

Gulf Stream and Weather Information on the WEB

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***[National Weather Service](http://www.nws.noaa.gov) <http://www.nws.noaa.gov> or

<http://www.opc.ncep.noaa.gov/>

The National Weather Service site and the Ocean Prediction Center site both with an abundance of products including marine forecasts and satellite imagery. Valuable resources for the study of weather. Look particularly at the NWS Ocean Prediction Center and their Probabilistic Guidance. **These sites must be studied !**

[National Weather Service Environmental Modeling Center](https://polar.ncep.noaa.gov/global/fronts/) [_https://polar.ncep.noaa.gov/global/fronts/](https://polar.ncep.noaa.gov/global/fronts/)

The National Weather Service's Environmental Modeling Center and home to the Global Real Time Ocean Forecast System model (RTOFS). Since some routing software uses this model it's useful to compare model results to direct satellite observations to develop confidence in model simulations. This model provides 1/12 degree resolution and is the result of collaboration between NOAA and the U.S. Navy Research Laboratory and others.

[U.S.Navy Research Laboratory](https://www7320.nrlssc.navy.mil/GLBhycomcice1-12/) <https://www7320.nrlssc.navy.mil/GLBhycomcice1-12/>

Another site to obtain the results of the collaborative between the Navy and NOAA. Both use the HYCOM model. Interesting to compare results. See time series loops.

****[Rutgers University Coastal Ocean Observation Lab](http://rucool.marine.rutgers.edu) <http://rucool.marine.rutgers.edu>

A site maintained by Rutgers University which includes a variety of satellite data specific to the Gulf Stream. Also see the coastal current data provided by CODAR . These latter data will be of value to those transiting the Jersey shoreline. Similar data are available at LISICOS.uconn.edu for the area off Montauk Point. Entry to the site may be confusing at first. From the main menu enter Data to find the Real time and Archived Satellite Imagery of the Gulf Stream. Note that there are both instantaneous and daily composite files.

[Navy https://www7320.nrlssc.navy.mil/GLBhycomcice1-12/Ocean Features Analysis – B&W & Colorized](https://www7320.nrlssc.navy.mil/GLBhycomcice1-12/Ocean Features Analysis – B&W & Colorized)
http://ecowatch.ncddc.noaa.gov/JAG/Navy/data/satellite_analysis/gsnofa.gif?id=3110

This is the current site for the U.S. Navy ocean features analysis. Although the accuracy of this analysis must be carefully evaluated by comparison with satellite imagery and altimetry its regular updating during periods of dense cloud cover makes it of value in planning. The colored version can be found at http://ecowatch.ncddc.noaa.gov/JAG/Navy/data/satellite_analysis/gsncofa.gif?id=51425

[Four Day Composites of Goes 16 Images of the Gulf Stream](https://ocean.weather.gov/Loops/ocean_guidance.php?model=GOES&area=MidAtl&plot=sstrec&day=0&lo)

https://ocean.weather.gov/Loops/ocean_guidance.php?model=GOES&area=MidAtl&plot=sstrec&day=0&lo
[op=1](https://ocean.weather.gov/Loops/ocean_guidance.php?model=GOES&area=MidAtl&plot=sstrec&day=0&lo) This product from the Ocean Prediction Center showing average sea surface temperatures over 4 days is a good way to monitor Gulf Stream evolution

[Johns Hopkins Ocean Remote Sensing](http://fermi.jhuapl.edu/sat_ocean.htm) http://fermi.jhuapl.edu/sat_ocean.htm

A site maintained by Johns Hopkins University providing links to a variety of satellite imagery and altimetry data. The combination is sometimes able to provide a unique indication of the presence of a Gulf Stream warm or cold core ring. An additional means to analyze Gulf Stream features if carefully applied.

****[Near Real Time Altimeter - NOAA/AOML](http://www.aoml.noaa.gov/phod/dataphod/work/trinanes/INTERFACE/index.htm)

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This site provides modeled currents based on satellite altimeter data. Although application requires care (View HELP) these model results allow analysis of Gulf Stream conditions during times when cloud cover prevents direct observation of sea surface temperature characteristics. Several model results are presented requiring study to assess navigational utility. Comparison with surface thermal data (e.g. Rutgers above) and any direct observations of surface currents is recommended. (Requires JAVA on your computer. For JAVA security use <https://cwcarribbean.aoml.noaa.gov/CURRENTS/index.html> .

[Bermuda Weather](http://www.weather.bm) <http://www.weather.bm>

Bermuda Weather's site. Provides continuing weather analyses and forecasts for the immediate vicinity of the island. It's often interesting to compare these observations to conditions indicated by the larger area weather maps such as the NWS weatherfax charts of the northwest Atlantic. Also, see Yacht Charts under Marine Forecast as well as tidal data for Bermuda.

[Environment Canada](https://weather.gc.ca/marine/index_e.html) https://weather.gc.ca/marine/index_e.html

The source for Canadian weather and sea state analyses and forecasts. . See https://weather.gc.ca/model_forecast/wave_e.html for wave analyses.

[ASCAT- Advanced Scatterometer Observations of Ocean Surface Winds](http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php/)

<http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php/> These data allow direct confirmation of wind speeds and directions provided by the Surface Analyses from the National Weather Service and the variety of GRIB model data. The scatterometer data are often particularly useful in the vicinity of the Gulf Stream. This system represents the alternative to our QuikScat which is no longer operational.

[NOAA Tides and Currents](http://tidesandcurrents.noaa.gov/) - <http://tidesandcurrents.noaa.gov/>

A listing of tidal elevations and tidal currents at a number of stations throughout the U.S. Particularly useful for coastal and nearshore passages

[NWS Archived Marine Weather Charts](https://nomads.ncdc.noaa.gov/ncep-charts/new_charts/)

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For those wishing to look at the conditions during previous races this provides an archive of the NWS data back to the 1990s.

**** *Designates sites of most value to the small boat navigator*