



# CODEVINTEC

Tecnologie per le Scienze della Terra e del Mare

45° 27' 39.384" N  
9° 07' 30.145" E

## EchoBoat-ASV™ Autonomous Surface Vehicle

EchoBoat-ASV™ with multi-beam sonar and integrated INS/IMU



**The EchoBoat-ASV™ is an autonomous surface vehicle developed for hydrographic survey applications.**

This is a multi-payload, remotely 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 application runs on a base station laptop, connected

through a radio telemetry link, and displays the vehicle's graphical positioning and progress against a background map of the survey area. Battery voltage remaining is monitored via this link.

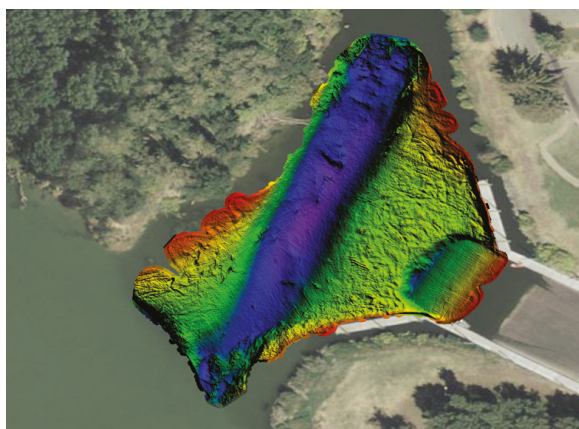
### Features

- > Custom instrumentation to client requirement
- > Easily switch to remote operation
- > Access to remote areas
- > Turnkey operation

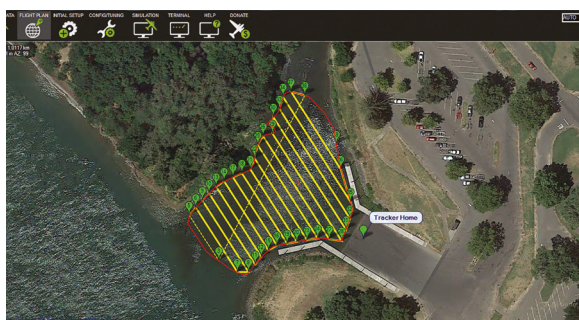


Switching from autonomous to remote control of the survey boat is easy using a high-power remote control system that offers up to 2 km range, with a survey endurance of over eight miles on a single battery pack.

For professional hydrographic survey requirements, the EchoBoat-ASV™ may be specified 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 surveygrade system, the EchoBoat™ is can be outfitted with single-beam, multibeam, and side scan sonar systems. The EchoBoat-ASV™ boat is compatible with hydrographic data acquisition software such as HYPACK, PDS2000, and QINSY.



Multibeam survey map latitude and dynamics



Mission planner application

## Vehicle specifications

Typical survey speed	3 kts 1.5 m/s
Top speed	8 kts 5 m/s
Hull length	168 cm 66.14 in
Hull width	79 cm 31.10 in
Payload	85 lbs 38.5 kg
power	14 - 26 VAC
Battery endurance–survey speed	8 -12 hrs at 27 km approximately
Motor	2x brushless thruster
hull material	UV resistant HDPE
Hull weight (empty)	23 kg 46 lbs
Hardware	stainless steel
r/c control	Futaba 2.4GHz controller
Remote antenna	Omni Directional
Remote range	2,000 m
Gps	Customer specified
Communications	2.4 GHz UHF telemetry
Depth sounder transducer	through hull mount

## Instrumentation

<b>Sonar modules</b>	Multibeam echosounder
	Singlebeam echosounder
	ADCP
	Side scan sonar
<b>Gps</b>	RTK/GNSS
	DGPS
<b>Auxiliary sensors</b>	Sound velocimeter
	Sound velocity profiler
<b>CTD</b>	Wi-fi remote desktop



AutoNav™ Control System