



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

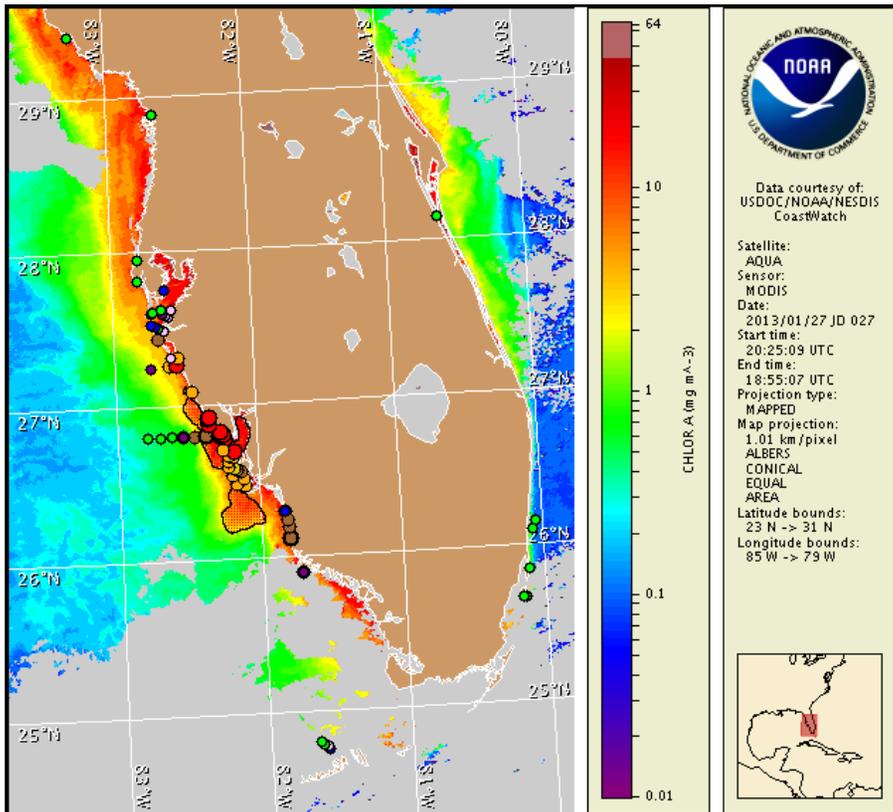
Monday, 28 January 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 24, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from January 20 to 25 shown as 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 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/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

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

<http://myfwc.com/research/redtide/events/status/statewide/>

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

## Conditions Report

Very low to high concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore southwest Florida from southern Pinellas to Collier counties, as well as offshore the gulfside of the lower Florida Keys. In the bay regions of southern Pinellas and northern Manatee counties, patchy very low respiratory impacts are possible today through Thursday. In the bay regions of southern Manatee and Sarasota counties, patchy moderate respiratory impacts possible today through Tuesday, with patchy high respiratory impacts possible Wednesday through Thursday. Alongshore Manatee County, patchy very low respiratory impacts are possible today, with patchy low respiratory impacts possible Tuesday through Thursday. Alongshore Sarasota and Charlotte counties, patchy low respiratory impacts are possible today, with patchy high respiratory impacts possible Tuesday through Thursday. In the bay regions of Charlotte and Lee counties, patchy high respiratory impacts are possible today through Thursday. Alongshore southern Lee County, patchy very low respiratory impacts are possible today, with patchy moderate respiratory impacts possible Tuesday, and patchy high respiratory impacts possible Wednesday through Thursday. Alongshore northern Collier County, patchy low respiratory impacts are possible today through Tuesday with patchy high respiratory impacts possible Wednesday through Thursday. In the bay regions of central Collier County, patchy high respiratory impacts are possible today through Thursday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Thursday, January 31. Over the past few days, reports of respiratory irritation and dead fish were received from Sarasota and Charlotte counties.

## Analysis

**Southwest Florida:** A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. Recent sampling in the bays of Pinellas and Manatee County indicated *K. brevis* concentrations from 'not present' to 'very low b' (FWRI; 1/22-25). Samples collected in the Pine Island Sound region of Lee County identified 'low a' to 'high' concentrations of *K. brevis* (FWRI; 1/23). Sampling alongshore northern Collier County identified 'very low a' concentrations of *K. brevis* at Barefoot Beach and 'low a' concentrations at Naples Pier where previous sampling indicated 'medium' and 'high' concentrations respectively (CCPCPD; 1/22-24). Respiratory irritation continues to be reported at Venice Beach in Sarasota County and in Charlotte County at Gasparilla Island State Park and Gasparilla Island South Bridge (MML; 1/25-28). Numerous fish kills have also been reported over the last several days in Sarasota and Charlotte counties (MML; 1/25-28).

Recent MODIS Aqua imagery (1/27, shown left), is partially obscured by clouds along- and offshore Collier and Monroe counties, limiting analysis. Elevated chlorophyll (2-6  $\mu\text{g/L}$ ) is visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties. Patches of elevated to very high chlorophyll (3 to  $>20 \mu\text{g/L}$ ) are also visible stretching along- and offshore northern Sarasota to central Collier County. A defined area of anomalously high chlorophyll is visible along- and offshore northern Sarasota to central Collier County from (27°08'11"N 82°29'27"W to 25°57'15"N 81°46'27"W). Continued sampling of this area is recommended.

Onshore winds Wednesday and Thursday from Pinellas to Collier County may increase

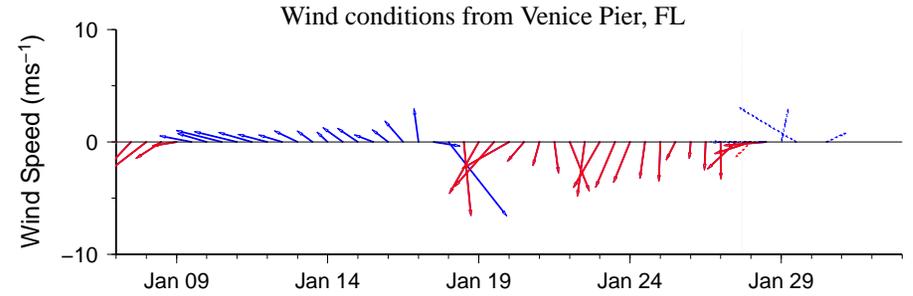
the likelihood of respiratory impacts alongshore southwest Florida. In the bay regions of southwest Florida, increased respiratory impacts may be possible today through Thursday.

**Florida Keys:** A harmful algal bloom of *Karenia brevis* is present offshore the gulf side of the lower Florida Keys. No additional sampling has been received since previous samples indicated 'not present' to 'very low a' *K. brevis* concentrations offshore the lower Florida Keys (MML; 1/15-21). In MODIS Aqua imagery from 1/26 (not shown) elevated chlorophyll (2-6  $\mu\text{g/L}$ ) remains visible offshore the gulfside of the Florida Keys. Forecast winds today through Wednesday may promote the potential of northwesterly transport of *K. brevis* concentrations.

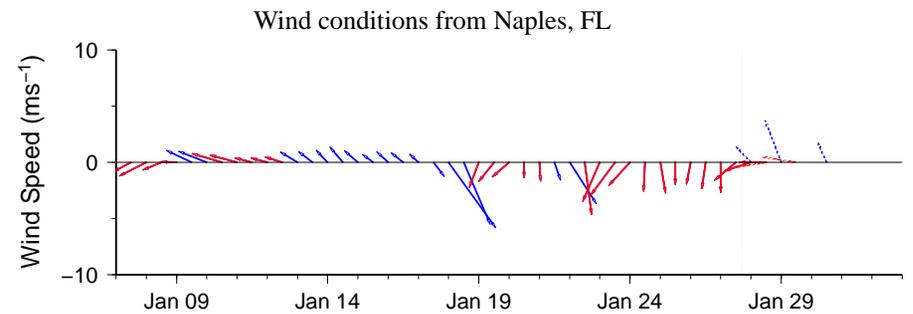
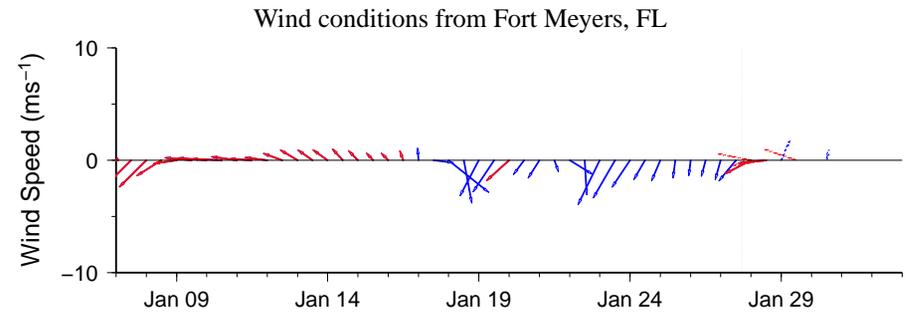
Davis, Fenstermacher

---

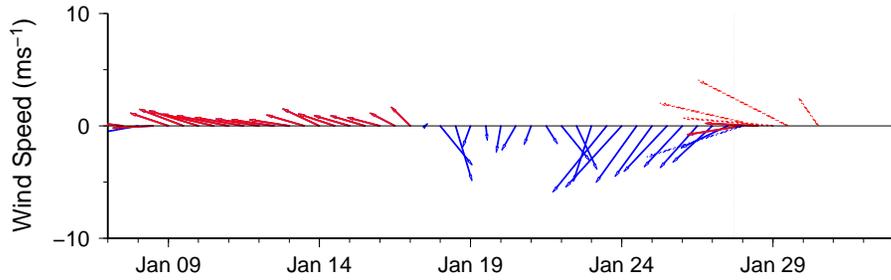
-2-



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 conditions from Vaca Key, FL

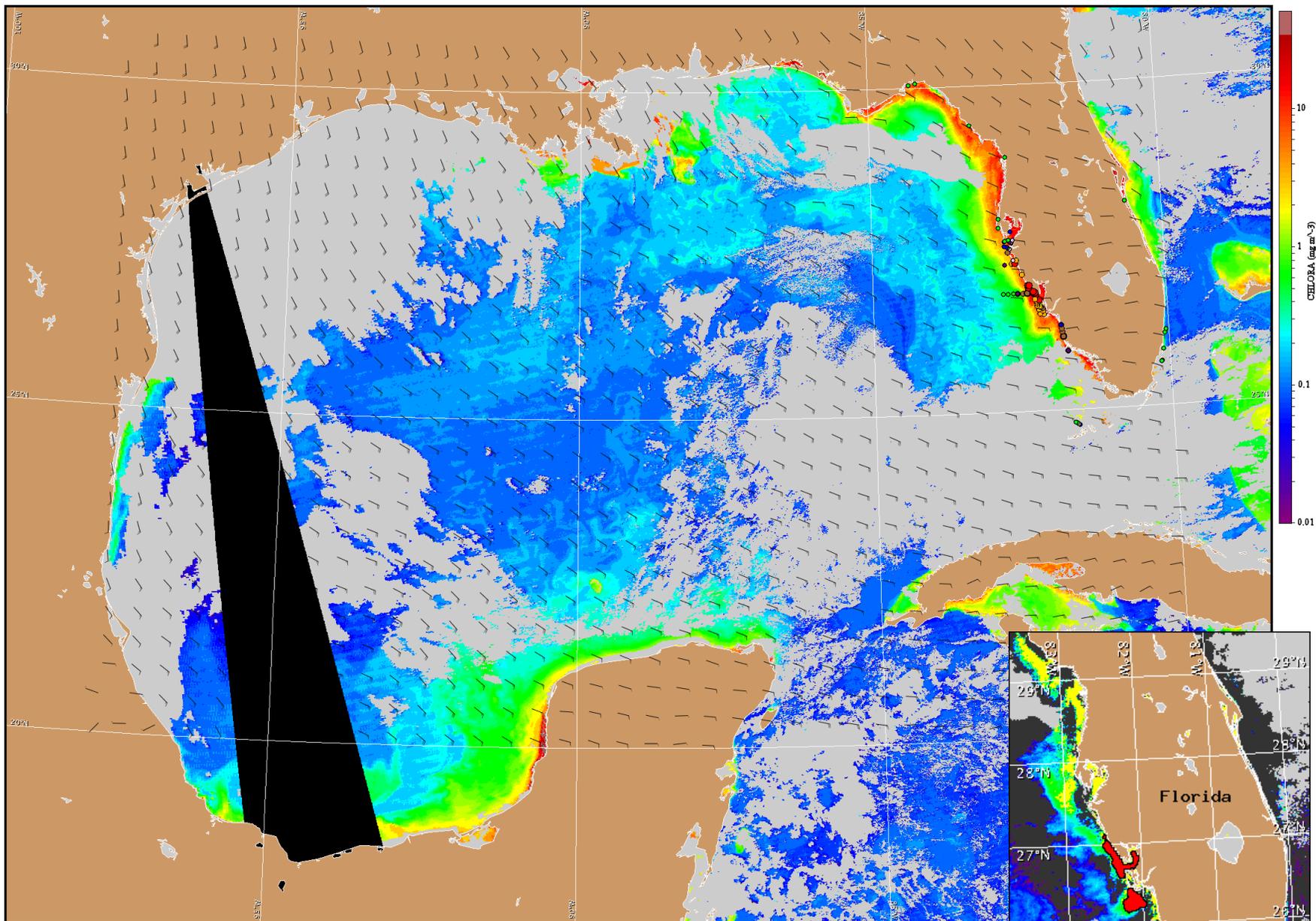


## Wind Analysis

**Pinellas to Lee counties:** East winds (10 kn, 5 m/s) today. Northeast winds (5-10 kn, 3-5 m/s) tonight becoming east winds (10-15 kn, 5-8 m/s) after midnight. Southeast winds (10-15 kn) Tuesday becoming south winds (5-10 kn) in the afternoon. Southeast winds (5-15 kn, 3-8 m/s) Tuesday night. Southeast winds (10-15 kn) Wednesday becoming south winds (20 kn, 10 m/s) in the afternoon. Southwest to northwest winds (20 kn) Wednesday night into Thursday morning. North to northeast winds (10-20 kn, 5-10 m/s) Thursday.

**Collier and Monroe counties:** East southeast winds (12-18 kn, 6-9 m/s) today through Tuesday. South southeast winds (12-17 kn, 6-9 m/s) Wednesday becoming south southwest winds (9-14 kn, 5-7 m/s) Wednesday night. West winds (11-16 kn, 6-8 m/s) Thursday becoming north to northeast winds (13-20 kn, 7-10 m/s) Thursday night.

**Gulf side of lower Florida Keys:** East winds (15-20 kn, 8-10 m/s) today and Tuesday. East to southeast winds (15-20 kn) Tuesday night and Wednesday. Southeast to south winds (10-15 kn) Wednesday night. Southwest winds (10 kn) Thursday shifting to northwest to north winds (15-20 kn) in the afternoon through evening.



Satellite chlorophyll image and forecast winds for January 29, 2013 12Z with cell concentration sampling data from January 20 to 25 shown as 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 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/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).