



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

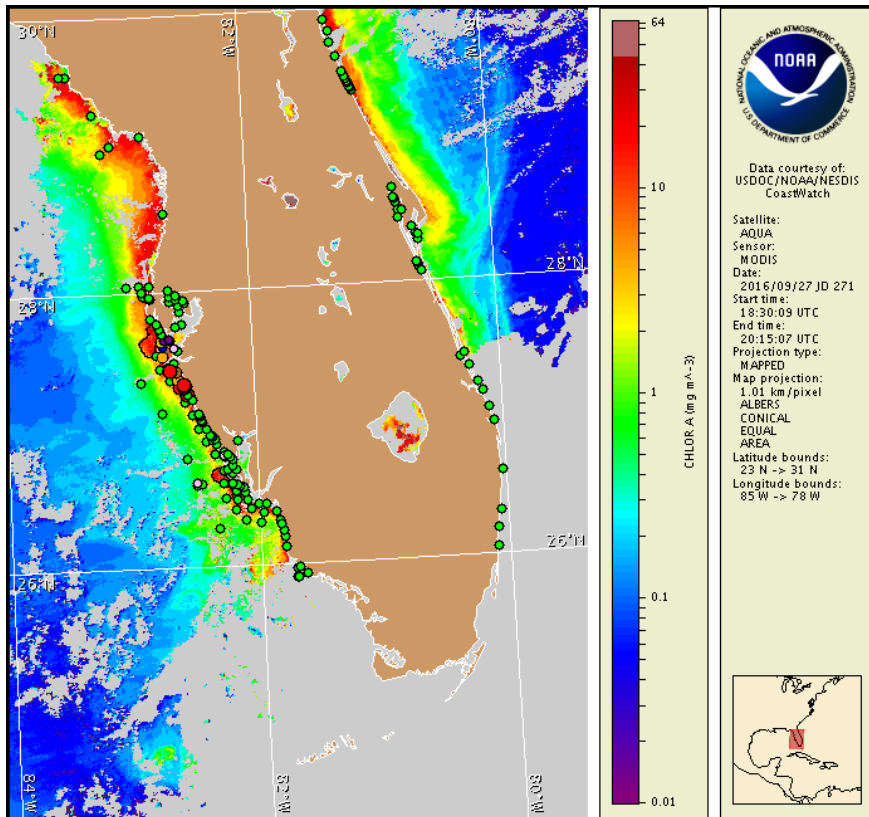
Thursday, 29 September 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 26, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 19 to 28: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/hab\\_publication/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and not present in the Florida Keys. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Thursday September 29 to Monday, October 3 is listed below:

**County Region: Forecast (Duration)**

**Northern Pinellas:** Low (Th-M)

**Southern Pinellas:** Moderate (Th-Sa), Low (Su-M)

**Southern Pinellas, bay regions:** Low (Th-M)

**Northern Manatee; bay regions:** Moderate (Th-M)

**Southern Manatee:** High (Th-Sa), Moderate (Su-M)

**Southern Manatee, bay regions:** High (Th-M)

**Northern Sarasota:** High (Th-Sa), Moderate (Su-M)

**Northern Sarasota, bay regions:** High (Th-M)

**Southern Sarasota:** Moderate (Th-M)

**Northern Charlotte:** Moderate (Th-M)

**Southern Charlotte:** High (Th-Sa), Moderate (Su-M)

**Southern Charlotte, bay regions:** High (Th-M)

**Northern Lee:** High (Th-Sa), Moderate (Su-M)

**Central Lee:** Low (Th-M)

**All Other SWFL County Regions:** None expected (Th-M)

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at [http://tidesandcurrents.noaa.gov/hab/hab\\_health\\_info.html](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Reports of fish kills and respiratory irritation have been received from southern Pinellas, southern Manatee, northern and southern Sarasota, southern Charlotte, and northern and central Lee counties.

## Analysis

Samples collected along- and offshore the coast of southwest Florida from Pinellas to Collier counties identified not present to 'high' concentrations of *Karenia brevis*, with the highest concentrations still present alongshore and in the bay regions of southern Manatee and northern Sarasota counties (FWRI, MML, SCHD, CCENRD; 9/19-9/27). New sampling indicates up to 'medium' concentrations of *K. brevis* have been confirmed along Passage Key Inlet at Anna Maria Island, spanning the bay regions of northern and southern Manatee County (FWRI; 9/26). Background to 'low b' concentrations are present alongshore northern Pinellas County, alongshore and in the bay regions of southern Pinellas County, alongshore southern Sarasota County, and central Lee County (FWRI; 9/19-9/28). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Reports of slight to intense respiratory irritation and up to heavy associated fish kills have been reported from Coquina Beach alongshore northern Manatee County; Lido Key, Siesta Key, Nokomis, Venice North Jetty, and Venice Beach, in northern Sarasota County; Manasota Beach alongshore southern Sarasota County; Gasparilla Island Bridge and

Gasparilla Island Park in southern Charlotte and northern Lee counties (FWRI, MML; 9/26-9/29). Dead fish have been reported alongshore southern Pinellas County (FWRI, MML; 9/26-9/29). Sampling is suggested alongshore and in the bay regions of southern Pinellas County, as well as alongshore and in the bay regions of southern Charlotte and northern Lee counties to confirm reports of up to intense respiratory irritation.

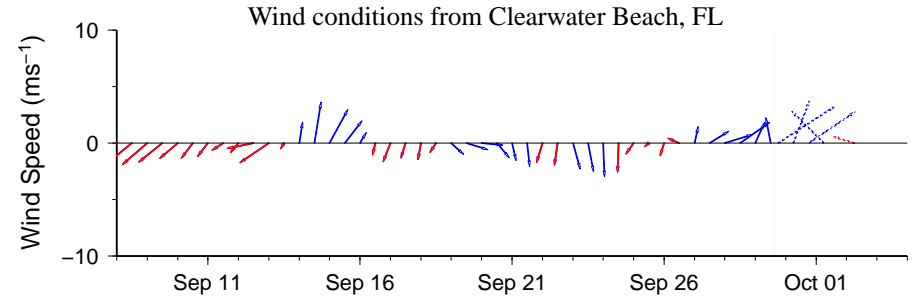
Recent ensemble imagery (MODIS Aqua, 9/27) indicates the presence of elevated to very high (2 to >20  $\mu\text{g/L}$ ) patches of chlorophyll with the optical characteristics of *K. brevis* along- and offshore from Pinellas to Lee Counties, extending up to 8 miles offshore from Sarasota County.

West to southwest winds forecast today through Friday (9/30), may increase the potential for harmful algal bloom intensification at the coast of southwest Florida. Offshore winds forecast Saturday evening through Monday will decrease the potential for respiratory irritation along the coast of southwest Florida.

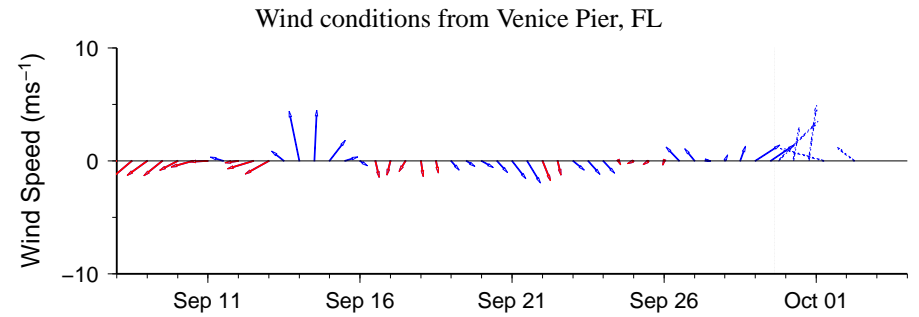
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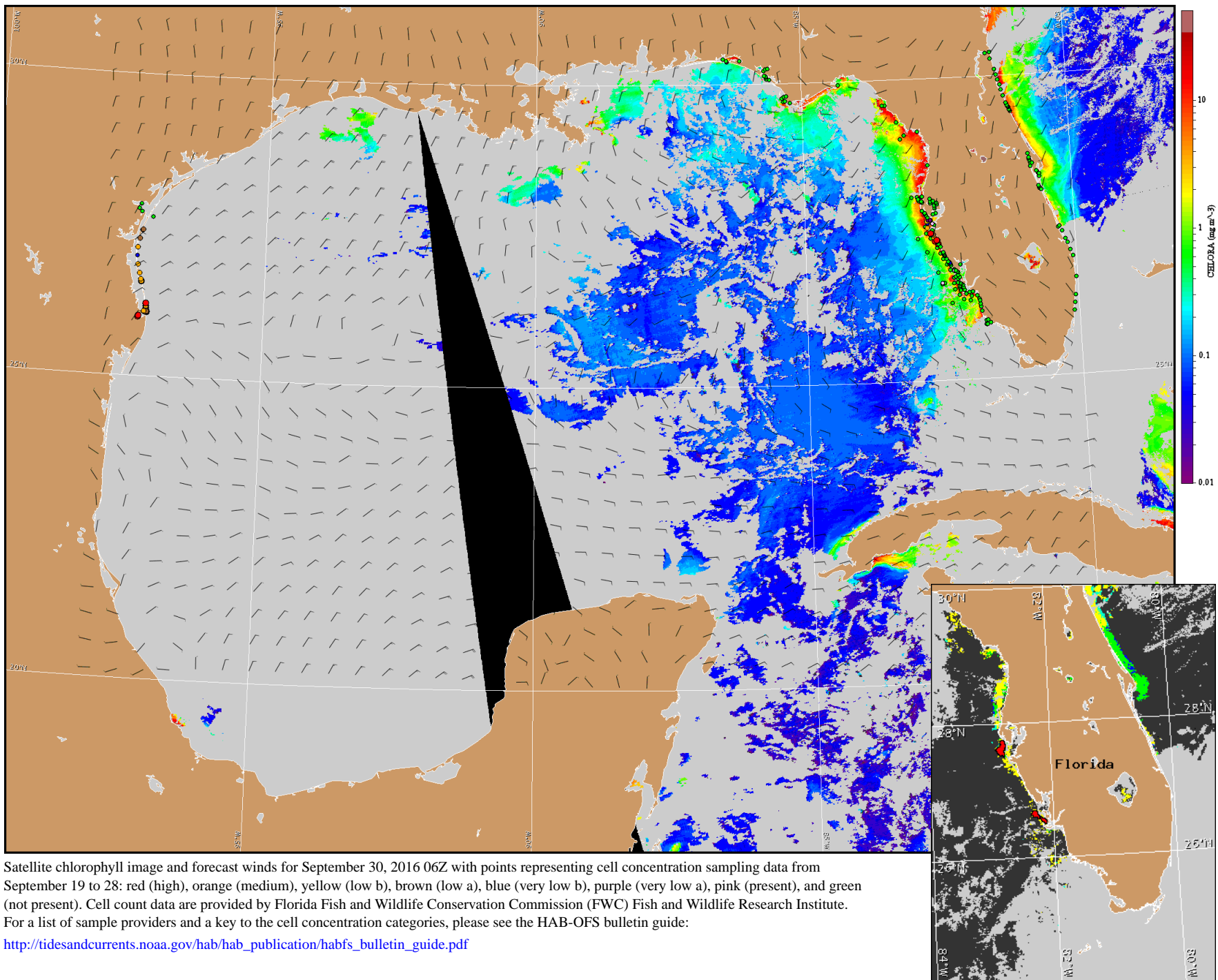


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



## Wind Analysis

**Englewood to Tarpon Springs (Venice):** West winds (10 kn, 5 m/s) today shifting to southwest winds (10 kn) tonight. Southwest winds (5-10 kn, 3-5 m/s) Friday. Northeast winds (10 kn) Saturday through Sunday morning. East winds (10 kn) Sunday night. East winds (10 kn) Monday.



Satellite chlorophyll image and forecast winds for September 30, 2016 06Z with points representing cell concentration sampling data from September 19 to 28: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: [http://tidesandcurrents.noaa.gov/hab/hab\\_publication/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf)

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).