

Seafloor™ datasheet

EchoBoat™ Unmanned Surface Vehicle

The EchoBoat™ is an unmanned surface vehicle developed for hydrographic survey applications. This is a highly portable survey platform featuring; multi-payload capacity, both manual and autonomous control, and swapable 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 QA/QC is accomplished with a remote data link.

- ▶ *Remote Controlled or Autonomous*
- ▶ *Custom instrumentation to client's requirements*
- ▶ *Easily switch to remote operation*
- ▶ *Access to remote areas*
- ▶ *Turnkey operation*

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 over eight hours on a single battery bank.



EchoBoat™ RCV with WiFi Antenna

For professional hydrographic survey requirements, the EchoBoat™ may be tailored to individual customer requirements. The boat may be purchased with the desired depth sounder pre-installed, or supplied ready to accept existing equipment from the user's survey pool. Similarly, customized cabling can be included allowing the boat to accept existing GPS, GNSS and RTK positioning systems. For a turnkey survey-grade system, the EchoBoat™ can be outfitted with singlebeam, multibeam and side scan sonar systems.

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



Lightweight and 2-man portable



Powerful differential thrusters for maneuverability



PicoMBES-120SF

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Specifications

Typical Survey Speed.....	2/3 kn
Top Speed.....	5 kn
Hull Length.....	1.68 m
Hull Width.....	0.8 m
Battery Endurance.....	Up to 8 hours
Payload.....	88 lbs / 40 kg
Power.....	12-24 VAC
Motor.....	2x Brushless DC Outdrive
Hull Material.....	UV Resistant HDPE
Empty Hull Weight & Batteries.....	23 kg/ 36 lbs
Hardware.....	Stainless Steel
R/C.....	2.4 GHz Long Range RCU
Remote Range.....	Up to 2 km optional or direct connection
GPS.....	Customer Specified
Communications.....	2.4 GHz UHF Telemetry

Instrumentation Options

Sonar Modules

- Multibeam Echosounder*
- Singlebeam Echosounder*
- ADCP*
- Side Scan Sonar*
- Subbottom Profiler*
- Magnetometer*

GPS/GNSS

- RTK/GNSS*
- DGPS*
- INS*

Auxiliary Sensors

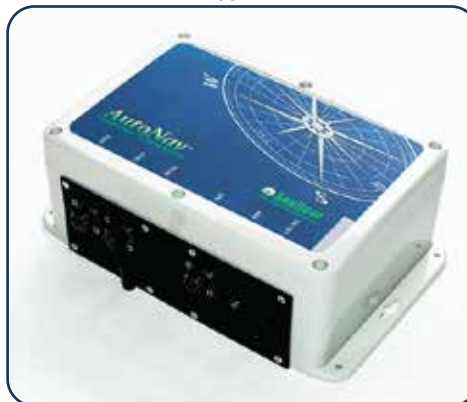
- Sound Velocimeter*
- Velocity Profiler / CTD*
- Wi-Fi Remote Desktop*
- HD Thermal Camera*
- Remote SV Winch*
- LiDAR*

EchoBoat™

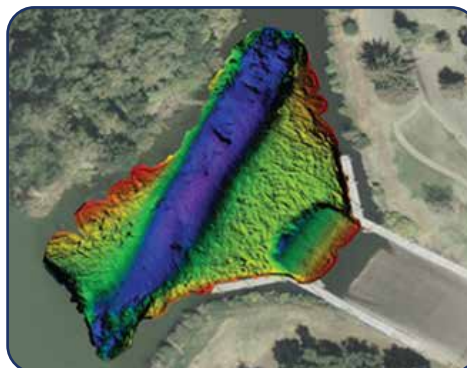
Unmanned Surface Vehicle



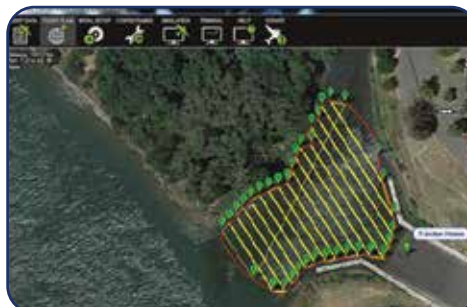
R2 Sonic MultiBeam, Applanix POS MV Surfmaster



AutoNav™ Control System



Survey data collected through HyPack.



Mission Planner showing preplanned survey.

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