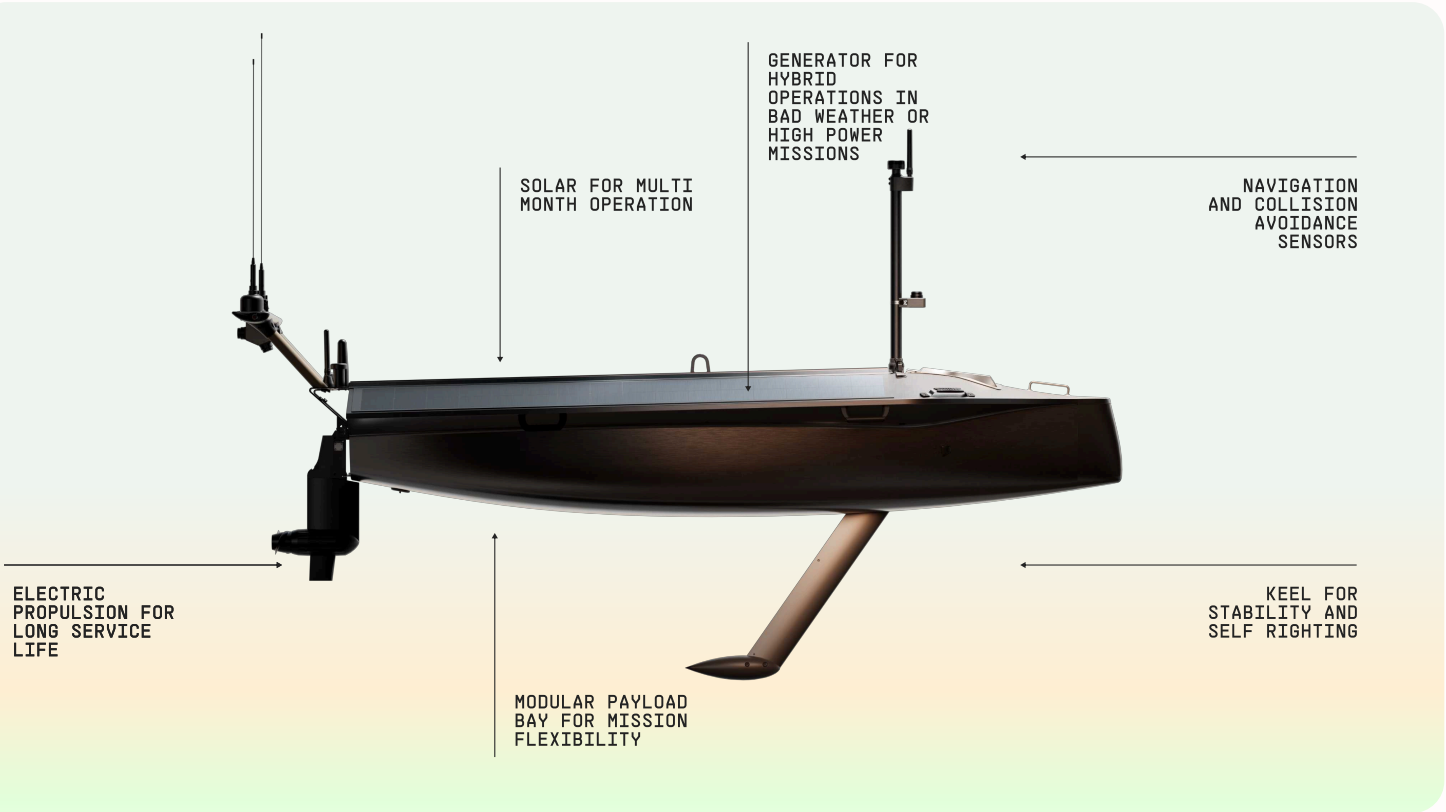
SEASATS

info@seasats.com
seasats.com

Lightfish Base Model

Our flagship autonomous vessel. Light. Simple. Modular. Extremely effective. A satellite at sea for gathering vast ocean intelligence without the cost or complexity of a crewed expedition.



Persistent

Up to 6 months. Solar electric with hybrid reserve.

Portable

Fits in a pickup truck. Deployable by hand.

Modular

Payloads swapped in minutes. C2 interoperable.

Rugged

Operational in sea state 6 conditions.

Affordable

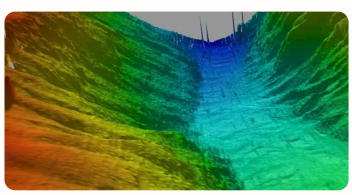
Designed affordable for deployment at scale.

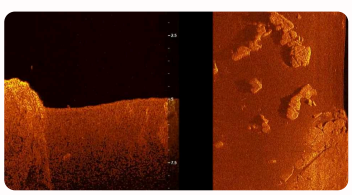
Simple

Intuitive Operations. 2 Days of Training.

The vessel, in brief

Lightfish offers range and resilience—six months, 8,000 nautical miles—on solar-electric power with hybrid reserve. Rugged and self-righting, it operates in seas up to state 6, with collision avoidance, GPS-denied navigation, and redundant comms for global reach. Most payloads bolt on and plug in in minutes. Portable enough to launch by hand. Simple enough to be used by anyone.





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Technical Specifications

Additional Options Available

The base model is outfitted with standard sensing, navigation and comms: 5 HD cameras, Iridium and Starlink communications, onboard AI for edge processing and target classification. Built modular for easy maintenance and customization. All vessels are controlled with an intuitive UI allowing users to plan, monitor, and update complex missions in real time. Rapidly integrates with existing command and control architectures.

Size and Weight

LENGTH AND WIDTH	11.4 FT X 3.4 FT (3.5 M X 1 M)
DRAFT	2.6 FT (0.79 M)
WEIGHT	305 LB (138 KG). LIFTING HARDPOINT AT CG.
HULL	COMPOSITE HULL WITH RETRACTABLE KEEL FOR TRANSPORTATION/STORAGE.
SPEED	5 KTS SPRINT; 2 KTS CRUISE
RANGE	UP TO 6 MONTHS; 8000+ NM
SEA STATE	FULLY SELF-RIGHTING; OPERATIONAL TO BEAUFORT 6+ (12 FT WAVES)

Energy

SOLAR & BATTERY	415 W NOMINAL PANEL CAPACITY; 4KWH LI-ION BATTERY
SUPPLEMENTAL FUEL CELL	BUILT IN METHANOL FUEL CELL PROVIDES SUPPLEMENTAL 11KWH OR 28KWH ADDITIONAL ENERGY

Propulsion

ELECTRIC DRIVE	TORQEEDO 1103 WITH WEEDLESS PROP. COMPARABLE TO 3HP OUTBOARD.

Communications

STANDARD	LTE, IRIDIUM SBD, IRIDIUM CERTUS
OPTIONAL ADD-ONS:	MANET RADIOS

Navigation and Sensing

STANDARD SENSORS	5X ONBOARD HD CAMERAS, GNSS/GPS, IMU, COMPASS, 2D LIDAR, AIS SEND/RECEIVE, TRICOLOR NAVIGATION LIGHT.
COLLISION AVOIDANCE	AUTOMATED AIS SENSE AND AVOID PLUS LIDAR OBJECT DETECTION

Onboard Computing

VEHICLE COMPUTE STACK	SEASATS COMPUTE UNIT GOVERNS MISSION NAVIGATION, IMAGE PROCESSING, AND COLLISION AVOIDANCE.

Payload Placement Options

PAYLOAD CONNECTIONS	4X PHYSICAL CONNECTION PORTS SUPPORTING RS232, RS485, AND ETHERNET.
PAYLOAD POWER	5-28V CONFIGURABLE; 20-30W STEADY STATE; BURSTS TO 300+ W
DEFAULT MOUNTING POINTS	INTERNAL BAY (4,700 IN3, UP TO 66 LB), FORWARD MAST, REAR MAST

Software

SEASATS OPERATING SYSTEM	BROWSER-BASED, MOSA-COMPLIANT CONTROL SUITE. ANNUAL AND PERPETUAL LICENSES AVAILABLE; CUSTOMER-HOSTED INSTANCE OF CONTROL SUITE ALSO AVAILABLE.
SOFTWARE DEVELOPER KIT / ICD	APIS FOR PAYLOADS, BACKSEAT DRIVERS, AND 3RD PARTY COMMAND AND CONTROL

Auxiliary Gear

TABLET	WATERPROOF AND RUGGEDIZED FOR FIELD USE.
REMOTE CONTROL	INTUITIVE JOYSTICK CONTROLLER FOR EASE OF LAUNCH AND RECOVERY
LIGHTFISH DOLLY	SUITABLE FOR TRANSPORTING LIGHTFISH AND LAUNCHING FROM BOAT RAMPS. LEGS ADJUSTABLE FOR EASY PAYLOAD ACCESS AND REMOVEABLE FOR TRANSPORT IN PICKUP TRUCK, VAN, OR CRATE.
SPARES	INCLUDES VEHICLE KEY, FORWARD MAST LOWER TUBE, MOTOR POD, SPARE PROPELLER, BILGE PUMP, RUDDER SERVO, FIBERGLASS REPAIR SUPPLIES, AND SOLAR DECK FASTENERS.
GENERATOR FUEL	TWO (2) 10-LITER FUEL CARTRIDGES

Take action

Make contact. Plan your mission. Know the unknown.

San Diego, California
info@seasats.com