Gulf Stream and Weather Information on the WEB Bohlen @ uconn.edu Rev 3/17

****<u>National Weather Service http://www.nws.noaa.gov</u> 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 !**

NOAA/National Weather Service Environmental Modeling Center http://polar.ncep.noaa.gov

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.

****Rutgers University Coastal Ocean Observation Lab 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 <u>LISICOS.uconn.edu</u> 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 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 colorized version can be found at http://ecowatch.ncddc.noaa.gov/JAG/Navy/data/satellite_analysis/gsncofa.gif?id=51425

Johns Hopkins Ocean Remote Sensing http://fermi.jhuapl.edu/sat_ocean.html

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.

http://www.aoml.noaa.gov/phod/dataphod/work/trinanes/INTERFACE/index.html

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 such as those provided by drifters is recommended. (Requires JAVA to be installed on your computer. Check JAVA security to allow this link access)

Bermuda Weather 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.

ASCAT- Advanced Scatterometer Observations of Ocean Surface Winds

http://manati.star.nesdis.noaa.gov/datasets/ASCATData.php/ The data provided here allow direct confirmation of wind speeds and directions provided by the Surface Analyses from the National Weather Service as well as the variety of GRIB model data being provided by numerous services. The scatterometer data are often particularly interesting during the passage of high energy storm events such as hurricanes. Sometimes these data are also useful during offshore races depending on the area of coverage. This represents the alternative to our QuikScat system which is no longer operational.

NOAA Tides and Currents - 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 - https://nomads.ncdc.noaa.gov/ncep/NCEP

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