Survey and Pipeline Inspection AUV for OFG

Building on Ocean Floor Geophysics (OFG)'s deep water Autonomous Underwater Vehicle (AUV) operations and support services, the company has invested in a 3,000m-rated Hugin AUV. The AUV *Chercheur* is equipped with a sensor and software suite for efficient inspection of pipelines and infrastructure, pipeline route studies, site geohazard surveys, environmental monitoring surveys, and other seafloor-based applications such as UXO, archeology, salvage, and minerals exploration.

Chercheur is equipped with high resolution interferometric synthetic aperture sonar (HiSAS), the multibeam echosounder EM2040, a sub-bottom profiler, a comprehensive environmental geochemical sensing suite, a high resolution still photography camera, and an OFG Self-Compensating Magnetometer (SCM) system. *Chercheur* comes complete with all ancillary sensors for precision navigation and positioning.

The combination of *Chercheur*'s technology, OFG's experienced AUV operations team, and the expertise of our technology and commercial partners extends the possibility to unveil seafloor properties and characteristics to new levels of resolution and detection.

Deep and Shallow Water Surveys

Included in that extended reach, OFG offers with *Chercheur* its AUV services for very shallow water operations allowed by the advanced navigation and positioning systems, and the efficient coverage of large areas by the HiSAS system even in shallow water. Detailed camera surveys are also possible in water depths ranging from 10m to 3,000m with the EM2040-aided acoustic tracking and following capabilities.

The high resolution imagery produced by the HiSAS system gives offshore oil and gas companies the ability to build and maintain a precise GIS database of the positions and conditions of their seafloor assets, natural features, marine archeology inventories, UXOs and other features of interest such as plumes. Seafloor minerals exploration teams will also benefit greatly with regards to geological interpretation.