LIGHTFISH
SECURITY

High-endurance, low-logistics platforms for maritime domain awareness.

Persistent — Multi-month endurance enables 24/7 maritime domain awareness around borders, ports, and offshore infrastructure.

Ocean-Proven — Ruggedized and self-righting, with operations demonstrated to Sea State 6+. 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 for rapid hardware/software integrations. Interoperable with various C2 systems.

TECHNICAL SPECIFICATIONS
Additional Options Available

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	367 lbs (166 kg). Lifting hardpoint at CG.
Hull	Composite hull with retractable keel for transportation/storage.
Speed	4.5 kts sprint; 2 kts cruise
Range	Up to 6 months; 6000+ nm
Sea State	Fully self-righting; operational to Beaufort 6+ (12 ft waves)

Security Configuration Payloads

Radar	Furuno DRS2D-NXT
EO/IR Camera	Marinized panning camera with visual and FLIR BOSON IR cameras
High-Bandwidth Communications	Starlink Mini

Energy

Solar & Battery	415 W nominal panel capacity; 4kWh Li-ion battery
Supplemental Fuel Cell	Built in methanol fuel cell provides ~100W boost on demand

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. Linux OS.

Payload Placement Options

Payload Connections	Three (3) 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	Documentation for operating payloads via the Lightfish's systems. APIs for backseat drivers and 3rd-party command and control.

Auxiliary Gear

Tablet	Dell Latitude 7230, 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.
Spare Parts Kit	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

seasats