

Seafloor™ datasheet

EchoBoat™ Unmanned Surface Vehicle

The EchoBoat™ is a surface vehicle developed for hydrographic survey applications. This is a multi-payload, remotely controlled and autonomously controlled survey platform featuring portability, improved thrust, and large payload capacity.

The vehicle can be monitored while under way, in both Auto and Manual modes, while within line-of-sight range. The mission planner runs on a base station laptop, connected through a radio telemetry link, and displays the vehicles graphical positioning and progress against a background map of the survey area. Battery voltage, current and capacity remaining is monitored via this 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 high-power remote control system that offers up to 2km range, with a survey endurance of over eight miles on a single battery back.



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 and QINSy.



Lightweight and 2-man portable



Powerful differential thrusters for maneuverability



R2 Sonic Multibeam, Applanix POS MV Surfmaster and industrial PC

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Specifications

Typical Survey Speed.....	1-2 ft/s
Top Speed.....	6 ft/s
Hull Length.....	168 cm / 66.14 in
Hull Width.....	79 cm / 31.1 in
Battery Endurance.....	7-8 hours
Payload.....	65 lbs / 29 kg
Power.....	12-24 VAC
Motor.....	Brushless DC Outdrive
Hull Material.....	UV Resistant HDPE
Empty Hull Weight & Batteries.....	23 kg/ 36 lbs
Hardware.....	Stainless Steel
R/C.....	Futaba® 2.4 GHz long range
Remote Range.....	Up to 2 km
GPS.....	Customer Specified
Communications.....	2.4 GHz UHF Telemetry

Instrumentation Options

Sonar Module *Multibeam Echosounder*
 Singlebeam Echosounder
 ADCP
 Side Scan Sonar

GPS *RTK/GNSS*
 DGPS

Auxiliary Sensors *Sound Velocimeter Sound*
 Velocity Profiler CTD
 Wi-Fi Remote Desktop

Seafloor Systems, Incorporated

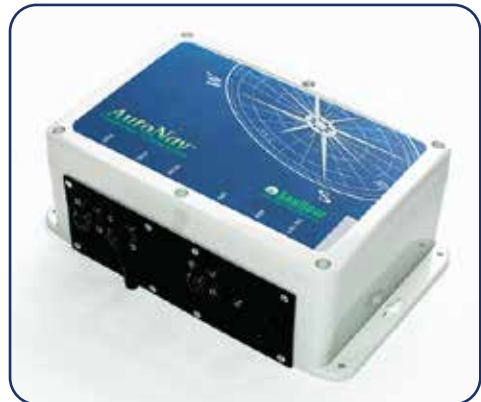
4415 Commodity Way | Shingle Springs, CA 95682 | USA

530-677-1019 | info@seafloorsystems.com | www.seafloorsystems.com

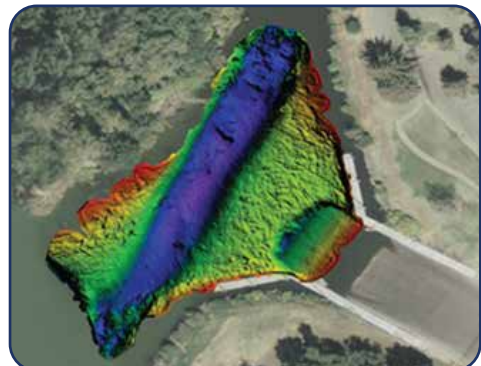
EchoBoat™ Unmanned Surface Vehicle



Multibeam Sonar on EchoBoat™



AutoNav™ Control System



Survey data collected through Mission Planner on PC laptop



Mission Planner Installed on a PC laptop showing preplanned survey