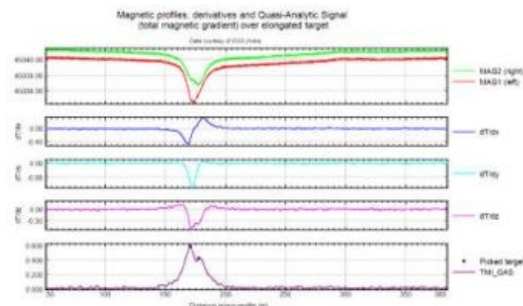


Introduction of UXO Marine Software



Geosoft, headquartered in Canada, will introduce the new UXO Marine software at Ocean Business 13, running from 9 to 11 April 2013 in Southampton, UK. The software provides marine surveyors with a purpose-built workflow and set of tools for processing and managing marine magnetic data for site investigation surveys.

Offered as an extension to Geosoft Oasis montaj, UXO Marine is a comprehensive system for processing, detecting and analysing munitions and related underwater site investigation work using Transverse Gradient (TVG) as well as single sensor and multi-sensor magnetic arrays.

As more offshore areas are investigated for wind farms, the volume of [\[NV1\]](#) site investigation surveys, aimed at detecting buried utilities and seabed contamination, continues to expand.

Many variables

Magnetic data is commonly used to detect potential unexploded ordnance (UXO), pipelines and cables in marine environments prior to offshore or coastal construction. Marine magnetic data is more complex than data generated by land-based site investigation surveys, with many variables affecting interpretation. Quality assurance and quality control of magnetic data, both on-board and after a survey is completed, are vital to ensuring the data's integrity. Corrections are required to remove systematic errors, including variable heights above the seabed and filters may be used as an aid in identifying the anomalies.

Pick targets to survey

With TVG and other fixed-array systems, both total field magnetic and horizontal derivative data can be measured at once. These gradiometers allow data to be collected from a stable platform and with greater accuracy than is possible with individually towed magnetometers. Using the new Quasi-Analytical Signal tools included in the UXO Marine software, surveyors can pick targets from total magnetic gradient profiles. Magnetic anomaly interpretation methods using automatic dipole modelling and Euler deconvolution can be used to calculate target parameters such as burial depth.

Partnering with the US Army Corps of Engineers and leading environmental researchers since 1995, Geosoft has developed a comprehensive solution for the detection and classification of unexploded ordnance.

The UXO Marine software package will be commercially available in April 2013. For more information visit Geosoft at Ocean Business 13, stand V30, or contact explore@geosoft.com.

Image: TVG Profile Plot: Profile plot showing magnetic gradient profiles and the computed Quasi-Analytic Signal, from which target locations have been picked on an anomaly detected by both magnetometers.

[\[NV1\]](#)repeated word