



The Next Wave of Uncrewed Surface Vehicles



## SeaTrac SP-48: Flexible Solution for Defense Applications

Navies worldwide are facing increasing threats and tasked with doing more with less while constrained by shrinking budgets and aging technology. The SeaTrac SP-48 Uncrewed Surface Vehicle can be deployed as a force multiplier and employed in various mission scenarios to perform operations with greater persistence and lower cost than traditional methods while keeping warfighters out of harm's way.

The SeaTrac SP-48 is an open sensor-agnostic platform designed for real-time ocean observation, data collection, intelligence, surveillance and reconnaissance missions. Equipped with a large power and payload capacity, the SP-48 is multi-mission capable based on the configured payload package (including power hungry sensors) providing real-time maritime data for mission operations.

### Features

- Low logistics
- Littoral to open ocean
- Subsurface to surface monitoring
- Up to 500W payload power
- Real-time communications
- Self-righting hull
- Collision avoidance
- Solar powered – not reliant on wind or waves
- Long endurance w/ around the clock 24-hour operations

### Applications

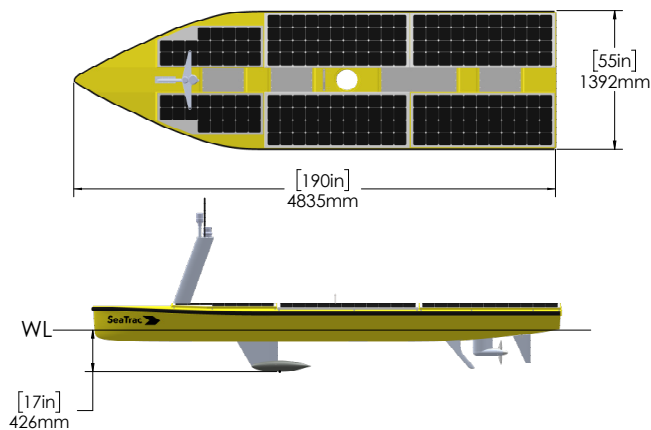
- Communications Gateway
  - Subsurface to surface to space
  - Local or over the horizon operations
- Monitoring Platform
  - Metocean and water quality data
  - In-situ audio/visual data
  - Surveys
- Defense
  - ASW, MCM, ISR, REA
- Mobile Subsea Positioning
  - USBL and LBL positioning

## Platform Control & Autonomy

- Manual – direct local piloting and control where an operator is making all decisions with eyes on the vessel
- Supervised Autonomy – basic autonomy and a remote lookout, the system can operate on its own but with a person in the loop keeping an eye on the situation
- Full Autonomy – system runs over the horizon

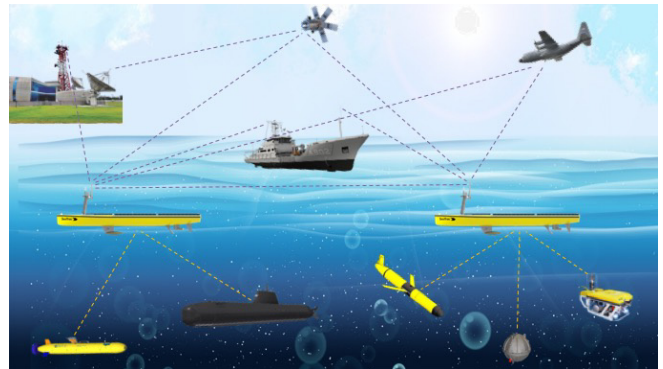
### SPECIFICATIONS

|                      |                                               |
|----------------------|-----------------------------------------------|
| Min. Water Depth     | 0.61m (2 ft)                                  |
| Station Keeping      | 10 m radius                                   |
| Speed                | Up to 5 knots                                 |
| Payload Capacity     | Up to 70 kg (154 lb.)                         |
| Max Payload Power    | Up to 500W                                    |
| Solar Generation     | 750 W @ 1 kW/m <sup>2</sup> Solar Irradiation |
| Battery Capacity     | 6.75 kWh                                      |
| Communications       | Satellite/Cellular/Radio/Wi-Fi                |
| Sea State - function | Up to Beaufort 7                              |
| Sea State - survive  | Beaufort 11                                   |
| Mission Duration     | Months                                        |



## Payload Sensors

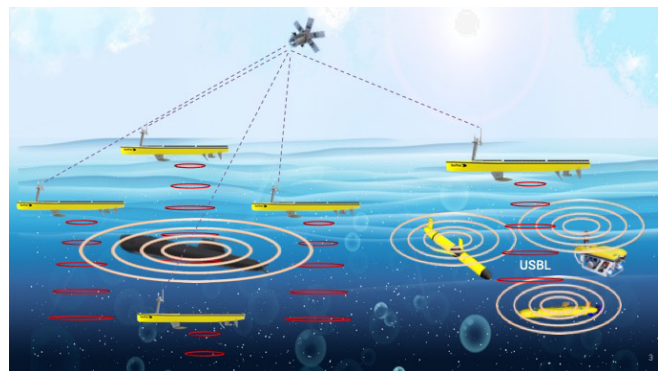
Hydrophone Arrays, Acoustic Modems, Acoustic Positioning Systems (USBL, LBL), Side Scan Sonar, Synthetic Aperture Sonar, Multibeam Sonar, Magnetometer, Lidar, Cameras, Radar, Inertial Navigation System, ADCP, Water Quality Sensor, CTD and many others. Custom sensor integrations are available.



**Communications & Tracking**



**Intelligence, Surveillance & Reconnaissance (ISR)**



**Mobile Subsea Positioning**

