



# SPECIFICATIONS

## GENERAL

<b>Vehicle Configuration</b>	Sub and Float joined by 6m (20ft) tether
<b>Dimensions</b>	Float: 208cm x 60cm (82in x 24in) Sub: 40cm x 191cm (16in x 75in) Wings: 107cm wide (42in)
<b>Weight &amp; Buoyancy</b>	Mass: 90kg (200lb) Displacement: 150kg (330lb)
<b>Endurance</b>	Up to 1 year (variable)
<b>Water Speed</b>	0.4 kts to 2.0 kts (variable)
<b>Depth Rating</b>	Continuous wash and salt spray Brief submergence to 2m (6.5ft)
<b>Observability</b>	Silent propulsion system Minimal visual & radar signature Optionally increased by visibility mast, marker light and radar target enhancer
<b>Transportation &amp; Shipping</b>	Two-person portable Air freight compatible

## SAFETY

<b>Emergency Location</b>	Shore-activated marker light RF beacon Redundant Iridium tracker
<b>Health Sensors</b>	Pressure, temperature & leak sensors in dry boxes
<b>Battery Compliance</b>	Individual batteries are isolated from each other Automatic charge/discharge cut-off (for temperature and/or voltage)
<b>Marine Mammals</b>	Passive pressure-actuated release separates float from tether & glider if an entangled animal submerges the system

## PAYLOAD

<b>Architecture</b>	Modular mechanical, electrical & software interfaces to general purpose housing Support for 3rd party payloads
<b>Base Payload</b>	Water speed sensor AIS receiver

## NAVIGATION

<b>Heading</b>	Solid state magnetometer
<b>GPS</b>	12 channel WAAS capable
<b>Accuracy</b>	3m radius CEP50
<b>Station Keeping</b>	40m radius CEP90 in WMO sea state 3 (current <0.5kts)

## POWER

<b>Propulsion</b>	Mechanical conversion of wave energy into forward propulsion
<b>Battery</b>	665 Watt-hours Lithium-ion rechargeable
<b>Solar Power</b>	80 Watts (peak) for battery charging, onboard electronics & payloads
<b>Cmd/Ctrl</b>	1.5 Watts continuous
<b>Payload Power</b>	Payload ports (3): 3A/13.2V PEP port: 5A/13.2V Glider port: 1A/13.2V System Maximum: 5A, continuous at 13.2V

## COMMUNICATIONS

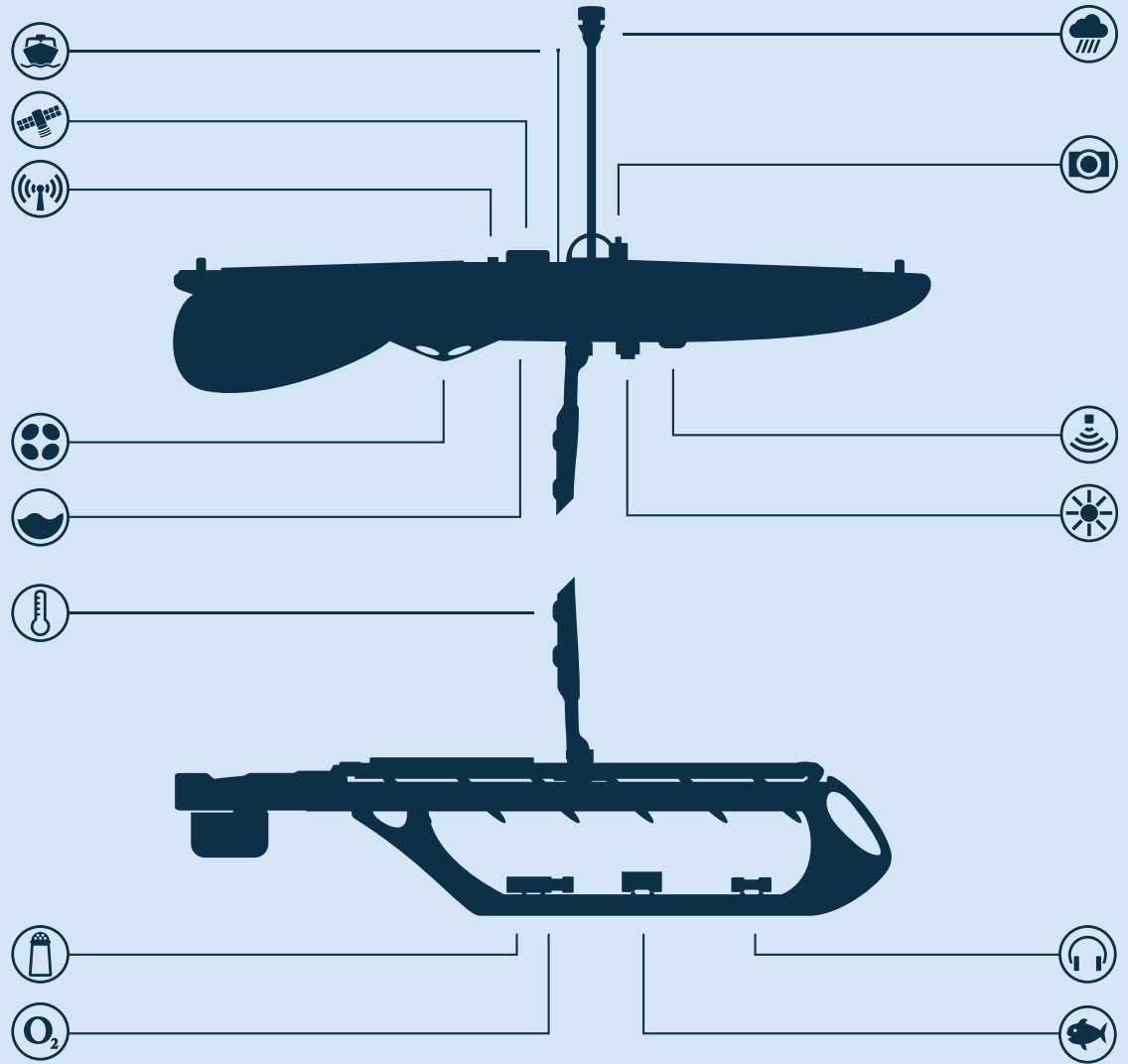
<b>Satellite</b>	Iridium® 9602 or 9522B Short Burst Data and RUDICS Cellular modem option
<b>Local</b>	XBee-Pro® 2.4 GHz modem 100 ft range typical

## OPERATIONS






<b>Mission Control</b>	Chart-based GUI Waypoint & course generation
<b>Status Monitoring</b>	Text & visual status indicators accessible via web interface SMS and email alerts Programmable in-/exclusion zones
<b>Autonomous Navigation</b>	Programmable waypoint course Follow course and hold/loop Station keeping at target








# SENSORS







## SENSORS

-  Camera
-  Weather Station
-  Wave Sensor
-  Fish Tracker
-  Hydrophone

-  ADCP
-  Fluorometer
-  Conductivity sensor
-  Dissolved oxygen sensor
-  Temperature sensor

## COMMUNICATIONS

-  Acoustic modem
-  Iridium: SBD/RUDICS
-  Cellular/RF
-  AIS

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