

ROFFER'S OCEAN FISHING FORECASTING SERVICE, INC.

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**ROFFS™ OCEANOGRAPHIC ANALYSIS FOR THE DEEPWATER HORIZON OIL SPILL AREA
UPDATED MONDAY 07 JUNE 2010 (17:00 HRS)**

See enclosed PDF analysis as the graphic is enclosed. Overall we continue to monitor the distribution and movements of the oil and oil-water-dispersant mixture from infrared, RGB, visible and synthetic aperture radar (SAR). Today we were able to use the SAR and the RGB data to visualize the surface oil. We also used infrared data from yesterday and today to outline the major water mass boundaries. However, due to the continued haze, clouds, as well as, high and uneven atmospheric moisture we were unable to provide the finer details and water mass boundaries that had been able to see for the last month. We have not been able to visualize all the relatively narrow tendrils of the oil-water mixture that we had been following as shown in the grey shapes previously. Instead of grey shapes, today have placed the word "oil" in these areas.

While we do not know the ship's position we were able to see pools of surface oil from approximately 87°50'W & 28°30'N and south along 87°25-50'W & 28°00'N to one pool centered near 87°00'W & 27°42'N. The counter-clockwise circulation associated with the cyclonic eddy west of Tampa centered approximately near 85°30'W & 27°15'N is shown on the map analysis. We were not able to observe the center of circulation or outline the water masses or frontal boundaries associated with the eddy. We were able to outline the boundary of the meso-scale eddy Franklin and observed that the southeastern side has moved southward approximately 10 miles since Friday and Saturday's observations. The current along the eastern side of the eddy continues transport the water – oil mixture and we believe that one tendril has moved to 85°00'W & 25°15'N. Along the southeastern side of the eddy there is another cyclonic eddy centered approximately near 85°15'W & 24°15'N. This is an egg-shaped eddy with a northeast to southwest orientation. We observed return flow of some of the Loop Current water near 84°30'W & 24°45'N towards the area near 85°00'W & 24°35'N. This has consequences on the path of the oil–water mixture that originated from the Deepwater Horizon from the first day of the spill. We believe that some this oil-water mixture will be re-circulated around this egg-shaped eddy. Some is likely to move along the northern boundary of the Loop Current.

From our observations there appears to be surface separation of the eddy Franklin from the Loop Current as there is an apparent 10 mile wide band of cooler water separating the two water masses. This is upwelled water from the Yucatan Current that is being pulled along the northern boundary of the Loop Current.

In the areas south of the Mississippi River clouds prevented us from tracking the path of the water-oil mixture that we have been monitoring since April. Also the oil-water mixture south of the Florida panhandle centered near 86°00'W & 29°15'N was not observed again today due to the atmospheric interference.

Please provide your ship location and perhaps direct us to an internet based site that we can follow your location. Also please provide the ship's satellite telephone number so we can call to discuss the analyses as needed.

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