

Minehunting Operations and Information System MOIS

Overview

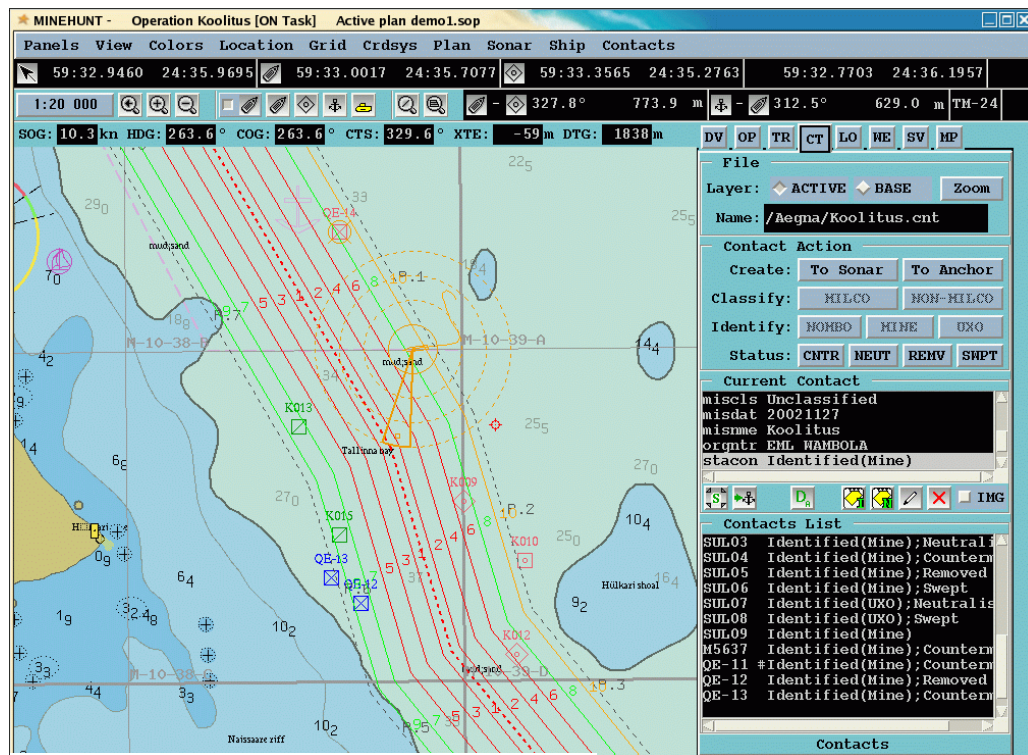
The Minehunting Operations and Information System MOIS supports all the phases of the mine hunting operations: planning, operation and reporting. The data handling and data exchange of the detected, classified and identified sonar contacts is entirely based on the NATO AML-SBO (Additional Military Layers, Small Bottom Objects) electronic chart concept.

Features

- **Mission planning and preparation.** Different plan types - Route Survey, Area Survey, Lost Object and Mine Exercise. Sonar Condition Check support.
- **Surveying / mine hunting.** Control of operational mission. Real-time mission evaluation. Task management.
- **Sensor data processing.** Exact geographical positioning of ship and sonar contacts using incoming data from navigation sensors. Sonar contact position correction using Sound Velocity Profile.
- **Operation data presentation.** Graphical presentation of background charts, known contacts database, ship position and trajectory, sensor positions, sonar searching sector and focus, operation plan, tracks and detected sonar contacts. Numeric display of navigation data, tidal streams, track information, sonar contact position and distance vectors.
- **Supplementary data presentation.** AML v 2.0 charts. IHO S57 / S52 electronic charts. S63-protected IHO charts.
- **Geographical grid systems,** including Baltic Ordnance Grid – BOG. Transverse Mercator coordinate system – TM / UTM.
- **Sonar contacts processing.** Identification and classification of detected sonar contacts based on the AML-SBO concept. Automated attribute values assignment. Contact/mine datasets management.
- **Remote Operating Vehicle support.** PAP (Poison Auto Propulsé) position tracking. Underwater TV image digital recording and binding with sonar contacts.
- **Navigation objects editing.** Editing of custom chart using S57 objects.
- **Data records.** Recording of contacts, events, operation status, ship movement and weather reports. Display and analysis of recorded data.
- **Report generation.** On-line events log printing. Contact and operation reports, colour area plots A3/A4. FORMEX 187 type contact report. Weather reports, sound velocity profiles.
- **Data exchange.** AML and S57 input, AML SBO output. AML and custom file formats. Side scan sonar contacts import.
- **Ergonomics.** User friendly Man-Machine Interface (MMI) using windowing techniques and fast access function keys. Separate windows/displays for active mission control and for off-line functions - planning, display of recorded data and reporting. Switching the MMI colours according to light conditions (day / night).

Technical Data

- **Data input sensors.** Minehunting sonar Plessey 193M, up to two GPS/DGPS units, Gyro, LOG, CTD-probe, ORE Trackpoint, Side scan sonar (contacts).
- **Hardware.** 19" rack mounted computer unit, UPS.
18" flat colour display, secondary display.
Sonar Plessey 193M interface unit.
A3 colour printer, A4 line printer.
Video image digital converter (Sensoray).
- **Software environment.** RedHat / Fedora Linux, X-Windows, Motif, Gnome Desktop Environment.



Main operation view and contacts panel.

Usage

The Minehunting Operations and Information System MOIS is operational on all Estonian and Lithuanian Lindau-class minehunters.