

Ship Sonar - Threat Detection System



Drumgrange, in association with Cogent Defence Systems, has developed a cost effective Surface Ship Sonar System that provides detection of both passive and active underwater threats.

SUBMARINE SONAR TECHNOLOGY

Drumgrange's proven submarine sonar technology uses a novel approach for detecting and discriminating between threats and false alarms.

The system comprises; a Cogent lightweight towed body array with optional small hull mounted array, a lightweight, small footprint handling system and COTS based onboard processing system.

The onboard system comprises; processor and operator displays with selective warnings and command displays for torpedo countermeasures.

The onboard equipment may be installed in a number of different configurations depending on existing equipment fit and operational or space restrictions.

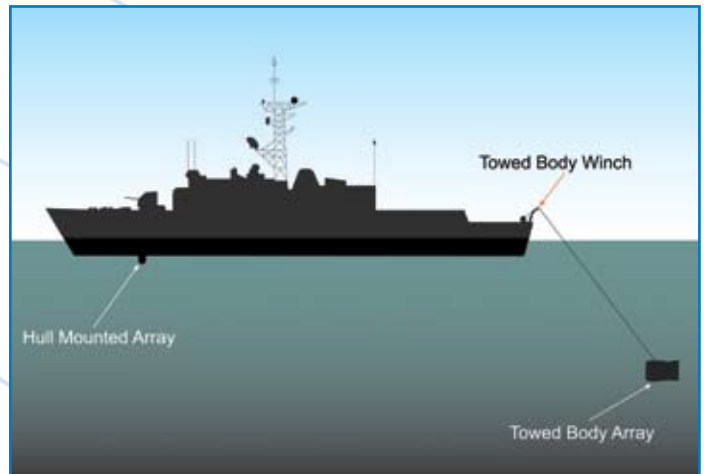
The system operates in two modes: Passive Sonar mode and Active Intercept Sonar mode.

PASSIVE SONAR MODE

The Passive sonar uses a new stochastic narrow-band technique that responds to the spatial structure of received sonar wavefronts. These wavefronts may be periodic or aperiodic in nature, and may also have the characteristics of tonal, repetitive transient, or pulsed events. This response to short-duration events is unique in comparison to conventional narrow band systems and allows the system to detect and track targets of interest at the earliest opportunity.

ACTIVE INTECEPT MODE

The Active Intercept mode is triggered by active transmissions (within the bandwidth of the array) and is normally operated in surveillance mode. The AI processor has been developed to minimise false alarms and is capable of automatic extraction of signal parameters and transmitter bearing through the full azimuth coverage.



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Key Features

Full azimuth coverage

Warner Alarm (Visual & Aural alert)

Displays

- Waterfall with window overlays
- Bearing, frequency and amplitude vs time
- Fast and slow update areas (operator configurable)
- Frequency filters (optional colours)
- Cursor read-out of parameters
- Tote presentation of contact parameters
- A-scan analysis windows

Aural Facilities

- Baseband & heterodyned operation
- Wideband & narrow band modes

Data Logging

- All contacts can be logged to portable media.
- Operator Controlled

BITE Reporting

- BITE reporting to LRU
- BITE reports logged to portable media

Towed Array

- Small, lightweight towed body
- Ease of deployment

Hull Array (Optional)

- Small footprint
- Ease of installation

Winch and Handling System

- Small footprint
- Ease of installation and operation
- COTS based

“We design, develop and manufacture innovative products and are also experts at integrating existing technology to create successful, cost effective solutions.”



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