

INTEGRATED ASW SOLUTION BASED ON DIPPING SONAR AND SONOBUOYS

DISOUROS is a powerful and advanced acoustic processor for detecting, locating and tracking submarine threats from combat ships using a low-frequency dipping sonar and passive sonobuoys. It provides multistatic processing and interoperability between the different **ASW** platforms involved: corvettes, frigates, helicopters and MPA aircrafts.

Integrated operation

The combined use of sonobuoys and dipping sonar increases the detection range and improves the precision in the localization of the submarine threats

Common Operational Picture

DISOUROS integrates tactical information from acoustic and non-acoustic sensors. All the ASW platforms deployed watch the same tactical information.



DISOUROS has two Segments - AS (Airborne Segment) & SS (Surface Segment)

DISOUROS-AS: It is installed in aerial vehicles. It receives tactical and acoustic information from deployed sensors (sonobuoys and dipping sonar), processing them in an integrated way and relays the result via datalink (STANAG 7085) to the combat ship.

DISOUROS-SS: It controls and monitors ASW operation from the combat ship. In addition to implementing the ship-to-helicopter (S2H) communication, this segment adds ship-to-ship (S2S) and satellite-to-satellite (S2SAT) communication. These modes of communication allow tactical, acoustic and intelligence information to be exchanged between the platforms deployed. It forms a Common Operational Picture.



Acoustic Capabilities

- Multistatic analysis
- Processing of low-freq dipping sonar (< 2KHz)
- Acoustic signal processing of sonobuous (A/D)
- Control of sonobuous by UHF commands
- On-board recording (STANAG 4283 Ed.6) and playing at different speeds (x16, x1, x1/4)
- Fast post-mission analysis

-Tactical Capabilities

- Tools for mission planning, management and control during all phases: briefing, mission and de-briefing
- Ground Support Equipment (GSE) available to load/upload mission data (acoustic and tactical data). It allows make reports for maintenace and update versions.

Network Centric Warfare

- Communication Surface-To-Helo (S2H): from the DISOUROS-AS tactical, intelligence and acoustic information is transmitted through a data link (STANAG 7085). Furthermore, the system sends the data from the Electro-optical and the RADAR.
- Communication Surface-To-Surface (S2S): tactical and intelligence information is interchanged between surface platforms, allowing a better coordination of ASW mission.
- Communication Surface-To-Satellite (S2SAT): tactical and intelligence information is interchanged beyond LOS (Line Of Sight) capability through a satellite network.



