

COMET-MCM

Autonomous Underwater Vehicle



LBL Communication



Mine Countermeasure Operations



Acoustic Imaging

Description

COMET-MCM is an operational, cost-adjusted, AUV designed to meet the needs of reconnaissance of large underwater areas in a limited time and with good accuracy by offering precise real-time positioning and an adapted sonar imaging capability.

Thanks to its acoustic communication system, the core business of RTSys, and Long Baseline (LBL) positioning algorithms, COMET-MCM is able to navigate for hours with a low positioning error. This provides the user with accurate positioning information of the field data acquired during the mission from its embedded Side Scan Sonar and camera.

COMET-MCM can operate alone or in a fleet with a working limit of 300 meters and a speed up to 10 knots.

Advantages

- Easy to deploy and recover
- Underwater Acoustic Communication in real time (Compatible with RTSYS range of products: SonaDive, NemoSens, UAFS, SCM)
- Limited redeployment effort, quick missions sequencing
- Sea State up to 4.

Payload & Options

- COMET LBL
- Side Scan Sonar Klein
- Video Low-Light HD Camera
- DVL
- OAS

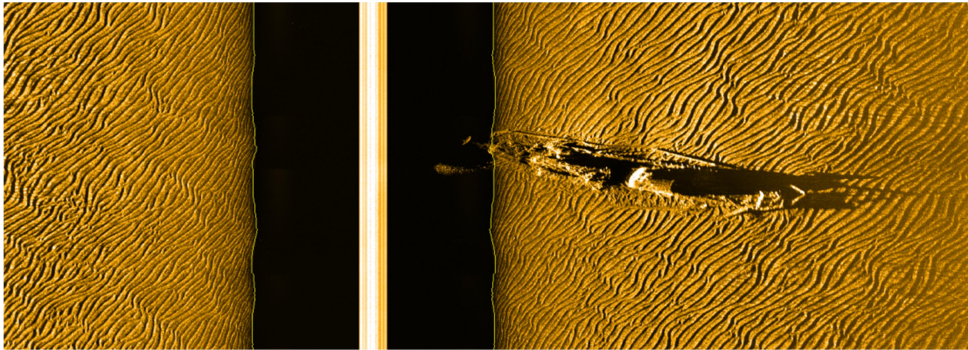
Hardware Supplies

- Waterproof Computer
- Geosys
- Recovery pike poles
- Transport case

Designed by and for the user

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

COMET-MCM can easily be recovered in case of weather conditions degradation or emergency thanks to adapted pike poles. Once on the surface COMET-MCM can be located by UHF link thanks to the GeoSys accessory.

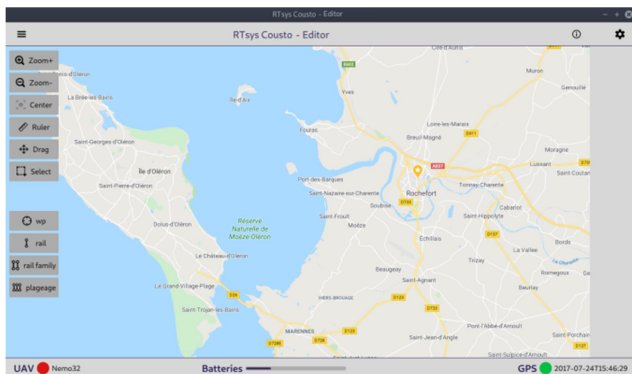


Video and Acoustic Camera

COMET-MCM is equipped with a Klein UUV-3500 side scan sonar operating at 455/900 kHz and a low-light HD camera. Both systems provide data, which can be geo-localized by post-processing, based on COMET-MCM navigation data.

Navigation & communication

COMET-MCM embeds a GPS, INS, DVL, OAS and a native modem. The COMET LBL protocol provides very accurate relative positions based on data redundancy depending directly on the available network (number of systems on the surface and underwater). Depending on the mission, the user shall adapt the network to his area and the positioning requirement. Recorded data are accessible by WIFI or Ethernet connection once COMET-MCM has surfaced.



Mission Programming

Mission programming is realized thanks to a proprietary RTSYS HMI compatible with the whole range. This HMI can be installed on a PC or a waterproof tablet (optional). It also allows the update and recovery of navigation elements. It finally can be used to retrieve data from on-board sensors and payloads such as the SSS and the video camera.

Characteristics

- Max Operational Depth: 300 m
- Speed : 10 kts
- Endurance :
 - Up to 20 hours at 3 kts
 - 7 hours at 7 kts
- Positioning :
COMET LBL + GPS + INS +DVL
- Operational Temperature : 0°C/+50°C

Dimensions

- Length : 1900 mm
- Hull Diameter : 150 mm
- Maximum Height : 332 mm
- Weight : 35 kg

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