# **EddyWatch®**

# **Integrated Metocean Solutions Proven Locally. Applied Globally.**

The EddyWatch service is a unique oceanographic and environmental monitoring and forecasting service that creates actionable information through the collection, analysis, and interpretation of oceanographic data. By placing the project location in context with the environment, we create situational awareness for clients to safely reduce non-productive time due to challenging currents.

# **CAPABILITIES INCLUDE:**

- Comprehensive monitoring & forecasting
   of significant oceanographic features
- Proprietary in situ data sources and model
- Long range forecasts and ensemble modeling
- Experienced oceanographers
- · 24/7 data access via Metocean Mapper

The EddyWatch - Gulf of Mexico (GOM) service has been in operation since 1984, and the EddyWatch -Trinidad/North Brazil Current (NBC) service since 2001.

We manufacture, deploy, and analyze data from satellite-tracked drifting buoys, which provide detail on each region's ocean circulation. Our oceanographers utilize state-of-the-science techniques to analyze oceanographic data to map, model, and forecast strong current events.

Operators rely on our data analysis, reports, and visualization tools to manage their projects and to mitigate their downtime by identifying safe work windows.

#### **Gulf of Mexico**

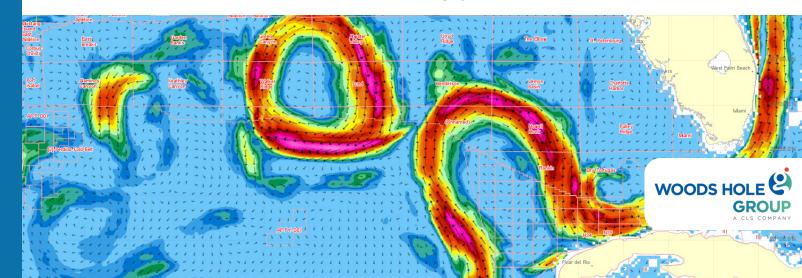
The Loop Current (LC) and the eddies it sheds impact operations with 1.5+ knot currents. The EddyWatch service provides the most accurate and extensive real-time information available regarding the location and intensity of currents affecting operations in the deepwater lease areas.

# Trinidad/North Brazil Current

Our focus in the Trinidad/NBC EddyWatch program is on monitoring and forecasting the NBC and NBC 'rings' that rival the Gulf's eddies in size and intensity. We have successfully tracked the formation, separation, and migration of 100+ rings that have shed from the NBC and forecasted the duration of impact on offshore operations for more than 30 companies.

# **Far Horizon Drifters**

The Far Horizon Drifter (FHD) is a satellitetracked buoy designed to drift with the upper ocean circulation. These drifters are regularly and strategically deployed in EddyWatch regions. FHDs provide valuable information on the configuration, orientation, angular rotation, migration speed and direction, and surface current velocity of eddies and rings. Our oceanographers use drifting buoy trajectories to verify features identified in satellite imagery and to validate ocean circulation models.





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# WHG-TOPS

Woods Hole Group – Tendral Ocean Prediction System (WHG-TOPS) is a multi-resolution global ocean prediction system consisting of a suite of nested ocean circulation model configurations with the highest resolution models covering areas of offshore energy industry activity.

WHG-TOPS has access to proprietary data streams, state-of-the-science data assimilation methods, and ensemble modeling capabilities to produce accurate and reliable 4D forecasts. The system has been validated for consistency, quality, and accuracy against field observations (remotely sensed observations, ARGO data, and drifters) and compares favorably to publicly available models.

EddyWatch subscribers have exclusive access to WHG-TOPS outputs including daily 10-day forecasts, weekly 30-day forecasts, and weekly ensemble statistics.

#### Metocean Mapper

The Metocean Mapper is an online mapping interface which displays fronts, public and proprietary current measurements, ocean model forecasts, as well as winds, waves, and tropical storm tracks with respect to client infrastructure. The website is accessible from any computer with an Internet connection. Various interactive features allow the user to conveniently measure distances and make up to two-week long hindcast or forecast animations of the desired data layers. Support vessels can also be displayed using S-AIS or our GPS beacons.

# Deliverables

EddyWatch reports, delivered as a PDF via email, include:

- Written narrative detailing recent oceanographic conditions
- 5-day current forecast prepared by our oceanographers
- Frontal analysis
- · 4-day drifting buoy data
- Lease area summaries and outlook
- Lease area charts
- Frontal progression charts
- Table of distance and bearing to nearest front
- Plot of rig-mounted ADCP data (if available)
- Various forecast model output

An EddyWatch subscription also includes 24/7 access to the Metocean Mapper and consultation with our oceanographers via phone or email.

# CONTACT ONE OF OUR EXPERTS

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Woods Hole Group is a CLS Company. CLS is headquartered in France and has offices throughout Asia, Australia, Europe, North America, South America, & Africa. Woods Hole Group works globally through partners within the CLS Network.

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