

MAN PORTABLE AUTONOMOUS UNDERWATER VEHICLE

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



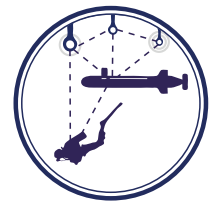
Seabed Acoustic Imaging



Water Quality Monitoring



MCM Operations



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 advanced sonar imaging.

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. Its positioning accuracy is currently the best on the market, which provides the user with precise positioning information regarding the field data acquired from the drone's various sensors during a mission.

COMET-300 is the ideal solution for extensive monitoring and surveillance of various areas, whether it be for commercial, scientific or 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
- **Limited redeployment effort, quick mission sequencing**
- **Fully compatible with all RTSys products**

Navigation Capabilities

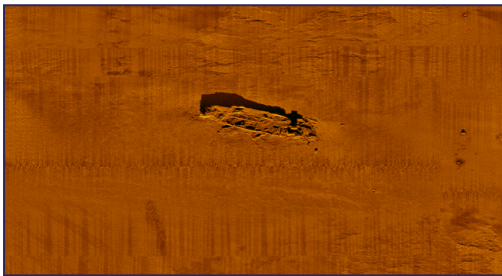
- Max. operational depth: 300 m
- Max. speed: 10 knots
- Endurance: Up to 20 hours (12 hours at 4 knots)
- Positioning: RACAM sparse-LBL + GNSS + INS + DVL
- Acoustic communication range: 2 km
- Up to Sea State 4

Payloads & Options

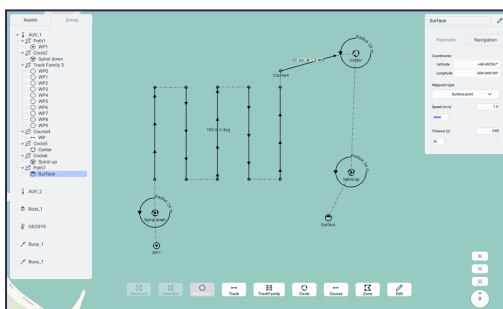
- RACAM sparse-LBL repositioning
- High-resolution Side Scan Sonar
- Swath Bathymetry option
- Magnetometer
- Multiparameter probe (CTD, O₂, Chl)
- Video Camera & subsea light



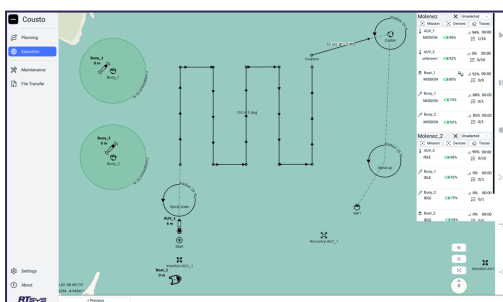
COMET-300



Side Scan Sonar



Mission programming



Real-time live monitoring

COMET-300 is a two-man portable AUV requiring no specific installation. Launching and recovery can be carried out from a light RHIB or any other vessel. As **COMET-300** is equipped with a battery 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 detection missions with limited replenishment time.

Once on the surface, the **GEOsys** remote controller facilitates the AUV's localization and recovery by transmitting the drone's position through UHF. Moreover, the **GEOsys** can send elementary commands such as mission abort.

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

Sensors range

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

All the sensors' data is stored on the same medium, it is easy to retrieve at the end of a mission through Wi-Fi or Ethernet.

Navigation & communication

On top of common navigation sensors (GNSS, 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 every RTSys equipment, thus enabling a full compatibility and communication between devices.

The underwater acoustic communication allows the operator to monitor in real time the AUV's position and navigation data from the surface. The communication range covers 2 km and can be extended to 4 km by means of a relay beacon.

Position and mission parameters are displayed on the user interface, which can be accessed from the surface with a tablet or computer. Commands can be sent to the AUV through the user interface thanks to the sparse-LBL protocol.

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Dimensions

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

Supplied Hardware

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