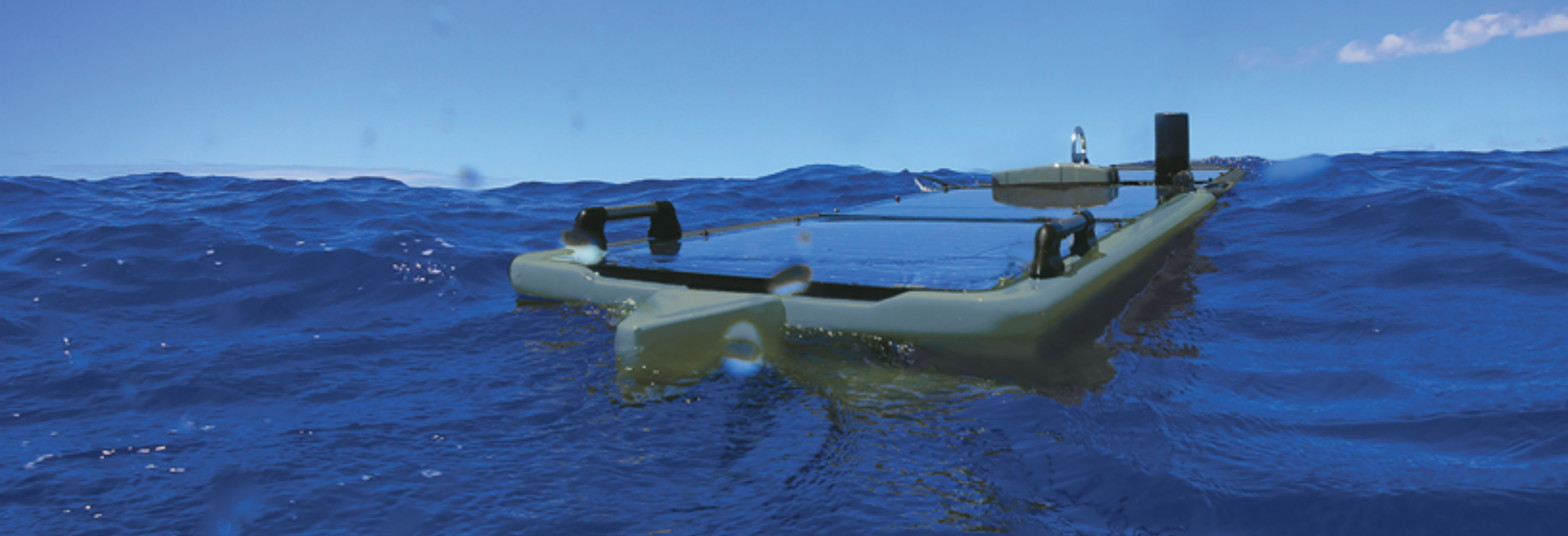


The SHARC Platform



Overview

The SHARC® (sensor hosting, autonomous remote craft) combines advanced Boeing payloads and sensors with the Liquid Robotics Wave Glider®, an autonomous surface vehicle, to meet a range of specialized mission requirements for governments and militaries. Powered by wave and solar energy, the SHARC can operate individually or in fleets to enable and extend communication and data collection capabilities both below and above the ocean surface.

24x7 Long-Duration Operations: Station keeping or mobile data collection for up to 12 months with no fuel, emission, or crew

Proven at Sea: Over 1.4 million nautical miles traveled with operations through doldrums, hurricanes/typhoons, and in high latitudes

Real-Time Communications from Seafloor to Space: Provides immediate situational awareness and accelerated decision making

Low Profile and Acoustically Silent: Ideal for patrol, surveillance and environmentally sensitive missions

Force Multiplier: Close surveillance coverage gaps and enable more effective use of ships, planes, and people

The SHARC Platform (continued)

Platform Specifications

MAX MISSION DURATION Up to 1 year*

MIN. WATER DEPTH 15m+**

STATION KEEPING 30m radius

CONTINUOUS PROPULSION 1kt - 3kts

TOWING CAPABILITY 500kg (drag dependent)

CONTINUOUS POWER 5W – 20W

PEAK POWER POTENTIAL 360W

MAX SOLAR COLLECTION 180W

BATTERY STORAGE 0.9kWh – 6.8kWh

COMMUNICATIONS Cell, Satellite, Wi-Fi



*Maximum mission duration varies based on operating conditions and location.

**Based on standard 8M umbilical



Payload Architecture

The SHARC has a modular mechanical and electrical payload design that includes five areas for housing payloads and sensors: (i) in float across seven bays; (ii) on float; (iii) under float; (iv) on sub; (v) towed. In addition, there are software APIs specifically designed for rapid sensor integration into the operating system and the Wave Glider Management System (WGMS).

With excellent acoustic isolation and the ability to tow both large and small masses smoothly, the SHARC is well suited for a wide range of towed sensors, particularly acoustics (passive, active, communications).



Software and Computing

The SHARC onboard operating system provides autonomous navigation for coordinated fleet operations, along with data preprocessing and compression for optimized real-time downloads and at sea mission reconfiguration.

Extremely low-power onboard computing, real-time communications, and a cloud computing environment, allow for the simple retrieval of data in a variety of formats and methods.

Standard software APIs facilitate efficient application development for the platform.