

Tampa Bay Marine Channels Forecast User's Guide

The different portions of the Tampa Bay Marine Channels Forecast web pages are labeled A-G and are described in this guide.

G. User's Guide

A. Stations

E. Along-Channel Cross-Sections

D. Visibility/Winds Cross-Section

C. Waves/Precipitation Cross-Section

B. Currents/Water Levels Cross-Section

F. Definitions

The screenshot shows the Tampa Bay Marine Channels Forecast (MCF) web page. The main content area features a map of Tampa Bay with various forecast stations marked. A navigation menu on the left includes sections for 'Marine Channels Forecast', 'TBOFS', 'PORTS', 'NDBC', and 'NWS'. At the top of the map area, there are tabs for 'Point Forecast & Observations', 'Currents/Water Level Cross-Sections', 'Waves/Precipitation Cross-Sections', 'Visibility/Winds Cross-Sections', and 'Along-Channel Cross-Sections'. A text box below the map explains the purpose of the forecast. At the bottom, there is a disclaimer and a link for more information.

Tampa Bay Marine Channels Forecast (MCF)

Point Forecast & Observations | **Currents/Water Level Cross-Sections** | Waves/Precipitation Cross-Sections | Visibility/Winds Cross-Sections | Along-Channel Cross-Sections

The Tampa Bay Marine Channel Forecast is designed to aid local pilots by providing them with meteorological and oceanographic forecasts at 13 stations located along the marine channels. Click on any station names to view their data product.

Map labels: Clearwater, Largo, Old Tampa Bay, Tampa, Saint Petersburg, Boca Ciega Bay, Egmont Channel, Sunshine Skyway Bridge, Port Manatee Current Predictions, Near C-Cut, Cut E Channel Buoy 4E, Buoy 6, Cut 'G' Channel Buoy 6G, Old Port Tampa, South Stack, Interbay Peninsula, Alafia Entrance, Cut 'C' Channel Buoy 2, Cut 'C' and C Channels Buoy.

Left sidebar: Marine Channels Forecast, TBOFS, PORTS, NDBC, NWS, About the Tampa Bay Marine Channels Forecast, TBOFS, Marine Channels Forecast, Operational Forecast System, TIME SERIES, Cut 'C' Channel Buoy 28, South Stack, Old Port Tampa, Alafia Entrance, Cut 'C' and C Channels Buoy 12, Cut 'G' Channel Buoy 6G, Buoy G, Cut E Channel Buoy 4E, Near C-Cut, Port Manatee Current Predictions, Sunshine Skyway Bridge, Egmont Channel, Sea Buoy, OTHERS, MCF Graphics Archive, Tampa Bay MCF Status, NETCDF Archive, PORTS, Tampa Bay PORTS.

Bottom text: The forecasts are provided by NOAA National Weather Service (NWS) Tampa Bay Area Weather Forecast Office and by the National Ocean Service (NOS) Center for Operational Oceanographic Products and Services (CO-OPS) Tampa Bay Operational Forecast System (TBOFS). The water level observation data is from the NOS/CO-OPS Tampa Bay PORTS®. More information about NOAA/NWS forecast parameters, weather types and hazards, please visit this page.

Disclaimer: The Tampa Bay Operational Forecast System (TBOFS) and Tampa Bay Marine Channels Forecast (TBMCF) have been implemented by NOAA's National Ocean Service (NOS) and National Weather Service (NWS) to provide the maritime user community with short-term forecasts of water levels, winds, currents, significant wave height and period, probability of precipitation, probability of visibility less than 1 statute mile, weather and hazards of the Tampa Bay. TBOFS uses a numerical hydrodynamic model to generate the nowcast and forecast information; therefore, TBOFS and TBMCF should be considered as model-generated forecast guidance. For more detailed information related to the OFS disclaimer, please visit at the Disclaimers web page.



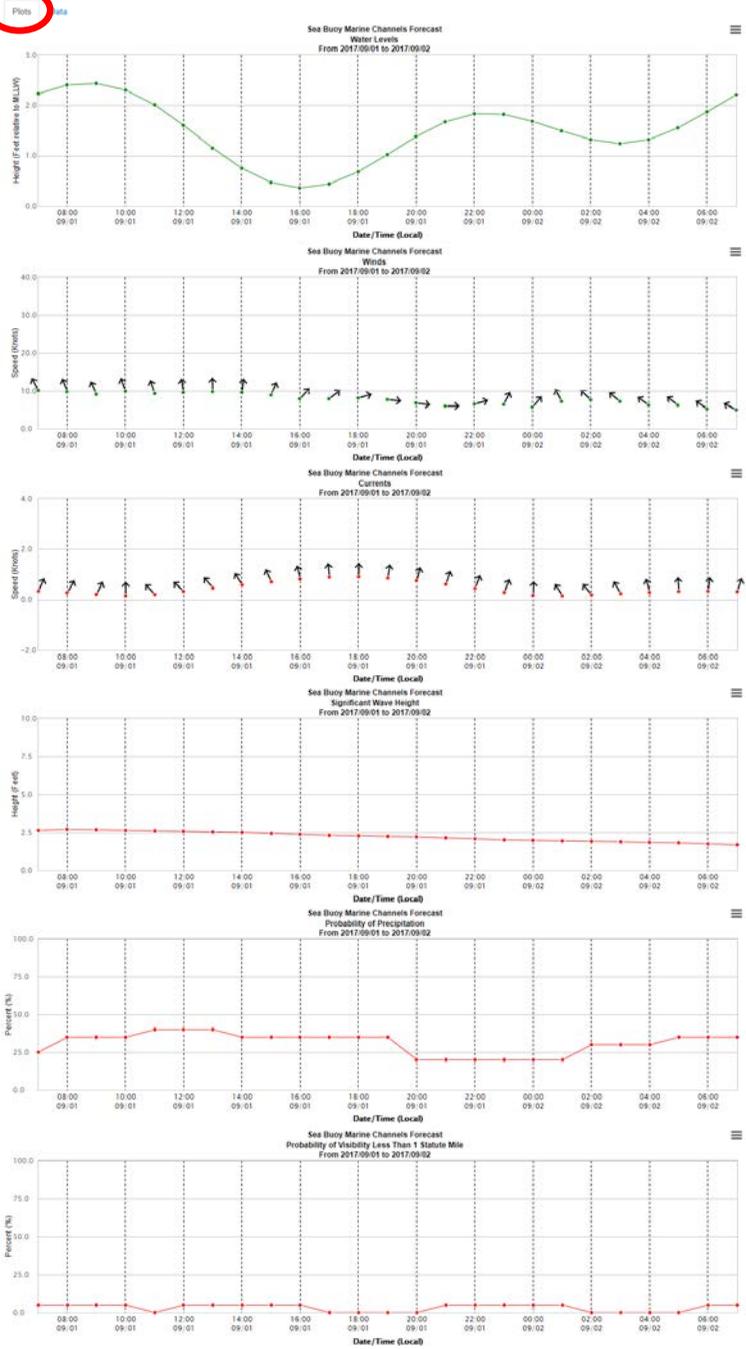
Tampa Bay Marine Channels Forecast

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The forecasts are provided by NOAA National Weather Service (NWS) Tampa Bay Area Weather Forecast Office and by the National Ocean Service (NOS) Center for Operational Oceanographic Products and Services (CO-OPS) Tampa Bay Operational Forecast System (TBOFS). The water level observation data is from the NOS/CO-OPS Tampa Bay PORTS®.

More information about NOAA/NWS forecast parameters, weather types and hazards, please visit [this page](#).

Sea Buoy



A. Stations

The Tampa Bay Marine Channels Forecast provides data at 13 locations (red pins). The 13 locations were strategically chosen for their position along the marine channels. They extend from the mouth of Tampa Bay (Sea Buoy) to the Port of Tampa (Cut “C” Channel Buoy 28). The data at each location can be accessed by either clicking on the name on the left-hand menu or by clicking on the red pin or label on the map.

Station Pages

Clicking on a station name, pin or label will open a station page. Each station page has two tabs: a Plots tab (shown left) and a Data Tab (shown below).

The Plots tab contains time series graphics of water levels, winds, currents, significant wave height, probability of precipitation and probability of visibility of less than one statute mile. Each time series extends out for 24 hours. When the user places the mouse over the plot, a small pop-up will appear with the forecast value and any available additional information.

The Data Tab contains a table, or chart, listing the same forecast data shown in the time series (water levels, winds, currents, significant wave height, probability of precipitation and probability of visibility of less than one statute mile) as well as the weather forecast (showers, or fog, for example) and marine hazards (hurricane watch, or tropical storm warning, for example). The table lists the forecasts for the following 24 hours.

Sea Buoy

Plots **Data**

Tampa Bay Marine Channels Forecast
NOAA/NOS & NOAA/NWS
730 AM EDT FRI SEP 1 2017

Sea Buoy	Time Period	Wind Speed & Direction (knot, °T)	Gust (knot)	Water Level (ft)	Significant Wave Height (ft)	Current Speed & Direction (knot, °T)	Probability of Precipitation (%)	Probability of Visibility Less Than 1 Statute Mile (%)	Weather	Hazards
	2017/09/01 0700 EDT	SSE 10	15	2.23	2.6	0.34 25	25	5	TSTHS	SHOWERS
	2017/09/01 0800 EDT	SSE 10	14	2.40	2.7	0.28 31	35	5	SHOWERS	TSTHS
	2017/09/01 0900 EDT	SSE 9	13	2.43	2.7	0.21 26	35	5	SHOWERS	TSTHS
	2017/09/01 1000 EDT	SSE 10	14	2.30	2.6	0.15 0	35	5	SHOWERS	TSTHS
	2017/09/01 1100 EDT	SSE 9	14	2.01	2.6	0.20 319	40	0	TSTHS	SHOWERS
	2017/09/01 1200 EDT	S 10	14	1.60	2.6	0.33 312	40	5	TSTHS	SHOWERS
	2017/09/01 1300 EDT	S 10	14	1.15	2.5	0.46 320	40	5	TSTHS	SHOWERS
	2017/09/01 1400 EDT	S 10	14	0.75	2.5	0.58 329	35	5	TSTHS	SHOWERS
	2017/09/01 1500 EDT	SSH 9	13	0.47	2.4	0.70 337	35	5	TSTHS	SHOWERS
	2017/09/01 1600 EDT	SW 8	12	0.36	2.4	0.81 346	35	5	TSTHS	SHOWERS
	2017/09/01 1700 EDT	SW 8	12	0.44	2.3	0.89 354	35	0	TSTHS	SHOWERS
	2017/09/01 1800 EDT	NSW 8	12	0.68	2.3	0.90 2	35	0	TSTHS	SHOWERS
	2017/09/01 1900 EDT	W 8	11	1.02	2.2	0.85 9	35	0	TSTHS	SHOWERS
	2017/09/01 2000 EDT	W 7	10	1.38	2.2	0.75 15	20	0	TSTHS	SHOWERS
	2017/09/01 2100 EDT	W 6	9	1.67	2.1	0.61 19	20	5	TSTHS	SHOWERS
	2017/09/01 2200 EDT	NSW 6	10	1.83	2.1	0.45 21	20	5	TSTHS	SHOWERS
	2017/09/01 2300 EDT	SSH 6	10	1.82	2.0	0.29 22	20	5	TSTHS	SHOWERS
	2017/09/02 0000 EDT	SW 6	9	1.68	2.0	0.17 1	20	5	TSTHS	SHOWERS
	2017/09/02 0100 EDT	SSE 7	11	1.49	1.9	0.15 328	20	5	TSTHS	SHOWERS
	2017/09/02 0200 EDT	SE 8	11	1.32	1.9	0.19 321	30	0	SHOWERS	TSTHS
	2017/09/02 0300 EDT	SE 7	11	1.24	1.9	0.24 330	30	0	SHOWERS	TSTHS
	2017/09/02 0400 EDT	SE 6	9	1.32	1.8	0.29 345	30	0	SHOWERS	TSTHS
	2017/09/02 0500 EDT	SE 6	9	1.55	1.8	0.33 356	35	0	SHOWERS	TSTHS
	2017/09/02 0600 EDT	SE 5	8	1.87	1.7	0.34 9	35	5	SHOWERS	TSTHS
	2017/09/02 0700 EDT	ESE 5	8	2.21	1.7	0.32 20	35	5	SHOWERS	TSTHS

B. Currents/Water Levels Cross-Section

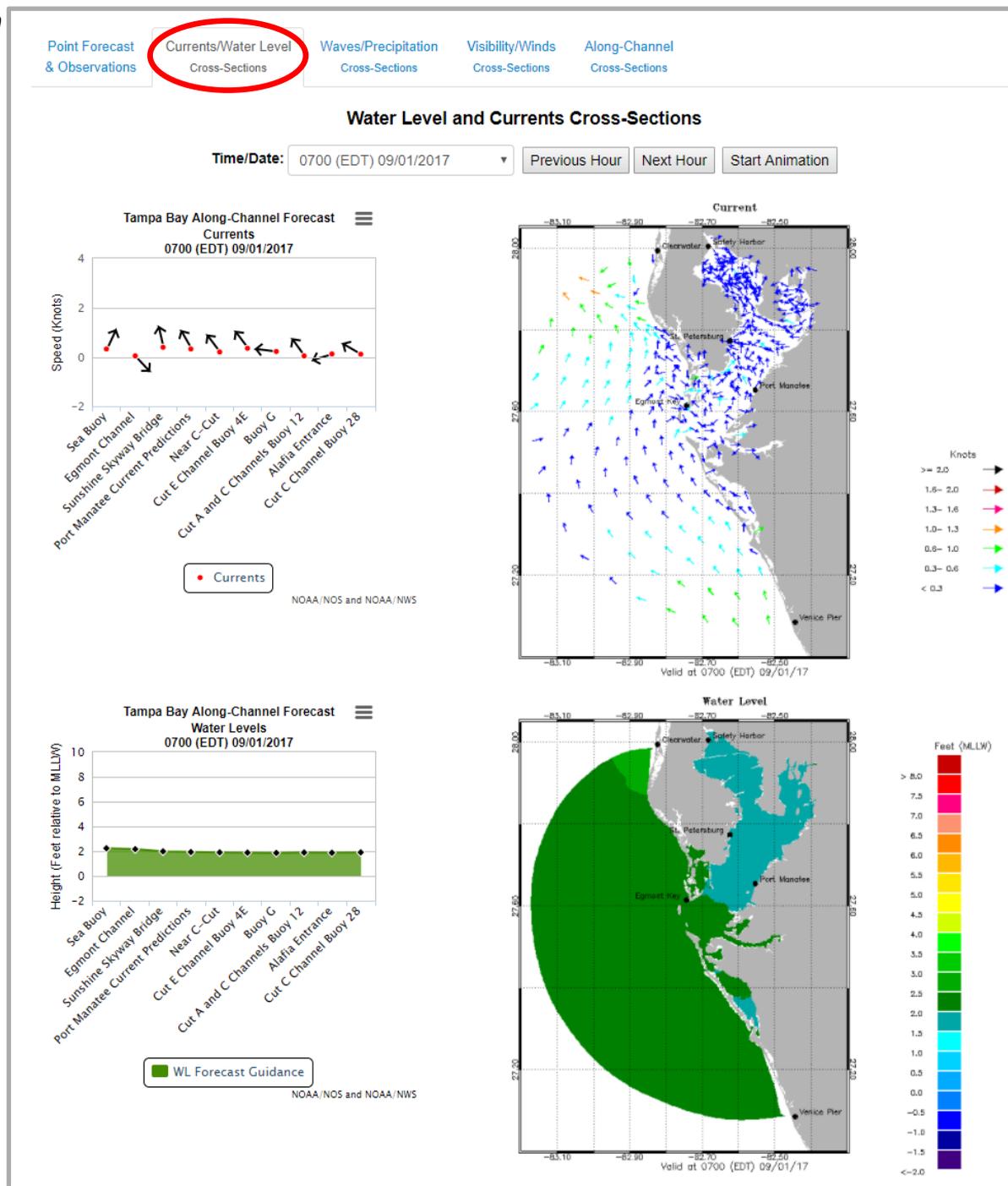
The Currents/Water Levels Cross-Section Tab contains four graphics.

On the left-hand side, there are two along-channel cross-sections. These are cross-sections which indicate either the currents or the water level forecast along the marine channels from the entrance of the bay (Sea Buoy) to the Port of Tampa (Cut "C" Channel Buoy 28). See next page for a detailed explanation and example of an along-channel cross-section. When the user places the mouse over the plot, a small pop-up will appear with the forecast value and any available additional information.

On the right-hand side, there are two map-view graphics depicting either currents or water levels forecasts throughout the Tampa Bay region.

The top two graphics are for currents and the bottom two graphics are for water levels.

The user has the option of advancing or reversing through 24-hours of graphics by clicking on the Previous Hour or Next Hour button located above the four graphics. By clicking on Start Animation, the user can view the next 24 hours of graphics as they advance automatically.



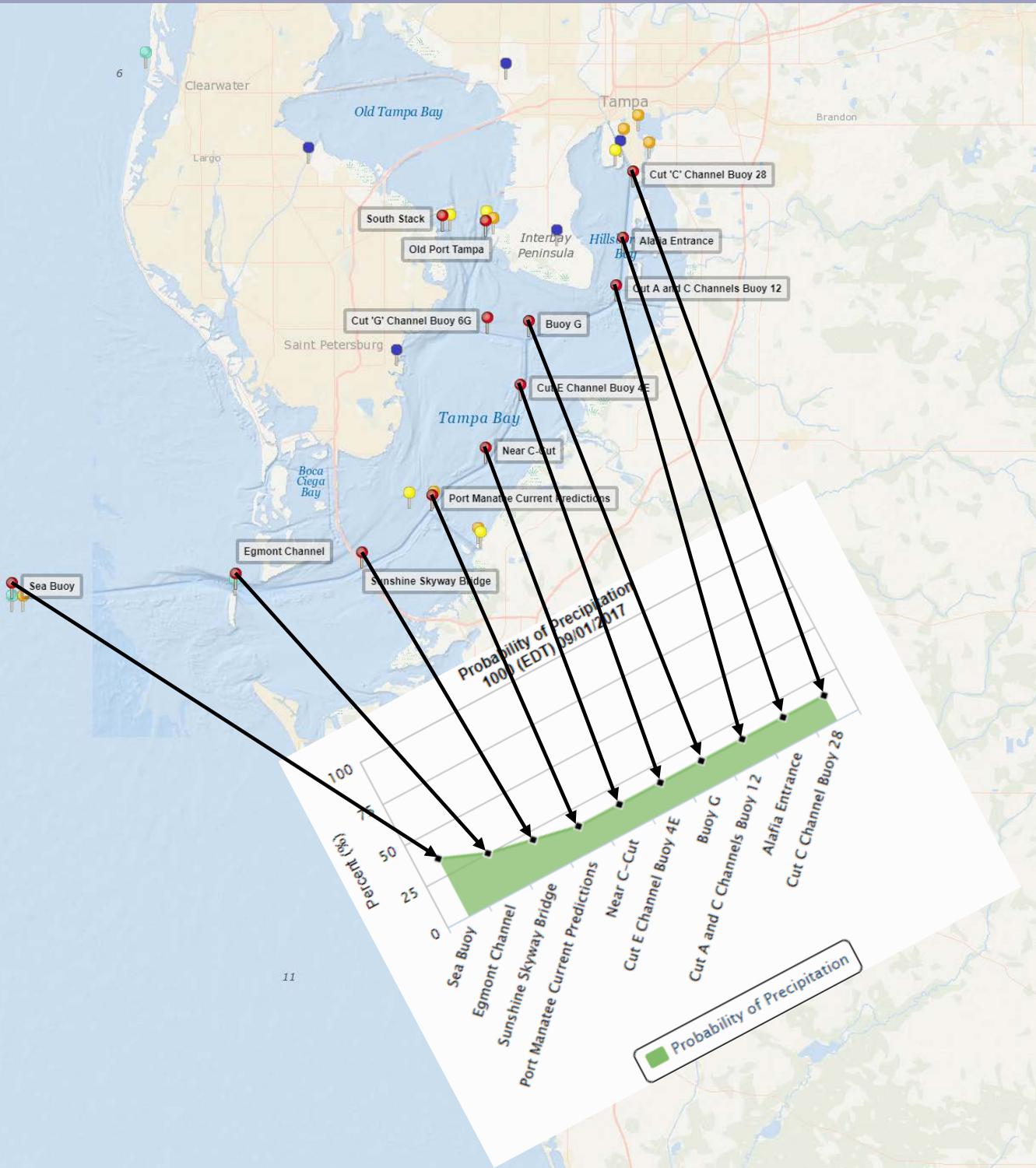
Along-Channel Cross-Sections

The Tampa Bay Marine Channels Forecast is designed to aid local pilots by providing them with meteorological and oceanographic forecasts at 13 locations along the marine channels.

Ten of the 13 locations are included in the along-channel cross-sections which indicate the forecast conditions along the marine channels from the entrance of the bay (Sea Buoy) to the Port of Tampa (Cut "C" Channel Buoy 28).

The graphic shown on the left indicates how the along-channel cross-sections display the forecast conditions along the marine channels.

The various along-channel cross-sections along with corresponding map-view graphics are accessed by clicking on the second through fourth tabs located above the map. The fifth tab contains all the along-channel cross-sections, allowing the pilots to view the changing conditions for all forecast parameters along the marine channels.



C. Waves/Precipitation Cross-Section

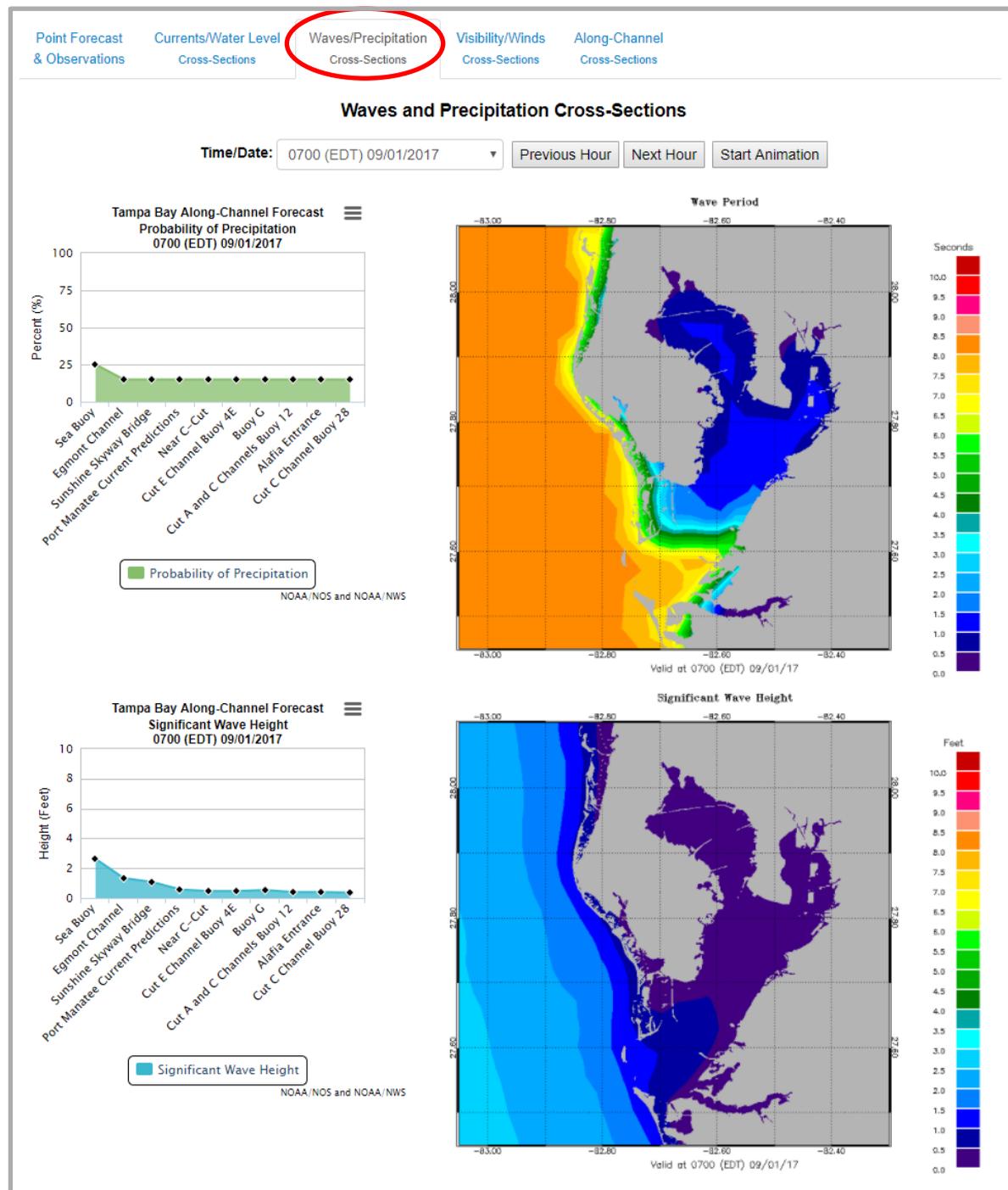
The Waves/Precipitation Cross-Section Tab contains four graphics.

On the left-hand side, there are two along-channel cross sections. The cross-sections indicate either the probability of precipitation or the significant wave height forecast along the marine channels. See previous page for a detailed explanation and example of an along-channel cross-section. When the user places the mouse over the plot, a small pop-up will appear with the forecast value and any available additional information.

On the right-hand side, there are two map-view graphics depicting either wave period or significant wave height forecasts throughout the Tampa Bay region.

The top-left graphic is for the probability of precipitation, the top-right graphic is for wave period and the bottom two graphics are for significant wave height.

The user has the option of advancing or reversing through 24-hours of graphics by clicking on the Previous Hour or Next Hour button located above the four graphics. By clicking on Start Animation, the user can view the next 24 hours of graphics as they advance automatically.



D. Visibility/Winds Cross-Section

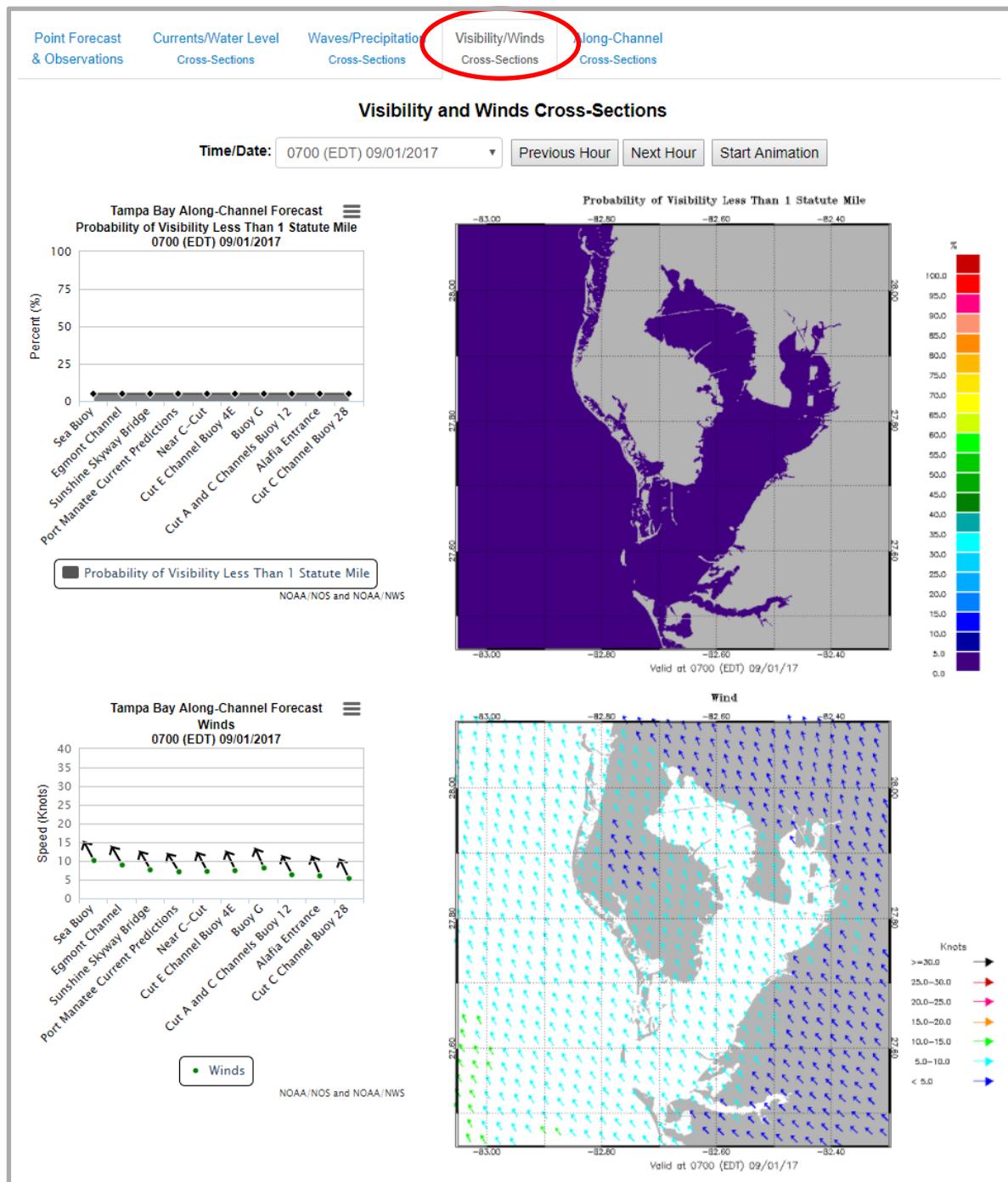
The Visibility/Winds Cross-Section Tab contains four graphics.

On the left-hand side, there are two along-channel cross sections. The cross-sections indicate the probability of visibility less than one statute mile or the winds forecast along the marine channels. When the user places the mouse over the plot, a small pop-up will appear with the forecast value and any available additional information.

On the right-hand side, there are two map-view graphics depicting either the probability of visibility less than one statute mile or the winds forecasts throughout the Tampa Bay region.

The top two graphics are for probability of visibility less than one statute mile and the bottom two graphics are for winds.

The user has the option of advancing or reversing through 24-hours of graphics by clicking on the Previous Hour or Next Hour button located above the four graphics. By clicking on Start Animation, the user can view the next 24 hours of graphics as they advance automatically.



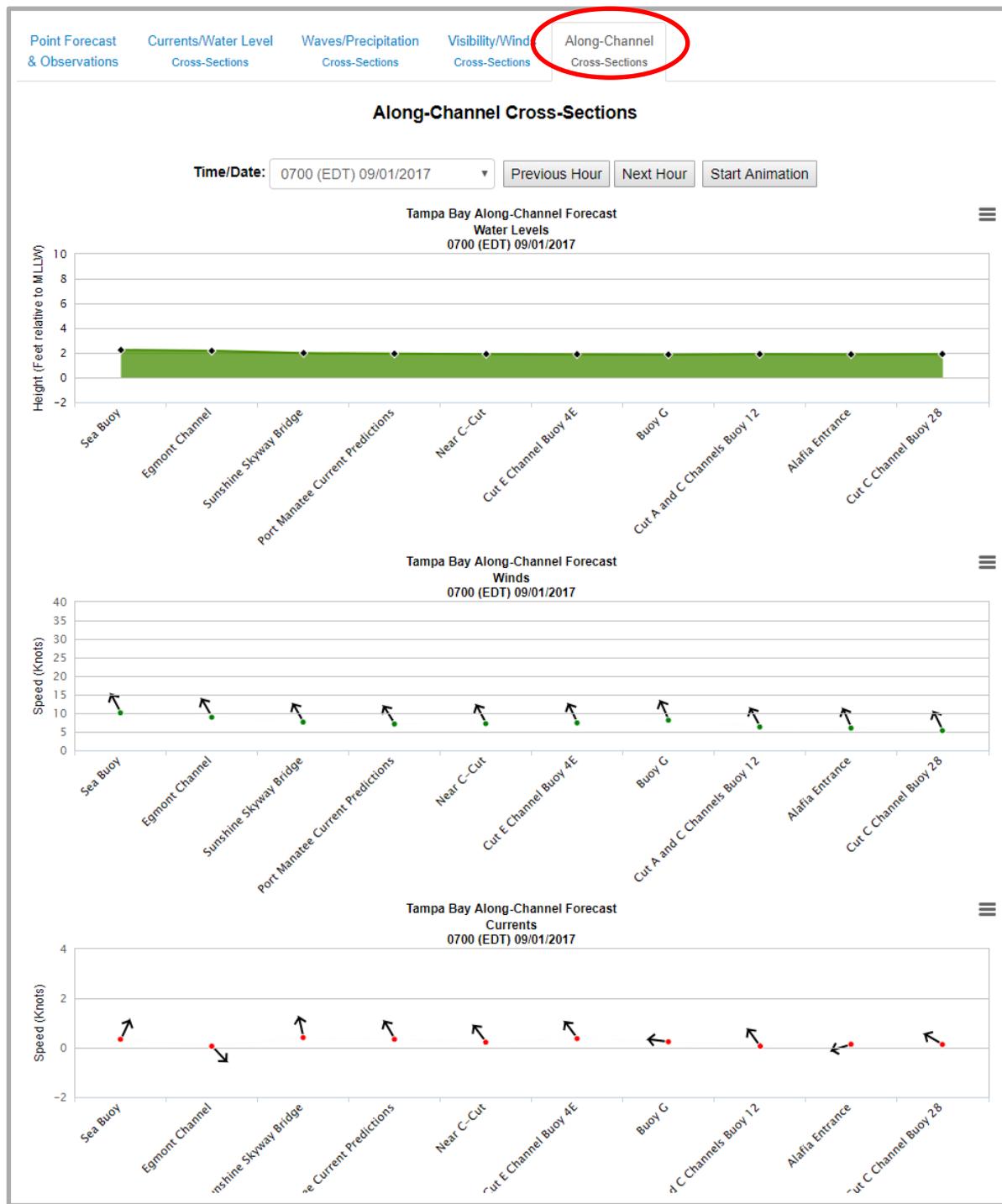
E. Along-Channel Cross-Sections

The Along-Channel Cross-Sections Tab contains six graphics.

The graphics are all the along-channel cross sections. When the user places the mouse over the plot, a small pop-up will appear with the forecast value and any available additional information.

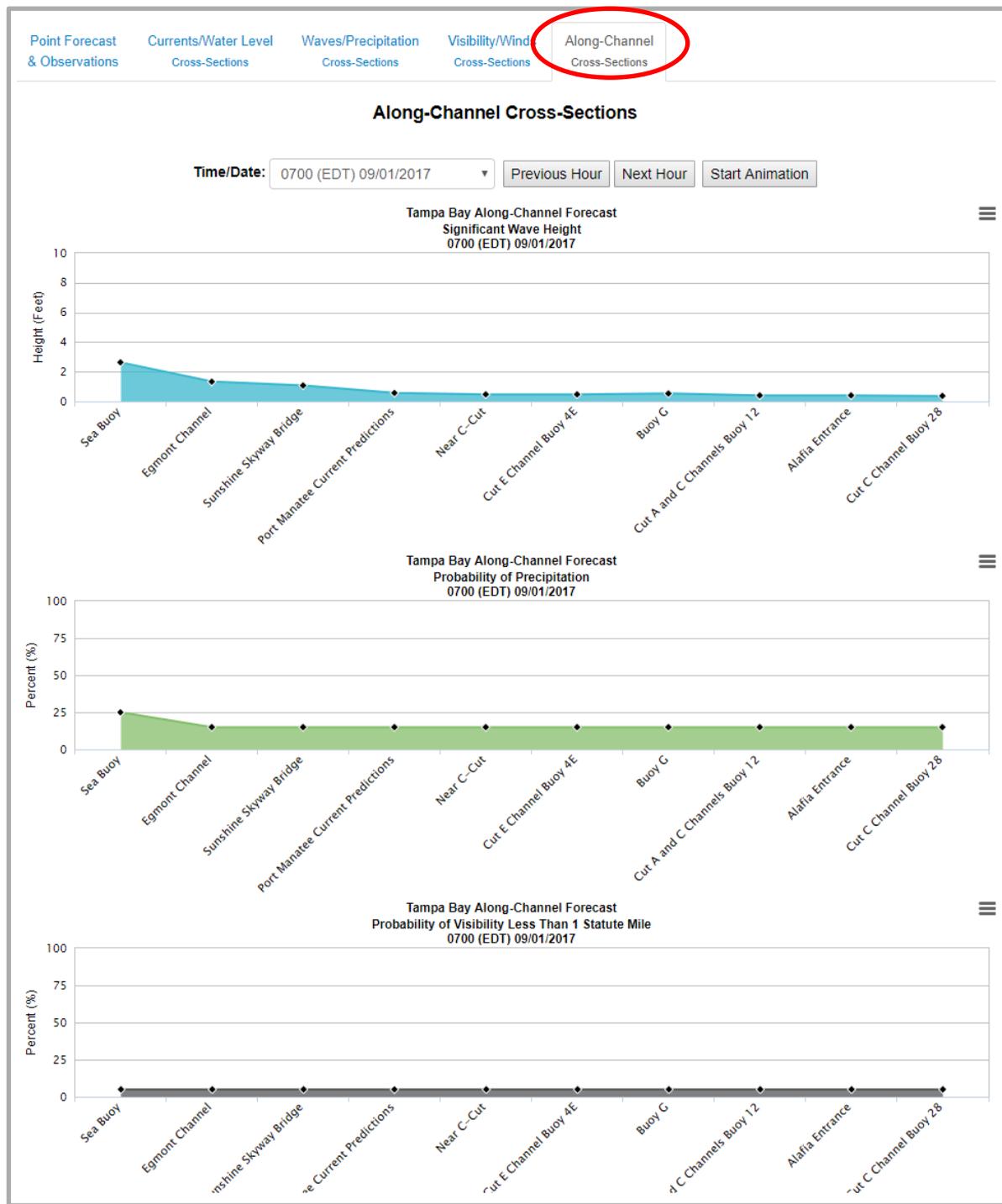
The along-channel cross-sections are water levels, winds, currents, significant wave height, probability of precipitation and probability of visibility of less than one statute mile. The first three are shown left.

The user has the option of advancing or reversing through 24-hours of graphics by clicking on the Previous Hour or Next Hour button located above the four graphics. By clicking on Start Animation, the user can view the next 24 hours of graphics as they advance automatically.



E. Along-Channel Cross-Sections (continued)

The remaining three along-channel cross-sections (significant wave height, probability of precipitation and probability of visibility of less than one statute mile) are shown left.



F. Definitions

More information about NOAA/NWS forecast parameters, weather types and hazards can be found here. The information is divided into three tables. The first table contains the scientific units, definitions and sources of the various NWS forecast parameters displayed on this site. The second table contains the definitions of various weather types that the NWS forecasts. Not all weather types are necessarily forecasted in the Tampa Bay marine channels; however for completion, most types of weather are defined here. The third table contains the definitions of the various hazards that the NWS forecasts. These include coastal flood warnings, frost advisories, and severe thunderstorm watches. Not all hazards are forecasted in the Tampa Bay marine channels; however for completion, most types of hazards are defined here.

G. Tampa Bay Marine Channels User's Guide

The User's Guide can be accessed by clicking the link located below the legend on the left-hand side.



About NOAA/NWS Forecast Parameters, Weather Types and Hazards

This site includes various forecasts developed and disseminated by the NOAA/National Weather Service (NWS). Below are the definitions of those parameters, weather types and hazards included in this site. Also listed are the models used to generate said forecasts.

NWS Forecasts

Parameter Name	Units	Description	Source Information
Gust	knot	A rapid fluctuation of wind speed with variations of 10 knots or more between peaks and lulls.	Source: NOAA/NWS National Digital Forecast Database (http://www.nws.noaa.gov/ndfd/).
Hazards		A narrative statement produced by the National Weather Service, frequently issued on a routine basis, to provide information regarding the potential of significant weather expected during the next 1 to 5 days.	Source: NOAA/NWS National Digital Forecast Database (http://www.nws.noaa.gov/ndfd/).
Probability of Visibility Less Than 1 Statute Mile	%	Experimental probabilistic fog visibility forecast.	Source: NWS/WFO Tampa Bay.

Weather Types

Blowing Dust or Sand	Strong winds over dry ground, that has little or no vegetation, can lift particles of dust or sand into the air. These airborne particles can reduce visibility, cause respiratory problems, and have an abrasive affect on machinery. A concentration reducing the visibility to 1/4 mile or less often poses hazards for travelers.
Drizzle	Precipitation consisting of numerous minute droplets of water less than 0.5 mm (500 micrometers) in diameter.
Fog	Water droplets suspended in the air at the Earth's surface. Fog is often hazardous when the visibility is reduced to ¼ mile or less.
Freeze	A freeze is when the surface air temperature is expected to be 32°F or below over a widespread area for a climatologically significant period of time. Use of the term is usually restricted to advective situations or to occasions when wind or other conditions prevent frost. "Killing" may be used during the growing season when the temperature is expected to be low enough for a sufficient duration to kill all but the hardiest herbaceous crops.
Freezing Drizzle	A drizzle that falls as a liquid but freezes into glaze or rime upon contact with the cold ground or surface structures.
Freezing Fog	A fog the droplets of which freeze upon contact with exposed objects and form a coating of rime and/or glaze.

Hazards

Advisory	Highlights special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience, and if caution is not exercised, it could lead to situations that may threaten life and/or property.
Warning	A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.
Watch	A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.
Beach Hazards Statement	A beach hazards statement is issued when threats such as rip currents, longshore currents, and other hazards create life-threatening conditions in the surf zone. Caution should be used when in or near the water.
Coastal Flood Advisory	Minor flooding is possible (i.e., over and above normal high tide levels. Coastal Flood Advisories are issued using the Coastal Hazard Message (CFW) product.

