



# LIGHTFISH ENVIRONMENTAL

LOW-COST, VERSATILE AUTONOMOUS  
PLATFORMS FOR MARITIME DATA COLLECTION

The Lightfish is Seasats' flagship persistent autonomous surface vehicle (ASV). Its ease of use and endurance make it a dependable tool for collecting ocean data in littoral areas, remote open ocean, and everywhere in between.

The Lightfish can be launched and recovered in minutes, acting alone or in constellations to gather water samples, monitor marine mammals, collect offshore weather data, predict harmful algal blooms, and more. These ASVs have been proven in operations with the University of Washington, Navy Special Warfare, and other customers around the world.

## PERSISTENT

SOLAR PANELS AND ONBOARD GENERATOR PROVIDE MULTI-MONTH NONSTOP ENDURANCE, ENABLING CONSISTENT, LONG-RANGE MISSIONS.

## OCEAN- PROVEN

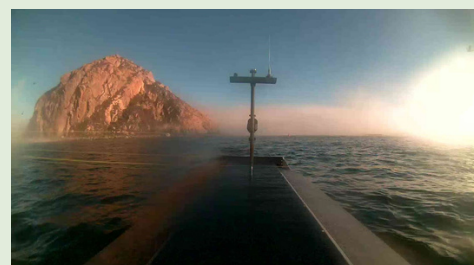
RUGGEDIZED, SELF-RIGHTING PLATFORM CAN OPERATE IN TYPICAL SEA STATES AND THROUGH STORMS. REDUNDANT COMMS FOR GLOBAL RELIABILITY.

## PORTABLE

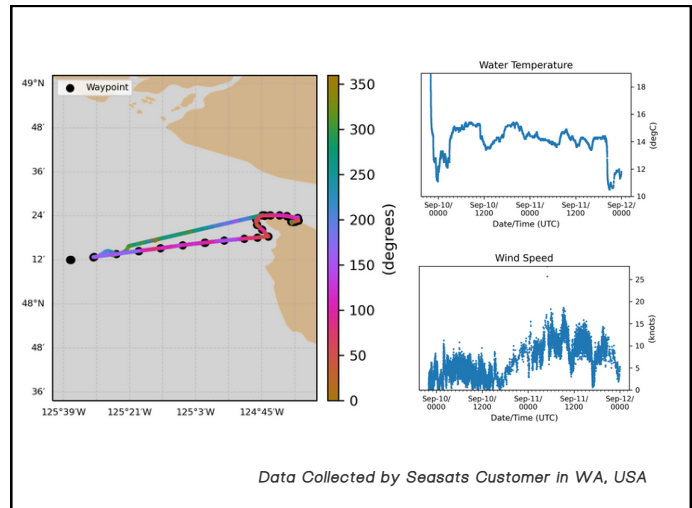
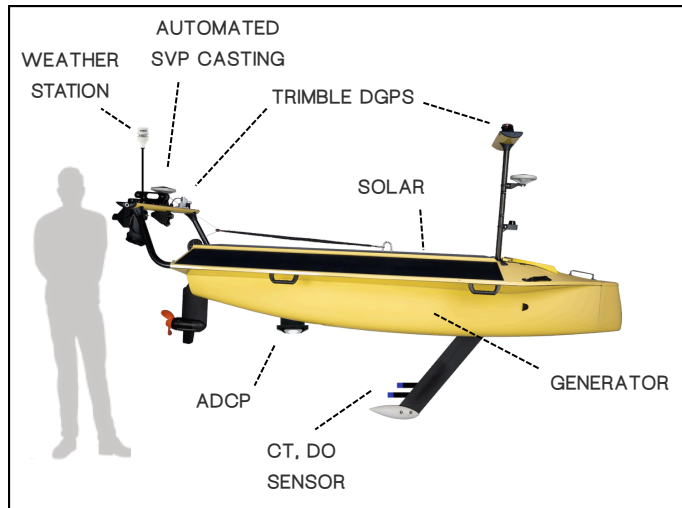
MAN-PORTABLE PLATFORM CAN BE LAUNCHED DIRECTLY FROM BEACH, RAMP, OR PIER. NO ITAR EXPORT RESTRICTIONS.

## MODULAR

MODULAR OPEN SYSTEM ARCHITECTURE INTEROPERABLE WITH VARIOUS SENSOR AND C2 SYSTEMS



# TECHNICAL SPECIFICATIONS



LIGHTFISH SPECS	
LENGTH & WIDTH	11.4FT x 3.4 ft (3.5m x 1m)
DRAFT	2.6 ft (0.79m)
WEIGHT	360lb (163kg) fully loaded
HULL	Composite hull with retractable keel
SPEED	4.0 kts sprint; 2.0 kts cruise
ENDURANCE   RANGE	6 months
SEA STATES	Operable to sea state 6+

ENVIRONMENTAL CONFIGURATION PAYLOADS	
DUAL-ANTENNA GNSS	Trimble RTX
COMMUNICATIONS	Cell, Iridium, Starlink
PROFILING WINCH	Automated casts up to 500m depth
ADCP	Nortek VM500
WEATHER STATION	Airmar 200WX
CONDUCTIVITY AND DO	Aanderaa
SOUND VELOCITY PROFILER	Winch-deployed Valeport SVP

Standard environmental configuration - Inquire for additional options

NAVIGATION AND SENSING	
STANDARD SENSORS	5X onboard HD camera, GNSS/GPS, IMU, compass, 2D LiDAR, AIS send/receive, tricolor navigation light
COLLISION AVOIDANCE	Automated AIS sense and avoid plus LiDAR object detection
POSITIONING	Dual-antenna GNSS with Trimble RTX

ENERGY	
BATTERIES	4.0 kWh; Lithium Ion
SOLAR PANELS	415 W Nominal Power Output
ONBOARD GENERATOR	100W Output; 11kWh or 28 kWh Capacity

CONTROLS	
SEASATS CONTROL SUITE	Waypoint-Based Missions, RC Control, Direct Heading/Throttle Control

PRACTICAL	<ul style="list-style-type: none"> <li>INTUITIVE CONTROLS</li> <li>COTS BACKBONE</li> <li>SIMPLE MAINTENANCE</li> <li>3 DAY TRAINING</li> </ul>
SCALABLE	<ul style="list-style-type: none"> <li>COST EFFECTIVE</li> <li>MINIMAL OPERATIONAL OVERHEAD</li> <li>CUSTOMIZABLE FOR DIVERSE MISSIONS</li> </ul>
TRANSPORTABLE	<ul style="list-style-type: none"> <li>TRANSPORTABLE WITH PICKUP TRUCK &amp; 1-2 PEOPLE.</li> <li>GROUND/AIR/SEA SHIPPABLE</li> </ul>
RELIABLE & SAFE	<ul style="list-style-type: none"> <li>AIS BROADCAST, RECEIVE, AND AUTOMATED AVOID; LiDAR OBJECT DETECTION AND AVOIDANCE; NAVIGATION LIGHT; INDEPENDENT BACKUP TRACKER</li> </ul>
EASY TO USE	<ul style="list-style-type: none"> <li>BROWSER-BASED AND LAPTOP/TABLET/PHONE COMPATIBLE; SIMPLE GO-HERE COMMANDS, PAYLOAD CONFIGURABILITY, AND ADVANCED MISSION PLANNING</li> </ul>

