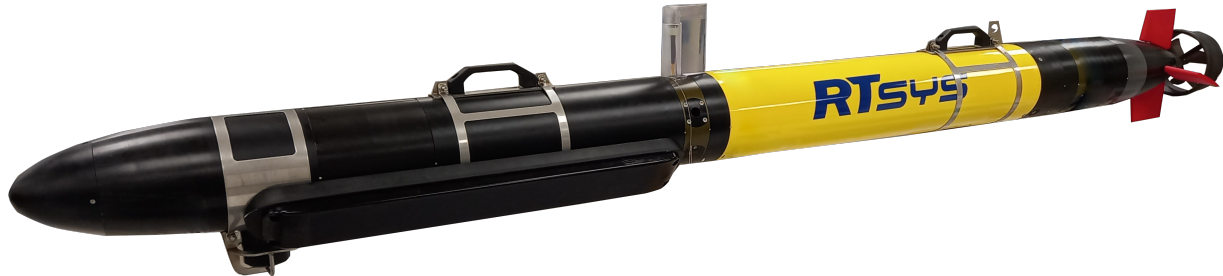
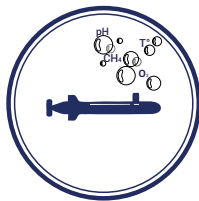


MAN PORTABLE AUTONOMOUS UNDERWATER VEHICLE

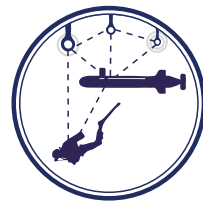
300 meter Depth - Real-time Tracking - 20 Hours Endurance



Seabed Acoustic Imaging



Water Quality Monitoring



Sparse-LBL Communication

Description

COMET- 300 is a two-man portable AUV designed to cover large underwater areas in a limited time and with high accuracy by offering precise real-time positioning and adapted sonar imaging capability.

Thanks to its acoustic communication system (RTsys core expertise) and Long Baseline (sparse- LBL) positioning algorithms, **COMET- 300** is able to navigate up to 20 hours with most accurate position of the market. This provides the user with precise positioning information of the field data acquired during the mission from its embedded sensors.

COMET-300 is the ideal solution for extensive monitoring and surveillance areas for commercial, scientific and military applications.

Advantages

- **Easy to deploy and recover with limited effort**
Two-man portable, less than 40 kg
- **Very accurate positioning**
Limited drift independent of the covered distance
- **AUV position real-time follow-up from the surface**
Live-tracking with light portable device

Navigation capabilities

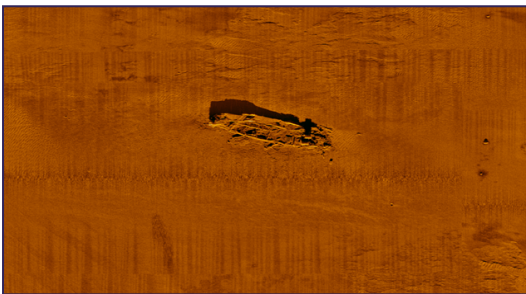
- Max. operational depth: 300 m
- Max. speed: 10 knots
- Endurance: Up to 20 hours (12 hours at 4 knots)
- Positioning: RACAM sparse-LBL + GPS + INS + DVL
- Operational T°: 0 °C / +50 °C
- Up to Sea State 4

Payloads & Options

- RACAM sparse-LBL repositioning
- High-resolution Side Scan Sonar
- Swath Bathymetry option
- Magnetometer
- Multiparameter probe (CTD, O₂, Chl)
- Video Camera



COMET-300



Side Scan Sonar image



Live-tracking on surface tablet



GEOsys

COMET-300 is a two-man portable AUV requiring no specific installation. Its operation (launching and recovery) can be carried out even from a light RHIB. As **COMET-300** is equipped with a battery pack allowing up to 20 hours of endurance, it can either cover a large area in a single mission or be suitable to serial runs of shorter missions of detection with limited replenishment time.

Once on the surface **GEOsys** remote control eases the operator to locate and retrieve the AUV sending its position by UHF. Moreover, **GEOsys** can send elementary commands such as mission-abort.

COMET-300 is also easy to recover after degradation of weather conditions, or in emergency case thanks to its adapted pike poles.

Sensors range

COMET-300 can integrate a wide range of sensors depending on requested scope of work: high-resolution side scan sonar (optional swath bathymetry), video camera, various environmental sensors (CTD, O₂, Chl...).

All sensors data are registered on a single storage location, easy to retrieve at the end of the mission either by Wi-Fi or Ethernet.

Navigation & communication

On top of common navigation sensors (GPS, INS, DVL), **COMET-300** embeds a native modem with RACAM sparse-LBL protocol. It provides very accurate relative positioning based on data redundancy. RACAM is implemented into ever RTSys equipment, thus enabling a full compatibility and communication between each module.

Underwater acoustic communication allows AUV position and navigation data real-time follow-up from the surface and can be extended up to 5 km using a relay beacon.

Position and mission parameters are displayed on a surface tablet and user interface enables sending commands thanks to sparse-LBL.

v.004

Dimensions

- Length: 1900 mm nominal (sensors dependent)
- Hull diameter: 150 mm
- Max. height : 332 mm
- Weight: 32 kg nominal (sensors dependent)

Supplied Hardware

- Fully rugged laptop
- GEOsys UHF remote control
- Recovery pike poles
- Transport case