



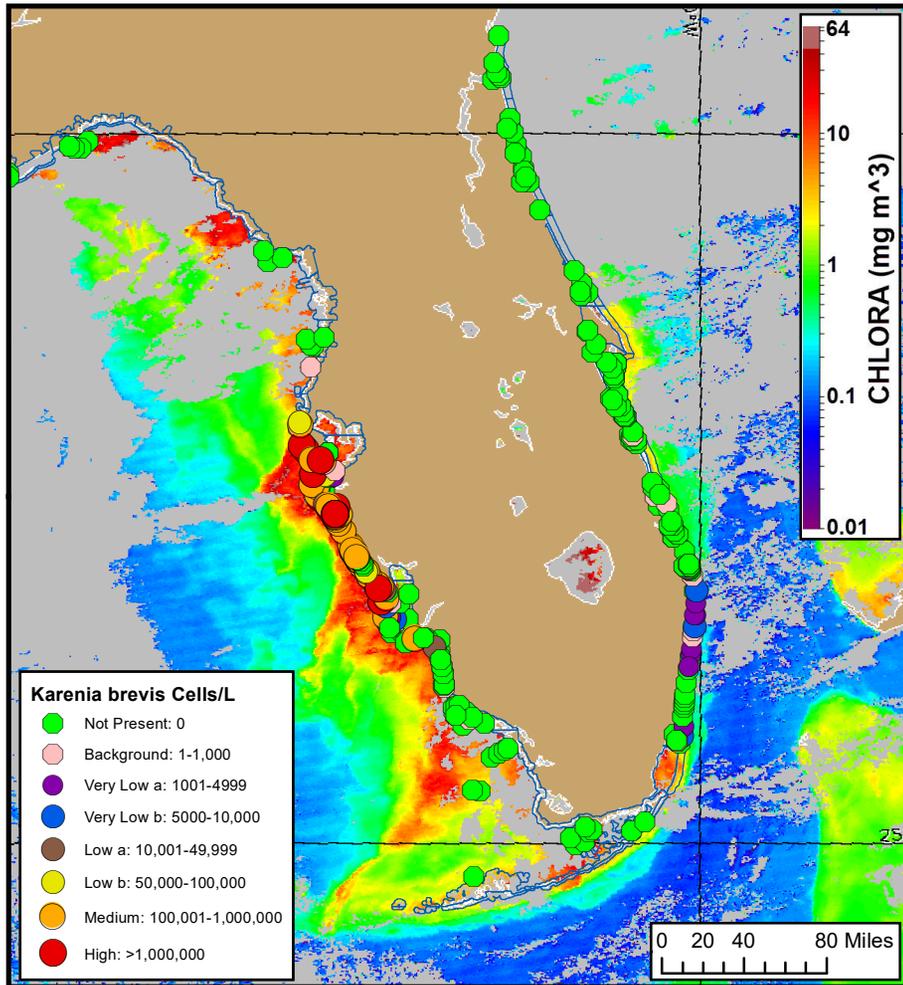
Gulf of Mexico Harmful Algal Bloom Bulletin

Tuesday, November 13, 2018
NOAA National Ocean Service
NOAA Satellite and Information Service
NOAA National Weather Service

Region: East Florida



Instructions for viewing this geospatial pdf are available at: <https://go.usa.gov/xn9g2>.



Karenia brevis cell concentration sampling data from: 11/03/18 through 11/12/18. 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: https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf. Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute: <http://myfwc.com/REDTIDESTATUS>.

MODIS Aqua satellite chlorophyll image (11/11/18) with possible *K. brevis* HAB areas shown by red polygon(s).

Conditions Report

Not present to very low concentrations of *Karenia brevis* (commonly known as red tide) are present alongshore portions of east Florida. No respiratory irritation associated with *K. brevis* is expected in this region.

Analysis

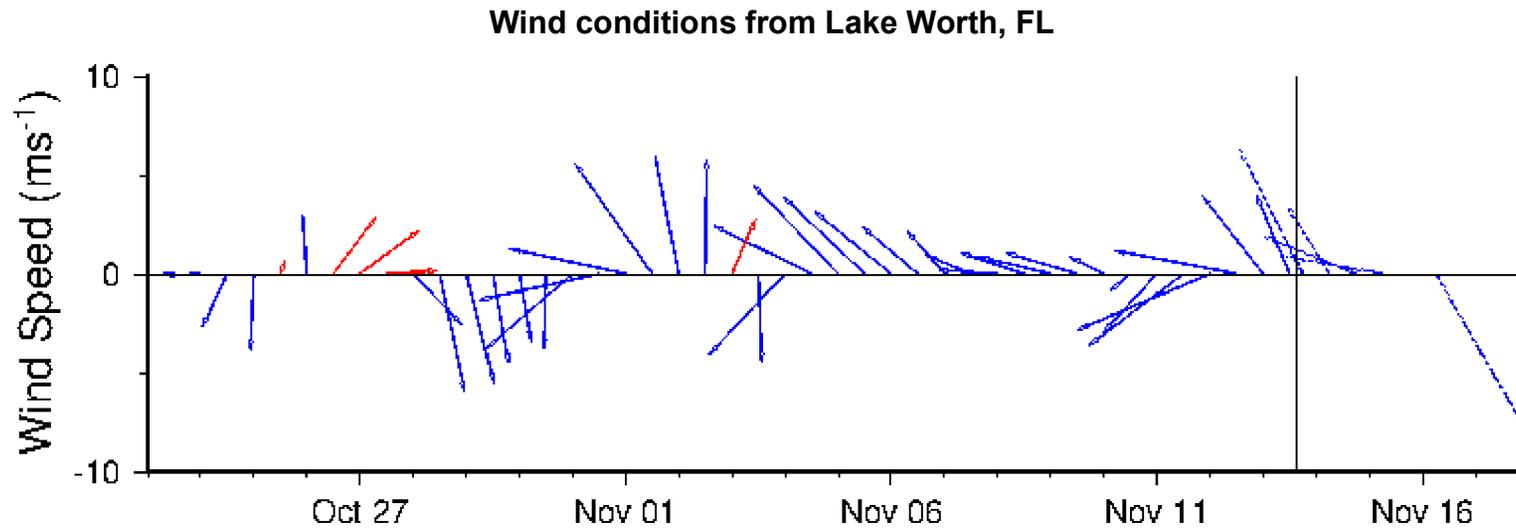
Imagery:

Recent ensemble imagery (MODIS Aqua, 11/11) is partially obscured by clouds from Broward County to north of Cape Canaveral, limiting analysis. Recent imagery does not show any patches of chlorophyll with the optical characteristics of *K. brevis* at the coast of southeast Florida, matching the decrease in *K. brevis* concentrations sampled alongshore Broward to Martin counties last week. A feature of chlorophyll with the optical characteristics of *K. brevis* continues to be visible extending southwest from Collier County to Loggerhead Key, and into the Florida current.

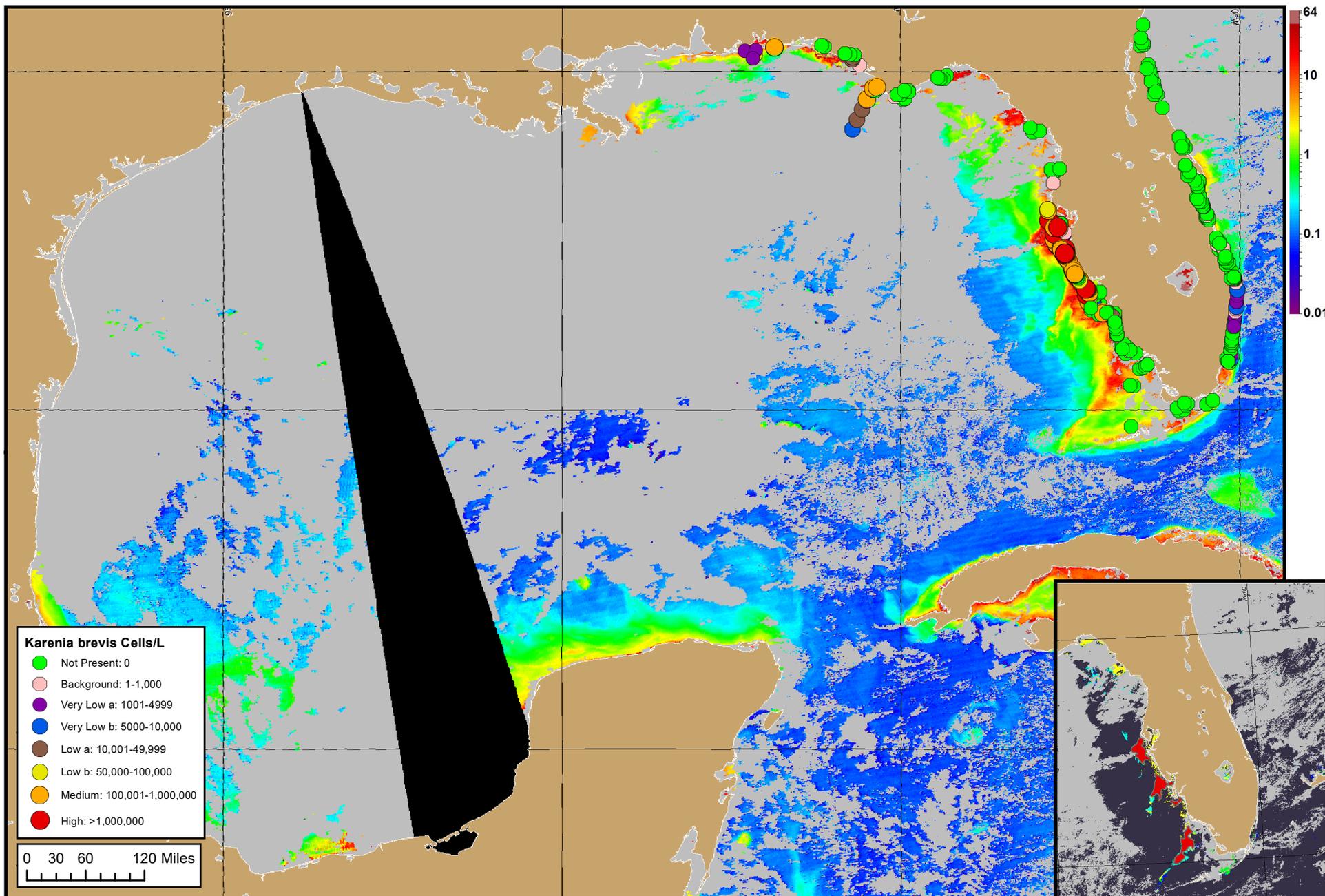
Forecasts:

Forecast winds and currents today through Thursday (11/13-15) will promote the northerly transport of remaining surface *K. brevis* concentrations.

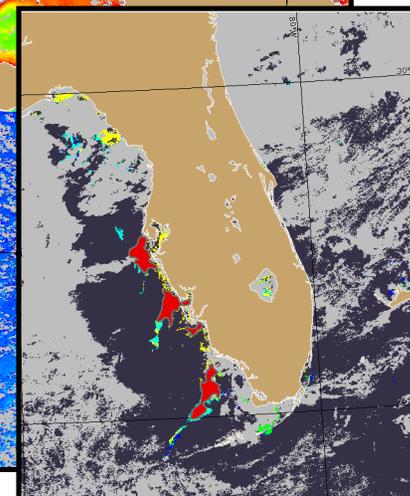
Davis, Yang



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). A text summary of the marine forecast by region is available from NWS at <https://go.usa.gov/xnx4B>.



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

MODIS Aqua satellite chlorophyll image (11/11/18).