

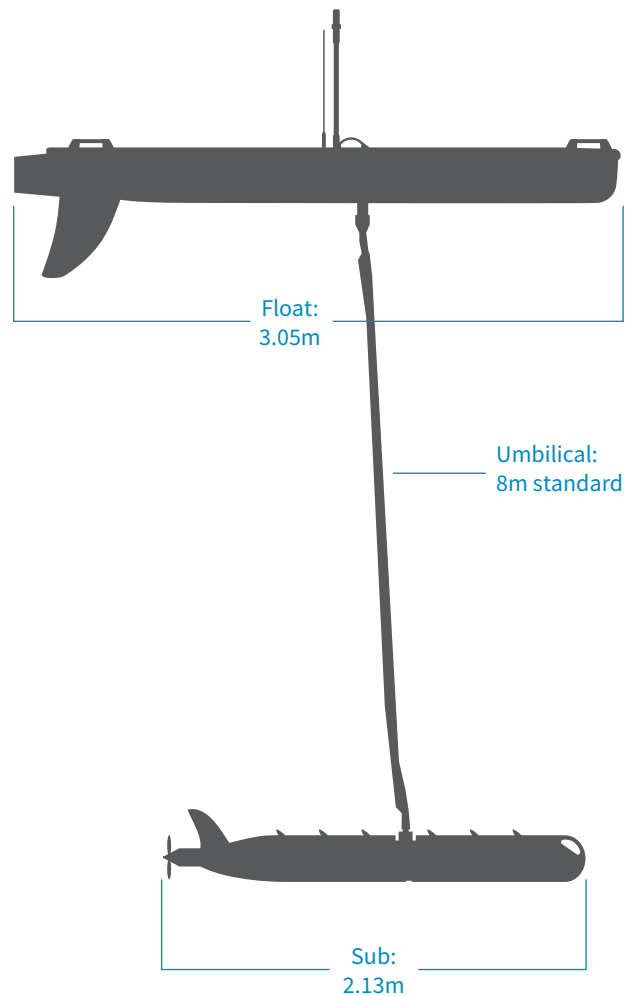
The Wave Glider

SV3 Platform Specifications

The Wave Glider® revolutionizes how we explore and understand the world's oceans by gathering data in ways or locations previously too costly or challenging to operate. Powered by wave and solar energy, the Wave Glider is an autonomous, unmanned surface vehicle (USV) that operates individually or in fleets delivering real-time data for up to a year with no fuel.

Key Specifications

Endurance	Up to 1 year
Operating Water Depth	> 15m
Station Keeping	30m radius
Speed	1 to 3kts
Payload Capacity	7 modular bays (93L)
Payload	5 locations (in float, on float, under float, sub, towed)
Tow Capability	500kg (1,102lbs drag dependent)
Average Continuous Power	5 – 20W (surge capability available)
Max Solar Collection	156W
Battery Storage	0.9 – 4.5kWh
Communication	Cell, Satellite, Wi-Fi



SV3 Platform Specification Detail

GENERAL

VEHICLE CONFIGURATION

Float and sub joined by 8m (26ft) umbilical tether

FLOAT DIMENSIONS

(L x W x H):

305cm x 81cm x 23cm

120in x 32in x 9in

UMBILICAL

8M standard

SUB DIMENSIONS

(L x W x H)

213cm x 142cm x 21cm

84in x 56in x 8.3in

WEIGHT

150kg (330lb)

ENDURANCE

Up to 1 year

WATER SPEED

Max: 3kts

Average: 1.8kts

MINIMUM WATER DEPTH

>15M with 8M standard umbilical

OBSERVABILITY

Silent propulsion system

Minimal visual/radar signature

Optional flag and marker light

TRANSPORTATION/SHIPPING

Air freight compatible crates

Crate 1 (float):

302cm x 89cm x 66cm – 150kg

119in x 35in x 26in – 330lbs

Crate 2 (sub):

243cm x 51cm x 51cm – 108kg

96in x 20in x 20in – 240lbs

Crate 3 (parts):

198cm x 81cm x 71cm – 100kg

78in x 32in x 28in – 220lbs

SAFETY

EMERGENCY LOCATION

Shore-activated light

Redundant RF beacons

2-Year redundant Iridium® tracker

HEALTH SENSORS

Pressure and temperature sensors in dry boxes

BATTERY COMPLIANCE

Automatic charge/discharge cut-off (for temperature and/or voltage)

PAYLOADS

ARCHITECTURE

Standard mechanical and electrical connectors

Extensible payload design

Open standards software for sensor integration

MAX DISCRETE PAYLOADS

7 modular payload units

SENSOR PLACEMENT

5 locations: in float, on float, under float, attached to sub, towed

TOWING CAPABILITY

500kg (1,102lbs, drag dependent)

MAX PAYLOAD WEIGHT

45kg (100lbs)

MAX PAYLOAD VOLUME

93L (3.3cf)

NAVIGATION

HEADING

Solid state magnetometer

GPS

12 channel WAAS capable

NAVIGATION ACCURACY

3m radius

STATION KEEPING

30m radius¹

POWER

PROPULSION

Conversion of wave energy into thrust

Electric thruster for more deterministic control

AVERAGE CONTINUOUS POWER

5W-20W (surge capability available)

BATTERY STORAGE

0.9-4.5kWh

MAX SOLAR COLLECTION

156W

INSTRUMENTATION

WATER SPEED SENSOR

Airmar CS4500

AIS RECEIVER

Shine Micro

WEATHER STATION

Airmar 200WX WeatherStation*

Selection of optional sensors available (e.g., wave height, camera, etc.)

¹ Based on previous missions, observed station-keeping 90% of time (subject to sea state).

COMMUNICATIONS

SATELLITE

Iridium® 9602

RUDICS (option)

BGAN (option)²

CELLULAR

GSM communications (G3)

LOCAL

802.11 g/n Wi-Fi/Ethernet

OPERATION

MISSION CONTROL

Chart-based GUI

Waypoint & course generation

STATUS MONITORING

Text & visual status indicators accessible via web interface

SMS and email alerts

Programmable inclusion and exclusion zones

AUTONOMOUS NAVIGATION

Programmable waypoint course

Follow course and hold/loop

Station keeping at target

Vessel detection and avoidance


MISSION DATA

Continuous real-time and historical data available

PAINT COLORS

 Yellow

 Blue

 Anti-fouling black

² Available for Maritime Surveillance only. Contact us about availability for other applications.