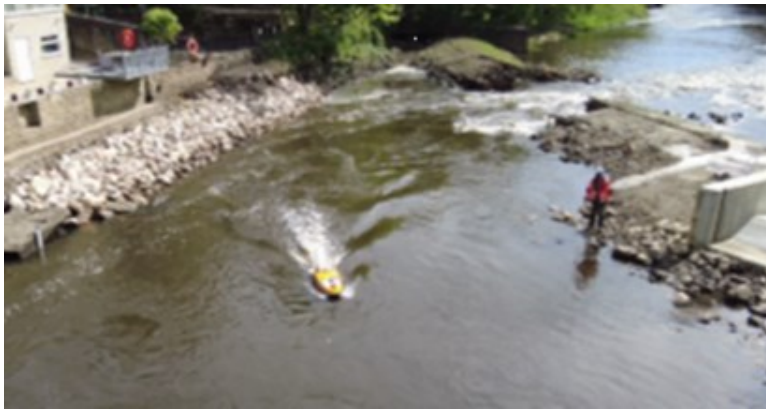
THURN Group

OceanAlpha SL40 Hydrography USV

A fully autonomous USV-carried survey and hydrography system for rapid low-logistics surveying in dams, rivers and coasts. Suitable for deployment in shallow and high speed waterways.



A fully autonomous USV-carried survey and hydrography system for rapid low-logistics surveying in dams, rivers and coasts. Suitable for deployment in shallow and high speed waterways.

The THURN Hydrographic System provides all the tools for your USV hydrography requirements. Supplied with your choice of side scan sonar, sound velocity sensor, multibeam and INS/Positioning system all of which come fully integrated.

The system was designed to enable remote surveys, keeping people out of the water and minimising risk. Thus, decreasing survey time and enabling surveys in previously inaccessible and dangerous waters. With easy to use, industry standard software options, this will help solve your hydrographic and survey safety problems. The software will track and display the position of the USV in real-time, with a real-time data feed option.

Benefits:

- Autonomous map-based survey plans, ensuring full repeatable coverage of larger areas
- Quick set up for survey operations
- Individualised incident projects
- Increased situational awareness and safety of operations

Applications:

- Ports, Harbours and Dredging
- Underwater Archaeology
- Sunken Timber Recovery
- Search & Recovery
- Surveying
- Law Enforcement Work
- Scientific Research
- Environmental Survey

Key Features

Self-contained integrated USV Profiler system. Can be supplied with an SL40 or fitted to an existing USV asset	Automated survey patterns enable sensitive change detection due to surveys being easily repeatable	Optional real time display of the data via radio link provides immediate feedback for the survey team to ensure that the entire area has been covered
Options for Kongsberg, Norbit or Geoswath multibeam sonars	All mission data is stored on embedded PC onboard USV to allow post-mission analysis of the survey	Reliably survey shallow and high speed waters

Technical Specification

Hull Material	Carbon fiber
Dimension	(L)160 cm *(W)70 cm *(H)40 cm
Weight	35 kg
Payload	15 kg
Draft	15 cm
Propulsion	Electric water-jet propeller
Communication Range	Autopilot: 2 km Remote Control: 1 km
Max. Speed	12 knots (6 m/s)
Battery Life	6 hours @1.5 m/s

Positioning options:

Ekinox-D

All-in-one INS/GNSS

Ekinox-D is an all-in-one Inertial Navigation System with integrated RTK GNSS receiver ideal for applications where space is critical.

This advanced INS/GNSSwith one or two antennas and provides orientation, heave, and centimeter-level position.

Ellipse-D

Dual Antenna RTK INS

Ellipse-D is the smallest Inertial Navigation System integrating a Dual-antenna, multi-band GNSS receiver, capable of delivering precise heading as well as centimeter level position accuracy in the most challenging GNSS conditions. It provides attitude, heading, heave as well as navigation outputs.

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