

# Hydrocarbon Monitoring

## Mission Example: Deepwater Horizon

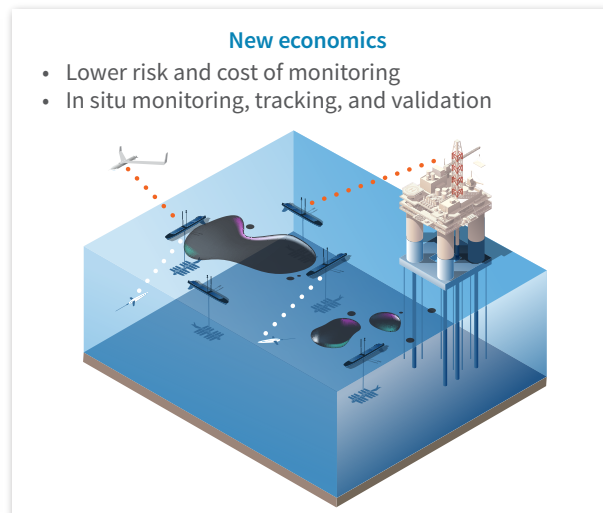
The ocean is rich in resources like oil. Yet, locating and safely extracting these resources can be a costly endeavor. Today, operators can use an unmanned surface vehicle like a Wave Glider to not only reduce the cost of seismic surveys but also cost-effectively monitor the environmental impact of oil fields. Wave Gliders can perform surveys prior to drilling to determine baseline hydrocarbon concentrations and assist with the setting of threshold values; they can continue to operate through the life of the field to detect leaks or spills; and they can monitor after decommissioning to ensure that there are not any adverse long-term impacts.

These capabilities were demonstrated in the aftermath of the Deepwater Horizon disaster. BP deployed a fleet of

four Wave Gliders to monitor water quality and detect any subsequent hydrocarbon events.

As part of the deployment, Wave Gliders also logged data on marine mammal activity and measured currents, providing additional insight into the broader impact of the oil field on the environment and ecosystem.

It would have been expensive to implement this level of persistent environmental monitoring using manned assets. Crews get tired. Ships need to refuel. And the operating expense of running a vessel around the clock for months or years at a time would sink any budget. In contrast, with autonomous systems like Wave Gliders, operators can make a relatively small CapEx investment to avoid the high OpEx costs of persistent, lifecycle monitoring.



Read the full white paper:

[The New Economics of Marine Environmental Monitoring](#)