

ECHBOAT-240:

USV FOR HYDROGRAPHIC SURVEY APPLICATIONS

Unmanned Surface Vessels



The EchoBoat-240™ is an uncrewed surface vehicle developed for hydrographic survey applications requiring the highest-resolution sensor suite available. With the new EchoBoat-240 platform, the user no longer has to sacrifice performance to meet payload capacity. This is a highly mobile survey platform featuring; multi-payload capacity, both manual and autonomous control, and interchangeable sensor suites.

While underway, the vehicle can be monitored within line-of-sight range, with over-the-horizon monitoring possible when running additional hardware. All data is stored via an onboard PC with a direct cable connection. Full equipment control and data acquisition is accomplished with a remote data link.

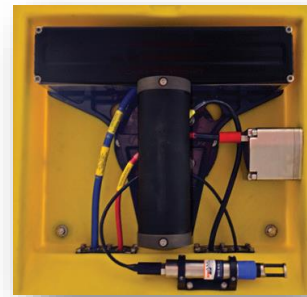
Switching from autonomous to remote control on the survey boat is easy using a long-range remote-control unit (RCU) that offers up to 2km range, with a survey endurance of up to 8 hours on a single charge.

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For professional hydrographic survey requirements, the EchoBoat-240™ may be tailored to individual customer requirements. The boat may be purchased with the desired sensor payload pre-installed or supplied ready to accept existing equipment from the user's survey equipment pool. Similarly, customized cabling can be included allowing the boat to accept existing GPS, GNSS and RTK positioning systems.



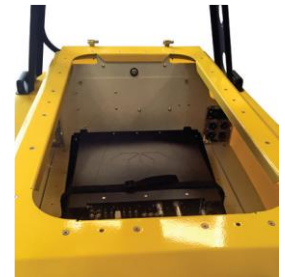
Teledyne Reson T50

For a turnkey survey-grade system, the EchoBoat-240™ can be outfitted with singlebeam, multibeam, and side scan sonar systems.

The EchoBoat-240™ is compatible with hydrographic data acquisition software Such as Hypack, PDS2000, EIVA and QINSy.



Twin Servo Thruster



Internal Deck

Instrumentation Options



R2 Sonic 2024

Sonar Modules

- Multibeam Echosounder
- Singlebeam Echosounder
- ADCP/DVL
- Side Scan Sonar
- Subbottom Profiler
- Magnetometer

Auxiliary Sensors

- Sound Velocimeter
- Sound Velocity Profiler/CTD
- WiFi Remote Desktop
- HD Thermal Camera
- Remote SVP Winch
- LiDAR

GPS/GNSS

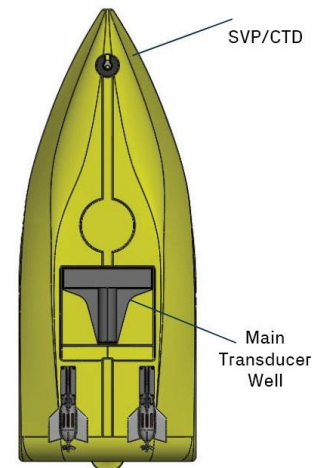
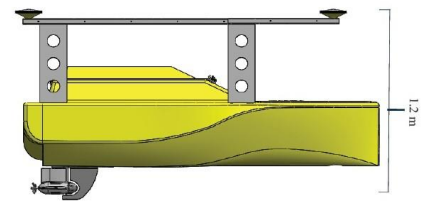
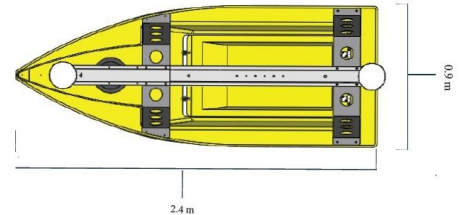
- RTK/GNSS
- DGPS
- INS

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Specifications

Typical survey speed	2 knots
Top speed	4 knots
Hull length	2.4 m
Hull width	0.9 m
Battery endurance	Up to 8 hours
Payload	90.7 kg / 200 lbs
Power	25.2 VDC
Motor	2x Brushless DC Outdrive
Hull material	UV resistant HDPE
Empty hull weight and batteries	158.75 kg / 350 lbs
Transducer wells	Main, SVP
Hardware	Stainless steel
R/C	2.4 GHz/900MHz Long Range RCU (US) 2.4 GHz/868MHz Long Range RCU(EU)
Remote Control Range	Up to 2 km
GPS	Customer specified
Communications	2.4 GHz UHF Telemetry



Additional Features

- 2 x 25.2 VDC auxiliary power sockets
- Internal power switches
- Intelligent power supply with protected power management
- Wave piercing displacement hull design
- Independant activated thrusters
- Non-corrosive, rugged HDPE hull constructions
- Isolated battery compartment
- Configurable cargo deck
- Integral industrial PC, WiFi and/or 4G communication