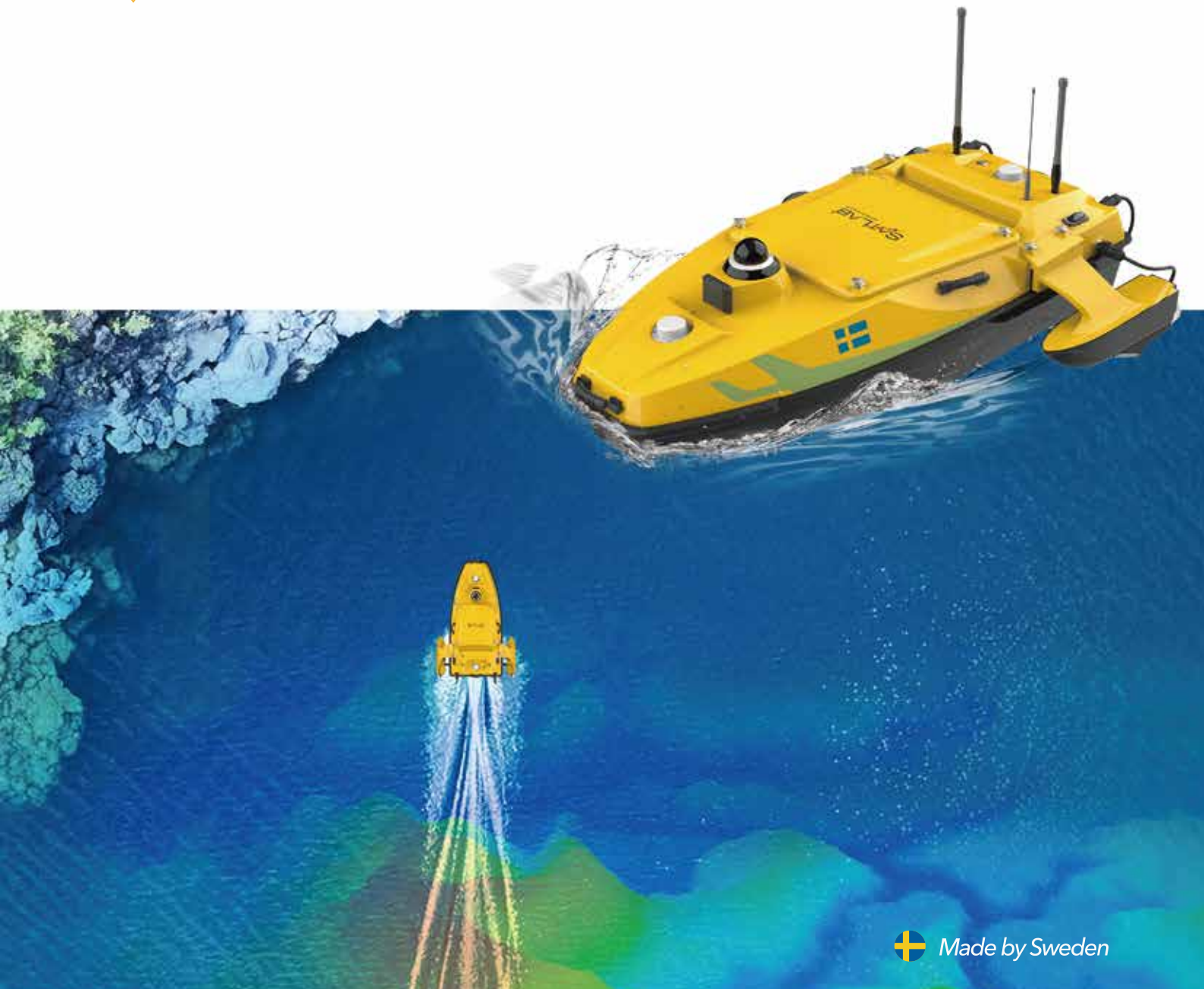


# HydroBoat 1500

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 light-weight 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 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.



Dual-Frequency Echo Sounder



Multibeam Echo Sounder



Side Scan Sonar

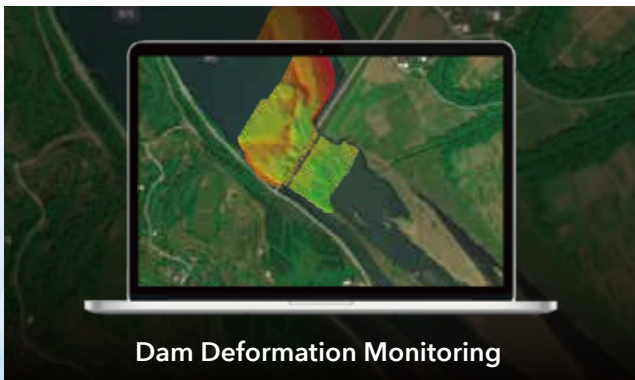
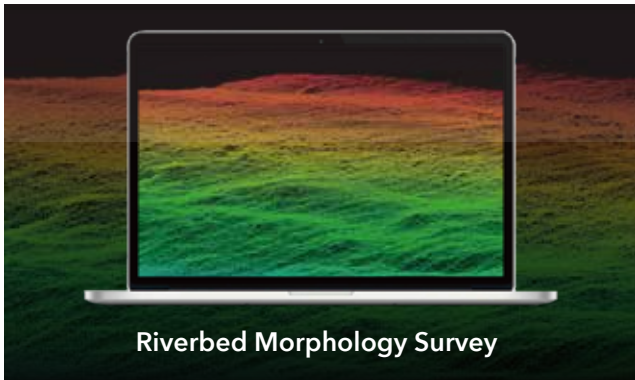


PingDSP



ADCP

# Applications with Multibeam Echosounder



# Specification

## Vehicle Specifications

Hull dimension (L x W x H)	Monohull: 1528*694*494 mm, Trimaran: 1528*1034*494 mm
Weight	40kg(No Battery)
Max Load	60kg
Material	Carbon ber, Rubber Bumper
Anti-wave & Wind	4th Wind Level & 3rd Wave Level
Waterproof	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 1.5 m/s, total 6 batteries
Communication mode	RF (Radio Frequency) / UHF (Ultra High Frequency)
Safety & emergency features	Obstacle avoidance, auto return on signal loss or low battery

## Controller

System	Android System
Software	SLHydro USV
Maneuverability	Fully Manual & Automatic
Control range	2km on 2.4GHz; Unlimited on 4G

## GNSS Performance

Satellite system	GPS, BDS, GLONASS, Galileo
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	Mission planning, Vessel Monitoring
	Coordinate conversion
	Bathymetric data acquisition
	Bathymetric data download

## Expandable Sensors

Multi Beam Echo Sounder
Acoustic Doppler Current Profiler
Single Beam Echo Sounder
Side-scan Sonar
Multi-parameter Water Quality Meter



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