



AAL

MIS



MULTI INFLUENCE SENSOR SYSTEM

Ship Signature Measurement System

The MIS system uses sensors and electronic processing mounted in a fibreglass sensor frame on the seabed to collect radiated influence data and transfer it for real time analysis of a vessel's signature and post ranging analysis.

MIS is a portable system that measures and records 3-axis of magnetic, 3-axis of electric field, omni-directional acoustic and pressure multi influence signatures.

It comprises three main modules:

- Sensor Frame - a tetrahedral fibreglass shape that sits on the seabed and contains the sensors and electronic processing computer
- Surface Buoy - a floating buoy containing the system power supply, surface/sub-surface interface and communication system
- Surface Vessel Components - the system display and monitoring computer and communication system

System control, monitoring, data display and recording is done by software on a portable computer. Ranging data is collected and recorded on the Sensor Frame computer for viewing real time and analysis post ranging.

Operation

The system can be deployed from a RHIB by 2-3 people in depths to 50m. The Surface Buoy is positioned and anchored and then connected to the Sensor Frame by a 200 metre cable. A telemetry link from the Surface Buoy to the vessel is used to transfer the measurement data.

Accurate ship positioning data is required for vessel ranging. This can be supplied either by the ship's fitted system or by installing stand-alone GNSS receivers to provide accurate ship positioning, speed, track and yaw data.

The Ranging Supervisor in either a support vessel or the vessel being ranged can observe, measure and record the ship generated influences as it transits over the Sensor Frame.

This information can then be used to evaluate the vessel's signature and its susceptibility to mine threats.

Benefits

- Risk Reduction - enables ship signatures to be measured, evaluated and verified in theatre, before operational deployment or post maintenance.
- Portable and Compact - small and portable enough to be deployed and recovered from a RHIB by only a few people.
- Ease of Use - can be deployed and operational in quick time without the need for heavy lifting equipment.
- Flexibility - capable of operating in depths to 50m in a water temperature range of 2-35°C and for mission lengths of at least 8 hours.



Surface Buoy



Software