

**ROFFER'S OCEAN FISHING FORECASTING SERVICE, INC.**

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**ROFFS™ FISHERIES OCEANOGRAPHIC SPECIAL PRESS RELEASE**

**FOR THE DEEPWATER HORIZON OIL SPILL AREA (LAT./LONG.)**

**UPDATED MONDAY 10 MAY 2010 UPDATED AT 19:00 HRS**

At ROFFS™ we have been mapping the distribution and movements of the oil from the Deepwater Horizon spill from satellites since the explosion. Basically we are using a host of U.S. (NOAA and NASA) and European (ESA) satellites with a variety of spectral (infrared, near infra-red, visible, RGB and synthetic aperture radar) and spatial resolutions (300 meter to 1 KM) to see the oil. This work is a collaborative effort with the University of South Florida, University of Miami and the Florida Institute of Technology along with other oceanographic professionals (e.g. Schaudt.US). We use a plethora of techniques to remove or reduce the effect of clouds and satellite angle, as well as, to manipulate the satellite data to understand the ocean circulation patterns associated with the oil's motion. We focus our efforts on the offshore segment of the oil. Sequential image analysis allows us to visualize the motion. The red "X" indicates the site of the Deepwater Horizon spill area.

We have been deriving these analyses on a daily basis and posting them to our website (<http://www.roffs.com/deepwaterhorizon.html>). We have many years of conducting similar analyses. For example we mapped the plume coming from the New Orleans area after Hurricanes Katrina and Rita (<http://www.roffs.com/katrina.htm>).

We continued to monitor the conditions over the weekend and updated this analysis using this afternoon's satellite imagery. One must realize when evaluating visible (RGB) and synthetic aperture radar satellite imagery that the "visibility" of the oil is subject to effects of the angle of the satellite relative to the sun and Earth, as well as, shadow effects of clouds (RGB). Under some conditions the oil seems to disappear, but that is an effect of sun angle etc.

Our ROFFS analyses suggest that the offshore segments of the oil is moving further offshore as pulled by several interacting current regimes. Today we have displayed the oil observed with the RGB – visible imagery in an olive – brown color. The grey area indicates where we suspect that surface oil and surface and subsurface oil – water by-products have moved to based on following the water masses associated with the relatively cooler temperatures that were upwelled from subsurface water by the oil and from ocean color imagery including the artifacts in the derived chlorophyll imagery. Again we are focusing our attention on the relatively offshore location of the oil. Over the past three days the area of suspected oil has been pulled in a clockwise direction around the main eddy which is centered near 89°15-20'W & 27°45'N. Note that the observed oil near 88°25'W & 28°00'N is moving in the same direction. We anticipate that motion will continue for the next few days at least. This is good news for the oil not entering the Loop Current at this time as the eddy centered near 89°15-20'W & 27°45'N appears to be winning the battle of the forces compared with the water being pulled toward the northwest side of the Loop Current. Over the next few days the two eddy features along the western side of the Loop Current (centered near 88°50'W & 25°30'N and 88°20'W & 26°15'N) will be moving northward and may start pulling some of the water between 89°00'W & 27°00'N and 90°00'W & 27°15'N in a more eastward direction toward the Loop Current. This remains to be seen.

Northeast of Desoto Canyon there appears to be a counter-clockwise rotating eddy centered near 86°45'W & 29°00'N that has been pulling the suspected oil-water mixture in an eastward direction. As the currents north and east of this area are not supportive of moving the oil toward the Florida Panhandle at the present time.

See enclosed PDF analysis as the graphic is enclosed. Higher resolution graphics are available.

**EDITORS NOTE:**

While we have been conducting these analyses as a civic duty and as an exercise in technology transfer, we would like to be contracted to do this to support cleanup, restoration, and litigation efforts. ROFFS™ would be appreciative if you would copy this analysis to others who may be interested in our efforts.

