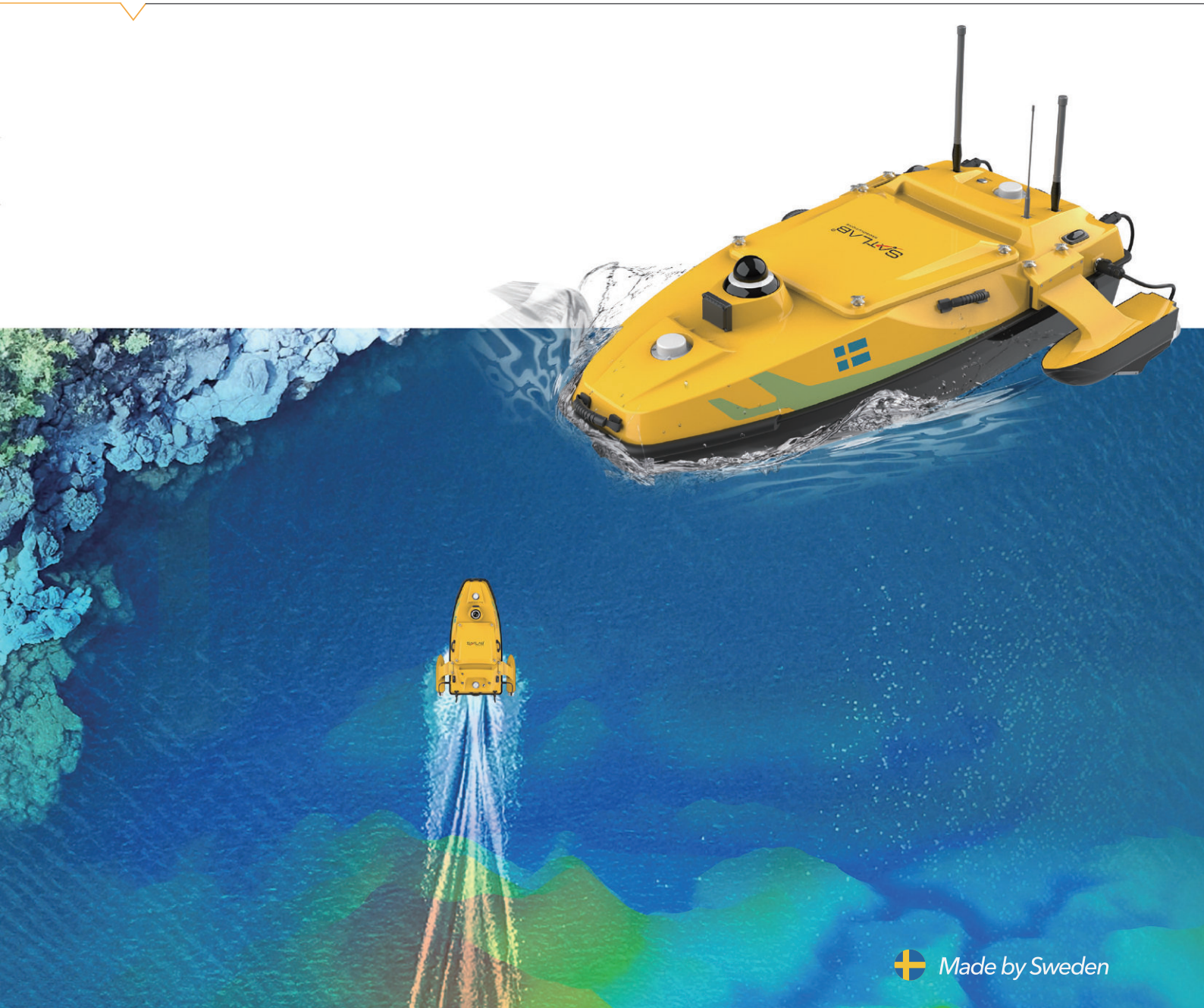
SATLAB GEOSOLUTIONS

HydroBoat 1500

Multibeam USV



The HydroBoat 1500 is a versatile, intelligent USV that can perform underwater topographic surveys of lakes, rivers, and reservoirs by carrying the HydroBeam M4 Portable Multibeam Echo Sounder system. Equipped with a high-precision GNSS receiver and IMU for position and orientation, the HydroBoat 1500 ensures sub-meter accuracy even when satellite signals are blocked. It features a lightweight and robust hull with IP67-waterproof, as well as four powerful thrusters on the sides that enhance mobility and flexibility, allowing it to easily adapt to diverse aquatic environments and efficiently complete underwater terrain surveys.

Exceptional Payload Capacity

Accommodates up to 60 kg of payloads with a through-hull design to adapt to various surveying tasks.

Intuitive Android Control

Simplify operations with the user-friendly SLHydro USV software, featuring route planning, boat control, and status monitoring features.



Unlimited Range Transmission

Experiences 4G and 2.4G dual-channel control and communication for limitless reach and real-time data collection, even from the office.

Uncompromising Safety

Navigate with confidence thanks to a 360° omnidirectional camera, millimeter wave radar, double-layer anti-sink hull, and shallow water hovering capabilities.

Payload Options



SBES



HydroBeam M4 MBES



Norbit iWBMS



Ping DSP

Applications with Multibeam Echosounder



G20 Remote Control Parameters			
Display	7 inch industrial touch screen + vision viewable screen	Resolution	1920*1200
Processor	Qualcomm 6nm processor	Computer Type	Android 13
Size	277(L)*138(W)*96(H)mm	Weight	1.2kg
Battery	20000mA/H	Endurance	6~8hours
Operating Memory	8G	System Storage Memory	128G
Operating Frequency Band	2.4G/5.8G	Channels Number	16
Dynamic FM	Automatic frequency hopping	RF Power	23dBm@CE/FCC
Remote Control Distance	5-30KM(ground-to-air, visual)	Operating Temperature	-10°C~55°C
Charging Interface	TYPE-C	External Interface	USB port, SIM card slot, TYPE-C

Specification

Vehicle Specifications	
Hull dimension (L × W × H)	Monohull: 1528*694*494 mm, Trimaran: 1528*1034*494 mm
Weight	40 kg (without battery)
Max Load	60kg
Material	Carbon fiber, rubber bumper
Anti-wave & Wind	4th wind level & 3rd wave level
IP Rating	IP67
Indicator light	Two-color light
Camera	360° omnidirectional video
Anticollision sensor	Detection distance 10-30 meters
Propeller	4*Brushless Propeller
Direction control	Veering without steering engine
Maximum speed	5.7m/s
Battery endurance	Two batteries 4.5h with 1.5m/s, total 6 batteries
Maneuver **Safety and emergency capability**	Full Manual and Automatic Obstacle avoidance, home return for lost signal and low battery
Controller	
System	Supporting Windows and Android System
Software	SLHydro USV
Control range	2km on 2.4GHz(RF); Unlimited on 4G
GNSS Performance	
Satellite system	GPS, BDS, GLONASS, Galieo
GNSS Differential Types	Radio (UHF); network; controller differential; PPP
RTK Positioning accuracy	H: ±8mm + 1 ppm RMS V: ±15mm + 1 ppm RMS
Heading accuracy	0.2° @1 m baseline
INS accuracy	2.1°/h, <1m/20s
Refresh Rate	200Hz
Software	
SLHydro USV (Android controller)	Mission planning, Vessel Monitoring
	Coordinate conversion
	Bathymetric data acquisition
	Bathymetric data download
Expandable Sensors	
	Multi Beam Echo Sounder
	Single Beam Echo Sounder
	PING DSP

SATLAB GEOSOLUTIONS

Headquarters:
Geosolution i Göteborg AB
Stora Åvägen 21, 436 34 ASKIM,
Sweden

Regional Offices:
Warsaw, Poland
Jičín, Czech Republic
Ankara, Turkey
Scottsdale, USA
Singapore
Hong Kong, China
Dubai, UAE

www.satlab.com.se