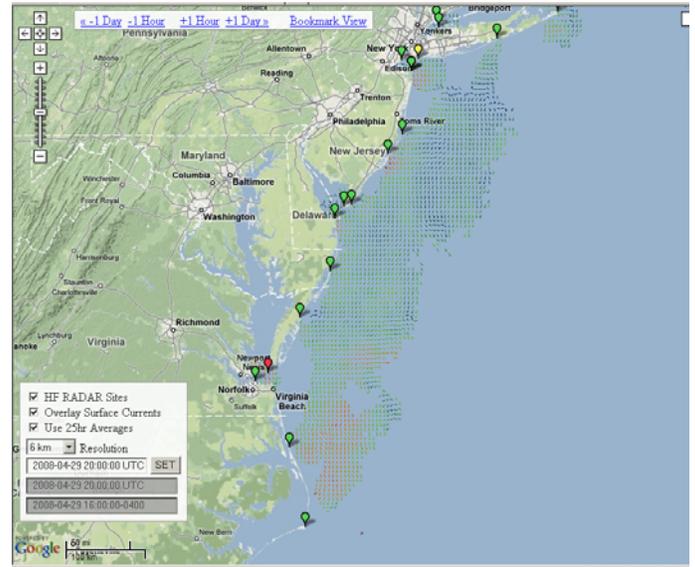
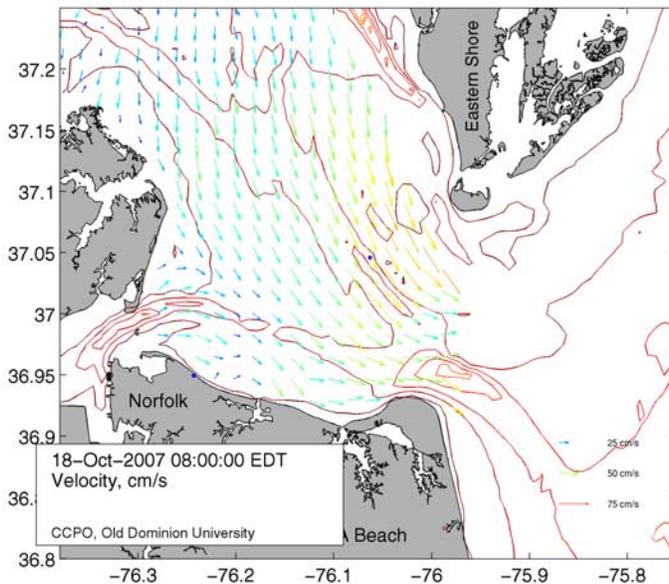


Ocean Surface Current in the lower Chesapeake Bay and coastal waters

Surface currents are mapped every hour in the lower Bay and coastal waters using a radio frequency radar system called CODAR. The figure on the left shows a typical map that is produced and displayed on the web.



Surface currents are also mapped in the coastal waters. The figure on the right shows a typical map being produced of those currents. The area directly off of the Bay mouth will soon be covered by a newly installed CODAR unit.

These data products are now being routinely put into the Coast Guard Search and Rescue Operations system to better define search areas. Preliminary research indicates search areas are reduced significantly.

Many products are available with this system. Examples of possible local use:

Strength of currents near the beach – We can measure currents within about 750 m of the beach in the alongshore directions. This can be useful for understanding beach erosion or drift of a body.

Search and rescue – We can see each hour the real movement of surface water and to some extent predict the drift. We also can see where a drifting object may have been over the past 6 hours. Predictions of future positions are possible if there is a need.

Marine mammal stranding – We have an arrangement with the marine mammal stranding team to help determine where a beached animal may have come from. Or, we can determine where for example a drifting whale entangled in a net might drift in the coming days.

NOAA COOPS is working on the development of tidal current predictions using CODAR data with the goal of disseminating these predictions as a standard COOPS data product for the lower Bay.

Contacts:

Technical – Teresa Garner: garner@ccpo.odu.edu

Policy – Larry Atkinson: cell 757 679 8916, email latkinso@odu.edu