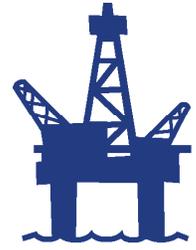


Sustained Observations Critical to Restoring the Gulf and Preparing for the Future

Despite the billions of dollars available from many funding sources in the post Deepwater Horizon era that are dedicated to restoration and improved understanding of the Gulf, **no money has been allocated to sustained observations**. Ocean observations will 1) support restoration efforts, 2) help determine the success of the many individual restoration efforts, 3) contribute to our understanding of the Gulf ecosystem as a whole and 4) assist with planning and responding to future spills and disasters.

With the current level of oil and gas production in the Gulf – there are more than 4,000 oil and gas platforms in the region – and more leases expected in the future in the deep water of the U.S. and Mexico, there are simply not enough tools in place that will allow us to adequately prepare for or to respond to another spill.

Monitoring is a component of many RESTORE initiatives but it is project-specific, time-limited and the information is not always available in real-time or near-real time, which is important for planning and response.



**MORE THAN
4,000
OIL AND GAS
PLATFORMS**

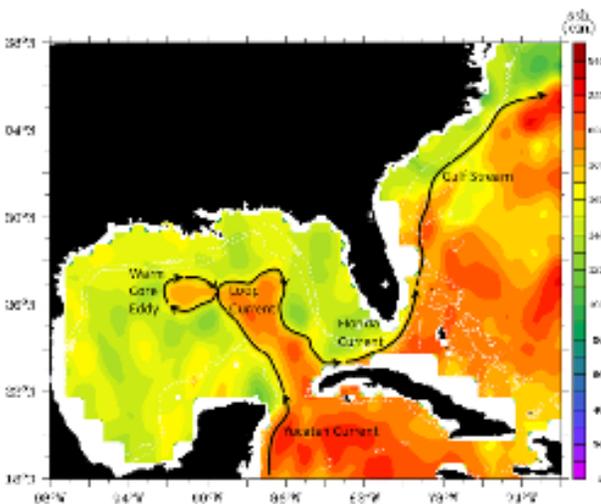


As a group, the species and habitats in the offshore [Gulf of Mexico] environment are monitored to a lesser degree than coastal or terrestrial species and habitats. Addressing the currently disjointed monitoring system and moving toward a Gulf-wide ecosystem monitoring network will provide more efficient, integrated and accessible tool for ecosystem information.



The Ocean Conservancy: “Charting the Gulf: Analyzing the Gaps in Long-Term Monitoring in the Gulf of Mexico”

Linked Systems



The Yucatan Current, Loop Current, Florida Current, and the Gulf Stream created using altimetry data from 2005.

Credit: Nick Shay/Benjamin Jaimes, University of Miami/ RMSAS

The Gulf of Mexico and South Atlantic are intimately linked through large-scale circulation patterns. Given the loop current – Florida current – Gulf Stream hydrography, and the expected development of offshore mineral, oil and gas in the South Atlantic during the next decade, effective preparation for potential spills must include sustained observations in the South Atlantic as well as the Gulf.

More Information

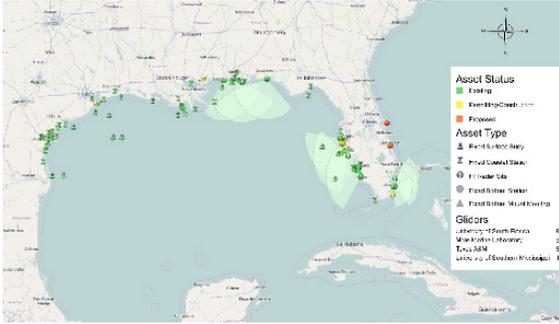
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SECOORA: Debra Hernandez, Executive Director, 843-906-8686 or Debra@secoora.org

GCOOS: Barb Kirkpatrick, Executive Director, (941) 724-4320 or barb.kirkpatrick@gcoos.org



IOOS Investments Provide Foundation



Map of assets in the Gulf of Mexico.

Over the last 6 years, the two IOOS regional systems that are active in the Gulf - GCOOS and SECOORA - have invested over \$ 8.6 M that supports a variety of fixed and mobile observation platforms, modeling efforts and a robust data management system that integrates federal and non-federal Gulf data and information. This on-going annual investment of over \$1.4 M provides the foundation to address the critical gaps that exist in the Gulf.

Partnerships Matter

Multiple programs contribute significantly to observing and monitoring in the Gulf and SE. This includes Federal agencies such as USGS stream gauges, state agencies such as the Texas General Land Office that supports the Texas Automated Buoy System (TABS) buoys for oil spill prevention and response, the gas and oil industry that provide Acoustic Doppler Current profile data from approximately 50 platforms, and a unique partnership between Shell, the Navy, and the University of Southern Mississippi support glider operations in the Gulf.

CRITICAL OBSERVATIONS

\$ 44.5 million is needed to fill three critical observational needs

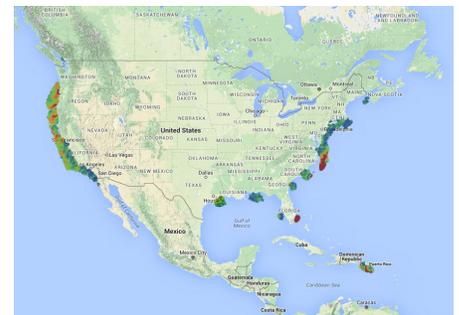


1 Monitor the Loop Current: \$ 5 M/year for 5 years.

The Loop Current and its prolific eddies can stress oil platform and effect the safe recovery of oil. Deep observations are needed to monitor the location and speed of the current at depth and to ensure quick and effective response.

2 Fill Gaps in the Surface Current Network: \$8.5 M to capitalize 57 sites in Gulf and SE, \$1.7 M/year for 5 years for annual operational costs.

Real-time surface current monitoring provides critical capacity for spill monitoring and response. A national network of land-based high-frequency radars that forecast the speed and direction of surface currents has critical gaps in the Gulf and SE. NOAA's Office of Response and Restoration uses this system to assist with spill response as does the US Coast Guard to aid search and rescue operations. During the Deepwater spills, radars were relocated from other regions to provide this critical information. Significant gaps exist along the Louisiana, Alabama and Florida coast. New radars will soon be deployed along the Texas coast that will need annual operational support.



Map of IOOS high-frequency radars that provide real-time surface currents. View more at <http://cordc.ucsd.edu/projects/mapping/>

3 Emergency Response Capacity: \$500K per year for 5 years to support glider missions to respond to emergencies such as oil spills or other disasters.

This would support mission operations for existing gliders that are owned and operated in the Gulf and SE. During DHW, IOOS coordinated the redeployment of seven gliders from other regions to help identify the subsurface extent of the oil and to predict its movement. These funds would enable regional institutions to fly gliders for routine baseline monitoring and to be available in case of another spill.