

AUTONOMOUS UNDERWATER VEHICLE

Swarm operating mode



Description

COMET is a cost-effective operational AUV with real-time positioning and acoustic communication system, designed to meet the current needs of marine research and industry.

COMET can operate alone or in a network with surface buoys or vessel. It is also the first AUV able to operate in homogeneous swarm.

COMET AUV can work down to 250 m depth, regardless of currents, thanks to high-speed (>10 knots) capability.

COMET is the ideal solution for extensive area surveys as marine energy fields or protected areas monitoring, offshore resources detection or anti-mine warfare.

Applications

- Scanning in turbulent waters (Turbidity/salinity, Seabed scanning)
- Tracking and survey
- Passive acoustics and seismic surveys
- Rapid Environmental Assessment (REA)
- UXO / buried objects detection

Payloads & options

- COMET LBL
- Side scan sonar / bathymetry /
- Sub-bottom profiler
- Magnetometer

Characteristics Powered by SDA

- Portable & easy to deploy
- Extended autonomy
- High speed
- Swarm mode
- Accurate positioning & communication
- A full array of sensors: positioning, sonar, magnetometer, water parameters

- Length: 1.77 to 2.50 m
- Ø 150 mm / max height: 332 mm
- Weight: 27 to 50 kg
- Immersion: < 250 m - Speed > 10 kn
- Autonomy: Up to 20 hours
- Positioning: COMET LBL + GPS + INS + DVL
- Operating temperature: 5°C/+70°C
- IHO S-44 compliant

- **Portable & easy to deploy**

COMET AUV has been designed to be deployed from a small boat. Its weight and size make it easy to deploy and recover by one person.

- **Extended autonomy**

COMET can operate a full working day and up to 20 hours depending on sensors and speed.

- **High speed**

With high speed capacity, COMET can reach work area or be recovered quickly, e.g. in case of deteriorating weather conditions or emergencies. COMET can also handle strong currents.

- **Swarm mode**

Up to 6 COMET AUV can operate together in swarm mode. Able to communicate together when spaced by 1,5 km from each other, they can cover a wide underwater seabed area, thus generating extensive productivity gains.

- **Accurate navigation & communication**

COMET AUV comes with native RTK GPS, INS, plus DVL, PT and modem. Surface repositioning can be carried when needed.

Optional COMET LBL protocol provides very accurate relative position when used in network thanks to data redundancy and recalibration.

- **Embed a full array of sonar, magnetometer, navigation, camera, water parameters sensors**

Integrated sensors depending on applications range from SSS to magnetometer.

Pinger and strobe light for emergency recovery.



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