12 M 0226	5.5	168	12 Tu 0235	5.4	166
0724	1.0	32	0641	1.4	44	0818	2.3	71	0826	2.6	80
1352	6.2	190	1248	6.4	194	1454	5.8	177	1452	5.8	177
1956	1.5	46	1911	1.7	53	2050	2.5	77	2054	2.6	78
13 Sa 0205	5.7	175	28 Su 0058	6.0	184	27 Tu 0137	6.2	189	27 W 0233	6.4	194
0809	1.4	44	0722	1.5	46	0800	1.6	49	0848	1.5	45
1441	5.9	180	1331	6.3	192	1413	6.6	202	1500	6.8	206
2043	1.9	57	1956	1.8	55	2037	1.7	53	2122	1.4	43
14 Su 0258	5.3	163	29 M 0145	5.9	179	12 M 0226	5.5	168	12 W 0235	5.4	166
0856	1.8	56	0809	1.6	49	0818	2.3	71	0826	2.6	80
1535	5.5	169	1422	6.1	187	1454	5.8	177	1452	5.8	177
2133	2.2	67	2046	1.9	58	2231	2.8	86	2054	2.6	78
15 M 0356	5.0	151	30 Tu 0239	5.6	171	14 Th 0518	4.9	149	27 Th 0233	6.4	194
0948	2.2	68	0903	1.8	54	1058	3.0	91	0848	1.5	45
1633	5.2	159	1520	5.9	181	1739	5.2	158	1500	6.8	206
2233	2.5	75	2148	2.0	61	● 2335	2.9	87	2122	1.4	43
31 W 0345	5.3	163	31 W 1009	2.0	60				2122	1.4	43
			1630	5.7	175						
● 2300	2.0	62									

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dar Es Salaam, Tanzania, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
<b>1</b> M 0309 1.0 30	12.5	380	<b>16</b> Tu 0400 2.0 60	11.2	340	<b>1</b> Th 0434 1.0 30	13.1	400	<b>16</b> Th 0444 1.0 30	11.8	360
1542 10.8 330			1631 9.8 300			1051 1.0 30	1.3	40	1101 1.0 30	1.3	40
2131 1.3 40			2217 2.6 80			1705 1.0 30	11.8	360	1710 1.0 30	11.2	340
						2257 1.0 30			● 2303 2.0 60		
<b>2</b> Tu 0354 0.7 20	13.1	400	<b>17</b> W 0430 1.6 50	11.5	350	<b>2</b> F 0515 0.3 10	13.1	400	<b>17</b> Sa 0513 1.0 30	12.1	370
1626 11.2 340			1700 10.2 310			1128 1.0 30	12.1	370	1126 1.0 30	11.5	350
○ 2214 1.0 30			● 2247 2.3 70			1744 1.0 30	12.1	370	1736 1.0 30	11.5	350
						2338 1.0 30			2332 1.6 50		
<b>3</b> W 0437 0.3 40	13.5	410	<b>18</b> Th 0459 1.3 40	11.8	360	<b>3</b> Sa 0555 1.0 30	12.8	390	<b>18</b> Su 0542 1.0 30	12.1	370
1054 11.5 350			1119 1.3 40			1206 1.0 30	12.8	390	1152 1.0 30	12.1	370
1709 2316 1.0 30	11.5	350	1727 10.5 320			1823 1.0 30	12.1	370	1805 1.0 30	11.8	360
										2330 0.7 20	
<b>4</b> Th 0519 0.3 10	13.1	400	<b>19</b> F 0528 1.3 40	11.8	360	<b>4</b> Su 0020 1.0 30	1.3	40	<b>19</b> M 0002 1.0 30	1.6	50
1136 11.5 350			1145 1.3 40			0635 1.0 30	12.1	370	0611 1.0 30	11.8	360
2342 1.3 40			1755 10.8 330			1245 1.0 30			1219 1.0 30	1.3	40
			2345 2.3 70			1903 1.0 30	11.5	350	1834 1.0 30	11.8	360
<b>5</b> F 0603 0.7 20	12.5	380	<b>20</b> Sa 0557 1.6 50	11.8	360	<b>5</b> M 0103 1.0 30	2.0	60	<b>20</b> Tu 0035 1.0 30	2.0	60
1219 11.2 340			1213 1.6 50			0715 1.0 30	11.2	340	0643 1.0 30	11.5	350
1836 11.2 340			1824 10.8 330			1324 1.0 30	1.6	50	1249 1.0 30	1.6	50
						1944 1.0 30	11.2	340	1907 1.0 30	11.5	350
<b>6</b> Sa 0029 11.8 360	2.0	60	<b>21</b> Su 0016 1.6 50	2.3	70	<b>6</b> Tu 0148 1.0 30	2.6	80	<b>21</b> W 0111 1.0 30	2.3	70
0648 13.0 40			0628 1.6 50			0757 1.0 30	10.2	310	0716 1.0 30	10.8	330
1304 1923 1.0 30	1.3	40	1242 1.0 30			1404 1.0 30	2.3	70	1322 1.0 30	2.0	80
			1855 10.8 330			2028 1.0 30	10.5	320	1944 1.0 30	11.2	340
<b>7</b> Su 0119 10.8 330	2.6	80	<b>22</b> M 0050 1.0 30	2.6	80	<b>7</b> W 0236 1.0 30	3.6	110	<b>22</b> Th 0153 1.0 30	3.0	90
0736 1350 2.0 60			0701 1.0 30	2.6	80	0843 1.0 30	9.2	280	0754 1.0 30	9.8	300
2013 10.5 320			1314 1.0 30	2.0	60	1447 1.0 30	3.3	100	1400 1.0 30	2.6	80
			1930 10.5 320			● 2119 1.0 30	9.5	290	2028 1.0 30	10.5	320
<b>8</b> M 0213 9.8 300	3.3	100	<b>23</b> Tu 0130 1.0 30	3.0	90	<b>8</b> Th 0335 1.0 30	4.3	130	<b>23</b> F 0243 1.0 30	3.6	110
0828 1439 2109 9.8 300			0737 1.0 30	10.2	310	0940 1.0 30	8.2	250	0842 1.0 30	8.9	270
			1349 1.0 30	2.3	70	1538 1.0 30	4.3	130	1446 1.0 30	3.3	100
			2011 1.0 30	10.2	310	2226 1.0 30	8.9	270	● 2128 1.0 30	9.8	300
<b>9</b> Tu 0316 8.9 270	3.9	120	<b>24</b> W 0216 1.0 30	3.6	110	<b>9</b> F 0459 1.0 30	4.9	150	<b>24</b> Sa 0353 1.0 30	4.3	130
0929 1535 2216 8.9 290			0820 1.0 30	9.5	290	0954 1.0 30	7.5	230	0846 1.0 30	8.2	250
			1431 1.0 30	3.0	90	1653 1.0 30	4.9	150	1552 1.0 30	4.3	130
			2103 1.0 30	9.8	300				2254 1.0 30	9.5	290
<b>10</b> W 0435 8.2 250	4.6	140	<b>25</b> Th 0314 1.0 30	3.9	120	<b>24</b> O 0549 1.0 30	4.9	150	<b>25</b> Sa 0003 1.0 30	4.6	140
1046 1644 2339 8.2 280			0915 1.0 30	8.9	270	0954 1.0 30	4.9	150	0956 1.0 30	7.5	230
			1523 1.0 30	3.6	110	1303 1.0 30	7.5	230	1546 1.0 30	5.2	160
			2210 1.0 30	9.5	290	1845 1.0 30	4.9	150	2244 1.0 30	8.5	260
<b>11</b> Th 0607 12.15 240	4.6	140	<b>26</b> F 0434 1.0 30	4.3	130	<b>11</b> Su 0130 1.0 30	9.2	280	<b>26</b> M 0042 1.0 30	5.2	160
1808 4.3 130			0817 1.0 30	4.3	130	0817 1.0 30	4.3	130	0735 1.0 30	3.9	120
			1637 1.0 30	3.9	120	1425 1.0 30	7.9	240	1346 1.0 30	8.2	250
			2334 1.0 30	9.8	300	2006 1.0 30	4.6	140	1940 1.0 30	4.3	130
<b>12</b> F 0057 13.38 240	9.5	290	<b>27</b> Sa 0617 1.0 30	4.3	130	<b>12</b> M 0230 1.0 30	9.8	300	<b>27</b> Tu 0047 1.0 30	8.5	260
0731 1338 4.3 130			1220 1.0 30	7.9	240	0905 1.0 30	3.6	110	0747 1.0 30	4.9	150
			1812 1.0 30	3.9	120	1514 1.0 30	8.5	260	1453 1.0 30	9.5	290
						2056 1.0 30	3.9	120	2047 1.0 30	3.3	100
<b>13</b> Sa 0159 3.6 110	9.8	300	<b>28</b> W 0101 1.0 30	10.2	310	<b>13</b> Tu 0313 1.0 30	10.5	320	<b>28</b> F 0203 1.0 30	9.2	280
0832 1440 8.5 260			0741 1.0 30	3.3	100	0939 1.0 30	3.0	90	0840 1.0 30	3.9	120
2024 3.9 120			1348 1.0 30	8.5	260	1549 1.0 30	9.5	290	1451 1.0 30	8.9	270
			1939 1.0 30	3.6	110	2134 1.0 30	3.3	100	2037 1.0 30	4.3	130
<b>14</b> Su 0248 15.25 320	10.5	320	<b>29</b> M 0210 1.0 30	11.2	340	<b>14</b> W 0347 1.0 30	11.2	340	<b>29</b> Th 0249 1.0 30	10.2	310
0916 1525 3.0 90			0842 1.0 30	2.3	70	1008 1.0 30	2.3	70	0914 1.0 30	3.3	100
2108 3.3 100			1452 1.0 30	9.5	290	1618 1.0 30	10.2	310	1524 1.0 30	9.5	290
			2042 1.0 30	2.6	80	2206 1.0 30	2.6	80	2115 1.0 30	3.6	110
<b>15</b> M 0327 0951 10.8 330	10.8	330	<b>30</b> Tu 0305 1.0 30	11.8	360	<b>15</b> Th 0416 1.0 30	11.5	350	<b>30</b> F 0324 1.0 30	10.8	330
1601 2145 2.3 70			0930 1.0 30	1.6	50	1035 1.0 30	1.6	50	0942 1.0 30	2.6	80
2145 3.0 90			1542 1.0 30	10.5	320	1644 1.0 30	10.8	330	1552 1.0 30	10.5	320
			2132 1.0 30	2.0	60	2235 1.0 30	2.3	70	2146 1.0 30	2.6	80
			<b>31</b> O 0352 1.0 30	12.8	390				<b>31</b> Sa 1012 1.0 30	0.7	20
			1625 1.0 30	11.2	340				1639 1.0 30	12.8	390
			2216 1.0 30	1.3	40				2243 1.0 30	1.0	30

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dar Es Salaam, Tanzania, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0453	12.8	390	<b>16</b> M	0427	12.1	370	<b>1</b> Tu	0509	11.8	360
	1056	1.0	30		1026	1.3	40		1104	1.6	50
	1711	13.1	400		1643	13.1	400		1721	12.8	390
	2317	1.0	30	●	2251	1.0	30		2333	1.6	50
<b>2</b> M	0527	12.5	380	<b>17</b> Tu	0459	12.1	370	<b>2</b> W	0541	11.5	350
	1126	1.0	30		1056	1.3	40		1134	2.0	60
	1743	13.1	400		1715	13.5	410		1752	12.5	380
	2350	1.0	30		2325	1.0	30		2347	1.3	40
<b>3</b> Tu	0559	11.8	360	<b>18</b> W	0532	12.1	370	<b>3</b> Th	0005	2.0	60
	1157	1.3	40		1128	1.3	40		0611	10.8	330
	1815	12.8	390		1749	13.1	400		1204	2.3	70
									1821	12.1	370
<b>4</b> W	0023	1.6	50	<b>19</b> Th	0001	1.3	40	<b>4</b> F	0038	2.3	70
	0631	11.2	340		0607	11.5	350		0643	10.2	310
	1228	2.0	60		1203	1.6	50		1235	3.0	90
	1846	12.1	370		1825	12.8	390		1852	11.5	350
<b>5</b> Th	0057	2.3	70	<b>20</b> F	0042	1.6	50	<b>5</b> Sa	0112	3.0	90
	0702	10.5	320		0646	10.8	330		0715	9.5	290
	1300	2.6	80		1241	2.3	70		1308	3.6	110
	1917	11.2	340		1906	12.1	370		1924	10.8	330
<b>6</b> F	0134	3.3	100	<b>21</b> Sa	0126	2.3	70	<b>6</b> Su	0150	3.6	110
	0734	9.5	290		0731	10.2	310		0751	8.9	270
	1333	3.6	110		1325	3.0	90		1345	4.6	140
	1951	10.5	320		1954	11.5	350		2002	9.8	300
<b>7</b> Sa	0214	3.9	120	<b>22</b> Su	0218	3.3	100	<b>7</b> M	0236	4.3	130
	0811	8.5	260		0827	9.2	280		0842	8.5	260
	1411	4.6	140		1418	3.9	120		1435	5.2	160
	2033	9.5	290		2054	10.5	320		2054	9.2	280
<b>8</b> Su	0306	4.9	150	<b>23</b> M	0325	4.3	130	<b>8</b> Tu	0337	4.9	150
	0907	7.9	240		0946	8.5	260		1001	8.2	250
	1502	5.2	160		1533	4.9	150		1549	5.9	180
	● 2136	8.9	270		● 2217	9.5	290		● 2213	8.9	270
<b>9</b> M	0431	5.2	160	<b>24</b> Tu	0501	4.6	140	<b>9</b> W	0504	5.2	160
	1101	7.5	230		1133	8.5	260		1142	8.2	250
	1638	5.9	180		1736	5.2	160		1742	5.9	180
	2334	8.5	260						2356	8.9	270
<b>10</b> Tu	0639	5.2	160	<b>25</b> W	0008	9.5	290	<b>10</b> Th	0632	4.9	150
	1311	7.9	240		0649	4.3	130		1302	8.9	270
	1859	5.6	170		1317	9.2	280		1908	4.9	150
					1924	4.6	140				
<b>11</b> W	0112	8.9	270	<b>26</b> Th	0136	9.8	300	<b>11</b> F	0110	9.2	280
	0752	4.6	140		0800	3.6	110		0730	4.3	130
	1409	8.9	270		1420	10.5	320		1353	9.8	300
	2003	4.9	150		2029	3.6	110		2000	4.3	130
<b>12</b> Th	0209	9.8	300	<b>27</b> F	0237	10.5	320	<b>12</b> Su	0203	9.8	300
	0832	3.6	110		0849	3.0	90		0812	3.3	100
	1445	9.8	300		1506	11.5	350		1432	10.8	330
	2044	3.9	120		2116	2.6	80		2041	3.3	100
<b>13</b> F	0249	10.5	320	<b>13</b> Su	0324	11.2	340	<b>28</b> M	0300	10.2	310
	0903	3.0	90		0928	2.3	70		0859	3.0	90
	1516	10.8	330		1545	12.1	370		1520	11.8	360
	2117	3.0	90		2155	2.0	60		2117	2.3	70
<b>14</b> Sa	0323	11.2	340	<b>29</b> Su	0402	11.8	360	<b>29</b> M	0419	10.8	330
	0931	2.3	70		1002	1.6	50		1011	2.3	70
	1545	11.8	360		1619	12.8	390		1542	12.8	390
	2148	2.0	60		2230	1.6	50		2153	1.6	50
<b>15</b> Su	0355	11.8	360	<b>30</b> M	0437	11.8	360	<b>15</b> Tu	0401	11.5	350
	0958	1.6	50		1034	1.6	50		0954	1.6	50
	1613	12.5	380		1651	13.1	400		1616	13.1	400
	2219	1.6	50		○ 2302	1.3	40		● 2229	1.0	30
<b>16</b> Sa	0545	11.2	340	<b>31</b> Th	0524	10.8	330	<b>16</b> Sa	1135	1.6	50
	1135	1.6	50		1114	2.3	70		1759	12.8	390
	1759	12.8	390		1732	12.1	370				
					2350	2.0	60				

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dar Es Salaam, Tanzania, 2018

Times and Heights of High and Low Waters

July					August					September					
	Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0003	2.0	60	<b>16</b> M	0003	1.0	30	<b>1</b> W	0032	2.0	60	<b>16</b> Sa	0056	2.0	60
	0609	10.2	310		0618	11.5	350		0642	10.8	330		0714	11.2	340
	1158	3.0	90		1212	1.6	50		1238	2.6	80		1324	2.3	70
	1812	11.5	350		1832	12.1	370		1848	11.2	340		1935	10.5	320
<b>2</b> M	0033	2.3	70	<b>17</b> Tu	0048	1.3	40	<b>2</b> Th	0101	2.3	70	<b>17</b> Su	0131	2.6	80
	0640	10.2	310		0704	11.2	340		0714	10.5	320		0754	10.5	320
	1230	3.0	90		1301	2.0	60		1314	3.0	90		1410	3.3	100
	1842	11.2	340		1919	11.5	350		1921	10.5	320		2010	9.2	280
<b>3</b> Tu	0104	2.6	80	<b>18</b> W	0133	1.6	50	<b>3</b> F	0134	2.6	80	<b>18</b> Sa	0227	3.0	90
	0712	9.8	300		0752	10.8	330		0749	10.2	310		0854	9.8	300
	1304	3.3	100		1353	2.6	80		1355	3.3	100		1510	3.9	120
	1915	10.8	330		2008	10.5	320		1959	9.8	300		2115	8.5	260
<b>4</b> W	0137	3.0	90	<b>19</b> Th	0221	2.3	70	<b>4</b> Sa	0211	3.0	90	<b>19</b> Su	0318	3.9	120
	0747	9.8	300		0844	10.5	320		0833	10.2	310		0956	9.2	280
	1344	3.6	110		1451	3.6	110		1446	4.6	140		1625	4.6	140
	1953	10.2	310		2103	9.8	300		2046	9.2	280		2233	7.9	240
<b>5</b> Th	0214	3.3	100	<b>20</b> F	0312	3.3	100	<b>5</b> Su	0257	3.3	100	<b>20</b> M	0426	4.6	140
	0829	9.5	290		0943	9.8	300		0931	9.8	300		1126	8.9	270
	1431	4.3	130		1558	3.9	120		1553	4.3	130		1804	4.9	150
	2037	9.5	290		2208	8.9	270		2150	8.5	260				
<b>6</b> F	0258	3.6	110	<b>21</b> Sa	0411	3.9	120	<b>6</b> M	0400	3.9	120	<b>21</b> Tu	0016	7.5	230
	0922	9.2	280		1056	9.5	290		1048	9.5	290		0603	4.9	150
	1531	4.6	140		1720	4.6	140		1726	4.3	130		1258	8.9	270
	2133	8.9	270		2327	8.2	250		2326	7.9	240		1942	4.6	140
<b>7</b> Sa	0353	3.9	120	<b>22</b> Su	0524	4.3	130	<b>7</b> Tu	0526	4.3	130	<b>22</b> W	0149	7.9	240
	1029	9.2	280		1218	9.5	290		1218	9.8	300		0736	4.6	140
	1648	4.6	140		1847	4.3	130		1857	3.9	120		1405	9.5	290
	2248	8.5	260										2040	3.9	120
<b>8</b> Su	0503	3.9	120	<b>23</b> M	0053	8.2	250	<b>8</b> W	0102	8.2	250	<b>23</b> Th	0246	8.5	260
	1145	9.5	290		0647	4.3	130		0655	3.9	120		0833	3.9	120
	1814	4.3	130		1331	9.5	290		1337	10.5	320		1453	10.2	310
					2005	3.9	120		2007	3.0	90		2118	3.0	90
<b>9</b> M	0014	8.5	260	<b>24</b> Tu	0209	8.2	250	<b>9</b> Th	0216	9.2	280	<b>24</b> Sa	0325	9.2	280
	0616	3.9	120		0759	3.9	120		0807	3.0	90		0913	3.3	100
	1258	10.2	310		1429	10.2	310		1436	11.5	350		1530	10.8	330
	1925	3.6	110		2100	3.3	100		2100	2.0	60		2149	2.6	80
<b>10</b> Tu	0129	8.9	270	<b>25</b> W	0305	8.9	270	<b>10</b> F	0311	10.2	310	<b>25</b> Sa	0356	9.8	300
	0723	3.3	100		0852	3.6	110		0902	2.3	70		0946	2.6	80
	1359	11.2	340		1515	10.5	320		1526	12.1	370		1601	11.2	340
	2022	2.6	80		2141	3.0	90		2144	1.3	40		2216	2.0	60
<b>11</b> W	0230	9.5	290	<b>26</b> Th	0346	9.2	280	<b>11</b> Sa	0356	10.8	330	<b>26</b> Su	0423	10.5	320
	0820	2.6	80		0933	3.3	100		0948	1.3	40		1016	2.3	70
	1451	11.8	360		1552	11.2	340		1610	12.8	390		1629	11.8	360
	2111	2.0	60		2215	2.3	70		2224	0.7	20		2241	1.6	50
<b>12</b> Th	0321	10.2	310	<b>27</b> F	0419	9.8	300	<b>12</b> Su	0438	11.8	360	<b>27</b> W	0449	11.2	380
	0910	2.0	60		1008	2.6	80		1031	1.0	30		1044	2.0	60
	1537	12.5	380		1624	11.5	350		1652	13.1	400		1655	11.8	360
	2156	1.3	40		2244	2.0	60		2302	0.3	10		2305	1.6	50
<b>13</b> F	0407	10.8	330	<b>28</b> Sa	0449	10.2	310	<b>13</b> M	0518	12.1	370	<b>28</b> Tu	0516	11.5	350
	0956	1.6	50		1039	2.6	80		1113	0.7	20		1112	1.6	50
	1621	13.1	400		1653	11.5	350		1732	12.8	390		1722	11.8	360
	2238	0.7	20		2312	2.0	60		2341	0.7	20		2330	1.3	40
<b>14</b> Sa	0451	11.2	340	<b>29</b> Su	0518	10.5	320	<b>14</b> Tu	0558	12.1	370	<b>29</b> W	0542	11.5	350
	1040	1.3	40		1108	2.3	70		1155	1.0	30		1140	1.6	50
	1704	13.1	400		1721	11.8	360		1812	12.5	380		1750	11.8	360
	2320	0.7	20		2338	1.6	50						2356	1.6	50
<b>15</b> Su	0534	11.5	350	<b>30</b> M	0545	10.5	320	<b>15</b> W	0020	1.0	30	<b>30</b> Tu	0611	11.5	350
	1125	1.3	40		1137	2.3	70		0638	11.8	360		1210	2.0	60
	1747	12.8	390		1749	11.5	350		1239	1.6	50		1819	11.5	350
									1853	11.5	350				
				<b>31</b> Tu	0004	2.0	60					<b>31</b> F	0024	1.6	50
					0613	10.8	330						0640	11.5	350
					1207	2.3	70						1245	2.3	70
					1817	11.5	350						1851	10.8	330

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Dar Es Salaam, Tanzania, 2018

Times and Heights of High and Low Waters

October				November				December			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> M	0100	2.6	80	<b>16</b> Tu	0140	4.3	130	<b>1</b> Th	0242	4.6	140
	0726	11.2	340	<b>16</b> Tu	0805	9.5	290	<b>16</b> F	0926	9.5	290
	1345	3.3	100	<b>16</b> ○	1437	4.6	140	<b>16</b> Sa	1604	4.6	140
	1947	9.2	280	<b>16</b> ○	2038	7.9	240	<b>16</b> F	2235	8.5	260
<b>2</b> Tu	0144	3.6	110	<b>17</b> W	0235	5.2	160	<b>2</b> F	0435	5.2	160
	0820	10.2	310	<b>17</b> W	0911	8.5	260	<b>2</b> Sa	1116	9.2	280
	1445	3.9	120	<b>17</b> W	1604	5.2	160	<b>2</b> Su	1754	4.3	130
	2052	8.2	250	<b>17</b> W	2232	7.5	230	<b>2</b> Su	1804	4.9	150
<b>3</b> W	0246	4.3	130	<b>18</b> Th	0420	5.9	180	<b>3</b> M	0022	9.2	280
	0939	9.5	290	<b>18</b> Th	1115	8.2	250	<b>3</b> M	0636	4.6	140
	1623	4.6	140	<b>18</b> Th	1808	5.2	160	<b>3</b> M	1251	9.5	290
	2243	7.9	240	<b>18</b> Th	1904	3.6	110	<b>3</b> M	1904	4.3	130
<b>4</b> Th	0435	4.9	150	<b>19</b> F	0039	7.9	240	<b>4</b> M	0134	10.2	310
	1134	9.2	280	<b>19</b> F	0633	5.6	170	<b>4</b> M	0746	3.6	110
	1825	4.3	130	<b>19</b> F	1251	8.9	270	<b>4</b> M	1356	10.2	310
	2503	8.2	250	<b>19</b> F	1922	4.6	140	<b>4</b> M	2006	3.0	90
<b>5</b> F	0041	8.5	260	<b>20</b> Sa	0138	8.9	270	<b>5</b> M	0224	11.2	340
	0647	4.6	140	<b>20</b> Sa	0736	4.6	140	<b>5</b> M	0835	2.6	80
	1312	9.8	300	<b>20</b> Sa	1346	9.5	290	<b>5</b> M	1446	10.8	330
	1942	3.6	110	<b>20</b> Sa	2003	3.9	120	<b>5</b> M	2048	2.3	70
<b>6</b> Sa	0156	9.5	290	<b>21</b> Su	0216	9.8	300	<b>6</b> Tu	0305	12.1	370
	0800	3.6	110	<b>21</b> Su	0816	3.6	110	<b>6</b> Tu	0916	1.6	50
	1415	10.8	330	<b>21</b> Su	1426	10.2	310	<b>6</b> Tu	1527	11.5	350
	2032	2.6	80	<b>21</b> Su	2034	3.0	90	<b>6</b> Tu	2124	1.6	50
<b>7</b> Su	0245	10.8	330	<b>22</b> M	0246	10.8	330	<b>7</b> Th	0341	12.8	390
	0849	2.3	70	<b>22</b> M	0849	2.6	80	<b>7</b> Th	0952	1.0	30
	1503	11.8	360	<b>22</b> M	1459	10.8	330	<b>7</b> Th	1604	11.8	360
	2111	1.6	50	<b>22</b> M	2102	2.3	70	<b>7</b> Th	2157	1.3	40
<b>8</b> M	0325	12.1	370	<b>23</b> Tu	0315	11.5	350	<b>8</b> Th	0416	13.1	400
	0929	1.3	40	<b>23</b> Tu	0919	2.0	60	<b>8</b> Th	1026	1.0	30
	1543	12.1	370	<b>23</b> Tu	1529	11.5	350	<b>8</b> Th	1638	11.8	360
	2146	1.0	30	<b>23</b> Tu	2129	1.6	50	<b>8</b> Th	2229	1.3	40
<b>9</b> Tu	0401	12.8	390	<b>24</b> W	0343	12.5	380	<b>9</b> F	0448	13.1	400
	1006	0.7	20	<b>24</b> W	0949	1.3	40	<b>9</b> F	1059	1.0	30
	1620	12.5	380	<b>24</b> W	1559	11.8	360	<b>9</b> F	1710	1.5	350
	2218	0.7	20	<b>24</b> W	2156	1.3	40	<b>9</b> F	2300	1.6	50
<b>10</b> W	0436	13.1	400	<b>25</b> Th	0412	12.8	390	<b>10</b> M	0520	12.8	390
	1041	0.7	20	<b>25</b> Th	1020	1.0	30	<b>10</b> M	1132	1.3	40
	1654	12.5	380	<b>25</b> Th	1628	11.8	360	<b>10</b> M	1741	10.8	330
	2250	1.0	30	<b>25</b> Th	2224	1.3	40	<b>10</b> M	2331	2.0	60
<b>11</b> Th	0509	13.1	400	<b>26</b> F	0442	13.1	400	<b>11</b> M	0551	12.1	370
	1115	0.7	20	<b>26</b> F	1052	0.7	20	<b>11</b> M	1205	2.0	60
	1727	12.1	370	<b>26</b> F	1659	11.8	360	<b>11</b> M	1812	10.2	310
	2322	1.3	40	<b>26</b> F	2253	1.3	40	<b>11</b> M	2350	2.0	60
<b>12</b> F	0542	12.8	390	<b>27</b> Sa	0514	13.1	400	<b>12</b> M	0002	2.6	80
	1149	1.3	40	<b>27</b> Sa	1125	1.0	30	<b>12</b> M	0621	11.2	340
	1759	11.2	340	<b>27</b> Sa	1732	11.5	350	<b>12</b> M	1240	2.6	80
	2354	1.6	50	<b>27</b> Sa	2325	1.6	50	<b>12</b> M	1843	9.5	290
<b>13</b> Sa	0614	12.1	370	<b>28</b> Su	0548	12.8	390	<b>13</b> Tu	0035	3.6	110
	1225	2.0	60	<b>28</b> Su	1202	1.3	40	<b>13</b> Tu	0653	10.5	320
	1831	10.5	320	<b>28</b> Su	1808	10.8	330	<b>13</b> Tu	1317	3.6	110
	2354	9.5	290	<b>28</b> Su	1920	8.9	270	<b>13</b> Tu	1943	9.5	290
<b>14</b> Su	0027	2.6	80	<b>29</b> M	0000	2.0	60	<b>14</b> Th	0113	4.3	130
	0647	11.2	340	<b>29</b> M	0625	12.1	370	<b>14</b> Th	0732	9.5	290
	1302	3.0	90	<b>29</b> M	1243	2.3	70	<b>14</b> Th	1402	4.3	130
	1903	9.5	290	<b>29</b> M	1849	10.2	310	<b>14</b> Th	2009	8.2	250
<b>15</b> M	0101	3.6	110	<b>30</b> Tu	0041	3.0	90	<b>15</b> F	0203	4.9	150
	0722	10.2	310	<b>30</b> Tu	0710	11.2	340	<b>15</b> F	0824	8.9	270
	1344	3.9	120	<b>30</b> Tu	1332	3.0	90	<b>15</b> F	1503	4.9	150
	1941	8.5	260	<b>30</b> Tu	1940	9.2	280	<b>15</b> F	2128	7.9	240
<b>31</b> M	0131	3.6	110	<b>31</b> W	0131	3.6	110	<b>15</b> F	0245	4.3	130
	0808	10.2	310	<b>31</b> W	1434	3.9	120	<b>15</b> F	0913	9.5	290
	1434	14.3	120	<b>31</b> W	1434	3.9	120	<b>15</b> F	1539	3.9	120
	2053	8.5	260	<b>31</b> W	2053	8.5	260	<b>15</b> F	2213	9.2	280

Time meridian 45° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beira, Mozambique, 2018

Times and Heights of High and Low Waters

January				February				March																	
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height														
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm														
<b>1</b> M	0351	20.7	630	<b>16</b> Tu	0410	20.0	610	<b>1</b> Th	0509	22.0	670	<b>16</b> F	0503	21.7	660										
1023	3.0	90	1102	4.3	130	1148	2.3	70	1150	3.6	110	1051	3.0	90	1054	4.3	130								
1608	21.0	640	1639	20.3	620	1722	22.0	670	1726	21.7	660	1629	21.7	660	1632	21.3	650								
2251	3.6	110	2316	3.9	120				2315	3.3	100	2315	3.3	100	2305	3.6	110								
<b>2</b> Tu	0435	21.7	660	<b>17</b> W	0446	20.7	630	<b>2</b> F	0009	3.0	90	<b>17</b> Sa	0001	3.0	90	<b>2</b> F	0454	22.3	680						
1113	2.6	80	1138	3.9	120	0548	22.3	680	0533	22.0	670	1213	3.6	110	1130	2.3	70	1123	3.6	110					
1652	21.7	660	1712	20.3	620	1225	2.3	70	1754	22.0	670	1705	22.6	690	2351	2.6	80	1702	22.3	680					
○	2337	3.3	100	●	2350	3.6	110					●	2335	3.0	90										
<b>3</b> W	0518	22.0	670	<b>18</b> Th	0519	20.7	630	<b>3</b> Sa	0042	3.0	90	<b>18</b> Su	0025	3.0	90	<b>3</b> Sa	0530	22.6	690						
1158	2.3	70	1207	3.9	120	0624	22.0	670	0601	22.3	680	1232	3.3	100	1205	2.3	70	1149	3.3	100					
1733	21.7	660	1743	20.7	630	1257	2.6	80	1820	22.0	670	1739	23.0	700	1731	22.6	690								
<b>4</b> Th	0018	3.0	90	<b>19</b> F	0019	3.6	110	<b>4</b> Su	0110	3.3	100	<b>19</b> M	0047	3.0	90	<b>4</b> Su	0023	2.6	80	<b>19</b> M	0003	2.3	70		
0559	21.7	660	0549	21.0	640	0658	21.3	650	0629	22.3	680	1248	3.3	100	0603	22.6	690	0540	23.0	700					
1237	2.3	70	1230	3.9	120	1325	3.6	110	1905	21.0	640	1845	21.7	660	1236	2.6	80	1212	3.0	90					
1812	21.3	650	1811	20.3	620							1811	22.6	690				1759	23.0	700					
<b>5</b> F	0053	3.3	100	<b>20</b> Sa	0043	3.6	110	<b>5</b> M	0133	4.3	130	<b>20</b> Tu	0106	3.0	90	<b>5</b> M	0049	3.0	90	<b>20</b> Tu	0028	2.3	70		
0638	21.0	640	0618	21.0	640	0730	20.0	610	0657	22.0	670	1305	3.6	110	1302	3.0	90	0610	23.0	700					
1312	3.0	90	1247	4.3	130	1349	4.6	140	1912	21.0	640	1912	22.3	680	1840	22.6	690	1232	3.0	90					
1849	20.7	630	1836	20.3	620	1937	20.0	610										1827	22.6	690					
<b>6</b> Sa	0123	3.9	120	<b>21</b> Su	0102	3.9	120	<b>6</b> Tu	0153	5.2	160	<b>21</b> W	0128	3.6	110	<b>6</b> Tu	0111	3.6	110	<b>21</b> W	0052	2.6	80		
0716	20.0	610	0645	20.7	630	0803	18.7	570	0729	21.0	640	1327	4.3	130	0702	21.0	640	0640	22.6	690					
1343	4.3	130	1300	4.3	130	1412	5.9	180	1943	20.0	610	1943	20.0	610	1325	3.9	120	1252	3.3	100					
1926	19.7	600	1901	20.0	610	2011	18.7	570							1908	21.3	650	1856	22.0	670					
<b>7</b> Su	0150	4.9	150	<b>22</b> M	0120	4.3	130	<b>7</b> W	0211	6.6	200	<b>22</b> Th	0154	4.6	140	<b>7</b> W	0128	4.6	140	<b>22</b> Th	0115	3.3	100		
0755	18.7	570	0714	20.3	620	0841	17.1	520	0807	19.4	590	1355	5.6	170	0730	19.7	600	0711	21.3	650					
1413	5.6	170	1317	4.6	140	1437	7.5	230	2023	18.4	560	2023	18.4	560	1344	5.2	160	1313	4.3	130					
2005	18.4	560	1929	19.4	590	○	2054	17.1	520				1937	19.7	600	1926	20.7	630							
<b>8</b> M	0216	6.2	190	<b>23</b> Tu	0141	4.6	140	<b>8</b> Th	0235	7.9	240	<b>23</b> F	0230	6.2	190	<b>8</b> Th	0142	5.9	180	<b>23</b> F	0141	4.3	130		
0839	17.4	530	0749	19.4	590	0938	15.4	470	1518	9.2	280	1434	7.2	220	1401	6.6	200	1339	5.6	170					
1445	6.9	210	1341	4.9	150	2159	15.4	470	○	2128	16.4	500	2309	18.0	550	2003	18.7	570							
2051	17.1	520	2005	18.4	560	1111	14.4	440	2336	14.8	450	1536	9.2	280	1533	16.1	490	2054	16.1	490					
<b>9</b> Tu	0246	7.5	230	<b>24</b> W	0212	5.2	160	<b>9</b> F	0319	9.5	290	<b>24</b> Sa	0328	8.2	250	<b>9</b> F	0157	7.2	220	<b>24</b> Sa	0214	6.2	190		
0937	15.7	480	0834	18.0	550	1417	6.2	190	1741	10.2	310	1022	15.7	480	1536	9.2	280	1422	8.2	250	2003	18.7	570		
1532	8.2	250	2056	17.1	520	2056	17.1	520	2336	14.8	450	2330	15.1	460	2330	15.1	460	2054	16.1	490	2102	16.4	500		
○	2153	15.7	480																						
<b>10</b> W	0343	8.9	270	<b>25</b> Th	0258	6.6	200	<b>10</b> Sa	0717	9.8	300	<b>25</b> Su	0616	9.2	280	<b>10</b> Sa	0221	8.9	270	<b>25</b> Su	0304	8.2	250		
1055	15.1	460	0938	16.7	510	1300	14.4	440	1944	9.2	280	1221	15.4	470	1928	9.8	300	1459	10.2	310	2221	14.4	440		
1715	9.2	280	1507	7.5	230	2219	15.7	480																	
2313	15.1	460	2219	15.7	480																				
<b>11</b> Th	0623	9.2	280	<b>26</b> F	0421	8.2	250	<b>11</b> Su	0117	15.1	460	<b>26</b> M	0127	16.1	490	<b>11</b> Su	0306	10.8	330	<b>26</b> M	0604	9.8	300		
1224	15.1	460	1110	15.7	480	1146	9.2	280	0839	8.2	250	0809	7.5	230	1359	16.7	510	1206	13.5	410	1910	10.5	320		
1902	8.5	260	1646	9.2	280	2049	7.5	230	1420	16.1	490	2054	7.9	240				1200	14.8	450	1929	9.8	300		
<b>12</b> F	0040	15.4	470	<b>27</b> Sa	0011	15.7	480	<b>12</b> M	0229	16.7	510	<b>27</b> Tu	0242	18.0	550	<b>12</b> M	0032	14.1	430	<b>27</b> Tu	0114	15.7	480		
0753	8.2	250	0645	8.2	250	0929	6.9	210	1510	17.7	540	0914	5.9	180	1502	9.5	290	0801	8.2	250	1345	16.1	490		
1341	16.1	490	1251	16.1	490	2138	6.2	190	2149	5.9	180	1502	14.8	450	2031	8.9	270	2045	7.9	240					
2010	7.5	230	1934	8.5	260																				
<b>13</b> Sa	0153	16.7	510	<b>28</b> Su	0143	16.7	510	<b>13</b> Tu	0317	18.4	560	<b>28</b> W	0333	20.0	610	<b>13</b> Tu	0205	15.7	480	<b>28</b> W	0229	17.7	540		
0850	6.6	200	0815	6.6	200	1011	5.6	170	1549	19.0	580	1006	4.3	130	1548	20.3	620	1452	16.7	510	1447	18.4	560		
1438	17.4	530	1411	17.4	530	2220	4.9	150	2258	4.3	130	2235	4.3	130	2117	6.9	210	2132	5.9	180					
2104	6.2	190	2055	6.9	210																				
<b>14</b> Su	0247	18.0	550	<b>29</b> M	0250	18.7	570	<b>14</b> W	0356	19.7	600	<b>15</b> Th	0431	20.7	630	<b>14</b> W	0256	17.7	540	<b>29</b> Th	0318	19.7	600		
0937	5.6	170	0921	5.2	160	1048	4.6	140	1624	20.0	610	1121	3.9	120	1656	21.0	640	1529	18.7	570	1530	20.3	620		
1523	18.7	570	1511	19.0	580	2258	4.3	130				2332	3.6	110				2156	5.6	170	2214	4.3	130		
2152	4.9	150	2155	5.6	170																				
<b>15</b> M	0331	19.0	580	<b>30</b> Tu	0342	20.0	610	<b>15</b> Th	0431	20.7	630	<b>16</b> W	1121	3.9	120	<b>15</b> Th	0334	19.4	590	<b>30</b> F	0357	21.3	650		
1022	4.9	150	1017	3.9	120	2246	4.3	130	2332	3.6	110	2330	3.3	100	1642	21.7	660	1023	4.9	150	1607	21.7	660		
1602																									

# Beira, Mozambique, 2018

Times and Heights of High and Low Waters

April				May				June			
	Time	Height			Time	Height			Time	Height	
	h m	ft	cm		h m	ft	cm		h m	ft	cm
<b>1</b> Su	0507	22.6	690	<b>16</b>	0445	22.6	690	<b>1</b>	0514	21.7	660
	1140	2.3	70	M	1121	3.0	90	Tu	1148	3.0	90
	1715	23.0	700		1707	22.6	690		1722	22.0	670
	2359	2.6	80	●	2339	2.3	70		1721	22.0	670
<b>2</b> M	0539	22.6	690	<b>17</b>	0518	23.0	700	<b>2</b>	0006	3.3	100
	1212	2.6	80	Tu	1150	3.0	90	W	0545	21.3	650
	1746	23.0	700		1739	23.0	700	Th	1219	3.3	100
									1752	21.7	660
<b>3</b> Tu	0027	3.0	90	<b>18</b>	0010	2.0	60	<b>3</b>	0032	3.6	110
	0609	22.0	670	W	0551	23.0	700	F	0613	21.3	650
	1239	3.0	90		1218	3.0	90		1246	3.9	120
	1815	22.3	680		1811	22.6	690		1822	20.7	630
<b>4</b> W	0050	3.6	110	<b>19</b>	0040	2.3	70	<b>4</b>	0053	4.6	140
	0636	21.0	640	Th	0624	22.3	680	F	0642	19.4	590
	1303	3.9	120		1243	3.3	100		1308	4.9	150
	1843	21.3	650		1843	21.7	660		1850	19.4	590
<b>5</b> Th	0107	4.6	140	<b>20</b>	0109	3.3	100	<b>5</b>	0108	5.6	170
	0702	20.0	610	F	0659	21.0	640	Sa	0708	17.7	540
	1322	4.9	150		1308	4.3	130		1325	5.9	180
	1910	20.0	610		1917	20.0	610		1918	18.0	550
<b>6</b> F	0120	5.6	170	<b>21</b>	0138	4.6	140	<b>6</b>	0120	5.9	180
	0727	18.4	560	Sa	0737	19.0	580	M	0825	16.7	510
	1337	6.2	190		1334	5.6	170		1419	6.9	210
	1938	18.4	560		1958	18.4	560		1952	16.7	510
<b>7</b> Sa	0132	6.9	210	<b>22</b>	0213	6.2	190	<b>7</b>	0138	7.5	230
	0752	16.4	500	Su	0826	17.1	520	M	0808	14.8	450
	1353	7.5	230		1406	7.5	230		1405	8.2	250
	2012	16.4	500	●	2102	16.1	490		2044	15.1	460
<b>8</b> Su	0151	8.2	250	<b>23</b>	0307	8.2	250	<b>8</b>	0210	8.9	270
	0830	14.4	440	M	0945	15.1	460	Tu	0941	13.5	410
	1417	9.2	280		1459	9.5	290		1456	9.5	290
	2116	14.8	450		2256	14.8	450	●	2224	14.1	430
<b>9</b> M	0224	9.8	300	<b>24</b>	0547	9.2	280	<b>9</b>	0318	9.8	300
	1055	13.1	400	Tu	1138	14.4	440	W	1151	13.5	410
	1635	11.2	340		1905	9.5	290		1832	9.5	290
	2330	13.8	420						2093	7.5	230
<b>10</b> Tu	0759	10.5	320	<b>25</b>	0050	15.4	470	<b>10</b>	0011	14.4	440
	1309	13.8	420	W	0736	7.9	240	Th	0733	9.2	280
	1952	9.5	290		1317	15.7	480		1315	14.8	450
					2018	7.5	230		1943	7.9	240
<b>11</b> W	0119	14.8	450	<b>26</b>	0204	17.4	530	<b>11</b>	0126	15.7	480
	0842	8.5	260	Th	0832	6.2	190	Sa	0818	7.5	230
	1416	15.7	480		1419	17.7	540		1409	16.7	510
	2041	7.5	230		2104	5.9	180		2029	6.2	190
<b>12</b> Th	0220	16.7	510	<b>27</b>	0252	19.0	580	<b>12</b>	0218	17.7	540
	0914	6.9	210	F	0916	4.6	140	Sa	0855	5.9	180
	1456	17.7	540		1503	19.4	590		1451	18.7	570
	2119	5.9	180						2111	4.9	150
<b>13</b> F	0301	18.7	570	<b>28</b>	0331	20.3	620	<b>13</b>	0301	19.4	590
	0945	5.6	170	Sa	0957	3.6	110	M	0924	3.9	120
	1530	19.7	600		1540	21.0	640		1529	20.0	610
	2155	4.6	140		2223	3.6	110		2153	3.6	110
<b>14</b> Sa	0337	20.3	620	<b>29</b>	0407	21.3	650	<b>14</b>	0341	20.7	630
	1017	4.6	140	Su	1036	3.0	90	W	1048	3.0	90
	1602	21.0	640		1616	21.7	660		1607	21.3	650
	2231	3.6	110		2300	3.0	90		2235	3.0	90
<b>15</b> Su	0411	21.7	660	<b>30</b>	0441	21.7	660	<b>15</b>	0419	21.7	660
	1050	3.6	110	M	1113	2.6	80	W	1054	3.3	100
	1635	22.0	670		1649	22.3	680		1701	20.7	630
	2306	2.6	80	○	2335	3.0	90	●	2317	2.3	70
<b>31</b>	0526	20.0	610					<b>31</b>	0526	20.0	610
								Th	1204	3.3	100
									1735	20.3	620

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beira, Mozambique, 2018

Times and Heights of High and Low Waters

July				August				September				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0043	3.9	120	<b>16</b> M	0103	2.0	60	<b>1</b> W	0104	3.9	120	
	0619	18.4	560		0637	20.0	610		0145	3.3	100	
	1254	3.9	120		1315	3.0	90		0728	19.4	590	
	1826	19.0	580		1906	20.0	610		1350	3.9	120	
						1318	3.6	110		1955	18.4	560
						1906	19.4	590		1947	19.0	580
<b>2</b> M	0104	4.6	140	<b>17</b> Tu	0137	3.0	90	<b>2</b> Th	0117	3.9	120	
	0648	17.7	540		0717	19.0	580		0211	4.6	140	
	1316	4.3	130		1346	3.6	110		0803	18.0	550	
	1856	18.4	560		1947	18.7	570		1411	5.2	160	
						1937	18.7	570		2033	17.1	520
<b>3</b> Tu	0118	4.9	150	<b>18</b> W	0209	3.9	120	<b>3</b> F	0136	4.3	130	
	0715	17.1	520		0758	18.4	560		0238	5.9	180	
	1333	4.9	150		1415	4.9	150		0845	16.7	510	
	1926	17.7	540		2030	17.7	540		1435	6.6	200	
									<b>○</b>	2122	15.4	470
<b>4</b> W	0131	5.2	160	<b>19</b> Th	0243	5.2	160	<b>4</b> Sa	0205	4.9	150	
	0745	16.7	510		0842	17.1	520		0316	7.2	220	
	1353	5.2	160		1446	5.9	180		0942	15.4	470	
	2003	17.1	520		<b>○</b>	2120	16.1	490		1514	8.2	250
						2108	16.7	510		2236	14.1	430
<b>5</b> Th	0154	5.6	170	<b>20</b> F	0324	6.6	200	<b>5</b> Su	0247	5.9	180	
	0825	15.7	480		0935	16.1	490		0445	8.5	260	
	1424	5.9	180		1530	7.2	220		M	1103	14.1	430
	2051	16.4	500		2223	15.1	460		1801	9.2	280	
						2222	15.4	470				
<b>6</b> F	0231	6.2	190	<b>21</b> Sa	0431	7.5	230	<b>6</b> M	0354	7.2	220	
	0924	15.1	460		1041	15.1	460		0013	13.8	420	
	1513	6.6	200		1708	8.2	250		0657	8.2	250	
	<b>○</b>	2157	15.7		2338	14.4	440		Tu	1238	14.4	440
						2355	15.1	460		2001	7.9	240
<b>7</b> Sa	0328	6.9	210	<b>22</b> Su	0609	7.5	230	<b>21</b> Tu	0609	7.5	230	
	1045	14.8	450		1158	15.1	460		0141	14.8	450	
	1642	7.2	220		1902	7.9	240		0814	6.9	210	
	2317	15.4	470			1924	6.6	200		1359	15.4	470
										2101	6.6	200
<b>8</b> Su	0509	7.5	230	<b>23</b> M	0056	15.1	460	<b>8</b> W	0125	15.7	480	
	1212	15.1	460		0728	6.9	210		0802	6.6	200	
	1830	6.9	210		1314	15.4	470		1414	16.7	510	
					2013	6.6	200		2041	5.2	160	
										2148	5.2	160
<b>9</b> M	0039	15.7	480	<b>24</b> Tu	0203	15.7	480	<b>9</b> Th	0235	17.4	530	
	0701	6.9	210		0829	5.9	180		0915	5.2	160	
	1328	16.1	490		1417	16.7	510		1513	18.4	560	
	1947	5.6	170		2109	5.6	170		2145	3.9	120	
										2230	4.3	130
<b>10</b> Tu	0150	17.1	520	<b>25</b> W	0256	17.1	520	<b>24</b> F	0324	17.4	530	
	0816	5.9	180		0923	4.9	150		0956	4.6	140	
	1431	17.7	540		1508	17.7	540		1537	18.4	560	
	2052	4.6	140		2200	4.9	150		2230	4.3	130	
						2240	3.0	90				
<b>11</b> W	0249	18.0	550	<b>26</b> Th	0341	18.0	550	<b>11</b> Sa	0418	20.0	610	
	0921	4.9	150		1012	3.9	120		1106	3.0	90	
	1524	19.0	580		1552	18.7	570		1648	20.7	630	
	2153	3.6	110		2246	4.3	130		<b>●</b>	2328	2.0	60
										2340	3.3	100
<b>12</b> Th	0341	19.4	590	<b>27</b> F	0421	18.7	570	<b>12</b> Su	0502	20.7	630	
	1021	3.9	120		1058	3.6	110		1149	2.3	70	
	1612	20.0	610		1631	19.4	590		1730	21.3	650	
	2250	2.6	80		<b>○</b>	2327	3.6	110				
<b>13</b> F	0429	20.0	610	<b>28</b> Sa	0459	19.0	580	<b>13</b> M	0010	1.6	50	
	1115	3.3	100		1138	3.3	100		0542	21.0	640	
	1658	20.7	630		1707	19.7	600		1227	2.0	60	
	<b>●</b>	2341	2.0							1809	21.3	650
										1749	21.0	640
										1816	21.0	640
<b>14</b> Sa	0514	20.3	620	<b>29</b> Su	0002	3.6	110	<b>29</b> W	0046	1.6	50	
	1201	2.6	80		0533	19.0	580		0619	20.7	630	
	1742	20.7	630		1212	3.0	90		1259	2.3	70	
					1740	19.7	600		1846	20.7	630	
										1816	21.0	640
<b>15</b> Su	0024	2.0	60	<b>30</b> M	0030	3.6	110	<b>30</b> W	0117	2.3	70	
	0557	20.3	620		0604	19.0	580		0654	20.3	620	
	1241	2.6	80		1239	3.3	100		1327	3.0	90	
	1825	20.7	630		1810	19.7	600		1921	19.7	600	
										1949	17.7	540
<b>31</b> Tu	0050	3.6	110	<b>31</b> F	0631	18.7	570	<b>31</b> W	0057	3.3	100	
	1300	3.3	100		1300	3.3	100		0608	19.7	600	
	1838	19.7	600		1838	19.7	600		1315	3.0	90	
										1912	20.0	610

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Beira, Mozambique, 2018

Times and Heights of High and Low Waters

October				November				December				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> M	0122	4.3	130	<b>16</b> Tu	0152	6.9	210	<b>1</b> Th	0232	8.2	250	
	0740	18.0	550		0802	16.1	490		1008	14.8	450	
	1351	4.9	150		1343	7.5	230		1623	8.9	270	
	2007	17.7	540	●	2023	14.4	440		2247	14.4	440	
<b>2</b> Tu	0154	5.9	180	<b>17</b> W	0218	8.5	260	<b>2</b> F	0550	9.5	290	
	0830	16.1	490		0905	14.1	430		1208	14.8	450	
	1434	6.9	210		1413	9.2	280		1857	8.2	250	
	2112	15.4	470		2225	12.8	390					
<b>3</b> W	0240	7.9	240	<b>18</b> Th	0415	10.2	310	<b>3</b> Sa	0034	15.1	460	
	1015	14.4	440		1108	13.1	400		0745	7.5	230	
	1621	8.9	270		1934	10.2	310		1335	16.4	500	
	2305	14.1	430						2005	6.6	200	
<b>4</b> Th	0557	9.5	290	<b>19</b> F	0039	13.1	400	<b>4</b> Su	0149	16.7	510	
	1227	14.8	450		0730	8.9	270		0837	5.6	170	
	1917	8.2	250		1300	14.1	430		1430	18.4	560	
					2026	8.2	250		2052	4.9	150	
<b>5</b> F	0059	15.1	460	<b>20</b> Sa	0156	15.1	460	<b>5</b> M	0239	18.7	570	
	0804	7.5	230		0822	7.2	220		0919	4.3	130	
	1356	16.4	500		1405	16.1	490		1512	20.0	610	
	2027	6.2	190		2059	6.6	200		2135	3.6	110	
<b>6</b> Sa	0213	17.1	520	<b>21</b> Su	0239	16.7	510	<b>6</b> Tu	0319	20.3	620	
	0859	5.6	170		0901	5.6	170		0959	3.3	100	
	1451	18.7	570		1447	18.0	550		1548	21.0	640	
	2117	4.3	130		2131	5.2	160		2215	3.0	90	
<b>7</b> Su	0303	19.0	580	<b>22</b> M	0314	18.7	570	<b>7</b> W	0356	21.3	650	
	0944	3.9	120		0936	4.3	130		1038	2.6	80	
	1534	20.3	620		1522	19.7	600		1623	21.7	660	
	2202	3.0	90		2202	4.3	130	●	2254	2.6	80	
<b>8</b> M	0344	20.7	630	<b>23</b> Tu	0346	20.0	610	<b>8</b> Th	0431	21.7	660	
	1025	2.6	80		1011	3.3	100		1114	2.6	80	
	1612	21.7	660		1555	20.7	630		1657	21.7	660	
	2243	2.3	70		2233	3.6	110		2330	2.6	80	
<b>9</b> Tu	0421	21.7	660	<b>24</b> W	0418	21.0	640	<b>9</b> F	0504	21.7	660	
	1104	2.3	70		1046	2.6	80		1148	3.0	100	
	1647	22.0	670		1628	21.7	660		1729	21.3	650	
	●	2320	2.0		○	2304	3.3	100				
<b>10</b> W	0455	22.0	670	<b>25</b> Th	0449	21.7	660	<b>10</b> Sa	0004	3.0	90	
	1139	2.0	60		1119	2.3	70		0536	21.3	650	
	1721	22.0	670		1700	22.3	680		1217	3.3	100	
	2355	2.0	60		2333	3.0	90		1800	20.7	630	
<b>11</b> Th	0528	22.0	670	<b>26</b> F	0520	21.7	660	<b>11</b> Su	0034	3.6	110	
	1210	2.3	70		1150	2.0	60		0607	20.7	630	
	1752	21.7	660		1731	22.3	680		1241	4.3	130	
									1829	19.4	590	
<b>12</b> F	0025	2.6	80	<b>27</b> Sa	0000	3.0	90	<b>12</b> M	0059	4.3	130	
	0559	21.7	660		0550	21.7	660		0636	19.4	590	
	1236	3.0	90		1219	2.3	70		1300	4.9	150	
	1822	20.7	630		1803	22.0	670		1856	18.4	560	
<b>13</b> Sa	0052	3.3	100	<b>28</b> Su	0025	3.0	90	<b>13</b> Tu	0120	5.2	160	
	0628	20.7	630		0621	21.0	640		0706	18.0	550	
	1257	3.9	120		1247	3.0	90		1313	6.2	190	
	1849	19.7	600		1836	21.0	640		1923	16.7	510	
<b>14</b> Su	0115	4.3	130	<b>29</b> M	0050	3.6	110	<b>14</b> W	0138	6.6	200	
	0657	19.4	590		0654	20.0	610		0739	16.7	510	
	1313	4.9	150		1316	3.9	120		1328	7.2	220	
	1916	18.0	550		1912	19.4	590		1955	15.1	460	
<b>15</b> M	0134	5.6	170	<b>30</b> Tu	0116	4.6	140	<b>15</b> F	0200	7.9	240	
	0726	17.7	540		0732	18.4	560		0827	15.1	460	
	1326	6.2	190		1348	5.2	160		1354	8.5	260	
	1943	16.4	500		1955	17.4	530	●	2107	13.5	410	
<b>31</b> W	0147	6.2	190	<b>31</b> W	0147	6.2	190					
	0825	16.4	500		1432	7.2	220					
	1432	7.2	220		○	2101	15.4	470				
	●	2101	15.4									

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Durban, South Africa, 2018

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	cm	h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0302	6.1	187	16 Tu 0337	5.8	176	1 Th 0426	6.9	209	16 Th 0419	6.4	195
0904	1.0	29	0933	1.4	44	1029	0.7	20	0938	0.8	24
1520	6.7	204	1541	6.0	184	1642	6.8	208	1021	1.0	32
2135	0.6	19	2155	1.1	33	2250	0.3	9	1627	6.5	197
									2237	0.7	22
2 Tu 0348	6.4	196	17 W 0407	6.0	183	2 F 0505	7.0	212	2 Th 0448	6.6	200
0950	0.8	23	1004	1.3	39	1109	0.7	21	17 Sa 1050	1.0	29
1605	6.8	207	1611	6.2	188	1720	6.7	205	1656	6.5	199
O 2218	0.5	14	● 2224	1.0	29	2326	0.3	10	2305	0.7	20
3 W 0433	6.6	202	18 Th 0436	6.1	187	3 Sa 0543	6.9	210	18 Su 0517	6.6	202
1034	0.7	22	1035	1.2	37	1146	0.9	26	1121	1.0	29
1649	6.7	205	1640	6.2	190	1756	6.5	197	1726	6.5	198
2300	0.4	13	2253	0.9	27				2333	0.7	21
4 Th 0517	6.7	203	19 F 0505	6.2	189	4 Su 0001	0.6	17	4 M 0547	6.6	201
1119	0.9	26	1105	1.2	37	0619	6.6	201	1152	1.1	33
1732	6.5	198	1710	6.2	190	1222	1.2	36	1757	6.3	193
2341	0.6	17	2322	0.9	27	1830	6.1	186			
5 F 0600	6.5	198	20 Sa 0535	6.2	189	5 M 0034	0.9	27	20 Tu 0003	0.9	26
1202	1.1	34	1137	1.3	40	0654	6.2	189	0619	6.4	195
1814	6.1	187	1741	6.1	187	1257	1.6	49	1225	1.3	40
			2352	1.0	30	1903	5.7	173	1829	6.1	185
6 Sa 0021	0.8	25	21 Su 0607	6.1	186	6 Tu 0107	1.3	41	21 W 0034	1.1	34
0643	6.2	190	1210	1.5	46	0729	5.7	175	0653	6.1	186
1246	1.5	46	1814	5.9	181	1334	2.1	63	1301	1.6	50
1856	5.7	175				1936	5.2	158	1905	5.7	173
7 Su 0101	1.2	36	22 M 0024	1.2	36	7 W 0142	1.9	57	22 Th 0110	1.5	47
0727	5.8	178	0641	5.9	181	0808	5.2	159	0734	5.7	174
1331	1.9	59	1246	1.7	53	1416	2.5	76	1344	2.1	63
1938	5.3	161	1849	5.7	173	● 2016	4.7	143	1948	5.2	158
8 M 0143	1.6	50	23 Tu 0058	1.4	44	8 Th 0226	2.4	74	23 F 0153	2.0	62
0816	5.4	166	0720	5.7	174	0901	4.8	145	0827	5.2	160
1422	2.4	72	1327	2.0	62	1518	2.9	88	1443	2.5	77
2026	4.8	147	1930	5.3	162	2124	4.2	129	● 2051	4.7	143
9 Tu 0232	2.1	64	24 W 0138	1.8	54	9 F 0340	2.9	89	24 Sa 0300	2.6	78
0916	5.1	154	0808	5.4	165	1042	4.4	135	0958	4.8	147
1528	2.7	83	1419	2.4	72	1723	3.1	93	1626	2.8	86
● 2132	4.5	136	2021	5.0	151				2256	4.4	134
10 W 0339	2.5	76	25 Th 0229	2.2	66	10 Sa 0001	4.1	125	9 M 0136	2.3	71
1037	4.8	147	0914	5.2	157	0604	3.0	91	1753	2.7	82
1701	2.8	86	1533	2.6	80	1240	4.6	139	1407	2.7	82
2312	4.3	131	● 2137	4.6	140	1913	2.8	84	● 2011	4.4	134
11 Th 0516	2.7	81	26 F 0348	2.5	76	10 Sa 0225	2.9	88	24 W 0133	2.1	63
1204	4.9	148	1047	5.1	154	0516	2.8	86	0801	5.1	156
1832	2.7	81	1716	2.6	80	0620	4.9	149	1415	2.4	74
			2329	4.6	139	1207	4.9	149	● 2032	4.7	143
12 F 0046	4.5	136	27 Sa 0539	2.5	77	11 Su 0001	4.1	125	25 M 0243	2.7	82
0643	2.5	77	1222	5.2	160	0604	3.0	91	0935	4.3	140
1310	5.1	154	1850	2.3	70	1344	4.9	150	1527	3.1	95
1934	2.3	70				2006	2.3	70	2215	4.0	122
13 Sa 0148	4.8	146	28 W 0104	4.9	150	1000	4.5	137	10 Sa 0225	2.9	88
0741	2.2	68	0709	2.2	66	0728	2.7	81	0856	4.3	132
1358	5.3	163	1332	5.7	173	1344	4.9	150	1838	2.6	79
2017	1.9	59	1955	1.8	54	2006	2.3	70			
14 Su 0231	5.2	158	29 M 0208	5.5	167	0100	4.8	147	11 M 0501	3.2	99
0824	1.9	59	0811	1.6	50	0711	2.4	73	12 M 0527	2.9	89
1436	5.6	171	1428	6.1	187	1426	5.3	162	1203	4.7	142
2053	1.6	48	2046	1.2	38	2042	1.9	57	1828	2.6	80
15 M 0306	5.5	168	30 Tu 0259	6.1	185	2205	5.5	167			
0901	1.6	50	0902	1.2	36	0812	1.8	54	11 Su 0501	4.2	128
1510	5.9	179	1517	6.5	198	1426	5.9	180	12 M 0527	2.9	89
2125	1.3	40	2130	0.8	24	2039	1.4	42	1324	4.6	140
			● 2209	0.9	27	1944	2.6	78	1937	2.0	62
16 W 0344	6.5	199	31 W 0947	0.8	25	1440	5.6	170	27 Tu 0054	4.9	149
0947	0.8	25	1601	6.7	205	2051	1.6	49	0711	2.4	73
O 2211	0.5	14	● 2211	0.5	14	2142	1.1	35	1324	5.2	158

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Durban, South Africa, 2018

Times and Heights of High and Low Waters

April				May				June							
	Time	Height			Time	Height			Time	Height					
	h m	ft	cm		h m	ft	cm		h m	ft	cm				
<b>1</b> Su	0420	7.1	215	<b>16</b> M	0356	7.0	212	<b>1</b> Tu	0422	6.6	202	<b>16</b> W	0406	6.9	210
	1026	0.5	16		1005	0.5	15		1030	0.7	21		1109	1.0	32
	1636	6.7	205		1612	6.7	204		1641	6.3	192		1723	5.8	178
	2237	0.4	11	●	2216	0.4	13		2241	0.8	23		2324	1.4	42
<b>2</b> M	0450	7.0	212	<b>17</b> Tu	0428	7.0	214	<b>2</b> W	0450	6.4	195	<b>17</b> Th	0445	6.8	206
	1056	0.6	18		1038	0.4	13		1059	0.8	25		1056	0.5	16
	1705	6.6	200		1646	6.7	204		1710	6.1	187		1708	6.5	197
	2306	0.5	16		2249	0.4	13		2310	1.0	31		2310	0.7	22
<b>3</b> Tu	0518	6.7	204	<b>18</b> W	0502	6.9	211	<b>3</b> Th	0518	6.1	186	<b>18</b> F	0526	6.5	197
	1125	0.8	25		1112	0.6	17		1128	1.0	32		1751	6.2	189
	1734	6.3	192		1720	6.5	199		1739	5.9	179		2353	1.1	34
	2335	0.8	25		2323	0.7	20		2340	1.3	40				
<b>4</b> W	0546	6.3	192	<b>19</b> Th	0537	6.6	202	<b>4</b> F	0546	5.8	176	<b>19</b> Sa	0609	6.0	183
	1153	1.1	34		1147	0.8	25		1157	1.3	41		1218	1.1	35
	1801	5.9	181		1757	6.2	190		1808	5.5	169		1837	5.8	178
					2359	1.0	31								
<b>5</b> Th	0003	1.2	38	<b>20</b> F	0615	6.2	188	<b>5</b> Sa	0011	1.7	52	<b>20</b> Su	0040	1.6	48
	0612	5.9	179		1225	1.2	38		0616	5.4	164		0658	5.5	167
	1221	1.5	46		1837	5.8	176		1228	1.7	53		1306	1.6	49
	1828	5.5	168						1840	5.2	158		1931	5.4	165
<b>6</b> F	0032	1.7	52	<b>21</b> Sa	0039	1.5	47	<b>6</b> Su	0045	2.1	65	<b>21</b> M	0137	2.1	64
	0640	5.4	165		0658	5.6	170		0650	5.0	151		0759	5.0	151
	1251	1.9	59		1309	1.8	54		1303	2.1	65		1405	2.1	63
	1858	5.1	155		1925	5.2	160		1920	4.8	147		2042	5.1	154
<b>7</b> Sa	0104	2.2	68	<b>22</b> Su	0130	2.2	66	<b>7</b> M	0129	2.6	78	<b>22</b> Tu	0259	2.5	76
	0712	4.9	149		0755	5.0	151		0737	4.6	139		0924	4.6	140
	1326	2.4	74		1407	2.3	71		1352	2.6	78		1529	2.4	73
	1937	4.6	140	●	2038	4.8	145		2022	4.4	135	●	2221	4.9	149
<b>8</b> Su	0147	2.8	85	<b>23</b> M	0253	2.7	83	<b>8</b> Tu	0246	3.0	90	<b>23</b> W	0451	2.6	79
	0801	4.4	134		0935	4.5	137		0859	4.2	128		1105	4.6	139
	1421	2.9	88		1549	2.7	83		1523	2.9	89		1712	2.4	73
	2052	4.2	127		2250	4.6	141	●	2229	4.3	131		2352	5.1	156
<b>9</b> M	0333	3.2	98	<b>24</b> Tu	0525	2.8	84	<b>9</b> W	0506	3.0	91	<b>24</b> Th	0616	2.3	70
	1010	4.0	123		1145	4.6	139		1114	4.2	129		1829	4.8	147
	1706	3.1	96		1759	2.5	77		1738	2.8	86		1829	2.1	65
<b>10</b> Tu	0012	4.2	129	<b>25</b> W	0031	5.1	154	<b>10</b> Th	0014	4.7	142	<b>25</b> F	0054	5.4	166
	0627	3.0	92		0653	2.3	70		0630	2.6	79		0712	1.9	59
	1239	4.4	133		1301	5.0	153		1236	4.6	141		1321	5.2	158
	1859	2.8	84		1909	2.0	62		1848	2.4	73		1923	1.8	54
<b>11</b> W	0119	4.7	144	<b>26</b> Th	0128	5.6	171	<b>11</b> F	0106	5.2	157	<b>26</b> Sa	0141	5.8	177
	0725	2.5	76		0743	1.8	54		0718	2.1	64		0755	1.6	48
	1332	4.9	148		1351	5.5	168		1324	5.1	156		1405	5.5	168
	1944	2.2	68		1956	1.5	46		1932	1.9	58		2005	1.4	44
<b>12</b> Th	0156	5.3	161	<b>27</b> F	0211	6.1	186	<b>12</b> Sa	0145	5.7	174	<b>27</b> Tu	0220	6.1	185
	0802	2.0	61		0823	1.3	40		0756	1.6	49		0832	1.2	38
	1408	5.4	164		1431	5.9	181		1402	5.6	171		1444	5.8	177
	2017	1.7	53		2034	1.1	33		2008	1.4	44		2043	1.2	37
<b>13</b> F	0227	5.8	178	<b>28</b> Sa	0247	6.5	198	<b>13</b> Su	0219	6.2	189	<b>28</b> W	0255	6.2	189
	0833	1.5	46		0857	1.0	29		0831	1.1	34		0906	1.0	31
	1439	5.9	179		1507	6.2	190		1438	6.0	183		1519	6.0	182
	2047	1.3	39		2108	0.8	24		2043	1.0	31		2117	1.0	32
<b>14</b> Sa	0256	6.3	192	<b>29</b> Su	0321	6.7	204	<b>14</b> M	0254	6.6	201	<b>29</b> W	0328	6.3	191
	0903	1.0	32		0930	0.7	22		0906	0.8	23		1009	0.9	27
	1509	6.3	191		1540	6.4	195		1514	6.3	193		1551	6.5	199
	2116	0.9	26		2140	0.6	19		2118	0.7	21		2150	1.0	31
<b>15</b> Su	0325	6.7	204	<b>30</b> M	0352	6.7	205	<b>15</b> Tu	0329	6.8	208	<b>30</b> W	0359	6.2	190
	0934	0.7	22		1000	0.7	20		0941	0.5	15		1009	0.9	26
	1540	6.6	200		1612	6.4	195		1551	6.5	199		1623	6.0	184
	2145	0.6	18	●	2211	0.6	19	●	2153	0.5	16		2221	1.0	32
												<b>31</b> Th	0429	6.1	186
												1039	0.9	28	
												1653	6.0	182	
												2252	1.2	36	

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Durban, South Africa, 2018

Times and Heights of High and Low Waters

July				August				September															
	Time	Height			Time	Height			Time	Height													
<b>1</b> Su	0516 1126 1740 2343	5.8 1.1 5.9 1.5	178 34 179 45	<b>16</b> M	0557 1202 1823	6.3 0.7 6.5	192 21 198	<b>1</b> W	0601 1208 1823	5.9 1.2 6.0	180 36 184	<b>16</b> Th	0042 0649 1250 1912	1.3 5.8 1.2 6.0	40 177 37 182	<b>1</b> Sa	0038 0643 1245 1904	1.5 5.6 1.5 5.8	46 172 47 176	<b>16</b> Su	0113 0721 1322 1937	2.1 4.9 2.3 4.9	63 150 71 148
<b>2</b> M	0548 1157 1812	5.7 1.3 5.7	174 39 175	<b>17</b> Tu	0029 0640 1242 1906	1.2 5.9 1.0 6.2	36 181 30 188	<b>2</b> Th	0031 0634 1239 1858	1.6 5.7 1.4 5.8	48 173 43 177	<b>2</b> Su	0118 0723 1324 1951	1.9 5.2 2.0 5.3	57 159 61 162	<b>17</b> M	0155 0808 1413 2037	2.6 4.4 3.0 4.3	78 134 90 131				
<b>3</b> Tu	0017 0621 1230 1848	1.7 5.5 1.5 5.5	51 168 46 169	<b>18</b> W	0113 0723 1324 1952	1.6 5.5 1.4 5.7	48 168 43 175	<b>3</b> F	0108 0711 1315 1939	1.8 5.4 1.7 5.5	56 164 53 168	<b>3</b> M	0209 0818 1421 2104	2.3 4.8 2.5 4.9	71 145 77 148	<b>18</b> Tu	0312 1029 1657 2332	3.0 4.0 3.3 4.1	92 123 100 126				
<b>4</b> W	0055 0659 1307 1929	1.9 5.2 1.8 5.3	59 160 54 162	<b>19</b> Th	0200 0809 1409 2044	2.0 5.1 1.9 5.3	61 155 155 162	<b>4</b> Sa	0152 0756 1359 2033	2.1 5.0 2.1 5.2	65 153 64 159	<b>4</b> Tu	0332 1003 1617 2314	2.7 4.4 2.9 4.7	83 134 89 143	<b>19</b> W	0614 1258 1902	3.0 4.4 2.9	90 134 88				
<b>5</b> Th	0139 0743 1350 2021	2.2 5.0 2.1 5.1	68 152 63 155	<b>20</b> F	0256 0906 1506 2152	2.4 4.7 2.3 5.0	73 142 71 151	<b>5</b> Su	0252 0859 1503 2152	2.4 4.7 2.5 5.0	74 142 76 151	<b>5</b> M	0442 1135 1741	3.0 4.2 3.1	90 127 93	<b>20</b> Th	0108 0725 1346 1948	4.5 2.5 5.0 2.4	138 76 151 73				
<b>6</b> F	0237 0841 1448 O	2.5 4.7 2.4 5.0	75 144 72 151	<b>21</b> Sa	0412 1030 1632 2320	2.7 4.4 2.7 4.8	81 134 81 146	<b>6</b> M	0420 1038 1648 2334	2.6 4.5 2.7 5.0	79 137 81 152	<b>6</b> Th	0055 0716 1336 1945	5.1 2.1 5.3 2.0	155 65 163 60	<b>21</b> F	0153 0803 1418 2020	5.0 2.0 5.4 1.9	152 62 166 58				
<b>7</b> Sa	0354 1001 1609 2256	2.6 4.6 2.5 5.0	78 139 77 152	<b>22</b> Su	0548 1212 1813	2.6 4.4 2.7	80 135 81	<b>7</b> Tu	0605 1227 1835	2.4 4.8 2.4	74 145 73	<b>22</b> W	0126 0746 1407 2004	4.8 2.3 5.0 2.3	145 70 153 70	<b>7</b> F	0156 0809 1425 2033	5.7 1.5 6.1 1.3	173 46 185 40	<b>22</b> Sa	0225 0833 1446 2049	5.5 1.6 5.9 1.5	167 48 180 45
<b>8</b> Su	0522 1132 1741	2.5 4.6 2.4	75 141 73	<b>23</b> M	0040 0704 1327 1924	4.9 2.4 4.8 2.4	148 73 145 73	<b>8</b> W	0058 0722 1339 1945	5.3 2.0 5.3 1.9	163 60 161 58	<b>23</b> Th	0212 0825 1441 2040	5.2 1.9 5.4 1.9	158 57 166 57	<b>8</b> Sa	0243 0852 1506 2114	6.2 0.9 6.7 0.8	189 28 204 25	<b>23</b> Su	0254 0901 1511 2116	5.9 1.2 6.3 1.1	179 36 192 34
<b>9</b> M	0012 0636 1248 1854	5.3 2.1 5.0 2.1	161 64 152 63	<b>24</b> Tu	0138 0757 1416 2012	5.1 2.0 5.1 2.1	156 62 156 63	<b>9</b> Th	0159 0817 1433 2038	5.8 1.4 5.9 1.4	177 44 180 42	<b>24</b> F	0246 0857 1511 2111	5.5 1.5 5.8 1.5	169 166 178 46	<b>9</b> Su	0324 0930 1545 2153	6.6 0.5 7.1 0.5	201 201 216 15	<b>24</b> M	0321 0927 1537 2144	6.2 0.9 6.6 0.9	189 27 202 26
<b>10</b> Tu	0114 0735 1348 1951	5.6 1.7 5.4 1.6	172 51 166 50	<b>25</b> W	0222 0837 1455 2051	5.4 1.7 5.5 1.7	164 51 167 53	<b>10</b> F	0251 0904 1519 2125	6.2 1.0 6.5 0.9	190 29 197 28	<b>25</b> Sa	0316 0926 1538 2139	5.9 1.2 6.2 1.2	179 36 188 37	<b>10</b> M	0402 1006 1621 2229	6.8 0.2 7.3 0.4	208 7 222 12	<b>25</b> Tu	0348 0954 1604 2212	6.4 0.7 6.8 0.7	196 20 208 21
<b>11</b> W	0207 0825 1439 2042	6.0 1.2 5.9 1.2	184 38 180 37	<b>26</b> Th	0259 0911 1527 2125	5.6 1.4 5.8 1.5	172 42 176 45	<b>11</b> Sa	0337 0946 1602 2208	6.6 0.6 6.9 0.6	200 17 209 19	<b>26</b> Su	0344 0953 1604 2208	6.1 0.9 6.4 1.0	187 28 196 31	<b>11</b> Tu	0438 1040 1656 2303	6.9 0.2 7.3 0.5	209 5 221 15	<b>26</b> W	0416 1021 1631 2240	6.6 0.6 6.9 0.6	200 17 211 19
<b>12</b> Th	0256 0912 1526 2130	6.4 0.9 6.3 0.9	194 26 192 28	<b>27</b> F	0331 0943 1557 2156	5.8 1.1 6.0 1.3	178 35 183 40	<b>12</b> Su	0419 1026 1642 2249	6.8 0.3 7.1 0.6	206 10 216 17	<b>27</b> M	0412 1020 1631 2236	6.3 0.8 6.6 0.9	192 23 201 28	<b>12</b> W	0512 1113 1729 2336	6.7 0.3 7.0 0.8	203 20 213 23	<b>27</b> Th	0445 1048 1700 2310	6.6 0.6 6.9 0.7	200 17 209 22
<b>13</b> F	0343 0956 1611 ●	6.6 0.6 6.6 0.7	200 18 201 22	<b>28</b> Sa	0402 1012 1625 2226	6.0 1.0 6.2 1.2	183 31 188 36	<b>13</b> M	0459 1104 1721 2328	6.7 0.3 7.1 0.7	205 9 215 20	<b>28</b> Tu	0440 1047 1658 2304	6.4 0.7 6.6 0.9	195 21 202 28	<b>13</b> Th	0545 1145 1801 2304	6.4 0.7 6.6 0.9	194 21 200 28	<b>28</b> F	0515 1117 1730 2341	6.4 0.7 6.7 0.9	196 22 203 28
<b>14</b> Sa	0429 1039 1656 2301	6.6 0.5 6.7 0.7	202 14 205 22	<b>29</b> Su	0431 1041 1653 2256	6.1 0.9 6.2 1.2	186 28 190 36	<b>14</b> Tu	0538 1140 1759	6.6 0.4 6.9	200 13 209	<b>29</b> W	0508 1114 1727 2334	6.4 0.7 6.6 1.0	194 22 201 31	<b>14</b> F	0008 0616 1216 1831	1.1 5.9 1.1 6.0	34 181 35 183	<b>29</b> Sa	0547 1148 1803	6.2 1.0 6.3	188 31 192
<b>15</b> Su	0514 1121 1739 2345	6.5 0.5 6.7 0.9	199 15 204 27	<b>30</b> M	0500 1109 1722 2326	6.1 0.9 6.3 1.2	186 28 191 38	<b>15</b> W	0005 0614 1215 1836	0.9 6.2 0.8 6.5	28 190 23 197	<b>30</b> Th	0538 1142 1756 2334	6.2 0.9 6.4 1.0	190 196 196 197	<b>15</b> Sa	0040 0647 1247 1902	1.6 5.4 1.7 5.4	48 166 53 166	<b>30</b> Su	0015 0622 1222 1839	1.2 5.8 1.5 5.8	38 176 45 177
				<b>31</b> Tu	0530 1138 1752 2357	6.0 1.0 6.2 1.4	184 31 188 42		<b>31</b> F	0005 0609 1212 1828	1.2 6.0 1.1 6.2	37 183 35 188											

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
 Heights are referred to the chart datum of soundings.

# Durban, South Africa, 2018

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 M 0053 5.3 161	16 0115 2.3 71	1 Th 0257 2.6 78	16 0258 2.8 85	1 Sa 0418 2.4 72	16 0316 2.6 79	M 0702 5.3 161	Tu 1335 2.9 87	F 1014 4.3 132	Su 1017 4.7 142	M 1643 2.9 88	W 2238 4.3 132
1302 2.0 62	Tu 1335 2.9 87	1630 2.9 88	1647 3.1 94	1112 5.1 155	Su 1643 2.9 88	1924 5.2 160	● 1943 4.4 133	2243 4.1 126	1740 2.5 77	M 2238 4.3 132	● 1943 4.4 133
1924 5.2 160	● 1943 4.4 133	2253 4.5 136	2243 4.1 126	2344 4.7 142	● 1943 4.4 133						
2 Tu 0142 2.2 68	17 0211 2.8 86	2 0510 2.6 78	17 0511 2.8 85	2 Su 0549 2.2 67	17 0456 2.6 80						
0759 4.8 145	W 0857 4.1 126	F 1155 5.0 152	Sa 1201 4.6 141	1225 5.4 165	M 1143 4.9 149	1402 2.7 81	1821 2.5 75	1819 2.7 83	1847 2.1 65	W 1807 2.6 79	● 2150 4.0 122
● 2040 4.7 142	2150 4.0 122	1821 2.5 75	1819 2.7 83	1847 2.1 65	● 2150 4.0 122						
3 W 0306 2.7 83	18 0446 3.1 93	3 Sa 0025 4.8 147	18 0017 4.5 136	3 M 0051 5.0 152	18 0006 4.6 139	0957 4.4 135	Th 1205 4.3 131	Su 0629 2.5 75	0653 1.9 57	Tu 0615 2.4 72	1625 3.0 92
1625 3.0 92	Th 1821 3.0 92	0634 2.1 64	1254 5.1 156	1317 5.8 177	1242 5.3 162	2311 4.5 137	1918 1.9 58	1908 2.3 69	1936 1.7 52	1903 2.1 65	● 1918 1.9 58
4 Th 0539 2.7 82	19 0023 4.3 130	4 Su 0122 5.3 163	19 0109 4.9 149	4 Tu 0142 5.3 163	19 0106 5.0 151	1219 4.8 146	F 0640 2.7 82	M 0715 2.0 62	0742 1.5 47	W 1328 5.8 176	1840 2.6 78
1840 2.6 78	1308 4.8 147	0726 1.6 48	1332 5.6 171	1400 6.1 186	1947 1.7 51	● 1915 2.5 77	1959 1.4 42	1945 1.8 54	2016 1.3 41	1947 1.7 51	● 1959 1.4 42
5 F 0049 5.0 151	20 0118 4.8 145	5 M 0206 5.8 177	20 0147 5.3 163	5 W 0225 5.7 173	20 0153 5.4 164	0703 2.1 65	Sa 0726 2.2 67	Tu 0751 1.6 48	0823 1.2 38	Th 0754 1.6 48	1324 5.5 168
1324 5.5 168	Sa 1343 5.3 163	0807 1.1 34	1404 6.1 186	1438 6.3 193	1410 6.2 188	1938 1.9 57	1950 2.0 61	2018 1.3 40	2052 1.0 32	2027 1.2 37	● 1950 2.0 61
6 Sa 0144 5.6 170	21 0153 5.2 160	6 Tu 0244 6.1 187	21 0222 5.8 176	6 Th 0303 5.9 180	21 0235 5.8 177	0752 1.5 45	Su 0759 1.7 53	W 0825 1.2 36	0859 1.1 33	F 0836 1.2 37	1409 6.2 189
1409 6.2 189	Su 1412 5.8 178	0844 0.8 24	1437 6.5 198	1513 6.4 195	1450 6.5 198	2020 1.3 39	2020 1.5 47	2050 0.9 28	2126 0.9 27	2107 0.9 26	● 2020 1.5 47
7 Su 0227 6.1 186	22 0223 5.7 174	7 W 0320 6.4 194	22 0256 6.1 186	7 F 0339 6.0 184	22 0317 6.2 188	0832 0.9 28	M 0829 1.3 40	Th 0858 0.9 27	0934 1.0 31	Sa 0917 0.9 28	1447 6.8 206
1447 6.8 206	M 1440 6.3 192	1532 6.9 210	1510 6.8 206	1546 6.4 195	1531 6.7 204	2057 0.8 24	2048 1.1 34	2124 0.6 19	2158 0.8 24	O 2147 0.6 18	● 2143 0.6 17
8 M 0305 6.5 198	23 0252 6.1 185	8 Th 0353 6.4 195	23 0331 6.4 194	8 F 0412 6.1 185	23 0358 6.4 195	0908 0.5 16	Tu 0857 1.0 29	Sa 0932 0.7 21	1008 1.0 32	Su 0959 0.8 24	1523 7.1 217
1523 7.1 217	Tu 1507 6.7 203	1604 6.8 207	1544 6.9 210	1617 6.3 192	1613 6.8 206	2132 0.5 15	2117 0.8 24	2214 0.6 17	2230 0.8 25	2228 0.5 15	● 2117 0.8 24
9 Tu 0341 6.7 204	24 0321 6.4 194	9 F 0426 6.3 193	24 0407 6.5 197	9 Su 0443 6.0 183	24 0441 6.5 199	0942 0.3 9	W 0925 0.7 24	Sa 1023 0.7 22	1040 1.1 35	M 1042 0.8 24	1556 7.2 220
● 2205 0.4 12	W 1536 6.9 210	1634 6.6 200	1621 6.8 208	1647 6.1 186	1657 6.6 202	● 2146 0.6 17	2245 0.7 21	2235 0.5 15	2300 0.9 28	2309 0.6 17	● 2146 0.6 17
10 W 0414 6.7 205	25 0352 6.5 199	10 Sa 0457 6.1 187	25 0446 6.4 196	10 M 0514 5.9 180	25 0525 6.5 198	1015 0.3 8	Th 0954 0.5 16	Su 1046 0.8 23	1112 1.3 41	Tu 1126 1.0 29	1629 7.2 218
1629 7.2 218	Th 1605 7.0 213	1054 1.0 30	1046 0.8 23	1717 5.9 180	1741 6.4 194	2237 0.5 14	2217 0.5 14	1659 6.6 201	2313 0.7 20	1741 6.4 194	● 2217 0.5 14
11 Th 0447 6.6 200	26 0423 6.6 200	11 Su 0527 5.9 179	26 0526 6.3 191	11 Tu 0545 5.7 174	26 0610 6.3 193	1046 0.5 14	F 1025 0.5 16	M 1126 1.0 32	1144 1.6 49	W 1212 1.3 39	1659 6.9 209
1659 6.9 209	F 1637 6.9 211	1125 1.3 40	1126 1.0 32	1748 5.6 172	1741 6.2 190	2308 0.7 20	2249 0.5 16	1731 5.9 179	2354 1.0 29	1826 6.0 183	● 2249 0.5 16
12 F 0517 6.3 192	27 0457 6.5 197	12 M 0558 5.5 169	27 0610 5.9 181	12 W 0602 1.3 41	27 0635 1.0 31	1117 0.8 24	Sa 1057 0.7 21	Tu 1211 1.5 45	0617 5.5 167	Th 0658 6.0 184	1728 6.4 196
1728 6.4 196	Sa 1710 6.7 203	1156 1.7 52	1211 1.5 45	1218 1.9 58	1301 1.7 51	2338 1.0 30	2323 0.8 23	1801 5.4 166	1827 1.7 55	1914 5.6 170	● 2323 0.8 23
13 Sa 0547 5.9 181	28 0532 6.2 189	13 Tu 0016 1.6 49	28 0039 1.4 42	13 F 0036 1.7 51	28 0121 1.4 43	1146 1.2 37	Su 1132 1.0 31	W 0630 5.2 158	0654 5.2 159	F 0751 5.7 173	1756 5.9 181
1756 5.9 181	Su 1746 6.3 191	1231 2.2 66	1303 2.0 61	1257 2.3 69	1357 2.1 64	2359 1.1 34	2359 1.1 34	1834 5.0 153	1920 5.2 159	2007 5.1 156	● 2359 1.1 34
14 Su 0007 1.4 42	29 0611 5.8 177	14 W 0052 2.0 61	29 0131 1.8 56	14 F 0114 2.0 61	29 0213 1.8 55	0617 5.5 167	Th 0710 4.8 147	Sa 0805 5.2 159	0739 5.0 151	Sa 0854 5.3 163	1217 1.7 53
1217 1.7 53	Th 1827 5.7 175	1314 2.6 80	1412 2.5 75	1347 2.6 80	1506 2.5 76	1824 5.4 165	1917 4.6 140	1917 4.6 140	2031 4.8 145	1947 4.7 142	● 2114 4.7 144
15 M 0038 1.8 56	30 0041 1.6 48	15 Th 0138 2.5 75	30 0241 2.2 67	15 F 0203 2.3 71	30 0319 2.2 67	0649 5.0 153	Tu 0657 5.3 163	Sa 0811 4.5 136	0843 4.7 143	Su 1014 5.1 156	1250 2.3 70
1250 2.3 70	Tu 1257 2.1 63	1426 3.0 92	1556 2.7 82	1501 2.9 88	1635 2.6 80	1856 4.9 149	1917 5.1 156	● 2029 4.2 129	2209 4.5 138	2057 4.4 134	● 2038 4.6 140
1856 4.9 149	31 0133 2.1 64	31 W 0801 4.9 148	31 0447 2.4 73	31 M 1138 5.1 156	31 0447 2.4 73	● 2038 4.6 140	1407 2.7 81	1407 2.7 81	1805 2.5 77	1138 5.1 156	● 2038 4.6 140

Time meridian 30° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Diego Garcia Island, 2018

Times and Heights of High and Low Waters

January			February			March		
Time	Height		Time	Height		Time	Height	
h m	ft	cm	h m	ft	cm	h m	ft	cm
1 M 0225	5.0	152	16 Tu 0257	4.6	140	1 Th 0340	5.4	165
0827	0.5	15	Tu 0856	0.9	27	F 0943	0.1	3
1434	5.3	162	1459	4.8	146	1 Th 1551	5.6	171
2053	-0.1	-3	2114	0.4	12	● 2205	-0.3	-9
2 Tu 0307	5.2	158	17 W 0325	4.8	146	2 F 0415	5.4	165
0909	0.3	9	W 0925	0.7	21	2 F 1020	0.0	0
1516	5.5	168	1528	5.0	152	17 Sa 1628	5.6	171
○ 2134	-0.3	-9	● 2142	0.3	9	2241	-0.2	-6
3 W 0347	5.3	162	18 Th 0353	4.9	149	3 Sa 0450	5.4	165
0949	0.2	6	Th 0953	0.6	18	3 Sa 1056	0.1	3
1557	5.5	168	1557	5.1	155	18 Su 1704	5.4	165
2214	-0.2	-6	2211	0.2	6	2214	0.1	3
4 Th 0426	5.3	162	19 F 0420	4.9	149	4 Su 0523	5.2	158
1029	0.2	6	F 1022	0.6	18	4 Su 1131	0.3	9
1637	5.4	165	1626	5.1	155	1739	5.1	155
2253	0.0	0	2239	0.3	9	2348	0.4	12
5 F 0505	5.1	155	20 Sa 0448	4.9	149	5 M 0557	4.9	149
1110	0.4	12	Sa 1051	0.6	18	5 M 1206	0.6	18
1718	5.2	158	1657	5.0	152	1814	4.7	143
2333	0.3	9	2308	0.4	12	20 Tu 1136	0.3	9
6 Sa 0545	4.9	149	21 Su 0518	4.9	149	6 W 0559	4.9	149
1151	0.7	21	Su 1122	0.6	18	6 Tu 1212	0.6	18
1800	4.8	146	1729	4.9	149	1243	1.0	30
			2340	0.6	18	1852	4.2	128
7 Su 0014	0.7	21	22 M 0550	4.7	143	7 W 0057	1.3	40
0626	4.5	137	M 1157	0.8	24	7 W 0709	4.1	125
1235	1.0	30	1806	4.6	140	7 W 1327	1.4	43
1845	4.4	134				○ 1937	3.7	113
8 M 0058	1.1	34	23 Tu 0016	0.8	24	8 Th 0140	1.8	55
0713	4.2	128	Tu 0626	4.5	137	8 Th 0758	3.7	113
1327	1.3	40	1238	1.0	30	8 Th 1429	1.8	55
1939	3.9	119	1848	4.3	131	2050	3.3	101
9 Tu 0151	1.5	46	24 W 0058	1.2	37	9 F 0253	2.2	67
0810	3.8	116	W 0711	4.2	128	9 F 0924	3.4	104
1434	1.7	52	1330	1.3	40	1626	2.0	61
○ 2052	3.6	110	1944	3.9	119	2312	3.2	98
10 W 0305	1.9	58	25 Th 0153	1.6	49	10 Sa 0517	2.3	70
0930	3.6	110	Th 0812	3.9	119	10 Sa 1138	3.4	104
1608	1.8	55	1444	1.5	46	10 Sa 1824	1.8	55
2235	3.4	104	○ 2108	3.6	110			
11 Th 0444	2.0	61	26 F 0318	1.9	58	11 M 0054	3.5	107
1105	3.6	110	F 0944	3.8	116	11 M 0653	2.0	61
1743	1.7	52	1629	1.6	49	11 M 1258	3.7	113
			2302	3.6	110	11 M 1924	1.4	43
12 F 0008	3.6	110	27 Sa 0510	1.9	58	12 M 0143	3.9	119
0610	1.9	58	Sa 1129	3.9	119	12 M 0742	1.6	49
1221	3.8	116	1807	1.3	40	12 M 1344	4.1	125
1849	1.4	43				2003	1.0	30
13 Sa 0108	3.8	116	28 M 0033	3.9	119	12 M 0143	3.9	119
0708	1.6	49	Su 0636	1.5	46	13 Tu 0217	4.2	128
1313	4.1	125	1247	4.3	131	13 Tu 0817	1.2	37
1935	1.1	34	1914	0.8	24	13 Tu 1419	4.5	137
14 Su 0151	4.1	125				2035	0.7	21
0750	1.4	43	29 M 0134	4.4	134	14 W 0247	4.6	140
1353	4.4	134	M 0736	1.1	34	14 W 0847	0.9	27
2012	0.8	24	1344	4.8	146	14 W 1450	4.8	146
			2005	0.4	12	2103	0.4	12
15 M 0226	4.4	134	30 Tu 0221	4.8	146	15 Th 0313	4.8	146
0825	1.1	34	Tu 0823	0.7	21	15 Th 0914	0.6	18
1428	4.6	140	1431	5.2	158	15 Th 1518	5.0	152
2044	0.6	18	2049	0.0	0	2130	0.2	6
			31 W 0302	5.1	155			
			W 0905	0.3	9			
			W 1512	5.5	168			
			○ 2128	-0.2	-6			

Time meridian 90° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# Diego Garcia Island, 2018

Times and Heights of High and Low Waters

April				May				June				
	Time	Height			Time	Height			Time	Height		
	h m	ft	cm		h m	ft	cm		h m	ft	cm	
<b>1</b> Su	0333	5.5	168	<b>16</b>	0312	5.4	165	<b>1</b>	0334	5.3	162	
	0942	- 0.2	- 6	M	0922	- 0.2	- 6	Tu	0946	0.0	0	
	1550	5.5	168		1532	5.5	168		1556	5.2	158	
	2156	0.0	0		2136	0.0	0		2157	0.4	12	
<b>2</b> M	0401	5.5	168	<b>17</b>	0341	5.5	168	<b>2</b>	0401	5.2	158	
	1010	- 0.2	- 6	Tu	0952	- 0.3	- 9	W	1014	0.1	3	
	1619	5.4	165		1603	5.5	168		1623	5.0	152	
	2223	0.1	3		2207	0.1	3		2224	0.5	15	
<b>3</b> Tu	0428	5.4	165	<b>18</b>	0412	5.5	168	<b>3</b>	0428	5.1	155	
	1038	0.0	0	W	1025	- 0.2	- 6	Th	1042	0.3	9	
	1647	5.2	158		1636	5.4	165		1651	4.8	146	
	2249	0.4	12		2239	0.2	6		2251	0.8	24	
<b>4</b> W	0454	5.2	158	<b>19</b>	0445	5.4	165	<b>4</b>	0456	4.8	146	
	1106	0.2	6	Th	1100	0.0	0	Sa	1111	0.6	18	
	1714	4.9	149		1711	5.1	155		1721	4.5	137	
	2315	0.7	21		2313	0.5	15		2321	1.1	34	
<b>5</b> Th	0521	4.9	149	<b>20</b>	0521	5.1	155	<b>5</b>	0526	4.5	137	
	1134	0.6	18	F	1138	0.3	9	Sa	1143	0.9	27	
	1743	4.5	137		1751	4.6	140		1755	4.1	125	
	2342	1.0	30		2353	0.9	27		2354	1.4	43	
<b>6</b> F	0549	4.5	137	<b>21</b>	0602	4.6	140	<b>6</b>	0601	4.1	125	
	1205	1.0	30	Sa	1224	0.8	24	Th	1221	1.3	40	
	1814	4.0	122		1839	4.1	125	Su	1836	3.8	116	
									<b>21</b>	0044	1.3	40
<b>7</b> Sa	0012	1.5	46	<b>22</b>	0042	1.4	43	<b>7</b>	0037	1.8	55	
	0621	4.0	122	Su	0655	4.1	125	M	0647	3.7	113	
	1242	1.5	46		1326	1.4	43		1315	1.7	52	
	1854	3.6	110		1950	3.7	113		1941	3.4	104	
<b>8</b> Su	0051	1.9	58	<b>23</b>	0158	1.9	58	<b>8</b>	0149	2.1	64	
	0704	3.6	110	M	0823	3.7	113	Tu	0808	3.4	104	
	1340	1.9	58		1512	1.8	55		1454	2.0	61	
	2010	3.1	94		2154	3.4	104		2140	3.3	101	
<b>9</b> M	0215	2.4	73	<b>24</b>	0415	2.0	61	<b>9</b>	0404	2.2	67	
	0853	3.2	98	Tu	1043	3.6	110	W	1027	3.3	101	
	1620	2.2	67		1720	1.6	49		1700	1.9	58	
	2324	3.1	94		2347	3.7	113		2327	3.5	107	
<b>10</b> Tu	0539	2.3	70	<b>25</b>	0600	1.6	49	<b>10</b>	0543	1.9	58	
	1150	3.3	101	W	1216	4.0	122	Th	1156	3.7	113	
	1819	1.8	55		1834	1.3	40	Su	1810	1.6	49	
									<b>25</b>	0009	4.1	125
<b>11</b> W	0042	3.6	110	<b>26</b>	0048	4.2	128	<b>11</b>	0024	3.9	119	
	0648	1.8	55	Th	0659	1.1	34	Sa	0636	1.4	43	
	1253	3.8	116		1311	4.5	137		1247	4.1	125	
	1907	1.4	43		1922	0.9	27		1856	1.2	37	
<b>12</b> Th	0120	4.0	122	<b>27</b>	0131	4.6	140	<b>12</b>	0104	4.3	131	
	0725	1.3	40	F	0741	0.6	18	Su	0715	0.9	27	
	1331	4.3	131		1352	4.8	146		1327	4.5	137	
	1941	1.0	30		2000	0.6	18		1933	0.9	27	
<b>13</b> F	0150	4.5	137	<b>28</b>	0206	5.0	152	<b>13</b>	0139	4.7	143	
	0755	0.8	24	Sa	0816	0.3	9	W	0750	0.5	15	
	1403	4.7	143		1427	5.1	155		1402	4.9	149	
	2011	0.6	18		2033	0.4	12		2007	0.6	18	
<b>14</b> Sa	0217	4.8	146	<b>29</b>	0238	5.2	158	<b>14</b>	0212	5.1	155	
	0824	0.4	12	Su	0848	0.1	3	W	0857	0.2	6	
	1432	5.1	155		1458	5.2	158		1436	5.2	158	
	2039	0.3	9		2102	0.3	9		2040	0.3	9	
<b>15</b> Su	0244	5.2	158	<b>30</b>	0307	5.3	162	<b>15</b>	0245	5.3	162	
	0852	0.1	3	M	0918	0.0	0	Tu	1511	5.3	162	
	1502	5.3	162		1528	5.3	162		2114	0.2	6	
	2107	0.1	3		O	2130	0.3	9		●	2114	0.2
<b>16</b> Sa	0426	5.3	162	<b>31</b>	0341	5.0	152	<b>16</b>	0410	4.9	149	
	1044	0.0	0	W	0955	0.3	9	W	1025	0.4	12	
	1658	5.0	152		1606	4.8	146		1636	4.7	143	
	2301	0.5	15		2206	0.7	21		2236	0.9	27	
<b>17</b> Su	0510	5.1	155	<b>17</b>	0440	4.8	146	<b>17</b>	0510	5.1	155	
	1128	0.3	9	M	1056	0.6	18	W	1708	4.5	137	
	1742	4.8	146		2308	1.1	34		2347	0.8	24	
	2134	1.1	34									
<b>18</b> M	0557	4.8	146	<b>18</b>	0513	4.5	137	<b>18</b>	0557	4.8	146	
	1216	0.6	18	W	1130	0.8	24	W	1208	1.1	34	
	1831	4.5	137		1742	4.3	131		1823	4.0	122	
<b>19</b> Tu	0039	1.1	34	<b>19</b>	0124	1.8	55	<b>19</b>	0039	1.1	34	
	0651	4.4	134	W	0736	3.7	116	W	0756	4.0	122	
	1310	1.1	34		1401	1.7	52		1416	1.4	43	
	1928	4.2	128		1947	3.9	119		2038	3.9	119	
<b>20</b> W	0141	1.4	43	<b>20</b>	0300	1.6	49	<b>20</b>	0142	4.9	149	
	0756	4.0	122	W	0920	1.0	30	W	0807	0.7	21	
	1416	1.4	43		1248	4.3	131		1421	4.5	137	
	2116	4.3	131		1852	1.1	34		2020	1.0	30	
<b>21</b> Th	0027	1.5	46	<b>21</b>	0100	4.6	140	<b>21</b>	0149	4.5	137	
	0635	4.0	122	W	0718	0.6	18	W	0841	0.5	15	
	1236	4.5	137		1326	4.5	137		1525	4.7	143	
	1936	0.8	24		1931	0.9	27		O	2124	0.8	24
<b>22</b> F	0224	4.7	143	<b>22</b>	0137	4.7	143	<b>22</b>	0224	4.7	143	
	0841	0.5	15	W	0752	0.5	15	W	0841	0.5	15	
	1454	4.6	140		1404	4.7	143		1454	4.6	140	
	2053	0.9	27		2007	0.8	24		2053	0.9	27	
<b>23</b> W	0256	4.8	146	<b>23</b>	0211	4.9	149	<b>23</b>	0256	4.8	146	
	0913	0.4	12	W	0825	0.3	9	W	0841	0.0	0	
	1525	4.7	143		1437	4.9	149		1455	5.1	155	
	2124	0.8	24		2038	0.7	12		2057	0.4	12	
<b>24</b> O	0021	4.1	125	<b>24</b>	0242	5.0	152	<b>24</b>	0328	4.9	149	
	0644	1.1	34	W	0857	0.2	6	W	0943	0.4	12	
	1301	4.1	125		1508	4.9	149		1555	4.7	143	
	1903	1.4	43		2108	0.6	18		2154	0.8	24	
<b>25</b> M	0109	4.3	131	<b>25</b>	0312	5.1	155	<b>25</b>	0109	4.3	131	
	0729	0.9	27	W	1002	- 0.2	- 6	W	0807	0.7	21	
	1344	4.3	131		1248	4.3	131		1421	4.5	137	
	1944	1.2	37		1852	1.1	34		2020	1.0	30	
<b>26</b> Tu	0149	4.5	137	<b>26</b>	0100	4.6	140	<b>26</b>	0149	4.5	137	
	0807	0.7	21	W	0718	0.6	18	W	0841	0.5	15	
	1421	4.5	137		1326	4.5	137		1525	4.7	143	
	2020	1.0	30		1931	0.9	27		O	2124	0.8	24
<b>27</b> W	0224	4.7	143	<b>27</b>	0137	4.						

# Diego Garcia Island, 2018

Times and Heights of High and Low Waters

July				August				September				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m 0429 1044 1656 2257	ft 4.8 0.5 4.6 0.9	cm 146 15 140 27	h m <b>16</b> M 1117 1729 2335	ft 5.3 0.1 5.0 0.5	cm 162 3 152 15	h m <b>1</b> W 0517 1127 1736 2344	ft 4.9 0.6 4.7 0.7	cm 149 18 143 21	h m <b>16</b> Th 0600 1207 1816	ft 4.8 0.7 4.7	cm 146 21 143	
1 Su 1044 1656 2257	0.5 4.6 0.9	16 M 1117 1729 2335	15 140 27	1 W 0517 1127 1736 2344	4.9 0.6 4.7 0.7	16 Th 0600 1207 1816	4.8 0.7 4.7	1 Sa 0600 1204 1814	4.6 0.9 4.6	16 Su 0025 0635 1234 1845	1.1 4.0 1.6 3.9	34 122 49 119
2 M 1116 1728 2331	0.6 4.5 1.0	17 Tu 0545 1159 1811	5.0 0.4 4.8	2 Th 0551 1200 1810	4.7 0.8 4.6	17 F 0029 0639 1244 1855	0.8 4.4 1.2 4.3	2 Su 0031 0642 1246 1859	0.9 4.2 1.3 4.2	17 M 0109 0722 1320 1939	1.6 3.4 2.1 3.5	49 104 64 107
3 Tu 1151 1803	0.8 4.4	18 W 0020 0630 1242 1855	0.7 4.6 0.8 4.5	3 F 0021 0630 1238 1850	0.9 4.4 1.1 4.3	18 Sa 0113 0724 1328 1943	1.2 3.9 1.6 3.9	3 M 0125 0742 1346 2008	1.3 3.7 1.8 3.8	18 Tu 0228 0913 1525 2209	2.0 3.1 2.4 3.2	61 94 73 98
4 W 0616 1230 1844	1.1 1.1 4.2	19 Th 0108 0720 1331 1947	1.1 4.2 1.3 4.1	4 Sa 0106 0718 1326 1941	1.1 4.0 1.4 4.1	19 Su 0211 0830 1433 2059	1.7 3.4 2.1 3.5	4 Tu 0253 0928 1539 2211	1.7 3.4 2.1 3.6	19 W 0523 1209 1813	2.1 3.2 2.2	64 98 67
5 Th 0703 1317 1934	1.3 4.1 4.0	20 F 0207 0822 1432 2052	1.4 3.8 1.7 3.8	5 Su 0207 0826 1433 2056	1.4 3.7 1.8 3.8	20 M 0352 1032 1639 2304	1.9 3.2 2.3 3.4	5 W 0506 1142 1748	1.6 3.6 1.8	20 Th 0019 0645 1306 1908	3.5 1.7 3.7 1.7	107 52 113 52
6 F 0805 1418 2039	1.5 3.8 3.8	21 Sa 0323 0947 1555 2217	1.6 3.5 1.9 3.7	6 M 0336 1006 1614 2238	1.6 3.5 1.9 3.8	21 Tu 0553 1226 1827	1.8 3.4 2.0	6 Th 0004 0636 1257 1900	4.0 1.2 4.1 1.3	21 F 0111 0727 1340 1942	3.9 1.2 4.1 1.3	119 37 125 40
7 Sa 0927 1539 2200	1.6 3.7 1.8	22 Su 0457 1124 1728 2343	1.7 3.5 1.9 3.8	7 Tu 0521 1150 1754	1.4 3.7 1.7	22 W 0035 0703 1323 1923	3.7 1.5 3.8 1.7	7 F 0110 0731 1345 1949	4.5 0.7 4.6 0.8	22 Sa 0146 0758 1407 2011	4.4 0.9 4.5 0.9	134 27 137 27
8 Su 1057 1705 2321	1.5 3.7 4.0	23 M 0616 1240 1840	1.5 3.7 1.8	8 W 0008 0640 1302 1904	4.1 1.1 4.1 1.3	23 Th 0126 0746 1400 2001	4.0 1.1 4.2 1.3	8 Sa 0158 0814 1425 2030	5.0 0.2 5.1 0.3	23 Su 0216 0825 1433 2037	4.7 0.5 4.8 0.5	143 15 146 15
9 M 1213 1817	1.2 4.0	24 Tu 0048 0713 1331 1930	4.0 1.2 4.0 1.5	9 Th 0113 0737 1354 1956	4.5 0.6 4.6 0.8	24 F 0204 0819 1431 2032	1.37 0.24 1.37 0.24	9 Su 0239 0852 1431 2107	5.4 -0.1 5.4 -0.1	24 M 0243 0851 1457 2102	5.0 0.3 5.1 0.2	152 9 155 6
10 Tu 0653 1312 1914	4.3 4.3 1.1	25 W 0135 0756 1411 2010	4.2 0.9 4.2 1.2	10 F 0205 0824 1438 2041	5.0 0.2 5.0 0.4	25 Sa 0235 0848 1458 2100	4.7 0.5 4.8 0.7	10 M 0316 0927 1534 2142	5.6 -0.2 5.6 -0.2	25 Tu 0309 0916 1521 2128	5.3 0.1 5.3 0.0	162 3 162 0
11 W 0745 1401 2003	4.7 0.4 4.7	26 Th 0214 0831 1444 2044	4.5 0.7 4.5 1.0	11 Sa 0249 0906 1517 2121	5.3 -0.1 5.3 0.1	26 Su 0304 0915 1524 2126	5.0 0.3 5.0 0.5	11 Tu 0351 1000 1607 2215	5.7 -0.2 5.6 -0.2	26 W 0335 0941 1546 2154	5.4 0.1 5.4 -0.1	165 3 165 -3
12 Th 0831 1446 2048	5.0 5.0 0.5	27 F 0247 0903 1514 2114	4.7 0.5 4.7 0.8	12 Su 0330 0944 1555 2200	5.5 -0.2 5.4 0.0	27 M 0331 0941 1548 2152	5.1 0.2 5.1 0.3	12 W 0424 1031 1637 2247	5.6 0.0 5.5 -0.1	27 Th 0403 1008 1612 2222	5.4 0.1 5.4 -0.1	165 3 165 -3
13 F 0914 1528 ● 2130	5.3 -0.1 -0.3	28 Sa 0318 0932 1543 2143	4.9 0.4 4.8 0.7	13 M 0409 1021 1631 2237	5.6 -0.2 5.4 0.0	28 Tu 0358 1007 1614 2219	5.2 0.2 5.2 0.2	13 Th 0456 1101 1708 2319	5.3 0.2 5.2 0.2	28 F 0431 1035 1640 2252	5.3 0.2 5.3 0.1	162 6 162 3
14 Sa 0956 1608 2212	5.4 5.3 0.2	29 Su 0348 1000 1610 2212	5.0 0.3 4.9 0.6	14 Tu 0446 1057 1706 2314	5.5 0.0 5.3 0.1	29 W 0425 1033 1640 2246	5.2 0.2 5.2 0.2	14 F 0528 1131 1738 2351	4.9 0.6 4.8 0.6	29 Sa 0502 1105 1711 2326	5.1 0.5 5.1 0.3	155 15 155 9
15 Su 1036 1649 2253	5.4 -0.1 -0.3	30 M 0417 1029 1638 2241	5.0 0.3 4.9 0.6	15 W 0523 1132 1741 2351	5.2 0.3 5.0 0.4	30 Th 0454 1101 1707 2317	5.1 0.3 5.1 0.3	15 Sa 0600 1201 1809 2350	4.5 1.1 4.4 0.6	30 Su 0537 1139 1747	4.7 0.9 4.7	143 27 143 143
		31 Tu 1057 1706 2311	5.0 4.8 5.0			31 F 0446 1057 1706 2311	5.0 0.4 4.8 0.6		4.9 1.2 4.9 1.8			

Time meridian 90° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.  
Heights are referred to the chart datum of soundings.

# **Diego Garcia Island, 2018**

## Times and Heights of High and Low Waters

Time meridian 90° E. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.



## TABLE 2.—TIDAL DIFFERENCES AND OTHER CONSTANTS

### EXPLANATION OF TABLE

The publication of full daily predictions is necessarily limited to a comparatively small number of stations. Tide predictions for many other places, however, can be obtained by applying certain differences to the predictions for the reference stations in Table 1. The following pages list the places called "subordinate stations" for which such predictions can be made, and the differences or ratios to be used. These differences or ratios are to be applied to the predictions for the proper reference station which is listed in Table 2 in boldface type above the differences for the subordinate station. The stations in this table are arranged in geographical order. The index to stations at the end of this volume will assist in locating a particular station.

**Time differences.**—To determine the time of high water or low water at any station listed in this table there is given in the columns headed "Differences, Time" the hours and minutes to be added to or subtracted from the time of high or low water at some reference station. A plus (+) sign indicates that the tide at the subordinate station is later than at the reference station and the difference should be added; a minus (−) sign indicates that it is earlier and should be subtracted.

To obtain the tide at a subordinate station on any date, apply the difference to the tide at the reference station for that same date. In some cases, however, to obtain an a.m. tide it may be necessary to use the preceding day's p.m. tide at the reference station (or to obtain a p.m. tide it may be necessary to use the following day's a.m. tide). For example, if a high water at a reference station occurs at 0200 on July 17, and the tide at the subordinate station occurs 5 hour earlier, the high water at the subordinate station will occur at 2100 on July 16. For the second case, if a high water occurs at a reference station at 2200 on July 2, and the tide at the subordinate station occurs 3 hours later, then high water will occur at 0100 on July 3 at the subordinate station. The necessary allowance for change in date when the international date line is crossed is included in the time difference. In such cases use the same date at the reference station as desired for the subordinate station as explained above.

The results obtained by the application of the time differences will be in the kind of time indicated by the time meridian shown above the name of the subordinate station. Summer or daylight-saving time is not used in the tide tables.

**Height differences.**—The height of the tide, referred to the datum of charts, is obtained by means of the height differences or ratios. A plus (+) sign indicates that the difference should be added to the height at the reference station, and a minus (−) sign indicates that it should be subtracted. All height differences, ranges, and levels in Table 2 are in feet but may be converted to centimeters by the use of table 6.

**Ratio.**—For some stations, use of predicted height difference would give unsatisfactory predictions. In such cases they have been omitted and one or two ratios are given (\*). Where two ratios are given, one in the "height of high water" column and one in the "height of low water" column, the high waters and low waters at the reference station should be multiplied by these respective ratios. Where only one is given, the omitted ratio is either unreliable or unknown. For some subordinate stations there is given in parentheses a ratio as well as a correction in feet. In those instances, each predicted high and low water at the reference station should first be multiplied by the ratio and then the correction in feet is added to or subtracted from each product as indicated.

As an example, at Porto Grande, the values in the time and height difference columns in Table 2 are given as −1 02, −0 13, and (\*0.73 + 0.7) as referred to the reference station at Hong Kong. If we assume that the tide predictions in column (1) below are those of Hong Kong on a particular day, application of the time and height corrections in columns (2) and (3) would result in the tide predictions for Chino Bay in column (4).

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

(1)		(2)	(3)	(4)		
Time h.m.	Height ft.	Time Corrections	Height Corrections	Time h.m.	ft.	Height centimeters
0230	3.6	-0 <sup>h</sup> 13 <sup>m</sup>	x0.73 + 0.7	0217	3.3	101
0926	7.2	-1 <sup>h</sup> 02 <sup>m</sup>	x0.73 + 0.7	0824	6.0	183
1645	1.0	-0 <sup>h</sup> 13 <sup>m</sup>	x0.73 + 0.7	1632	1.4	43
2318	4.3	-1 <sup>h</sup> 02 <sup>m</sup>	x0.73 + 0.7	2216	3.8	116

**Range.** — The *mean range* is the difference in height between mean high water (MHW) and mean low water (MLW). The *spring range* is the average semidiurnal range occurring semimonthly as a result of the Moon being new or full. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. The *diurnal range* is the difference in height between mean higher high water and mean lower low water. Mean higher high water is the average of the higher of the two high water and mean lower low water is the average of the lower of the two low waters. The *tropic range*, which is given for some stations, is the increased diurnal range occurring semimonthly when the effects of the Moon's maximum-declination is greatest.

**Caution.** — For stations where the tide is chiefly diurnal the time difference and the height differences and ratios are intended primarily for predicting the higher high and lower low waters. When the lower high water and the higher low water at the reference station are nearly the same height the corresponding tides often cannot be obtained satisfactorily by means of the tidal differences.

**Datum.** — The datum of the predictions obtained through the height differences or ratios is also the datum of the largest scale chart for the locality. To obtain the depth at the time of high or low water, the predicted height should be added to the depth on the chart unless such height is negative (-), when it should be subtracted. To find the height at times between high and low water see table 3. On some foreign charts the depths are given in meters and in such cases the heights of the tide can be converted to centimeters by the use of Table 6. Chart datums for the Hawaiian and Philippines Islands is mean lower low water. For the rest of the area covered by these tables the datums generally used are approximately mean low water springs, Indian spring low water, or the lowest possible low water.

**Mean Tide Level (Half-Tide Level).** The mean tide level is a plane midway between mean low water and mean high water. Tabular values are reckoned from chart datum.

**NOTE<sup>1</sup>.** — Dashes are entered in the place of data which are unknown, unreliable, or not applicable.

**NOTE<sup>2</sup>.** — *Place Names.* - For the convenience of the mariner, places names are chosen to correspond to the place names on National Imagery and Mapping Agency nautical charts. The place names are also reviewed by the United States Board on Geographic Names.

**NOTE<sup>3</sup>.** — Subordinate locations referencing the Philippines of Jolo, San Fernando Harbor, and Legaspi Port were included only for future considerations. See the IMPORTANT NOTICE on page VI.

This edition includes an extensive revision of the tidal information for locations along the coast of mainland China. All such place names now use the new spelling convention. Where applicable, place names from the 1994 edition appear in hard brackets [ ] after the new spelling.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	SIBERIA Arctic Ocean <1>-cont. Time meridian, 120° E	North	East	h	m	ft	ft	ft	ft	ft	
on Pusan, p.48											
1	Domashnii I., Severnaya Zemlya . . . . .	79° 30'	91° 08'	+6 38	+6 48	*0.26	*0.29	0.7	1.0	0.6	
3	Zarya Road . . . . .	76° 08'	95° 08'	+5 30	+5 43	(*0.46+0.3)		1.3	1.7	1.3	
5	Bonevi Island . . . . .	76° 10'	95° 10'	+4 01	+4 14	(*0.46+0.1)		1.3	1.8	1.1	
7	Dzhekman Island . . . . .	76° 25'	95° 06'	+4 25	+4 55	(*0.46+0.3)		1.3	1.8	1.3	
9	Russki Island . . . . .	77° 11'	96° 24'	+5 16	+5 32	(*0.39+0.3)		1.1	1.5	1.1	
	Time meridian, 120° E										
11	Taimyra River mouth . . . . .	76° 15'	98° 52'	+5 47	+6 11	(*0.54+0.4)		1.5	2.0	1.5	
13	Cape Olovyanyy, Shokalskogo Strait . . . . .	78° 56'	99° 56'	+4 24	+4 34	(*0.36+0.1)		1.0	1.4	0.9	
15	Gansena (Hansen) Island . . . . .	77° 31'	102° 30'	+5 59	+6 09	*0.17	*0.14	0.5	0.6	0.4	
17	Cape Chelyuskina . . . . .	77° 43'	104° 17'	+3 28	+3 59	*0.34	*0.34	0.9	1.2	0.8	
19	Samuila I., Komsomoiskoi Pravdy Island . . . . .	77° 25'	106° 54'	+2 48	+3 23	*0.40	*0.40	1.0	1.4	0.9	
21	Starokadomskogo Island . . . . .	78° 14'	105° 58'	+3 32	+3 51	(*0.61+0.2)		1.7	2.1	1.5	
23	Pronchishchevoi Bay . . . . .	75° 34'	113° 22'	-6 37	-6 36	+1.4	+0.9	3.3	4.4	3.3	
	Time meridian, 135° E										
25	Preobrazheniya Island . . . . .	74° 40'	112° 45'	-3 41	-3 28	+0.7	+0.4	3.1	4.4	2.7	
27	Mali (Small) Begichev Island . . . . .	74° 18'	111° 04'	-2 32	-2 19	+1.4	+0.6	3.6	5.1	3.1	
29	Nordvik Bay <2> . . . . .	74° 01'	111° 40'	-2 54	-2 48	(*2.14+0.7)		6.0	8.5	5.2	
	Time meridian, 120° E										
31	Khara-Tumus Peninsula . . . . .	74° 01'	110° 06'	-3 27	-2 36	+0.4	+0.4	2.8	3.6	2.5	
33	Kozhevnikova Bay . . . . .	73° 26'	109° 42'	+1 15	+1 36	(*0.68+0.5)		1.9	2.6	1.9	
35	Syndaska Bay entrance . . . . .	73° 14'	108° 09'	+1 40	+1 56	+0.8	+0.7	2.9	3.9	2.9	
37	Cape Bolshaya Karga . . . . .	73° 11'	106° 22'	+2 44	+3 53	(*0.82+0.6)		2.3	3.1	2.3	
39	Kresty Peninsula, Khatanga River . . . . .	72° 45'	105° 15'	+6 20	+8 08	*0.60	*0.60	1.6	2.1	1.3	
	Time meridian, 135° E										
41	Cape Khorgo, Anabarski Bay . . . . .	73° 31'	113° 24'	-2 04	-1 42	(*1.50+0.4)		4.2	6.0	3.6	
43	Bykovskoe, Lena River mouth . . . . .	71° 59'	120° 09'	-	-	-	-	0.5	0.7	0.4	
45	Bulunkan Bay, Tiksi Bay . . . . .	71° 40'	128° 58'	+1 58	+2 08	*0.34	*0.34	0.9	1.2	0.8	
	Time meridian, 150° E										
47	Omoloi River entrance . . . . .	71° 14'	132° 10'	+4 09	+4 33	(*0.39+0.2)		1.1	1.4	1.0	
49	Yana River mouth . . . . .	71° 31'	136° 25'	-	-	-	-	Negligible			
51	Kotel'nyy Island Polar Station . . . . .	75° 58'	137° 59'	+4 47	+5 03	(*0.50+0.4)		1.4	1.9	1.4	
53	Nerpalakh Lagoon, Kotel'nyy Island . . . . .	75° 22'	137° 10'	+5 27	+5 25	*0.20	*0.20	0.5	0.8	0.5	
55	Cape Medvezhi, Kotel'nyy Island . . . . .	74° 38'	139° 04'	+1 07	+1 23	*0.26	*0.26	0.6	0.8	0.6	
	Bolshoi Lyakhovski Island										
57	Kigilyakh Peninsula . . . . .	73° 26'	139° 55'	-	-	-	-	0.4	0.5	0.3	
59	Cape Shalaurova . . . . .	73° 12'	143° 34'	-5 24	-5 10	*0.34	*0.34	0.9	1.1	0.8	
	Time meridian, 180° E										
61	Chetyrehstolbovoi I., Medvezhi Island . . . . .	70° 38'	162° 30'	-	-	-	-	Negligible			
63	Kolyma River mouth . . . . .	69° 38'	162° 00'	-	-	-	-	Negligible			
	Time meridian, 180° E										
65	Ayon Island . . . . .	69° 53'	167° 52'	-	-	-	-	Negligible			
67	Cape Shelagski . . . . .	70° 05'	170° 34'	-	-	-	-	Negligible			
	Time meridian, 195° E										
69	Cape Billingsa . . . . .	69° 53'	176° 06'	+5 37	+5 50	*0.20	*0.20	0.5	0.8	0.5	
71	Wrangell Island . . . . .	70° 58'	181° 27'	+3 53	+4 06	*0.57	*0.71	1.5	2.1	1.3	
73	Cape Shmidt . . . . .	68° 55'	180° 31'	+5 42	+5 58	(*0.61+0.4)		1.7	2.2	1.7	
75	Kolychino Polar Station . . . . .	67° 04'	186° 13'	-	-	-	-	0.3	0.4	0.3	
77	Cape Serdtse-Kamen . . . . .	66° 57'	188° 22'	-	-	-	-	0.3	0.4	0.2	
79	Cape Uelen . . . . .	66° 10'	190° 10'	-	-	-	-	0.4	0.5	0.4	
	Bering Sea										
81	Alera Bay, Penkegnei Bay . . . . .	64° 49'	187° 05'	-0 54	-0 50	*0.26	*0.29	0.7	0.9	0.6	
83	Plover Bay, Provideniya Bay . . . . .	64° 22'	186° 38'	-2 03	-1 46	(*0.82+0.2)		2.3	2.9	1.9	
85	Emma Bay, Provideniya Bay . . . . .	64° 25'	186° 47'	-2 16	-2 06	(*0.82+0.3)		2.3	3.1	2.0	
87	Cape Razdelny, Kresta Bay . . . . .	66° 11'	181° 00'	+0 55	+1 09	+5.8	+1.9	6.7	8.4	6.0	
89	Engaugin Bay, Kresta Bay . . . . .	66° 09'	180° 26'	+0 52	+0 56	+5.4	+1.4	6.8	8.5	5.5	
	Anadyr Bay										
91	Russkaya Koshka Spit . . . . .	64° 35'	178° 31'	+2 48	+2 52	+2.6	+0.7	4.7	6.0	3.8	
93	Salomatova Spit . . . . .	64° 38'	178° 01'	+3 19	+3 27	+3.1	+0.9	5.0	6.3	4.1	
95	Melkaya Bay . . . . .	64° 47'	177° 34'	+4 15	+4 25	+1.7	+0.6	3.9	5.3	3.3	
97	Anadyr River entrance . . . . .	64° 44'	177° 26'	+3 37	+3 47	+1.0	+0.3	3.5	4.4	2.8	
99	Strelka Spit, Anadyr Gulf . . . . .	64° 25'	178° 15'	+4 22	+5 11	+0.1	+0.2	2.7	3.6	2.3	
101	Ugolnaya Bay . . . . .	63° 04'	179° 23'	+4 04	+4 14	*0.49	*0.57	1.3	1.7	1.1	
	Time meridian, 180° E										
	on Paramushiru Island, p.8										
103	Anastasi Bay } . . . . .	61° 25'	172° 56'	-1 00	-0 29	+1.0	+0.9	4.6	5.4	4.8	
105	Imatra Bay, Glubokaya Bay } . . . . .	61° 00'	172° 07'	-0 55	-0 37	(*0.96+0.8)		4.3	5.0	4.4	
107	Cape Olyutorski } . . . . .	59° 55'	170° 20'	-0 29	-0 23	(*0.84+0.8)		3.8	4.5	4.0	
	Kamchatka										
109	Lavora Harbor } . . . . .	60° 23'	167° 04'	-1 14	-0 35	(*0.80+1.2)		3.6	4.2	4.2	
111	Sibir Harbor } . . . . .	60° 27'	166° 14'	-0 39	-0 33	+1.3	+1.0	4.8	5.6	5.0	
113	Cape Kryugera } . . . . .	56° 01'	161° 57'	-0 21	-0 18	(*0.87+1.0)		3.9	4.7	4.3	
115	Nikolski, Bering Island } . . . . .	55° 12'	165° 59'	-1 17	-0 10	(*0.82+1.2)		3.7	4.4	4.3	
117	Morzhovaya Bay } . . . . .	53° 14'	159° 57'	+0 01	+0 32	(*0.91+0.9)		4.1	5.1	4.4	
119	Petropavlovsk } . . . . .	53° 01'	158° 39'	+1 23	+0 55	(*0.93+1.0)		4.2	4.9	4.5	
121	Tarya Bay } . . . . .	52° 55'	158° 30'	+1 33	+1 05	+0.9	+0.9	4.4	5.1	4.7	
123	Akhmoten Bay } . . . . .	52° 26'	158° 28'	+1 08	+0 40	(*0.89+0.9)		4.0	4.7	4.3	
125	Vestnik Bay } . . . . .	51° 33'	157° 42'	+1 43	+1 15	(*0.84+0.9)		3.8	4.4	4.1	

Endnotes can be found at the end of table 2.

**TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS**

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Diurnal Tropic			
				High Water	Low Water	High Water	Low Water				
	SIBERIA Sea of Okhotsk Time meridian, 180° E	North	East	h m	h m	ft	ft	ft	ft	ft	
<b>on Paramushiru Island, p.8</b>											
127	Kamchatka-cont. Golygina River entrance }	51° 53'	156° 31'	+1 28	+1 34	+1.3	+1.0	4.8	5.6	5.0	
129	Ust Bolsheretsk, Bolshaya River }	52° 46'	156° 14'	+4 35	+4 21	+1.6	+1.1	5.0	5.8	5.2	
131	Kompakova River entrance }	54° 40'	155° 42'	+3 43	+3 49	(2.98+2.7)		13.4	15.7	14.0	
133	Oblukovina River entrance }	55° 19'	155° 34'	+4 53	+4 59	(2.36+1.9)		10.6	12.3	10.9	
<b>on Musi River, p.152</b>											
135	Cape Astronomicheski }	62° 23'	164° 28'	-10 42	-9 27	*3.14	*2.72	24.1	30.1	17.8	
137	Penjinski Bay Matugin Point }	61° 41'	160° 15'	+8 10	+9 18	+13.4	+2.7	18.0	22.2	13.5	
139	Gizhiga River entrance }	61° 58'	160° 24'	+8 08	+10 26	+12.8	+2.1	18.0	22.2	14.0	
141	Nayakhanskaya Bay }	61° 54'	159° 00'	+8 15	+10 04	+11.6	+1.4	17.5	21.7	13.1	
143	Time meridian, 165° E Udacha Bay }	59° 13'	155° 10'	+9 23	+7 11	+3.2	+0.8	9.7	13.5	8.2	
<b>on Moji, p.36</b>											
145	Ola Anchorage, Tauiskaya Bay	59° 34'	151° 16'	+0 12	+0 24	*1.50	*1.50	6.9	8.9	7.4	
147	Nagaeva Bay, Tauiskaya Bay	59° 31'	150° 41'	-0 09	-0 18	*1.89	*1.89	8.7	11.3	9.4	
149	Time meridian, 150° E Okhotsk }	59° 21'	143° 10'	+3 02	+2 55	*1.50	*1.50	6.9	8.9	7.4	
<b>on Brisbane Bar, p.284</b>											
151	Ayan Bay }	56° 27'	138° 09'	+3 33	+3 25	+2.2	+1.3	5.9	7.9	5.7	
153	Udskaya Bay }	54° 42'	135° 18'	+7 08	+6 59	+2.7	+1.0	6.7	9.5	5.8	
155	Levyazhya Bay, Feklistov Island	54° 54'	136° 46'	+6 37	+6 29	(2.50+0.7)		12.5	16.4	10.5	
157	Abrek Bay, Little Shantar Island	54° 24'	137° 37'	+6 50	+6 42	(2.12+0.2)		10.6	13.5	8.5	
<b>on Jolo, p.172</b>											
159	Baldukov Island }	53° 18'	141° 28'	-1 41	-1 40	+2.7	+1.2	4.3	5.4	2.8	
Time meridian, 165° E <i>Sakhalin Island</i>											
161	Cape Tamlevo }	53° 21'	141° 46'	-0 24	-0 25	+2.3	+1.1	4.0	5.0	2.6	
163	Baikal Bay }	53° 32'	142° 14'	+0 12	+0 10	+2.6	+1.1	4.3	5.3	2.7	
165	Kuegda Bay }	54° 19'	142° 36'	+1 06	+1 05	(0.61+0.5)		1.7	2.2	1.2	
<b>on Yamato Wan, p.12</b>											
167	Urkt Bay entrance }	53° 34'	143° 04'	-1 12	+3 44	+0.1	0.0	3.2	4.0	2.4	
169	Kyakrvo Anchorage }	52° 52'	143° 19'	-0 12	+4 46	+0.4	+0.3	3.2	4.4	2.7	
171	Chaivo Bay }	52° 23'	143° 12'	+3 11	+6 07	+0.8	+0.5	3.4	4.8	3.1	
173	Niski Bay }	51° 58'	143° 11'	+3 07	+8 01	+1.4	+0.2	4.3	5.3	3.2	
175	Luniski Bay entrance }	51° 18'	143° 30'	+5 33	+6 59	*0.42	*0.42	1.3	1.8	1.1	
<b>KARAFUTO</b> <i>Sakhalin Island</i>											
177	Mys Popova }	49° 03'	144° 24'	-0 25	-0 25	(*0.50+0.2)		1.5	2.0	1.4	
179	Tyuleni }	48° 30'	144° 38'	-0 55	-0 58	(*0.87+0.1)		2.6	3.1	2.2	
181	Mys Obshirnyy }	48° 42'	144° 39'	-0 45	-1 04	*0.87	*0.87	2.6	3.1	2.1	
183	Noto }	49° 07'	144° 15'	-0 36	-1 02	*0.97	*0.97	2.9	3.3	2.3	
185	Ozero Nevskoye }	49° 19'	143° 19'	-0 14	-0 49	*0.93	*0.93	2.8	3.2	2.2	
187	Shikuka }	49° 14'	143° 08'	-0 10	-0 49	*0.97	*0.97	2.9	3.4	2.3	
189	Higashin Chutoru }	48° 38'	142° 48'	-0 03	-0 32	(*0.93+0.1)		2.8	3.3	2.3	
191	Buruny }	48° 06'	142° 34'	-0 09	-0 31	*0.87	*0.87	2.6	3.0	2.1	
193	Sakayehama }	47° 25'	142° 49'	-0 13	-0 30	(*0.90-0.1)		2.7	3.1	2.1	
195	Noho Misaki }	47° 15'	143° 01'	-0 25	-0 25	(*0.83+0.1)		2.5	3.1	2.1	
197	Onto Numa }	46° 52'	143° 08'	+1 51	+1 51	(*0.47+0.1)		1.4	1.8	1.2	
199	Tomunai Hakuchi }	46° 51'	143° 10'	-0 24	-0 22	(*0.83+0.1)		2.5	3.1	2.1	
201	Airo Wan }	46° 49'	143° 25'	-0 23	-0 17	*0.87	*0.87	2.6	3.2	2.1	
203	Mys Menaputsy }	46° 23'	143° 35'	-0 56	-0 39	(*0.93+0.1)		2.8	3.4	2.3	
205	Tobuchi Ko }	46° 30'	143° 20'	+0 32	+0 54	(*0.83+0.1)		2.5	3.1	2.1	
207	OTOMARI }	46° 39'	142° 45'	<i>Daily predictions</i>				3.0	3.7	2.4	
209	Nishi Notoro Misaki, East coast }	45° 54'	142° 05'	+0 30	+1 15	(*0.93+0.2)		2.8	3.6	2.4	
211	Nishi Notoro Misaki, West coast }	45° 54'	142° 05'	+1 18	+2 04	(*0.60+0.1)		1.8	2.3	1.5	
213	Soni Misaki }	46° 03'	141° 55'	+2 53	---	(*0.40+0.1)		1.2	1.6	1.1	
215	Kaiba To (Todo Shima) }	46° 15'	141° 16'	---	---	---	---	0.5	--	0.4	
217	Tokombo Road }	46° 40'	141° 51'	---	---	---	---	0.8	--	0.7	
219	Port Kholmansk }	41° 03'	142° 02'	---	---	---	---	0.7	--	0.6	
221	Nodasan (Noda) }	47° 26'	141° 58'	---	---	---	---	0.7	--	0.6	
<b>on Pusan, p.48</b>											
<b>Mean Spring</b>											
223	Yatsu Misaki	48° 08'	142° 10'	-11 47	-11 39	(*0.29+0.2)		0.8	1.0	0.8	
225	Ushiro Wan	48° 54'	141° 58'	-10 55	-10 46	(*0.57+0.2)		1.6	2.1	1.4	
227	Toro Numa	49° 10'	142° 04'	-10 40	-10 32	(*0.71+0.1)		2.0	2.6	1.6	
229	Lesogorsk	49° 27'	142° 07'	-10 13	-10 05	(*0.71+0.1)		2.0	2.6	1.6	
231	Mys Polevogo	49° 46'	142° 09'	-10 22	-10 13	+0.1	+0.1	2.8	3.7	2.2	
233	Anbetsu	49° 59'	142° 10'	-10 20	-10 12	+0.5	+0.1	3.2	4.1	2.4	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	SIBERIA Sakhalin Island-cont. Time meridian, 165° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Pusan, p.48											
235	Gulf of Tartary Pilevo Bay .....	50° 02'	142° 09'	-10 03	-9 59	+0.5	+0.2	3.1	3.9	2.5	
237	Alexandrovski .....	50° 54'	142° 08'	-10 03	-9 57	+2.3	+0.5	4.6	6.3	3.5	
239	Viyakhtu Bay .....	51° 35'	141° 54'	-9 52	-9 48	+4.1	+1.0	5.9	7.4	4.7	
241	Cape Tik .....	51° 44'	141° 41'	-9 48	-9 38	+3.6	+0.9	5.5	6.9	4.4	
243	Cape Pogobi, Strait of Tartary .....	52° 13'	141° 39'	-7 52	-7 48	+1.2	+0.3	3.7	4.6	2.9	
on Jolo, p.172											
245	Gulf of Amur Time meridian, 150° E	52° 52'	141° 14'	+4 55	+4 55	(*0.54+0.7)		1.5	1.9	1.3	
247	Amur River entrance } .....	53° 08'	140° 45'	+6 15	+6 15	(*0.32+2.7)		0.9	1.1	3.1	
249	Nikolayevsk, Amur River } .....	52° 49'	141° 12'	+4 50	+4 50	(*0.71+0.9)		2.0	2.5	1.7	
251	Uyuzyut Island } .....	52° 40'	141° 17'	+5 10	+5 10	(*0.93+1.1)		2.6	3.3	2.1	
on Pusan, p.48											
253	Cape Lazareva .....	52° 14'	141° 31'	-8 50	-8 10	+1.3	+0.9	3.2	4.1	3.2	
Gulf of Tartary											
255	Cape Muraveva .....	52° 09'	141° 33'	-9 38	-9 21	+1.4	+0.4	3.8	4.7	3.0	
257	Cape Chikacheva .....	51° 47'	141° 11'	-10 20	-10 16	+3.3	+0.8	5.3	6.7	4.2	
259	Cape Sushcheva .....	51° 42'	141° 07'	-10 58	-10 55	+2.2	+0.6	4.4	5.5	3.5	
261	Taba Bay .....	51° 37'	140° 53'	-10 42	-10 38	+3.1	+0.8	5.1	6.4	4.1	
263	Zaliv Chikhacheva .....	51° 27'	140° 50'	-10 37	-10 33	+3.1	+0.8	5.1	6.4	4.1	
265	Starka Bay .....	50° 08'	140° 34'	-10 30	-10 26	+0.9	+0.3	3.4	4.3	2.7	
267	Datta Bay .....	49° 17'	140° 24'	-10 17	-10 13	*0.68	*0.71	1.9	2.4	1.5	
269	Vanina Bay .....	49° 06'	140° 17'	-10 08	-10 04	*0.46	*0.46	1.3	1.6	1.0	
271	Sovetskaya Harbor .....	48° 59'	140° 17'	-10 00	-9 51	(*0.43+0.2)		1.2	1.6	1.1	
273	Vetrychnui Point .....	48° 08'	139° 43'	---	---	--	--	0.2	--	0.3	
Japan Sea											
275	Tytikhya Bay .....	44° 21'	135° 51'	---	---	--	--	0.4	0.6	1.1	
277	St. Vladimir Bay .....	43° 53'	135° 27'	---	---	--	--	0.5	0.6	1.2	
279	Olga Bay .....	43° 43'	135° 15'	---	---	--	--	0.5	0.6	1.2	
281	Syaukhui Bay .....	42° 54'	133° 53'	---	---	--	--	0.6	0.7	1.4	
283	Nakhodka Bay, America Bay .....	42° 49'	132° 54'	---	---	--	--	0.5	0.7	1.3	
285	Sukhodol Bay, Ussuri Bay .....	43° 10'	132° 22'	---	---	--	--	0.5	0.7	1.3	
287	Vladivostok .....	43° 07'	131° 54'	---	---	--	--	0.6	0.7	1.4	
289	Reineke Island, Peter the Great Bay .....	42° 55'	133° 44'	---	---	--	--	0.6	0.7	1.4	
291	Slavyanski Bay .....	42° 52'	131° 23'	---	---	--	--	0.5	0.7	1.3	
293	Furugelma Island .....	42° 28'	130° 56'	---	---	--	--	0.6	0.7	1.5	
295	Posiet, Gulf of Posiet .....	42° 39'	130° 48'	---	---	--	--	0.6	0.7	1.4	
CHISHIMA RETTO Time meridian, 165° E											
on Paramushiru Island, p.8											
Diurnal Tropic											
297	Shumshu	50° 50'	156° 30'	+0 40	+0 40	*0.85	*0.85	3.8	4.8	3.4	
299	Kotomari Zaki } .....	50° 39'	156° 24'	-0 20	-0 20	*0.91	*0.91	4.1	5.0	3.5	
301	Kozyrevskoye } .....	50° 43'	156° 12'	+1 20	+1 20	+0.2	+0.2	4.5	5.7	3.9	
303	Araido To } .....	50° 50'	155° 39'	+1 55	+1 55	+1.2	+0.3	5.4	6.7	4.4	
305	Banjo Zaki } .....	50° 45'	156° 08'	+1 35	+1 35	+0.6	+0.2	4.9	6.1	4.1	
307	Yotsuwa } .....	50° 17'	155° 55'	-0 25	-0 25	*0.89	*0.80	4.1	4.9	3.4	
309	PARAMUSHIRU ISLAND } .....	50° 11'	155° 39'	Daily predictions				4.5	5.2	3.8	
311	Mys Kapustnyy } .....	50° 04'	155° 13'	+1 25	+1 25	+0.3	+0.2	4.6	5.7	3.9	
313	Kujira Wan } .....	50° 17'	155° 20'	+1 30	+1 30	+0.2	+0.1	4.6	5.6	4.0	
315	Kakumabetsu Wan } .....	50° 23'	155° 35'	+1 40	+1 40	+0.9	+0.2	5.2	6.5	4.3	
on Yamato Wan, p.12											
317	Kuroishi Wan, Onekutan To } .....	49° 29'	154° 50'	+0 07	+0 18	+0.1	0.0	3.2	4.1	2.6	
on Paramushiru Island, p.8											
319	Shiomii Wan, Onekutan To .....	49° 31'	154° 44'	+1 20	+1 20	*0.89	*0.89	3.9	4.9	3.5	
321	Kharimkotan .....	49° 10'	154° 29'	+1 10	+1 10	*0.80	*0.80	3.5	4.3	3.2	
323	Higashi Ura, Shasukotan To .....	48° 47'	154° 05'	+0 25	+0 25	*0.80	*0.80	3.4	4.1	3.0	
325	Otome Wan, Shasukotan To .....	48° 47'	154° 03'	+1 00	+1 00	*0.89	*0.89	3.9	4.9	3.5	
on Yamato Wan, p.12											
327	YAMATO WAN, Matsuwa To .....	48° 05'	153° 16'	Daily predictions				3.1	3.9	2.6	
329	Ushishiro To .....	47° 32'	152° 49'	+0 05	+0 05	+0.5	+0.1	3.5	4.4	3.0	
331	Bukhta Broutona, Shimushiru To .....	47° 09'	152° 15'	+1 00	+1 00	*0.84	*0.84	2.6	3.3	2.1	
333	Shimushiru Wan, Shimushiru To .....	46° 52'	151° 52'	+0 20	+0 20	+0.3	+0.1	3.3	4.3	2.7	
335	Suna Wan, Kita Jima .....	46° 32'	150° 54'	+0 20	+0 20	*0.90	*0.75	2.9	3.5	2.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Diurnal	Tropic		
				High Water	Low Water	High Water	Low Water				
	CHISHIMA RETTO Time meridian, 165° E	North	East	h m	h m	ft	ft	ft	ft	ft	
					on Paramushiru Island, p.8						
337	Uruppu To										
339	Yosinohama	46° 12'	150° 31'	+0 15	+0 15	*0.58	*0.58	2.6	3.0	2.2	
	Garan Zaki	45° 48'	149° 56'	+0 15	+0 15	*0.67	*0.60	3.1	3.6	2.5	
					on Otomari, p.4						
341	Tokotan Wan	45° 51'	149° 44'	-0 15	-0 15	+0.1	+0.1	3.0	3.8	2.5	
343	Tsurigane Wan	46° 06'	150° 10'	-0 15	-0 15	*0.87	*0.87	2.6	3.3	2.1	
					on Paramushiru Island, p.8						
345	Yetorofu Jima	44° 56'	147° 38'	+0 30	+0 30	*0.69	*0.60	3.2	3.7	2.8	
347	Zaliv Kasatka	44° 43'	147° 21'	+0 25	+0 25	(*0.78+0.2)		3.5	4.2	3.2	
	Kodnyy										
					on Otomari, p.4						
349	Naibo Wan	44° 46'	147° 12'	-0 15	-0 15	*0.95	*0.95	2.8	3.5	2.3	
351	Kitovyy	45° 15'	147° 53'	-0 20	-0 20	*0.90	*0.90	2.7	3.4	2.2	
353	Shamambe Byochi	45° 20'	148° 01'	-0 20	-0 20	*0.97	*0.97	2.8	3.6	2.3	
355	Shibetoro	45° 30'	148° 37'	-0 15	-0 15	*0.87	*0.87	2.6	3.2	2.1	
357	Moyoro Wan	45° 26'	148° 51'	-0 25	-0 25	*0.90	*0.78	2.8	3.2	2.1	
					on Paramushiru Island, p.8						
359	Kunashiri Jima	44° 02'	145° 51'	+0 15	+0 15	*0.73	*0.70	3.3	3.8	2.9	
361	Yuzhno Kurilsk			+0 50	+0 50	*0.78	*0.78	3.5	4.1	3.0	
363	Tomari Wan	43° 44'	145° 27'	+0 30	+0 30	*0.67	*0.67	3.1	3.5	2.6	
365	Shakotan Ko, Shikotan Jima	43° 52'	146° 49'	+0 25	+0 25	*0.73	*0.73	3.2	3.8	2.8	
367	Taraku Jima	43° 38'	146° 21'	+0 35	+0 35	*0.80	*0.80	3.6	4.1	2.9	
	Suisho To	43° 25'	145° 54'								
					on Kamaisi, p.16				Mean Spring		
369	JAPAN Hokkaido Time meridian, 135° E										
371	Rausu Hakuchi	44° 01'	145° 12'	-0 47	-0 47	(*0.65+0.4)		1.5	2.0	2.3	
373	Nemuro Ko	43° 20'	145° 35'	-0 32	-0 34	+0.1	0.0	2.4	3.1	2.9	
375	Hanasaki	43° 17'	145° 35'	-0 07	-0 05	-0.3	-0.1	2.1	2.7	2.7	
377	Ochiishi Wan	43° 10'	145° 31'	-0 22	-0 25	-0.1	0.0	2.2	2.9	2.8	
379	Kiritappu Jima, Hamanaka Wan	43° 04'	145° 10'	-0 28	-0 30	-0.2	-0.1	2.2	2.8	2.7	
381	Akkeshi Wan	43° 02'	144° 51'	-0 23	-0 25	-0.2	-0.2	2.3	2.9	2.7	
383	Kushiro Ko	42° 58'	144° 22'	-0 08	-0 15	0.0	0.0	2.3	3.0	2.9	
385	Rubeshibetsu Saki	42° 12'	143° 20'	-0 26	-0 28	-0.2	-0.1	2.2	2.7	2.7	
387	Utaro	41° 58'	143° 12'	-0 16	-0 18	0.0	-0.1	2.4	3.1	2.8	
389	Muroran Ko	42° 19'	140° 58'	-0 29	-0 19	+0.6	+0.3	2.6	3.6	3.3	
391	Usu Wan, Iburu Wan	42° 31'	140° 46'	-0 14	-0 16	+0.3	0.0	2.6	3.5	3.0	
393	Mori Ko, Iburu Wan	42° 07'	140° 36'	-0 19	-0 21	0.0	-0.1	2.4	3.2	2.8	
395	Usujiri Wan	41° 56'	140° 57'	-0 15	-0 17	-0.2	-0.1	2.2	2.9	2.7	
397	Shiokubi Saki	41° 43'	140° 58'	+0 16	+0 14	0.0	0.0	2.3	3.0	2.9	
399	Hakodate Ko	41° 47'	140° 43'	+0 00	+0 10	(*0.74-0.2)		1.7	2.3	1.9	
401	Wakimoto	41° 34'	140° 26'	+0 09	+0 07	(*0.65-0.1)		1.5	2.0	1.8	
403	Yoshioka	41° 27'	140° 14'	+0 38	+0 35	(*0.48-0.1)		1.1	1.4	1.3	
405	Fukuyama Byochi	41° 26'	140° 07'					0.5		0.7	
407	Kamome Jima, Yesashi Ko	41° 52'	140° 06'					0.5		0.8	
409	Aonai Wan, Okushiri Shima	42° 04'	139° 27'					0.5		0.7	
411	Setana Ko	42° 28'	139° 50'					0.4		0.7	
413	Sutsu Ko	42° 47'	140° 16'					0.4		0.6	
415	Iwanai Byochi	42° 59'	140° 30'					0.5		0.6	
417	Kamo Misaki	43° 20'	140° 21'					0.4		0.6	
419	Otaru Ko	43° 13'	141° 01'					0.4		0.5	
421	Moye	43° 36'	141° 23'					0.4		0.6	
423	Rumoi Ko	43° 57'	141° 39'					0.3		0.5	
425	Tomamai	44° 19'	141° 39'					0.4		0.6	
427	Rishiri To	45° 14'	141° 14'					0.4		0.6	
429	Wakkai Ko	45° 25'	141° 41'					0.4		0.6	
	Soya Misaki	45° 31'	141° 57'					0.5		0.6	
					on Otomari, p.4				Diurnal	Tropic	
431	Esashi Byochi	44° 56'	142° 35'	-2 35	-2 35	*0.80	*0.80	2.4	2.9	1.9	
433	Ornu Ko	44° 35'	142° 58'	-2 30	-2 30	(*0.83+0.1)		2.5	3.2	2.1	
435	Monbetsu Byochi	44° 21'	143° 22'	-2 58	-2 46	*0.97	*0.97	2.8	3.4	2.4	
437	Abashiri Byochi	44° 01'	144° 16'	-2 15	-2 15	*0.90	*0.90	2.7	3.4	2.2	
439	Koiseboi	44° 02'	144° 56'	-2 30	-2 30	*0.87	*0.87	2.6	3.2	2.1	
					on Naha, p.44				Mean Spring		
441	Tappi Saki	41° 15'	140° 21'	-3 53	-3 53	(*0.24+0.2)		1.0	1.4	1.1	
443	Mimmaya, Mimmaya Wan	41° 12'	140° 26'	-4 07	-4 08	*0.24	*0.24	1.0	1.4	0.9	
445	Aomori Ko, Mutsu Kaiwan	40° 50'	140° 44'	-4 11	-4 12	*0.34	*0.34	1.4	2.0	1.3	
447	Shiranai Wan, Mutsu Kaiwan	40° 57'	140° 58'	-4 09	-4 10	*0.32	*0.32	1.3	1.8	1.2	
449	Ominato Ko, Mutsu Kaiwan	41° 15'	141° 09'	-4 12	-3 49	*0.32	*0.28	1.4	2.0	1.2	
451	Oma	41° 32'	140° 54'	-4 09	-4 10	*0.37	*0.37	1.5	2.0	1.5	
453	Ohata	41° 24'	141° 10'	-4 11	-4 12	(*0.49+0.4)		2.0	2.6	2.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	JAPAN Honshu, East Coast Time meridian, 135° E	North	East	h	m	ft	ft	ft	ft	ft	
on Kamaisi, p.16											
455	Shiruya .....	41° 24'	141° 27'	-0 12	-0 15	+0.4	+0.2	2.5	3.2	3.2	
457	Tomari .....	41° 05'	141° 24'	-0 10	-0 13	+0.1	-0.1	2.5	3.2	2.9	
459	Hachinohe Ko .....	40° 32'	141° 33'	-0 16	-0 15	-0.2	-0.1	2.2	2.9	2.7	
461	Kuji Wan .....	40° 11'	141° 49'	-0 10	-0 13	+0.1	0.0	2.4	3.1	2.9	
463	Miyako Ko <3> .....	39° 38'	141° 58'	+0 00	+0 06	-0.2	-0.1	2.2	2.9	2.7	
465	Yamada Ko .....	39° 28'	141° 58'	-0 09	-0 11	-0.1	-0.1	2.3	3.0	2.8	
467	KAMAIISI .....	39° 16'	141° 54'	Daily predictions				2.3	3.0	2.9	
469	Kesennuma Wan .....	38° 53'	141° 37'	+0 02	+0 00	-0.1	-0.1	2.3	3.0	2.8	
471	Oginohama Ko .....	38° 23'	141° 26'	+0 08	+0 06	+0.4	+0.1	2.6	3.4	3.1	
473	Same Ura, Nobiru Wan .....	38° 21'	141° 10'	+0 14	+0 12	+0.2	+0.1	2.4	3.3	3.0	
475	Hirakata Wan .....	36° 51'	140° 48'	+0 11	+0 08	-0.1	-0.1	2.3	3.0	2.8	
477	Choshi Ko (inside) .....	35° 44'	140° 50'	+0 48	+0 45	*0.65	*0.65	1.5	1.9	1.9	
479	Nagasaki, Inubo Saki .....	35° 42'	140° 52'	+0 45	+0 43	+0.1	0.0	2.4	3.2	2.9	
on Yokohama, p.20											
481	Katsuura Wan .....	35° 08'	140° 18'	-0 43	-0 35	*0.78	*0.80	2.7	3.5	3.0	
483	Kamogawa, Kamogawa Wan .....	35° 06'	140° 06'	-0 31	-0 22	(*0.74+0.2)	2.6	3.5	3.0		
485	Otohama .....	34° 55'	139° 56'	-0 31	-0 22	(*0.74+0.1)	2.6	3.4	2.9		
Honshu, South Coast											
<i>Tokyo Wan</i>											
487	Tateyama Wan .....	35° 01'	139° 51'	-0 22	-0 14	*0.83	*0.83	2.9	3.9	3.2	
489	Uraga Ko .....	35° 14'	139° 43'	-0 12	-0 04	(*0.83+0.1)	2.9	3.8	3.3		
491	Yokosuka Ko .....	35° 17'	139° 40'	-0 04	-0 04	*0.91	*0.91	3.2	4.3	3.5	
493	YOKOHAMA <4> .....	35° 26'	139° 40'	Daily predictions				3.5	4.7	3.8	
495	Shinagawa, Tokyo Ko .....	35° 37'	139° 45'	+0 02	+0 11	0.0	-0.1	3.6	4.8	3.7	
497	Chiba .....	35° 36'	140° 07'	-0 06	+0 02	+0.4	+0.1	3.8	5.1	4.0	
499	Aburatsubo <5> .....	35° 09'	139° 37'	-0 08	+0 00	(*0.77+0.1)	2.7	3.6	3.0		
501	Koto Wan .....	35° 13'	139° 37'	-0 23	-0 14	*0.80	*0.80	2.8	3.7	3.0	
503	Ajiro Ko .....	35° 03'	139° 05'	-0 21	-0 12	(*0.77+0.1)	2.7	3.5	3.0		
505	Shimoda Ko <6> .....	34° 40'	138° 40'	+0 05	+0 14	*0.86	*0.86	3.0	3.9	3.3	
507	Merakura Ko .....	34° 40'	138° 47'	+0 23	+0 31	*0.85	*0.85	3.0	3.9	3.2	
509	Tago Minato .....	34° 48'	138° 46'	+0 25	+0 33	(*0.89-0.1)	3.1	4.2	3.3		
511	Eno Ura .....	35° 01'	138° 53'	+0 32	+0 41	*0.80	*0.80	2.8	3.8	3.0	
513	Shimizu Ko .....	35° 00'	138° 30'	+0 32	+0 36	*0.85	*0.85	3.0	4.1	3.2	
515	Omai Saki .....	34° 36'	138° 13'	+0 18	+0 27	*0.89	*0.85	3.2	4.3	3.3	
517	Shino Shima, Mikawa Wan .....	34° 41'	137° 00'	+0 54	+1 03	+0.8	0.0	4.3	5.8	4.2	
519	Gamagori, Mikawa Wan .....	34° 49'	137° 14'	+0 56	+1 04	+1.3	+0.1	4.7	6.3	4.5	
521	Nagoya Ko, Iseno Umi .....	35° 05'	136° 53'	+1 01	+1 05	(*1.40-0.6)	4.9	6.8	4.7		
523	Yokkaichi Ko, Iseno Umi .....	34° 57'	136° 38'	+1 01	+1 10	+1.0	0.0	4.5	6.0	4.3	
525	Tsu Ko, Iseno Umi .....	34° 43'	136° 32'	+0 59	+1 07	+1.2	+0.1	4.6	6.2	4.4	
527	Toba Ko .....	34° 29'	136° 51'	+0 54	+1 08	+0.3	-0.1	3.9	5.3	3.9	
529	Matoya Ko .....	34° 22'	136° 52'	+0 40	+0 49	*0.89	*0.85	3.2	4.3	3.3	
531	Hamashima, Ago Wan .....	34° 17'	136° 45'	+0 49	+0 58	*0.91	*0.85	3.3	4.4	3.4	
533	Gokasho Ko .....	34° 19'	136° 40'	+0 31	+0 39	*0.91	*0.85	3.3	4.5	3.4	
535	Hikimoto Ura, Owashi Wan .....	34° 05'	136° 15'	+0 44	+0 49	*0.93	*0.90	3.3	4.5	3.5	
537	Katsuura Wan .....	33° 37'	135° 57'	+0 42	+0 51	*0.91	*0.85	3.3	4.3	3.4	
539	Urakami Ko .....	33° 33'	135° 54'	+0 44	+0 53	-0.4	-0.3	3.4	4.5	3.4	
541	Kushimoto, Fukuro Ko .....	33° 28'	135° 46'	+0 53	+1 02	*0.91	*0.85	3.3	4.5	3.4	
543	Susami .....	33° 33'	135° 30'	+0 56	+1 05	-0.1	-0.1	3.5	4.7	3.7	
545	Tanabe Ko .....	33° 43'	135° 22'	+0 47	+0 56	-0.1	-0.3	3.7	4.8	3.6	
547	Mio .....	33° 53'	135° 05'	+0 50	+0 58	-0.2	-0.2	3.5	4.7	3.6	
Nanpo Shotō (Southern Islands)											
549	Habu Ko, O Shima .....	34° 41'	139° 26'	-0 28	-0 20	(*0.77+0.2)	2.7	3.5	3.1		
551	Shikine Shima .....	34° 19'	139° 13'	+0 06	+0 15	(*0.80+0.2)	2.8	3.8	3.2		
553	Kaminato Hakuchi, Hachijo Jima .....	33° 08'	139° 48'	-0 05	+0 04	(*0.66+0.2)	2.3	3.1	2.7		
555	Tori Shima .....	30° 29'	140° 19'	+0 39	+0 47	(*0.63+0.1)	2.2	3.0	2.5		
557	Muko Jima, Ogasawara Gunto .....	27° 41'	142° 08'	+0 50	+0 50	(*0.63-0.1)	2.2	2.8	2.3		
559	Futami Ko, Ogasawara Gunto <7> .....	27° 05'	142° 11'	+0 47	+0 55	*0.57	*0.57	2.0	2.8	2.2	
561	Okimura, Ogasawara Gunto .....	26° 38'	142° 09'	+1 05	+1 13	(*0.63-0.1)	2.2	2.8	2.3		
563	Ishino, Kita Iwo Jima, Kazan Retto .....	25° 26'	141° 18'	+1 39	+1 39	*0.51	*0.51	1.8	2.3	1.9	
565	Nishi, Iwo Jima, Kazan Retto .....	24° 48'	141° 18'	+1 35	+1 43	*0.51	*0.51	1.8	2.3	1.9	
Shikoku, South Coast											
567	Kannoura Ko .....	33° 33'	134° 18'	-1 25	-1 25	-0.5	0.0	3.6	4.8	3.6	
569	Muroto Saki .....	33° 17'	134° 09'	-1 22	-1 23	0.0	+0.1	4.0	5.2	3.9	
571	Urado Ko .....	33° 30'	133° 34'	-1 15	-1 12	*0.92	*0.92	3.6	4.8	3.6	
573	Susaki Ko <8> .....	33° 24'	133° 17'	-1 19	-1 20	-0.3	0.0	3.8	5.0	3.7	
Naikai (Inland Sea)											
on Yokohama, p.20											
<i>Kii Suido</i>											
575	Hii Wan .....	33° 55'	135° 05'	+1 08	+1 17	-0.3	-0.2	3.4	4.6	3.5	
577	Shimotsu Ura, Osaki Wan .....	34° 07'	135° 08'	+1 15	+1 23	-0.2	-0.1	3.4	4.8	3.6	
579	Wakanoura Wan .....	34° 11'	135° 11'	+1 44	+1 46	(*0.89+0.2)	3.1	4.3	3.6		
581	Tachibana Ura .....	33° 52'	134° 39'	+0 55	+1 04	-0.4	-0.3	3.4	4.5	3.4	
583	Komatsushima Ko .....	34° 01'	134° 36'	+1 03	+1 11	*0.87	*0.85	3.1	4.2	3.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	JAPAN Naikai (Inland Sea)-cont. Time meridian, 135° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Kobe, p.24											
585	Tomoga Shima, Tomogashima Suido .....	34° 17'	135° 00'	-0 46	-0 44	+0.6	+0.1	3.0	4.5	3.4	
587	Yura Ko, Tomogashima Suido .....	34° 16'	134° 57'	-0 48	-0 48	0.0	-0.1	2.6	3.6	3.0	
589	Sumoto .....	34° 20'	134° 54'	-0 27	-0 42	*0.98	*0.98	2.4	3.4	3.0	
591	Osaka Ko .....	34° 39'	135° 26'	-0 06	-0 11	+0.2	+0.1	2.6	3.7	3.2	
593	KOBE .....	34° 41'	135° 12'					2.5	3.6	3.1	
595	Karumo Jima .....	34° 39'	135° 10'	+0 05	-0 04	+0.1	+0.1	2.5	3.4	3.2	
597	Akashi Ko, Akashi Seto <10> .....	34° 39'	135° 00'	---	+0 48	*0.67	*0.67	--	2.4	2.2	
599	E Saki, Awaji, Akashi Seto <11> .....	34° 36'	134° 59'	---	+0 55	*0.65	*0.65	--	2.3	2.2	
on Sakate, p.28											
601	Murotsu, Awaji .....	34° 31'	134° 52'	+0 19	+0 23	(*0.64+0.5)		1.8	2.2	2.6	
603	Ei, Awaji .....	34° 28'	134° 50'	+0 19	+0 09	(*0.68+0.4)		1.9	2.2	2.6	
605	Anaga Ura, Awaji .....	34° 16'	134° 40'	+0 29	+0 37	(*0.86+0.2)		2.4	2.6	3.0	
607	Ajiro, Naruto .....	34° 14'	134° 38'	+0 53	+0 57	*0.92	*0.89	2.6	3.1	3.0	
on Yokohama, p.20											
609	Fukura Ura, Awaji .....	34° 15'	134° 42'	+1 29	+1 36	(*0.94-0.1)		3.3	4.5	3.5	
on Kobe, p.24											
611	Tosadomari, Muyano Seto .....	34° 11'	134° 37'	-0 11	-0 19	+0.1	0.0	2.6	3.6	3.1	
613	Kita-tomariura, Muyano Seto <10> .....	34° 14'	134° 35'	---	+1 46	-1.2	-0.3	--	2.8	2.4	
615	Aziro .....	34° 14'	134° 38'	+4 31	+4 18	0.0	-0.1	2.6	3.4	3.0	
on Sakate, p.28											
617	Hikeda, Harima Nada .....	34° 14'	134° 24'	+0 22	+0 23	*0.93	*0.93	2.6	2.8	3.1	
619	SAKATE, Shodo Shima .....	34° 27'	134° 19'					2.8	3.1	3.3	
621	Ikeda Wan, Shodo Shima .....	34° 29'	134° 12'	-0 11	-0 06	+1.0	+0.2	3.6	4.5	3.9	
Harima Nada											
623	Takasago Ko .....	34° 45'	134° 49'	-0 29	-0 25	(*0.75+0.4)		2.1	2.5	2.9	
625	Shikama Ko .....	34° 47'	134° 41'	-0 24	-0 28	(*0.82+0.6)		2.3	2.4	3.3	
627	Ie Shima .....	34° 41'	134° 32'	-0 16	-0 16	(*0.82+0.2)		2.3	2.5	2.9	
629	O-O Wan .....	34° 47'	134° 28'	-0 20	-0 16	(*0.93+0.2)		2.6	3.1	3.3	
631	Otabu Shima .....	34° 41'	134° 18'	-0 12	-0 08	-0.1	-0.1	2.8	3.3	3.2	
633	Ushimado Ko .....	34° 36'	134° 09'	-0 01	+0 03	+0.8	+0.1	3.5	4.4	3.8	
635	Kogushi, Okayama Suido .....	34° 36'	134° 02'	+0 01	+0 05	+1.0	+0.1	3.7	4.6	3.9	
on Kure, p.32											
637	Bisan Seto	34° 27'	133° 58'	+1 29	+1 26	(*0.67+0.4)		5.0	6.2	4.8	
639	Nao Shima .....	34° 26'	134° 03'	+1 25	+1 46	(*0.56+0.6)		4.2	5.0	4.3	
641	Takamatsu Ko .....	34° 21'	134° 02'	+1 25	+1 26	(*0.60+0.4)		4.5	5.3	4.4	
643	Nabe Shima .....	34° 23'	133° 50'	+1 40	+1 37	(*0.84+0.3)		6.3	8.1	5.8	
645	Shimotsui .....	34° 26'	133° 48'	+1 32	+1 28	(*0.80+0.3)		6.0	7.8	5.6	
647	Awashima, Awa Shima .....	34° 16'	133° 38'	+1 46	+1 46	+0.2	0.0	7.7	9.6	6.7	
649	Tomo Tsu, Bingo Nada .....	34° 23'	133° 23'	+1 25	+1 26	+0.5	0.0	8.0	9.9	6.8	
651	Tachibana, Mekari Seto .....	34° 21'	133° 12'	+1 25	+1 21	+0.1	+0.1	7.5	9.7	6.7	
653	Onomichi Seto .....	34° 24'	133° 12'	+1 16	+1 13	+0.1	0.0	7.6	9.2	6.6	
655	Itosaki, Miura Wan .....	34° 23'	133° 06'	+1 08	+1 04	-0.3	-0.1	7.3	9.2	6.4	
657	Setoda, Iuchi Jima .....	34° 18'	133° 05'	+0 49	+0 46	-0.2	-0.2	7.5	9.6	6.4	
659	Tadanomi, Miura Seto .....	34° 20'	132° 59'	+0 31	+0 27	+0.6	+0.3	7.8	10.3	7.0	
661	Takahama, Hiuchi Nada .....	33° 59'	133° 21'	+1 24	+1 20	+0.5	+0.1	7.9	10.4	6.9	
663	Imabari, Kurushima Kaikyo .....	34° 04'	133° 00'	+1 06	+1 03	-0.3	0.0	7.2	9.4	6.4	
665	Hashihama, Kurushima Kaikyo .....	34° 07'	132° 58'	+0 28	+0 22	+0.3	+0.1	7.7	9.9	6.8	
667	Mitarai, Osaki Shimo Shima .....	34° 11'	132° 52'	+0 11	+0 08	+0.3	+0.1	7.7	10.1	6.8	
669	Koyo, Aki Nada .....	34° 14'	132° 43'	+0 16	+0 13	-1.0	-0.2	6.7	8.9	6.0	
671	Mutsuki Seto, Naka Shima .....	33° 59'	132° 38'	-0 21	-0 25	-0.7	-0.1	6.9	9.0	6.2	
Hiroshima Wan											
673	Karoto Koso .....	34° 04'	132° 33'	-0 13	-0 16	(*0.88+0.1)		6.6	8.7	5.9	
675	Ondo Seto .....	34° 12'	132° 32'	-0 04	-0 08	(*0.88+0.1)		6.6	8.6	5.9	
677	KURE .....	34° 14'	132° 33'					7.5	9.9	6.6	
679	Yeta Uchi .....	34° 15'	132° 28'	-0 05	-0 09	0.0	+0.1	7.4	9.8	6.6	
681	Nasami Seto .....	34° 15'	132° 23'	-0 18	-0 21	-0.8	-0.1	6.8	9.3	6.1	
683	Hiroshima Ko (Ujina Ko) .....	34° 21'	132° 28'	-0 09	-0 13	-0.2	0.0	7.3	9.7	6.5	
685	Itsuki Shima .....	34° 18'	132° 19'	-0 09	-0 13	-0.2	0.0	7.3	9.6	6.5	
687	Shimminato .....	34° 11'	132° 14'	-0 12	-0 15	-0.8	-0.1	6.8	9.1	6.1	
689	Moro Shima Suido .....	33° 57'	132° 28'	-0 35	-0 38	-0.5	0.0	7.0	9.1	6.3	
691	Yashiro Jima .....	33° 55'	132° 18'	-0 09	-0 13	(*0.88+0.1)		6.6	8.8	5.9	
693	Obatake Seto .....	33° 57'	132° 10'	-0 50	-0 53	(*0.85+0.2)		6.4	8.5	5.8	
Iyo Nada											
695	Okikamuro Shima .....	33° 51'	132° 22'	-0 41	-0 44	(*0.85+0.2)		6.4	8.3	5.8	
697	Kaminoseki Kaikyo .....	33° 50'	132° 07'	-0 58	-1 02	(*0.79+0.2)		5.9	8.0	5.4	
699	Mitsugahama Hakuchi .....	33° 52'	132° 42'	-0 31	-0 33	-0.4	0.0	7.1	9.3	6.4	
701	Ao Shima .....	33° 44'	132° 29'	-0 55	-0 59	(*0.88+0.2)		6.6	8.7	6.0	
703	Nagahama Ko .....	33° 37'	132° 29'	-1 16	-1 20	(*0.85+0.1)		6.4	8.5	5.7	
705	Mitsukuye Ko .....	33° 27'	132° 14'	-1 12	-1 15	(*0.83+0.3)		6.2	8.2	5.8	
707	Saganoseki .....	33° 15'	131° 53'	-1 16	-1 19	(*0.52+0.6)		3.9	5.1	4.0	
709	Beppu Ko .....	33° 17'	131° 30'	-1 20	-1 24	(*0.59+0.4)		4.4	5.7	4.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time	Height	High Water	Low Water	Mean Spring		
	JAPAN Naikai (Inland Sea)-cont. Time meridian, 135° E	North	East	h m	h m	ft	ft	ft	ft	ft
on Naha, p.44										
711	Bungo Suido Yawatahama Ko	33° 27'	132° 24'	+0 10	+0 09	+0.5	+0.3	4.3	5.7	4.3
713	Okuchi Wan	33° 20'	132° 23'	+0 08	+0 07	+0.4	+0.2	4.3	5.7	4.2
715	Hiburi Shima	33° 10'	132° 16'	+0 00	-0 01	+0.1	+0.2	4.0	5.3	4.0
717	Mizugaura, Uwajima Wan	33° 12'	132° 27'	+0 03	+0 03	+0.4	+0.3	4.2	5.6	4.2
719	Uwajima Ko	33° 14'	132° 33'	+0 05	+0 04	(*0.90+0.8)	3.7	5.2	4.3	
721	Kashiwa	33° 01'	132° 30'	-0 47	-0 47	0.0	+0.1	4.0	5.2	3.9
723	Sukumo Ko	32° 54'	132° 42'	-1 08	-1 08	-0.2	0.0	3.9	5.2	3.8
725	Katsura, Saeki Wan	32° 59'	131° 54'	-0 05	-0 02	(*0.80+0.3)	3.3	4.4	3.4	
727	Saganoseki, Shita Ura	33° 14'	131° 53'	+0 35	+0 26	+0.1	+0.2	4.0	5.4	4.0
on Kure, p.32										
729	Suo Nada Hime Shima	33° 44'	131° 38'	-0 48	-0 47	(*0.84+0.2)	6.3	8.5	5.7	
731	Kakaji	33° 41'	131° 31'	-0 45	-0 49	-0.8	-0.1	6.8	9.1	6.1
733	Unoshima Ko	33° 38'	131° 08'	-0 52	-0 56	+0.5	+0.2	7.8	10.4	6.9
735	Tokuyama Wan	34° 01'	131° 49'	-1 02	-1 01	(*0.84+0.4)	6.3	8.5	5.9	
737	Mitajiri Ko	34° 02'	131° 35'	-0 54	-0 58	(*0.84+0.1)	6.3	8.5	5.6	
739	Ube Ko	33° 56'	131° 15'	-0 52	-0 51	+0.6	+0.3	7.8	10.5	7.0
741	Shimonoseki Kaikyo Aohama, Kyushu	33° 57'	131° 01'	-0 47	-0 47	+0.6	+0.1	8.0	10.8	6.9
743	Iwakuro, Honshu	33° 58'	130° 59'	-0 37	-0 41	+0.3	+0.1	7.7	10.4	6.8
on Moji, p.36										
745	Shimonoseki, Honshu	33° 58'	130° 57'	+0 00	+0 00	*1.07	*1.07	5.4	7.2	4.4
747	Isakimachi	33° 57'	130° 55'	+0 09	+0 02	*1.02	*1.02	4.7	6.4	4.1
749	Moji, Kyushu	33° 57'	130° 58'	Daily predictions				4.59	6.56	4.27
751	Tanokubi	33° 55'	130° 55'	+0 35	+0 22	*0.74	*0.74	3.4	4.8	3.0
753	Haidomari	33° 57'	130° 53'	+0 38	+0 39	*0.59	*0.59	2.7	3.8	2.6
755	Wakamatsu Ko	33° 55'	130° 49'	+0 54	+0 48	*0.59	*0.59	2.7	3.7	2.6
Honshu, Northwest Coast										
757	Yoshimo	34° 05'	130° 52'	+0 46	+0 39	*0.50	*0.50	2.3	3.2	2.3
759	Kottai	34° 19'	130° 54'	+1 05	+0 58	*0.52	*0.52	2.4	3.2	2.4
761	Yuya Wan (Aburatani Wan)	34° 24'	130° 57'	+1 11	+1 04	*0.39	*0.39	1.8	2.5	1.9
on Hong Kong, p.120										
763	Senzaki Ko	34° 24'	131° 12'	+1 07	+1 17	*0.39	*0.32	1.5	2.0	1.7
765	Hagi Ko	34° 26'	131° 25'	+1 27	+1 37	*0.36	*0.32	1.3	1.8	1.6
767	Esaki Ko	34° 38'	131° 39'	+2 05	+2 15	*0.26	*0.25	0.9	1.2	1.2
769	Hamada Ko (Tono Ura entrance) <12>	34° 55'	132° 04'	+2 41	+2 50	*0.20	*0.18	0.7	0.9	0.9
771	Sagi Ura	35° 27'	132° 41'	---	---	---	---	0.5	---	---
773	Kaka Ura	35° 35'	133° 03'	---	---	---	---	0.5	---	---
775	Sakai Ko, Miho Wan	35° 33'	133° 14'	---	---	---	---	0.3	---	---
777	Yonago Nakami	35° 26'	133° 19'	---	---	---	---	0.3	---	---
779	Hiotsu Ura, Dozen, Oki Retto	36° 05'	133° 04'	---	---	---	---	0.4	---	---
781	Saigo Ko, Dogo, Oki Retto	36° 12'	133° 20'	---	---	---	---	0.5	---	---
783	Shibayama Ko	35° 40'	134° 40'	---	---	---	---	0.5	---	---
785	Ine Ko, Wakasa Wan	35° 40'	135° 17'	---	---	---	---	0.5	---	---
787	Maizuru Ko, Wakasa Wan <13>	35° 27'	135° 19'	---	---	---	---	0.5	---	---
789	Tsuruga Ko, Wakasa Wan <14>	35° 40'	136° 04'	---	---	---	---	0.5	---	---
791	Mikuni Ko	36° 15'	136° 08'	---	---	---	---	0.5	---	---
793	Wajima Ko	37° 24'	136° 54'	---	---	---	---	0.5	---	0.6
795	Nanao, Nanao Wan	37° 03'	136° 58'	---	---	---	---	0.5	---	---
797	Fushiki Ko, Toyama Wan	36° 48'	137° 04'	---	---	---	---	0.5	---	---
799	Naoetsu Ko	37° 11'	138° 15'	---	---	---	---	0.5	---	---
801	Niigata Ko	37° 57'	139° 04'	---	---	---	---	0.4	---	---
803	Ogi Ko, Sado Shima	37° 49'	138° 17'	---	---	---	---	0.5	---	---
805	Ryo Zu Ko, Sado Shima	38° 05'	138° 26'	---	---	---	---	0.5	---	---
807	Kamo Ko	38° 46'	139° 44'	---	---	---	---	0.4	---	---
809	Tsuchizaki	39° 45'	140° 03'	---	---	---	---	0.4	---	---
811	Funakawa Wan	39° 53'	139° 52'	---	---	---	---	0.5	---	---
813	Iwasaki	40° 35'	139° 54'	---	---	---	---	0.4	---	---
815	Fuka Ura	40° 39'	139° 55'	---	---	---	---	0.4	---	---
817	Kodomari Wan	41° 08'	140° 18'	---	---	---	---	0.6	---	---
Kyushu, East Coast										
819	Inokushi Ko <15>	32° 48'	131° 54'	-1 07	-1 07	(*0.88+0.2)	3.6	4.8	3.6	
821	Todoro Ko	32° 30'	131° 41'	-1 04	-1 04	*0.97	*0.97	3.9	5.3	3.8
823	Hososhima <16>	32° 26'	131° 40'	-0 51	-0 43	*0.90	*0.90	3.6	4.8	3.5
825	Mimitsu	32° 20'	131° 37'	-0 57	-0 58	*0.92	*0.92	3.7	4.9	3.6
827	Uchiumi <17>	31° 45'	131° 28'	-1 07	-1 07	(*0.93+0.2)	3.8	5.0	3.8	
829	Tonoura	31° 31'	131° 22'	-1 09	-1 09	(*0.95+0.2)	3.9	5.2	3.9	
831	Fukushima Inamachi, Ariake Wan	31° 27'	131° 12'	-0 59	-1 00	-0.1	0.0	4.0	5.3	3.8

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	JAPAN Kyushu, South Coast Time meridian, 135° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Naha, p.44											
833	Odomari Wan .....	31° 01'	130° 41'	-0 24	-0 25	+1.3	+0.4	5.0	6.6	4.7	
835	Yamagawa Ko, Kagoshima Kaiwan .....	31° 12'	130° 38'	-0 02	-0 02	+1.9	+0.5	5.5	7.3	5.1	
837	Furue Ko, Kagoshima Kaiwan .....	31° 23'	130° 46'	-0 02	-0 02	+2.1	+0.5	5.7	7.5	5.2	
839	Kagoshima Ko, Kagoshima Kaiwan .....	31° 36'	130° 34'	-0 01	+0 07	+2.1	+0.7	5.5	7.5	5.3	
841	Bono Tsu, Tomari Ura .....	31° 16'	130° 13'	+0 09	+0 08	+1.6	+0.4	5.3	7.1	4.9	
on Sasebo, p.40											
843	Nakagawara Ura <18> .....	31° 51'	129° 51'	-0 40	-0 42	(*0.90+0.3)	5.5	7.3	5.2		
845	Akune .....	32° 01'	130° 11'	-0 47	-0 49	-0.2	0.0	5.9	7.8	5.3	
847	Fukuro Oki, Yatsushiro Kai .....	32° 11'	130° 22'	+0 15	+0 14	+1.7	+0.4	7.4	9.9	6.4	
849	Kaga Shima, Yatsushiro Kai .....	32° 31'	130° 33'	+0 19	+0 18	+2.7	+0.6	8.2	11.0	7.0	
851	Yanagino Seto, Yatsushiro Kai .....	32° 33'	130° 25'	+0 19	+0 18	+2.9	+0.5	8.5	11.3	7.1	
853	Misumi Ko, Misumi No Seto .....	32° 37'	130° 27'	+0 24	+0 22	*1.39	*1.22	8.9	11.8	7.3	
855	Ushibuka, Amakusa Shimo Shima .....	32° 12'	130° 01'	-0 32	-0 34	+0.1	+0.1	6.1	8.1	5.5	
857	Sakitsu Wan, Amakusa Shimo Shima .....	32° 19'	130° 01'	-0 36	-0 38	0.0	+0.1	6.0	8.2	5.4	
859	Tomioka Wan, Amakusa Shimo Shima .....	32° 32'	130° 02'	-0 24	-0 26	+1.1	+0.3	6.9	9.3	6.1	
861	Kuchinotsu Wan .....	32° 36'	130° 11'	+0 23	+0 21	+1.7	+0.4	7.4	9.7	6.4	
863	Shimabara, Shimabara Kaiwan .....	32° 47'	130° 23'	+0 32	+0 30	*1.58	*1.26	10.4	13.6	8.1	
865	Miike Ko, Shimabara Kaiwan .....	33° 01'	130° 25'	+0 36	+0 37	*1.76	*1.57	11.2	14.9	9.2	
867	Kabashima Suido .....	32° 34'	129° 47'	-0 25	-0 27	+0.1	0.0	6.2	8.2	5.4	
869	Fukahori .....	32° 41'	129° 49'	-0 26	-0 23	+0.1	+0.2	6.0	8.3	5.5	
871	Nagasaki Ko <19> .....	32° 43'	129° 51'	-0 24	-0 26	-0.6	-0.1	5.6	7.5	5.0	
873	Terashima Suido .....	33° 02'	129° 38'	-0 12	-0 14	+0.1	+0.1	6.1	8.3	5.5	
875	Omodake .....	33° 05'	129° 41'	-0 06	-0 08	+0.4	+0.2	6.3	8.5	5.7	
877	SASEBO <20> .....	33° 10'	129° 43'	Daily predictions				6.1	8.4	5.4	
879	Kogushi Wan, Omura Wan .....	33° 04'	129° 49'	+2 51	+2 49	(*0.26+0.1)	1.6	1.9	1.5		
881	Omura, Omura Wan .....	32° 54'	129° 57'	+2 55	+2 53	(*0.28+0.2)	1.7	2.2	1.7		
883	Kusudomari .....	33° 13'	129° 35'	-0 05	-0 07	0.0	+0.1	6.0	8.1	5.4	
885	Shijiki Wan, Hirado Shima .....	33° 12'	129° 23'	+0 19	+0 18	-0.3	0.0	5.8	7.7	5.2	
887	Usuka Wan, Hirado Shima .....	33° 23'	129° 32'	+0 42	+0 40	*0.88	*0.88	5.4	7.3	4.7	
Goto Retto											
889	Me Shima, Danjo Gunto .....	32° 00'	128° 21'	-0 21	-0 22	(*0.85+0.7)	5.2	7.1	5.3		
891	Tamano Ura, Fukaye Jima .....	32° 37'	128° 37'	+0 07	+0 05	-0.1	+0.1	5.9	8.1	5.4	
893	Fukaye, Fukaye Jima .....	32° 42'	128° 51'	+0 04	+0 02	-0.3	0.0	5.8	7.8	5.2	
895	Wakamatsu Ura, Wakamatsu Shima .....	32° 53'	129° 01'	+0 21	+0 20	-0.1	0.0	6.0	8.0	5.3	
897	Arikawa Wan, Nakadori Shima .....	32° 59'	129° 07'	+0 08	+0 07	*0.87	*0.87	5.3	7.1	4.7	
899	Kono Ura, Uku Shima .....	33° 16'	129° 05'	+0 25	+0 24	-0.7	-0.2	5.6	7.6	4.9	
Kyushu, Northwest Coast											
901	Kazamoto Ura, Iki Shima .....	33° 51'	129° 41'	+0 22	+0 15	*0.96	*0.96	4.4	5.9	3.8	
903	Gono Ura, Iki Shima .....	33° 45'	129° 41'	+0 26	+0 19	*1.05	*1.05	4.8	6.6	4.2	
905	Mikuriya, Imari Wan .....	33° 22'	129° 40'	+0 07	+0 01	*1.18	*1.18	5.4	7.6	5.0	
907	Kariya Ko .....	33° 29'	129° 50'	+0 25	+0 18	*1.00	*1.00	4.6	6.2	4.2	
909	Yobuko Ko <21> .....	33° 33'	129° 53'	+0 06	+0 00	*0.94	*0.94	4.3	6.1	3.9	
911	Fukuoka Wan .....	33° 36'	130° 23'	+0 41	+0 35	*0.87	*0.87	4.0	5.6	3.7	
913	Konomato Ura .....	33° 51'	130° 29'	+0 41	+0 35	*0.72	*0.72	3.3	4.5	3.1	
915	Iwaya .....	33° 56'	130° 41'	+0 45	+0 38	*0.59	*0.59	2.7	3.7	2.7	
Tsushima											
917	Mikata, Aso Wan .....	34° 18'	129° 16'	+0 33	+0 31	(*0.79-0.4)	4.8	6.5	3.9		
919	Tsuna Shima .....	34° 25'	129° 16'	+0 33	+0 31	(*0.72-0.4)	4.4	6.0	3.5		
921	Sasuna Ko .....	34° 39'	129° 23'	+0 16	+0 14	*0.51	*0.43	3.3	4.5	2.7	
on Moji, p.36											
923	Ajirō, Nishitomari Wan .....	34° 39'	129° 29'	-0 19	-0 25	*0.54	*0.54	2.5	3.5	1.9	
925	Oshika .....	34° 31'	129° 26'	-0 16	-0 23	*0.63	*0.63	2.9	4.0	2.2	
927	Miura Wan .....	34° 18'	129° 23'	-0 16	-0 23	*0.76	*0.76	3.5	4.8	2.8	
929	Izuhara Ko .....	34° 12'	129° 17'	-0 10	-0 23	*0.83	*0.83	3.8	5.4	3.0	
Nansei Shoto (Southwestern Islands)											
931	Nishinoome Wan, Tanega Shima .....	30° 44'	130° 59'	-0 24	-0 24	+0.5	+0.2	4.4	5.8	4.2	
933	O Ura, Tanega Shima .....	30° 27'	130° 58'	-0 52	-0 53	0.0	0.0	4.1	5.4	3.9	
935	Isso, Yaku Shima .....	30° 27'	130° 30'	-0 07	-0 08	+0.7	+0.2	4.6	6.1	4.3	
937	Kuchinoerabu Shima .....	30° 28'	130° 11'	-0 08	-0 09	+0.7	+0.2	4.6	6.2	4.3	
939	Nakano Shima .....	29° 50'	129° 51'	-0 15	-0 16	+0.1	0.0	4.2	5.5	3.9	
941	Takara Shima .....	29° 09'	129° 12'	+0 10	+0 10	-0.1	0.0	4.0	5.3	3.8	
943	Somachi Hakuchi, Kikai Jima .....	28° 20'	130° 00'	+0 30	+0 30	(*0.76+0.3)	3.1	4.3	3.3		
Amami O Shima											
945	Sumiyo Wan .....	28° 14'	129° 25'	-0 36	-0 37	0.0	0.0	4.1	5.2	3.9	
947	Koniya .....	28° 09'	129° 18'	-0 10	-0 11	-0.1	0.0	4.0	5.4	3.8	
949	Nishikomi .....	28° 14'	129° 10'	-0 08	-0 09	+0.1	0.0	4.2	5.5	3.9	
951	Uken, Yakiuchi Wan .....	28° 18'	129° 14'	-0 04	-0 05	0.0	0.0	4.1	5.4	3.9	
953	Kasari Wan .....	28° 27'	129° 39'	-0 04	-0 05	+0.1	-0.1	4.3	5.6	3.9	
955	Uke Shima .....	28° 02'	129° 14'	-0 24	-0 26	0.0	+0.1	4.0	5.3	3.9	
957	Sammura Wan, Tokuno Shima .....	27° 52'	128° 58'	-0 32	-0 32	*0.93	*0.93	3.8	5.0	3.6	
959	Wadomari, Okinoyerabu Jima .....	27° 24'	128° 40'	-0 31	-0 31	*0.90	*0.90	3.6	4.7	3.5	
961	Gakiya, Iheya Jima .....	27° 03'	127° 58'	-0 09	-0 10	*0.90	*0.90	3.8	5.0	3.5	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	JAPAN Nansei Shoto (Southwestern Islands)-cont. Time meridian, 135° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Naha, p.44											
963	Okinawa Shima Sukku, Ora Wan	26° 33'	128° 02'	-0 39	-0 39	0.0	0.0	4.1	5.5	3.9	
965	Yonabaru, Buckner Bay	26° 12'	127° 46'	-0 44	-0 42	-0.1	-0.1	4.1	5.4	3.7	
967	NAHA	26° 12'	127° 40'					4.1	5.6	3.9	
969	Sesoko Byochi	26° 38'	127° 53'	+0 11	+0 11	-0.2	-0.2	4.1	5.4	3.7	
971	Unten Ko	26° 40'	128° 01'	-0 07	-0 08	*0.93	*0.93	3.8	5.0	3.6	
973	Zamami Jima, Kerama Kaikyo	26° 13'	127° 18'	-0 06	-0 07	-0.1	-0.1	4.1	5.4	3.8	
975	Gima Ko, Kume Shima	26° 20'	126° 44'	-0 07	-0 07	-0.1	-0.1	4.1	5.4	3.8	
977	Minami Daito Jima	25° 49'	131° 14'	-0 35	-0 35	*0.81	*0.81	3.3	4.4	3.2	
979	Miyako Hakuchi, Miyako Jima	24° 48'	125° 17'	+0 08	+0 07	*0.90	*0.90	3.8	4.9	3.5	
981	Ishigaki, Ishigaki Shima	24° 20'	124° 10'	+0 03	+0 02	(*0.83+0.2)	3.4	4.4	3.4		
983	Funauke, Iriomote Jima	24° 20'	123° 44'	+0 19	+0 18	(*0.83+0.2)	3.3	4.4	3.4		
985	Yonakuni Jima	24° 26'	123° 00'	-0 03	-0 03	(*0.76+0.2)	3.1	4.2	3.2		
987	Kobi Sho, Sento Shosho	25° 56'	123° 41'	+0 44	+0 43	(*0.80+0.4)	3.3	4.5	3.5		
on Pusan, p.48											
989	KOREA Japan Sea										
991	Unggi-hang	42° 20'	130° 25'	---	---	--	--	0.5	--	0.7	
993	Sajin-man	41° 59'	130° 00'	---	---	--	--	0.5	--	0.7	
995	Taeryanghwah-man	41° 12'	129° 44'	---	---	--	--	0.5	--	0.7	
997	Songjin-hang	40° 40'	129° 13'	---	---	--	--	0.6	--	0.8	
999	Ch'aho-hang	40° 12'	128° 39'	---	---	--	--	0.5	--	0.7	
1001	Sohojin-hang	40° 01'	128° 12'	---	---	--	--	0.6	--	0.7	
1003	Wonsan-hang, Yonghung-man	39° 49'	127° 38'	---	---	--	--	0.6	--	0.7	
1005	Changjon-hang	39° 10'	127° 26'	---	---	--	--	0.6	--	0.7	
1007	Chumunjin-hang	38° 44'	128° 12'	---	---	--	--	0.5	--	0.6	
1009	Ullung-do	37° 54'	128° 50'	---	---	--	--	0.3	--	0.4	
1011	Chukpyon-man	37° 29'	130° 54'	---	---	--	--	0.4	--	0.5	
1013	Ch'uksan-hand	37° 04'	129° 26'	---	---	--	--	0.3	--	0.4	
1015	Yongil-man	36° 30'	129° 27'	---	---	--	--	0.3	--	0.4	
1017	Ulsan	36° 03'	129° 23'	---	---	--	--	0.3	--	0.4	
1019	T'aehwa-gang	35° 30'	129° 23'	-0 52	-0 44	(*0.46+0.1)	1.3	1.8	1.1		
1021	PUSAN	35° 28'	129° 25'	-1 00	-0 52	(*0.43+0.2)	1.2	1.7	1.1		
1023	Yong-do	35° 06'	129° 02'					2.8	4.0	2.1	
1025	Ch'ongsong-man, Kadok-to	35° 05'	129° 03'	-0 11	-0 03	0.0	-0.1	2.9	3.9	2.1	
1027	Masan-man	35° 01'	128° 49'	+0 07	+0 15	*1.50	*1.50	4.1	5.6	3.2	
1029	Unp'ung-p'o, Chinhae-man	35° 10'	128° 34'	+0 10	+0 18	*1.60	*1.60	4.4	6.1	3.4	
1031	Hyonnaeryang-haehypop, Chinhae-man	35° 06'	128° 29'	+0 08	+0 16	*1.74	*1.74	4.8	6.6	3.7	
1033	Chise-p'o, Koje-do	34° 53'	128° 28'	+0 20	+0 29	*1.80	*1.80	5.0	6.8	3.8	
		34° 50'	128° 43'	+0 03	+0 11	*1.54	*1.54	4.3	5.7	3.3	
on Ch'ang Chiang Approach, p.92											
1035	Choguri-man, Koje-do	34° 43'	128° 36'	-1 10	-1 23	(*0.63-1.6)	5.4	7.3	4.4		
1037	Koje-man, Koje-do	34° 50'	128° 35'	-1 08	-1 20	(*0.67-1.7)	5.8	7.8	4.7		
1039	Ch'ungmu-hang	34° 51'	128° 25'	-0 49	-1 12	(*0.67-1.7)	5.8	8.1	4.7		
1041	Yokchi-do	34° 39'	128° 16'	-0 59	-1 11	(*0.71-1.9)	6.1	8.2	4.9		
1043	Wis-som, Saryang-do	34° 51'	128° 14'	-1 01	-1 13	(*0.74-1.9)	6.4	8.7	5.2		
1045	Kosong-man	34° 55'	128° 21'	-0 55	-1 07	(*0.77-2.2)	6.6	8.8	5.2		
1047	Mijo-man, Namhae-do	34° 43'	128° 03'	-1 04	-1 16	(*0.74-1.8)	6.4	8.8	5.3		
1049	Samch'onp'o	34° 56'	128° 04'	-1 00	-1 12	(*0.77-2.1)	6.6	8.9	5.3		
1051	Ch'ojon-ni	35° 03'	128° 03'	-0 31	-0 43	-3.9	-2.9	7.6	10.4	6.2	
1053	P'yousan-ni, Namhae-do	34° 46'	127° 51'	-0 59	-1 11	-4.4	-3.0	7.2	10.0	5.9	
1055	Yosu	34° 45'	127° 46'	-0 43	-1 08	-4.3	-3.1	7.4	10.2	5.9	
1057	Kwangyang-man	34° 51'	127° 45'	-0 40	-0 53	-3.7	-2.9	7.8	10.7	6.3	
1059	Noryang-ni	34° 57'	127° 53'	-0 43	-0 55	-3.9	-2.9	7.6	10.4	6.2	
1061	Chobal-to, Yoha-man	34° 38'	127° 34'	-0 18	-0 31	-3.3	-2.7	8.0	11.0	6.6	
1063	Tonae-hae, Komun-do	34° 01'	127° 19'	-0 21	-0 34	(*0.77-1.6)	6.6	9.0	5.8		
1065	Sonjuk-to, Sonjuk-yolto	34° 17'	127° 22'	-0 01	-0 13	(*0.79-1.6)	6.8	9.4	6.0		
1067	Sayang-do, Naro-yolto	34° 28'	127° 27'	-0 35	-0 47	-3.7	-2.7	7.6	10.2	6.4	
1069	Kogum-sudo	34° 30'	127° 09'	-0 02	-0 14	-3.0	-2.4	8.0	10.9	6.9	
1071	Mato-sudo	34° 26'	126° 51'	+0 20	+0 07	-2.7	-2.4	8.3	11.5	7.1	
1073	Wando	34° 18'	126° 46'	+1 09	+1 09	-3.8	-2.5	7.3	9.9	6.5	
1075	Soan-hang, Soan-do	34° 09'	126° 38'	+0 44	+0 31	-3.9	-2.6	7.3	9.8	6.4	
Yellow Sea											
1077	Sangch'uja-do, Ch'uja-kundo	33° 57'	126° 17'	+1 24	+1 12	(*0.70-1.3)	6.0	7.9	5.4		
	Cheju-do										
1079	Udo-sudo	33° 30'	126° 55'	-0 03	-0 16	(*0.56-0.9)	4.8	6.5	4.5		
1081	Sogwi-p'o	33° 14'	126° 33'	-0 08	-0 21	(*0.65-1.2)	5.6	7.5	5.0		
1083	Ch'agi-do	33° 18'	126° 09'	+1 02	+0 50	(*0.63-1.0)	5.4	7.1	5.0		
1085	Cheju Harbor	33° 31'	126° 32'	+0 56	+0 54	(*0.59-1.1)	5.1	6.9	4.6		
1087	Hwabuk-ni	33° 31'	126° 35'	+0 54	+0 41	(*0.56-0.8)	4.8	6.4	4.6		
1089	Oran-ni, Maro-hae	34° 21'	126° 29'	+1 23	+1 11	-3.6	-2.5	7.5	9.9	6.6	
1091	Sangma-do, Samma-do	34° 27'	126° 25'	+1 24	+1 12	-2.8	-2.4	8.2	10.8	7.0	
1093	Hachodo	34° 18'	126° 03'	+3 40	+3 01	(*0.72-1.9)	6.2	8.1	5.0		
1095	Hat'ae-do, Naju-kundo	34° 32'	126° 03'	+3 08	+2 56	(*0.90-2.0)	7.7	9.9	6.6		
1097	Chin-do	34° 30'	126° 12'	+4 02	+3 50	-3.1	-2.5	8.0	10.3	6.8	
1099	Baikpachin	34° 32'	126° 21'	+1 40	+2 03	-3.7	-2.7	7.6	10.0	6.4	
1101	Usuyong	34° 35'	126° 18'	+3 50	+3 21	-3.6	-3.0	8.0	10.0	6.3	
1103	Sih-a-do	34° 42'	126° 15'	+4 28	+3 36	-2.5	-2.5	8.6	10.6	7.1	
1105	Mokp'o	34° 47'	126° 23'	+5 26	+4 36	-3.0	-3.3	8.9	11.2	6.5	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
		North	East	h m	h m	ft	ft	ft	ft	ft	
	KOREA Yellow Sea-cont. Time meridian, 135° E										
1107	Yongsan-dong .....	34° 53'	126° 32'	+6 02	+5 50	*0.88	*0.60	9.0	11.2	7.7	
1109	Taehuksan-do, Taehuksan-kundo .....	34° 41'	125° 26'	+4 01	+3 49	*0.68	*0.43	7.2	9.2	5.9	
1111	Pigum-sudo, Naju-kundo .....	34° 43'	125° 56'	+3 40	+3 28	-2.4	-2.5	8.7	11.2	7.2	
1113	Ch'aun-do, Naju-kundo .....	34° 53'	126° 06'	+4 08	+3 56	-0.8	-2.2	10.0	12.8	8.1	
1115	Imja-do .....	35° 03'	126° 05'	+4 31	+4 19	-0.9	-2.4	10.1	13.5	8.0	
1117	Hamp'yong-man .....	35° 09'	126° 21'	-2 35	-2 30	(*0.63+0.7)		13.1	16.6	10.3	
1119	Anma-do, Anma-kundo .....	35° 21'	126° 01'	-2 28	-2 23	(*0.57+0.5)		11.8	15.1	9.2	
1121	Kogunsan-kundo .....	35° 49'	126° 24'	-1 58	-1 53	(*0.69+0.5)		14.3	18.4	11.0	
1123	Chuk-to, Kunsan-hang .....	36° 02'	126° 32'	-1 50	-1 46	(*0.72+0.7)		15.0	19.6	11.6	
1125	Kunsan, Kum-gang .....	35° 59'	126° 43'	-1 36	-0 54	*0.73	*0.75	15.1	19.0	11.2	
1127	Ochongdo .....	36° 07'	125° 59'	-1 44	-1 39	(*0.64+0.8)		13.2	17.3	10.5	
1129	Oeyon-do, Oeyon-yolto .....	36° 13'	126° 04'	-1 36	-1 32	(*0.60+1.1)		12.5	16.7	10.2	
1131	So-do, Ch'onsu-man .....	36° 24'	126° 26'	-1 10	-1 06	(*0.77+0.6)		15.9	20.8	12.3	
1133	Mohang-ni .....	36° 47'	126° 08'	-0 57	-0 52	(*0.74+0.7)		15.4	20.0	11.9	
1135	Umo-do .....	37° 02'	126° 27'	-0 27	-0 23	*0.91	*0.98	18.4	23.7	13.9	
1137	Asan .....	36° 58'	126° 47'	+0 02	+0 02	+0.3	+0.3	20.7	27.4	15.5	
1139	Soya-do, So-sudo .....	37° 14'	126° 10'	-0 15	-0 11	(*0.85+0.6)		17.6	22.9	13.5	
1141	Taemuui-do, (Marie Fortunee Arch.) .....	37° 23'	126° 27'	-0 09	-0 04	-0.8	+0.3	19.6	25.6	14.9	
1143	INCH'ON, Yom-ha .....	37° 28'	126° 37'					20.7	27.1	15.2	
1145	Yongjong-do, Yom-ha .....	37° 30'	126° 34'	+0 06	+0 06	+0.4	+0.4	20.7	27.2	15.6	
1147	Sinan-ni, Yom-ha .....	37° 40'	126° 32'	+0 55	--	+1.2	--	--	--	--	
1149	Chumun-do, Songmo-sudo .....	37° 39'	126° 15'	+0 15	+0 20	(*0.92+0.4)		19.0	24.8	14.4	
1151	Taeyon'yong-do, Yonp'yong-yolto .....	37° 40'	125° 43'	+0 14	+0 18	(*0.76+0.5)		15.7	20.3	12.1	
1153	Mu-do, Haeju-man .....	37° 44'	125° 35'	+0 16	+0 20	(*0.72+0.9)		15.0	19.7	11.8	
1155	Haeju, Haeju-man .....	38° 00'	125° 42'	+0 44	+0 49	(*0.82+0.5)		16.9	22.0	13.0	
1157	Tungsan-got .....	37° 41'	125° 22'	+0 21	+0 25	(*0.62+1.1)		12.8	16.8	10.5	
1159	Sunwi-do, Sunwido-myoji .....	37° 45'	125° 20'	+0 31	+0 36	(*0.53+1.1)		10.9	14.3	9.2	
1161	Kirin-do .....	37° 50'	125° 03'	-4 22	-4 26	*1.41	*1.55	9.4	12.4	8.1	
1163	Taech'ong-do, Taech'ong-kundo .....	37° 50'	124° 43'	-4 02	-4 05	+1.4	+0.8	7.5	9.7	6.8	
1165	Wollae-do .....	38° 03'	124° 49'	-3 59	-4 02	+1.3	+0.7	7.5	9.5	6.7	
1167	Ch'angam-dong .....	38° 07'	124° 43'	-3 24	-3 28	+1.6	+0.8	7.7	10.0	6.9	
1169	Monggum-do .....	38° 11'	124° 47'	-2 28	-2 31	+1.9	+0.8	8.0	10.1	7.0	
1171	Chin po Ki .....	38° 27'	124° 56'	-2 15	-2 19	*1.41	*1.45	9.6	12.3	8.0	
1173	Taedong-gang	38° 38'	125° 00'	-0 40	-0 44	-1.9	-0.2				
1175	Sok-to .....	38° 41'	125° 11'	-0 27	-0 24	+1.0	+0.1	11.0	14.0	8.9	
1177	NAMP'O-HANG .....	38° 43'	125° 24'					13.6	16.8	10.5	
1179	Ch'o-l-do .....	38° 39'	125° 38'	+0 20	+0 24	+1.7	+0.2	12.7	15.6	10.0	
1181	Kyomip'o .....	38° 44'	125° 38'	+0 31	+0 30	(*1.21-0.3)		14.2	17.9	10.9	
1183	Sokhojong .....	38° 57'	125° 38'	+1 16	+2 05	+1.6	+0.4	15.4	19.3	11.8	
1185	P'yongyang .....	39° 01'	125° 45'	+3 01	+4 52	(*0.18+0.6)		13.9	16.9	11.0	
1187	Sokhæe-dong .....	38° 31'	125° 40'	+0 06	+0 28	(*1.31-0.4)		16.6	20.5	12.7	
1189	Unmu-do .....	39° 25'	125° 07'	+0 08	+0 11	*1.23	*1.23	15.6	20.0	12.3	
1191	Nap-to .....	39° 16'	124° 43'	-0 07	-0 03	+1.2	+0.4	13.5	17.6	10.8	
1193	Taehwa-do .....	39° 27'	124° 37'	+0 06	+0 09	*1.10	*1.10	13.8	17.6	11.0	
1195	Ka-do .....	39° 31'	124° 40'	+0 10	+0 13	(*1.15-0.2)		14.6	18.5	11.3	
1197	Yalu River and Approach	39° 42'	124° 25'	+0 11	+0 19	+2.0	+0.3	14.4	18.2	11.1	
1199	Suun-do .....	39° 48'	124° 25'	+0 17	+0 39	(*1.19-0.3)		15.1	19.3	11.6	
1201	Tasa-do .....	39° 48'	124° 16'	+0 28	+0 32	(*1.17-0.2)		14.9	19.2	11.5	
1203	Shinto Islands .....	39° 56'	124° 21'	+1 38	+1 41	-1.7	-0.2	11.2	14.0	9.0	
	CHINA Yellow Sea, North Shore Time meridian, 120° E										
1205	Yalu River and Approach-cont.	39° 53'	124° 12'	-0 52	+0 08	(*1.09+0.7)		13.5	17.4	11.5	
1207	Zhaoshigou [Chao-shin-kou] .....	40° 07'	124° 24'	+1 21	+3 20	(*0.59-0.3)		8.5	8.9	4.9	
1209	Dandong [Tan-tung] .....	39° 45'	123° 45'	-0 47	-0 26	(*1.01+0.7)		12.5	15.7	10.8	
	CHINA, Liaoning, South Coast										
1211	Dayang He	39° 58'	123° 40'	+0 06	+1 25	(*1.07+1.0)		8.2	8.9	6.6	
1213	Shishanzi	39° 46'	123° 33'	-0 59	-1 03	(*1.92-0.3)		13.1	15.4	9.8	
1215	Shicheng Liedao	39° 32'	123° 05'	-1 06	-1 09	(*1.62+0.7)		10.8	13.8	9.2	
1217	Xiaowangjia Dao	39° 27'	123° 04'	-1 16	-1 09	(*1.60+0.0)		10.8	13.8	8.5	
1219	Waichangshan Liedao	39° 03'	122° 45'	-0 52	-0 55	(*1.21+0.0)		8.2	10.2	6.6	
1221	Zhangzi Dao [Changtze Tao, Blonde Group]	39° 14'	122° 40'	-0 54	-0 54	(*1.29+0.7)		8.5	10.8	7.5	
1223	Lichangshan Liedao	39° 16'	122° 35'	-0 43	-0 46	(*1.35+0.3)		9.2	11.5	7.5	
1225	Xiaochangshan Dao	39° 12'	122° 18'	-0 29	-0 32	(*1.34+0.3)		10.5	10.8	7.5	
1227	Dachangshan Dao [Tachangshan Tao]	39° 05'	122° 03'	-0 22	-0 26	(*1.18+0.0)		7.9	9.8	6.2	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height					
				High Water	Low Water	High Water	Low Water	Mean	Spring		
		North	East	h m	h m	ft	ft	ft	ft	ft	
	CHINA, Liaoning, South Coast Time meridian, 120° E			on Dalian, p.60							
1229	Dagukou [Ta-ku K'ou, Dairen Wan]	38° 58'	121° 50'	-0 06	-0 09	(*1.03+0.3)		6.9	8.5	5.9	
1231	Sanshan Dao	38° 53'	121° 49'	-0 32	-0 32	(*1.01-0.3)		6.9	8.5	6.3	
1233	DALIAN [Dairen Ko]	38° 55'	121° 40'			Daily predictions		6.6	8.5	6.3	
1235	Yuyan	38° 34'	121° 19'	+1 07	+1 03	(*0.92-0.3)		6.2	7.9	4.6	
	Gulfs of Liaodong and Bohai										
1237	Yangtouwa [Yang-tou Wan]	38° 47'	121° 08'	+1 15	+1 16	(*0.61+0.7)		5.3	5.6	3.9	
1239	Yingchengzi Wan [Eijoshi Wan, Yingchengze]	38° 58'	121° 19'	+2 26	+2 02	(*0.59+0.7)		5.3	5.6	3.9	
1241	Hulutao [Hu-Li-T'ao, Pulantien Chiang]	39° 16'	121° 36'	+3 11	+2 36	(*0.65+0.7)		5.9	6.2	4.3	
	Pulanian										
1243	Changshan Dao	39° 19'	121° 40'	+3 40	+3 07	(*0.69+0.7)		5.9	6.6	4.3	
1245	Boqi Dao [Pochi Tao, Pulantien Chiang]	39° 23'	121° 45'	+3 59	+3 43	(*0.74+0.7)		6.2	6.9	4.6	
1247	Xizhong Dao	39° 23'	121° 14'	+3 51	+3 06	(*0.53+1.0)		4.9	5.9	3.9	
1249	Changxing Dao [Changhing Tao, Fuchou Bay]	39° 39'	121° 28'	+5 21	+5 00	(*0.58+1.3)		5.3	5.9	4.3	
1251	Bayuquan	40° 18'	122° 05'	+6 44	+6 56	(*1.22+0.0)		9.8	10.2	6.2	
	Liao He										
1253	Sidaogou [Bar Signal Station, Liao Ho]	40° 38'	122° 10'	+8 04	+8 46	(*1.22+0.3)		9.5	9.8	6.6	
1255	Yingkou Neigang	40° 40'	122° 13'	+7 43	+8 25	(*1.26+0.0)		9.8	10.2	6.9	
1257	Bar	40° 32'	122° 04'	+8 11	+8 06	(*1.13+0.7)		8.9	9.5	6.6	
1259	Changshansi [Chang-shan-ssu Chiao]	40° 23'	120° 35'	+8 06	+7 30	(*0.63+0.7)		5.3	5.6	3.9	
				on Qinhuangdao, p.64							
1261	Ninghai	39° 58'	119° 48'	-1 20	+1 20	(*0.99+0.0)		2.6	3.9	2.6	
1263	Qinhuangdao	39° 55'	119° 37'			Daily predictions		2.6	3.6	3.0	
1265	Dapu He (Bar)	39° 40'	119° 21'	+2 41	+1 00	(*1.39-1.3)		3.6	4.3	3.0	
				on Tanggu, p.68							
1267	Daqinghekou	39° 10'	118° 52'	-1 22	-1 22	(*0.43+1.3)		4.6	5.3	4.6	
	Caojidian Tan										
1269	Off Choushui Gou	38° 58'	119° 26'	-2 06	-1 50	(*0.26+2.6)		2.6	2.6	4.6	
1271	Caojidian	38° 57'	118° 31'	-0 19	-0 40	(*0.63+1.0)		6.2	6.9	5.9	
1273	Nangoutuo	39° 00'	118° 34'	-0 41	-0 25	(*0.53+1.6)		4.9	5.3	5.9	
1275	Nanbao	39° 03'	118° 19'	+0 05	+0 30	(*0.52+1.0)		4.9	5.3	4.9	
1277	Jianhekou	39° 14'	118° 04'	-0 15	-0 12	(*1.04+0.0)		9.8	10.5	8.2	
	Hai He										
1279	Bar	38° 56'	117° 50'	+0 02	-0 01	(*0.90+1.0)		8.5	9.2	7.9	
1281	TANGGU (Xingang)	39° 00'	117° 43'			Daily predictions		9.5	10.2	7.9	
1283	Dagu	39° 00'	117° 43'	+0 07	+0 31	(*0.77+2.0)		7.2	7.2	7.9	
	Qi He										
1285	Bar	38° 34'	117° 35'	+1 01	+0 34	(*0.82+2.0)		7.9	8.2	8.2	
1287	Qikou	38° 36'	117° 43'	+0 03	+0 19	(*1.03+0.0)		9.8	10.5	8.2	
1289	Off Chengkou	38° 27'	118° 26'	+0 56	-0 11	(*0.56+2.3)		5.9	6.6	6.6	
1291	Dakou He (Bar)	38° 15'	117° 51'	+0 43	+0 37	(*0.95+0.3)		9.2	9.8	7.9	
1293	Dongfeng Gang	38° 15'	118° 10'	+2 17	+2 15	(*0.71+0.0)		6.9	7.2	5.6	
1295	Wanwanggoukou	38° 11'	118° 27'	+1 24	+0 03	(*0.62-0.3)		6.6	7.2	4.3	
1297	Huanghekou (east)	38° 09'	118° 52'	+2 34	-0 31	(*0.20+1.6)		3.0	3.6	3.0	
	Shandong, North Coast			on Dalian, p.60							
1299	Tianshuiogoukou	37° 43'	119° 05'	+13 11	+13 34	(*0.50-0.3)		4.3	4.6	2.3	
	Laizhou Wan										
1301	Xiaqinghekou	37° 20'	119° 03'	+10 41	+10 25	(*0.47+0.3)		3.9	4.6	3.0	
1303	Weihekou	37° 11'	119° 31'	+13 15	+14 22	(*0.53+0.0)		4.6	4.9	3.0	
1305	Huhekou	37° 19'	119° 48'	+12 04	+11 48	(*0.47+0.3)		3.9	4.6	3.0	
1307	Longkou	37° 39'	120° 19'	+13 45	+13 35	(*0.43+0.0)		3.6	3.9	2.3	
1309	Jimu Dao (Gaojiao) [Mu-chi-tao Chiao]	37° 41'	120° 13'	+12 23	+12 13	(*0.47+0.3)		3.9	4.3	3.0	
1311	Miaodao Liedao										
	Beihuangcheng Dao	38° 22'	120° 54'	+0 27	+0 28	(*0.60+0.0)		4.3	5.3	3.3	
				on Yantai, p.72							
1313	Tuoji Dao	38° 10'	120° 45'	+0 18	+0 19	(*0.70-0.7)		3.6	4.6	3.0	
1315	Tangluanzi [Tanglwan Anchorage, Miao-tao Group]	37° 59'	120° 41'	-0 12	-0 28	(*0.72-0.7)		3.6	4.6	3.0	
1317	Nanchangshan Dao	37° 55'	120° 43'	+0 11	-0 09	(*0.69-0.3)		3.6	4.6	3.0	
1319	Penglai	37° 50'	120° 44'	+0 18	+0 22	(*0.65+0.0)		3.3	4.3	3.3	
1321	Bajiao	37° 39'	121° 08'	+0 04	+0 00	(*0.98-0.3)		5.3	6.2	4.3	
1323	YANTAI [Chefoo Harbor]	37° 33'	121° 23'			Daily Predictions		5.3	6.6	4.9	
1325	Kongdong Dao	37° 33'	121° 30'	+0 10	+0 04	(*0.98-0.3)		5.3	6.2	4.6	
1327	Yangma Dao [White Rock Point]	37° 29'	121° 38'	+0 30	+0 32	(*0.81-0.3)		5.3	5.6	3.6	
1329	Chu Dao	37° 34'	122° 05'	+0 10	+0 07	(*0.90-0.3)		4.6	5.9	3.9	
1331	Jiming Dao (Wangjia Zhuang)	37° 25'	122° 28'	+0 34	+1 01	(*0.74+0.3)		4.9	5.3	3.9	
				on Tanggu, p.68							
1333	Hailu Dao	37° 27'	122° 40'	+8 11	+8 30	(*0.33+0.3)		3.6	4.3	3.0	
1335	Malan Wan [Malan Cove]	37° 25'	122° 39'	+8 33	+8 31	(*0.38+0.7)		4.3	4.9	3.6	
	Shandong, Southeast Coast										
1337	Chengshan Jiao [Dove Cove, Jungcheng Bay]	37° 23'	122° 40'	+8 56	+9 18	(*0.32+0.3)		3.6	4.3	3.0	
1339	Lidao Wan [Litao Bay]	37° 16'	122° 33'	+9 50	+9 40	(*0.46-0.7)		4.9	5.6	3.0	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	CHINA, Liaoning, South Coast Shandong, Southeast Coast-cont. Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Qingdao, p.76											
1341	Jinghai Jiao [Chinghai Point] .....	36° 51'	122° 11'	-1 52	-2 26	(*0.72+1.0)		7.5	7.9	6.6	
1343	Gulongzui [Niao-tsui Head] .....	36° 45'	121° 38'	-1 41	-2 08	(*0.84+0.3)		7.5	9.5	6.9	
1345	Haiyang [Haiyanghsein] .....	36° 41'	121° 14'	-1 08	-1 32	(*0.85+0.3)		8.5	9.2	6.9	
1347	Quinilyan .....	36° 15'	121° 23'	-1 10	-1 25	(*0.72+0.3)		6.6	8.2	5.9	
Jiaozhou Wan											
1349	Nu Dao [Star Reef, Lao Shan Bay] .....	36° 23'	120° 50'	-0 24	-0 57	(*0.90-0.3)		9.2	9.5	6.6	
1351	Dongjia Wan [Tung-chai Harbor] .....	36° 06'	120° 32'	-0 05	-0 37	(*0.96-0.7)		9.8	10.2	6.9	
1353	Mai Dao .....	36° 04'	120° 25'	-0 12	-0 15	(*0.90+0.0)		7.9	9.8	7.2	
1355	Qingdao (Qianhai) .....	36° 03'	120° 19'	-0 05	-0 09	(*0.93+0.7)		8.2	10.5	7.9	
1357	Huang Dao .....	36° 05'	120° 19'	-0 07	-0 03	(*0.98+0.0)		8.5	10.8	7.5	
1359	QINGDAO (DA GANG) [Chingtao, Kaochou Wan]	36° 05'	120° 19'			Daily predictions		8.9	11.2	7.9	
1361	Tangdao Wan .....	35° 55'	120° 09'	+0 13	+0 06	(*0.91+0.7)		7.9	10.5	7.9	
1363	Lingshan Dao .....	35° 46'	120° 10'	+0 21	+0 08	(*0.86+0.7)		7.5	9.5	7.5	
1365	Huangjiatang Wan [Huangchiatang Wan] .....	35° 32'	119° 45'	+0 39	+0 07	(*0.93-0.3)		8.2	10.5	6.9	
1367	Shijiu Suo .....	35° 25'	119° 35'	+1 07	+0 54	(*1.09+0.3)		9.5	12.1	8.9	
on Lianyun Gang, p.80											
1369	Pingshan Dao .....	35° 08'	119° 54'	-0 21	-0 41	(*0.75+0.0)		8.2	10.5	7.2	
East Coast											
1371	Qinshan Dao .....	34° 52'	119° 17'	-0 04	+0 03	(*1.02-0.7)		11.2	14.4	9.2	
1373	LIANYUN GANG .....	34° 45'	119° 28'			Daily predictions		10.8	14.1	9.5	
1375	Kaishan Dao .....	34° 32'	119° 52'	+0 20	+0 16	(*0.85+1.0)		10.8	11.5	8.9	
1377	Kuataokou .....	34° 04'	120° 22'	+1 54	+2 41	(*0.57-0.3)		7.2	7.9	4.9	
1379	Xinyang Gang .....	33° 37'	120° 28'	+5 41	+6 46	(*0.52+1.6)		5.9	7.2	6.6	
1381	Chenjiawu .....	33° 06'	121° 13'	+5 34	+5 22	(*1.00+0.3)		11.2	14.4	9.8	
1383	Off Chuanshui Gang .....	32° 58'	121° 07'	+6 26	+6 04	(*1.22+0.3)		13.1	17.1	11.8	
1385	Xiaoyangkou .....	32° 33'	120° 59'	+4 27	+3 55	(*0.69+3.0)		7.5	9.8	9.5	
1387	Lusi .....	32° 08'	121° 35'	+6 11	+5 41	(*1.06+0.0)		11.8	16.1	10.2	
on Wusong, p.84											
1389	Changjiangkou .....	31° 06'	122° 01'	-1 57	-2 21	(*1.21+0.7)		9.2	11.8	8.5	
1391	Tongsha Shazui .....	31° 25'	122° 14'	-1 38	-2 26	(*1.09+0.3)		8.2	11.2	7.5	
1393	ZHONGJUN, CHANGJIANG APPROACH .....	31° 07'	121° 54'			Daily predictions, p.88		8.5	11.8	7.5	
1395	Jiuduan Beacon .....	31° 16'	121° 43'	-0 50	-1 20	(*1.05+0.7)		7.9	10.5	7.5	
1397	Hengsha .....	31° 17'	121° 51'	-0 49	-1 01	(*1.11-0.3)		8.2	11.2	6.9	
Chongming Dao											
1399	Laomihung .....	31° 30'	121° 40'	-0 40	-0 49	(*1.15-0.7)		8.5	9.8	6.9	
1401	Qixiao Gang .....	31° 28'	121° 44'	-0 38	-0 47	(*1.12-0.7)		8.2	11.2	6.9	
1403	Shixiao Gang .....	31° 28'	121° 47'	-0 22	-0 30	(*1.12-0.7)		8.2	11.2	6.6	
1405	Bao Zhen .....	31° 32'	121° 38'	+0 28	+0 23	(*0.95-0.7)		6.9	9.5	5.6	
Huangpu Jiang											
1407	Gaoqiao .....	31° 22'	121° 35'	-0 06	-0 21	(*1.05-0.7)		7.9	10.5	6.6	
1409	WUSONG [Shanghai, Wusung Bar] .....	31° 24'	121° 31'			Daily predictions		7.5	9.8	6.6	
1411	Shanghai Gang [Shanghai, Huangpu River] .....	31° 15'	121° 29'	+0 41	+0 45	(*0.83+0.7)		6.2	8.2	5.9	
1413	Jianyuan Dock .....	31° 12'	121° 30'	+0 55	+1 06	*0.80	--	--	--	--	
Chang Jiang											
1415	Xulujing .....	31° 46'	120° 56'	+2 58	+3 02	(*0.82-0.7)		6.2	8.2	4.9	
1417	Jiangyin .....	31° 57'	120° 18'	+5 14	+5 36	(*0.68-0.7)		4.9	6.9	3.9	
Hangzhou Wan											
1419	Jinshanzi .....	30° 44'	121° 22'	-0 10	-0 38	(*1.61-1.0)		11.8	15.7	10.2	
1421	Zhapu .....	30° 36'	121° 05'	+0 43	-0 04	(*1.97-2.0)		14.8	19.4	11.5	
1423	Haining .....	30° 25'	120° 32'	+1 59	+4 46	(*1.69+0.0)		12.8	16.7	11.2	
1425	CH'ANG CHIANG APPROACH (Side Saddle) <41>	30° 49'	122° 38'			Daily predictions, p.92		8.6	11.7	9.6	
1427	KANMEN (Yuhuan Dao) .....	28° 05'	121° 17'			Daily predictions, p.96		13.1	17.1	10.8	
TAIWAN											
East Coast											
1429	KEELUNG (CHI-LUNG CHIANG) <25> .....	25° 09'	121° 45'			Daily predictions, p.112		1.5	2.4	1.9	
1431	Su-ao Kang .....	24° 35'	121° 52'	-1 13	-1 13	(*0.78+0.2)		3.2	4.2	3.2	
1433	Hua-lien Kang .....	23° 58'	121° 37'	-1 15	-1 15	*0.83 *0.83		3.4	4.5	3.2	
1435	Ch'eng-kuang-ao Po-ti .....	23° 08'	121° 24'	-1 19	-1 20	*0.86 *0.83		3.6	4.8	3.3	
1437	Tu-lan Wan .....	22° 50'	121° 11'	-1 17	-1 17	*0.76 *0.76		3.1	4.1	3.0	
1439	Nan-liao Wan, Lu Tao .....	22° 40'	121° 28'	-1 22	-1 22	*0.73 *0.72		3.0	4.1	2.8	
1441	Pa-tai Wan, Lan Yu .....	22° 02'	121° 34'	-1 03	-1 04	(*0.80-0.2)		3.3	4.4	2.9	
West Coast											
on Hong Kong, p.120											
1443	Ta-pan-lieh Mao-ti .....	21° 58'	120° 45'	-2 55	-2 46	*0.59 *0.57		2.0	2.6	2.6	
1445	Ch'e-ch'eng Po-ti .....	22° 04'	120° 42'	-2 31	-2 21	*0.51 *0.54		1.6	2.1	2.3	
1447	Tung-kang Po-ti .....	22° 28'	120° 26'	-1 31	-1 22	*0.48 *0.46		1.6	1.9	2.1	
1449	Kao-hsiung <26> .....	22° 37'	120° 16'	-1 16	-1 07	*0.38 *0.39		1.2	1.5	1.7	
1451	An-p'ing Kang .....	23° 00'	120° 09'	-0 09	+0 00	*0.43 *0.39		1.5	1.9	1.9	
1453	Ting-tou-o-shan .....	23° 06'	120° 04'	+0 45	+0 54	*0.54 *0.43		2.1	2.3	2.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	TAIWAN West Coast-cont. Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
								on PengHu (Ma-Kung Kang), p.108			
1455	Pu-tai Po-ti .....	23° 23'	120° 09'	-0 29	-0 25	*0.72	*0.72	4.2	5.0	3.7	
1457	Hai-kou Po-ti .....	23° 42'	120° 10'	+0 12	+0 15	+1.5	-0.2	7.8	9.4	5.7	
1459	Fang-yuan Po-ti .....	23° 55'	120° 18'	+0 12	+0 15	(*1.61-1.1)		9.8	11.8	7.1	
1461	T'u-ko-k'u Kang .....	24° 11'	120° 29'	+0 02	+0 06	(*1.67-1.3)		10.2	12.4	7.2	
1463	Ta-an Kang .....	24° 23'	120° 34'	-0 06	-0 03	(*2.00-1.5)		12.0	15.0	8.7	
1465	Hou-lung Po-ti .....	24° 37'	120° 45'	-0 05	-0 01	(*1.85-1.2)		11.3	14.3	8.2	
1467	Tan-shui Kang .....	25° 11'	121° 26'	-0 14	-0 10	+0.9	0.0	7.0	8.8	5.5	
	P'ENG-HU CH'UN-TAO (Pescadores Islands)										
1469	Ch'i-mei Yu .....	23° 13'	119° 25'	+0 07	+0 11	(*0.62+0.5)		3.8	4.5	3.7	
1471	Pa-chao Yu .....	23° 22'	119° 31'	-0 04	+0 00	*0.72	*0.72	4.2	4.9	3.7	
1473	Tung-p'an Hsu .....	23° 31'	119° 31'	+0 06	+0 10	+0.1	+0.1	6.1	7.1	5.2	
1475	PENGHU (MA-KUNG KANG) .....	23° 33'	119° 34'			Daily predictions		6.1	7.1	5.1	
1477	Pei-liao .....	23° 36'	119° 40'	-0 01	+0 03	+1.1	+0.1				
1479	Hsiao-men Hsu, Niu-kung Wan .....	23° 39'	119° 31'	+0 21	+0 24	*1.31	*1.20	7.1	8.9	5.7	
1481	Chi-pei Tao .....	23° 44'	119° 36'	+0 13	+0 16	*1.30	*1.10	8.3	10.1	6.4	
	CHINA East Coast							on Xiamen, p.100			
1483	Shizhen (Zhongwai Yu) .....	24° 33'	118° 30'	-0 55	-0 42	(*0.99+0.0)		12.5	15.7	10.8	
1485	Wutongdao .....	24° 32'	118° 11'	-0 04	-0 03	(*1.03-0.3)		12.8	15.7	10.8	
1487	Dadan Dao [Amoy, outer harbor] .....	24° 23'	118° 10'	-0 04	+0 02	(*0.99-0.3)		12.5	15.1	10.8	
1489	XIAMEN [Amoy, inner harbor] .....	24° 27'	118° 04'			Daily predictions		12.5	15.7	10.8	
1491	Qianyan [Knob Rock] .....	23° 55'	117° 52'	+0 07	+0 12	(*0.80-1.0)		11.5	11.8	7.9	
								on Shantou, p.104			
1493	Nanao Dao (Yunao Wan) .....	23° 24'	117° 03'	-0 46	-0 34	(*1.17-0.3)		5.3	5.9	4.9	
1495	SHANTOU (MAYU) [Swatow, Double Island] .....	23° 20'	116° 45'			Daily predictions		4.3	4.9	4.6	
1497	Dahao .....	23° 15'	116° 55'	-0 11	+0 21	(*0.74-0.3)		3.3	4.3	3.0	
1499	Biaojiao .....	23° 15'	116° 45'	+0 09	-0 05	(*1.04+0.0)		4.6	5.6	4.6	
1501	Dahao Dock .....	23° 15'	116° 45'	+0 15	-0 19	(*0.87-0.3)		3.9	4.9	3.6	
1503	Haimen Wan .....	23° 11'	116° 37'	+0 26	-0 27	(*0.73+0.3)		3.3	4.3	3.6	
	South Coast										
1505	Shibeshan Jiao .....	22° 56'	116° 29'	-0 09	-0 26	(*0.74-0.3)		3.3	3.9	3.0	
								on Hong Kong, p.120			
1507	Mirs Bay										
1509	Peng Chau .....	22° 33'	114° 26'	+0 03	-0 04	-0.6	-0.3	3.0	5.3	4.0	
1511	Jones Cove .....	22° 28'	114° 20'	-0 27	-0 16	-0.4	-0.1	3.0	4.9	4.2	
1513	Tide Cove .....	22° 24'	114° 12'	-0 12	-0 15	-0.2	+0.1	3.0	5.3	4.4	
	Port Shelter										
1515	Hong Kong Island										
1517	Taitam Bay .....	22° 14'	114° 14'	-0 07	-0 07	-0.6	-0.1	2.8	4.6	4.1	
1519	Aberdeen Harbor .....	22° 15'	114° 09'	-0 04	-0 01	-0.6	-0.1	2.8	4.6	4.1	
	HONG KONG										
1521	Canton River approach										
1523	Wen Wei Rock .....	21° 49'	113° 56'	+0 08	+0 21	(*0.88-1.0)		2.2	4.5	3.0	
1525	Wai-ling-ting .....	22° 06'	114° 02'	+0 11	+0 01	-0.4	-0.3	3.2	5.0	4.1	
1527	Kapshui Mun .....	22° 21'	114° 03'	+0 16	+0 06	+0.5	+0.4	3.4	5.8	4.9	
1529	West Brother .....	22° 20'	113° 58'	+0 53	+0 52	+0.7	+0.3	3.7	5.9	5.0	
	Macao Harbor										
1531	Zhu Jiang							on Huangpu, p.116			
1533	Sishengwei .....	22° 55'	113° 36'	-0 59	-1 07	(*1.01+0.3)		7.2	8.2	5.6	
1535	Sanshakou .....	22° 53'	113° 31'	-0 49	-0 51	(*0.97+0.7)		6.9	7.9	5.6	
1537	Nizhotou .....	22° 54'	113° 34'	-0 35	-0 56	(*1.03+0.7)		7.2	8.2	6.2	
1539	Haixin .....	22° 58'	113° 32'	-0 46	-0 54	(*0.99+0.7)		7.2	8.2	5.9	
1541	Dasheng .....	23° 03'	113° 32'	-0 14	-0 20	(*0.96+0.3)		6.9	7.5	5.3	
1543	Chisha (Lighthouse) .....	23° 03'	113° 30'	+0 07	-0 27	(*1.00+0.0)		6.9	7.9	5.3	
1545	HUANGPU										
	Bazhou .....	23° 06'	113° 27'	+0 43	+0 49	+3.3	+3.0	3.6	5.5	7.6	
								on Haikou, p.124			
1547	Leizhou Bandao										
1549	Chikanzi (Hongkan Wan) .....	20° 19'	110° 24'	+1 13	+0 05	(*0.79+0.3)		3.6	4.3	4.6	
	Haian .....	20° 16'	110° 13'	+0 04	+0 04	(*0.87+1.0)		4.3	5.6	5.6	
	Hainan Island										
1551	Hainan Dao North Coast										
1553	Dengmai Wan .....	19° 57'	110° 07'	-1 15	-0 25	(*1.32+0.3)		6.2	9.2	6.6	
1555	HAIKOU (XIUYING) .....	20° 01'	110° 16'			Daily predictions		4.6	6.6	4.9	
1557	Haikoushi [Hai-k'ou, Hoihow] .....	20° 03'	110° 20'	+0 52	+0 30	(*0.65+1.3)		3.3	4.3	4.6	
1559	Puqian .....	20° 02'	110° 34'	+2 05	+1 05	(*0.73+0.3)		3.6	4.3	4.3	
	Dongxicun .....	20° 02'	110° 37'	+2 30	+1 13	(*0.79-0.3)		3.9	4.3	3.9	

Endnotes can be found at the end of table 2.

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
		North	East	h m	h m	ft	ft	ft	ft	ft	
CHINA Hainan Island-cont. Time meridian, 120° E											
1561	Hainan Dao, West Coast Yinggehai .....	18° 30'	108° 43'	-5 30	-6 14	(*0.38-0.3)		3.6	4.9	2.3	
1563	South Coast Reizhou Bandao Kuwei Jiao .....	20° 13'	109° 56'	-1 51	-0 21	(*1.14+0.7)		5.6	7.9	6.2	
1565	Beibu Wan Weizhou Dao .....	21° 02'	109° 07'	-0 19	-0 07	(*0.91+0.3)	8.5	12.5	7.9		
1567	BEIHAII .....	21° 29'	109° 05'			Daily predictions	9.5	13.1	8.5		
1569	Off Beihai .....	21° 29'	108° 59'	-0 02	+0 04	(*1.11+0.3)	10.5	14.4	9.5		
1571	Dafeng Jiang .....	21° 38'	108° 52'	+0 15	+0 31	(*0.98-0.3)	9.2	13.1	7.9		
1573	Sanniang Wan .....	21° 38'	108° 47'	-0 10	-0 03	(*0.99+1.6)	9.2	13.1	10.2		
VIETNAM Time meridian, 105° E											
1575	Lochuc San { .....	21° 15'	107° 57'	-1 48	-1 41	(*0.74+0.5)	7.8	10.8	7.8		
1577	Cu Xu, Kao Tao { .....	20° 59'	107° 45'	-1 55	-1 11	(*0.68-0.3)	7.2	10.2	6.4		
1579	Tsieng Mun { .....	21° 08'	107° 37'	-1 40	-0 59	*0.68 *0.68	7.2	10.2	6.8		
1581	Cai Bau, Cai Bau Island { .....	21° 07'	107° 30'	+0 18	-1 32	+1.2 +0.9	6.8	10.8	7.1		
1583	Campha Port { .....	21° 02'	107° 22'	+0 06	-1 44	+1.1 +0.9	6.7	9.6	7.1		
1585	Norway Islands { .....	20° 37'	107° 09'	+0 05	-0 29	+0.1 +0.1	6.5	9.7	6.2		
1587	Hon Gai, Halong Bay { .....	20° 57'	107° 04'	+0 21	-0 09	+2.9 +1.7	7.7	11.4	8.4		
1589	Cat Ba, Isle de la Cat Ba { .....	20° 43'	107° 03'	+0 05	-0 24	(*0.97+0.7)	6.3	9.3	6.6		
1591	DO SON (Hon Dau) { .....	20° 40'	106° 49'			Daily predictions, p.132	6.5	9.7	6.1		
1593	Cua Namtrieu { .....	20° 46'	106° 50'	+0 00	+0 44	-0.1 -0.1	6.5	9.7	6.0		
1595	Haiphong, Cua Cam { .....	20° 52'	106° 40'	+1 11	+1 04	*0.97 *0.97	6.1	9.0	6.0		
1597	Bach Long Vi Island { .....	20° 08'	107° 43'	-0 23	-2 11	(*0.95+0.6)	6.2	9.2	6.4		
1599	Balat River entrance { .....	20° 18'	106° 32'	-0 47	+0 12	(*0.95+0.5)	6.2	9.2	6.3		
1601	Hon Ne { .....	19° 55'	106° 00'	-1 00	+0 07	+0.2 +0.2	6.5	9.3	6.5		
1603	Hon Me { .....	19° 23'	105° 55'	-1 05	+0 46	-0.1 -0.3	6.7	8.6	6.2		
1605	Hon Nieu { .....	18° 48'	105° 46'	-1 27	+1 00	*0.93 *0.93	6.1	7.8	6.0		
1607	Hoi River entrance { .....	18° 46'	105° 45'	-0 14	+1 45	*0.72 *0.69	4.8	6.4	4.8		
1609	Sot River entrance { .....	18° 28'	105° 55'	-1 14	+1 39	(*0.54+0.7)	3.5	4.5	4.0		
1611	Vung Chua Bay { .....	17° 56'	106° 30'	-1 12	+1 21	*0.39 *0.34	2.7	3.4	2.5		
1613	Nhat Le River entrance { .....	17° 30'	106° 37'	-1 12	+1 21	*0.32 *0.28	2.2	2.8	2.0		
on Manila, p.184											
1615	Paracel Islands <27> } .....	16° 33'	111° 37'	-1 20	-1 16	+2.1 +2.1	3.1	3.8	3.9		
1617	Chon May Bay <27> } .....	16° 20'	108° 01'	+0 29	-0 29	(*0.48+1.8)	1.6	2.0	2.5		
1619	Da Nang <27> } .....	16° 07'	108° 13'	-0 12	-0 57	(*0.70+1.9)	2.3	2.7	3.0		
1621	Culae Chan <27> } .....	15° 57'	108° 30'	-0 27	-0 36	(*0.85+2.2)	2.8	3.5	3.6		
1623	Dung Quat Bay <27> } .....	15° 24'	108° 45'	-0 38	-0 30	+2.2 +2.1	3.4	4.4	3.9		
1625	Tam Quan <27> } .....	14° 35'	109° 04'	-0 51	-0 31	+2.2 +2.2	3.2	4.3	4.0		
1627	Qui Nhon <27> } .....	13° 45'	109° 13'	-0 53	-0 29	+2.8 +2.5	3.6	4.5	4.3		
1629	Vung Xuan Dai <27> } .....	13° 23'	109° 16'	-0 54	-0 39	+2.3 +2.3	3.2	4.3	4.1		
1631	Vung Ro <27> } .....	12° 52'	109° 25'	-1 01	-0 42	+2.6 +2.5	3.4	4.6	4.3		
1633	Port Van <27> } .....	12° 40'	109° 23'	-1 03	-0 45	+2.6 +2.5	3.4	4.6	4.3		
1635	Nha Trang, Baie de <27> } .....	12° 15'	109° 13'	-1 15	-0 46	+2.7 +2.4	3.6	4.6	4.3		
1637	Cam Ranh Bay <27> } .....	11° 53'	109° 12'	-1 18	-0 53	+2.4 +1.9	3.8	4.8	4.1		
1639	Mui Dinh <27> } .....	11° 22'	109° 01'	-0 39	-0 30	+1.7 +1.4	3.6	4.8	3.3		
1641	Pointe Lagan <27> } .....	11° 10'	108° 42'	-0 50	-0 23	+5.3 +4.5	4.1	5.2	6.8		
1643	Poulo Cecir de Mer <27> } .....	10° 32'	108° 56'	-0 36	-0 24	+3.5 +3.4	3.4	4.2	5.3		
1645	Phan Thiet <27> } .....	10° 55'	108° 06'	+0 13	+0 14	+5.7 +4.7	4.3	5.8	7.0		
on Mui Vung Tau, p.136											
1647	Mui Ke Ga .....	10° 42'	107° 59'	-1 28	-1 27	(*0.59+2.5)	3.0	5.1	7.2		
1649	Mui Ba Kiem .....	10° 30'	107° 30'	-0 31	-0 31	(*0.85+0.8)	5.0	7.3	7.5		
1651	Saigon River MUI VUNG TAU .....	10° 20'	107° 05'			Daily predictions	5.9	8.6	7.9		
1653	Coral Bank .....	10° 37'	106° 51'	+0 51	+1 23	(*0.97+1.6)	5.6	8.3	9.3		
1655	Ho Chi Minh City <28> .....	10° 46'	106° 42'	+2 10	+2 39	-0.4 --	6.9	8.6	7.5		
1657	Nha Be River entrance .....	10° 23'	106° 48'	+0 28	+1 25	0.0 0.0	5.9	8.6	7.9		
1659	Cua Tieu entrance .....	10° 15'	106° 47'	+0 43	+0 42	(*1.10-0.3)	6.6	9.5	8.4		
1661	My Tho, Cua Tieu .....	10° 21'	106° 21'	+1 30	+2 49	-1.3 --	-- --	-- --	-- --		
1663	Hau Giang River entrance .....	9° 24'	106° 27'	+0 40	+1 00	0.0 0.0	5.9	8.6	7.9		
1665	Mac Bat, Hau Giang River .....	9° 43'	106° 09'	+1 30	+2 29	+0.9 --	-- --	-- --	-- --		
1667	Con Son .....	8° 41'	106° 36'	+0 33	+0 33	-0.4 -0.4	5.9	8.7	7.5		
1669	Cau Lon River entrance .....	8° 39'	104° 45'	-- --	-- --	-- --	-- --	-- --	-- 2.9	2.5	
1671	Pulau Panjang, Gulf of Siam .....	9° 18'	103° 28'	-- --	-- --	-- --	-- --	-- --	-- 1.0	1.5	
1673	Rai Island, Gulf of Siam .....	9° 50'	104° 40'	-- --	-- --	-- --	-- --	-- --	-- 2.1	3.0	
on Musi River, p.152											
1675	Ha Tien } <29> .....	10° 22'	104° 28'	-4 09	-4 16	*0.36	--	2.2	2.7	2.5	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Diurnal	Tropic		
				High Water	Low Water	High Water	Low Water				
	CAMBODIA Time meridian, 105° E	North	East	h m	h m	ft	ft	ft	ft	ft	
1677	Phumi Phsar Ream Bay { . . . . . }	10° 30'	103° 36'	+0 48	+1 03	(*0.26+0.9)		1.7	2.2	2.5	
1679	Cone Island <27> } . . . . .	11° 26'	103° 00'	-11 17	-9 54	+1.2	+1.2	3.2	4.5	3.0	
	THAILAND East Coast			on Do Son, p.132							
1681	Chong Samet } . . . . .	12° 35'	101° 26'	+0 43	-0 52	-2.8	-0.7	5.7	6.7	5.4	
1683	Sattahip } . . . . .	12° 39'	100° 55'	-0 10	-0 48	-1.5	+1.0	5.3	6.2	6.8	
1685	Chao Phraya River	13° 30.0'	100° 59.3'					7.8	9.1	7.7	
1687	BANGOK BAR } . . . . .	13° 32'	100° 35'	+0 04	Daily predictions	+0.54	(*0.90+0.8)	7.0	8.2	7.7	
1689	Entrance } . . . . .	13° 44'	100° 30'	+2 00	+2 00	*0.93	*0.88	7.4	8.6	7.0	
				on Bangkok Bar, p.140							
1691	Ko Lak { . . . . . }	11° 48'	99° 49'	-5 23	-1 14	*2.0	*2.0	3.8	4.9	6.2	
1693	Chumphon { . . . . . }	10° 27'	99° 15'	--	-1 42	*1.7	*1.7	3.2	3.9	3.5	
1695	Ko Prap { . . . . . }	9° 16'	99° 26'	-3 59	-3 34	*2.3	*2.3	4.4	5.5	5.7	
				on Chuuk, p.204							
1697	Lakon Roads	8° 33'	100° 03'	-0 59	-0 59	(*0.28+1.0)		1.6	1.9	2.5	
1699	Songkhla	7° 13'	100° 36'	-1 11	-1 13	(*0.26+1.8)		1.5	1.7	3.2	
	MALAYSIA Malaya Time meridian, 120° E			on Singapore, p.144							
1701	Trengganu } . . . . .	5° 21'	103° 08'	+2 41	+2 32	*0.84	*0.84	4.9	6.0	3.4	
				on Singapore, p.144							
1703	SINGAPORE (Tanjong Pagar) . . . . .	1° 15.7'	103° 51.1'					5.7	7.5	5.2	
1705	Pulau Bukum . . . . .	1° 14'	103° 46'	+0 01	Daily predictions	+0.13	+0.5	+0.1	6.1	8.1	5.6
1707	Malacca . . . . .	2° 11'	102° 15'	-3 10	-2 52	*0.74	*0.67	4.4	5.9	3.8	
1709	Port Kelang . . . . .	3° 00'	101° 23'	-5 38	-5 23	(*1.68-1.2)		9.6	13.6	7.6	
1711	Bagan Datoh . . . . .	4° 00'	100° 45'	-7 07	-6 44	+0.7	+0.6	5.8	7.8	5.9	
1713	Lumut, Dinding River . . . . .	4° 14'	100° 37'	-7 21	-7 17	-0.5	+0.4	4.8	7.7	5.2	
				on Belawan Channel, p.148							
1715	Pinang (Georgetown) . . . . .	5° 25'	100° 21'	-1 22	-1 07	+0.1	+0.3	4.3	6.2	5.1	
	THAILAND West Coast Time meridian, 105° E										
1717	Pulau Lela . . . . .	6° 44'	99° 42'	-2 34	-2 43	+2.2	+0.4	6.3	9.0	6.2	
1719	Puket Harbor . . . . .	7° 51'	98° 24'	-3 14	-2 57	+0.5	-0.8	5.8	8.5	4.7	
1721	Ao Kaulak . . . . .	8° 36'	98° 15'	-3 28	-3 24	+0.1	-0.6	5.2	7.2	4.6	
	INDONESIA			on Davao, p.176							
1723	Sumatra Island, Malacca Strait										
1725	Sabang Bay, Poelau We . . . . .	5° 53'	95° 19'	+4 00	+4 03	(*0.77+0.7)		3.3	4.7	2.6	
1727	Uleelheue . . . . .	5° 34'	95° 17'	+4 48	+4 50	(*0.70+1.5)		3.0	4.0	3.3	
1729	Sigli . . . . .	5° 23'	95° 58'	+4 23	+4 25	(*0.60+1.8)		2.6	3.9	3.3	
1731	Lhokseumawe . . . . .	5° 11'	97° 09'	+4 27	+4 29	(*0.79+1.3)		3.4	4.9	3.3	
1733	Idi . . . . .	4° 58'	97° 47'	+5 27	+5 29	(*0.79+1.3)		3.4	4.8	3.3	
	Langsa Bay . . . . .	4° 33'	98° 02'	+6 11	+6 13	(*0.98+1.9)		4.2	6.0	4.3	
				on Belawan Channel, p.148							
1735	Sembilan Channel, Aroe Bay . . . . .	4° 08'	98° 15'	-0 37	-0 37	+0.1	-0.1	4.7	6.6	4.9	
1737	BELAWAN CHANNEL . . . . .	3° 50'	98° 43'					4.5	6.2	4.9	
1739	Tanjong Tiram . . . . .	3° 14'	99° 35'	+1 56	+1 56	-0.3	-0.9	5.1	7.0	4.3	
				on Mergui, p.308							
1741	Asahan River entrance . . . . .	3° 01'	99° 52'	+5 40	+5 33	(*0.59+1.5)		7.3	10.2	6.9	
1743	Berembang, Sungi Panai . . . . .	2° 37'	100° 07'	+6 22	+6 14	(*0.69+0.9)		8.5	11.4	7.2	
1745	Labuhanbilik, Sungai Panai . . . . .	2° 31'	100° 10'	+6 45	+6 37	(*0.73+0.6)		9.0	12.4	7.2	
1747	Bagan-siapipi, Sungi Rokan . . . . .	2° 09'	100° 48'	+7 09	+7 02	-0.3	-0.2	12.3	17.3	8.9	
				on Ch'ang Chiang Approach, p.92							
1749	Bengkalis . . . . .	1° 28'	102° 06'	-2 22	-2 35	*0.60	*0.53	5.6	7.8	5.6	
1751	Siak River entrance . . . . .	1° 15'	105° 10'	-1 31	-1 44	*0.58	*0.57	5.1	7.2	5.6	
1753	Selat-pandjang . . . . .	1° 01'	102° 42'	+0 11	-0 02	(*0.86-2.1)		7.4	10.2	6.2	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	INDONESIA Time meridian, 105° E	North	East	h m	h m	ft	ft	ft	ft	ft	
				on Davao, p.176							
1755	Sumatra Island, Malacca Strait-cont. Balai Point, Gelam Strait .....	0° 59'	103° 26'	-7 33	-7 30	(*1.32+2.2)		5.8	8.1	5.6	
1757	Pulo Kenipaan, Gelam Strait .....	0° 55'	103° 20'	-7 17	-7 14	+3.9	+1.5	6.7	8.7	5.2	
1759	Bandung, Pulo Mendol .....	0° 32'	103° 18'	-6 50	-6 47	(*1.74+2.5)		7.5	10.5	6.9	
1761	Pulo Muda, Kampar River .....	0° 22'	102° 53'	-5 04	-5 02	(*2.14+1.5)		9.2	12.3	6.9	
				on Kamaisi, p.16							
1763	Bojan, Bulan Strait .....	1° 01'	103° 55'	-4 45	-4 48	*1.32	*1.32	4.4	5.4	3.6	
1765	Oeban Point, Bintan Island .....	1° 04'	104° 13'	-5 31	-5 33	*1.77	*1.44	6.3	6.9	4.9	
1767	Tandjungpinang, Bintan Island .....	0° 55'	104° 26'	-4 35	-4 37	*1.42	*1.67	4.6	5.5	3.9	
1769	Dendang, Kidjang Strait .....	0° 51'	104° 37'	-5 06	-5 09	*1.40	*1.67	4.5	5.5	4.1	
				on Hong Kong, p.120							
1771	Sungailantung .....	0° 18'	103° 36'	-9 00	-8.51	+1.6	-0.4	7.1	8.0	5.3	
		South	East	on Mui Vung Tau, p.136							
1773	Sumatra, East Coast Pulo Beralas, Berhalia Strait .....	0° 30'	104° 02'	-11 42	-11 42	(*0.93-0.7)		8.0	9.7	6.6	
1775	Kwala Ladja, Indragiri River .....	0° 24'	103° 34'	-10 25	-10 25	+0.7	+0.1	9.2	10.4	8.2	
1777	Tembilahan, Indragiri River .....	0° 19'	103° 14'	-8 42	-8 42	+3.3	+0.4	11.5	12.6	9.8	
1779	Kwala Niur .....	1° 00'	103° 49'	-10 50	-10 50	+0.4	+0.3	8.7	10.1	8.2	
				on Musi River, p.152							
1781	Tandjung Butun, Linga Island {	0° 15'	104° 36'	+0 38	-2 09	*0.69	*0.59	5.3	7.2	4.6	
1783	Kotadabok, Singkep Island }	0° 30'	104° 34'	-0 06	-1 42	(*0.73+0.2)		5.3	7.2	5.3	
1785	Pulo Berhalia, Berhalia Strait }	0° 52'	104° 24'	-2 49	-1 29	-1.0	-1.1	7.4	9.4	6.2	
1787	Chebia, Tudjuh Islands {	1° 13'	105° 16'	-0 22	-1 14	*0.75	*0.72	5.6	8.0	4.9	
1789	Sungai Merawang ent., Bangka Island {	2° 05'	106° 10'	-0 07	-1 50	*0.59	*0.59	4.2	6.3	3.9	
1791	Klabat Bay, Bangka Island {	1° 42'	105° 42'	+1 02	+0 03	*0.77	*0.69	5.9	8.4	4.9	
1793	Sungai Kampa, Bangka Island {	1° 45'	105° 24'	-0 04	-0 22	*0.90	*0.79	6.9	9.7	5.6	
1795	MUSI RIVER (outer bar) {	2° 14'	104° 56'	Daily predictions				7.3	10.0	6.2	
1797	Soengsang, Palembang River {	2° 22'	104° 54'	+0 42	+1 09	0.0	-0.2	7.5	10.2	6.2	
1799	Perajin, Palembang River {	2° 56'	104° 53'	+3 44	+4 17	*0.83	*0.83	6.1	8.3	5.3	
1801	Palembang, Palembang River {	2° 59'	104° 43'	+4 12	+4 56	*0.75	*0.66	5.7	7.8	4.6	
1803	Tandjung Kelian, Bangka Strait {	2° 05'	105° 07'	+0 03	+0 12	-0.2	-0.3	7.4	10.3	6.2	
1805	Muntok, Bangka Island {	2° 05'	105° 10'	-0 13	+0 09	0.0	-0.3	7.6	10.5	6.2	
1807	Nangka Island, Bangka Strait {	2° 23'	105° 46'	-0 12	+0 48	*1.12	*0.97	8.6	10.7	6.9	
1809	Besar Island, Bangka Strait {	2° 53'	106° 08'	-0 12	+0 19	*0.86	*0.86	5.8	8.1	5.9	
				on Surabaya Strait, p.160							
1811	Dapur Island, Banka Island {	3° 08'	106° 31'	+11 43	+14 02	+0.8	-0.1	4.6	6.3	3.9	
1813	Tjelaka, Liat Island {	2° 52'	107° 01'	+11 59	+13 00	+0.7	-0.4	4.8	6.9	3.6	
1815	Tulangbawang River entrance {	4° 25'	105° 51'	+11 39	+13 42	*0.85	*0.62	3.5	4.0	3.0	
	Time meridian, 120° E										
1817	Gaspar Strait Simedang Island {	3° 19'	107° 13'	+13 52	+14 09	+0.3	+0.3	3.7	5.3	3.9	
1819	Tandjungpandan, Belitung Island {	2° 45'	107° 38'	+13 01	+13 51	+2.1	+0.6	5.2	7.5	4.9	
1821	Langkuas Island {	2° 32'	107° 37'	+13 13	+13 26	+1.2	+0.4	4.5	6.7	4.3	
	Time meridian, 105° E										
1823	Sumatra, Sunda Strait Bangkai Anchorage, Sebuku Island .....	5° 52'	105° 31'	+1 45	+1 48	(*0.51+1.0)		2.2	3.0	2.3	
1825	Tulukbetung, Lampung Bay .....	5° 27'	105° 16'	+1 56	+1 58	(*0.53+1.3)		2.3	3.1	2.6	
				on Kutei River Ent., p.164							
1827	Kotaagung, Semangka Bay .....	5° 30'	104° 37'	+1 20	+1 21	*0.54	*0.54	2.3	3.2	2.6	
	Sumatra, West Coast										
1829	Enggano Bay, Enggano Island .....	5° 28'	102° 22'	+0 23	+0 23	*0.49	*0.49	2.2	2.8	2.3	
1831	Benkul .....	3° 47'	102° 15'	+1 02	+1 02	*0.49	*0.49	2.3	3.1	2.3	
1833	Sawangtungku, North Pagai Island .....	2° 47'	100° 13'	+0 20	+0 21	*0.49	*0.49	2.3	3.0	2.3	
1835	Siberut Bay, Siberut Island .....	1° 35'	99° 13'	+0 19	+0 19	*0.49	*0.49	2.2	2.8	2.3	
1837	Padang .....	0° 58'	100° 21'	+0 23	+0 23	*0.52	*0.45	2.6	3.4	2.3	
1839	Telo Island, Batoe Islands .....	0° 04'	98° 17'	+0 02	+0 02	(*0.38+0.6)		1.8	2.6	2.3	
		North	East								
1841	Ajerbangis .....	0° 12'	99° 22'	-0 08	-0 08	*0.48	*0.48	2.0	2.8	2.3	
1843	Natal .....	0° 33'	99° 06'	+0 20	+0 21	*0.48	*0.48	2.0	2.8	2.3	
1845	Telukdalem, Nias Island .....	0° 34'	97° 49'	-0 02	-0 02	(*0.34+0.7)		1.6	2.1	2.3	
1847	Simanari Bay, Nias Island .....	1° 24'	97° 11'	+0 06	+0 06	(*0.32+0.8)		1.5	2.2	2.3	
1849	Sibolga, Sibolga Bay .....	1° 45'	98° 46'	+0 06	+0 06	(*0.26+1.1)		1.2	1.7	2.3	
1851	Barus .....	2° 01'	98° 23'	+0 08	+0 09	(*0.40+0.5)		1.9	2.7	2.3	
1853	Singkil .....	2° 17'	97° 47'	+0 39	+0 39	(*0.34+0.7)		1.6	2.3	2.3	
1855	Sinabang Bay, Pulo Simalur .....	2° 30'	96° 23'	+0 08	+0 09	*0.26	*0.26	1.0	1.4	1.3	
1857	Tapaktuan .....	3° 15'	97° 11'	+0 52	+0 52	*0.23	*0.14	1.3	1.8	1.0	
1859	Meulaboh .....	4° 08'	96° 08'	+1 12	+1 12	*0.20	*0.20	0.8	1.2	1.0	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	INDONESIA Time meridian, 105° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Kutei River Ent., p.164											
1861	Sumatra, West Coast-cont. Tjalang Bay .....	4° 37'	95° 35'	+1 53	+1 54	*0.22	*0.18	1.1	1.6	1.0	
1863	Pulau Raja .....	4° 52'	95° 23'	---	---	---	---	0.4	0.6	0.7	
1865	Pulau Rusa .....	5° 17'	95° 12'	+2 50	+2 50	*0.26	*0.18	1.4	1.9	1.1	
on Djakarta, p.156											
1867	Java DJAKARTA (Tandjungpriok) {	6° 06'	106° 53'	Daily predictions				2.0	2.6	2.0	
1869	Tjirebon .....	6° 43'	108° 34'	---	---	---	---	1.9	2.0	2.0	
1871	Semarang {	6° 58'	110° 25'	+10 44	+9 15	(*0.85+0.3)	---	1.7	2.2	2.0	
on Surabaja Strait, p.160											
1873	Rembang {	6° 42'	111° 20'	+0 31	-0 10	*0.66	*0.62	2.5	3.7	2.3	
1875	Udjung Pangah {	6° 54'	112° 34'	-0 14	+0 38	(*0.92+0.3)	3.4	4.9	3.5		
1877	SURABAJA STRAIT (Djamuang Reef) {	6° 56'	112° 44'	Daily predictions				3.7	5.3	3.6	
1879	Sembilangan, Surabaja Strait {	7° 03'	112° 41'	+1 39	-0 58	+0.5	+0.3	3.9	5.1	3.9	
on Hong Kong, p.120											
1881	Surabaja, Surabaja Strait .....	7° 13'	112° 44'	+1 55	+2 04	+0.6	+0.3	5.8	6.7	4.9	
1883	Surabaja Strait, east entrance .....	7° 20'	112° 52'	+1 34	+1 43	+1.0	-0.2	6.6	7.4	4.9	
1885	Pasuruan, Madura Strait .....	7° 38'	112° 55'	+1 31	+1 40	+1.5	+0.2	6.7	7.4	5.3	
1887	Gading, Madura Island .....	7° 12'	112° 55'	+1 39	+1 49	+1.0	-0.2	6.7	7.3	4.9	
1889	Kaliangket, Madura Island .....	7° 03'	113° 56'	+0 25	+0 34	0.0	+0.2	5.1	5.9	4.6	
on Manila, p.184											
1891	Sapudi Island, Sapudi Strait } .....	7° 05'	114° 16'	-0 01	-0 23	+2.1	+1.5	3.9	4.8	3.6	
1893	Pulau Karangmas, Madura Strait } .....	7° 41'	114° 26'	-0 22	-0 43	+1.8	+1.3	3.8	4.7	3.3	
1895	Tabuan Island, Bali Strait } .....	8° 02'	114° 28'	-0 45	-1 00	(*0.88+2.9)	---	2.9	3.6	4.3	
on Belawan Channel, p.148											
1897	Banjuwangi, Bali Strait .....	8° 13'	114° 23'	-4 19	-4 19	(*0.80+1.3)	3.6	4.9	5.2		
1899	Tjilatjap .....	7° 44'	109° 00'	-5 25	-5 25	*0.76 *0.65	3.7	5.0	3.6		
1901	Genteng Bay .....	7° 24'	106° 24'	-5 53	-5 54	(*0.60+0.4)	2.7	3.7	3.3		
1903	Labuhan, Sunda Strait .....	6° 22'	105° 49'	-6 22	-6 22	*0.49 *0.38	2.5	3.2	2.3		
1905	Tandjung Tjikoneng, Sunda Strait .....	6° 04'	105° 53'	-6 33	-6 33	(*0.40-0.7)	1.8	2.4	1.3		
Time meridian, 120° E											
1907	Bali Benoa .....	8° 45'	115° 13'	-3 36	-3 37	-0.2	-0.9	5.2	7.0	4.3	
on Hong Kong, p.120											
1909	Buleleng .....	8° 06'	115° 05'	+2 10	+2 20	-1.7	-0.7	2.3	3.0	3.3	
Time meridian, 105° E											
1911	Lombok Ampenan } .....	8° 34'	116° 04'	-0 55	-0 51	(*0.85+2.2)	2.8	3.6	3.6		
1913	Labuan, Tring Bay } .....	8° 43'	116° 03'	-0 35	-1 06	+2.0 +1.2	3.8	4.7	3.6		
Time meridian, 120° E											
1915	Sumbawa Bima Bay .....	8° 27'	118° 43'	+2 05	+1 52	(*0.41+0.7)	2.5	3.1	3.0		
1917	Sape Bay .....	8° 34'	119° 02'	+1 32	+1 19	(*0.57+0.7)	3.5	4.5	3.9		
on Belawan Channel, p.148											
1919	Sumba Sendikari Bay .....	9° 46'	119° 37'	-3 52	-3 52	+1.4	-0.8	6.7	9.4	5.2	
1921	Nangmesi Bay .....	9° 38'	120° 15'	-3 12	-3 12	+1.1	-0.4	6.0	8.3	5.2	
Flores Island											
1923	Tuluk Perapat .....	8° 47'	119° 50'	-3 05	-3 06	+2.3	+0.4	6.4	8.4	6.2	
1925	Ende Bay .....	8° 47'	121° 24'	-3 17	-3 17	+1.9	+0.2	6.2	8.6	5.9	
Alor Island											
1927	Kalabahi .....	8° 14'	124° 31'	-1 40	-1 40	-0.3	-0.9	5.1	6.7	4.3	
Timor											
1929	Kupang Bay .....	10° 10'	123° 34'	-3 05	-3 05	*0.75 *0.73	3.4	4.8	3.6		
1931	Atapupu .....	9° 00'	124° 52'	-2 31	-2 31	*0.90 *0.85	4.2	5.8	4.3		
Time meridian, 135° E											
1933	Tanimbar Islands Ritabel Bay, Larat Island .....	7° 09'	131° 43'	+0 49	+0 49	*0.90 *0.85	4.2	5.2	4.3		
1935	Moluccas Islands Dobo, Wamar Island, Aru Islands .....	5° 45'	134° 13'	+0 23	+0 23	*0.90 *0.81	4.3	5.4	4.3		

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	INDONESIA Time meridian, 135° E	South	East	h m	h m	ft	ft	ft	ft	ft	
on Shatt Al Arab, p.336											
1937	Moluccas Islands-cont. Naira, Banda Islands .....	4° 32'	129° 53'	+3 13	+3 03	(*0.67+0.5)		4.1	5.3	4.3	
1939	Ambon Bay, Ambon Island .....	3° 41'	128° 11'	+3 20	+3 08	(*0.56+0.4)		3.4	4.4	3.6	
1941	Namlea, Kajeli Bay, Buru Island .....	3° 16'	127° 06'	+2 58	+2 46	(*0.39+1.4)		2.4	3.1	3.6	
on Shantou, p.104											
1943	Taniwel, Seram Island .....	2° 51'	128° 28'	+0 44	+1 17	*0.64	*0.61	2.2	3.0	3.6	
1945	Sanana, Sula Sanana, Sula Islands .....	2° 03'	125° 59'	+1 11	+1 43	*0.64	*0.61	2.2	2.8	3.6	
on Belawan Channel, p.148											
1947	Galela Bay, Halmahera Island .....	1° 49'	127° 51'	-7 04	-7 04	(*0.67+0.3)		3.0	4.3	3.6	
on Kutei River Ent., p.164											
1949	Ternate, Halmahera Island .....	0° 47'	127° 23'	+0 13	+0 13	(*0.47+0.8)		2.2	3.3	3.0	
1951	Taruna Bay, Sangi Island .....	3° 37'	125° 29'	+0 16	+0 16	*0.84	*0.84	3.9	5.7	3.9	
on Surabaja Strait, p.160											
1953	Celebes (Sulawesi) Makasar { .....	South	East	-1 37	+0 24	(*0.59+0.5)		2.2	3.0	2.6	
		5° 09'	119° 24'	on Shatt Al Arab, p.336				Diurnal Tropic		Mean Spring	
1955	Kolaka, Gulf of Boni .....	4° 04'	121° 36'	+2 09	+1 57	*0.67	*0.70	4.0	4.9	3.9	
1957	Tampunawu, Muna Island .....	5° 13'	122° 18'	+2 14	+2 02	(*0.67+0.8)		4.1	5.0	4.6	
1959	Baubau, Buton Island .....	5° 28'	122° 37'	+2 10	+1 58	*0.66	*0.66	3.8	4.7	3.9	
1961	Lasolo Bay .....	3° 43'	122° 19'	+2 52	+2 40	(*0.57+0.6)		3.5	4.5	3.9	
on Shantou, p.104											
1963	Lingkobu .....	2° 04'	121° 32'	-1 18	-0 45	-2.1	-2.2	3.4	4.3	3.6	
1965	Teluk Lamala, Peling Strait .....	0° 54'	123° 09'	-0 08	+0 24	*0.58	*0.56	2.0	2.7	3.3	
on Kutei River Ent., p.164											
1967	Poso .....	1° 22'	120° 45'	-1 56	-1 55	(*0.45+0.5)		2.1	3.0	2.6	
on Jolo, p.172											
1969	Gorontalo River entrance } .....	0° 30'	123° 03'	---	---	--	--	2.9	--	2.6	
on Kutei River Ent., p.164											
1971	Lembeh Strait .....	1° 27'	125° 12'	-0 48	-0 48	*0.58	*0.50	2.9	4.2	2.6	
1973	Manado .....	1° 30'	124° 50'	-0 23	-0 22	*0.87	*0.82	4.2	6.1	3.9	
1975	Tolitoli Bay .....	1° 02'	120° 49'	-0 37	-0 36	(*0.72+0.6)		3.4	5.2	3.9	
on Kutei River Ent., p.164											
1977	Donggala .....	0° 40'	119° 44'	-0 37	-0 36	*0.84	*0.84	3.9	5.8	3.9	
on Kutei River Ent., p.164											
Borneo, East Coast											
1979	Bakipit, Darvel Bay .....	4° 57'	118° 35'	-0 21	-0 21	*0.75	*0.64	3.8	5.4	3.3	
1981	Lahad Datu, Darvel Bay .....	5° 02'	118° 20'	-0 27	-0 37	*0.74	*0.59	3.8	5.0	3.2	
1983	Semporna, Darvel Bay .....	4° 29'	118° 37'	-0 28	-0 19	*0.74	*0.59	3.8	5.2	3.2	
1985	Tawau .....	4° 15'	117° 53'	+0 02	-0 26	+0.9	-0.1	5.7	8.0	5.0	
1987	Lingkas, Tarakan Island .....	3° 17'	117° 35'	-0 49	-0 48	+1.9	+0.1	6.5	9.3	5.6	
1989	Biwan Mouth, Kajan River .....	2° 55'	117° 42'	+0 01	+0 02	*1.29	*1.29	6.0	8.7	5.9	
1991	Tandjungselor, Kahan River .....	2° 49'	117° 22'	+2 11	+2 11	*0.46	*0.36	2.4	3.4	2.0	
1993	Kasseimouth, Berau River .....	2° 10'	117° 52'	-0 06	-0 05	*1.30	*1.23	6.3	9.1	5.9	
1995	Haji Bank, Beraoe River .....	2° 11'	117° 32'	+1 30	+2 14	0.0	-0.6	5.3	7.4	4.3	
1997	Miang Besar, Sangkulirang Bay .....	0° 45'	118° 00'	-0 39	-0 39	*0.86	*0.86	4.0	5.8	3.9	
1999	Sangkulirang, Sangkulirang River .....	0° 59'	117° 59'	-0 17	-0 16	-0.2	-1.1	5.6	8.4	3.9	
on Kutei River Ent., p.164											
2001	KUTEI RIVER ENTRANCE .....	0° 42'	117° 30'	Daily predictions				4.7	6.8	4.6	
2003	Samarinda, Kutei River .....	0° 30'	117° 08'	+1 18	+1 18	(*0.68+1.2)		3.2	4.6	4.3	
2005	Balik Papan .....	1° 16'	116° 48'	-0 43	-0 43	+0.3	-0.2	5.2	7.9	4.6	
2007	Tanahgrogot, Pasir River .....	1° 55'	116° 12'	+0 55	+0 55	+0.4	-0.3	5.4	7.8	4.6	
2009	Aru Bank .....	2° 15'	116° 40'	-0 49	-0 48	(*0.32+0.5)		1.5	2.3	2.0	
2011	Pamukan Bay .....	2° 36'	116° 30'	-0 38	-0 37	+0.1	-0.1	4.9	7.1	4.6	
2013	Klumpeng Bay .....	3° 01'	116° 13'	-1 10	-1 09	*0.99	*0.99	4.4	6.7	4.6	
2015	Kampung Baru, Laut Strait .....	3° 25'	116° 01'	-0 19	-0 18	(*0.72+1.0)		3.4	5.1	4.3	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time	Height	High Water	Low Water	Diurnal	Tropic	
	INDONESIA Time meridian, 120° E	South	East	h m	h m	ft	ft	ft	ft	ft
on Barito River, p.168										
2017	Borneo, South Coast BARITO RIVER (outer bar) {	3° 34'	114° 29'			Daily predictions		5.9	7.5	4.3
2019	Banjermasin, Martapura River }	3° 20'	114° 36'	+1 17	+1 14	(*0.93+0.3)		5.5	7.0	4.3
2021	Pangkoh, Kahajan River }	3° 04'	114° 10'	+1 29	+1 59	(*0.95+0.8)		5.6	6.9	4.9
2023	Pegatan, Mendawai River }	3° 17'	113° 21'	+0 05	+0 29	+0.5	+0.1	6.3	7.8	4.3
2025	Sampit Bay }	3° 00'	113° 03'	+0 16	+0 57	+0.8	+0.1	6.6	8.0	4.6
2027	Pembuang River entrance }	3° 25'	112° 34'	+0 17	+0 25	(*0.64+1.5)		3.8	4.8	4.3
on Jolo, p.172										
2029	Sungai Aru Tobal, Kumai Bay }	3° 10'	111° 48'	-0 03	-0 03	+1.4	+1.0	3.2	4.0	2.3
2031	Lurah, Kota Waringin River entrance }	2° 54'	111° 26'	-0 30	-0 30	+2.5	+2.2	3.1	3.8	3.3
2033	Djelai River entrance }	2° 59'	110° 44'	-0 04	-0 04	(*0.57+1.0)		1.6	1.9	1.6
on Jakarta, p.156										
2035	Borneo, West Coast Pawan River entrance	1° 46'	109° 54'	-0 02	-0 46	(*2.20-0.8)		4.4	6.2	3.6
2037	Sukadana, Sukadana Bay {	1° 14'	109° 57'	-0 31	-0 21	(*2.30-0.7)		4.6	6.4	3.9
on Musi River, p.152										
2039	Pontianak, Little Kapuas River {	0° 01'	109° 20'	-0 20	-0 09	(*0.38+0.2)		2.8	3.8	2.6
on North East										
2041	Kapuas-ketjil River entrance	0° 05'	109° 08'	-1 07	-0 34	*0.48	*0.45	3.6	4.9	3.0
on Cebu, p.180										
2043	Pamangkat, Sambas-besar River	1° 11'	108° 59'	+5 45	+5 43	(*0.55+0.7)		1.8	2.1	2.0
on Darvin, p.276										
MALAYSIA Sarawak and Sabah										
Borneo, northwest coast										
2045	Tandjung Datu	2° 05'	109° 39'	-1 42	-1 47	*0.41	*0.30	6.2	7.2	5.2
2047	Kuching, Sarawak River	1° 34'	110° 21'	-1 18	-0 56	*0.72	*0.72	9.7	12.1	9.9
2049	Pulau Lakei	1° 45'	110° 30'	-1 52	-1 53	*0.71	*0.86	8.6	11.1	10.2
on Manila, p.184										
Diurnal Tropic										
2051	Kuala Similajau {	3° 31'	113° 18'	-0 19	+0 18	+2.2	+1.8	3.7	5.0	3.8
2053	Kuala Niah {	3° 58'	113° 42'	+0 18	+1 03	+2.1	+1.7	3.7	5.1	3.7
2055	Miri }	4° 23'	113° 59'	+0 27	+1 09	+2.1	+1.8	3.6	4.8	3.7
2057	Baram River entrance }	4° 35'	113° 59'	+0 08	+0 29	+1.4	+1.4	3.2	4.2	3.1
2059	Sapo Point, Brunei Bay }	5° 00'	115° 08'	+0 50	+0 30	+3.6	+2.0	4.9	6.0	4.6
2061	Sipitang, Brunei Bay }	5° 05'	115° 33'	+0 22	+0 24	+3.4	+2.0	4.7	5.8	4.5
2063	Victoria Harbor, Labuan Island }	5° 16'	115° 15'	+0 26	+0 19	+3.9	+2.6	4.6	5.8	5.0
2065	Kuala Papar, Kimanis Bay }	5° 45'	115° 54'	-0 09	-0 03	+2.1	+1.5	3.9	4.9	3.5
2067	Kota Kinabalu }	5° 59'	116° 04'	+0 19	+0 17	+2.4	+1.6	4.1	5.2	3.7
2069	Kudat, Marudu Bay }	6° 53'	116° 51'	+0 21	+0 00	+2.9	+1.7	4.5	5.6	4.0
on Manila, p.184										
Mean Diurnal										
2071	Tigabu Island	6° 53'	117° 29'	-0 13	-0 15	(*0.94+1.7)		2.8	4.8	3.9
2073	Lankayan Island	6° 30'	117° 55'	-0 18	-0 19	(*0.90+1.9)		2.8	4.6	4.0
2075	Sandakan	5° 50'	118° 07'	-0 01	-0 20	+1.2	+1.2	3.1	5.1	3.6
PHILIPPINE ISLANDS Sulu Islands										
on Cebu, p.180										
on Davao, p.176										
2077	Tumindao Channel	4° 47'	119° 25'	+0 06	+0 14	*0.70	*0.70	3.1	3.8	1.7
2079	Port Bongao, Tawitawi Island	5° 02'	119° 46'	+0 07	+0 16	*0.74	*0.74	3.3	4.2	1.8
2081	Batu Batu Bay, Tawitawi Island	5° 04'	119° 53'	+0 05	-0 08	*0.80	*0.80	3.4	4.4	2.0
2083	Baranar Island	5° 02'	120° 06'	+0 15	-0 15	+0.4	-0.1	4.8	5.6	2.6
2085	Gallo Malo Channel, south entrance	5° 08'	120° 14'	+0 26	+0 27	+0.7	-0.1	5.1	5.9	2.7
2087	Tandugan Channel, Tawitawi Island	5° 13'	120° 19'	+0 25	+0 20	+0.80	*0.80	3.4	4.4	2.0
2089	South Ubian Island	5° 12'	120° 30'	-0 34	-0 17	*0.61	*0.61	2.6	3.4	1.5
2091	Maimbung, Jolo Island	5° 55'	121° 01'	-0 08	+0 45	*0.72	*0.72	3.2	3.9	1.7
on Jolo, p.172										
2093	Tataan Pass, Tawitawi Island }	5° 15'	119° 57'	-0 31	-0 31	*0.86	*0.86	--	2.4	1.0
2095	Basbas Channel, Tawitawi Island }	5° 21'	120° 13'	-0 39	-0 39	*0.89	*0.89	--	2.5	1.2
2097	Lahatlahat Island }	5° 39'	120° 17'	-0 33	-0 33	*0.93	*0.93	--	2.6	1.3
2099	Pearl Bank }	5° 51'	119° 44'	+1 12	+1 12	+0.6	0.0	--	3.4	1.7
2101	Pangutaran Island }	6° 15'	120° 30'	+1 25	+1 25	+0.7	0.0	--	3.5	1.7
2103	Port Siasi, Siasi Island }	5° 33'	120° 49'	-1 33	-1 33	+1.3	0.0	--	4.1	2.0
2105	Banting, Tapul Island }	5° 42'	120° 53'	-1 29	-0 58	+0.3	0.0	--	3.1	1.3
2107	JOLO, Jolo Island }	6° 04'	121° 00'			Daily predictions		--	2.8	0.9
2109	Tulayan Island }	6° 01'	121° 19'	-1 55	-1 55	*0.86	*0.86	--	2.4	1.0
2111	Dassalan Island }	6° 44'	121° 28'	+0 20	+0 20	+0.5	0.0	--	3.3	1.6

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TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Diurnal		
				High Water	Low Water	High Water	Low Water				
	PHILIPPINE ISLANDS Sulu Islands-cont. Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Davao, p.176											
2113	Capual Island .....	6° 01'	121° 25'	-0 15	+0 24	*0.89	*0.89	3.9	4.9	2.2	
2115	Simisa Island .....	5° 58'	121° 34'	-0 02	-0 01	*0.78	*0.78	3.5	4.2	1.9	
2117	Bulan Island .....	6° 09'	121° 50'	-0 07	+0 04	*0.91	*0.91	4.0	4.7	2.2	
2119	Linawan Island .....	6° 19'	121° 56'	-0 29	-0 12	*0.78	*0.78	3.5	4.1	1.9	
2121	Balas, Basilan Island .....	6° 41'	122° 08'	+0 13	+0 20	*0.83	*0.83	3.6	4.3	2.0	
2123	Bojelebung, Basilan Island .....	6° 31'	122° 12'	+0 11	-0 17	+0.2	0.0	4.5	5.2	2.5	
2125	Amoylo, Basilan Island .....	6° 26'	122° 08'	-0 08	+0 52	+0.9	-0.2	5.4	6.2	2.8	
on Jolo, p.172											
2127	Port Holland, Basilan Island } .....	6° 33'	121° 52'	-1 49	-1 49	+0.2	0.0	--	3.0	1.3	
2129	Isabela, Basilan Island } .....	6° 42'	121° 58'	+0 01	+0 01	*0.79	*0.79	--	2.2	1.1	
Mindanao Island											
2131	Zamboanga } .....	6° 54'	122° 04'	-1 54	-1 54	+0.5	0.0	--	3.3	1.4	
on Cebu, p.180											
2133	Sibuco Bay .....	7° 19'	122° 04'	-0 40	-0 40	*0.76	*0.76	2.5	4.0	1.8	
2135	Panabutan Bay .....	7° 35'	122° 08'	-0 40	-0 40	*0.76	*0.76	2.5	4.1	1.8	
2137	Port Santa Maria .....	7° 46'	122° 07'	-0 40	-0 40	*0.76	*0.76	2.5	4.2	1.8	
2139	Dapitan .....	8° 40'	123° 25'	-0 40	-0 40	*0.79	*0.79	2.6	4.4	1.9	
2141	Murcielagos .....	8° 38'	123° 34'	-0 08	-0 13	*0.85	*0.85	2.8	4.2	2.0	
2143	Plaridel (Langaran) .....	8° 37'	123° 43'	-0 25	-0 25	*0.79	*0.79	2.6	4.1	1.9	
<i>Iligan Bay</i>											
2145	Oroquieta .....	8° 29'	123° 48'	-0 15	-0 15	*0.82	*0.82	2.7	4.0	1.8	
2147	Jiminez .....	8° 20'	123° 51'	-0 05	-0 05	*0.82	*0.82	2.7	4.1	1.8	
2149	Misamis .....	8° 09'	123° 51'	+0 00	-0 04	*0.88	*0.88	2.9	4.4	2.0	
2151	Iligan .....	8° 14'	124° 14'	-0 10	-0 10	*0.79	*0.79	2.6	4.2	2.0	
2153	Macabalan Pt., Macajalar Bay .....	8° 30'	124° 40'	-0 15	-0 15	*0.82	*0.82	2.7	4.2	1.8	
2155	Canauyon Anchorage .....	9° 00'	124° 51'	-0 15	-0 15	*0.79	*0.79	2.6	4.1	1.8	
2157	Mambajao, Camiguin Island .....	9° 15'	124° 43'	-0 15	-0 15	*0.76	*0.76	2.5	4.1	1.8	
2159	Nasipit Harbor, Butuan Bay .....	8° 59'	125° 20'	-0 13	-0 21	*0.82	*0.71	2.8	4.1	1.9	
2161	Agusan River ent., Butuan Bay .....	9° 00'	125° 31'	-0 09	-0 13	*0.72	*0.57	2.5	3.8	1.6	
on Manila, p.184											
2163	Surigao } .....	9° 48'	125° 29'	+0 45	+0 45	+0.1	0.0	--	3.4	1.7	
2165	Dinagat, Dinagat Island } .....	9° 58'	125° 35'	+0 20	+0 20	+0.1	0.0	--	3.4	1.7	
2167	Melgar, Dinagat Island } .....	10° 04'	125° 31'	+0 00	+0 00	+0.1	0.0	--	3.4	1.7	
2169	San Roque, Dinagat Island } .....	10° 06'	125° 29'	-0 20	-0 20	+0.2	0.0	--	3.5	1.8	
on Legaspi Port, p.192											
2171	Malinao Inlet, Dinagat Island .....	10° 15'	125° 38'	+0 40	+0 40	*0.88	*0.88	3.2	4.0	2.2	
2173	Gaas Bay, Dinagat Island .....	10° 11'	125° 39'	+0 40	+0 40	*0.88	*0.88	3.2	4.0	2.2	
2175	Cuyomongan, Talavera Island .....	9° 45'	125° 41'	+0 40	+0 40	+0.1	+0.1	3.8	4.6	2.5	
2177	Tayanan, Kangbangyo Island .....	9° 54'	125° 54'	+0 35	+0 35	-0.1	0.0	3.7	4.4	2.4	
2179	Port Pilar, Siargao Island .....	9° 52'	126° 06'	+0 25	+0 25	*0.86	*0.86	3.2	4.0	2.1	
2181	San Miguel, East Bugas Island .....	9° 44'	126° 02'	+0 30	+0 30	*0.88	*0.88	3.2	4.1	2.2	
2183	Sohutan Bay, Bucas Grande Island .....	9° 36'	125° 55'	+0 30	+0 30	+0.1	+0.1	3.8	4.6	2.5	
2185	Tugas Point .....	9° 29'	125° 57'	+0 20	+0 20	+0.1	+0.1	3.8	4.6	2.5	
2187	Dahikan Bay .....	9° 27'	125° 56'	+0 27	+0 22	+0.2	+0.2	3.8	4.7	2.6	
2189	Buenavista, General Island .....	9° 25'	126° 00'	+0 20	+0 20	+0.1	+0.1	3.8	4.6	2.5	
2191	Tandag .....	9° 05'	126° 12'	+0 15	+0 15	+0.2	+0.1	3.9	4.7	2.6	
2193	Hinatuan .....	8° 22'	126° 20'	+0 15	+0 15	+0.3	+0.1	4.0	4.9	2.6	
2195	Caraga Bay .....	7° 17'	126° 35'	+0 10	+0 10	+0.4	+0.1	4.1	5.0	2.6	
2197	Mati, Pujada Bay .....	6° 57'	126° 13'	+0 10	+0 10	+0.2	0.0	4.0	4.8	2.5	
on Davao, p.176											
2199	<i>Davao Gulf</i>	6° 18'	126° 11'	+0 04	+0 04	-0.1	+0.1	4.1	4.9	2.4	
2201	Lavigan Anchorage .....	6° 38'	126° 04'	+0 04	+0 05	0.0	+0.1	4.2	5.0	2.5	
2203	DÁVAO	7° 05'	125° 38'	Daily predictions				4.3	5.1	2.5	
2205	Malalag .....	6° 36'	125° 25'	+0 04	+0 04	-0.1	+0.1	4.1	4.9	2.4	
2207	Malita .....	6° 25'	125° 37'	-0 04	-0 06	0.0	+0.2	4.1	5.1	2.5	
2209	Sarangani Island .....	5° 25'	125° 27'	-0 01	+0 06	0.0	0.0	4.3	5.2	2.4	
2211	Sarangani Bay .....	5° 50'	125° 12'	+0 03	+0 06	+0.2	0.0	4.5	5.3	2.5	
2213	Port Lebak .....	6° 32'	124° 03'	+0 07	+0 10	+0.7	0.0	5.0	5.8	2.8	
2215	Cotabato, Mindanao River .....	7° 13'	124° 15'	+1 01	+1 42	*0.67	*0.67	3.0	3.5	1.6	
2217	<i>Illana Bay</i>	7° 21'	124° 13'	+0 14	+0 14	+0.4	-0.1	4.8	5.6	2.6	
2219	Polloc Harbor .....	7° 38'	124° 01'	+0 14	+0 14	+0.5	0.0	4.8	5.6	2.7	
2221	Port Baras .....	7° 51'	123° 35'	+0 19	+0 19	+0.5	0.0	4.8	5.6	2.7	
2223	Pagadian .....	7° 49'	123° 27'	+0 19	+0 19	+0.6	0.0	4.9	5.7	2.8	
2225	Port Sambuluan .....	7° 32'	123° 24'	+0 19	+0 19	+0.5	0.0	4.8	5.6	2.7	
2227	Limbug Cove .....	7° 28'	123° 24'	+0 19	+0 19	+0.4	0.0	4.7	5.5	2.6	
2229	Maligay Bay .....	7° 32'	123° 15'	+0 19	+0 19	+0.5	0.0	4.8	5.6	2.7	
2231	Margosatubig, Dumanquillas Bay .....	7° 35'	123° 10'	+0 11	+0 15	+0.2	-0.1	4.6	5.3	2.5	
2233	Port Sibulan .....	7° 26'	122° 53'	+0 19	+0 19	+0.6	0.0	4.9	5.8	2.8	
2235	Taba Bay, Sibuguey Bay .....	7° 35'	122° 47'	+0 24	+0 24	+0.8	0.0	5.1	6.0	2.8	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Diurnal		
				High Water	Low Water	High Water	Low Water				
	PHILIPPINE ISLANDS Mindanao Island-cont. Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Davao, p.176											
2237	Ticauan Point, Sibuguey Bay .....	7° 45'	122° 44'	+0 24	+0 24	+0.9	0.0	5.2	6.1	2.9	
2239	Port Banga, Sibuguey Bay .....	7° 31'	122° 25'	+0 24	+0 24	+0.7	0.0	5.0	5.9	2.8	
2241	Landang, Sacol Island .....	6° 57'	122° 15'	+0 17	+0 20	-0.7	-0.2	3.8	4.6	2.0	
on Manila, p.184											
2243	Balabac, Balabac Island } .....	8° 00'	117° 04'	+0 10	+0 10	+1.0	0.0	--	4.3	2.1	
2245	Secam Island, N. Balabac Strait }	8° 11'	117° 01'	+0 10	+0 10	+0.7	0.0	--	4.0	2.0	
2247	Tagbita Bay }	8° 42'	117° 20'	-0 24	+0 17	+0.5	0.0	--	3.8	1.9	
2249	Eran Bay }	9° 05'	117° 42'	+0 05	+0 05	+0.7	0.0	--	4.0	2.0	
2251	Ulugan Bay }	10° 06'	118° 47'	-0 05	-0 05	+0.7	0.0	--	4.0	2.0	
2253	Port Barton }	10° 28'	119° 08'	-0 10	-0 10	+0.7	0.0	--	4.0	2.0	
2255	Boayan Island }	10° 34'	119° 11'	-0 05	+0 01	+0.4	0.0	--	3.7	1.8	
2257	Bolalo Bay, Malampaya Sound }	10° 56'	119° 14'	-0 07	-0 14	0.0	0.0	--	3.3	1.6	
2259	Alligator Bay, Malampaya Sound }	10° 52'	119° 17'	-0 04	+0 02	+0.2	0.0	--	3.5	1.8	
2261	Bacuit }	11° 11'	119° 23'	+0 20	-0 29	*0.97	*0.97	--	3.2	1.6	
2263	Northwest Bay, Linapacan Island }	11° 28'	119° 46'	-0 05	-0 05	+0.8	0.0	--	4.1	2.0	
2265	San Nicolas, Linapacan Island }	11° 27'	119° 49'	-0 05	-0 05	+0.9	0.0	--	4.2	2.1	
2267	San Miguel, Linapacan Island }	11° 30'	119° 52'	+0 10	+0 10	+1.1	0.0	--	4.4	2.2	
2269	Batas Island }	11° 10'	119° 36'	+0 10	+0 10	+1.3	0.0	--	4.6	2.3	
2271	Taytay }	10° 50'	119° 31'	+0 15	+0 15	+1.3	0.0	--	4.6	2.3	
2273	Paly Island }	10° 42'	119° 42'	+0 15	+0 15	+1.3	0.0	--	4.6	2.3	
2275	Araceli, Dumaran Island }	10° 33'	119° 59'	+0 15	+0 15	+1.3	0.0	--	4.6	2.3	
2277	Tinitian, Green Island Bay }	10° 04'	119° 12'	+0 40	+0 40	+1.1	0.0	--	4.4	2.2	
2279	Puerto Princesa }	9° 44'	118° 43'	+0 05	+0 05	+1.1	0.0	--	4.4	2.2	
2281	Island Bay }	9° 06'	118° 07'	+0 15	+0 15	+0.8	0.0	--	4.1	2.0	
2283	Sir J. Brooke Point }	8° 46'	117° 50'	+0 10	+0 10	+0.9	0.0	--	4.2	2.1	
2285	Cuyo, Cuyo Island }	10° 51'	121° 00'	+0 05	+0 05	+1.2	0.0	--	4.5	2.2	
2287	Halsey Harbor, Culion Island }	11° 47'	119° 58'	+0 05	+0 05	+0.7	0.0	--	4.0	2.0	
2289	Culion, Culion Island }	11° 53'	120° 01'	+0 05	+0 05	+1.2	0.0	--	4.5	2.2	
2291	Coron, Busuanga Island }	12° 01'	120° 12'	+0 10	+0 10	+1.2	0.0	--	4.5	2.2	
2293	Apo Island, Mindoro Strait }	12° 40'	120° 24'	-0 05	-0 05	+0.3	0.0	--	3.6	1.8	
on Cebu, p.180											
2295	Cagayan Anchorage, Cagayan Island .....	9° 35'	121° 14'	-0 29	-0 37	*0.80	*0.80	2.6	4.0	1.9	
2297	Cagayan Sulu Island .....	6° 59'	118° 32'	-3 00	-3 00	*0.80	*0.80	2.7	4.2	2.1	
Panay and Guimaras Islands											
2299	Aniniy .....	10° 26'	121° 55'	-0 25	-0 25	*0.95	*0.95	3.0	4.9	2.3	
2301	San Jose .....	10° 44'	121° 56'	-0 30	-0 30	*0.88	*0.88	2.7	4.6	2.1	
2303	Tibiao .....	11° 17'	122° 02'	-0 35	-0 35	+0.3	+0.1	3.5	5.4	2.5	
2305	Borocay Island .....	11° 57'	121° 56'	-0 25	-0 25	+0.3	0.0	3.6	5.3	2.5	
2307	Aclan River entrance .....	11° 44'	122° 22'	-0 05	-0 05	+0.3	0.0	3.6	5.3	2.5	
2309	Port Batan .....	11° 36'	122° 30'	+0 00	+0 00	+0.4	0.0	3.7	5.4	2.5	
2311	Libas (Capiz Landing) .....	11° 36'	122° 43'	+0 00	+0 00	+0.4	+0.1	3.6	5.4	2.6	
2313	Estancia .....	11° 28'	123° 09'	+0 15	+0 15	+1.8	+0.2	4.9	6.9	3.4	
2315	Concepcion .....	11° 13'	123° 06'	+0 15	+0 15	+1.9	+0.2	5.0	7.0	3.4	
2317	Banate .....	11° 00'	122° 49'	+0 25	+0 25	+2.0	+0.2	5.1	7.1	3.4	
2319	Navalas, Guimaras Island .....	10° 44'	122° 41'	+0 15	+0 15	+1.3	+0.2	4.4	6.4	3.1	
2321	Inampuligan I., Guimaras Island .....	10° 27'	122° 43'	-0 10	-0 10	0.0	0.0	3.3	5.1	2.3	
2323	Lugmaya Point, Guimaras Island .....	10° 25'	122° 32'	-0 20	-0 20	*0.85	*0.85	2.7	4.5	2.0	
2325	Liloilo .....	10° 42'	122° 34'	+0 05	+0 05	+0.3	+0.1	3.5	5.4	2.6	
2327	Miagao .....	10° 38'	122° 14'	-0 20	-0 20	*0.88	*0.88	2.7	4.6	2.2	
Negros Island											
2329	Cadiz .....	10° 57'	123° 19'	+0 30	+0 30	+1.6	+0.1	4.8	6.6	3.2	
2331	Himuga River entrance .....	10° 57'	123° 24'	+0 25	+0 25	+1.3	+0.1	4.5	6.3	3.0	
2333	Danao River entrance .....	10° 49'	123° 33'	+0 15	+0 15	+0.7	0.0	4.0	5.8	2.7	
2335	San Carlos .....	10° 29'	123° 25'	+0 15	+0 15	+0.8	0.0	4.1	5.8	2.7	
2337	Calagcalag Bay .....	9° 49'	123° 08'	+0 10	+0 10	+0.4	0.0	3.7	5.4	2.6	
2339	Bais .....	9° 36'	123° 08'	+0 10	+0 10	+0.3	0.0	3.6	5.3	2.5	
2341	Dumaguete .....	9° 18'	123° 18'	-0 25	-0 25	*0.92	*0.71	3.2	4.8	2.1	
2343	Larena, Siquijor Island .....	9° 15'	123° 35'	-0 25	-0 25	*0.80	*0.71	2.7	4.2	1.8	
2345	Port Bonbonon .....	9° 03'	123° 07'	-0 30	-0 30	*0.88	*0.71	3.0	4.5	2.0	
2347	Campomanes Bay .....	9° 42'	122° 25'	-0 30	-0 30	*0.90	*0.71	3.1	4.5	2.0	
2349	Himamaylan .....	10° 06'	122° 52'	-0 30	-0 30	0.0	0.0	3.3	5.0	2.3	
2351	Bacolod .....	10° 40'	122° 57'	+0 10	+0 10	+1.0	+0.1	4.2	6.1	2.9	
Cebu Island											
2353	Moalboal .....	9° 56'	123° 24'	+0 10	+0 10	+0.4	0.0	3.7	5.5	2.6	
2355	Barili Bay .....	10° 07'	123° 29'	+0 10	+0 10	+0.4	0.0	3.7	5.5	2.6	
2357	Balamban Bay .....	10° 30'	123° 43'	+0 10	+0 10	+0.6	0.0	3.9	5.7	2.6	
2359	Tuburan .....	10° 44'	123° 49'	+0 15	+0 15	+0.7	+0.1	3.9	5.8	2.7	
2361	Medellin .....	11° 08'	123° 58'	+0 20	+0 20	+0.9	0.0	4.2	6.0	2.8	
2363	Bantayan, Bantayan Island .....	11° 10'	123° 43'	+0 20	+0 20	+0.9	0.0	4.2	6.0	2.8	
2365	Bogo Bay .....	11° 04'	124° 00'	+0 20	+0 20	+0.4	0.0	3.7	5.4	2.6	
2367	Carmen .....	10° 35'	124° 01'	+0 10	+0 10	+0.3	0.0	3.6	5.3	2.5	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Diurnal		
				High Water	Low Water	High Water	Low Water				
	PHILIPPINE ISLANDS Cebu Island-cont. Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Cebu, p.180											
2369	CEBU, Fort San Pedro .....	10° 18'	123° 54'	-0 05	Daily predictions	3.3	5.1	2.3			
2371	Carcar Bay .....	10° 05'	123° 39'	-0 05	-0.05	3.3	5.0	2.3			
2373	Boljoon .....	9° 38'	123° 29'	-0 15	-0.15	*0.91	*0.91	3.0	4.5	2.1	
Bohol Island											
2375	Maribojoc .....	9° 44'	123° 50'	-0 15	-0 15	*0.91	*0.91	3.0	4.6	2.1	
2377	Tubigon .....	9° 57'	123° 58'	-0 10	-0 10	0.0	0.0	3.3	5.1	2.3	
2379	Ubay .....	10° 04'	124° 28'	+0 00	+0 00	+0.1	0.0	3.4	5.1	2.4	
2381	Cogton Bay .....	9° 50'	124° 31'	-0 15	-0 15	*0.76	*0.76	2.5	4.0	1.8	
2383	Garcia Hernandez .....	9° 37'	124° 18'	-0 20	-0 20	*0.79	*0.79	2.6	4.1	1.8	
Leyte Island											
2385	Liloan, Sogod Bay .....	10° 09'	125° 07'	-0 40	-0 40	*0.76	*0.76	2.5	4.1	1.8	
2387	Maasin .....	10° 08'	124° 50'	-0 15	-0 15	*0.91	*0.91	3.0	4.6	2.1	
2389	Baybay .....	10° 41'	124° 48'	+0 00	+0 00	+0.6	0.0	3.9	5.6	2.6	
2391	Ormoc .....	11° 00'	124° 36'	+0 05	+0 05	+0.6	0.0	3.9	5.6	2.6	
2393	Palompon .....	11° 03'	124° 23'	+0 10	+0 10	+0.5	0.0	3.8	5.6	2.6	
2395	Genuruan Island, Biliran Island .....	11° 42'	124° 21'	+0 05	+0 05	+0.5	0.0	3.8	5.5	2.6	
2397	Poro Island, Biliran Strait .....	11° 28'	124° 29'	+0 10	+0 10	+0.5	0.0	3.8	5.5	2.6	
2399	Carigara .....	11° 18'	124° 41'	+0 15	+0 15	+0.2	0.0	3.5	5.2	2.4	
2401	Canauay Island, Janabatas Channel .....	11° 26'	124° 51'	+0 15	+0 15	*0.97	*0.97	3.2	4.8	2.2	
2403	Santa Rita I., San Juanico Strait .....	11° 26'	124° 58'	+0 24	+0 06	*0.88	*0.88	2.9	4.3	2.0	
2405	Uban Point, San Juanico Strait .....	11° 22'	124° 59'	-1 10	-1 10	*0.67	*0.67	2.2	3.6	1.5	
on Jolo, p.172											
2407	Tacloban, San Juanico Strait } .....	11° 15'	125° 00'	-1 25	-1 25	*0.82	*0.82	--	2.3	0.9	
2409	Abuyog } .....	10° 45'	125° 01'	-1 40	-1 40	*0.79	*0.79	--	2.2	0.8	
2411	Hinunangan } .....	10° 24'	125° 12'	-0 20	-0 20	*0.82	*0.82	--	2.3	0.9	
Samar Island											
2413	Talalora .....	11° 32'	124° 50'	+0 15	+0 15	-0.1	-0.2	3.4	4.9	2.2	
2415	Parasan Harbor, Daram Island .....	11° 42'	124° 45'	+0 10	+0 10	+0.2	-0.2	3.7	5.2	2.4	
2417	Catbalogan .....	11° 47'	124° 53'	+0 10	+0 10	+0.2	-0.2	3.7	5.2	2.4	
2419	Santo Nino, Santo Nino Island .....	11° 56'	124° 27'	+0 05	+0 05	0.0	-0.2	3.5	4.8	2.2	
2421	Caibayog .....	12° 04'	124° 35'	+0 05	+0 05	*0.82	*0.82	2.7	4.1	1.8	
on Manila, p.184											
2423	Mauo } .....	12° 26'	124° 19'	+0 25	+0 25	*0.73	*0.73	--	2.4	1.2	
on Davao, p.176											
2425	Biri Island .....	12° 39'	124° 22'	-0 20	-0 08	*0.46	*0.46	2.0	2.4	1.1	
2427	Talisay Island .....	12° 39'	124° 25'	+0 13	+0 15	*0.58	*0.58	2.5	2.9	1.5	
on Legaspi Port, p.192											
2429	Catarman River entrance .....	12° 31'	124° 39'	+0 24	+0 21	*0.93	*0.93	3.6	4.2	2.2	
2431	Laoang, Laoang Island .....	12° 34'	125° 01'	+0 23	+0 20	+0.1	0.0	3.9	4.6	2.4	
2433	Helm Harbor, Gamay Bay .....	12° 18'	125° 21'	+0 15	+0 18	+0.3	0.0	4.1	4.8	2.5	
2435	Hilaban Island .....	12° 02'	125° 34'	+0 13	+0 16	+0.1	+0.1	3.8	4.7	2.5	
2437	Andis Island, Port Borongan .....	11° 39'	125° 29'	+0 17	+0 20	+0.3	+0.1	4.0	4.9	2.6	
2439	Matarinao Bay .....	11° 14'	125° 35'	+0 19	+0 18	+0.4	+0.1	4.1	5.0	2.6	
2441	Guiuan .....	11° 02'	125° 43'	+0 30	+0 01	*0.51	*0.51	2.1	2.6	1.1	
Masbate Island											
2443	Port Cataingan .....	12° 00'	124° 00'	+0 00	+0 00	-0.1	-0.2	3.4	4.6	2.2	
2445	Nin Bay .....	12° 14'	123° 17'	+0 00	+0 00	+0.3	0.0	3.6	5.3	2.5	
2447	Port Barrera .....	12° 30'	123° 22'	+0 05	+0 05	+0.3	0.0	3.6	5.3	2.5	
2449	Masbate .....	12° 22'	123° 37'	+0 00	+0 00	+0.3	0.0	3.6	5.3	2.5	
2451	Dimasalang, Naro Bay .....	12° 12'	123° 51'	+0 00	+0 00	+0.1	-0.1	3.5	5.0	2.4	
Ticao and Burias Islands											
2453	Port San Miguel, Ticao Island .....	12° 40'	123° 35'	+0 00	+0 00	+0.3	0.0	3.6	5.3	2.5	
2455	San Jacinto, Ticao Island .....	12° 34'	123° 44'	+0 00	+0 00	*0.95	*0.95	3.2	4.6	2.2	
2457	Batuan Bay, Ticao Island .....	12° 25'	123° 47'	+0 10	+0 10	*0.80	*0.80	2.6	3.9	1.9	
2459	Port Boca Engano, Burias Island .....	12° 47'	123° 19'	+0 05	+0 05	+0.4	0.0	3.7	5.3	2.6	
2461	San Pascual, Burias Island .....	13° 08'	122° 59'	+0 00	+0 00	+0.7	+0.1	3.9	5.6	2.8	
Romblon and Vicinity											
2463	Cangouac Point, Sibuyan Island .....	12° 30'	122° 30'	-0 25	-0 25	+0.7	+0.1	3.9	5.8	2.7	
2465	Romblon, Romblon Island .....	12° 35'	122° 16'	-0 05	-0 05	+0.5	+0.1	3.7	5.5	2.6	
2467	Guimbiran, Tablas Island .....	12° 25'	122° 02'	+0 00	+0 00	+0.7	+0.1	3.9	5.6	2.8	
2469	Looc, Tablas Island .....	12° 16'	122° 00'	-0 07	-0 08	+0.3	+0.1	3.5	5.2	2.5	
2471	Port Concepcion, Maestre de Campo I. ....	12° 55'	121° 44'	-0 10	-0 10	+0.1	+0.1	3.3	5.1	2.4	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Diurnal		
				High Water	Low Water	High Water	Low Water				
	PHILIPPINE ISLANDS Marinduque Island Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Cebu, p.180											
2473	Port Balañacan . . . . .	13° 32'	121° 52'	-0 10	-0 10	*0.95	*0.95	3.0	4.9	2.3	
2475	Santa Cruz Harbor . . . . .	13° 30'	122° 04'	+0 00	+0 00	*0.98	*0.98	3.1	5.0	2.4	
2477	Torrijos . . . . .	13° 19'	122° 05'	-0 05	-0 05	+0.1	+0.1	3.3	5.2	2.4	
Mindoro Island											
2479	Port Galera . . . . .	13° 31'	120° 58'	-0 30	-0 30	*0.75	*0.75	2.2	4.0	1.9	
2481	Calapan Bay . . . . .	13° 26'	121° 11'	-0 20	-0 20	*0.90	*0.90	2.8	4.7	2.2	
2483	Mansalay . . . . .	12° 31'	121° 26'	-0 10	-0 10	+0.1	+0.1	3.3	5.1	2.4	
on Manila, p.184											
2485	Mangarin } . . . . .	12° 21'	121° 06'	+0 05	+0 05	+0.4	0.0	--	3.7	1.8	
2487	Sablayan } . . . . .	12° 50'	120° 46'	-0 05	-0 05	+0.3	0.0	--	3.6	1.8	
2489	Paluan } . . . . .	13° 25'	120° 28'	-0 10	-0 10	+0.3	0.0	--	3.6	1.8	
2491	Port Tilig, Lubang Island }	13° 49'	120° 12'	-0 10	-0 10	+0.2	0.0	--	3.5	1.7	
Luzon Island, West Coast											
2493	Anilao, Balayan Bay }	13° 46'	120° 55'	+0 14	+0 20	+0.4	0.0	--	3.7	1.7	
2495	Corregidor Island, Manila Bay }	14° 23'	120° 36'	-0 10	-0 10	0.0	0.0	--	3.3	1.6	
2497	Cavite, Manila Bay } . . . . .	14° 29'	120° 55'	+0 14	+0 13	*0.97	*0.97	--	3.2	1.6	
2499	MANILA, Pasig River entrance }	14° 35'	120° 58'	<i>Daily predictions</i>				--	3.3	1.6	
2501	Olongapo, Subic Bay }	14° 49'	120° 17'	-0 04	+0 03	*0.91	*0.91	--	3.0	1.5	
2503	Port Silanguin }	14° 46'	120° 07'	-0 20	-0 20	*0.91	*0.91	--	3.0	1.5	
2505	Port Masinloc }	15° 31'	119° 55'	-0 31	-0 34	*0.85	*0.85	--	2.8	1.4	
2507	Santa Cruz }	15° 46'	119° 54'	-0 41	-0 42	*0.82	*0.82	--	2.7	1.3	
on San Fernando Harbor, p.188											
2509	Bolinao, Lingayen Gulf { . . . . .	16° 24'	119° 54'	+0 07	-0 51	+0.3	0.0	--	2.5	1.2	
2511	Sual, Lingayen Gulf { . . . . .	16° 04'	120° 06'	+0 17	-0 47	+0.3	0.0	--	2.5	1.2	
2513	Santo Tomas, Lingayen Gulf { . . . . .	16° 17'	120° 23'	+0 11	-0 47	+0.3	0.0	--	2.5	1.2	
2515	SAN FERNANDO HARBOR { . . . . .	16° 37'	120° 18'	<i>Daily predictions</i>				--	2.2	1.1	
2517	Solvec Cove { . . . . .	17° 27'	120° 27'	-0 35	-1 09	+0.1	0.0	--	2.3	1.1	
2519	Salomague { . . . . .	17° 47'	120° 25'	-1 18	-1 34	*0.91	*0.91	--	2.0	1.0	
2521	Laoag River entrance { . . . . .	18° 13'	120° 31'	-1 30	-1 46	*0.86	*0.86	--	1.9	0.9	
2523	Nagabungan Bay { . . . . .	18° 29'	120° 34'	-1 32	+4 13	*0.91	*0.91	--	2.0	1.0	
on Legaspi Port, p.192											
2525	Claveria Bay . . . . .	18° 37'	121° 06'	+1 25	+1 05	*0.37	*0.37	1.5	2.1	0.8	
2527	Aparri, Cagayan River . . . . .	18° 21'	121° 38'	+0 34	+0 44	*0.71	*0.71	2.7	3.5	1.7	
2529	Camalaniugan, Cagayan River . . . . .	18° 17'	121° 40'	+0 44	+0 53	*0.74	*0.74	2.8	3.6	1.8	
2531	Port San Vicente . . . . .	18° 31'	122° 08'	-0 03	-0 07	*0.79	*0.79	2.9	3.6	1.9	
2533	Port San Pio Quinto, Camiguin Island . . . . .	18° 54'	121° 52'	+0 34	+0 32	*0.70	*0.70	2.7	3.2	1.6	
2535	Musa Bay, Fuga Island . . . . .	18° 52'	121° 17'	+0 47	+0 44	*0.47	*0.47	1.8	2.3	1.0	
2537	Calayan Island . . . . .	19° 16'	121° 30'	+0 05	-0 01	*0.71	*0.71	2.7	3.4	1.5	
2539	Babuyan Island . . . . .	19° 34'	121° 56'	+0 16	+0 08	*0.79	*0.79	3.2	3.8	1.8	
2541	Basco, Batan Island . . . . .	20° 27'	121° 58'	+0 55	+1 06	*0.53	*0.53	2.0	2.5	1.3	
on Legaspi Port, p.192											
2543	Patunungan Bay . . . . .	18° 24'	122° 18'	+0 05	+0 01	*0.84	*0.84	3.2	3.9	2.0	
2545	Divilacan Bay . . . . .	17° 25'	122° 14'	-0 26	-0 29	*0.84	*0.84	3.2	3.8	2.0	
2547	Port Bicobian . . . . .	17° 17'	122° 25'	+0 35	+0 26	*0.88	*0.88	3.4	4.0	2.1	
2549	Diapitan Bay . . . . .	16° 24'	122° 13'	+0 18	+0 14	*0.87	*0.87	3.3	4.0	2.1	
2551	Casiguran Bay . . . . .	16° 14'	122° 08'	+0 06	+0 02	-0.1	-0.1	3.7	4.4	2.3	
2553	Baler Bay . . . . .	15° 45'	121° 35'	+0 12	+0 16	-0.1	0.0	3.7	4.4	2.3	
2555	Umiray River ent., Dingalan Bay . . . . .	15° 12'	121° 26'	+0 12	+0 10	-0.2	-0.1	3.7	4.3	2.2	
2557	Hook Bay, Polillo Island . . . . .	14° 57'	121° 50'	+0 10	+0 13	0.0	0.0	3.8	4.5	2.4	
2559	Burdeos Bay, Polillo Island . . . . .	14° 54'	121° 58'	+0 22	+0 20	0.0	-0.1	3.9	4.5	2.3	
2561	Polillo, Polillo Island . . . . .	14° 43'	121° 56'	+0 10	+0 06	+0.3	0.0	4.1	4.8	2.5	
Lamon Bay											
2563	Port Lampon . . . . .	14° 40'	121° 37'	+0 23	+0 20	+0.4	0.0	4.2	4.9	2.6	
2565	Sangirin Bay . . . . .	14° 12'	121° 55'	+0 22	+0 16	+0.7	0.0	4.5	5.2	2.7	
2567	Atimonan . . . . .	14° 00'	121° 55'	+0 24	+0 19	+0.7	0.0	4.5	5.2	2.7	
2569	Apat Bay . . . . .	14° 01'	122° 19'	+0 25	+0 20	+0.7	0.0	4.5	5.2	2.7	
2571	Capalonga . . . . .	14° 20'	122° 29'	+0 19	+0 12	+0.3	0.0	4.1	4.9	2.5	
2573	Port Jose Panganiban . . . . .	14° 18'	122° 41'	+0 21	+0 17	+0.4	0.0	4.2	4.9	2.6	
2575	Guintuna Island, Calagua Islands . . . . .	14° 25'	122° 56'	+0 08	+0 11	+0.3	0.0	4.1	4.9	2.5	
2577	Mercedes . . . . .	14° 07'	123° 01'	+0 26	+0 24	+0.2	0.0	4.0	4.8	2.5	
2579	Cabgan Island, San Miguel Bay . . . . .	13° 46'	123° 16'	+0 25	+0 26	+1.4	+0.2	5.0	5.9	3.2	
2581	Sisiran Bay . . . . .	13° 56'	123° 39'	+0 23	+0 27	+0.2	0.0	4.0	4.8	2.5	
2583	Tabgon Bay . . . . .	13° 50'	123° 49'	+0 21	+0 23	+0.3	+0.1	4.0	4.8	2.6	
2585	Hitorna, Catanduanes Island . . . . .	13° 47'	124° 08'	+0 18	+0 19	+0.2	0.0	4.0	4.8	2.5	
2587	Port Anajao, Catanduanes Island . . . . .	13° 57'	124° 20'	+0 13	+0 14	+0.1	0.0	3.9	4.7	2.4	
2589	Virac, Catanduanes Island . . . . .	13° 35'	124° 14'	+0 25	+0 15	+0.4	0.0	4.2	5.0	2.6	
2591	Tabaco, Tabaco Bay . . . . .	13° 22'	123° 44'	+0 07	+0 05	+0.1	0.0	3.9	4.7	2.4	
2593	Batan Island . . . . .	13° 14'	124° 03'	+0 04	+0 03	+0.1	-0.1	4.0	4.7	2.4	
2595	LEGASPI PORT, Albay Gulf . . . . .	13° 09'	123° 45'	<i>Daily predictions</i>				3.8	4.6	2.4	
2597	Gubat . . . . .	12° 55'	124° 08'	-0 04	+0 02	-0.1	0.0	3.7	4.5	2.3	
2599	San Bernardino Island . . . . .	12° 45'	124° 17'	-0 12	+0 00	+0.72	+0.72	2.6	3.4	1.8	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Diurnal		
				High Water	Low Water	High Water	Low Water				
	PHILIPPINE ISLANDS Luzon Island, South Coast Time meridian, 120° E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Cebu, p.180											
2601	Butag Bay .....	12° 37'	123° 56'	+0 00	+0 00	*0.82	*0.82	2.7	3.9	1.9	
2603	Bagatao Island .....	12° 50'	123° 48'	+0 05	+0 05	+0.1	0.0	3.4	5.0	2.4	
2605	Sorsogon .....	12° 58'	124° 00'	+0 30	+0 30	*0.88	*0.88	3.0	4.1	2.0	
2607	Pasacao, Ragay Gulf .....	13° 30'	123° 02'	+0 00	+0 00	+0.2	0.0	3.5	5.2	2.4	
2609	Guinayangan, Ragay Gulf .....	13° 54'	122° 27'	+0 15	+0 15	+0.6	+0.1	3.8	5.7	2.7	
2611	Port Pusgo .....	13° 31'	122° 36'	+0 00	+0 00	+0.7	0.0	4.0	5.5	2.7	
2613	Aguasa Bay .....	13° 17'	122° 31'	+0 00	+0 00	+0.2	+0.1	3.4	5.3	2.5	
2615	Catanauan .....	13° 36'	122° 19'	+0 00	+0 00	+0.1	+0.1	3.3	5.2	2.4	
2617	Pitogo .....	13° 47'	122° 05'	+0 00	+0 00	*0.92	*0.92	2.9	4.8	2.2	
2619	Tayabas River entrance .....	13° 54'	121° 36'	+0 05	+0 05	*0.95	*0.95	3.0	4.8	2.3	
on Guam, p.196											
2621	Pagan Island .....	18° 08'	145° 46'	+0 05	+0 01	*0.94	*0.94	1.3	1.9	1.5	
2623	Tanapag Harbor, Saipan Island .....	15° 13.6'	145° 44.2'	+0 21	+0 15	*0.92	*1.00	1.46	2.20	1.34	
2625	Saipan Harbor, Saipan Island .....	15° 12'	145° 43'	+0 02	+0 07	*0.80	*0.80	1.3	1.9	1.2	
2627	Tinian Island .....	14° 58'	145° 37'	-0 02	-0 23	*0.74	*0.33	1.5	1.8	1.0	
2629	Rota Island .....	14° 08'	145° 08'	-0 03	-0 06	*0.94	*0.94	1.2	2.1	1.5	
2631	APRA HARBOR, GUAM .....	13° 26.5'	144° 39.2'	Daily predictions		1.62		2.35	1.42		
2633	Pago Bay, Guam .....	13° 25.70'	144° 47.82'	-0 21	-0 23	*0.72	*0.81	1.12	1.72	1.06	
on Malakal Harbor, p.200											
Mean Spring											
2635	Shonian Harbor .....	7° 03'	134° 16'	+0 07	-0 13	*0.89	*1.00	3.3	4.4	3.3	
2637	Koror .....	7° 21'	134° 29'	-0 07	-0 04	-0.1	0.0	3.8	5.0	3.5	
2639	MALAKAL HARBOR .....	7° 20'	134° 28'	Daily predictions		3.9		5.1	3.6		
2641	West Passage .....	7° 30'	134° 31'	-0 21	-0 41	-0.1	0.0	3.8	4.8	3.5	
FEDERATED STATES of MICRONESIA											
Time meridian, 150° E											
2643	Ngulu Islands .....	8° 18'	137° 29'	+0 40	+0 19	*0.77	*0.77	3.0	3.8	2.8	
2645	Tomil Harbor, Yap Island .....	9° 30'	138° 08'	+0 35	+0 14	(*0.74+0.5)	(*0.74+0.5)	2.9	3.7	3.2	
2647	Ulithi Islands .....	10° 02'	139° 46'	+0 34	+0 13	(*0.67+0.2)	(*0.67+0.2)	2.6	3.4	2.6	
on Guam, p.196											
2649	Woleai Islands .....	7° 22'	143° 54'	+0 21	+0 17	(*0.80+0.6)	(*0.80+0.6)	1.4	1.6	1.7	
2651	Ifalik Atoll .....	7° 15'	144° 27'	-0 54	-0 13	*1.00	*1.33	1.5	1.8	1.6	
2653	Lamotrek Atoll .....	7° 28'	146° 23'	+0 11	+0 07	(*0.71+0.7)	(*0.71+0.7)	1.2	1.3	1.7	
on Chuuk, p.204											
Diurnal Tropic											
2655	Pulap Atoll { .....	7° 38'	149° 25'	-0 53	+0 43	*0.74	*0.74	1.4	1.9	1.4	
2657	Namonoito Atoll { .....	8° 35'	149° 39'	-1 23	+0 21	*0.69	*0.69	1.3	1.9	1.2	
2659	Moen Island, Truk Islands { .....	7° 27'	151° 51'	+0 10	+0 11	*0.85	*0.85	1.6	2.1	1.6	
2661	CHUUK, Moen Island { .....	7° 26.8'	151° 50.8'	Daily predictions		1.40		1.84	0.83		
2663	Dublon Island, Truk Islands { .....	7° 22'	151° 53'	+0 02	+0 30	*1.07	*1.07	1.5	2.0	1.5	
Time meridian, 165° E											
2665	Nomwin Atoll, Hall Islands { .....	8° 27'	151° 47'	-0 08	+0 20	*0.80	*0.80	1.5	1.9	1.5	
2667	Murilo Atoll, Hall Islands { .....	8° 36'	152° 15'	-0 28	+0 00	*0.85	*0.85	1.6	1.9	1.7	
2669	Losap Atoll { .....	6° 54'	152° 44'	-0 03	+0 25	*0.80	*0.80	1.5	2.0	1.5	
2671	Namoluk Atoll { .....	5° 54'	153° 08'	-0 01	+0 27	*0.80	*0.80	1.5	2.0	1.5	
2673	Satawan Anchorage, Nomoi Islands { .....	5° 20'	153° 44'	-0 03	+0 25	*0.96	*0.96	1.8	2.1	2.0	
on Pohnpei Harbor, p.208											
Mean Spring											
2675	Marcus Island .....	24° 17'	153° 58'	-0 19	-0 19	(*0.65+0.3)	(*0.65+0.3)	1.5	2.2	1.7	
Time meridian, 165° E											
2677	Oroluk Lagoon .....	7° 37'	155° 10'	+0 23	+0 20	(*0.70+0.3)	(*0.70+0.3)	1.6	2.2	1.9	
2679	Ant Islands (Tauenai Channel) .....	6° 46'	158° 00'	+1 04	+1 04	0.0	+0.3	2.0	3.0	2.4	
2681	POHNPEI HARBOR, Pohnpei Island .....	6° 59'	158° 13'	Daily predictions		2.3		3.4	2.3		
2683	Metalanim Harbor, Pohnpei Island .....	6° 52'	158° 21'	+0 09	+0 06	+0.4	+0.2	2.5	3.7	2.6	
on Kwajalein Atoll, p.216											
2685	Lele Harbor, Kusaie Island .....	5° 20'	163° 01'	+0 01	+0 00	(*0.91+0.3)	(*0.91+0.3)	3.2	4.6	3.0	
MARSHALL ISLANDS											
2687	WAKE ISLAND (U.S.) .....	19° 17.4'	166° 37.1'	Daily predictions, p.212		2.02		2.36	1.13		
2689	Ujelang Atoll .....	9° 46'	160° 58'	+0 04	+0 03	(*0.80+0.2)	(*0.80+0.2)	2.8	3.9	2.6	
2691	Enewetak .....	11° 21'	162° 21'	-0 07	-0 03	(*0.77+0.3)	(*0.77+0.3)	2.7	3.9	2.6	
2693	Bikini Atoll .....	11° 36'	165° 33'	-0 19	-0 19	0.0	0.0	3.4	4.9	3.0	
2695	Eniirikku Island, Bikini Atoll .....	11° 30'	165° 20'	-0 15	-0 16	*0.85	*0.85	2.9	4.2	2.6	
2697	Rongelap Island, Rongelap Atoll .....	11° 09'	166° 54'	-0 07	-0 07	*0.96	*0.96	3.3	4.7	2.9	
2699	Rongerik Atoll .....	11° 23'	167° 31'	-0 14	-0 15	+0.1	0.0	3.6	5.0	3.0	
2701	Ujae Atoll .....	9° 02'	165° 36'	-0 10	-0 10	0.0	0.0	3.5	5.0	3.0	
2703	Kwajalein Atoll (Namur Island) .....	9° 24'	167° 29'	-0 02	-0 05	0.0	0.0	3.5	5.0	3.0	
2705	KWAJALEIN ATOLL (Kwajalein I.) .....	8° 44.2'	167° 44.3'	Daily predictions		3.6		3.9	1.9		

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level				
		Latitude	Longitude	Time		Height		Mean	Spring					
				High Water	Low Water	High Water	Low Water							
	MARSHALL ISLANDS Time meridian, 180° E	North	East	h	m	h	m	ft	ft	ft				
on Kwajalein Atoll, p.216														
2707	Ailinglapalap Atoll .....	7° 17'	168° 45'	+0 08	+0 07	+0.4	+0.3	3.6	5.2	3.3				
2709	Jaluit Atoll (SE Pass) .....	5° 55'	169° 39'	-0 12	-0 08	-0.1	-0.1	3.5	4.9	2.9				
2711	Ebon (Boston) Atoll .....	4° 36'	168° 41'	-0 10	-0 10	+0.1	+0.1	3.4	4.8	3.0				
2713	Taongi Atoll .....	14° 34'	168° 57'	-0 20	-0 20	0.0	0.0	3.3	4.7	3.0				
2715	Bikar (Dawson) Atoll .....	12° 15'	170° 08'	-0 10	-0 10	0.0	0.0	3.5	4.9	3.0				
2717	Ailuk Atoll .....	10° 13'	169° 59'	-0 10	-0 10	0.0	0.0	3.5	4.9	3.0				
2719	Likiep Atoll .....	9° 49'	169° 19'	+0 00	-0 01	+0.1	0.0	3.6	5.0	3.0				
2721	Wotje Atoll .....	9° 28'	170° 14'	-0 11	-0 11	-0.2	-0.2	3.4	4.7	2.8				
2723	Erikub Atoll .....	9° 12'	169° 55'	-0 10	-0 10	0.0	0.0	3.5	4.9	3.0				
2725	Maloelap Atoll .....	8° 43'	171° 14'	-0 04	-0 05	+0.1	-0.1	3.7	5.1	3.0				
2727	Majuro Atoll .....	7° 07'	171° 22'	-0 05	-0 06	+0.3	+0.1	3.7	5.3	3.2				
2729	Arno Atoll .....	7° 08'	171° 42'	-0 04	-0 05	+0.6	-0.1	4.2	5.7	3.2				
2731	Port Rhin, Mili Atoll .....	6° 14'	171° 48'	+0 04	+0 04	+0.7	0.0	4.2	5.9	3.3				
on Honolulu, p.228														
on Honolulu, p.228														
Mean Diurnal														
2733	SAND ISLAND, MIDWAY ISLANDS .....	28° 12.7'	177° 21.6'	Daily predictions, p.220				0.9	1.3	0.7				
2735	Lisianski Island .....	26° 04'	173° 58'	---	---	---	---	0.5	0.8	0.3				
Time meridian, 150° W														
2737	Laysan Island .....	25° 46'	171° 45'	+1 02	+1 12	*0.53	*0.50	0.7	1.0	0.4				
2739	East Island, French Frigate Shoals .....	23° 47'	166° 13'	+0 03	+0 08	*0.73	*0.73	0.9	1.4	0.6				
2741	Nonopapa, Niihau Island .....	21° 52'	160° 14'	-0 16	-0 11	*0.77	*0.77	1.0	1.6	0.7				
on Nawiliwili, p.224														
2743	Kauai Island													
2744	Waimea Bay .....	21° 57'	159° 40'	+0 07	+0 18	*0.86	*0.91	1.0	1.6	0.7				
2745	Port Allen, Hanapepe Bay .....	21° 54.2'	159° 35.5'	-0 15	-0 10	*1.01	*1.00	1.24	1.84	0.82				
2747	NAWILIWILI													
2749	Hanamaulu Bay .....	21° 57.3'	159° 21.4'	Daily predictions				1.22	1.83	0.81				
2751	Hanaelei Bay .....	22° 00'	159° 20'	+0 10	+0 04	*1.00	*0.91	0.0	1.2	1.8				
		22° 13'	159° 30'	-1 01	-1 22	*1.07	*0.91	1.3	1.8	0.8				
on Honolulu, p.228														
2753	Oahu Island													
2755	Haleiwa, Waialua Bay }	21° 36'	158° 07'	-1 02	-2 05	*0.80	*0.80	--	1.6	0.7				
2757	Waianae .....	21° 27'	158° 12'	+0 20	+0 18	*0.93	*1.00	1.2	1.8	0.8				
2759	Pearl Harbor Entrance, Bishop Point .....	21° 19.8'	157° 58.0'	+0 15	+0 06	*1.00	*0.88	1.30	1.66	0.79				
2761	Pearl Harbor, Ford Island Ferry .....	21° 22.1'	157° 56.4'	+0 16	+0 08	*1.03	*0.88	1.35	1.73	0.82				
2763	HONOLULU .....	21° 18.5'	157° 52.0'	Daily predictions				1.28	1.64	0.80				
		21° 17'	157° 42'	-0 59	-0 45	*1.00	*1.00	1.3	1.9	0.8				
on Moku O Loe, p.232														
2765	Waimanalo .....	21° 20'	157° 42'	+0 11	+0 05	*0.88	*0.75	1.1	1.8	0.8				
2767	MOKU O LOE .....	21° 26.2'	157° 47.6'	Daily predictions				1.5	2.1	1.0				
2769	Waikane, Kaneohe Bay .....	21° 30'	157° 51'	-0 22	-0 04	*1.13	*1.00	1.4	2.2	1.1				
2771	Laiemaloo .....	21° 38.2'	157° 55.3'	+0 43	+0 00	*1.05	*1.08	1.05	1.08	1.11				
2773	Laie Bay .....	21° 39'	157° 56'	-0 21	-0 32	*1.00	*0.75	1.3	2.2	0.9				
on Honolulu, p.228														
2775	Molokai Island													
2777	Kolo .....	21° 06'	157° 12'	+0 05	+0 01	0.0	0.0	1.3	2.0	0.8				
2779	Kaunakakai .....	21° 05.1'	157° 01.9'	-0 10	-0 14	*1.13	*1.25	1.42	1.82	0.91				
2781	Kamalo Harbor .....	21° 03'	156° 53'	-0 37	-0 16	+0.1	0.0	1.4	2.1	0.9				
2783	Pukoo Harbor .....	21° 04'	156° 48'	-1 03	-0 48	+0.1	0.0	1.4	2.1	0.9				
		20° 47'	157° 00'	+0 02	+0 03	+0.2	0.0	1.5	2.2	0.9				
2785	Kahoolawe Island													
2787	Kuheiia Bay .....	20° 36'	156° 36'	-0 09	-0 09	+0.2	0.0	1.5	2.1	0.9				
		20° 31'	156° 41'	-0 15	+0 03	+0.2	0.0	1.5	2.2	0.9				
on Kahului, p.236														
2789	Maui Island													
2791	KAHULUI .....	20° 53.9'	156° 28.3'	Daily predictions				1.6	2.3	1.1				
2793	Hana .....	20° 46'	155° 59'	+0 40	+0 18	*1.05	*0.54	1.8	2.5	1.1				
2795	Makena .....	20° 39'	156° 27'	+1 21	+1 09	*0.73	*0.54	1.2	1.8	0.8				
2797	Kihei, Maalaea Bay .....	20° 47'	156° 28'	+1 52	+1 19	*0.94	*0.54	1.6	2.3	1.0				
		20° 53'	156° 41'	+1 18	+1 01	*0.89	*0.81	1.4	2.2	1.0				
on Hilo, p.240														
2799	Hawaii Island													
2801	Mahukona .....	20° 11'	155° 54'	+0 38	+0 42	*0.80	*0.67	1.4	2.1	0.9				
2803	Kawaihae .....	20° 02.4'	155° 49.9'	+1 01	+0 57	*0.83	*0.60	1.46	2.14	0.91				
2805	Kailua Kona .....	19° 39'	156° 00'	+0 38	+0 37	*0.80	*0.67	1.4	2.1	0.9				
2807	Napoopo, Kealakekua Bay .....	19° 28'	155° 55'	+0 48	+0 47	*0.80	*0.67	1.4	2.1	0.9				
2809	Honuapo .....	19° 05'	155° 33'	+0 38	+0 33	*1.01	*1.00	1.7	2.5	1.1				
2811	HILO .....	19° 43.8'	155° 03.4'	Daily predictions				1.67	2.40	1.13				
		16° 44.3'	169° 31.8'	Daily predictions, p.244				1.9	2.2	1.1				
on Honolulu, p.228														
on Honolulu, p.228														
Mean Spring														
2813	Palmyra Island .....	5° 53'	162° 05'	+1 19	+1 13	+0.6	-0.2	2.0	2.7	1.0				

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	HAWAIIAN ISLANDS Time meridian, 165° W			North	West	h m	h m	ft	ft	ft	
2815	Howland Island .....	0° 48'	176° 38'	+3 48	+3 46	+4.2	+0.4	5.0	6.2	3.1	
	Time meridian, 105° W			South	West	on Pago Pago, p.260					
2817	Easter Island (Chile) .....	27° 09'	109° 27'	-1 43	-1 35	*0.86	*0.86	1.5	1.9	1.5	
	FRENCH POLYNESIA Time meridian, 142° 30' W										
2819	Marquesas Islands Taio Hae Bay, Nuku Hiva Island .....	8° 56'	140° 06'	-3 31	-3 28	*1.56	*1.56	3.2	3.8	2.4	
2821	Vai Tahu, Tahu Ata Island .....	9° 56'	139° 06'	-5 03	-4 58	*1.44	*1.44	2.5	3.1	2.4	
	Time meridian, 135° W										
2823	Tuamotu Archipelago Mangareva Island .....	23° 08'	134° 58'	-4 50	-4 47	*0.86	*0.86	1.8	2.3	1.3	
	Time meridian, 150° W										
2825	Hao (Bow or La Harpe) Island .....	18° 04'	140° 59'	-5 15	-5 10	*1.05	*1.05	1.9	2.4	1.7	
2827	Rahiroa (Rangiroa) Island .....	14° 57'	147° 44'	-2 57	-2 54	*1.01	*1.01	1.7	2.1	1.7	
	Society Islands			on Papeete, p.248							
2829	PAPEETE HARBOR, Tahiti Island <30> .....	17° 32'	149° 34'			Daily predictions		0.8	1.1	0.5	
2831	Papeari Harbor, Tahiti Island <30> .....	17° 45'	149° 22'	--	--	*0.31	*0.31	0.8	1.1	0.5	
2833	Borabora Island <30> .....	16° 30'	151° 46'	--	--	--	--	0.5	0.7	--	
	Tubuai or Asutral Islands			on Pago Pago, p.260							
2835	Rapa (Oparo) Island .....	27° 36'	144° 17'	+4 53	+4 59	*1.05	*1.05	1.9	2.4	1.7	
2837	Tubuai Island .....	23° 22'	149° 28'	+7 51	+7 54	*1.05	*1.05	1.9	2.4	1.7	
	COOK ISLANDS										
2839	Penrhyn (Tongareva) Island .....	9° 00'	157° 59'	-0 34	-0 05	*0.62	*0.62	0.7	0.8	1.3	
2841	Manihiki .....	10° 25'	161° 01'	+2 15	+2 51	*0.43	*0.43	0.3	0.4	1.0	
2843	Aitutaki Island .....	18° 51'	159° 47'	+2 00	+1 59	*0.82	*0.82	1.2	1.4	1.5	
2845	Avarua, Rarotonga .....	21° 12'	159° 46'	+2 14	+2 05	*0.74	*0.74	1.8	2.2	1.0	
	Time meridian, 165° W										
2847	Pukapuka .....	10° 52'	165° 53'	+0 05	+0 38	*0.77	*0.77	1.0	1.2	1.5	
	Time meridian, local										
2849	Suwarrow (Suvarov) Island .....	13° 13'	163° 09'	+1 04	+0 58	*0.86	*0.86	1.4	1.9	1.5	
	TOKELAU										
	Time meridian, 165° W										
2851	Fakaofa Island .....	9° 23'	171° 15'	-0 50	-0 47	*1.05	*1.05	1.9	2.4	1.7	
	SAMOA					on Apia, p.252					
	Time meridian, 195° E										
2853	Asau Harbor, Savaii Island .....	13° 30'	172° 38'	-0 03	-0 32	+0.2		3.1	3.9	1.6	
2855	APIA (Observatory), Upolu Island .....	13° 48'	171° 46'		Daily predictions	-0.3		2.6	3.2	1.6	
	AMERICAN SAMOA					on Pago Pago, p.260					
	Time meridian, 165° W										
2857	PAGO PAGO Harbor, Tutuila Island .....	14° 16.8'	170° 41.4'		Daily predictions			2.51	2.72	1.32	
2859	Tau Island, Manua Islands .....	14° 13'	169° 32'	-0 25	-0 24	*1.43	*1.00	3.7	4.6	1.8	
2861	Niue Island (N.Z.) .....	19° 02'	169° 55'	+0 48	+0 47	*1.36	*1.36	2.2	2.4	2.4	
	Time meridian, 180° E					on Apia, p.252					
2863	Wallis Islands (France) .....	13° 22'	176° 11'	-0 48	-1 01	(*1.42+0.5)		3.7	4.6	2.8	
	TONGA										
	Time meridian, 195° E										
2865	Neiafu .....	18° 39'	186° 01'	+0 54	+0 29	+1.9	+1.5	3.0	3.4	3.3	
2867	Lifuka Island .....	19° 48'	185° 39'	+0 31	+0 05	+1.7	+1.4	2.9	3.2	3.2	
2869	Nomuka .....	20° 16'	185° 12'	+0 59	+0 34	+1.8	+1.1	3.3	3.8	3.1	
2871	Nukualofa .....	21° 08'	184° 48'	+0 59	+0 37	+1.8	+0.9	3.5	4.0	3.0	
	Time meridian, 180° E					on Suva, p.256					
2873	Raoul or Sunday Island .....	29° 15'	182° 03'	-1 02	-1 30	+1.9	+1.5	3.0	3.3	3.3	
	FIJI										
2875	Tailevu, Viti Levu Island .....	17° 39'	178° 35'	+0 00	-0 06	+0.8	+1.0	3.6	4.4	3.0	
2877	Nandi Waters, Viti Levu .....	17° 45'	177° 26'	-0 03	-0 08	+1.3	+1.0	4.1	4.9	3.3	
2879	Ngaloa Harbor, Kandavu Island .....	19° 05'	178° 11'	-0 07	+0 01	+0.8	+0.2	4.4	5.1	2.6	
2881	Matuku Island .....	19° 10'	179° 45'	-0 04	-0 01	+0.7	+1.1	3.4	4.1	3.0	
2883	Totoya Island .....	18° 59'	180° 07'	+1 00	+0 51	+0.9	+0.9	3.8	4.1	3.0	
2885	Moala Island .....	18° 32'	179° 58'	-0 49	-0 38	+1.2	+0.6	4.4	4.9	3.0	
2887	SUVA HARBOR, Viti Levu Island .....	18° 09'	178° 26'		Daily predictions			3.82	4.27	2.15	
2889	Ngau Island .....	18° 00'	179° 14'	+0 14	-0 12	+0.4	+0.8	3.4	3.7	2.7	

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
		South	East	h m	h m	ft	ft	ft	ft	ft	
FIJI Time meridian, 180° E											
2891	Nairai Island .....	17° 48'	179° 23'	-0 11	+0 08	-0.1	+0.3	3.4	3.7	2.2	
2893	Levuka, Ovalau Island .....	17° 41'	178° 51'	-0 14	-0 12	+0.9	+1.1	3.6	4.3	3.1	
2895	Nandi, Vanua Levu Island .....	16° 58'	178° 47'	+0 01	+0 09	+0.3	+0.9	3.2	3.9	2.7	
on Suva, p.256											
2897	Rotumah Island .....	12° 29'	177° 07'	-0 15	+0 00	(*0.81+1.0)		3.5	4.7	2.9	
TUVALU											
2899	Fongafale, Funafuti Atoll .....	8° 32'	179° 12'	-0 37	-0 30	+0.2	+0.4	4.1	5.6	2.8	
KIRIBATI Time meridian, 150° W											
2901	<i>Line Islands</i>		North	West	on Honolulu, p.228						
2903	Christmas Island .....	1° 59'	157° 28'	+0 49	+0 39	+0.7	0.0	1.9	2.3	1.2	
	Fanning Island .....	3° 51'	159° 22'	+2 38	+2 39	+0.4	+0.4	1.2	1.6	1.2	
		South	West	on Pago Pago, p.260							
2905	Caroline Island .....	10° 00'	150° 14'	-3 17	-3 13	*0.54	*0.54	0.9	1.1	0.9	
Time meridian, 165° W											
2907	<i>Phoenix Islands</i>		2° 48'	171° 43'	-0 22	-0 20	*1.28	*1.28	2.5	3.4	
	Canton Island .....									2.1	
Time meridian, 180° E											
2909	<i>Gilbert Islands</i>		North	East	on Kwajalein Atoll, p.216						
2911	Makin Atoll .....	3° 02'	172° 48'	+0 12	+0 15	+0.7	-0.1	4.3	6.1	3.3	
2913	Tarawa Atoll .....	1° 22'	172° 56'	+0 19	+0 21	+0.8	-0.1	4.4	6.2	3.3	
	Abemama Atoll .....	0° 28'	173° 50'	+0 27	+1 03	+0.7	-0.1	4.3	6.1	3.3	
2915	Nonouti Atoll .....	0° 40'	174° 27'	-0 05	-0 05	+1.0	+0.1	4.4	6.2	3.5	
Time meridian, 165° E											
2917	Ocean Island .....	0° 52'	169° 35'	-0 21	-0 18	+0.5	+0.3	3.7	5.2	3.4	
NEW ZEALAND South Island Time meridian, 180° E											
2919	Paterson Inlet, Stewart Island .....	46° 54'	168° 07'	-5 42	-5 37	-1.9	+0.6	5.5	6.4	5.2	
2921	Akaroa .....	43° 48'	172° 55'	-3 31	-3 12	*0.65	*0.33	5.8	6.3	3.5	
2923	Timaru .....	44° 24'	171° 15'	-4 24	-4 13	*0.72	*1.00	5.3	5.8	4.5	
2925	Oamaru .....	45° 06'	170° 58'	-4 06	-3 55	*0.66	*1.06	4.6	5.3	4.2	
2927	Otago Harbor entrance .....	45° 47'	170° 44'	-4 33	-3 50	*0.58	*0.33	5.1	5.6	3.2	
2929	Port Chalmers, Otago Harbor .....	45° 49'	170° 39'	-3 35	-3 23	*0.58	*0.33	5.1	5.7	3.2	
2931	Dunedin, Otago Harbor .....	45° 53'	170° 33'	-3 00	-2 11	-4.0	-1.2	5.2	5.7	3.2	
2933	Nugget Point .....	46° 26'	169° 48'	-4 52	-4 32	-2.4	+0.5	5.1	5.8	4.9	
2935	Waipapa Point .....	46° 39'	168° 51'	-5 17	-5 11	-1.3	+0.6	6.1	6.8	5.5	
2937	Bluff .....	46° 36'	168° 20'	-5 34	-5 27	-1.4	+0.5	6.1	7.2	5.4	
2939	New River .....	46° 32'	168° 15'	-5 56	-5 49	-1.1	-0.1	7.0	7.9	5.2	
2941	Colac Bay .....	46° 22'	167° 54'	-7 16	-6 56	-2.6	-0.2	5.6	6.8	4.4	
2943	Preservation Inlet .....	46° 04'	166° 41'	+4 59	+5 08	-2.9	-0.6	5.7	6.7	4.0	
2945	Dusky Sound .....	45° 47'	166° 32'	+4 49	+4 58	-3.1	-0.4	5.3	6.4	4.0	
2947	Deep Cove .....	45° 27'	167° 10'	+4 42	+4 49	-3.6	-0.3	4.7	5.4	3.9	
2949	Bligh Sound .....	44° 53'	167° 32'	+4 29	+4 38	-3.2	-0.3	5.1	6.1	4.0	
2951	Milford Sound .....	44° 40'	167° 56'	+4 24	+4 33	-3.2	-0.3	5.1	6.1	4.0	
2953	Jackson's Bay .....	43° 59'	168° 37'	+4 09	+4 18	-3.1	-0.4	5.3	6.4	4.0	
2955	Haast River entrance .....	43° 50'	169° 03'	+3 59	+4 08	-3.1	-0.4	5.3	6.4	4.0	
2957	Bruce Bay .....	43° 35'	169° 36'	+3 49	+3 58	-3.0	-0.5	5.5	6.6	4.0	
2959	Okanito .....	43° 13'	170° 11'	+3 44	+3 53	-2.9	-0.5	5.6	6.7	4.1	
2961	Hokitika Bar .....	42° 43'	170° 58'	+3 39	+3 48	-2.9	-0.6	5.7	7.0	4.0	
2963	Greymouth .....	42° 26'	171° 13'	+3 34	+3 43	-2.8	-0.7	5.9	7.3	4.0	
2965	Westport .....	41° 44'	171° 36'	+3 29	+3 38	-0.1	+0.1	7.8	9.8	5.8	
2967	West Haven Inlet .....	40° 35'	172° 32'	+2 24	+2 33	-1.1	-0.6	7.5	9.0	4.9	
2969	Motupipi River entrance .....	40° 50'	172° 51'	+1 48	+1 41	*1.43	*1.28	11.7	14.0	8.2	
2971	Astrolabate Road .....	40° 58'	173° 03'	+1 53	+1 46	+4.5	+0.2	12.3	15.4	8.2	
2973	Nelson .....	41° 16'	173° 16'	+2 13	+2 06	+1.2	+0.2	9.0	11.6	6.5	
2975	Croixilles Harbor .....	41° 05'	173° 42'	+1 58	+1 51	+2.4	+0.1	10.3	12.1	7.1	
2977	Greville Harbor, D'Urville Island .....	40° 52'	173° 48'	+2 17	+2 20	-0.4	-0.6	8.2	10.8	5.3	
2979	Stephens Island .....	40° 40'	174° 01'	+1 43	+1 36	-2.2	-0.3	6.1	7.0	4.6	
2981	Elmslie Bay .....	40° 56'	173° 51'	+1 23	+1 06	-1.8	-1.5	7.7	8.9	4.2	
2983	Pelorus Sound entrance .....	40° 55'	173° 59'	+1 13	+0 46	-2.4	-0.5	6.1	7.2	4.4	
2985	Queen Charlotte Sound entrance .....	41° 07'	174° 17'	+1 16	+0 53	-5.7	-1.2	3.5	4.7	2.4	
2987	Picton, Queen Charlotte Sound .....	41° 17'	174° 00'	+1 20	+0 50	-5.8	-1.3	3.5	4.8	2.3	
on Wellington, p.264											
2989	Cape Campbell .....	41° 44'	174° 15'	+0 38	+0 35	+1.1	0.0	4.3	4.6	3.5	
2991	Kaikoura Peninsula .....	42° 24'	173° 42'	+0 13	+0 15	+1.3	-0.1	4.6	4.9	3.5	
2993	Lytelton .....	43° 37'	172° 43'	-0 17	-0 15	+1.7	-1.1	6.0	6.4	3.2	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	NEW ZEALAND North Island Time meridian, 180° E	South	East	h m	h m	ft	ft	ft	ft	ft	
on Wellington, p.264											
2995	Gisborne .....	38° 41'	178° 02'	+1 05	+1 08	+1.5	+0.3	4.4	4.8	3.8	
2997	Clyde, Wairoa River .....	39° 03'	177° 26'	+1 00	+0 51	+0.8	-0.5	4.5	4.8	3.0	
2999	Napier .....	39° 29'	176° 55'	+0 58	+0 49	+0.7	-0.5	4.4	4.6	3.0	
3001	Cape Palliser .....	41° 37'	175° 17'	+0 10	+0 10	+0.2	-0.1	3.5	3.7	3.0	
3003	WELLINGTON .....	41° 17'	174° 47'			Daily predictions		3.2	3.4	2.9	
on Auckland, p.268											
3005	Porirua Harbor .....	41° 04'	174° 51'	+2 05	+2 02	-4.6	0.0	3.4	4.8	3.5	
3007	Manawatu River entrance .....	40° 28'	175° 13'	+1 43	+1 36	-2.9	-0.2	5.3	6.8	4.3	
3009	Wanganui River entrance .....	39° 57'	174° 49'	+2 38	+2 31	-1.9	+0.5	5.6	7.2	5.1	
3011	Opunake Bay .....	39° 28'	173° 51'	+1 58	+1 51	+0.1	+0.2	7.9	10.1	6.0	
3013	Port Taranaki .....	39° 04'	174° 02'	+2 21	+2 39	+0.5	+0.1	8.4	10.6	6.1	
3015	Waitara River entrance .....	38° 59'	174° 14'	+2 22	+2 40	+0.9	+0.5	8.4	10.5	6.5	
3017	Kawhia .....	38° 04'	174° 49'	+2 39	+2 57	-0.6	-0.5	7.9	10.0	5.3	
3019	Raglan .....	37° 48'	174° 53'	+2 47	+3 05	-0.6	-0.6	8.0	10.2	5.2	
3021	Waikato River .....	37° 24'	174° 45'	+2 17	+2 35	+1.5	+0.9	8.6	10.9	7.0	
3023	Manukau Harbor entrance .....	37° 03'	174° 31'	+2 49	+2 48	-0.3	+0.4	7.3	9.0	5.9	
3025	Cornwallis, Manukau Harbor .....	37° 00'	174° 36'	+2 52	+3 10	+0.7	+0.6	8.1	10.0	6.5	
3027	Onehunga, Manukau Harbor .....	36° 56'	174° 47'	+3 21	+3 30	+2.1	+1.1	9.0	11.1	7.4	
3029	Pouto Point, Kaipara Harbor .....	36° 22'	174° 11'	+3 07	+3 25	+0.4	+0.5	7.9	9.9	6.2	
3031	Martins Bay, Hokianga River .....	35° 32'	173° 23'	+2 22	+2 40	+0.2	-0.3	8.5	10.8	5.8	
3033	Cape María van Diemen .....	34° 29'	172° 38'	+1 47	+2 05	-2.1	-0.5	6.4	7.4	4.5	
3035	Parengarenga .....	34° 32'	173° 00'	+0 50	+0 50	-2.2	0.0	5.8	6.9	4.7	
3037	Awanui River .....	34° 54'	173° 18'	+0 50	+0 30	-3.9	-1.3	5.4	6.3	3.2	
3039	Whangaroa .....	35° 02'	173° 47'	+0 20	+0 20	-2.7	-0.1	5.4	6.2	4.4	
3041	Port Russell .....	35° 16'	174° 07'	+0 12	+0 12	-2.4	0.0	5.6	6.4	4.6	
3043	Whangarei Heads .....	35° 49'	174° 30'	+0 20	+0 20	-2.3	-0.1	5.8	6.7	4.6	
3045	Port Whangarei, railway wharf .....	35° 45'	174° 20'	+0 40	+0 40	-1.1	+0.3	6.6	7.7	5.4	
3047	Bon Accord Harbor, Kawau Island .....	36° 27'	174° 50'	+0 15	+0 25	-1.0	-0.1	7.1	8.0	5.2	
3049	Nagle Cove, Great Barrier Island .....	36° 09'	175° 21'	-0 24	-0 11	-2.6	-0.4	5.8	6.6	4.3	
3051	AUCKLAND .....	36° 51'	174° 46'			Daily predictions		8.0	9.2	5.8	
3053	Waiheke .....	36° 47'	175° 09'	-0 06	-0 06	-0.4	0.0	7.6	8.6	5.6	
3055	Coromandel .....	36° 46'	175° 30'	-0 15	-0 15	+0.6	+0.2	8.4	9.7	6.2	
3057	Mercury Bay .....	36° 50'	175° 43'	-0 20	-0 20	-3.0	+0.2	4.8	5.4	4.4	
3059	Tauranga Harbor entrance .....	37° 39'	176° 11'	-0 12	-0 01	-3.9	-0.6	4.7	5.2	3.6	
3061	Ohia .....	37° 59'	177° 07'	+0 17	-0 03	-3.7	-0.6	4.9	5.3	3.7	
3063	East Cape .....	37° 41'	178° 33'	-0 55	-0 45	-3.3	+0.2	4.5	5.0	4.2	
on Yokohama, p.20											
NEW CALEDONIA Time meridian, 165° E											
3065	Port Goro, Toemo Island .....	22° 20'	167° 01'	+2 06	+2 07	(*0.57+0.5)		2.0	2.6	2.7	
3067	Noumea .....	22° 16'	166° 27'	+3 05	+3 16	(*0.83+0.8)		2.9	3.8	4.0	
3069	Port Nepui .....	21° 21'	164° 58'	+3 11	+3 35	(*0.89+0.3)		3.1	4.0	3.7	
3071	Paagoumene .....	20° 29'	164° 11'	+3 10	+3 18	(*0.91-0.2)		3.2	4.1	3.3	
3073	Loyalty Islands Shepenehe Anchorage .....	20° 47'	167° 08'	+1 23	+1 23	+0.3	-0.4	4.2	5.4	3.7	
VANUATU											
3075	Vila Harbor, Efate Island .....	17° 44'	168° 19'	+0 49	+0 59	(*0.80-0.7)		2.8	3.5	2.3	
3077	Havannah Harbor, Efate Island .....	17° 35'	168° 15'	+0 55	+0 59	*0.70 *0.70		2.4	3.0	2.6	
3079	Port Sandwich, Malekula Island .....	16° 26'	167° 47'	+0 03	+0 11	(*0.80-0.7)		2.8	3.8	2.3	
3081	Tangoa Island .....	15° 35'	166° 59'	+1 07	+1 11	*0.56 *0.50		2.1	2.6	2.1	
3083	Espirito Santo Island, Pekoa Chan .....	15° 31'	167° 10'	+0 23	+0 28	*0.76 *0.65		2.9	3.6	2.8	
3085	Aesi .....	15° 26'	167° 14'	-0 22	-0 15	*0.80 *0.70		3.0	3.8	2.9	
3087	Port Patteson, Banks Islands .....	13° 51'	167° 34'	+1 31	+1 31	+0.55 *0.45		2.1	2.6	2.0	
SOLOMON ISLANDS											
3089	Santa Cruz Islands Manevasi Bay .....	11° 38'	166° 55'	-0 14	-0 14	*0.55 *0.45		2.1	2.6	2.0	
on Dreger Harbor, p.272											
3091	Kukum, Guadalcanal Island { .....	9° 25'	160° 01'	+0 25	+0 00	-2.5	-2.5	1.6	2.3	1.4	
3093	Port Purvis, Florida Island { .....	9° 09'	160° 15'	+1 30	+0 15	-2.0	-2.3	2.0	2.3	1.7	
3095	Tulagi Island { .....	9° 06'	160° 09'	+0 38	-0 35	-2.0	-2.3	2.0	2.3	1.7	
on Cebu, p.180											
3097	Auki Harbor, Malaita Island .....	8° 47'	160° 42'	-7 20	-7 10	(*0.88+0.6)		2.9	4.1	2.6	
on Dreger Harbor, p.272											
3099	Karunohu Island { .....	8° 30'	157° 58'	+0 14	+1 05	-2.4	-2.3	1.6	2.3	1.5	
3101	Nususonga, New Georgia Island { .....	8° 20'	157° 15'	-0 01	+1 56	-2.7	-2.7	1.7	2.4	1.2	
3103	Gizo Harbor, New Georgia Group { .....	8° 06'	156° 51'	-0 40	+1 22	-2.0	-1.8	1.5	2.2	1.9	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Diurnal	Tropic		
				High Water	Low Water	High Water	Low Water				
	PAPUA NEW GUINEA Time meridian, 150° E	South	East	h m	h m	ft	ft	ft	ft	ft	
on Dreger Harbor, p.272											
3105	Bismarck Archipelago Kokopo, New Britain Island { . . . . .	4° 21'	152° 17'	+0 23	+0 48	-2.1	-2.1	1.7	2.4	1.8	
3107	Rabaul, New Britain Island { . . . . .	4° 12'	152° 12'	-0 24	+0 18	-2.7	-2.7	1.5	2.1	1.0	
3109	Bagatere Haven, New Ireland I { . . . . .	2° 47'	151° 00'	-8 49	-6 46	-2.7	-2.7	1.7	2.4	1.2	
3111	West Harbor, New Hanover Island { . . . . .	2° 28'	149° 58'	-9 04	-7 01	-2.8	-2.8	1.6	2.3	1.1	
on Chuuk, p.204											
3113	Emirau Island { . . . . .	1° 40'	149° 55'	-0 39	-0 23	*1.17	*1.17	1.7	2.2	2.0	
on Djakarta, p.156											
3115	Seeadler Harbor, Manus Island { . . . . .	2° 01'	147° 16'	+5 36	+5 18	-0.4	-0.4	2.0	2.6	1.7	
on Dreger Harbor, p.272											
3117	Finsch Harbor { . . . . .	6° 33'	147° 52'	-0 12	-0 40	-1.8	-1.8	1.7	2.2	2.0	
3119	DREGER HARBOR { . . . . .	6° 39'	147° 53'	Daily predictions				1.7	2.4	3.8	
3121	East Ape (Goschen Strait) { . . . . .	10° 14'	150° 53'	+1 43	+0 04	-2.5	-2.4	1.6	2.3	1.4	
3123	Blakeney Island { . . . . .	10° 25'	151° 13'	+1 37	+1 28	-1.8	-2.0	--	2.6	1.9	
on Townsville, p.280											
3125	South Cape . . . . .	10° 43'	150° 16'	-0 03	-0 19	(*0.48+1.2)		2.6	3.7	3.7	
3127	Dedele Point . . . . .	10° 14'	148° 43'	+0 21	+0 21	*0.78	*0.78	4.2	6.0	4.1	
3129	Port Moresby . . . . .	9° 29'	147° 08'	+0 17	-0 04	(*0.67+1.2)		3.6	5.2	4.8	
on Darwin, p.276											
3131	Fly River entrance . . . . .	8° 42'	143° 37'	+2 55	+2 47	*0.54	*0.43	7.9	11.2	7.0	
on Singapore, p.144											
3133	Merauke . . . . .	8° 29'	140° 23'	+1 36	+1 50	+7.2	+4.5	8.4	10.7	11.0	
on Bangkok Bar, p.140											
3135	Digul River entrance { . . . . .	7° 07'	138° 45'	-7 00	-7 03	*1.94	*1.65	15.9	19.3	14.5	
on Singapore, p.144											
3137	Etna Bay . . . . .	3° 56'	134° 40'	-8 36	-8 36	-0.4	-0.1	5.4	6.7	4.9	
on Yokohama, p.20											
3139	Sekar Bay, Berau Gulf . . . . .	2° 42'	132° 25'	-0 36	-0 28	(*0.74+2.1)		2.6	3.3	4.9	
on Bombay, p.328											
3141	Wasian River entrance, Berau Gulf . . . . .	2° 13'	133° 33'	-5 20	-5 17	+1.4	+0.3	9.8	12.3	9.2	
3143	Modan, Berau Gulf . . . . .	2° 23'	133° 54'	-5 21	-5 18	+5.6	+1.3	13.0	16.4	11.8	
on Yokohama, p.20											
3145	Saonek, Dampier Strait . . . . .	0° 27'	130° 46'	+1 53	+2 02	(*0.94+0.3)		3.3	4.5	3.9	
3147	Manokwari . . . . .	0° 52'	134° 05'	+1 50	+1 59	-0.2	-0.1	3.4	4.6	3.6	
3149	Mios Woendi Lagoon, Schouten Islands . . . . .	1° 16'	136° 23'	+1 52	+1 44	*0.95	*0.95	3.3	4.2	3.6	
3151	Kajo Bay . . . . .	2° 32'	140° 44'	+1 51	+1 59	(*0.51+1.1)		1.8	2.0	3.0	
on Darwin, p.276											
AUSTRALIA North Coast Time meridian, 142° 30' E											
3153	Tapa Bay, Bynoe Harbor . . . . .	12° 27'	130° 36'	-0 04	-0 04	*0.88	*0.90	11.6	16.8	12.0	
3155	East Point, Bynoe Harbor . . . . .	12° 35'	130° 34'	+0 04	+0 04	*0.91	*0.96	11.9	17.0	12.6	
3157	Night Cliff, Point Darwin . . . . .	12° 23'	130° 50'	+0 06	+0 06	-1.6	-0.5	12.3	17.6	12.6	
3159	DARWIN . . . . .	12° 28'	130° 51'	Daily predictions				13.4	18.8	13.6	
3161	Cape Hotham . . . . .	12° 03'	131° 17'	+1 14	+1 14	*0.64	*0.67	8.3	11.2	8.8	
Time meridian, 120° E											
3163	Cape Keith, Melville Island . . . . .	11° 36'	131° 28'	+0 03	+0 03	*0.54	*0.55	7.2	9.6	7.4	
3165	Cape Don Boat Harbor . . . . .	11° 19'	131° 46'	-1 02	-1 19	*0.33	*0.33	4.0	5.6	4.6	
3167	Arnhem Bay . . . . .	12° 11'	136° 06'	+4 15	+4 10	(*0.85-3.0)		11.4	13.6	8.6	
Time meridian, 142° 30' E											
East Coast Time meridian, 150° E											
3169	Thursday Island, Torres Strait <31> . . . . .	10° 35'	142° 13'	---	---	--	--	--	6.1	--	
3171	Tern Island . . . . .	11° 00'	142° 45'	+1 38	+1 36	+1.1	+0.9	5.6	8.4	6.3	
3173	Hannibal Island . . . . .	11° 36'	142° 56'	+1 02	+1 01	0.0	0.0	5.4	8.0	5.3	
3175	Piper Island . . . . .	12° 15'	143° 15'	+0 27	+0 28	*0.86	*0.96	4.4	6.6	4.7	
3177	Restoration Island . . . . .	12° 37'	143° 28'	+0 23	+0 23	(*0.70+1.0)		3.8	5.8	4.7	
3179	Flinders Islands . . . . .	14° 10'	144° 15'	+0 15	+0 15	(*0.78+1.9)		4.2	6.2	6.0	
3181	Low Wooded Isle . . . . .	15° 05'	145° 24'	-0 12	-0 12	(*0.72+1.0)		3.9	5.8	4.8	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	AUSTRALIA East Coast-cont. Time meridian, 150° E	South	East	h m	h m	ft	ft	ft	ft	ft	
on Townsville, p.280											
3183	Cooktown .....	15° 28'	145° 15'	+0 10	+0 10	(*0.72+0.4)		3.9	5.8	4.2	
3185	Low Isles .....	16° 23'	145° 34'	+0 00	+0 00	(*0.70+1.1)		3.8	5.6	4.8	
3187	Cairns .....	16° 55'	145° 47'	-0 02	-0 02	(*0.76+0.6)		4.1	6.0	4.6	
3189	Green Island .....	16° 46'	145° 58'	-0 18	-0 18	(*0.72+0.7)		3.9	5.6	4.5	
3191	High Island .....	17° 10'	146° 01'	-0 06	-0 06	(*0.72+0.7)		3.9	5.8	4.5	
3193	North Barnard Island .....	17° 41'	146° 11'	-0 04	-0 04	(*0.76+0.9)		4.1	6.0	4.9	
3195	Dunk Island .....	17° 56'	146° 09'	-0 06	-0 06	(*0.81+2.3)		4.4	6.4	6.6	
3197	Dungeness (Lucinda) .....	18° 31'	146° 19'	+0 15	+0 15	+0.3	0.0	5.7	8.0	5.5	
3199	TOWNSVILLE .....	19° 15'	146° 50'			Daily predictions		5.4	7.6	5.3	
3201	Bowen .....	20° 01'	148° 15'	+0 52	+0 52	-0.2	0.0	5.2	7.0	5.2	
on Brisbane Bar, p.284											
3203	Hook Island .....	20° 04'	148° 56'	+1 10	+1 05	+1.9	+1.0	5.9	7.9	5.4	
3205	Molle Island .....	20° 15'	148° 50'	+1 23	+1 18	*1.36	*1.43	6.7	8.8	5.4	
3207	East Repulse Island .....	20° 35'	148° 53'	+1 39	+1 34	(*1.82+2.0)		9.1	12.1	9.1	
3209	Carlisle Island .....	20° 47'	149° 18'	+1 26	+1 21	(*1.88+2.0)		9.4	12.7	9.3	
3211	St. Bees Island .....	20° 54'	149° 27'	+1 31	+1 26	(*2.10+1.7)		10.5	14.1	9.9	
3213	Refuge Bay, Scafell Island .....	20° 52'	149° 37'	+1 26	+1 21	(*1.96+2.5)		9.8	13.1	10.1	
3215	Mackay, Queensland .....	21° 07'	149° 14'	+1 35	+1 30	(*2.44+0.3)		12.2	16.0	9.8	
3217	Sarina Inlet .....	21° 24'	149° 20'	+1 43	+1 38	(*2.58+1.1)		12.9	16.8	11.2	
3219	Dove Point, Shoalwater Bay .....	22° 14'	150° 28'	+0 58	+0 53	(*2.58+0.8)		12.9	17.1	10.9	
3221	High Peak Island .....	21° 57'	150° 41'	+0 40	+0 35	(*2.00+0.8)		10.0	13.4	8.6	
3223	Port Clinton, Coral Sea .....	22° 32'	150° 45'	+0 15	+0 10	*1.84	*1.64	9.5	12.8	7.1	
3225	Tryon Island .....	23° 15'	151° 47'	-0 38	-0 43	+1.9	+1.1	5.8	7.6	5.4	
3227	Port Alma, Fitzroy River .....	23° 34'	150° 52'	-0 10	-0 15	(*1.88+1.2)		9.4	12.5	8.5	
3229	Gladstone, Port Curtis .....	23° 50'	151° 15'	-0 10	-0 15	+4.2	+1.4	7.8	10.2	6.7	
3231	Lady Musgrave Island .....	23° 54'	152° 23'	-1 25	-1 25	0.0	+0.6	4.4	5.9	4.2	
3233	Pancake Creek .....	24° 01'	151° 45'	-0 56	-1 02	+2.3	+1.1	6.2	8.2	5.6	
3235	Lady Elliot Island .....	24° 07'	152° 43'	-1 19	-1 19	0.0	+0.8	4.2	5.6	4.3	
3237	Burnett Heads .....	24° 46'	152° 23'	-0 41	-0 41	+1.1	+0.9	5.2	6.6	4.9	
3239	Urangan Jetty .....	25° 17'	152° 55'	-0 48	-0 48	+3.5	+0.7	7.8	10.2	6.0	
3241	Mary River, Middle Bank .....	25° 30'	152° 52'	+0 20	+1 00	+3.2	+0.1	8.1	10.5	5.6	
3243	BRISBANE BAR .....	27° 19'	153° 10'			Daily predictions		5.0	5.9	4.0	
3245	Ballina .....	28° 52'	153° 35'	-0 59	-0 58	(*0.46+0.7)		2.3	2.9	2.5	
3247	Iluka .....	29° 25'	153° 22'	-1 15	-1 15	(*0.56+0.8)		2.8	3.6	3.0	
3249	Lord Howe Island .....	31° 32'	159° 04'	-1 25	-1 20	-0.6	+0.3	4.1	5.3	3.8	
3251	Norfolk Island .....	29° 04'	167° 56'	-1 17	-1 29	-1.3	-0.4	4.1	5.0	2.9	
Time meridian, 150° E											
on Sydney, p.288											
3253	Coffs Harbor .....	30° 18'	153° 09'	-0 22	-0 20	0.0	-0.1	3.7	4.7	3.0	
3255	Port Macquarie bar .....	31° 26'	152° 56'	+0 12	+0 11	-0.3	-0.1	3.2	4.0	2.8	
3257	Nelson's Bay .....	32° 43'	152° 09'	+0 16	+0 17	+0.1	+0.3	3.4	4.2	3.2	
3259	Newcastle .....	32° 56'	151° 47'	-0 04	-0 09	0.0	+0.2	3.4	4.2	3.1	
3261	SYDNEY (Fort Denison) .....	33° 51'	151° 14'			Daily predictions		3.6	4.5	3.0	
3263	Port Kembla .....	34° 29'	150° 55'	+0 00	+0 00	-0.4	-0.2	3.4	4.0	2.7	
3265	Moruya River bar .....	35° 54'	150° 08'	+0 10	+0 10	-0.4	+0.1	3.1	3.9	2.9	
3267	Eden .....	37° 04'	149° 54'	+0 00	+0 00	-0.8	-0.1	2.9	3.6	2.5	
3269	Gabo Island .....	37° 34'	149° 55'	-0 10	-0 01	+0.2	+1.2	2.6	3.0	3.7	
Tasmania											
on Port Phillip, p.292											
3271	Stack Island .....	40° 36'	144° 47'	+0 46	+1 32	(*1.81-1.1)		5.6	6.2	4.1	
3273	Devonport .....	41° 09'	146° 23'	-0 14	+0 32	+4.8	+0.1	7.8	8.5	5.4	
3275	Port Dalrymple entrance .....	41° 04'	146° 48'	-0 34	+0 12	(*2.26-1.1)		7.0	8.0	5.5	
3277	Launceston, Tamar River .....	41° 26'	147° 08'	+1 26	+3 17	(*3.13-0.9)		9.7	10.8	8.2	
on Hong Kong, p.120											
3279	Parsons Bay .....	43° 06'	147° 45'	+11 22	+11 31	(*0.52+0.8)		1.7	1.8	3.1	
3281	Hobart .....	42° 53'	147° 20'	+11 09	+11 14	(*0.55+0.9)		1.8	1.9	3.4	
on Port Adelaide, p.296											
3283	Bramble Cove, Port Davey .....	43° 19'	146° 00'	-3 40	-3 40	(*0.19+1.4)		0.9	1.1	2.3	
on Port Phillip, p.292											
3285	Rabbit Island .....	38° 55'	146° 31'	+0 01	+0 47	*1.47	*1.00	5.2	6.0	4.0	
3287	Winter Cove, Kent Islands .....	39° 28'	147° 21'	-0 34	+0 12	*1.67	*1.07	6.0	7.0	4.5	
3289	Great Glennie Island .....	39° 05'	146° 14'	-0 24	+0 22	*1.67	*1.07	6.0	6.8	4.5	
3291	Venus Bay .....	38° 40'	145° 44'	+0 00	--	+2.3	--	--	--	--	
3293	Mussel Rock, Westernport .....	38° 27'	145° 15'	+0 25	-0 10	*1.94	*1.94	6.0	7.5	5.6	
3295	PORT PHILLIP (Point Lonsdale) .....	38° 18'	144° 37'			Daily predictions		3.1	3.9	2.9	
3297	Queenscliff, Port Phillip .....	38° 19'	144° 40'	+0 24	+0 24	*0.61	*0.61	1.9	2.1	1.8	
3299	Melbourne (Williamstown) .....	37° 52'	144° 55'	+2 58	+3 41	(*0.55+0.2)		1.7	1.9	1.8	
3301	Geelong, Port Phillip .....	38° 07'	144° 25'	+3 22	+3 22	*0.60	*0.60	1.8	2.0	1.8	
3303	Port Campbell .....	38° 38'	143° 00'	-1 18	-0 53	(*0.45+0.4)		1.4	2.0	1.7	
3305	Warrnambool .....	38° 24'	142° 29'	+0 20	+0 20	(*0.52+0.7)		1.6	2.4	2.2	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	AUSTRALIA South Coast-cont. Time meridian, 150° E	South	East	h m	h m	ft	ft	ft	ft	ft	
<b>on Port Adelaide, p.296</b>											
3307	Portland	38° 21'	141° 37'	-4 47	-4 48	(*0.28+0.7)		1.3	1.7	2.0	
	Time meridian, 142° 30' E										
3309	Port MacDonnell	38° 04'	140° 42'	-5 16	-5 14	*0.62	*0.62	2.9	4.1	3.0	
3311	Kingston	36° 50'	139° 51'	-3 59	-4 15	(*0.47+0.9)		1.6	2.2	3.2	
3313	Second Valley	35° 31'	138° 13'	-0 25	-0 26	*0.63	*0.67	2.9	4.0	3.1	
3315	Hog Bay, Kangaroo Island	35° 44'	137° 57'	-1 16	-0 59	(*0.53+1.3)		2.2	3.1	3.8	
3317	PORT ADELAIDE	34° 51'	138° 30'					4.7	6.6	4.8	
3319	Port Wakefield	34° 16'	138° 06'					--	--	6.3	
3321	PORT LINCOLN	34° 43'	135° 52'					2.2	3.1	2.9	
3323	Ardrossan, Gulf of St. Vincent	34° 26'	137° 55'	-0 23	-0 15	+1.4	+1.4	5.5	7.8	5.8	
3325	Edithburgh, Gulf of St. Vincent	35° 05'	137° 45'	-0 52	-0 48	*0.79	*0.79	3.7	5.2	3.8	
3327	Port Victoria, Spencer Gulf	34° 30'	137° 27'	-2 37	-2 37	*0.59	*0.59	2.8	4.0	2.8	
3329	Wallaroo, Spencer Gulf	33° 55'	137° 37'	+0 28	+0 34	*0.59	*0.59	2.7	3.8	2.9	
3331	Port Pirie, Spencer Gulf	33° 10'	138° 01'	+2 40	+2 48	+0.8	+0.2	5.3	7.4	5.3	
3333	Port Augusta, Spencer Gulf	32° 30'	137° 46'	+3 08	+3 16	+1.2	-0.1	6.0	8.4	5.3	
3335	Coffin Bay	34° 30'	135° 20'	-4 32	-4 26	*0.70	*0.67	3.4	4.8	3.3	
3337	Port Eyre	32° 00'	132° 27'	-5 17	-5 17	*0.70	*0.67	3.4	4.8	3.3	
<b>on Djakarta, p.156</b>											
3339	Albany, Princess Royal Harbor } . . . . .	35° 02'	117° 53'	+12 28	+12 11	(*0.85+0.4)		--	2.2	2.1	
West and Northwest Coasts											
3341	Bunbury Harbor { . . . . .	33° 19'	115° 39'	+11 04	+10 43	+1.0	+1.6	--	1.9	3.3	
3343	Fremantle, Swan River entrance }	32° 03'	115° 45'	+10 52	+10 20	(*0.81+0.5)		--	2.1	2.1	
3345	Champion Bay } . . . . .	28° 47'	114° 35'	+10 41	+9 51	-1.3	-0.8	--	2.0	0.9	
<b>on Davao, p.176</b>											
3347	Carnarvon, Shark Bay	24° 52'	113° 39'	+5 08	+4 51	(*0.49+2.3)		2.1	2.9	3.5	
3349	Red Cliff Bay, Shark Bay	25° 48'	113° 40'	+7 32	+7 30	(*0.63+1.6)		2.7	3.5	3.2	
3351	Learmonth, Exmouth Gulf	22° 11'	114° 05'	+5 17	+5 19	+2.7	+2.1	4.9	6.8	4.9	
3353	Long Island	21° 38'	114° 41'	+4 34	+4 28	(*0.84+1.3)		3.6	5.0	3.4	
3355	Beadon Point	21° 38'	115° 06'	+4 58	+4 48	+1.0	+1.1	4.2	5.8	3.5	
<b>on Port Hedland, p.304</b>											
3357	Large Islet	21° 18'	115° 30'	+0 23	+0 28	(*0.51+0.9)		6.7	9.7	5.9	
3359	Trimouille Island, Monte Bello Islands	20° 23'	115° 33'	-0 04	+0 02	(*0.42+1.5)		5.6	8.1	5.7	
3361	Point Samson	20° 38'	117° 12'	-0 27	-0 16	(*0.81+1.3)		10.7	15.3	9.3	
3363	PORT HEDLAND	20° 18'	118° 35'					13.2	19.0	9.9	
3365	Broome	18° 00'	122° 13'	-0 22	-0 12	*1.41	*1.41	18.4	27.2	14.0	
3367	Red Bluff	17° 04'	122° 19'	+0 01	+0 10	(*1.08+0.7)		14.3	21.6	11.4	
3369	Pender Bay	16° 42'	122° 43'	+0 15	+0 15	(*1.23-1.2)		16.2	23.4	11.0	
3371	Karrakatta Bay	16° 22'	123° 02'	+0 15	+0 51	(*1.26-0.6)		16.6	23.6	11.9	
3373	Bedford Island	16° 09'	123° 19'	+0 43	+0 48	(*1.41+0.2)		18.6	26.8	14.2	
3375	Cockatoo Island	16° 05'	123° 35'	+0 21	+0 26	(*1.44+1.4)		19.0	27.3	15.7	
3377	Hall Point, Kid Islet	15° 40'	124° 24'	+0 17	+0 22	(*1.54-0.9)		20.3	29.4	14.3	
3379	Prince Frederick Harbor	15° 05'	125° 18'	+0 00	+0 00	*1.48	*1.48	19.5	28.1	14.8	
3381	Baudin Island	14° 08'	125° 36'	-0 23	-0 18	+1.5	+1.5	13.0	18.8	11.4	
3383	Troughton Island	13° 46'	126° 08'	-0 35	-0 35	*1.10	*1.10	14.5	20.9	11.0	
<b>on Port Adelaide, p.296</b>											
3385	Geranium Hbr., Napier Broome Bay	13° 56'	126° 35'	-6 45	-7 21	0.0	-0.5	5.2	7.5	4.5	
<b>on Darwin, p.276</b>											
3387	Reveley Island	14° 22'	127° 50'	-0 49	-0 54	*0.80	*0.80	10.7	14.6	11.0	
3389	Lacrosse I., Cambridge Gulf	14° 45'	128° 20'	-0 22	-0 28	-1.3	-0.3	12.4	16.9	12.8	
<b>on Apia, p.252</b>											
LESSER ISLANDS Detached Islands Time meridian, 191° 15' E											
3391	Chatham Islands	43° 55'	183° 23'	-0 27	-0 27	*1.50	*1.50	3.4	3.9	2.6	
3393	Time meridian, 180° E										
3395	Auckland Island	50° 52'	166° 05'	+6 56	+6 11	*1.10	*1.10	2.5	3.2	1.9	
3397	Perseverance Harbor, Campbell Island	52° 34'	169° 07'	+7 47	+7 25	*1.30	*1.30	3.0	3.5	2.3	
	Time meridian, 165° E										
	Macquarie Island	54° 31'	158° 58'	+6 26	+5 58	*0.93	*0.93	1.9	2.4	1.8	
Islands, Bay of Bengal Time meridian, 82° 30' E											
	North	East	<b>on Mergui, p.308</b>								
3399	Nicobar Islands	6° 47'	93° 51'	-2 08	-2 17	(*0.27+0.5)		3.4	4.6	3.0	
3401	Galathea Bay	8° 02'	93° 33'	-1 50	-1 58	(*0.29+1.7)		3.6	5.0	4.3	
3403	Nankauri Harbor	9° 10'	92° 50'	-2 05	-2 05	(*0.31+0.5)		3.8	5.3	3.3	

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
		North	East	h m	h m	ft	ft	ft	ft	ft	
LESSER ISLANDS Islands, Bay of Bengal-cont. Time meridian, 82° 30' E											
3405	Andaman Islands Sisters Island .....	11° 09'	92° 44'	-1 54	-1 49	(*0.35+0.3)		4.3	5.8	3.5	
3407	Port Blair .....	11° 41'	92° 46'	-1 38	-1 42	(*0.35+0.3)		4.4	6.1	3.5	
3409	Port Cornwallis .....	13° 19'	93° 03'	-1 03	-1 17	(*0.41+0.9)		5.1	7.2	4.6	
MYANMAR <32> Time meridian, 97° 30' E											
3411	Pulo Besin .....	9° 59'	98° 29'	-0 32	-0 43	(*0.67+1.1)	8.3	11.5	7.2		
3413	Hastings harbor .....	10° 07'	98° 17'	-0 35	-0 42	*0.60 *0.52	7.7	10.8	5.4		
3415	Lanbi Island .....	10° 46'	98° 18'	-0 24	-0 36	*0.73 *0.76	9.0	12.5	6.7		
3417	Owen Island .....	11° 12'	98° 15'	-0 24	-0 36	(*0.69+0.9)	8.5	11.9	7.2		
3419	Pigeon Island .....	11° 47'	98° 13'	-0 32	-0 44	*0.69 *0.69	8.6	12.0	6.3		
3421	MERGUI .....	12° 26'	98° 36'			Daily predictions	12.4	17.5	9.1		
3423	Padaw Sound .....	12° 37'	98° 25'	-0 17	-0 17	-0.2 +1.5	10.7	15.1	9.8		
3425	Myinkwa Aw, Tavoy R. entrance .....	13° 33'	98° 08'	-0 11	-0 16	(*0.78+1.1)	9.7	13.6	8.2		
3427	Heinze Bok (Long Island) .....	14° 24'	97° 47'	+0 31	+0 31	(*0.72+1.0)	8.9	12.6	7.6		
3429	Wa Kyun .....	15° 12'	97° 44'	+1 44	+1 46	(*0.78+4.4)	9.7	14.0	11.5		
3431	Double Island .....	15° 52'	97° 35'	+3 17	+3 43	0.0 +0.5	11.9	17.2	9.4		
3433	Kyaikkami, Moulmein River .....	16° 05'	97° 34'	+4 02	+4 15	+2.0 0.0	14.4	20.0	10.1		
on Mergui, p.308											
3435	Moulmein, Moulmein River <33,34> .....	16° 29'	97° 37'	-0 53	-0 03	-6.0	--	9.5	12.2	6.2	
on Mergui, p.308											
3437	Elephant Point, Rangoon River .....	16° 28'	96° 19'	+5 26	+5 52	+3.7	+2.1	14.0	18.9	12.0	
3439	RANGOON, Rangoon River .....	16° 46'	96° 10'			Daily predictions	13.4	17.0	10.3		
on Mergui, p.308											
3441	China Bakir (Old Lighthouse) .....	16° 17'	96° 12'	+5 04	+5 05	(*0.82+1.1)	10.2	14.2	8.6		
3443	Pymbong Beacon .....	15° 47'	95° 31'	+0 42	+0 33	(*0.35+1.2)	4.3	6.2	4.4		
on Sagar, p.316											
3445	Diamond Island, Bassein River .....	15° 52'	94° 17'	+0 14	+0 00	*0.48 *0.46	4.8	6.5	4.7		
3447	Bassein, Bassein River <35> .....	16° 47'	94° 47'	+4 34	+4 53	*0.52 *0.54	4.9	5.7	5.2		
3449	Chaungtha River entrance .....	16° 57'	94° 26'	-0 23	-0 36	*0.42 *0.32	4.6	6.4	3.9		
3451	Andrew Bay .....	18° 21'	94° 21'	-0 26	-0 42	*0.47 *0.34	5.2	7.2	4.3		
3453	Searle Point, Cheduba Island .....	18° 55'	93° 37'	-0 03	-0 15	+0.56 *0.48	5.8	8.0	5.3		
3455	Kyaukpyu, Ramree Island .....	19° 26'	93° 33'	-0 06	-0 33	*0.58 *0.40	6.5	9.0	5.3		
3457	Sittwe .....	20° 08'	92° 54'	+0 13	-0 05	*0.48 *0.28	5.6	7.6	4.2		
3459	St. Martins Island .....	20° 37'	92° 19'	-0 12	-0 31	*0.62 *0.56	6.3	8.8	6.0		
BANGLADESH <36>											
Time meridian, 90° E											
3461	Cox's Bazar .....	21° 27'	91° 59'	+0 47	+0 26	*0.67 *0.52	7.2	8.9	6.2		
3463	Pusur River .....	21° 43'	89° 33'	+0 19	+0 12	*0.61 *0.64	5.7	7.5	6.1		
3465	Kutubdia Island .....	21° 52'	91° 50'	+1 45	+1 44	*0.76 *0.44	8.9	11.0	6.7		
3467	Chittagong .....	22° 20'	91° 50'	+3 37	+4 06	*0.80 *0.42	9.6	11.9	6.9		
INDIA <36>											
Bay of Bengal											
Time meridian, 82° 30' E											
3469	Matla River Approach .....	20° 58'	88° 35'	-0 22	-0 42	*0.63 *0.54	6.5	8.8	6.0		
3471	SAGAR, Hooghly River .....	21° 39'	88° 03'			Daily predictions	9.7	14.1	9.9		
3473	Diamond Harbor, Hooghly River .....	22° 11'	88° 11'	+1 35	+2 34	*1.11 *0.88	12.0	16.0	10.4		
3475	Calcutta (Garden Reach) Hooghly River .....	22° 33'	88° 18'	+3 56	+5 38	*1.06 *1.00	10.6	13.7	10.3		
3477	Shortt Island .....	20° 47'	87° 04'	-0 31	-0 36	*0.63 *0.52	6.6	9.0	5.9		
3479	Chandbali .....	20° 46'	88° 44'	+1 22	+1 58	*0.54 +0.52	5.3	6.4	5.3		
on Madras, p.320											
3481	False Point .....	20° 25'	86° 47'	+0 35	+0 31	(*2.04+0.8)	4.9	6.8	5.1		
3483	Gopalpur .....	19° 16'	84° 55'	+0 05	+0 05	*1.52 *1.52	3.7	5.2	3.2		
3485	Vizagapatam .....	17° 41'	83° 17'	+0 06	+0 05	+0.9 0.0	3.3	4.6	2.6		
3487	Cocanada .....	16° 56'	82° 15'	+0 17	+0 27	+1.1 +0.2	3.3	4.4	2.8		
3489	Sacramento Shoal .....	16° 36'	82° 19'	+0 03	+0 18	+0.7 +0.1	3.0	4.0	2.5		
3491	MADRAS .....	13° 06'	80° 18'			Daily predictions	2.4	3.2	2.1		
3493	Cuddalore .....	11° 43'	79° 47'	-0 01	+0 05	-0.3 +0.2	1.9	2.5	2.1		
3495	Negapatam .....	10° 45'	79° 51'	+0 19	+0 36	*0.55 +0.33	1.5	2.0	1.1		
on Colombo, p.324											
3497	Pamban Channel, Gulf of Mannar .....	9° 16'	79° 12'	-0 07	-0 09	+0.1 +0.1	1.4	1.9	1.3		
3499	Tuticorin, Gulf of Mannar .....	8° 48'	78° 10'	-0 15	-0 15	+0.8 +0.6	1.6	2.3	1.9		

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No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	INDIA <36> Bay of Bengal-cont. Time meridian, 82° 30' E	North	East	h m	h m	ft	ft	ft	ft	ft	
	Sri Lanka			on Colombo, p.324							
3501	Point Pedro	9° 50'	80° 14'	-5 46	-5 42	0.0	-0.1	1.5	2.0	1.2	
3503	Trincomalee	8° 33'	81° 13'	-5 54	-5 50	0.0	0.0	1.2	1.7	1.3	
3505	Galle	6° 02'	80° 13'	+0 14	+0 19	*0.89	*0.89	1.2	1.8	1.1	
3507	COLOMBO	6° 57'	79° 51'			Daily predictions		1.4	2.0	1.2	
3509	Jaffna	9° 39'	80° 01'	+0 57	+1 13	(*0.71+0.4)		1.0	1.4	1.3	
	Arabian Sea										
3511	Quilon	8° 53'	76° 34'	-1 43	-1 52	+1.1	+0.8	1.7	2.3	2.2	
3513	Cochin	9° 58'	76° 15'	-2 22	-2 24	+0.8	+0.6	1.6	2.0	1.9	
3515	Beyvore	11° 10'	75° 48'	-2 34	-2 32	+2.0	+1.3	2.1	2.7	2.9	
				on Karachi, p.332							
3517	Calicut	11° 15'	75° 46'	+0 43	+0 20	(*0.40+1.3)		2.3	2.9	3.5	
3519	Tellicherry	11° 45'	75° 29'	+0 29	+0 28	(*0.48+0.8)		2.8	3.1	3.4	
3521	Cannanore	11° 51'	75° 22'	+0 31	+0 22	(*0.47+0.7)		2.7	3.2	3.2	
3523	Mangalore	12° 51'	74° 50'	+0 43	+0 38	(*0.48+0.5)		2.8	3.5	3.1	
3525	Malpe	13° 21'	74° 41'	+0 09	+0 01	(*0.55+0.4)		3.2	4.0	3.4	
3527	Bhatkal	13° 58'	74° 32'	+0 36	+0 38	*0.43 *0.40		2.6	3.5	2.3	
3529	Karwar Bay	14° 48'	74° 06'	+0 22	+0 10	*0.67 *0.67		3.8	4.9	3.7	
3531	Mormugao	15° 25'	73° 48'	+0 18	+0 08	*0.66 *0.60		4.0	5.2	3.5	
				on Bombay, p.328							
3533	Rajapur River entrance	16° 37'	73° 20'	-1 00	-1 00	*0.56 *0.72		4.2	5.7	5.0	
3535	BOMBAY (Apollo Bandar)	18° 55'	72° 50'			Daily predictions		8.7	11.8	8.4	
3537	Bassein	19° 18'	72° 48'	+0 30	+1 04	-0.9 -0.8		8.6	11.1	7.5	
3539	Dahanu	19° 58'	72° 43'	+1 40	+1 40	+1.1 +0.7		9.1	12.4	9.3	
3541	Bhavnagar, Gulf of Cambay	21° 45'	72° 14'	+5 03	+5 41	*2.40 *1.90		22.9	29.0	19.1	
3543	Port Albert Victor, Gulf of Cambay	20° 57'	71° 32'	+3 06	+2 49	*0.71 *0.62		6.5	8.7	5.8	
3545	Navabadar	20° 45'	71° 05'	+1 20	+1 10	(*0.44+2.2)		3.8	5.4	5.9	
				on Karachi, p.332							
3547	Porbandar	21° 38'	69° 37'	+0 14	+0 17	(*0.79+1.6)		4.6	6.0	5.9	
	Gulf of Kutch			on Bombay, p.328							
3549	Okha Point	22° 28'	69° 05'	+0 54	+0 46	*0.84 *0.68		8.0	9.8	6.7	
3551	Navinar Point	22° 45'	69° 43'	+1 57	+2 06	+4.9 +0.6		13.0	15.5	11.1	
3553	Kandla	23° 02'	70° 14'	+2 39	+3 08	+7.8 -0.2		16.7	19.4	12.2	
3555	Khori Creek	22° 58'	70° 14'	+2 28	+2 58	+7.4 +0.1		16.0	18.2	12.1	
3557	Hansthal Point	22° 56'	70° 21'	+2 33	+3 20	+5.6 -0.2		14.5	16.8	11.1	
3559	Navlakhi	22° 58'	70° 27'	+3 02	+3 33	+9.2 +0.4		17.5	20.2	13.2	
3561	Navi Wat	23° 05'	70° 20'	+3 09	+3 55	+7.2 +0.1		15.8	17.6	12.0	
				on Karachi, p.332							
3563	Kori Creek entrance	23° 31'	68° 21'	+0 25	+0 25	+0.4 0.0	0.0	6.2	8.1	5.6	
	Arabian Sea Islands Time meridian, 75° E			on Madras, p.320							
3565	Suvadiva Atoll, Maldives Islands	0° 50'	73° 09'	+5 10	+5 10	0.0 +0.2		2.2	2.9	2.2	
				on Colombo, p.324							
3567	Horsburgh Atoll, Maldives Islands	4° 54'	72° 57'	-1 50	-1 35	(*0.86+1.1)		1.2	1.7	2.1	
3569	Ihavandu, Maldives Islands	6° 57'	72° 55'	-2 32	-2 24	+1.1 +0.9		1.6	2.3	2.2	
3571	Minicoy Island	8° 16'	73° 01'	-2 50	-2 41	+2.3 +1.7		2.0	2.5	3.2	
	Time meridian, 82° 30' E										
3573	Kardamum Island, Laccadive Islands	11° 13'	72° 46'	+1 15	+1 15	(*0.38+1.3)		1.8	2.9	3.4	
3575	Cherbaniani Reef, Laccadive Islands	12° 21'	71° 53'	+0 25	+0 25	(*0.45+1.6)		2.2	3.4	4.0	
	PAKISTAN Time meridian, 75° E										
	Indus River Delta			Daily predictions							
3577	Hajamro River mouth	24° 06'	67° 19'	+0 00	+0 00	+1.0 +0.2		6.6	8.6	6.0	
3579	Jhāri Creek	24° 44'	67° 19'	0 30	1 02	+1.6 +0.7		--	--	--	
3581	Port Muhammad Bin Qasim	24° 47'	67° 21'	0 23	0 23	+2.3 +1.0		--	--	--	
3583	Hasan Point	24° 47'	67° 14'	0 13	0 15	+1.6 +0.7		--	--	--	
3585	Bundal Island	24° 42'	67° 08'	+0 00	+0 00	+1.0 +0.3		--	--	--	
3587	Ghizri Creek	24° 46'	67° 06'	-0 02	0 01	+0.7 +0.3		--	--	--	
3589	KARACHI	24° 48'	66° 58'			Daily predictions		5.8	7.6	5.4	
3591	Sonmiani Harbor	25° 23'	66° 33'	-0 50	-0 50	0.0 -0.2		6.0	7.8	5.3	
3593	Ormara	25° 11'	64° 41'	-0 08	-0 10	*0.86 *0.72		5.3	7.0	4.5	
3595	Pasni	25° 12'	63° 30'	+0 09	+0 08	+0.2 +0.9		5.1	6.6	6.0	
3597	Gwatar Bay	25° 09'	61° 33'	+0 35	+0 35	(*0.90+0.2)		5.2	6.8	5.1	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	IRAN Time meridian, 52° 30' E	North	East	h m	h m	ft	ft	ft	ft	ft	
on Colombo, p.324											
3599	Chah Bahar .....	25° 17'	60° 37'	-1 47	-1 43	+0.7	+0.7	--	--	--	
3601	Ras Tang .....	25° 21'	59° 54'	-1 38	-1 43	+0.7	+1.6	--	--	--	
3603	Koksar .....	25° 32'	58° 50'	-1 42	-1 38	-0.3	+0.7	--	--	--	
3605	Khalij-e Jask .....	25° 38'	57° 46'	-1 42	-1 40	-1.0	-0.3	--	--	--	
3607	Jask Bay, Gulf of Oman .....	25° 39'	57° 45'	-1 20	-1 20	(*0.93+0.3)	5.4	7.0	5.3		
3609	Ras al Kuh .....	25° 47'	57° 19'	-1 34	-1 31	-0.7	-0.3	--	--	--	
3611	Gonari Creek .....	26° 18'	57° 06'	-0 36	-0 28	+1.0	+0.3	--	--	--	
3613	Bandar-e Sirik .....	26° 31'	57° 05'	-0 46	-0 37	+1.3	+0.3	--	--	--	
3615	Hengam, Persian Gulf .....	26° 41'	55° 54'	-0 02	+0 06	-1.0	-0.4	5.2	6.7	4.7	
3617	Bandar Abbas, Persian Gulf .....	27° 11'	56° 17'	-0 40	-0 40	+1.5	+0.6	6.7	9.4	6.5	
on Hong Kong, p.120											
								Mean Diurnal			
3619	Jazirat Farur, Persian Gulf .....	26° 15'	54° 31'	-9 30	-9 12	-0.3	-0.4	3.4	5.1	4.1	
3621	Bushahr, Persian Gulf .....	28° 59'	50° 51'	-0 44	-0 37	*0.64	*0.43	2.7	4.5	2.6	
3623	Jazirat Kharg, Persian Gulf .....	29° 16'	50° 20'	-0 39	-0 41	*0.87	*0.96	2.6	4.4	4.0	
on Shatt Al Arab, p.336											
3625	SHATT AL ARAB (outer bar) .....	29° 50'	48° 43'			Daily predictions		6.1	8.5	5.7	
3627	Basra Reach <37> .....	30° 31'	47° 51'	+5 38	+6 41	(*0.54+2.0)		3.3	3.9	5.1	
3629	Abadan .....	30° 20'	48° 16'	+2 50	+3 45	-3.3	+0.7	--	--	--	
3631	Al Faw .....	29° 58'	48° 29'	+1 00	+1 00	0.0	+1.0	--	--	--	
KUWAIT, Persian Gulf											
3633	Um Qasr .....	30° 01'	47° 57'	+1 52	+2 01	+5.5	+1.5	10.1	12.8	9.3	
3635	Um Al-Aseed (Beacon No. 12) .....	29° 56'	48° 02'	+1 20	+1 10	+4.6	+1.3	--	--	--	
3637	Warba Spit .....	29° 59'	48° 09'	+1 20	+1 13	+3.7	+0.7	9.1	12.2	8.0	
3639	Ras al Barshah (Beacon No. 2) .....	29° 33'	48° 14'	+0 41	+0 43	+1.3	+1.3	--	--	--	
3641	Mina ad Dawhah .....	29° 23'	47° 48'	+1 09	+1 03	+1.6	+1.0	--	--	--	
3643	Ash Shuwaykh .....	29° 21'	47° 55'	+1 11	+1 07	+1.6	+1.6	--	--	--	
3645	Kuwait .....	29° 21'	47° 56'	+1 12	+1 08	+1.4	+0.9	6.6	8.9	6.9	
3647	Fahayhil .....	29° 04'	48° 10'	+1 12	+0 46	(*0.78+0.6)	4.5	6.6	5.0		
on Mina Al Ahmadi, p.340											
3649	Jazirat Auhah .....	29° 22'	48° 26'	-0 12	-0 14	+0.3	+0.7	--	--	--	
3651	MINA AL AHMADI .....	29° 04'	48° 10'			Daily Predictions		--	--	--	
3653	Ras al Qulai'ah .....	28° 52'	48° 17'	+0 00	+0 16	-1.6	-0.3	--	--	--	
3655	Jazirat Kubbar .....	29° 04'	48° 30'	-0 12	-0 19	-1.3	+0.3	--	--	--	
3657	Jazirat Qaruh .....	28° 49'	48° 47'	-0 37	-0 13	-2.3	0.0	--	--	--	
3659	Jazirat Umm al Maradim .....	28° 41'	48° 39'	-0 15	+0 08	-3.0	0.0	--	--	--	
3661	Ras al Khafji .....	28° 25'	48° 31'	-0 04	+0 19	-3.3	-0.3	--	--	--	
SAUDI ARABIA, Persian Gulf											
3663	Ras Al Mishab } .....	28° 07'	48° 37'	+8 40	+7 58	+1.2	+0.3	4.0	4.7	3.5	
3665	Safaniya } .....	28° 00'	48° 46'	+8 39	+8 29	+1.0	+0.2	3.9	4.8	3.5	
on Bangkok Bar, p.140											
3667	Munifah <38> } .....	27° 35'	48° 54'	+10 27	+10 51	(*0.46-0.8)		3.6	4.3	2.7	
on Mina Salman, p.348											
								Mean Spring			
3669	Fasht Gharibah .....	26° 59'	50° 13'	-0 30	-0 42	-2.6	-1.3	--	--	--	
3671	Abu Sa'fah .....	26° 57'	50° 30'	-0 35	-0 40	-2.0	-0.7	--	--	--	
3673	RAS AT TANNURAH .....	26° 38'	50° 10'			Daily predictions, p.344		4.2	5.3	4.2	
3675	Dawhat at Tarut .....	26° 39'	50° 02'	-0 31	-0 07	-1.6	-1.0	--	--	--	
3677	Ad Dammam (K.A.A.P.) .....	26° 30'	50° 12'	-0 25	-0 28	-0.3	0.0	--	--	--	
3679	Al Kubar .....	26° 17'	50° 13'	-0 10	-0 20	-3.9	-0.7	--	--	--	
BAHRAIN, Persian Gulf											
3681	Malik Fahd Causway .....	26° 11'	50° 20'	+0 25	+0 20	-4.3	-1.0	--	--	--	
3683	Khawr Fasht .....	26° 20'	50° 26'	-0 02	+0 11	-1.3	-0.3	--	--	--	
3685	Al Manamah Harbor .....	26° 14'	50° 35'	-0 18	-0 25	-0.3	+0.2	4.4	5.8	4.1	
3687	MINA SALMAN, Bahrain Island .....	26° 13'	50° 36'			Daily predictions		4.9	6.4	4.2	
3689	Sitra .....	26° 10'	50° 40'	+0 05	+0 05	-0.3	0.0	--	--	--	
3691	Bahrain Approach Bouy .....	26° 22'	50° 47'	-0 17	-0 13	-1.0	-0.7	--	--	--	
3693	Ras Ashairiq .....	25° 59'	51° 00'	+0 15	+0 02	*0.62	*0.76	2.8	3.5	2.7	
3695	Jabal Fuwaira .....	26° 03'	51° 22'	-0 49	-1 10	(*0.61+0.3)	3.0	3.8	2.9		
QATAR, Persian Gulf											
3697	Ra's 'Ushayriq .....	25° 59'	51° 00'	+0 22	+0 22	-3.6	-1.0	--	--	--	
3699	Ar Ru'ays .....	26° 10'	51° 11'	-0 11	-0 06	-2.3	-1.0	--	--	--	
on Musay'id, p.352											
								Mean Diurnal			
3701	Al Wakrah .....	25° 10'	51° 37'	-0 03	+0 15	-1.3	-0.7	--	--	--	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time	Height	Mean	Diurnal			
		North	East	h m	h m	ft	ft	ft	ft	
	on Musay'id, p.352									
3703	Musay'id Harbour .....	24° 54'	51° 39'	+0 50	+0 40	0.0	0.0	--	--	--
3705	OUTER CHANNEL ENTRANCE .....	25° 02'	51° 39'			Daily predictions		--	--	--
3707	Khawr al Udayd .....	24° 42'	51° 27'	+1 00	+0 50	+0.3	0.0	--	--	--
3709	Ras Abu Qumayyis .....	24° 34'	51° 30'	+1 03	+1 00	+0.7	+0.3	--	--	--
3711	Jazirat Halul .....	25° 40'	52° 25'	-1 16	-1 17	-2.0	-0.7	--	--	--
	UNITED ARAB EMIRATES, Persian Gulf Time meridian, 60° E									
3713	Jazair Ghaghah .....	24° 24'	51° 33'	+2 18	+2 17	+0.7	0.0	--	--	--
	on Surabaja Strait, p.160									
3715	Jazirat Yas { .....	24° 17'	52° 37'	-10 51	-10 53	*0.86	*0.86	3.2	4.5	3.1
3717	Jazirat Das { .....	25° 09'	52° 53'	-11 08	-11 04	(*0.68+0.7)		2.5	3.5	3.1
	on Mina Jebel Ali, p.356									
3719	Ras Zubayyah .....	24° 20'	54° 10'	+1 24	+1 34	+1.0	+1.0	--	--	--
	on Mina Al Ahmadi, p.340									
3721	Sir Abu Nu'ayr .....	25° 13'	54° 13'	-10 30	-10 40	-3.3	0.0	--	--	--
3723	Umm an Nar .....	24° 26'	54° 30'	-8 11	-8 12	-4.3	0.0	--	--	--
3725	Mina Zayed Approaches .....	24° 38'	54° 17'	-10 32	-10 34	-2.0	0.0	--	--	--
3727	Mina Zayed .....	24° 31'	54° 09'	-10 12	-10 09	-2.0	0.0	--	--	--
3729	Umm ad Dalkh .....	24° 35'	54° 09'	-10 28	-10 33	-2.3	+0.3	--	--	--
	on Mina Jebel Ali, p.356									
3731	Khawr Ghurabi .....	24° 49'	54° 43'	+0 16	+0 18	-0.7	0.0	--	--	--
3733	Khawr Ghanadan .....	24° 50'	54° 46'	+0 36	+0 35	-0.3	-0.3	--	--	--
3735	MINA JEBEL ALI .....	25° 00'	55° 03'			Daily predictions		--	--	--
3737	Mina Rashid .....	25° 15'	55° 16'	-0 11	-0 15	0.0	0.0	--	--	--
3739	Dubay (Al Maktoum Bridge) .....	25° 15'	55° 19'	+0 16	+0 07	+0.3	0.0	--	--	--
3741	Ash Sharaqah .....	25° 22'	55° 23'	-0 16	-0 22	+0.7	+0.3	--	--	--
3743	Ajman .....	25° 25'	55° 26'	+0 10	+0 00	+0.3	+0.7	--	--	--
3745	Umm al Qaywayn .....	25° 35'	55° 35'	-0 23	-0 34	+0.3	+0.3	--	--	--
	on Karachi, p.332									
3747	Ras al Khaymah .....	25° 49'	55° 57'	+0 35	+0 45	-1.3	+1.0	--	--	--
3749	Mina Saqr .....	25° 58'	56° 03'	+0 35	+0 45	-1.0	+0.7	--	--	--
	OMAN									
	Strait of Hormoz									
3751	Bukha .....	26° 09'	56° 09'	+0 25	+0 34	-0.7	+0.7	--	--	--
3753	Ghubbat Dabshun .....	26° 12'	56° 24'	+0 15	+0 22	-0.7	+0.7	--	--	--
3755	Khasab .....	26° 12'	56° 15'	+0 10	+0 15	-0.3	+1.0	--	--	--
3757	Khawr al Quway .....	26° 22'	56° 22'	+0 05	+0 10	-0.7	+0.7	--	--	--
3759	Khor Kuwai .....	26° 21'	56° 22'	+0 09	-0 03	(*0.84+1.1)	4.9	6.4	5.6	
3761	Little Quoin I .....	26° 29'	56° 32'	-0 04	-0 21	(*0.95-0.6)	5.5	7.0	4.5	
3763	Masqat, Gulf of Oman .....	23° 37'	58° 36'	-1 07	-1 03	(*0.79+0.5)	4.6	6.1	4.8	
3765	Ras Dillah .....	26° 08'	56° 29'	-0 30	-0 30	+0.7	+1.3	--	--	--
3767	Khawr Niad (Khawr Habalayn) .....	26° 08'	56° 24'	-0 35	-0 35	-0.3	+0.7	--	--	--
3769	Mina Daba .....	25° 39'	56° 16'	-0 50	-0 50	+0.3	+1.0	--	--	--
3771	Ras al Hadd .....	22° 31'	59° 48'	-0 54	-0 54	(*0.72+1.5)	4.2	5.8	5.4	
3773	Rounders Bay, Masira Island .....	20° 13'	58° 38'	-1 04	-1 05	(*0.69+0.7)	4.0	5.2	4.4	
	on Aden, p.360									
	on Aden, p.360									
3775	Marbat .....	16° 59'	54° 42'	+1 16	+1 16	(*0.92+0.1)		3.3	4.9	4.2
	YEMEN									
	Time meridian, 45° E									
3777	Mukalla .....	14° 31'	49° 08'	-0 10	+0 00	(*0.75+0.7)	2.4	4.0	4.1	
3779	ADEN .....	12° 47'	44° 59'			Daily predictions	3.6	5.3	4.5	
	SAUDI ARABIA, Red Sea									
3781	Perim, Bab el Mandeb Strait .....	12° 39'	43° 24'	+0 03	+0 10	(*0.78+1.0)	2.8	4.4	4.5	
3783	Al Mukha .....	13° 19'	43° 14'	+4 53	+4 53	(*0.39+0.2)	1.4	2.2	2.0	
	on Suez, p.364									
3785	Kamaran Passage .....	15° 17'	42° 38'	+1 48	+1 53	-1.1	+0.4	2.3	2.8	3.4
	on Aden, p.360									
3787	Juddah .....	21° 28'	39° 11'	+11 25	+11 25	--	--	0.5	--	--

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	SAUDI ARABIA, Red Sea Time meridian, local	North	East	h m	h m	ft	ft	ft	ft	ft	
3789	Sherm Rabegh .....	22° 45'	38° 58'	-5 00	-5 00	(*0.34+1.5)		1.3	1.6	2.8	
3791	Aqaba, Gulf of Aqaba .....	29° 31'	35° 00'	-5 12	-5 07	(*0.53+0.5)		2.0	2.6	2.5	
	EGYPT to ERITREA <39>			on Suez, p.364							
3793	Gulf of Suez At Tur .....	28° 14'	33° 37'	-2 37	-2 33	--	--	0.6	0.7	--	
3795	SUEZ .....	29° 56'	32° 33'			Daily predictions		3.8	4.7	3.7	
3797	Zafarana .....	29° 06'	32° 40'	+0 00	+0 04	-1.2	-0.2	2.8	3.5	3.0	
3799	Ras Gharib .....	28° 21'	33° 06'	-0 21	+0 02	*0.30	*0.22	1.3	1.7	1.0	
3801	Ashrafi Island .....	27° 47'	33° 43'	-5 38	-5 34	*0.29	*0.39	0.9	1.2	1.2	
3803	Shadwan Island .....	27° 27'	34° 02'	-5 37	-5 33	*0.45	*0.45	1.7	2.0	1.7	
3805	Al Qusayr .....	26° 06'	34° 17'	-5 48	-5 44	*0.40	*0.40	1.5	1.8	1.5	
3807	Muhammad Qol .....	20° 54'	37° 10'	-4 59	-5 23	--	--	0.4	0.4	1.2	
3809	Port Sudan .....	19° 36'	37° 15'	--	--	--	--	0.1	--	0.5	
3811	Trinkitat .....	18° 41'	37° 45'	--	--	--	--	0.1	--	0.5	
	Time meridian, 45° E										
3813	Harmil Island .....	16° 29'	40° 11'	+2 00	+2 42	*0.25	*0.28	0.9	1.1	1.0	
3815	Massaua .....	15° 37'	39° 28'	+2 38	+2 43	(*0.63-0.8)		2.4	3.1	1.5	
3817	Assab .....	13° 00'	42° 44'	--	--	--	--	0.8	1.6	1.0	
	REPUBLIC OF DJIBOUTI			on Aden, p.360							
3819	Djibouti, Gulf of Aden .....	11° 35'	43° 08'	+0 05	+0 04	+1.3	+1.3	3.6	5.4	5.8	
	SOMALIA										
3821	Zeila, Gulf of Aden .....	11° 24'	43° 28'	+0 00	+0 00	+0.8	+0.8	3.6	5.3	5.3	
3823	Berbera, Gulf of Aden .....	10° 26'	45° 01'	+0 03	+0 02	+0.6	+0.6	3.6	5.6	5.1	
3825	Cape Guardafui (Ras Asir) .....	11° 50'	51° 16'	-1 40	*1 40	*0.90	*0.85	3.4	5.0	4.0	
	on Pohnpei Harbor, p.208										
3827	Obbia .....	5° 21'	48° 32'	-11 23	-11 25	+1.0	-0.3	3.6	5.3	2.6	
	KENYA and TANGANYIKA			on Dar Es Salaam, p.368							
3829	Warsheik .....	2° 18'	45° 48'	+0 03	+0 06	*0.57	*0.58	4.3	5.8	2.9	
3831	Mogadishu .....	2° 02'	45° 21'	-0 11	-0 07	*0.63	*0.75	4.6	6.3	3.2	
3833	Brava .....	1° 06'	44° 02'	-0 12	-0 10	*0.71	*0.83	5.2	7.1	3.6	
3835	Giuba River .....	0° 15'	42° 38'	+0 14	+0 17	*0.95	*1.33	6.7	9.0	5.0	
3837	Chisimao .....	0° 22'	42° 33'	-0 15	-0 12	*0.74	*0.83	5.4	7.5	3.7	
3839	Rirakau River entrance .....	1° 17'	41° 54'	-0 09	-0 07	*0.89	*1.00	6.5	9.0	4.5	
	MOZAMBIQUE										
	Time meridian, 30° E										
3841	Malindi .....	3° 13'	40° 08'	-0 14	-0 13	(*0.89+1.8)		6.7	9.5	6.2	
3843	Port Mombasa (Kilindini) .....	4° 04'	39° 40'	-0 09	-0 08	(*1.03+1.0)		7.7	10.4	6.1	
3845	Wasin Island .....	4° 39'	39° 21'	-0 11	-0 12	(*1.05+1.0)		7.9	10.9	6.3	
3847	Mkoani, Pemba Island .....	5° 21'	39° 38'	-0 14	-0 14	(*1.05+0.6)		7.9	10.9	5.8	
3849	Mesale Island, Pemba Island .....	5° 14'	39° 36'	-0 16	-0 12	(*1.08+0.6)		8.1	11.2	6.0	
3851	Mkokotoni Harbor, Zanzibar Island .....	5° 52'	39° 16'	-0 13	-0 14	(*1.09+0.9)		8.2	11.3	6.4	
3853	Zanzibar, Zanzibar Island .....	6° 09'	39° 11'	-0 21	-0 19	(*1.16+1.0)		8.7	12.3	6.8	
3855	DAR ES SALAAM .....	6° 50'	39° 17'	+0 07	Daily Predictions			7.5	10.6	5.0	
3857	Lindi River .....	9° 59'	39° 45'	+0 09	*0.97	*1.33		6.8	9.4	5.0	
	on Beira, p.372										
3859	Tunghi Bay .....	10° 45'	40° 35'	-1 16	-1 14	+2.8	+2.2	8.1	11.3	7.5	
3861	Porto de Mocimboa .....	11° 20'	40° 22'	-1 04	-0 56	+4.1	+3.0	8.6	12.0	8.5	
3863	Ibo .....	12° 21'	40° 35'	-1 30	-1 24	+3.1	+0.6	8.3	11.7	7.7	
3865	Porto Amelia .....	12° 58'	40° 29'	-1 13	-0 59	+2.9	+2.0	8.4	11.7	7.4	
3867	Porto de Mozambique .....	15° 02'	40° 44'	-1 00	-0 56	+2.9	+2.0	8.4	11.8	7.4	
3869	Antonio Enes .....	16° 14'	39° 54'	-0 17	-0 05	+2.8	+2.0	8.3	11.7	7.4	
3871	Porto de Quelimane .....	18° 00'	36° 54'	-0 30	-0 14	+3.6	+2.5	8.6	12.2	8.0	
	Endnotes can be found at the end of table 2.										

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
	MOZAMBIQUE Time meridian, 30° E	South	East	h m	h m	ft	ft	ft	ft	ft	
on Durban, p.376											
3883	Inhambane Bay .....	23° 44'	35° 24'	+0 29	+0 48	+3.7	+2.0	5.6	8.0	6.4	
3885	Porto de Inhambane .....	23° 51'	35° 23'	+1 12	+1 23	+4.1	+1.4	6.6	9.0	6.3	
3887	Inhampura .....	25° 11'	33° 31'	+0 35	+1 09	(*0.62+1.2)		2.4	3.4	3.4	
3889	Maputo .....	25° 58'	32° 34'	+0 47	+0 54	(*1.79+0.2)		7.0	9.8	6.6	
SOUTH AFRICA <40°											
3891	Richards Bay .....	28° 47'	32° 05'	+0 00	-0 02	+0.1	-0.1	4.1	5.9	3.6	
3893	DURBAN .....	29° 52'	31° 03'			Daily predictions		3.9	5.6	3.6	
3895	East London .....	33° 02'	27° 55'	+0 02	+0 01	+0.3	+0.4	3.8	5.4	3.9	
3897	Port Elizabeth .....	33° 58'	25° 38'	+0 00	-0 02	-0.1	+0.1	3.7	5.2	3.6	
INDIAN OCEAN ISLANDS Madagascar Time meridian, 45° E											
3899	Hellville, Nosi Be .....	13° 24'	48° 18'	-0 17	-0 14	+2.7	+2.0	8.2	11.2	7.3	
3901	Baie du Courrier .....	12° 11'	49° 08'	-0 29	-0 25	+0.3	+1.6	6.2	8.4	5.9	
3903	Diego Suarez .....	12° 16'	49° 18'	-0 41	-0 38	(*0.61+1.3)		4.6	6.2	4.4	
3905	Mangerivry Bay (Port Leven) .....	12° 48'	49° 49'	-0 49	-1 01	(*0.53+1.4)		4.0	5.2	4.1	
3907	Vohémar .....	13° 21'	50° 01'	-1 21	-1 18	(*0.41+1.4)		3.1	4.2	3.5	
3909	Maroantsetra .....	15° 27'	49° 49'	-0 51	-0 49	(*0.40+0.9)		3.0	4.2	2.9	
on Colombo, p.324											
3911	Fenerive .....	17° 22'	49° 24'	-0 19	-0 06	+2.1	+1.8	1.7	2.3	3.2	
3913	Tamatave .....	18° 09'	49° 26'	-0 13	-0 09	+0.8	+0.7	1.5	2.0	2.0	
on Dar Es Salaam, p.368											
3915	Fort Dauphin .....	25° 01'	47° 00'	+4 10	+4 41	(*0.19+0.4)		1.4	2.0	1.4	
3917	Androka .....	25° 04'	44° 07'	+1 10	+1 13	(*0.75+3.4)		5.6	8.0	7.2	
3919	Tulear .....	23° 21'	43° 40'	+0 46	+0 50	(*0.77+3.0)		5.8	8.4	6.9	
3921	Cap Ankarana .....	20° 29'	44° 07'	+0 30	+0 33	+3.0	+2.6	7.9	11.3	7.8	
3923	Nosi Maroantaly .....	18° 25'	43° 56'	+0 26	+0 30	+3.4	+2.3	8.6	12.1	7.8	
3925	Majunga .....	15° 44'	46° 19'	-0 12	-0 09	+5.4	+3.8	9.1	12.7	9.6	
Lesser Islands											
3927	Moroni, Comoro Island .....	11° 41'	43° 15'	+0 24	+0 26	*1.03	--	--	--	--	
3929	Zaudzi, Ile Mayotte .....	12° 47'	45° 16'	-0 04	+0 00	+3.5	+2.8	8.2	11.2	8.1	
Time meridian, 60° E											
3931	Point des Galets, Reunion Island .....	20° 55'	55° 17'	-2 49	-2 40	(*0.34+0.3)		1.2	1.6	1.6	
3933	Port Louis, Mauritius Island .....	20° 09'	57° 29'	-3 58	-3 49	(*0.31+0.8)		1.1	1.6	2.0	
on Apia, p.252											
3935	Cargados Carajos Shoal .....	16° 49'	59° 31'	-4 44	-5 12	*1.20	*1.20	2.8	4.0	2.0	
3937	Rodriguez Island .....	19° 40'	63° 26'	-6 31	-7 00	*1.60	*1.60	3.8	4.7	2.7	
Time meridian, local											
3939	Providence Island .....	9° 13'	51° 01'	+1 36	+1 40	(*0.72+0.3)		5.4	7.8	3.9	
3941	Port Victoria, Seychelle Islands .....	4° 37'	55° 27'	+0 18	+0 25	(*0.39+1.4)		2.9	4.0	3.4	
Time meridian, 75° E											
3943	DIEGO GARCIA ISLAND, Chagos Archipelago ..	7° 21'	72° 28'			Daily predictions, p.380		3.8	5.5	3.3	
Time meridian, 97° 30' E											
3945	Port Refuge, Cocos Islands .....	12° 05'	96° 53'	-0 39	-0 36	(*0.42+1.3)		1.8	2.4	2.3	
3947	Christmas Island .....	10° 25'	105° 43'	+1 48	+1 46	(*0.60+2.1)		2.6	3.4	3.6	
Time meridian, 75° E											
3949	Amsterdam Island .....	37° 50'	77° 33'	-5 25	-5 22	*0.51	*0.31	2.3	3.3	1.6	
3951	St. Paul Island .....	38° 43'	77° 35'	-2 54	-2 52	(*0.72+1.0)		2.8	3.9	3.6	
Kerguelen Island											
3953	Betsy Cove .....	49° 09'	70° 12'	-3 06	-2 55	-0.9	-0.2	3.2	4.6	3.0	
3955	Baie du Morbihan .....	49° 21'	70° 13'	-4 38	-4 36	+0.3	+0.4	3.8	5.1	3.9	
3957	Observatory Bay .....	49° 25'	69° 53'	-4 32	-4 30	-0.2	+0.1	3.6	5.2	3.5	
on Mui Vung Tau, p.136											
3959	Heard Island (Atlas Cove) .....	53° 01'	73° 23'	-1 56	-1 56	*0.31	*0.31	1.8	2.3	2.4	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height					
				High Water	Low Water	High Water	Low Water	Diurnal	Tropic		
	ANTARCTICA Time meridian, local	South	East	h m	h m	ft	ft	ft	ft	ft	
on Cebu, p.180											
3961	Gauss Station, Wilhelm II Coast .....	66° 02'	89° 38'	+2 00	+1 52	--	--	2.8	3.3	--	
3963	Mc Donald Bay .....	66° 33'	93° 01'	+1 03	+1 01	--	--	3.6	4.3	--	
3965	Wilkes Station .....	66° 15'	110° 31'	+0 58	+1 03	--	--	3.6	4.2	--	
on Jolo, p.172											
3967	Pointe Geologie, Adelie Coast } .....	66° 41'	139° 55'	+3 47	+4 42	--	--	3.7	4.5	--	
3969	Cape Margerie (Port Martin) } .....	66° 50'	141° 25'	+3 38	+4 19	--	--	3.8	5.2	--	
3971	Cade Denison, George V Coast } .....	67° 00'	142° 40'	+3 25	+4 21	--	--	3.9	4.7	--	
on Do Son, p.132											
3973	Cape Armitage, Ross Island { .....	77° 49'	166° 45'	-3 47	-4 15	--	--	2.2	3.1	--	
3975	Scott Base, Ross Sea { .....	77° 52'	166° 48'	-4 34	-4 49	--	--	2.7	3.9	5.5	
on Manila, p.184											
3977	Marguerite Bay (East Base) } .....	68° 12'	67° 03'	+5 50	+6 43	--	--	3.8	4.1	--	
on Yamato Wan, p.12											
3979	Lent Islands, Graham Land } .....	66° 53'	66° 48'	-11 16	-10 48	--	--	3.6	4.1	--	
3981	Ferin Head, Graham Land } .....	66° 01'	65° 21'	-11 15	-10 47	--	--	3.8	4.4	--	
3983	Argentine Islands (Stella Creek) } .....	65° 15'	64° 16'	-10 52	-10 43	--	--	4.6	5.4	--	
3985	Port Circoncision } .....	65° 10'	64° 14'	-10 35	-10 41	--	--	3.8	4.5	--	
3987	Port Charcot, Booth Island } .....	65° 04'	64° 02'	-10 55	-11 04	--	--	3.5	4.1	--	
3989	Lemaire Channel, De Gerlache Strait } .....	64° 47'	62° 43'	-10 32	-11 03	--	--	4.1	4.8	--	
3991	Neko Harbor } .....	64° 48'	62° 23'	-9 26	-10 01	--	--	4.4	5.1	--	
3993	Nansen Island, De Gerlache Strait } .....	64° 33'	61° 57'	-10 18	-11 14	--	--	5.0	5.7	--	
3995	Melchior Harbor, Dallman Bay } .....	64° 20'	62° 59'	-10 34	-11 04	--	--	4.1	4.8	4.0	
on Yokohama, p.20											
3997	Puerto Soberania .....	62° 29'	59° 38'	+13 12	+13 19	+1.3	+1.2	5.1	5.5	5.0	
3999	Shackleton Base, Vahsel Bay .....	77° 59'	37° 10'	-10 12	-10 03	--	--	6.2	--	--	

Endnotes can be found at the end of table 2.

## ENDNOTES

- \* RATIO. If the ratio is accompanied by a correction factor multiply the heights of the high and low waters at the reference station by the ratio and then apply the correction factor.
- } The tide at this location is chiefly diurnal. SEE CAUTION NOTE.
- < 1> For other places in Siberia, Arctic Ocean, see "Tide Tables, Europe and West Coast of Africa."
- < 2> Apply differences to predictions for Pusan 2 days earlier than the date desired.
- < 3> There is a seiche at Miyako Ko with a period of about 22 minutes and a range of about 1 foot.
- < 4> At YOKOHAMA, winds from the south may raise the level of the water 1 foot above normal.
- < 5> There is a seiche at Aburatsubo with a period of about 15 minutes and a range of about 1 foot during storms.
- < 6> There is a seiche at Shimoda Ko with a period of about 16 minutes. When the barometric pressure is low, the range is about 0.7 foot.
- < 7> There is a seiche at Futami Ko with a period of 16 to 20 minutes and a range of about 1 foot.
- < 8> There are seiches at Susaki Ko with periods of 18 to 40 minutes and ranges of about 0.7 foot.
- < 9> In Izumi Nada with a strong SW wind and a falling barometer, sea level may rise as much as 2 feet.
- <10> Tide is frequently diurnal. Apply height ratios to HHW and LLW, and time difference to LLW only. Diurnal range is given.
- <11> Tide is frequently diurnal. Apply height ratios to HHW and LLW, and time difference to LLW only. HHW occurs about 14 hours after LLW. Diurnal range is given.
- <12> There is a seiche at Hamada Ko with a period of about 12 minutes and range of about 0.7 foot.
- <13> There are seiches at Maizuru Ko with periods from 16 to 90 minutes and ranges up to 3 feet during storms.
- <14> There are seiches at Tsuruga Ko with periods from 10 to 65 minutes and ranges of about 0.7 foot.
- <15> There is a seiche in nearby Kamae Ko, with a period of about 20 minutes and a range of up to 1 foot.
- <16> There is a seiche in Hososhima with a period of about 10 minutes and ranges of up to 0.7 foot in calm weather and 2 feet during storms.
- <17> There is a seiche at Uchiumi with a period of about 10 minutes and a range of up to 1.3 feet.
- <18> A seiche occurs in Nakagawara Ura before and after rough weather. During late spring or early summer, when there is a heavy sea in the offing the range may be 2 to 3 feet.
- <19> A seiche occurs in Nagasaki Ko with a period of about 35 minutes and may have a range of up to 2 feet. The most pronounced oscillations usually occur with two localized low pressure areas.
- <20> Sasebo has a seiche with periods from 64 to 83 minutes and may have ranges as much as 0.7 foot.
- <21> There is a seiche in Yobuko Ko with a period of about 10 minutes which may have a range as much as 1 foot.
- <25> Mean and diurnal ranges given.
- <26> There is a marked seiche at Kao-hsiung with a period of 13 to 25 minutes.
- <27> Seasonal height corrections-May through August, subtract 0.6 foot; November through January, add 0.6 foot.
- <28> Low water heights at Mui Vung Tau..... 10      8      6      4      2      0      -2  
Corresponding LW heights at Ho Chi Minh City.... 8.4      6.3      4.5      3.1      2.0      0.9      0.0
- <29> Heights of low waters are about 1.5 feet.
- <30> Except near times of the moon's quadrature when the range of tide is negligible the high waters occur about noon and midnight and the low waters about 6 a.m. and 6 p.m.
- <31> Predictions through differences for stations in Torres Strait are not feasible. Diurnal range given for Thursday Island.
- <32> Bores occur in the following estuaries immediately after low water when the range of tide is large.  
Sittang River: Information is meager.  
Pegu River: Bore is said to reach a height of 3 feet.
- <33> Neap difference, -3.7; Spring difference, -0.5.

## ENDNOTES

- <34> Seasonal height corrections— December through April, -0.7; July through September, +1.0.
- <35> Seasonal height corrections— December through April, -1.0; May, -0.5; June, +0.2; July, +1.2; August and September, +2.0; October, +1.0.
- <36> Bores occur in the following estuaries immediately after low water when the range of tide is large. Meghna River: In the outer channel the bore is particularly dangerous March through October. Hooghly River: The bore commences near Diamond Harbor but is of little importance until it enters the narrow reaches above Hooghly Point; it may attain a height of 4 feet at Kidderpore and 5 feet above that place. Cambay Channel and Mahi River.
- <37> Seasonal corrections to be applied to predictions for Basra Reach are: Jan., -0.9; Feb., -0.4; Mar., +0.5; Apr., +1.6; May, +2.3; June, +1.9; July, +0.8; Aug., -0.6; Sept., -1.3; Oct., -1.4; Nov., -1.3; Dec., -1.1.
- <38> Seasonal corrections to be applied to predictions for Munifah are: Jan., -0.2; Feb., -0.3; Mar., -0.4; Apr., -0.3; May, -0.1; June, +0.2; July, +0.4; Aug., +0.4; Sept., +0.3; Oct., +0.1; Nov., 0.0; Dec., -0.1.
- <39> For places on the Mediterranean Sea, see "Tide Tables, Europe and West Coast of Africa."
- <40> For places on the south and west coast, see "Tide Tables, Europe and West Coast of Africa."
- <41> Predictions at this station are not intended for use in navigating Ch'ang Chiang Approach. They are intended only for use in computing tides at designated Table 2 stations in Korea and Sumatra.

## TABLE 3.—HEIGHT OF TIDE AT ANY TIME

### EXPLANATION OF TABLE

Although the footnote of Table 3 may contain sufficient explanation for finding the height of tide at any time, two examples are given here to illustrate its use.

Example 1.—Find the height of the tide at 0735 at Namp'o-hang, Korea, on a day when the predicted tides from Table 1 are given as:

Low Water		High Water	
Time h.m.	Height ft	Time h.m.	Height ft
0418	2.5	1105	4.4
1721	3.6	2324	15.2

An inspection of the above example shows that the desired time falls between the two morning tides

The duration of rise is  $11^{\text{h}} 05^{\text{m}} - 4^{\text{h}} 18^{\text{m}} = 6^{\text{h}} 47^{\text{m}}$ .

The time after low water for which the height is required is  $7^{\text{h}} 35^{\text{m}} - 4^{\text{h}} 18^{\text{m}} = 3^{\text{h}} 17^{\text{m}}$ .

The range of tide is  $20.5 - 2.5 = 18.0$  feet.

The duration of rise or fall in table 3 is given in heavy-faced type for each 20 minutes from  $4^{\text{h}} 00^{\text{m}}$  to  $10^{\text{h}} 40^{\text{m}}$ . The nearest tabular value to  $6^{\text{h}} 47^{\text{m}}$ , the above duration of rise, is  $6^{\text{h}} 40^{\text{m}}$ ; and on the horizontal line of  $6^{\text{h}} 40^{\text{m}}$ , the nearest tabular time to  $3^{\text{h}} 17^{\text{m}}$  after low water for which the height is required is  $3^{\text{h}} 20^{\text{m}}$ . Following down the column in which this  $3^{\text{h}} 20^{\text{m}}$  is found to its intersection with the line of the range 18.0 feet, the correction is 9.0 feet, which being reckoned from low water, must be added, making  $2.5 + 9.0 = 11.5$  feet or 351 centimeters which is the required height above the chart datum for Namp'o-hang.

Example 2.—Find the height of the tide at 1045 at Manilla, Philippines on a day when the predicted tides from Table 1 are given as:

High Water		Low Water	
Time h.m.	Height ft	Time h.m.	Height ft
0728	4.2	1633	-0.9

The duration of fall is  $16^{\text{h}} 33^{\text{m}} - 07^{\text{h}} 28^{\text{m}} = 9^{\text{h}} 05^{\text{m}}$ .

The time after high water for which the height is required is  $10^{\text{h}} 45^{\text{m}} - 7^{\text{h}} 28^{\text{m}} = 3^{\text{h}} 17^{\text{m}}$ .

The range of tide is  $4.2 - (-0.9) = 5.1$  feet.

Entering Table 3 at the duration of fall of  $9^{\text{h}} 00^{\text{m}}$ , which is the nearest value to  $9^{\text{h}} 05^{\text{m}}$ , the nearest value on the horizontal line to  $3^{\text{h}} 17^{\text{m}}$  is  $3^{\text{h}} 18^{\text{m}}$  after high water. Following down this column to its intersection with a range of 5.0 feet which is the nearest tabular value to 5.1 feet, one obtains 1.5 which, being calculated from high water, must be subtracted from it. The approximate height at  $10^{\text{h}} 45^{\text{m}}$  is, therefore,  $4.2 - 1.5 = 2.7$  feet or 82 centimeters.

When the duration of rise or fall is greater than  $10^{\text{h}} 40^{\text{m}}$ , enter the table with one-half the given duration and with one-half the time from the nearest high or low water; but if the duration of rise or fall is less than 4 hours, enter the table with double the given duration and with double the time from the nearest high or low water.

Similarly, when the range of tide is greater than 20 feet, enter the table with one-half the given range. The tabular correction should then be doubled before applying it to the given high or low water

**TABLE 3.—HEIGHT OF TIDE AT ANY TIME**

height. If the range of tide is greater than 40 feet, take one-third of the range and multiply the tabular correction by 3.

If the height at any time is desired for a place listed in Table 2 predictions of the high and low waters for the day in question should be obtained by the use of the difference given for the place in that table. Having obtained these predictions, the height for any intermediate time is obtained in the same manner as illustrated in the foregoing example.

### **GRAPHIC METHOD**

If the height of the tide is required for a number of times on a certain day the full tide curve for the day may be obtained by the one-quarter, one-tenth rule. The procedure is as follows:

1. On cross-section paper plot the high and low water points in the order of their occurrence for the day, measuring time horizontally and height vertically. These are the basic points for the curve.
2. Draw light straight lines connecting the points representing successive high and low waters.
3. Divide each of these straight lines into four equal parts. The halfway point of each line gives another point for the curve.
4. At the quarter point adjacent to high water draw a vertical line above the point and at the quarter point adjacent to low water draw a vertical line below the point, making the length of these lines equal to one-tenth of the range between the high and low waters used. The points marking the ends of these vertical lines give two additional intermediate points for the curve.
5. Draw a smooth curve through the points of high and low waters and the intermediate points, making the curve well rounded near high and low waters. This curve will approximate the actual tide curve and heights for any time of the day may be readily scaled from it.

**Caution.**—Both methods presented are based on the assumption that the rise and fall conform to simple cosine curves. Therefore the heights obtained will be approximate. The roughness of approximation will vary as the tide curve differs from a cosine curve.

An example of the use of the graphical method is illustrated below. Using the same predicted tides as in example 2, the approximate height at 10<sup>h</sup> 45<sup>m</sup> could be determined as shown below.

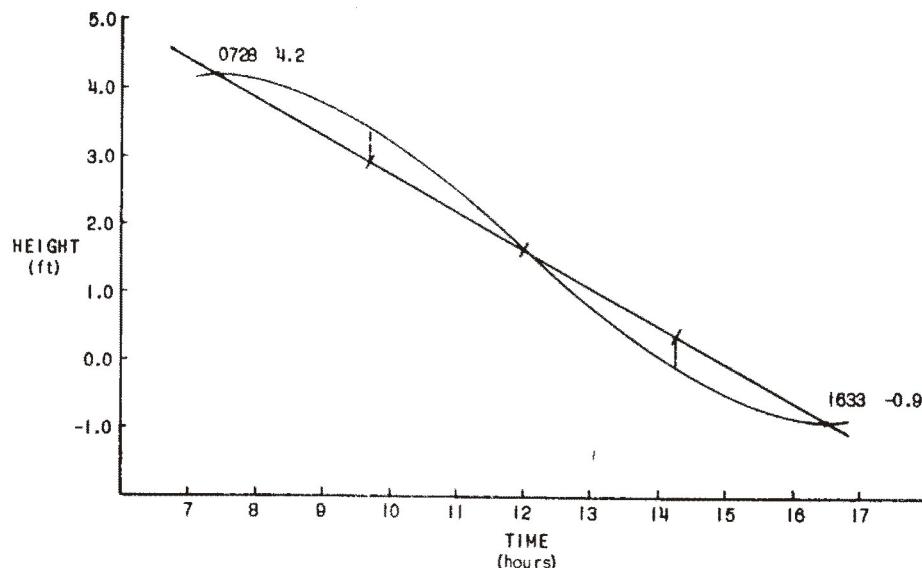


TABLE 3.—HEIGHT OF TIDE AT ANY TIME

Duration of rise or fall, see footnote	Time from the nearest high water or low water															
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.
4 10	0 08	0 16	0 24	0 32	0 40	0 48	0 56	1 04	1 12	1 20	1 28	1 36	1 44	1 52	2 00	
4 20	0 09	0 17	0 26	0 35	0 43	0 52	1 01	1 09	1 18	1 27	1 35	1 44	1 53	2 01	2 10	
4 40	0 09	0 19	0 28	0 37	0 47	0 56	1 05	1 15	1 24	1 33	1 43	1 52	2 01	2 11	2 20	
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30	
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40	
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50	
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00	
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10	
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20	
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30	
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40	
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50	
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00	
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10	
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 36	2 53	3 11	3 28	3 45	4 03	4 20	
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30	
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40	
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50	
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00	
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10	
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20	
Range of tide, see footnote	Correction to height															
	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	
1.5	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.8		
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2	
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5	
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	
5.0	0.0	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	2.5
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8	
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0	
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2	
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5	
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8	
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0	
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2	
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5	
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8	
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0	
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2	
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.7	2.3	2.8	3.3	3.8	4.4	4.9	5.5	
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.8	2.3	2.9	3.4	4.0	4.6	5.1	5.8	
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.5	3.0	3.6	4.1	4.8	5.4	6.0	
12.5	0.0	0.1	0.3	0.5	0.8	1.2	2.6	1.9	2.6	3.1	3.7	4.3	5.0	5.6	6.2	
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5	
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8	
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0	
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2	
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5	
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8	
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0	
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2	
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5	
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8	
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0	
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2	
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5	
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8	
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0	

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low, add the correction.



## **TABLE 4.—LOCAL MEAN TIME OF SUNRISE AND SUNSET**

### **EXPLANATION OF TABLE**

This table gives the local mean time of the rising and setting of the Sun's upper limb for every fifth day of the year. The times were computed for the instant when the true zenith distance of the Sun's center is  $90^{\circ} 50', 34'$  having been allowed for horizontal refraction and  $16'$  for semidiameter. No allowance has been made for elevation of the observer.

Because of the sensible variations which may be made in the time of rising or setting of the Sun by a difference in elevation of the observer, and by changes in the refraction, any great refinement in the interpolation of intermediate dates or latitudes in this table is unnecessary.

The value obtained from table 4 may be converted to standard time by means of Table 5, which follows it.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	0°		5° N.		10° N.		15° N.		20° N.		25° N.	
	Rise h. m.	Set h. m.										
Jan. 1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22
	06 02	18 10	06 10	18 01	06 19	17 53	06 27	17 44	06 37	17 35	06 46	17 26
	06 04	18 12	06 12	18 04	06 20	17 56	06 29	17 47	06 37	17 39	06 47	17 29
	06 06	18 13	06 14	18 06	06 22	17 58	06 29	17 50	06 38	17 42	06 47	17 33
	06 08	18 15	06 15	18 08	06 22	18 00	06 30	17 53	06 38	17 45	06 46	17 37
	06 09	18 16	06 16	18 09	06 23	18 03	06 30	17 56	06 37	17 48	06 45	17 40
	06 10	18 17	06 16	18 11	06 22	18 04	06 29	17 58	06 36	17 51	06 43	17 44
Feb. 5	06 10	18 17	06 16	18 12	06 22	18 06	06 28	18 00	06 34	17 54	06 41	17 48
	06 11	18 18	06 16	18 13	06 21	18 07	06 26	18 02	06 32	17 57	06 38	17 51
	06 11	18 18	06 15	18 13	06 20	18 09	06 24	18 04	06 29	17 59	06 34	17 54
	06 10	18 17	06 14	18 13	06 18	18 09	06 22	18 06	06 26	18 01	06 31	17 57
	06 10	18 16	06 13	18 13	06 16	18 10	06 19	18 07	06 23	18 04	06 26	18 00
Mar. 2	06 09	18 15	06 11	18 13	06 14	18 11	06 16	18 08	06 19	18 05	06 22	18 03
	06 08	18 14	06 10	18 13	06 11	18 11	06 13	18 09	06 15	18 07	06 17	18 05
	06 06	18 13	06 08	18 12	06 09	18 11	06 10	18 10	06 11	18 09	06 12	18 08
	06 05	18 12	06 06	18 11	06 06	18 11	06 06	18 10	06 07	18 10	06 07	18 10
	06 04	18 10	06 03	18 10	06 03	18 11	06 03	18 11	06 03	18 12	06 02	18 12
	06 02	18 09	06 01	18 10	06 00	18 11	05 59	18 12	05 58	18 13	05 57	18 14
Apr. 1	06 01	18 07	05 59	18 09	05 57	18 11	05 56	18 12	05 54	18 14	05 52	18 16
	05 59	18 06	05 57	18 08	05 55	18 10	05 52	18 13	05 50	18 16	05 47	18 18
	05 58	18 04	05 55	18 07	05 52	18 10	05 49	18 14	05 45	18 17	05 42	18 21
	05 56	18 03	05 53	18 07	05 49	18 11	05 45	18 14	05 41	18 19	05 37	18 23
	05 55	18 02	05 51	18 06	05 47	18 11	05 42	18 15	05 38	18 20	05 33	18 25
	05 54	18 01	05 50	18 06	05 45	18 11	05 40	18 16	05 34	18 22	05 28	18 28
May. 1	05 54	18 01	05 48	18 06	05 43	18 12	05 37	18 17	05 31	18 23	05 24	18 30
	05 53	18 00	05 47	18 06	05 41	18 12	05 35	18 19	05 28	18 25	05 21	18 33
	05 53	18 00	05 46	18 06	05 40	18 13	05 33	18 20	05 26	18 27	05 18	18 35
	05 53	18 00	05 46	18 07	05 39	18 14	05 31	18 21	05 24	18 29	05 15	18 38
	05 53	18 00	05 46	18 08	05 38	18 15	05 30	18 23	05 22	18 31	05 13	18 40
	05 54	18 01	05 46	18 09	05 38	18 18	05 29	18 26	05 20	18 35	05 10	18 45
Jun. 5	05 55	18 02	05 47	18 10	05 38	18 19	05 29	18 28	05 20	18 37	05 10	18 47
	05 56	18 03	05 47	18 12	05 39	18 20	05 30	18 29	05 20	18 39	05 10	18 49
	05 57	18 04	05 48	18 13	05 39	18 22	05 30	18 31	05 20	18 41	05 10	18 51
	05 58	18 05	05 49	18 14	05 40	18 23	05 31	18 32	05 21	18 42	05 11	18 52
	05 59	18 06	05 50	18 15	05 41	18 24	05 32	18 33	05 22	18 43	05 12	18 53
	06 00	18 07	05 51	18 16	05 43	18 25	05 34	18 34	05 24	18 43	05 14	18 54
Jul. 5	06 01	18 08	05 53	18 17	05 44	18 25	05 35	18 34	05 26	18 44	05 15	18 54
	06 02	18 09	05 54	18 17	05 45	18 26	05 36	18 34	05 27	18 43	05 17	18 53
	06 02	18 10	05 54	18 17	05 46	18 26	05 38	18 34	05 29	18 43	05 20	18 52
	06 03	18 10	05 55	18 17	05 48	18 25	05 40	18 33	05 31	18 42	05 22	18 51
	06 03	18 10	05 56	18 17	05 49	18 24	05 41	18 32	05 33	18 40	05 24	18 49
	06 03	18 10	05 56	18 17	05 49	18 23	05 42	18 30	05 35	18 38	05 27	18 46
Aug. 4	06 03	18 10	05 56	18 16	05 50	18 22	05 43	18 29	05 36	18 36	05 29	18 43
	06 02	18 09	05 56	18 15	05 51	18 20	05 45	18 26	05 38	18 33	05 31	18 39
	06 01	18 08	05 56	18 13	05 51	18 18	05 45	18 24	05 40	18 29	05 34	18 36
	06 00	18 07	05 56	18 11	05 51	18 16	05 46	18 21	05 41	18 26	05 36	18 31
	05 59	18 06	05 55	18 10	05 51	18 14	05 47	18 18	05 42	18 22	05 38	18 27
	05 58	18 04	05 54	18 07	05 51	18 11	05 47	18 14	05 44	18 18	05 40	18 22
Sep. 3	05 56	18 03	05 53	18 05	05 51	18 08	05 48	18 11	05 45	18 14	05 42	18 17
	05 54	18 01	05 52	18 03	05 50	18 05	05 48	18 07	05 46	18 09	05 43	18 12
	05 53	17 59	05 51	18 00	05 50	18 02	05 49	18 03	05 47	18 05	05 45	18 06
	05 51	17 57	05 50	17 58	05 50	17 59	05 49	17 59	05 48	18 00	05 47	18 01
	05 49	17 56	05 49	17 56	05 49	17 55	05 49	17 55	05 49	17 55	05 49	17 55
	05 47	17 54	05 48	17 53	05 49	17 52	05 49	17 52	05 50	17 51	05 51	17 50
Oct. 3	05 46	17 52	05 47	17 51	05 49	17 49	05 50	17 48	05 51	17 46	05 53	17 45
	05 44	17 51	05 46	17 49	05 48	17 47	05 50	17 44	05 53	17 42	05 55	17 40
	05 43	17 50	05 46	17 47	05 48	17 44	05 51	17 41	05 54	17 38	05 57	17 35
	05 42	17 48	05 45	17 45	05 49	17 42	05 52	17 38	05 56	17 34	06 00	17 30
	05 41	17 48	05 45	17 44	05 49	17 39	05 53	17 35	05 58	17 31	06 02	17 26
	05 40	17 47	05 45	17 42	05 50	17 38	05 55	17 33	06 00	17 28	06 05	17 22
Nov. 2	05 40	17 47	05 45	17 42	05 51	17 36	05 56	17 31	06 02	17 25	06 08	17 19
	05 40	17 47	05 46	17 41	05 52	17 35	05 58	17 29	06 04	17 23	06 11	17 16
	05 41	17 48	05 47	17 41	05 53	17 35	06 00	17 28	06 07	17 21	06 14	17 14
	05 41	17 49	05 48	17 42	05 55	17 35	06 02	17 27	06 10	17 20	06 18	17 12
	05 43	17 50	05 50	17 42	05 57	17 35	06 05	17 27	06 13	17 19	06 21	17 11
	05 44	17 51	05 52	17 43	05 59	17 36	06 08	17 28	06 16	17 19	06 25	17 10
Dec. 2	05 46	17 53	05 54	17 45	06 02	17 37	06 10	17 28	06 19	17 19	06 29	17 10
	05 48	17 55	05 56	17 47	06 04	17 38	06 13	17 30	06 22	17 20	06 32	17 11
	05 50	17 57	05 58	17 49	06 07	17 40	06 16	17 31	06 25	17 22	06 35	17 12
	05 52	18 00	06 01	17 51	06 10	17 42	06 19	17 33	06 28	17 24	06 38	17 14
	05 55	18 02	06 03	17 54	06 12	17 45	06 21	17 36	06 31	17 26	06 41	17 16
	05 57	18 05	06 06	17 56	06 15	17 47	06 24	17 38	06 33	17 29	06 43	17 19

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	30° N.		32° N.		34° N.		36° N.		38° N.		40° N.	
	Rise h. m.	Set h. m.										
Jan.	06 56	17 11	07 01	17 07	07 05	17 02	07 11	16 57	07 16	16 51	07 22	16 45
	06 57	17 15	07 01	17 11	07 06	17 06	07 11	17 01	07 16	16 55	07 22	16 50
	06 57	17 19	07 01	17 15	07 06	17 10	07 11	17 05	07 16	17 00	07 21	16 55
	06 56	17 23	07 01	17 19	07 05	17 15	07 10	17 10	07 14	17 05	07 20	17 00
	06 55	17 28	06 59	17 24	07 03	17 20	07 08	17 15	07 12	17 11	07 17	17 06
	06 53	17 32	06 57	17 28	07 01	17 24	07 05	17 20	07 09	17 16	07 14	17 12
	06 51	17 36	06 54	17 33	06 58	17 29	07 02	17 26	07 05	17 22	07 10	17 18
Feb.	06 48	17 41	06 51	17 37	06 54	17 34	06 57	17 31	07 01	17 27	07 05	17 24
	06 44	17 45	06 47	17 42	06 50	17 39	06 53	17 36	06 56	17 33	06 59	17 30
	06 40	17 49	06 42	17 46	06 45	17 44	06 47	17 41	06 50	17 39	06 53	17 36
	06 35	17 52	06 37	17 50	06 40	17 48	06 42	17 46	06 44	17 44	06 47	17 42
	06 30	17 56	06 32	17 55	06 34	17 53	06 36	17 51	06 37	17 49	06 40	17 47
Mar.	06 25	18 00	06 26	17 58	06 28	17 57	06 29	17 56	06 31	17 54	06 32	17 53
	06 19	18 03	06 20	18 02	06 21	18 01	06 22	18 00	06 23	17 59	06 24	17 58
	06 14	18 06	06 14	18 06	06 15	18 05	06 15	18 05	06 16	18 04	06 17	18 04
	06 08	18 09	06 08	18 09	06 08	18 09	06 08	18 09	06 08	18 09	06 09	18 09
	06 02	18 13	06 01	18 13	06 01	18 13	06 01	18 13	06 01	18 14	06 01	18 14
	05 56	18 16	05 55	18 16	05 54	18 17	05 54	18 18	05 53	18 18	05 52	18 19
Apr.	05 50	18 19	05 49	18 20	05 48	18 21	05 47	18 22	05 46	18 23	05 44	18 24
	05 44	18 22	05 42	18 23	05 41	18 24	05 40	18 26	05 38	18 27	05 36	18 29
	05 38	18 25	05 36	18 26	05 34	18 28	05 33	18 30	05 31	18 32	05 29	18 34
	05 32	18 28	05 30	18 30	05 28	18 32	05 26	18 34	05 24	18 37	05 21	18 39
	05 27	18 31	05 25	18 33	05 22	18 36	05 19	18 39	05 17	18 41	05 14	18 44
	05 22	18 34	05 19	18 37	05 16	18 40	05 13	18 43	05 10	18 46	05 07	18 49
May.	05 17	18 37	05 14	18 40	05 11	18 44	05 08	18 47	05 04	18 51	05 00	18 55
	05 13	18 40	05 10	18 44	05 06	18 48	05 02	18 51	04 59	18 55	04 54	19 00
	05 09	18 44	05 06	18 47	05 02	18 51	04 58	18 55	04 53	19 00	04 49	19 04
	05 06	18 47	05 02	18 51	04 58	18 55	04 54	19 00	04 49	19 04	04 44	19 09
	05 03	18 50	04 59	18 54	04 55	18 59	04 50	19 03	04 45	19 08	04 40	19 14
	05 01	18 53	04 57	18 58	04 52	19 02	04 47	19 07	04 42	19 12	04 36	19 18
Jun.	05 00	18 56	04 55	19 01	04 50	19 05	04 45	19 11	04 40	19 16	04 34	19 22
	04 59	18 58	04 54	19 03	04 49	19 08	04 44	19 14	04 38	19 19	04 32	19 25
	04 58	19 01	04 53	19 06	04 48	19 11	04 43	19 16	04 37	19 22	04 31	19 28
	04 59	19 03	04 54	19 07	04 48	19 13	04 43	19 18	04 37	19 24	04 31	19 30
	04 59	19 04	04 54	19 09	04 49	19 14	04 43	19 20	04 37	19 26	04 31	19 32
	05 00	19 05	04 55	19 10	04 50	19 15	04 45	19 21	04 39	19 27	04 32	19 33
Jul.	05 04	19 05	04 59	19 10	04 54	19 15	04 49	19 20	04 43	19 26	04 37	19 32
	05 06	19 04	05 02	19 09	04 57	19 14	04 52	19 19	04 46	19 24	04 40	19 30
	05 09	19 03	05 05	19 07	05 00	19 12	04 55	19 17	04 49	19 22	04 44	19 28
	05 12	19 01	05 08	19 05	05 03	19 09	04 58	19 14	04 53	19 19	04 48	19 25
	05 15	18 58	05 11	19 02	05 06	19 06	05 02	19 11	04 57	19 16	04 52	19 21
	05 18	18 55	05 14	18 59	05 10	19 03	05 06	19 07	05 01	19 11	04 56	19 16
Aug.	05 21	18 51	05 17	18 55	05 13	18 58	05 10	19 02	05 05	19 06	05 01	19 11
	05 24	18 47	05 21	18 50	05 17	18 53	05 14	18 57	05 10	19 01	05 06	19 05
	05 27	18 42	05 24	18 45	05 21	18 48	05 18	18 51	05 14	18 55	05 10	18 58
	05 30	18 37	05 27	18 40	05 24	18 42	05 21	18 45	05 18	18 48	05 15	18 51
	05 32	18 32	05 30	18 34	05 28	18 36	05 25	18 39	05 23	18 41	05 20	18 44
	05 35	18 26	05 33	18 28	05 31	18 30	05 29	18 32	05 27	18 34	05 25	18 36
Sep.	05 38	18 20	05 36	18 22	05 35	18 23	05 33	18 25	05 31	18 27	05 29	18 29
	05 41	18 14	05 40	18 15	05 38	18 17	05 37	18 18	05 36	18 19	05 34	18 20
	05 43	18 08	05 43	18 09	05 42	18 10	05 41	18 10	05 40	18 11	05 39	18 12
	05 46	18 02	05 46	18 02	05 45	18 03	05 45	18 03	05 44	18 04	05 44	18 04
	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 48	17 56	05 48	17 56
	05 52	17 49	05 52	17 49	05 52	17 49	05 52	17 48	05 53	17 48	05 53	17 48
Oct.	05 54	17 43	05 55	17 43	05 56	17 42	05 57	17 41	05 57	17 40	05 58	17 39
	05 57	17 37	05 58	17 36	05 59	17 35	06 01	17 34	06 02	17 33	06 03	17 31
	06 00	17 32	06 02	17 30	06 03	17 29	06 05	17 27	06 06	17 25	06 08	17 24
	06 04	17 26	06 06	17 24	06 07	17 23	06 09	17 21	06 11	17 18	06 13	17 16
	06 07	17 21	06 09	17 19	06 11	17 17	06 14	17 14	06 16	17 12	06 19	17 09
	06 11	17 16	06 13	17 14	06 16	17 11	06 18	17 09	06 21	17 06	06 24	17 03
Nov.	06 14	17 12	06 17	17 09	06 20	17 06	06 23	17 03	06 27	17 00	06 30	16 57
	06 18	17 09	06 22	17 05	06 25	17 02	06 28	16 59	06 32	16 55	06 36	16 51
	06 22	17 06	06 26	17 02	06 29	16 58	06 33	16 55	06 37	16 51	06 41	16 46
	06 27	17 03	06 30	16 59	06 34	16 55	06 38	16 51	06 43	16 47	06 47	16 42
	06 31	17 01	06 35	16 57	06 39	16 53	06 43	16 49	06 48	16 44	06 53	16 39
	06 35	17 00	06 39	16 56	06 43	16 51	06 48	16 47	06 53	16 42	06 58	16 37
Dec.	06 39	17 00	06 43	16 55	06 48	16 51	06 53	16 46	06 58	16 41	07 03	16 35
	06 43	17 00	06 47	16 55	06 52	16 51	06 57	16 46	07 02	16 40	07 08	16 35
	06 46	17 01	06 51	16 56	06 56	16 51	07 01	16 46	07 06	16 41	07 12	16 35
	06 49	17 03	06 54	16 58	06 59	16 53	07 04	16 48	07 10	16 42	07 16	16 36
	06 52	17 05	06 57	17 00	07 02	16 55	07 07	16 50	07 13	16 44	07 19	16 38
	06 54	17 08	06 59	17 03	07 04	16 58	07 09	16 53	07 15	16 47	07 21	16 41

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	42° N.		44° N.		46° N.		48° N.		50° N.		52° N.	
	Rise h. m.	Set h. m.										
Jan.	07 28	16 39	07 35	16 33	07 42	16 25	07 50	16 17	07 59	16 09	08 08	15 59
	07 28	16 44	07 35	16 37	07 42	16 30	07 49	16 23	07 58	16 14	08 07	16 05
	07 27	16 49	07 33	16 43	07 40	16 36	07 47	16 29	07 55	16 21	08 04	16 12
	07 25	16 55	07 31	16 49	07 37	16 43	07 44	16 36	07 52	16 28	08 00	16 20
	07 22	17 01	07 28	16 55	07 34	16 49	07 40	16 43	07 47	16 36	07 55	16 28
	07 18	17 07	07 24	17 02	07 29	16 56	07 35	16 50	07 42	16 44	07 49	16 37
	07 14	17 13	07 19	17 09	07 24	17 04	07 29	16 58	07 35	16 52	07 42	16 46
Feb.	07 09	17 20	07 13	17 16	07 17	17 11	07 22	17 06	07 28	17 01	07 34	16 55
	07 03	17 26	07 06	17 23	07 10	17 19	07 15	17 14	07 20	17 10	07 25	17 04
	06 56	17 33	06 59	17 29	07 03	17 26	07 07	17 22	07 11	17 18	07 15	17 14
	06 49	17 39	06 52	17 36	06 55	17 33	06 58	17 30	07 01	17 27	07 05	17 23
	06 42	17 45	06 44	17 43	06 46	17 41	06 49	17 38	06 52	17 35	06 55	17 32
Mar.	06 34	17 51	06 36	17 49	06 37	17 48	06 39	17 46	06 42	17 44	06 44	17 41
	06 26	17 57	06 27	17 56	06 28	17 55	06 30	17 53	06 31	17 52	06 33	17 50
	06 17	18 03	06 18	18 02	06 19	18 01	06 20	18 01	06 20	18 00	06 21	17 59
	06 09	18 09	06 09	18 08	06 09	18 08	06 09	18 08	06 10	18 08	06 10	18 08
	06 00	18 14	06 00	18 15	06 00	18 15	05 59	18 15	05 59	18 16	05 58	18 16
	05 52	18 20	05 51	18 21	05 50	18 22	05 49	18 23	05 48	18 24	05 47	18 25
Apr.	05 43	18 25	05 42	18 27	05 40	18 28	05 39	18 30	05 37	18 32	05 35	18 34
	05 35	18 31	05 33	18 33	05 31	18 35	05 29	18 37	05 26	18 40	05 24	18 42
	05 26	18 36	05 24	18 39	05 21	18 42	05 19	18 44	05 16	18 47	05 13	18 51
	05 18	18 42	05 15	18 45	05 12	18 48	05 09	18 52	05 05	18 55	05 02	18 59
	05 11	18 48	05 07	18 51	05 04	18 55	05 00	18 59	04 55	19 03	04 51	19 08
	05 03	18 53	04 59	18 57	04 55	19 01	04 51	19 06	04 46	19 11	04 41	19 16
May.	04 56	18 59	04 52	19 03	04 47	19 08	04 42	19 13	04 37	19 18	04 31	19 25
	04 50	19 04	04 45	19 09	04 40	19 14	04 34	19 20	04 28	19 26	04 21	19 33
	04 44	19 09	04 39	19 15	04 33	19 20	04 27	19 27	04 20	19 34	04 13	19 41
	04 39	19 15	04 33	19 20	04 27	19 26	04 20	19 33	04 13	19 41	04 05	19 49
	04 34	19 19	04 28	19 26	04 22	19 32	04 14	19 39	04 07	19 47	03 58	19 56
	04 31	19 24	04 24	19 30	04 17	19 38	04 10	19 45	04 01	19 54	03 52	20 03
Jun.	04 28	19 28	04 21	19 35	04 14	19 42	04 06	19 50	03 57	19 59	03 47	20 09
	04 25	19 32	04 18	19 39	04 11	19 46	04 03	19 55	03 53	20 04	03 43	20 14
	04 24	19 35	04 17	19 42	04 09	19 50	04 01	19 58	03 51	20 08	03 41	20 19
	04 24	19 37	04 17	19 45	04 09	19 53	04 00	20 01	03 50	20 11	03 40	20 22
	04 24	19 39	04 17	19 46	04 09	19 54	04 00	20 03	03 51	20 13	03 40	20 24
	04 26	19 40	04 18	19 47	04 10	19 55	04 02	20 04	03 52	20 13	03 41	20 24
Jul.	04 30	19 39	04 23	19 46	04 16	19 53	04 07	20 02	03 58	20 11	03 47	20 21
	04 34	19 37	04 27	19 44	04 19	19 51	04 11	19 59	04 02	20 08	03 52	20 18
	04 38	19 34	04 31	19 41	04 24	19 48	04 16	19 55	04 07	20 04	03 58	20 13
	04 42	19 30	04 36	19 37	04 29	19 43	04 21	19 51	04 13	19 59	04 04	20 08
	04 46	19 26	04 41	19 32	04 34	19 38	04 27	19 45	04 20	19 53	04 11	20 01
	04 51	19 21	04 46	19 26	04 40	19 32	04 33	19 39	04 26	19 46	04 19	19 53
Aug.	04 56	19 15	04 51	19 20	04 46	19 26	04 40	19 31	04 33	19 38	04 26	19 45
	05 01	19 09	04 57	19 13	04 52	19 18	04 47	19 24	04 41	19 29	04 34	19 36
	05 07	19 02	05 03	19 06	04 58	19 10	04 53	19 15	04 48	19 20	04 42	19 26
	05 12	18 55	05 08	18 58	05 04	19 02	05 00	19 06	04 55	19 11	04 50	19 16
	05 17	18 47	05 14	18 50	05 11	18 53	05 07	18 57	05 03	19 01	04 59	19 05
	05 22	18 39	05 20	18 41	05 17	18 44	05 14	18 47	05 10	18 51	05 07	18 54
Sep.	05 27	18 31	05 25	18 33	05 23	18 35	05 20	18 37	05 18	18 40	05 15	18 43
	05 33	18 22	05 31	18 24	05 29	18 25	05 27	18 27	05 25	18 29	05 23	18 31
	05 38	18 13	05 37	18 14	05 35	18 16	05 34	18 17	05 33	18 18	05 31	18 20
	05 43	18 05	05 42	18 05	05 42	18 06	05 41	18 06	05 40	18 07	05 39	18 08
	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 47	17 56
	05 54	17 47	05 54	17 47	05 54	17 46	05 55	17 46	05 55	17 45	05 56	17 45
Oct.	05 59	17 39	06 00	17 38	06 01	17 37	06 02	17 36	06 03	17 34	06 04	17 33
	06 04	17 30	06 06	17 29	06 07	17 27	06 09	17 25	06 11	17 24	06 12	17 22
	06 10	17 22	06 12	17 20	06 14	17 18	06 16	17 16	06 18	17 13	06 21	17 11
	06 16	17 14	06 18	17 12	06 21	17 09	06 23	17 06	06 26	17 03	06 30	17 00
	06 22	17 07	06 24	17 04	06 28	17 00	06 31	16 57	06 35	16 53	06 39	16 49
	06 28	16 59	06 31	16 56	06 35	16 52	06 39	16 48	06 43	16 44	06 47	16 39
Nov.	06 34	16 53	06 38	16 49	06 42	16 45	06 46	16 40	06 51	16 35	06 56	16 30
	06 40	16 47	06 44	16 43	06 49	16 38	06 54	16 33	06 59	16 27	07 05	16 21
	06 46	16 42	06 51	16 37	06 56	16 32	07 02	16 26	07 08	16 20	07 14	16 13
	06 52	16 37	06 57	16 32	07 03	16 26	07 09	16 20	07 16	16 14	07 23	16 06
	06 58	16 34	07 04	16 28	07 10	16 22	07 16	16 15	07 24	16 08	07 32	16 00
	07 04	16 31	07 10	16 25	07 16	16 19	07 23	16 12	07 31	16 04	07 39	15 55
Dec.	07 09	16 29	07 16	16 23	07 22	16 16	07 30	16 09	07 38	16 01	07 47	15 52
	07 14	16 28	07 21	16 22	07 28	16 15	07 35	16 07	07 44	15 59	07 53	15 49
	07 19	16 29	07 25	16 22	07 33	16 15	07 40	16 07	07 49	15 58	07 59	15 48
	07 22	16 30	07 29	16 23	07 36	16 16	07 44	16 08	07 53	15 59	08 03	15 49
	07 25	16 32	07 32	16 25	07 39	16 18	07 47	16 10	07 56	16 01	08 06	15 51
	07 27	16 35	07 34	16 28	07 41	16 21	07 49	16 13	07 58	16 04	08 08	15 54

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	54° N.		56° N.		58° N.		60° N.		62° N.		64° N.	
	Rise h. m.	Set h. m.										
Jan.	08 19	15 48	08 31	15 36	08 45	15 22	09 02	15 05	09 23	14 45	09 49	14 18
	08 17	15 55	08 29	15 43	08 43	15 29	08 59	15 13	09 18	14 54	09 43	14 29
	08 14	16 02	08 25	15 51	08 38	15 38	08 53	15 23	09 11	15 05	09 34	14 42
	08 10	16 10	08 20	16 00	08 32	15 48	08 46	15 34	09 03	15 17	09 23	14 57
	08 04	16 19	08 13	16 10	08 25	15 59	08 37	15 46	08 53	15 31	09 11	15 13
	07 57	16 29	08 06	16 20	08 16	16 10	08 27	15 58	08 41	15 45	08 57	15 29
	07 49	16 39	07 57	16 31	08 06	16 22	08 16	16 11	08 28	15 59	08 43	15 45
Feb.	07 40	16 49	07 47	16 42	07 55	16 34	08 04	16 25	08 15	16 14	08 27	16 02
	07 30	16 59	07 37	16 53	07 44	16 46	07 52	16 38	08 01	16 29	08 11	16 18
	07 20	17 09	07 25	17 04	07 32	16 58	07 38	16 51	07 46	16 43	07 55	16 34
	07 09	17 19	07 14	17 15	07 19	17 10	07 25	17 04	07 31	16 58	07 38	16 50
	06 58	17 29	07 02	17 25	07 06	17 21	07 10	17 17	07 15	17 12	07 21	17 06
Mar.	06 46	17 39	06 49	17 36	06 52	17 33	06 56	17 30	07 00	17 26	07 04	17 21
	06 35	17 49	06 37	17 47	06 39	17 45	06 41	17 42	06 44	17 40	06 47	17 37
	06 22	17 58	06 24	17 57	06 25	17 56	06 26	17 55	06 28	17 53	06 29	17 52
	06 10	18 08	06 10	18 07	06 11	18 07	06 11	18 07	06 11	18 07	06 12	18 06
	05 58	18 17	05 57	18 18	05 57	18 18	05 56	18 19	05 55	18 20	05 54	18 21
	05 46	18 26	05 44	18 28	05 43	18 30	05 41	18 31	05 39	18 34	05 37	18 36
Apr.	05 33	18 36	05 31	18 38	05 28	18 41	05 26	18 44	05 23	18 47	05 19	18 51
	05 21	18 45	05 18	18 48	05 14	18 52	05 11	18 56	05 06	19 00	05 01	19 06
	05 09	18 54	05 05	18 58	05 01	19 03	04 56	19 08	04 50	19 14	04 44	19 21
	04 57	19 04	04 52	19 09	04 47	19 14	04 41	19 20	04 34	19 27	04 26	19 36
	04 46	19 13	04 40	19 19	04 34	19 25	04 26	19 33	04 18	19 41	04 08	19 51
	04 35	19 22	04 28	19 29	04 21	19 37	04 12	19 45	04 02	19 55	03 51	20 07
May.	04 24	19 31	04 16	19 39	04 08	19 48	03 58	19 58	03 47	20 09	03 34	20 23
	04 14	19 41	04 05	19 49	03 56	19 59	03 45	20 10	03 32	20 23	03 17	20 39
	04 04	19 49	03 55	19 59	03 45	20 10	03 32	20 22	03 18	20 37	03 00	20 55
	03 56	19 58	03 46	20 08	03 34	20 20	03 20	20 34	03 04	20 51	02 44	21 11
	03 48	20 06	03 37	20 17	03 24	20 30	03 09	20 45	02 51	21 04	02 29	21 27
	03 41	20 14	03 30	20 26	03 16	20 39	03 00	20 56	02 40	21 16	02 14	21 42
Jun.	03 36	20 20	03 23	20 33	03 09	20 48	02 51	21 06	02 29	21 28	02 01	21 57
	03 32	20 26	03 18	20 39	03 03	20 55	02 44	21 14	02 21	21 38	01 49	22 10
	03 29	20 31	03 15	20 44	02 59	21 01	02 39	21 20	02 14	21 46	01 40	22 21
	03 27	20 34	03 13	20 48	02 57	21 05	02 36	21 25	02 10	21 51	01 33	22 28
	03 27	20 36	03 13	20 50	02 56	21 07	02 36	21 28	02 09	21 54	01 31	22 32
	03 29	20 36	03 15	20 51	02 58	21 07	02 37	21 28	02 11	21 54	01 33	22 31
Jul.	03 36	20 33	03 22	20 46	03 06	21 02	02 47	21 21	02 23	21 45	01 49	22 18
	03 41	20 29	03 28	20 42	03 13	20 57	02 55	21 15	02 32	21 37	02 01	22 07
	03 47	20 24	03 35	20 36	03 20	20 50	03 03	21 07	02 43	21 28	02 15	21 54
	03 54	20 18	03 43	20 29	03 29	20 42	03 14	20 58	02 54	21 16	02 30	21 40
	04 02	20 10	03 51	20 21	03 39	20 33	03 24	20 47	03 07	21 04	02 46	21 25
	04 10	20 02	04 00	20 12	03 49	20 23	03 36	20 35	03 20	20 51	03 01	21 09
Aug.	04 18	19 53	04 09	20 02	03 59	20 11	03 48	20 23	03 34	20 36	03 17	20 53
	04 27	19 43	04 19	19 51	04 10	20 00	04 00	20 10	03 47	20 22	03 33	20 36
	04 36	19 32	04 29	19 39	04 21	19 47	04 12	19 56	04 01	20 06	03 49	20 19
	04 45	19 21	04 39	19 27	04 32	19 34	04 24	19 42	04 14	19 51	04 04	20 01
	04 54	19 10	04 48	19 15	04 42	19 21	04 36	19 28	04 28	19 35	04 19	19 44
	05 03	18 58	04 58	19 02	04 53	19 07	04 48	19 13	04 41	19 19	04 34	19 26
Sep.	05 11	18 46	05 08	18 50	05 04	18 53	04 59	18 58	04 54	19 03	04 48	19 09
	05 20	18 34	05 18	18 36	05 15	18 39	05 11	18 43	05 07	18 47	05 03	18 51
	05 29	18 21	05 27	18 23	05 25	18 25	05 23	18 28	05 20	18 30	05 17	18 33
	05 38	18 09	05 37	18 10	05 36	18 11	05 35	18 12	05 33	18 14	05 31	18 15
	05 47	17 57	05 47	17 57	05 47	17 57	05 46	17 57	05 46	17 57	05 45	17 58
	05 56	17 44	05 57	17 43	05 57	17 43	05 58	17 42	05 59	17 41	06 00	17 40
Oct.	06 05	17 32	06 07	17 30	06 08	17 29	06 10	17 27	06 12	17 25	06 14	17 23
	06 14	17 20	06 17	17 17	06 19	17 15	06 22	17 12	06 25	17 09	06 29	17 05
	06 24	17 08	06 27	17 05	06 30	17 01	06 34	16 57	06 38	16 53	06 43	16 48
	06 33	16 56	06 37	16 52	06 42	16 48	06 46	16 43	06 52	16 37	06 58	16 31
	06 43	16 45	06 48	16 40	06 53	16 35	06 59	16 29	07 06	16 22	07 14	16 14
	06 53	16 34	06 58	16 29	07 04	16 22	07 12	16 15	07 20	16 07	07 29	15 57
Nov.	07 02	16 24	07 09	16 17	07 16	16 10	07 24	16 02	07 34	15 52	07 45	15 41
	07 12	16 15	07 19	16 07	07 28	15 59	07 37	15 49	07 48	15 38	08 01	15 25
	07 22	16 06	07 30	15 58	07 39	15 48	07 50	15 37	08 03	15 25	08 17	15 10
	07 31	15 58	07 40	15 49	07 51	15 39	08 03	15 27	08 17	15 13	08 33	14 56
	07 40	15 51	07 50	15 41	08 02	15 30	08 15	15 17	08 30	15 01	08 49	14 42
	07 49	15 46	08 00	15 35	08 12	15 23	08 26	15 08	08 43	14 51	09 04	14 30
Dec.	07 57	15 42	08 08	15 30	08 21	15 17	08 37	15 02	08 55	14 43	09 18	14 20
	08 04	15 39	08 16	15 27	08 30	15 13	08 46	14 57	09 06	14 37	09 31	14 12
	08 10	15 38	08 22	15 25	08 36	15 11	08 53	14 54	09 14	14 33	09 41	14 06
	08 14	15 38	08 27	15 25	08 42	15 11	08 59	14 53	09 20	14 32	09 49	14 04
	08 17	15 40	08 30	15 27	08 45	15 12	09 02	14 55	09 24	14 33	09 52	14 05
	08 19	15 43	08 32	15 31	08 46	15 16	09 03	14 59	09 25	14 37	09 53	14 09

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	66° N.		68° N.		70° N.		72° N.		74° N.		76° N.	
	Rise h. m.	Set h. m.										
Jan.	10 28	13 40	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	6	10 17	13 55	11 21	12 51	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	11	10 05	14 12	10 53	13 24	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	16	09 50	14 30	10 28	13 52	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	21	09 34	14 49	10 05	14 18	10 56	13 27	-- --	-- --	-- --	-- --	-- --
	26	09 17	15 09	09 43	14 43	10 21	14 05	11 39	12 47	-- --	-- --	-- --
	31	09 00	15 28	09 22	15 06	09 51	14 37	10 36	13 52	-- --	-- --	-- --
Feb.	5	08 42	15 47	09 00	15 29	09 24	15 05	09 57	14 32	10 52	13 38	-- --
	10	08 24	16 06	08 39	15 50	08 59	15 31	09 24	15 06	10 00	14 30	11 08 13 22
	15	08 06	16 24	08 18	16 11	08 34	15 56	08 54	15 36	09 21	15 09	10 01 14 29
	20	07 47	16 42	07 57	16 32	08 10	16 19	08 26	16 04	08 46	15 43	09 14 15 15
	25	07 28	16 59	07 36	16 51	07 46	16 42	07 58	16 30	08 14	16 14	08 34 15 54
Mar.	2	07 09	17 16	07 16	17 10	07 23	17 03	07 32	16 54	07 43	16 43	07 58 16 29
	7	06 51	17 33	06 55	17 29	07 00	17 24	07 06	17 18	07 13	17 11	07 23 17 02
	12	06 31	17 50	06 34	17 48	06 37	17 45	06 40	17 42	06 44	17 38	06 49 17 33
	17	06 12	18 06	06 13	18 06	06 14	18 05	06 14	18 05	06 15	18 04	06 16 18 03
	22	05 53	18 22	05 52	18 24	05 50	18 26	05 49	18 28	05 46	18 30	05 43 18 34
	27	05 34	18 39	05 31	18 42	05 27	18 46	05 23	18 51	05 17	18 57	05 10 19 05
	Apr.	1	05 15	18 55	05 10	19 00	05 04	19 07	04 56	19 14	04 47	19 24
Apr.	6	04 55	19 12	04 48	19 19	04 40	19 28	04 30	19 38	04 17	19 52	04 00 20 10
	11	04 36	19 28	04 27	19 38	04 16	19 49	04 02	20 03	03 45	20 22	03 21 20 47
	16	04 17	19 45	04 05	19 57	03 51	20 11	03 34	20 30	03 11	20 54	02 38 21 30
	21	03 57	20 03	03 43	20 17	03 26	20 35	03 04	20 58	02 33	21 31	01 43 22 26
	26	03 38	20 21	03 21	20 38	03 00	21 00	02 31	21 30	01 47	22 17	** ** ** **
May.	1	03 18	20 39	02 58	21 00	02 32	21 27	01 53	22 08	00 31	** **	** **
	6	02 58	20 58	02 34	21 23	02 01	21 58	01 03	23 04	** **	** **	** **
	11	02 38	21 17	02 09	21 48	01 24	22 36	** **	** **	** **	** **	** **
	16	02 19	21 37	01 42	22 16	00 24	** **	** **	** **	** **	** **	** **
	21	01 59	21 58	01 10	22 50	** **	** **	** **	** **	** **	** **	** **
	26	01 38	22 20	00 19	** **	** **	** **	** **	** **	** **	** **	** **
	31	01 17	22 42	** **	** **	** **	** **	** **	** **	** **	** **	** **
Jun.	5	00 55	23 06	** **	** **	** **	** **	** **	** **	** **	** **	** **
	10	00 29	23 36	** **	** **	** **	** **	** **	** **	** **	** **	** **
	15	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
	20	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
	25	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
Jul.	30	23 48	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
	5	00 47	23 17	** **	** **	** **	** **	** **	** **	** **	** **	** **
	10	01 12	22 54	** **	** **	** **	** **	** **	** **	** **	** **	** **
	15	01 35	22 33	** **	** **	** **	** **	** **	** **	** **	** **	** **
	20	01 57	22 13	00 56	23 08	** **	** **	** **	** **	** **	** **	** **
Aug.	25	02 17	21 52	01 35	22 33	** **	** **	** **	** **	** **	** **	** **
	30	02 37	21 32	02 04	22 04	01 06	22 57	** **	** **	** **	** **	** **
	4	02 57	21 13	02 30	21 39	01 50	22 16	23 38	** **	** **	** **	** **
	9	03 15	20 53	02 53	21 14	02 23	21 44	01 34	22 28	** **	** **	** **
	14	03 34	20 33	03 15	20 51	02 51	21 15	02 17	21 47	01 17	22 40	** **
Sep.	19	03 51	20 14	03 36	20 29	03 16	20 48	02 50	21 12	02 12	21 48	00 54 22 53
	24	04 08	19 54	03 55	20 07	03 40	20 22	03 19	20 41	02 51	21 08	02 09 21 47
	29	04 25	19 35	04 15	19 45	04 02	19 57	03 46	20 12	03 25	20 33	02 55 21 00
	3	04 41	19 15	04 33	19 23	04 23	19 33	04 11	19 45	03 55	20 00	03 33 20 20
	8	04 57	18 56	04 51	19 02	04 44	19 09	04 35	19 18	04 23	19 29	04 08 19 43
Oct.	13	05 13	18 37	05 09	18 41	05 04	18 46	04 58	18 51	04 50	18 59	04 39 19 08
	18	05 29	18 17	05 27	18 20	05 24	18 22	05 20	18 26	05 16	18 30	05 10 18 35
	23	05 45	17 58	05 44	17 59	05 43	17 59	05 42	18 00	05 41	18 01	05 40 18 02
	28	06 01	17 39	06 02	17 38	06 03	17 36	06 05	17 34	06 07	17 32	06 09 17 29
	3	06 17	17 20	06 20	17 17	06 23	17 13	06 27	17 09	06 33	17 03	06 39 16 56
Nov.	8	06 33	17 01	06 38	16 56	06 43	16 50	06 50	16 43	06 59	16 34	07 10 16 22
	13	06 49	16 42	06 56	16 35	07 04	16 27	07 14	16 17	07 27	16 04	07 43 15 47
	18	07 06	16 23	07 15	16 14	07 25	16 03	07 39	15 50	07 56	15 33	08 19 15 10
	23	07 23	16 04	07 34	15 53	07 47	15 40	08 04	15 23	08 27	15 00	08 59 14 28
	28	07 40	15 46	07 54	15 32	08 11	15 16	08 32	14 54	09 02	14 24	09 48 13 37
Dec.	2	07 58	15 28	08 15	15 11	08 35	14 51	09 02	14 23	09 43	13 42	11 29 11 56
	7	08 17	15 10	08 36	14 50	09 01	14 25	09 37	13 49	10 44	12 42	-- --
	12	08 35	14 52	08 58	14 29	09 30	13 57	10 21	13 06	-- --	-- --	-- --
	17	08 54	14 35	09 22	14 07	10 02	13 26	-- --	-- --	-- --	-- --	-- --
	22	09 13	14 18	09 47	13 45	10 44	12 47	-- --	-- --	-- --	-- --	-- --
Dec.	27	09 32	14 03	10 13	13 22	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	2	09 50	13 48	10 42	12 57	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	7	10 06	13 36	11 18	12 25	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	12	10 20	13 27	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	17	10 30	13 22	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Dec.	22	10 35	13 22	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
	27	10 34	13 28	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	0° S.		5° S.		10° S.		15° S.		20° S.		25° S.		
	Rise h. m.	Set h. m.											
Jan. 1	06 00	18 07	05 51	18 16	05 43	18 25	05 34	18 34	05 24	18 43	05 14	18 53	
	6	06 02	18 10	05 54	18 18	05 45	18 26	05 36	18 35	05 27	18 44	05 17	18 54
	11	06 04	18 12	05 56	18 20	05 48	18 28	05 39	18 36	05 30	18 45	05 21	18 55
	16	06 06	18 13	05 58	18 21	05 51	18 29	05 42	18 37	05 34	18 46	05 25	18 55
	21	06 08	18 15	06 00	18 22	05 53	18 30	05 45	18 37	05 37	18 45	05 28	18 54
	26	06 09	18 16	06 02	18 23	05 55	18 30	05 48	18 37	05 40	18 44	05 32	18 53
	31	06 10	18 17	06 04	18 23	05 57	18 30	05 51	18 36	05 43	18 43	05 36	18 51
Feb. 5	06 10	18 17	06 05	18 23	05 59	18 29	05 53	18 35	05 46	18 41	05 40	18 48	
	10	06 11	18 18	06 06	18 23	06 00	18 28	05 55	18 33	05 49	18 39	05 43	18 45
	15	06 11	18 18	06 06	18 22	06 02	18 27	05 57	18 31	05 52	18 36	05 46	18 42
	20	06 10	18 17	06 06	18 21	06 02	18 25	05 58	18 29	05 54	18 33	05 49	18 38
	25	06 10	18 16	06 06	18 20	06 03	18 23	06 00	18 26	05 56	18 30	05 52	18 33
Mar. 2	06 09	18 15	06 06	18 18	06 04	18 20	06 01	18 23	05 58	18 26	05 55	18 29	
	7	06 08	18 14	06 06	18 16	06 04	18 18	06 02	18 20	06 00	18 22	05 57	18 24
	12	06 06	18 13	06 05	18 14	06 04	18 15	06 03	18 16	06 01	18 18	06 00	18 19
	17	06 05	18 12	06 05	18 12	06 04	18 12	06 04	18 13	06 03	18 13	06 02	18 14
	22	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 09	06 04	18 09	06 04	18 09
	27	06 02	18 09	06 03	18 08	06 04	18 07	06 05	18 06	06 06	18 05	06 07	18 04
Apr. 1	06 01	18 07	06 02	18 05	06 04	18 04	06 05	18 02	06 07	18 00	06 09	17 59	
	6	05 59	18 06	06 01	18 03	06 04	18 01	06 06	17 59	06 08	17 56	06 11	17 54
	11	05 58	18 04	06 01	18 01	06 04	17 58	06 07	17 55	06 10	17 52	06 13	17 49
	16	05 56	18 03	06 00	17 59	06 04	17 56	06 07	17 52	06 11	17 48	06 15	17 44
	21	05 55	18 02	06 00	17 58	06 04	17 54	06 08	17 49	06 13	17 45	06 17	17 40
	26	05 54	18 01	05 59	17 56	06 04	17 51	06 09	17 46	06 14	17 41	06 20	17 36
May. 1	05 54	18 01	05 59	17 55	06 05	17 50	06 10	17 44	06 16	17 38	06 22	17 32	
	6	05 53	18 00	05 59	17 54	06 05	17 48	06 11	17 42	06 18	17 35	06 25	17 28
	11	05 53	18 00	05 59	17 53	06 06	17 47	06 13	17 40	06 20	17 33	06 27	17 25
	16	05 53	18 00	06 00	17 53	06 07	17 46	06 14	17 39	06 22	17 31	06 30	17 23
	21	05 53	18 00	06 00	17 53	06 08	17 45	06 16	17 38	06 24	17 29	06 32	17 21
	26	05 53	18 01	06 01	17 53	06 09	17 45	06 17	17 37	06 26	17 28	06 35	17 19
Jun. 5	05 55	18 02	06 03	17 54	06 12	17 45	06 20	17 37	06 29	17 28	06 39	17 18	
	10	05 56	18 03	06 04	17 55	06 13	17 46	06 22	17 37	06 31	17 28	06 41	17 18
	15	05 57	18 04	06 05	17 56	06 14	17 47	06 23	17 38	06 33	17 28	06 43	17 18
	20	05 58	18 05	06 07	17 57	06 15	17 48	06 24	17 39	06 34	17 29	06 44	17 19
	25	05 59	18 06	06 08	17 58	06 16	17 49	06 25	17 40	06 35	17 30	06 45	17 20
	30	06 00	18 07	06 09	17 59	06 17	17 50	06 26	17 41	06 36	17 32	06 46	17 22
Jul. 5	06 01	18 08	06 09	18 00	06 18	17 51	06 27	17 43	06 36	17 33	06 46	17 24	
	10	06 02	18 09	06 10	18 01	06 18	17 53	06 27	17 44	06 36	17 35	06 45	17 26
	15	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 46	06 35	17 37	06 44	17 28
	20	06 03	18 10	06 10	18 03	06 17	17 56	06 26	17 47	06 34	17 39	06 43	17 30
	25	06 03	18 10	06 10	18 03	06 17	17 56	06 25	17 48	06 33	17 41	06 41	17 32
	30	06 03	18 10	06 10	18 03	06 16	17 57	06 23	17 50	06 31	17 42	06 38	17 35
Aug. 4	06 03	18 10	06 09	18 03	06 15	17 57	06 22	17 51	06 28	17 44	06 36	17 37	
	9	06 02	18 09	06 08	18 03	06 14	17 58	06 19	17 52	06 26	17 46	06 32	17 39
	14	06 01	18 08	06 06	18 03	06 12	17 58	06 17	17 53	06 22	17 47	06 28	17 41
	19	06 00	18 07	06 05	18 02	06 09	17 58	06 14	17 53	06 19	17 49	06 24	17 43
	24	05 59	18 06	06 03	18 02	06 07	17 58	06 11	17 54	06 15	17 50	06 20	17 45
	29	05 58	18 04	06 01	18 01	06 04	17 58	06 08	17 54	06 11	17 51	06 15	17 47
Sep. 3	05 56	18 03	05 59	18 00	06 01	17 57	06 04	17 55	06 07	17 52	06 10	17 49	
	8	05 54	18 01	05 56	17 59	05 58	17 57	06 00	17 55	06 03	17 53	06 05	17 51
	13	05 53	17 59	05 54	17 58	05 55	17 57	05 57	17 55	05 58	17 54	05 59	17 53
	18	05 51	17 57	05 52	17 57	05 52	17 56	05 53	17 56	05 53	17 55	05 54	17 55
	23	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
	28	05 47	17 54	05 47	17 55	05 46	17 56	05 45	17 56	05 44	17 57	05 43	17 58
Oct. 3	05 46	17 52	05 44	17 54	05 43	17 55	05 41	17 57	05 40	17 59	05 38	18 00	
	8	05 44	17 51	05 42	17 53	05 40	17 55	05 38	17 57	05 36	18 00	05 33	18 03
	13	05 43	17 50	05 40	17 52	05 37	17 55	05 34	17 58	05 31	18 01	05 28	18 05
	18	05 42	17 48	05 38	17 52	05 35	17 56	05 31	17 59	05 28	18 03	05 23	18 07
	23	05 41	17 48	05 37	17 52	05 33	17 56	05 28	18 00	05 24	18 05	05 19	18 10
	28	05 40	17 47	05 36	17 52	05 31	17 57	05 26	18 02	05 21	18 07	05 15	18 13
Nov. 2	05 40	17 47	05 35	17 52	05 29	17 58	05 24	18 03	05 18	18 09	05 12	18 16	
	7	05 40	17 47	05 34	17 53	05 28	17 59	05 22	18 05	05 16	18 12	05 09	18 19
	12	05 41	17 48	05 34	17 54	05 28	18 01	05 21	18 08	05 14	18 15	05 06	18 23
	17	05 41	17 49	05 34	17 55	05 27	18 03	05 20	18 10	05 12	18 18	05 04	18 26
	22	05 43	17 50	05 35	17 57	05 28	18 05	05 20	18 13	05 12	18 21	05 03	18 30
	27	05 44	17 51	05 36	17 59	05 28	18 07	05 20	18 15	05 11	18 24	05 02	18 33
Dec. 2	05 46	17 53	05 38	18 01	05 29	18 09	05 21	18 18	05 12	18 27	05 02	18 37	
	7	05 48	17 55	05 39	18 04	05 31	18 12	05 22	18 21	05 13	18 30	05 02	18 41
	12	05 50	17 57	05 41	18 06	05 33	18 15	05 24	18 24	05 14	18 33	05 04	18 44
	17	05 52	18 00	05 44	18 09	05 35	18 17	05 26	18 27	05 16	18 36	05 05	18 47
	22	05 55	18 02	05 46	18 11	05 37	18 20	05 28	18 29	05 18	18 39	05 08	18 49
	27	05 57	18 05	05 49	18 13	05 40	18 22	05 31	18 31	05 21	18 41	05 10	18 52

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	30° S.		32° S.		34° S.		36° S.		38° S.		40° S.	
	Rise h. m.	Set h. m.										
Jan.	05 02	19 05	04 57	19 10	04 52	19 15	04 47	19 20	04 41	19 26	04 35	19 32
	05 06	19 05	05 01	19 10	04 56	19 15	04 51	19 20	04 45	19 26	04 39	19 32
	05 10	19 05	05 05	19 10	05 01	19 15	04 56	19 20	04 50	19 25	04 44	19 31
	05 14	19 05	05 10	19 09	05 05	19 14	05 00	19 19	04 55	19 24	04 50	19 29
	05 19	19 04	05 15	19 08	05 10	19 12	05 06	19 17	05 01	19 21	04 56	19 27
	05 23	19 02	05 19	19 05	05 15	19 09	05 11	19 14	05 06	19 18	05 02	19 23
	05 28	18 59	05 24	19 02	05 20	19 06	05 16	19 10	05 12	19 14	05 08	19 19
Feb.	05 32	18 56	05 29	18 59	05 25	19 02	05 22	19 06	05 18	19 09	05 14	19 13
	05 36	18 52	05 33	18 55	05 30	18 58	05 27	19 01	05 24	19 04	05 20	19 08
	05 40	18 47	05 38	18 50	05 35	18 53	05 32	18 55	05 29	18 58	05 26	19 02
	05 44	18 43	05 42	18 45	05 40	18 47	05 37	18 50	05 35	18 52	05 32	18 55
	05 48	18 38	05 46	18 39	05 44	18 41	05 42	18 43	05 40	18 45	05 38	18 48
Mar.	05 52	18 32	05 50	18 34	05 49	18 35	05 47	18 37	05 45	18 38	05 43	18 40
	05 55	18 27	05 54	18 28	05 53	18 29	05 52	18 30	05 50	18 31	05 49	18 32
	05 58	18 21	05 58	18 21	05 57	18 22	05 56	18 23	05 55	18 24	05 54	18 25
	06 01	18 15	06 01	18 15	06 01	18 15	06 00	18 16	06 00	18 16	06 00	18 16
	06 05	18 09	06 05	18 09	06 05	18 09	06 05	18 09	06 05	18 08	06 05	18 08
	06 08	18 03	06 08	18 02	06 08	18 02	06 09	18 01	06 09	18 01	06 10	18 00
Apr.	06 11	17 57	06 11	17 56	06 12	17 55	06 13	17 54	06 14	17 53	06 15	17 52
	06 14	17 51	06 15	17 50	06 16	17 48	06 17	17 47	06 18	17 46	06 20	17 44
	06 17	17 45	06 18	17 44	06 20	17 42	06 21	17 40	06 23	17 39	06 25	17 37
	06 20	17 40	06 21	17 38	06 23	17 36	06 25	17 34	06 28	17 31	06 30	17 29
	06 23	17 34	06 25	17 32	06 27	17 30	06 30	17 27	06 32	17 25	06 35	17 22
	06 26	17 29	06 28	17 27	06 31	17 24	06 34	17 21	06 37	17 18	06 40	17 15
May.	06 29	17 25	06 32	17 22	06 35	17 19	06 38	17 16	06 41	17 12	06 45	17 09
	06 32	17 21	06 35	17 18	06 39	17 14	06 42	17 11	06 46	17 07	06 50	17 03
	06 35	17 17	06 39	17 14	06 42	17 10	06 46	17 06	06 50	17 02	06 55	16 58
	06 38	17 14	06 42	17 10	06 46	17 06	06 50	17 02	06 55	16 58	06 59	16 53
	06 41	17 12	06 45	17 07	06 50	17 03	06 54	16 59	06 59	16 54	07 04	16 49
	06 44	17 09	06 49	17 05	06 53	17 01	06 58	16 56	07 03	16 51	07 08	16 46
Jun.	06 47	17 08	06 52	17 04	06 56	16 59	07 01	16 54	07 06	16 49	07 12	16 44
	06 50	17 07	06 54	17 03	06 59	16 58	07 04	16 53	07 09	16 47	07 15	16 42
	06 52	17 07	06 57	17 02	07 01	16 57	07 07	16 52	07 12	16 47	07 18	16 41
	06 54	17 07	06 59	17 02	07 03	16 57	07 09	16 52	07 14	16 47	07 20	16 41
	06 55	17 08	07 00	17 03	07 05	16 58	07 10	16 53	07 16	16 47	07 22	16 41
	06 56	17 09	07 01	17 04	07 06	16 59	07 11	16 54	07 17	16 49	07 23	16 43
Jul.	06 56	17 13	07 01	17 08	07 06	17 03	07 11	16 58	07 16	16 53	07 22	16 47
	06 56	17 15	07 00	17 11	07 05	17 06	07 10	17 01	07 15	16 56	07 21	16 50
	06 54	17 18	06 59	17 13	07 03	17 09	07 08	17 04	07 13	16 59	07 18	16 54
	06 52	17 21	06 57	17 16	07 01	17 12	07 05	17 08	07 10	17 03	07 15	16 58
	06 50	17 23	06 54	17 19	06 58	17 15	07 02	17 11	07 07	17 07	07 11	17 02
	06 47	17 26	06 51	17 23	06 54	17 19	06 58	17 15	07 02	17 11	07 07	17 06
Aug.	06 43	17 29	06 47	17 26	06 50	17 22	06 54	17 19	06 58	17 15	07 02	17 11
	06 39	17 32	06 42	17 29	06 45	17 26	06 49	17 23	06 52	17 19	06 56	17 15
	06 35	17 35	06 37	17 32	06 40	17 29	06 43	17 27	06 46	17 23	06 50	17 20
	06 30	17 38	06 32	17 35	06 35	17 33	06 37	17 30	06 40	17 28	06 43	17 25
	06 25	17 41	06 27	17 39	06 29	17 36	06 31	17 34	06 33	17 32	06 36	17 29
	06 19	17 43	06 21	17 42	06 22	17 40	06 24	17 38	06 26	17 36	06 28	17 34
Sep.	06 13	17 46	06 14	17 45	06 16	17 43	06 17	17 42	06 19	17 40	06 21	17 39
	06 07	17 49	06 08	17 48	06 09	17 47	06 10	17 46	06 11	17 45	06 13	17 43
	06 01	17 51	06 02	17 51	06 02	17 50	06 03	17 49	06 04	17 49	06 04	17 48
	05 55	17 54	05 55	17 54	05 55	17 54	05 56	17 53	05 56	17 53	05 56	17 53
	05 49	17 57	05 48	17 57	05 48	17 57	05 48	17 57	05 48	17 57	05 48	17 58
	05 42	18 00	05 42	18 00	05 41	18 01	05 41	18 01	05 40	18 02	05 40	18 02
Oct.	05 36	18 02	05 35	18 03	05 34	18 04	05 34	18 05	05 33	18 06	05 31	18 07
	05 30	18 05	05 29	18 07	05 28	18 08	05 26	18 09	05 25	18 11	05 23	18 12
	05 24	18 09	05 23	18 10	05 21	18 12	05 19	18 14	05 18	18 16	05 16	18 18
	05 19	18 12	05 17	18 14	05 15	18 16	05 13	18 18	05 11	18 20	05 08	18 23
	05 14	18 15	05 11	18 18	05 09	18 20	05 06	18 23	05 04	18 25	05 01	18 28
	05 09	18 19	05 06	18 22	05 04	18 25	05 01	18 28	04 58	18 31	04 54	18 34
Nov.	05 05	18 23	05 02	18 26	04 59	18 29	04 55	18 32	04 52	18 36	04 48	18 40
	05 01	18 27	04 58	18 30	04 54	18 34	04 50	18 38	04 46	18 41	04 42	18 46
	04 58	18 31	04 54	18 35	04 50	18 39	04 46	18 43	04 42	18 47	04 37	18 52
	04 55	18 35	04 51	18 39	04 47	18 43	04 43	18 48	04 38	18 52	04 33	18 57
	04 53	18 40	04 49	18 44	04 44	18 48	04 40	18 53	04 35	18 58	04 30	19 03
	04 52	18 44	04 47	18 48	04 43	18 53	04 38	18 58	04 33	19 03	04 27	19 09
Dec.	04 51	18 48	04 47	18 52	04 42	18 57	04 37	19 03	04 31	19 08	04 25	19 14
	04 51	18 52	04 47	18 56	04 42	19 02	04 36	19 07	04 31	19 13	04 24	19 19
	04 52	18 55	04 47	19 00	04 42	19 05	04 37	19 11	04 31	19 17	04 25	19 23
	04 54	18 58	04 49	19 03	04 44	19 09	04 38	19 14	04 32	19 20	04 26	19 26
	04 56	19 01	04 51	19 06	04 46	19 11	04 40	19 17	04 34	19 23	04 28	19 29
	04 59	19 03	04 54	19 08	04 49	19 13	04 43	19 19	04 37	19 25	04 31	19 31

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	42° S.		44° S.		46° S.		48° S.		50° S.		52° S.	
	Rise h. m.	Set h. m.										
Jan.	04 28	19 39	04 21	19 46	04 13	19 54	04 05	20 02	03 55	20 12	03 45	20 22
	04 33	19 39	04 26	19 45	04 18	19 53	04 10	20 01	04 01	20 10	03 51	20 20
	04 38	19 37	04 31	19 44	04 24	19 51	04 16	19 59	04 07	20 08	03 58	20 17
	04 44	19 35	04 38	19 41	04 31	19 48	04 23	19 56	04 15	20 04	04 06	20 13
	04 50	19 32	04 44	19 38	04 38	19 44	04 30	19 51	04 23	19 59	04 14	20 08
	04 56	19 28	04 51	19 34	04 45	19 39	04 38	19 46	04 31	19 53	04 23	20 01
	05 03	19 23	04 58	19 28	04 52	19 34	04 46	19 40	04 40	19 46	04 33	19 53
Feb.	05 10	19 18	05 05	19 22	05 00	19 27	04 55	19 33	04 49	19 38	04 42	19 45
	05 16	19 12	05 12	19 16	05 08	19 20	05 03	19 25	04 57	19 30	04 52	19 36
	05 23	19 05	05 19	19 08	05 15	19 12	05 11	19 16	05 06	19 21	05 01	19 26
	05 29	18 58	05 26	19 01	05 23	19 04	05 19	19 07	05 15	19 11	05 11	19 15
	05 35	18 50	05 33	18 53	05 30	18 55	05 27	18 58	05 24	19 01	05 20	19 05
Mar.	05 41	18 42	05 39	18 44	05 37	18 46	05 35	18 49	05 32	18 51	05 29	18 54
	05 47	18 34	05 46	18 35	05 44	18 37	05 42	18 39	05 41	18 41	05 38	18 43
	05 53	18 25	05 52	18 26	05 51	18 27	05 50	18 29	05 49	18 30	05 47	18 31
	05 59	18 17	05 59	18 17	05 58	18 18	05 57	18 18	05 57	18 19	05 56	18 20
	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08
	06 10	18 00	06 11	17 59	06 11	17 59	06 12	17 58	06 13	17 57	06 13	17 56
Apr.	06 16	17 51	06 17	17 50	06 18	17 49	06 19	17 48	06 20	17 46	06 22	17 45
	06 21	17 43	06 23	17 41	06 25	17 40	06 26	17 38	06 28	17 36	06 30	17 34
	06 27	17 35	06 29	17 33	06 31	17 30	06 33	17 28	06 36	17 25	06 39	17 23
	06 32	17 27	06 35	17 24	06 38	17 21	06 40	17 18	06 44	17 15	06 47	17 12
	06 38	17 19	06 41	17 16	06 44	17 13	06 48	17 09	06 51	17 05	06 55	17 01
	06 43	17 12	06 47	17 08	06 50	17 05	06 55	17 00	06 59	16 56	07 04	16 51
May.	06 49	17 05	06 53	17 01	06 57	16 57	07 01	16 52	07 06	16 47	07 12	16 42
	06 54	16 59	06 58	16 54	07 03	16 50	07 08	16 44	07 14	16 39	07 20	16 33
	06 59	16 53	07 04	16 48	07 09	16 43	07 15	16 37	07 21	16 31	07 28	16 24
	07 04	16 48	07 09	16 43	07 15	16 37	07 21	16 31	07 28	16 24	07 35	16 17
	07 09	16 44	07 15	16 38	07 21	16 32	07 27	16 26	07 35	16 18	07 42	16 10
	07 13	16 40	07 19	16 34	07 26	16 28	07 33	16 21	07 41	16 13	07 49	16 05
Jun.	07 17	16 38	07 24	16 31	07 31	16 25	07 38	16 17	07 46	16 09	07 55	16 00
	07 21	16 36	07 28	16 29	07 35	16 22	07 42	16 14	07 51	16 06	08 00	15 57
	07 24	16 35	07 31	16 28	07 38	16 21	07 46	16 13	07 55	16 04	08 04	15 54
	07 27	16 34	07 33	16 28	07 41	16 20	07 49	16 12	07 58	16 03	08 07	15 54
	07 28	16 35	07 35	16 28	07 42	16 21	07 51	16 13	07 59	16 04	08 09	15 54
	07 29	16 36	07 36	16 30	07 43	16 22	07 51	16 14	08 00	16 05	08 10	15 55
Jul.	07 28	16 41	07 35	16 35	07 42	16 27	07 50	16 20	07 58	16 11	08 08	16 02
	07 27	16 44	07 33	16 38	07 40	16 31	07 47	16 24	07 56	16 15	08 05	16 06
	07 24	16 48	07 30	16 42	07 37	16 36	07 44	16 28	07 52	16 21	08 01	16 12
	07 21	16 52	07 26	16 47	07 33	16 40	07 40	16 34	07 47	16 26	07 55	16 18
	07 17	16 57	07 22	16 52	07 28	16 46	07 34	16 39	07 41	16 32	07 49	16 25
	07 12	17 02	07 17	16 57	07 22	16 51	07 28	16 45	07 35	16 39	07 42	16 32
Aug.	07 06	17 07	07 11	17 02	07 16	16 57	07 21	16 52	07 27	16 46	07 34	16 39
	07 00	17 12	07 04	17 07	07 09	17 03	07 14	16 58	07 19	16 53	07 25	16 47
	06 53	17 17	06 57	17 13	07 01	17 09	07 05	17 05	07 10	17 00	07 15	16 55
	06 46	17 22	06 49	17 18	06 53	17 15	06 57	17 11	07 01	17 07	07 05	17 03
	06 39	17 27	06 41	17 24	06 44	17 21	06 48	17 18	06 51	17 14	06 55	17 11
	06 31	17 32	06 33	17 30	06 35	17 27	06 38	17 25	06 41	17 22	06 44	17 19
Sep.	06 22	17 37	06 24	17 35	06 26	17 33	06 28	17 31	06 31	17 29	06 33	17 27
	06 14	17 42	06 15	17 41	06 17	17 39	06 18	17 38	06 20	17 36	06 22	17 35
	06 05	17 47	06 06	17 47	06 07	17 46	06 08	17 45	06 09	17 44	06 10	17 43
	05 57	17 52	05 57	17 52	05 57	17 52	05 58	17 52	05 58	17 51	05 58	17 51
	05 48	17 58	05 48	17 58	05 47	17 58	05 47	17 58	05 47	17 59	05 47	17 59
	05 39	18 03	05 38	18 04	05 38	18 05	05 37	18 05	05 36	18 06	05 35	18 07
Oct.	05 30	18 08	05 29	18 10	05 28	18 11	05 27	18 12	05 25	18 14	05 23	18 16
	05 22	18 14	05 20	18 16	05 18	18 18	05 16	18 20	05 14	18 22	05 12	18 24
	05 14	18 20	05 11	18 22	05 09	18 24	05 06	18 27	05 04	18 30	05 01	18 33
	05 06	18 25	05 03	18 28	05 00	18 31	04 57	18 35	04 53	18 38	04 50	18 42
	04 58	18 31	04 55	18 35	04 51	18 38	04 48	18 42	04 43	18 46	04 39	18 51
	04 51	18 38	04 47	18 41	04 43	18 45	04 39	18 50	04 34	18 55	04 29	19 00
Nov.	04 44	18 44	04 40	18 48	04 35	18 53	04 30	18 58	04 25	19 03	04 19	19 09
	04 38	18 50	04 33	18 55	04 28	19 00	04 23	19 06	04 17	19 12	04 10	19 18
	04 33	18 56	04 27	19 02	04 22	19 07	04 16	19 14	04 09	19 20	04 02	19 28
	04 28	19 03	04 22	19 08	04 16	19 15	04 09	19 21	04 02	19 29	03 54	19 37
	04 24	19 09	04 18	19 15	04 11	19 22	04 04	19 29	03 56	19 37	03 48	19 45
	04 21	19 15	04 15	19 21	04 08	19 28	04 00	19 36	03 52	19 44	03 42	19 54
Dec.	04 19	19 20	04 12	19 27	04 05	19 34	03 57	19 42	03 48	19 51	03 38	20 01
	04 18	19 25	04 11	19 32	04 03	19 40	03 55	19 48	03 46	19 57	03 36	20 08
	04 18	19 30	04 11	19 37	04 03	19 45	03 54	19 53	03 45	20 03	03 34	20 13
	04 19	19 33	04 12	19 41	04 04	19 48	03 55	19 57	03 45	20 07	03 35	20 18
	04 21	19 36	04 14	19 43	04 06	19 51	03 57	20 00	03 47	20 10	03 36	20 21
	04 24	19 38	04 17	19 45	04 09	19 53	04 00	20 02	03 50	20 11	03 40	20 22

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2018

Date	54° S.		56° S.		58° S.		60° S.	
	Rise h. m.	Set h. m.						
Jan.	03 33	20 34	03 19	20 48	03 03	21 04	02 43	21 23
	03 39	20 32	03 26	20 45	03 10	21 01	02 52	21 19
	03 47	20 28	03 34	20 41	03 19	20 55	03 02	21 13
	03 55	20 23	03 43	20 35	03 30	20 48	03 14	21 04
	04 05	20 17	03 54	20 28	03 41	20 40	03 26	20 55
	04 14	20 10	04 04	20 19	03 53	20 31	03 40	20 44
	04 25	20 01	04 15	20 10	04 05	20 20	03 53	20 32
Feb.	04 35	19 52	04 27	20 00	04 18	20 09	04 07	20 19
	04 45	19 42	04 38	19 49	04 30	19 57	04 21	20 06
	04 56	19 31	04 50	19 37	04 43	19 44	04 35	19 52
	05 06	19 20	05 01	19 25	04 55	19 31	04 48	19 37
	05 16	19 09	05 12	19 13	05 07	19 18	05 02	19 23
Mar.	05 26	18 57	05 23	19 00	05 19	19 04	05 15	19 08
	05 36	18 45	05 33	18 47	05 31	18 50	05 27	18 53
	05 46	18 33	05 44	18 34	05 42	18 36	05 40	18 38
	05 55	18 20	05 54	18 21	05 53	18 22	05 52	18 23
	06 05	18 08	06 05	18 08	06 05	18 08	06 05	18 08
	06 14	17 56	06 15	17 55	06 16	17 54	06 17	17 53
Apr.	06 23	17 43	06 25	17 42	06 27	17 40	06 29	17 38
	06 33	17 31	06 35	17 29	06 38	17 26	06 41	17 23
	06 42	17 19	06 45	17 16	06 49	17 12	06 53	17 08
	06 51	17 08	06 55	17 04	07 00	16 59	07 05	16 54
	07 00	16 57	07 05	16 52	07 11	16 46	07 17	16 40
	07 09	16 46	07 15	16 40	07 21	16 33	07 29	16 26
May.	07 18	16 36	07 25	16 29	07 32	16 21	07 41	16 13
	07 27	16 26	07 34	16 18	07 43	16 10	07 53	16 00
	07 35	16 17	07 44	16 08	07 53	15 59	08 04	15 48
	07 44	16 09	07 53	15 59	08 03	15 49	08 15	15 37
	07 51	16 01	08 01	15 51	08 13	15 40	08 26	15 27
	07 59	15 55	08 09	15 44	08 21	15 32	08 36	15 18
	08 05	15 50	08 16	15 39	08 29	15 26	08 45	15 10
Jun.	08 11	15 46	08 22	15 34	08 36	15 21	08 52	15 04
	08 15	15 44	08 27	15 31	08 42	15 17	08 59	15 00
	08 18	15 42	08 31	15 30	08 46	15 15	09 03	14 58
	08 20	15 43	08 33	15 30	08 48	15 15	09 05	14 58
	08 21	15 44	08 34	15 32	08 49	15 17	09 06	14 59
	08 20	15 47	08 33	15 35	08 47	15 20	09 04	15 03
Jul.	08 18	15 51	08 30	15 39	08 44	15 25	09 01	15 09
	08 15	15 56	08 27	15 45	08 40	15 31	08 56	15 16
	08 10	16 02	08 21	15 51	08 34	15 39	08 49	15 24
	08 04	16 09	08 15	15 59	08 26	15 47	08 40	15 33
	07 57	16 16	08 07	16 07	08 18	15 56	08 30	15 43
	07 49	16 24	07 58	16 15	08 08	16 05	08 20	15 54
Aug.	07 41	16 32	07 49	16 24	07 58	16 15	08 08	16 05
	07 31	16 41	07 38	16 34	07 46	16 26	07 55	16 16
	07 21	16 49	07 27	16 43	07 34	16 36	07 42	16 28
	07 10	16 58	07 16	16 52	07 22	16 46	07 29	16 40
	06 59	17 06	07 04	17 02	07 09	16 57	07 15	16 51
	06 48	17 15	06 51	17 11	06 56	17 07	07 00	17 03
Sep.	06 36	17 24	06 39	17 21	06 42	17 18	06 46	17 14
	06 24	17 33	06 26	17 31	06 28	17 28	06 31	17 26
	06 11	17 42	06 13	17 40	06 14	17 39	06 16	17 37
	05 59	17 50	05 59	17 50	06 00	17 50	06 01	17 49
	05 46	17 59	05 46	18 00	05 46	18 00	05 45	18 01
	05 34	18 08	05 33	18 10	05 32	18 11	05 30	18 13
Oct.	05 22	18 18	05 20	18 20	05 17	18 22	05 15	18 25
	05 09	18 27	05 07	18 30	05 03	18 33	05 00	18 37
	04 57	18 36	04 54	18 40	04 50	18 44	04 45	18 49
	04 46	18 46	04 41	18 51	04 36	18 56	04 30	19 02
	04 34	18 56	04 29	19 01	04 22	19 08	04 16	19 15
	04 23	19 06	04 17	19 12	04 10	19 20	04 01	19 28
Nov.	04 12	19 16	04 05	19 23	03 57	19 32	03 48	19 41
	04 03	19 26	03 54	19 34	03 45	19 44	03 34	19 55
	03 53	19 36	03 44	19 45	03 34	19 56	03 22	20 08
	03 45	19 46	03 35	19 56	03 24	20 08	03 10	20 22
	03 38	19 55	03 27	20 06	03 14	20 19	02 59	20 34
	03 32	20 04	03 20	20 16	03 06	20 30	02 50	20 47
Dec.	03 27	20 12	03 15	20 25	03 00	20 40	02 42	20 58
	03 24	20 20	03 11	20 33	02 55	20 49	02 36	21 08
	03 22	20 26	03 08	20 39	02 52	20 56	02 32	21 16
	03 22	20 30	03 08	20 44	02 51	21 01	02 31	21 21
	03 24	20 33	03 10	20 47	02 53	21 04	02 32	21 25
	03 27	20 34	03 13	20 48	02 57	21 05	02 36	21 25

Local mean time. To obtain standard time of rise or set, see Table 5.

**TABLE 5.—REDUCTION OF LOCAL MEAN TIME TO STANDARD TIME**

Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time	Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time	Difference of longitude between local and standard meridian	Correction to local mean time to obtain standard time
° ′ ° ′	Minutes	° ′ ° ′	Minutes	°	Hours
0 00 to 0 07	0	7 23 to 7 37	30	15	1
0 08 to 0 22	1	7 38 to 7 52	31	30	2
0 23 to 0 37	2	7 53 to 8 07	32	45	3
0 38 to 0 52	3	8 08 to 8 22	33	60	4
0 53 to 1 07	4	8 23 to 8 37	34	75	5
1 08 to 1 22	5	8 38 to 8 52	35	90	6
1 23 to 1 37	6	8 53 to 9 07	36	105	7
1 38 to 1 52	7	9 08 to 9 22	37	120	8
1 53 to 2 07	8	9 23 to 9 37	38	135	9
2 08 to 2 22	9	9 38 to 9 52	39	150	10
2 23 to 2 37	10	9 53 to 10 07	40	165	11
2 38 to 2 52	11	10 08 to 10 22	41	180	12
2 53 to 3 07	12	10 23 to 10 37	42		
3 08 to 3 22	13	10 38 to 10 52	43		
3 23 to 3 37	14	10 53 to 11 07	44		
3 38 to 3 52	15	11 08 to 11 22	45		
3 53 to 4 07	16	11 23 to 11 37	46		
4 08 to 4 22	17	11 38 to 11 52	47		
4 23 to 4 37	18	11 53 to 12 07	48		
4 38 to 4 52	19	12 08 to 12 22	49		
4 53 to 5 07	20	12 23 to 12 37	50		
5 08 to 5 22	21	12 38 to 12 52	51		
5 23 to 5 37	22	12 53 to 13 07	52		
5 38 to 5 52	23	13 08 to 13 22	53		
5 53 to 6 07	24	13 23 to 13 37	54		
6 08 to 6 22	25	13 38 to 13 52	55		
6 23 to 6 37	26	13 53 to 14 07	56		
6 38 to 6 52	27	14 08 to 14 22	57		
6 53 to 7 07	28	14 23 to 14 37	58		
7 08 to 7 22	29	14 38 to 14 52	59		

If local meridian is east of standard meridian, subtract the correction from local time.

If local meridian is west of standard meridian, add the correction to local time.

For differences of longitude less than 15°, use the first part of the table. For greater differences use both parts thus: 47° 23' is equivalent to 45° + 2° 23', the correction for 45° is 3 hours, the correction for 2° 23' is 10 minutes; therefore the total correction for the difference in longitude 47° 23' is 3 hours and 10 minutes.

**TABLE 6.—CONVERSION OF FEET TO CENTIMETERS**

Feet	Tenths of a Foot										Feet
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
0	0	3	6	9	12	15	18	21	24	27	0
1	30	34	37	40	43	46	49	52	55	58	1
2	61	64	67	70	73	76	79	82	85	88	2
3	91	94	98	101	104	107	110	113	116	119	3
4	122	125	128	131	134	137	140	143	146	149	4
5	152	155	158	162	165	168	171	174	177	180	5
6	183	186	189	192	195	198	201	204	207	210	6
7	213	216	219	223	226	229	232	235	238	241	7
8	244	247	250	253	256	259	262	265	268	271	8
9	274	277	280	283	287	290	293	296	299	302	9
10	305	308	311	314	317	320	323	326	329	332	10
11	335	338	341	344	347	351	354	357	360	363	11
12	366	369	372	375	378	381	384	387	390	393	12
13	396	399	402	405	408	411	415	418	421	424	13
14	427	430	433	436	439	442	445	448	451	454	14
15	457	460	463	466	469	472	475	479	482	485	15
16	488	491	494	497	500	503	506	509	512	515	16
17	518	521	524	527	530	533	536	539	543	546	17
18	549	552	555	558	561	564	567	570	573	576	18
19	579	582	585	588	591	594	597	600	604	607	19
20	610	613	616	619	622	625	628	631	634	637	20
21	640	643	646	649	652	655	658	661	664	668	21
22	671	674	677	680	683	686	689	692	695	698	22
23	701	704	707	710	713	716	719	722	725	728	23
24	732	735	738	741	744	747	750	753	756	759	24
25	762	765	768	771	774	777	780	783	786	789	25
26	792	796	799	802	805	808	811	814	817	820	26
27	823	826	829	832	835	838	841	844	847	850	27
28	853	856	860	863	866	869	872	875	878	881	28
29	884	887	890	893	896	899	902	905	908	911	29
30	914	917	920	924	927	930	933	936	939	942	30
31	945	948	951	954	957	960	963	966	969	972	31
32	975	978	981	985	988	991	994	997	1000	1003	32
33	1006	1009	1012	1015	1018	1021	1024	1027	1030	1033	33
34	1036	1039	1042	1045	1049	1052	1055	1058	1061	1064	34
35	1067	1070	1073	1076	1079	1082	1085	1088	1091	1094	35
36	1097	1100	1103	1106	1109	1113	1116	1119	1122	1125	36
37	1128	1131	1134	1137	1140	1143	1146	1149	1152	1155	37
38	1158	1161	1164	1167	1170	1173	1177	1180	1183	1186	38
39	1189	1192	1195	1198	1201	1204	1207	1210	1213	1216	39
40	1219	1222	1225	1228	1231	1234	1237	1241	1244	1247	40
41	1250	1253	1256	1259	1262	1265	1268	1271	1274	1277	41
42	1280	1283	1286	1289	1292	1295	1298	1301	1305	1308	42
43	1311	1314	1317	1320	1323	1326	1329	1332	1335	1338	43
44	1341	1344	1347	1350	1353	1356	1359	1362	1366	1369	44
45	1372	1375	1378	1381	1384	1387	1390	1393	1396	1399	45
46	1402	1405	1408	1411	1414	1417	1420	1423	1426	1430	46
47	1433	1436	1439	1442	1445	1448	1451	1454	1457	1460	47
48	1463	1466	1469	1472	1475	1478	1481	1484	1487	1490	48
49	1494	1497	1500	1503	1506	1509	1512	1515	1518	1521	49

Feet to Meters = Centimeters divided by 100 (from above table)

Example: 09.40 feet = (287 centimeters) / (100) = 02.87 meters.

1 Meter = 100 centimeters

1 Meter = 3.2808399 feet

1 Foot = 0.30480061 meters

1 Foot = 30.480061 centimeters

## **PUBLICATIONS RELATING TO TIDES AND TIDAL CURRENTS**

### **TIDE TABLES**

Advance information relative to the rise and fall of the tide is given in annual tide tables. These tables include the predicted times and heights of high and low waters for every day in the year for a number of reference stations and differences for obtaining similar predictions for numerous other places.

Tide Tables, Central and Western Pacific Ocean and Indian Ocean.

Tide Tables, East Coast of North and South America (Including Greenland).

Tide Tables, Europe and West Coast of Africa (Including the Mediterranean Sea).

Tide Tables, West Coast of North and South America (Including the Hawaiian Islands).

### **TIDAL CURRENT TABLES**

Accompanying the rise and fall of the tide is a periodic horizontal flow of the water known as the tidal current. Advance information relative to these currents is made available in annual tidal current tables which include daily predictions of the times of slack water and the times and velocities of strength of flood and ebb currents for a number of waterways together with differences for obtaining predictions for numerous other places.

Tidal Current Tables, Atlantic Coast of North America.

Tidal Current Tables, Pacific Coast of North America and Asia.



## GLOSSARY OF TERMS

**ANNUAL INEQUALITY**—Seasonal variation in the water level or current, more or less periodic, due chiefly to meteorological causes.

**APOGEAN TIDES OR TIDAL CURRENTS**—Tides of decreased range or currents of decreased speed occurring monthly as the result of the Moon being in apogee (farthest from the Earth).

**AUTOMATIC TIDE GAGE**—An instrument that automatically registers the rise and fall of the tide. In some instruments, the registration is accomplished by recording the heights at regular intervals in digital format, in others by a continuous graph in which the height versus corresponding time of the tide is recorded.

**BENCH MARK (BM)**—A fixed physical object or marks used as reference for a vertical datum. A *tidal bench mark* is one near a tide station to which the tide staff and tidal datums are referred. A *Geodetic bench mark* identifies a surveyed point in the National Geodetic Vertical Network.

**CHART DATUM**—The tidal datum to which soundings on a chart are referred. It is usually taken to correspond to low water elevation of the tide, and its depression below mean sea level is represented by the symbol Zo.

**CURRENT**—Generally, a horizontal movement of water. Currents may be classified as *tidal* and *nontidal*. Tidal currents are caused by gravitational interactions between the Sun, Moon, and Earth and are a part of the same general movement of the sea that is manifested in the vertical rise and fall, called *tide*. Nontidal currents include the permanent currents in the general circulatory systems of the sea as well as temporary currents arising from more pronounced meteorological variability.

**CURRENT DIFFERENCE**—Difference between the time of slack water (or minimum current) or strength of current in any locality and the time of the corresponding phase of the tidal current at a reference station, for which predictions are given in the *Tidal Current Tables*.

**CURRENT ELLIPSE**—A graphic representation of a rotary current in which the velocity of the current at different hours of the tidal cycle is represented by radius vectors and vectorial angles. A line joining the extremities of the radius vectors will form a curve roughly approximating an ellipse. The cycle is completed in one-half tidal day or in a whole tidal day according to whether the tidal current is of the semidiurnal or the diurnal type. A current of the mixed type will give a curve of two unequal loops each tidal day.

**CURRENT METER**—An instrument for measuring the speed and direction or just the speed of a current. The measurements are usually Eulerian since the meter is most often fixed or moored at a specific location.

**DATUM (vertical)**—For marine applications, a base elevation used as a reference from which to reckon heights or depths. It is called a *tidal datum* when defined by a certain phase of the tide. Tidal datums are local datums and should not be extended into areas which have differing topographic features without substantiating measurements. In order that they may be recovered when needed, such datums are referenced to fixed points known as *bench marks*.

**DAYLIGHT SAVING TIME**—A time used during the summer in some localities in which clocks are advanced 1 hour from the usual standard time.

**DIURNAL**—Having a period or cycle of approximately 1 tidal day. Thus, the tide is said to be diurnal when only one high water and one low water occur during a tidal day, and the tidal current is said to be diurnal when there is a single flood and single ebb period in the tidal day. A rotary current is diurnal if it changes its direction through all points of the compass once each tidal day.

**DIURNAL INEQUALITY**—The difference in height of the two high waters or of the two low waters of each day; also the difference in speed between the two flood tidal currents or the two ebb tidal currents of each day. The difference changes with the declination of the Moon and to a lesser extent with the declination of the Sun. In general, the inequality tends to increase with an increasing declination, either north or south, and to diminish as the Moon approaches the Equator. *Mean diurnal high water inequality* (DHQ) is one-half the average difference between the two high waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of all high waters from the mean of the higher high waters. *Mean diurnal low water inequality* (DLQ) is one-half the average difference between the two low waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of the lower low waters from the mean of all low waters. *Tropic high water inequality* (HWQ) is the average difference between the two high waters of the day at the times of the tropic tides. *Tropic low water inequality* (LWQ) is the average difference between the two low waters of the day at the times of the tropic tides. Mean and tropic inequalities as

## GLOSSARY OF TERMS

defined above are applicable only when the type of tide is either semidiurnal or mixed. Diurnal inequality is sometimes called *declinational inequality*.

**DOUBLE EBB**—An ebb tidal current where, after ebb begins, the speed increases to a maximum called *first ebb*; it then decreases, reaching a *minimum ebb* near the middle of the ebb period (and at some places it may actually run in a flood direction for a short period); it then again ebbs to a maximum speed called *second ebb* after which it decreases to slack water.

**DOUBLE FLOOD**—A flood tidal current where, after flood begins, the speed increases to a maximum called *first flood*; it then decreases, reaching a *minimum flood* near the middle of the flood period (and at some places it may actually run in an ebb direction for a short period); it then again floods to a maximum speed called *second flood* after which it decreases to slack water.

**DOUBLE TIDE**—A double-headed tide, that is, a high water consisting of two maxima of nearly the same height separated by a relatively small depression, or a low water consisting of two minima separated by a relatively small elevation. Sometimes, it is called an *agger*.

**DURATION OF FLOOD AND DURATION OF EBB**—Duration of flood is the interval of time in which a tidal current is flooding, and the *duration of ebb* is the interval in which it is ebbing. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tidal current or a period of 24.84 hours for a diurnal current. In a normal semidiurnal tidal current, the duration of flood and duration of ebb will each be approximately equal to 6.21 hours, but the times may be modified greatly by the presence of a nontidal flow. In a river the duration of ebb is usually longer than the duration of flood because of the freshwater discharge, especially during the spring when snow and ice melt are the predominant influences.

**DURATION OF RISE AND DURATION OF FALL**—*Duration of rise* is the interval from low water to high water, and *duration of fall* is the interval from high water to low water. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tide or a period of 24.84 hours for a diurnal tide. In a normal semidiurnal tide, the duration of rise and duration of fall will each be approximately equal to 6.21 hours, but in shallow waters and in rivers there is a tendency for a decrease in the duration of rise and a corresponding increase in the duration of fall.

**EBB CURRENT**—The movement of a tidal current away from shore or down a tidal river or estuary. In the

mixed type of reversing tidal current, the terms *greater ebb* and *lesser ebb* are applied respectively to the ebb tidal currents of greater and lesser speed of each day. The terms *maximum ebb* and *minimum ebb* are applied to the maximum and minimum speeds of a current running continuously ebb, the speed alternately increasing and decreasing without coming to a slack or reversing. The expression *maximum ebb* is also applicable to any ebb current at the time of greatest speed.

**EQUATORIAL TIDAL CURRENTS**—Tidal currents occurring semimonthly as a result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tidal current is at a minimum.

**EQUATORIAL TIDES**—Tides occurring semi monthly as the result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tide is at a minimum.

**FLOOD CURRENT**—The movement of a tidal current toward the shore or up a tidal river or estuary. In the mixed type of reversing current, the terms *greater flood* and *lesser flood* are applied respectively to the flood currents of greater and lesser speed of each day. The terms *maximum flood* and *minimum flood* are applied to the maximum and minimum speeds of a flood current, the speed of which alternately increases and decreases without coming to a slack or reversing. The expression *maximum flood* is also applicable to any flood current at the time of greatest speed.

**GREAT DIURNAL RANGE (Gt)**—The difference in height between mean higher high water and mean lower low water. The expression may also be used in its contracted form, *diurnal range*.

**GREENWICH INTERVAL**—An interval referred to the transit of the Moon over the meridian of Greenwich as distinguished from the local interval which is referred to the Moon's transit over the local meridian. The relation in hours between Greenwich and local intervals may be expressed by the formula:

$$\text{Greenwich interval} = \text{local interval} + 0.069 L$$

where L is the west longitude of the local meridian in degrees. For east longitude, L is to be considered negative.

**GULF COAST LOW WATER DATUM**—A chart datum. Specifically, the tidal datum formerly designated for the coastal waters of the Gulf Coast of the United States. It was defined as *mean lower low water* when the type of tide was mixed and *mean low water* when the type of tide was diurnal.

**HALF-TIDE LEVEL**—See *mean tide level*.

## GLOSSARY OF TERMS

**HARMONIC ANALYSIS**—The mathematical process by which the observed tide or tidal current at any place is separated into basic harmonic constituents.

**HARMONIC CONSTANTS**—The amplitudes and epochs of the harmonic constituents of the tide or tidal current at any place.

**HARMONIC CONSTITUENT**—One of the harmonic elements in a mathematical expression for the tide-producing force and in corresponding formulas for the tide or tidal current. Each constituent represents a periodic change or variation in the relative positions of the Earth, Moon, and Sun. A single constituent is usually written in the form  $y=A \cos (at+\alpha)$ , in which  $y$  is a function of time as expressed by the symbol  $t$  and is reckoned from a specific origin. The coefficient  $A$  is called the amplitude of the constituent and is a measure of its relative importance. The angle  $(at+\alpha)$  changes uniformly and its value at any time is called the phase of the constituent. The speed of the constituent is the rate of change in its phase and is represented by the symbol  $a$  in the formula. The quantity  $\alpha$  is the phase of the constituent at the initial instant from which the time is reckoned. The period of the constituent is the time required for the phase to change through  $360^\circ$  and is the cycle of the astronomical condition represented by the constituent.

**HIGH WATER (HW)**—The maximum height reached by a rising tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of prevailing meteorological conditions. Use of the synonymous term, *high tide*, is discouraged.

**HIGHER HIGH WATER (HHW)**—The higher of the two high waters of any tidal day.

**HIGHER LOW WATER (HLW)**—The higher of the two low waters of any tidal day.

**HYDRAULIC CURRENT**—A current in a channel caused by a difference in the surface level at the two ends. Such a current may be expected in a strait connecting two bodies of water in which the tides differ in time or range. The current in the East River, N.Y., connecting Long Island Sound and New York Harbor, is an example.

**KNOT**—A unit of speed, one international nautical mile (1,852.0 meters or 6,076.11549 international feet) per hour.

**LOW WATER (LW)**—The minimum height reached by a falling tide. The height may be due solely to the periodic tidal forces or it may have superimposed

upon it the effects of meteorological conditions. Use of the synonymous term, *low tide*, is discouraged.

**LOWER HIGH WATER (LHW)**—The lower of the two high waters of any tidal day.

**LOWER LOW WATER (LLW)**—The lower of the two low waters of any tidal day.

**LUNAR DAY**—The time of the rotation of the Earth with respect to the Moon, or the interval between two successive upper transits of the Moon over the meridian of a place. The mean lunar day is approximately 24.84 solar hours long, or 1.035 times as long as the mean solar day.

**LUNAR INTERVAL**—The difference in time between the transit of the Moon over the meridian of Greenwich and over a local meridian. The average value of this interval expressed in hours is  $0.069 L$ , in which  $L$  is the local longitude in degrees, positive for west longitude and negative for east longitude. The lunar interval equals the difference between the local and Greenwich interval of a tide or current phase.

**LUNICURRENT INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and a specified phase of the tidal current following the transit. Examples: *strength of flood interval and strength of ebb interval*, which may be abbreviated to *flood interval and ebb interval*, respectively. The interval is described as local or Greenwich according to whether the reference is to the Moon's transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.

**LUNITIDAL INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and the following high or low water. The average of all high water intervals for all phases of the Moon is known as *mean high water lunitidal interval* and is abbreviated to high water interval (HWI). Similarly the *mean low water lunitidal interval* is abbreviated to *low water interval (LWI)*. The interval is described as local or Greenwich according to whether the reference is to the transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.

**MEAN HIGH WATER (MHW)**—A tidal datum. The arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.

## GLOSSARY OF TERMS

**MEAN HIGHER HIGH WATER (MHHW)**—A tidal datum. The arithmetic mean of the higher high water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the higher high water of each pair of high waters, or the only high water of a tidal day is included in the mean.

**MEAN HIGHER HIGH WATER LINE (MHHWL)**—The intersection of the land with the water surface at the elevation of mean higher high water.

**MEAN LOW WATER (MLW)**—A tidal datum. The arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.

**MEAN LOW WATER SPRINGS (MLWS)**—A tidal datum. Frequently abbreviated *spring low water*. The arithmetic mean of the low water heights occurring at the time of the spring tides observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).

**MEAN LOWER LOW WATER (MLLW)**—A tidal datum. The arithmetic mean of the lower low water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the lower low water of each pair of low waters, or the only low water of a tidal day is included in the mean.

**MEAN RANGE OF TIDE (Mn)**—The difference in height between mean high water and mean low water.

**MEAN RIVER LEVEL**—A tidal datum. The average height of the surface of a tidal river at any point for all stages of the tide observed over a 19-year Metonic cycle (the National Tidal Datum Epoch), usually determined from hourly height readings. In rivers subject to occasional freshets the river level may undergo wide variations, and for practical purposes certain months of the year may be excluded in the determination of tidal datums. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.

**MEAN SEA LEVEL (MSL)**—A tidal datum. The arithmetic mean of hourly water elevations observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Shorter series are specified in the name; e.g., monthly mean sea level and yearly mean sea level.

**MEAN TIDE LEVEL (MTL)**—Also called half-tide level. A tidal datum midway between mean high water and mean low water.

**MIXED TIDE**—Type of tide with a large inequality in the high and/or low water heights, with two high waters and two low waters usually occurring each tidal day. In strictness, all tides are mixed but the name is usually applied to the tides intermediate to those predominantly semidiurnal and those predominantly diurnal.

**NATIONAL TIDAL DATUM EPOCH**—The specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values (e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present National Tidal Datum Epoch is 1960 through 1978. It is reviewed annually for possible revision and must be actively considered for revision every 25 years.

**NEAP TIDES OR TIDAL CURRENTS**—Tides of decreased range or tidal currents of decreased speed occurring semimonthly as the result of the Moon being in quadrature. The *neap range* (Np) of the tide is the average semidiurnal range occurring at the time of neap tides and is most conveniently computed from the harmonic constants. It is smaller than the mean range where the type of tide is either semidiurnal or mixed and is of no practical significance where the type of tide is diurnal. The average height of the high waters of the neap tides is called *neap high water* or *high water neaps* (MHWN) and the average height of the corresponding low waters is called *neap low water* or *low water neaps* (MLWN).

**PERIGEAN TIDES OR TIDAL CURRENTS**—Tides of increased range or tidal currents of increased speed occurring monthly as the result of the Moon being in perigee or nearest the Earth. The *perigean range* (Pn) of tide is the average semidiurnal range occurring at the time of perigean tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal.

**RANGE OF TIDE**—The difference in height between consecutive high and low waters, the *mean range* is the difference in height between mean high water and mean low water. Where the type of tide is diurnal the mean range is the same as the diurnal range.

## GLOSSARY OF TERMS

For other ranges, see great diurnal, spring, neap, perigean, apogean, and tropic tides.

**REFERENCE STATION**—A tide or current station for which independent daily predictions are given in the *Tide Tables and Tidal Current Tables*, and from which corresponding predictions are obtained for subordinate stations by means of differences and ratios.

**REVERSING CURRENT**—A tidal current which flows alternately in approximately opposite directions with a slack water at each reversal of direction. Currents of this type usually occur in rivers and straits where the direction of flow is more or less restricted to certain channels. When the movement is towards the shore or up a stream, the current is said to be flooding, and when in the opposite direction it is said to be ebbing. The combined flood and ebb movement including the slack water covers, on an average, 12.42 hours for the semidiurnal current. If unaffected by a nontidal flow, the flood and ebb movements will each last about 6 hours, but when combined with such a flow, the durations of flood and ebb may be quite unequal. During the flow in each direction the speed of the current will vary from zero at the time of slack water to a maximum about midway between the slacks.

**ROTARY CURRENT**—A tidal current that flows continually with the direction of flow changing through all points of the compass during the tidal period. Rotary currents are usually found offshore where the direction of flow is not restricted by any barriers. The tendency for the rotation in direction has its origin in the Coriolis force and, unless modified by local conditions, the change is clockwise in the Northern Hemisphere and counterclockwise in the Southern. The speed of the current usually varies throughout the tidal cycle, passing through the two maxima in approximately opposite directions and the two minima with the direction of the current at approximately  $90^{\circ}$  from the direction at time of maximum speed.

**SEMIIDIURNAL**—Having a period or cycle of approximately one-half of a tidal day. The predominating type of tide throughout the world is semidiurnal, with two high waters and two low waters each tidal day. The tidal current is said to be semidiurnal when there are two flood and two ebb periods each day.

**SET (OF CURRENT)**—The direction *towards* which the current flows.

**SLACK WATER**—The state of a tidal current when its speed is near zero, especially the moment when a

reversing current changes direction and its speed is zero. The term is also applied to the entire period of low speed near the time of turning of the current when it is too weak to be of any practical importance in navigation. The relation of the time of slack water to the tidal phases varies in different localities. For standing tidal waves, slack water occurs near the times of high and low water, while for progressive tidal waves, slack water occurs midway between high and low water.

**SPRING TIDES OR TIDAL CURRENTS**—Tides of increased range or tidal currents of increased speed occurring semimonthly as the result of the Moon being new or full. The *spring range* (Sg) of tide is the average semidiurnal range occurring at the time of spring tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. The mean of the high waters of the spring tide is called *spring high water or mean high water springs* (MHWS), and the average height of the corresponding low waters is called *spring low water or mean low water springs* (MLWS).

**STAND OF TIDE**—Sometimes called a platform tide. An interval at high or low water when there is no sensible change in the height of the tide. The water level is stationary at high and low water for only an instant, but the change in level near these times is so slow that it is not usually perceptible. In general, the duration of the apparent stand will depend upon the range of tide, being longer for a small range than for a large range, but where there is a tendency for a double tide the stand may last for several hours even with a large range of tide.

**STANDARD TIME**—A kind of time based upon the transit of the Sun over a certain specified meridian, called the *time meridian*, and adopted for use over a considerable area. With a few exceptions, standard time is based upon some meridian which differs by a multiple of  $15^{\circ}$  from the meridian of Greenwich.

**STRENGTH OF CURRENT**—Phase of tidal current in which the speed is a maximum; also the speed at this time. Beginning with slack before flood in the period of a reversing tidal current (or minimum before flood in a rotary current), the speed gradually increases to flood strength and then diminishes to slack before ebb (or minimum before ebb in a rotary current), after which the current turns in direction, the speed increases to ebb strength and then diminishes to slack before flood completing the cycle. If it is assumed that the speed throughout the cycle varies as the ordinates of a cosine curve, it can

## GLOSSARY OF TERMS

be shown that the average speed for an entire flood or ebb period is equal to  $2/\pi$  or 0.6366 of the speed of the corresponding strength of current.

**SUBORDINATE CURRENT STATION**—(1) A current station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a control current station. (2) A station listed in the *Tidal Current Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station.

**SUBORDINATE TIDE STATION**—(1) A tide station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a tide station with a relatively long series of observations. (2) A station listed in the *Tide Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station.

**TIDAL CURRENT TABLES**—Tables which give daily predictions of the times and speeds of the tidal currents. These predictions are usually supplemented by current differences and constants through which additional predictions can be obtained for numerous other places.

**TIDAL DIFFERENCE**—Difference in time or height of a high or low water at a subordinate station and at a reference station for which predictions are given in the *Tide Tables*. The difference, when applied according to sign to the prediction at the reference station, gives the corresponding time or height for the subordinate station.

**TIDE**—The periodic rise and fall of the water resulting from gravitational interactions between the Sun, Moon, and Earth. The vertical component of the particulate motion of a tidal wave. Although the accompanying horizontal movement of the water is part of the same phenomenon, it is preferable to designate the motion as tidal current.

**TIDE TABLES**—Tables which give daily predictions of the times and heights of high and low waters. These predictions are usually supplemented by tidal differences and constants through which additional predictions can be obtained for numerous other places.

**TIME MERIDIAN**—A meridian used as a reference for time.

**TROPIC CURRENTS**—Tidal currents occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times the tendency of the Moon to produce a diurnal inequality in the current is at a maximum.

**TROPIC RANGES**—The *great tropic range* ( $G_c$ ), or *tropic range*, is the difference in height between tropic higher high water and tropic lower low water. The *small tropic range* ( $S_c$ ) is the difference in height between tropic lower high water and tropic higher low water. The *mean tropic range* ( $M_c$ ) is the mean between the great tropic range and the small tropic range. The small tropic range and the mean tropic range are applicable only when the type of tide is semidiurnal or mixed. Tropic ranges are most conveniently computed from the harmonic constants.

**TROPIC TIDES**—Tides occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times there is a tendency for an increase in the diurnal range. The tidal datums pertaining to the tropic tides are designated as *tropic higher high water* ( $T_{cHHW}$ ), *tropic lower high water* ( $T_{cLHW}$ ), *tropic higher low water* ( $T_{cHLW}$ ), and *tropic lower low water* ( $T_{cLLW}$ ).

**TYPE OF TIDE**—A classification based on characteristic forms of a tide curve. Qualitatively, when the two high waters and two low waters of each tidal day are approximately equal in height, the tide is said to be *semidiurnal*; when there is a relatively large diurnal inequality in the high or low waters or both, it is said to be *mixed*; and when there is only one high water and one low water in each tidal day, it is said to be *diurnal*.

**VANISHING TIDE**—In a mixed tide with very large diurnal inequality, the lower high water (or higher low water) frequently becomes indistinct (or vanishes) at time of extreme declinations. During these periods the diurnal tide has such overriding dominance that the semidiurnal tide, although still present, cannot be readily seen on the tide curve.

INDEX TO STATIONS  
(Numbers refer to table 2)

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	d	h	m
P	1	22	..
N	2	00	..
O	2	02	24
E	8	07	..
●	8	22	25
A	15	02	..
S	15	17	..
●	17	02	17
E	23	02	..
○	24	22	20
N	29	12	..
P	30	10	..
O	31	13	27

February			
	d	h	m
E	4	16	..
○	7	15	54
A	11	14	..
S	12	00	..
●	15	21	05
E	19	07	..
○	23	08	09
N	25	21	..
P	27	15	..

March			
	d	h	m
O	2	00	51
E	4	02	..
○	9	11	20
S	11	07	..
A	11	09	..
●	17	13	12
E	18	14	..
○ <sub>m</sub>	20	16	15
○	24	15	35
N	25	03	..
P	26	17	..
E	31	12	..
O	31	12	37

April			
	d	h	m
S	7	15	..
A	8	06	..
○	8	07	18
E	14	22	..
●	16	01	57
P	20	15	..
N	21	08	..
○	22	21	46
E	27	20	..
O	30	00	58

May			
	d	h	m
S	5	00	..
A	6	01	..
○	8	02	09
E	12	08	..
●	15	11	48
P	17	21	..
N	18	16	..
○	22	03	49
E	25	02	..
O	29	14	20

June			
	d	h	m
S	1	08	..
A	2	17	..
○	6	18	32
E	8	18	..
●	13	19	43
P	15	00	..
N	15	01	..
○	20	10	51
E	21	09	..
○ <sub>j</sub>	21	10	07
O	28	04	53
S	28	15	..
A	30	03	..

July			
	d	h	m
E	6	03	..
○	6	07	51
N	12	12	..
●	13	02	48
P	13	08	..
E	18	16	..
○	19	19	52
S	25	21	..
A	27	06	..
O	27	20	20

August			
	d	h	m
E	2	09	..
○	4	18	18
N	8	23	..
P	10	18	..
●	11	09	58
E	15	00	..
○	18	07	49
S	22	03	..
A	23	11	..
O	26	11	56
E	29	14	..

September			
	d	h	m
○	3	02	37
N	5	07	..
P	8	01	..
●	9	18	01
E	11	10	..
○	16	23	15
S	18	10	..
A	20	01	..
○ <sub>s</sub>	23	01	54
O	25	02	52
E	25	20	..

October			
	d	h	m
○	2	09	45
N	2	14	..
P	5	22	..
E	8	20	..
●	9	03	47
S	15	18	..
○	16	18	02
A	17	19	..
E	23	04	..
O	24	16	45
N	29	19	..
○	31	16	40
P	31	20	..

November			
	d	h	m
E	5	04	..
●	7	16	02
S	12	03	..
A	14	16	..
○	15	14	54
E	19	14	..
○	23	05	39
N	26	02	..
P	26	12	..
○	30	00	19

December			
	d	h	m
E	2	11	..
●	7	07	20
S	9	12	..
A	12	12	..
○	15	11	49
E	17	00	..
○ <sub>d</sub>	21	22	23
O	22	17	49
N	23	12	..
P	24	10	..
●	29	09	34
E	29	18	..

## LUNAR DATA

- -- new Moon
- -- first quarter
- -- full Moon
- -- last quarter
- A -- Moon in apogee
- P -- Moon in perigee
- N -- Moon farthest north of Equator
- E -- Moon on Equator
- S -- Moon farthest south of Equator

## SOLAR DATA

- <sub>m</sub> -- March equinox
- <sub>j</sub> -- June solstice
- <sub>s</sub> -- September equinox
- <sub>d</sub> -- December solstice

Greenwich mean time (GMT) or universal time (UT) is the mean solar time on the Greenwich meridian reckoned in days of 24 mean solar hours written as 00<sup>h</sup> at midnight and 12<sup>h</sup> at noon. To convert the above times to those of other standard time meridians, add 1 hour for each 15° of east longitude of the desired meridian and subtract 1 hour for each 15° of west longitude. This table was compiled from data supplied by the Nautical Almanac Office, United States Naval Observatory.



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