

ECA Group unveils two new modules for its UMIS-Mine Counter Measures mission & data management system

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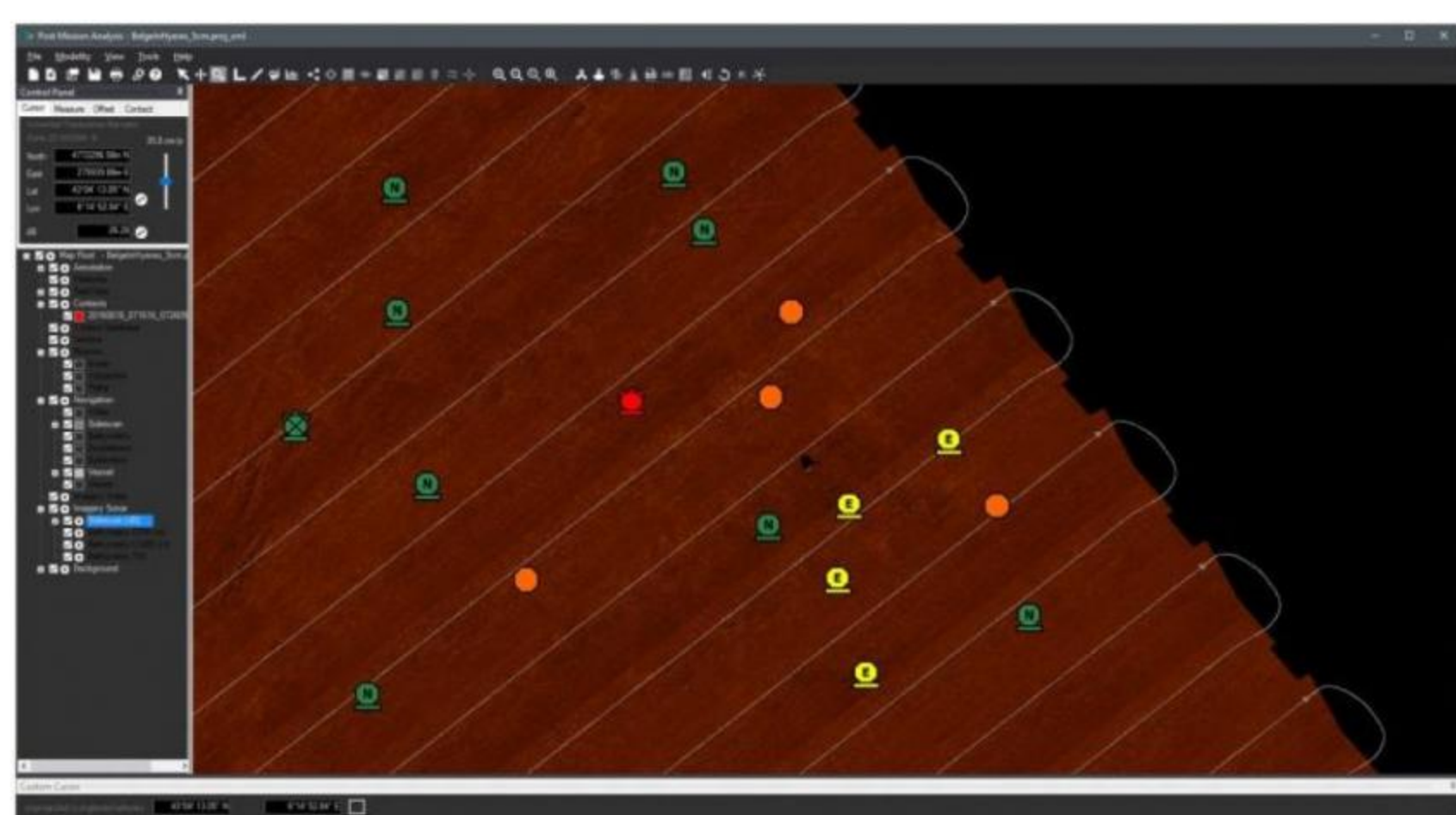
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ECA Group recently added two very important modules to UMIS (Unmanned MCM Information System), the comprehensive solution for mission and data management developed in recent years for ECA Group Unmanned MCM Systems (UMS). These two modules concern contact/mines management and Automatic Target Recognition (ATR).

The first module is the contact management module. It supports the UMIS operator throughout basic MCM phases: area familiarization, detect & classification, relocalization & identification, neutralization for management of all data related to contacts and mines.

This software is originally based on ECA Group- Triton Imaging seafloor mapping application. A comprehensive solution for Mine Management was added in order to integrate the UMS workflow.

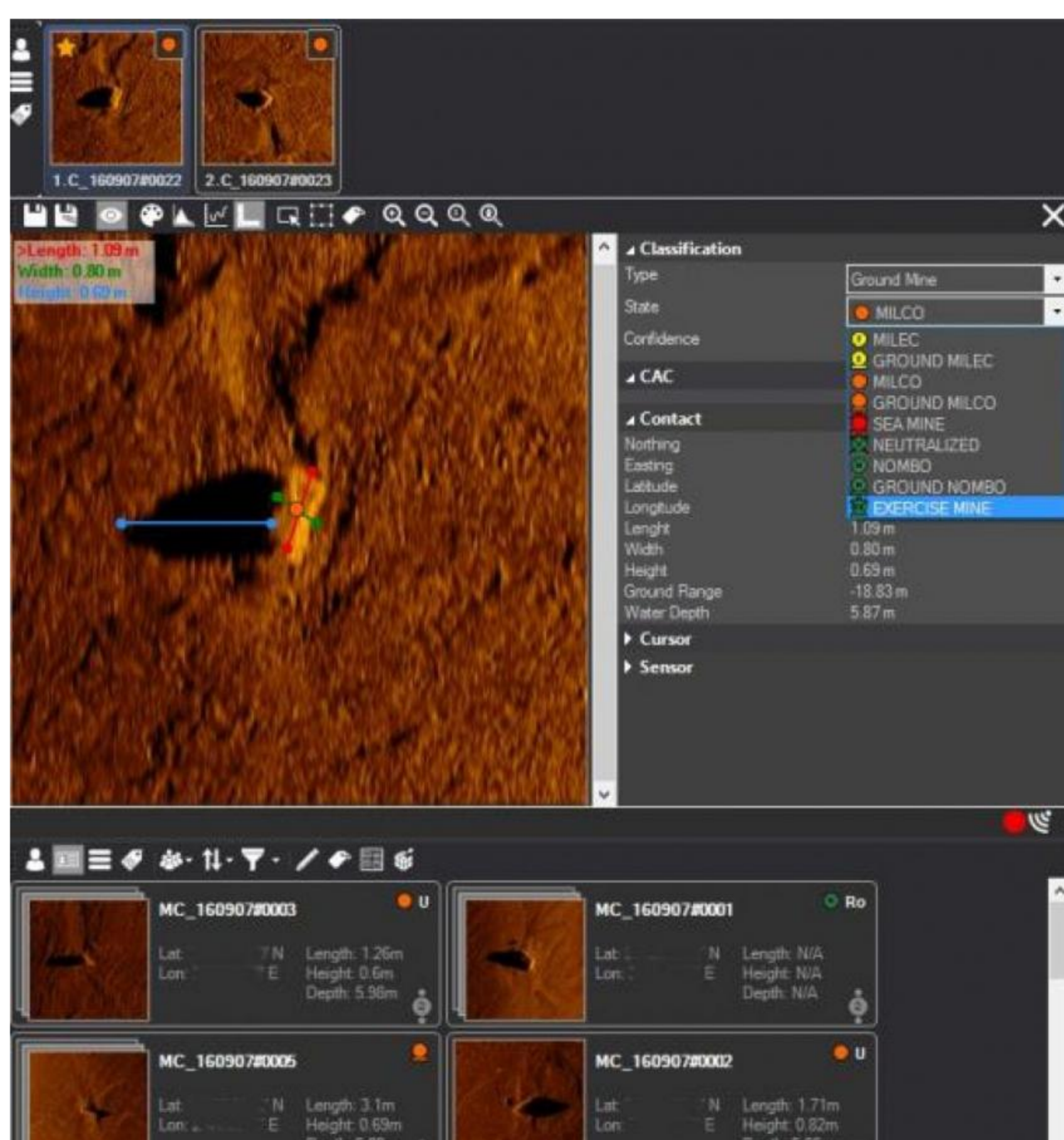
A global tactical view enables the operator to plan the mission and validate the data acquisition.



Eca Group Post Mission Analysing

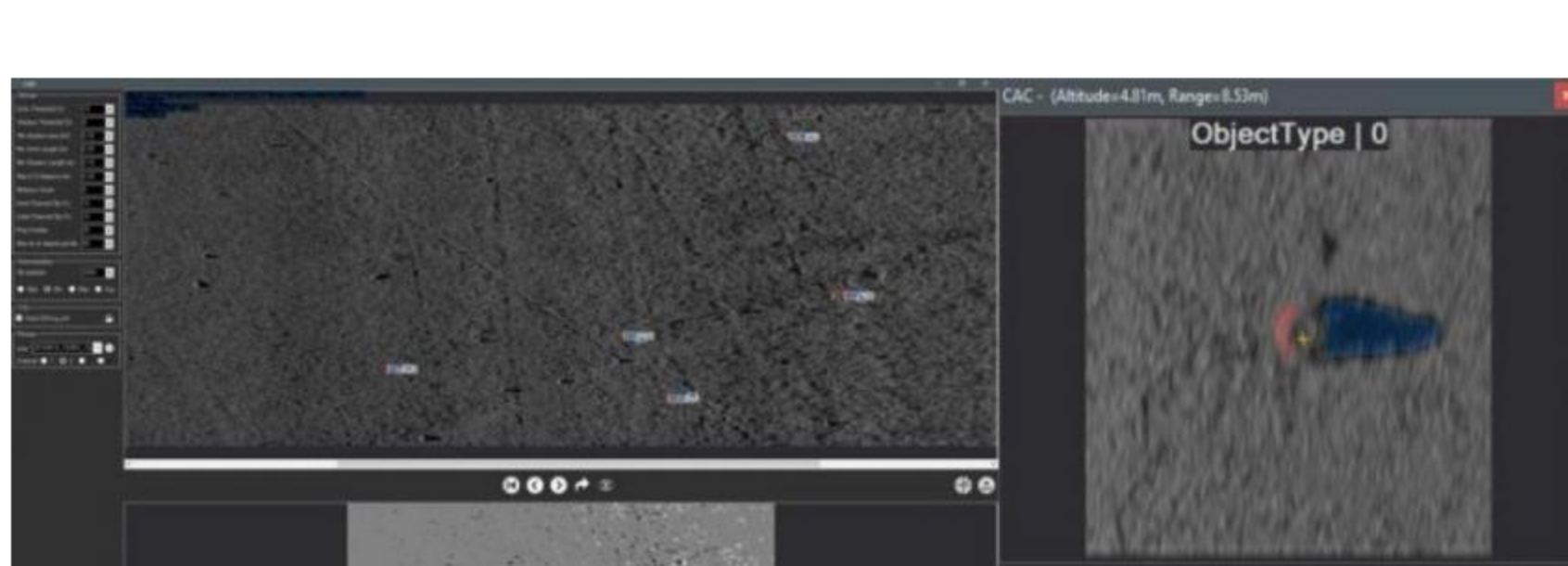
Tools optimizing the Interferometric Synthetic Aperture Sonar and classical Side Scan Sonar are available to prepare the analysis of the data, and especially the Automatic Target Recognition (ATR).

This contact management module automatically manages the contacts from detection to neutralization: A spatial database tracks the evolution of the contact during re-acquisition, identification or neutralization. Contacts are monitored on the tactical view with environmental layers.



ECA Group Target Management Module

The second module unveiled by ECA Group is for Automatic Target Recognition (ATR). this module includes several functions with high level algorithm in order to automatically detect contacts. Manual measurement and aided tool are also available. Specific algorithm for Automatic Target Recognition (ATR) is used to aid the operator during classification process.



Eca Group Automatic Target Recognition

When target is classified, the position is directly available in the tactical view and an identification pattern can be created. This positions and patterns can be transferred very simply to ECA Group robots: [SEASCAN MK2](#) for identification and the [K-STER C](#) mine disposal system for neutralization.

This technological breakthrough will significantly change MCM missions and facilitate the coordination and exchange between multi vehicles. For example, the operator doesn't need to manually copy position inform a system to another. The mission context is directly transferred to the dedicated underwater or surface drone.

On surface, the ATR decreases the time of manual processing and helps the operator to focus on the most serious threats.

Embedded in [A9-M AUV](#) or [A18-M AUV](#), ATR reduces the MCM Mission duration. Contact are detected on the fly and quickly available. Moreover, ATR module significantly reduces the required communication bandwidth to send contact information from underwater drones to the mothership.

The impact of that embedded ATR module on typical MCM mission duration will be presented on ECA Group booth during Euronaval through a video extracted from ECA Group UMS Simulator, a tool developed by ECA Group Simulation division in order to evaluate performances of different MCM systems (conventional minehunters, UMS...) in multiple operational situations.

Learn how this modules can improve the data processing and performance of the MCM mission, from mine detection to mine neutralization and attend a conference at Euronaval on Tuesday 18/10 at 15h30: How to manage Coastal Mine Warfare operations with portable UMS and appropriate software suite