SeaTrac

The Next Wave of Uncrewed Surface Vehicles

SeaTrac SP-48: Data Collection and Communications USV

The SeaTrac SP-48 is a persistent Uncrewed Surface Vehicle (USV) used to efficiently, safely and cost effectively perform real-time data collection and communications in all marine environments. Powered by solar energy with a large payload capacity and power, the platform enables the use of best-in-class combinations of payloads including high-powered sensors during any one mission. The sensor agnostic, low logistics SP-48 is self-righting and can autonomously operate continuously over long durations reducing the risk and costs for marine data collection over conventional methods.

Features

- Self-righting keel
- Over the horizon operations
- Automated collision avoidance
- Low logistics - easy to deploy and recover
- Large payload and power capacity – supports power hungry sensors
- Long endurance with around the clock 24 hours continuous operation

Applications

- Hydrography
- Communications Gateway
- Data Harvesting
- Environmental Monitoring
- Mobile Subsea Positioning
- Maritime Domain Awareness
- Metocean and Oceanographic Data Collection

SeaTrac SP-48: Technical Specifications

SeaTrac ▶

[55in] 1392mm
[190in] 4835mm

WL
[17in] 426mm
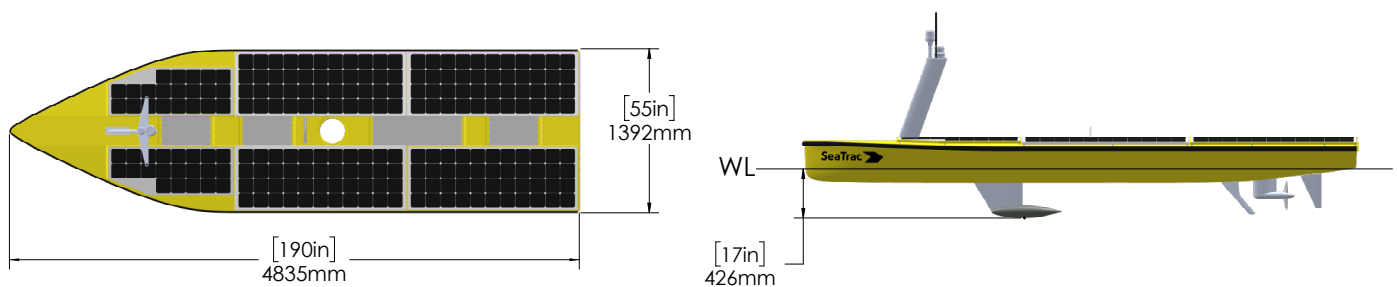
PHYSICAL

Length	4.8 m (15.9 ft)
Width	139 cm (4.6 ft)
Draft	42 cm (1.4 ft)
Empty weight	275 kg (606 lb)
Payload capacity	70 kg (154 lb)

SOFTWARE

SeaTrac Control

SeaTrac Dashboard

SeaTrac PilotView*

PAYLOADS

ADCP

Environmental Samplers

Fisheries & Aquatic Habitat Echosounders

Water Quality Sondes

Oceanographic Sensors

Meteorological Sensors

Custom Radios

USBL

LBL

Lidar

Multibeam Sonar

Side Scan Sonar

Acoustic Modems

Hydrophone/Hydrophone Arrays

Inertial Navigation System

Camera

Echosounders

Radar

Custom Sensors and Others...

TECHNICAL SPECIFICATION

Propulsion	1000 W Brushless Motor
Battery	Lithium 6.75 kWh
Payload power	Up to 500 W
Solar generation	750 W @ 1 kW/m² Solar Irradiation
Speed	Up to 5 knots
Endurance	Months
Sea State - function	Up to Beaufort 7
Sea State - survive	Beaufort 11
Communications	Satellite/Cellular/Radio/Wi-Fi
Live user feed	Relay service through data server
Data server	Local/cloud database
Collision avoidance	AIS, visible running lights, 360º Camera System
Control	Manual, supervised autonomy, full autonomy
Vision System*	360° HD Cameras with SeaTrac PilotView software
Payload Computing & Telemetry*	Application computer & network for payload control, data storage and remote access
Instrumentation	Apparent wind speed and direction
	Air temperature and pressure
	Water temperature
	Boat heading and speed through water
	GPS location, speed and direction over ground

Optional