



SAILDRONE EXPLORER

Autonomous Uncrewed Vehicle for Maritime Domain Awareness

*The world's most capable,
proven, and trusted USVs*



US Navy photo by CPO Roland Franklin. The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

Maritime Domain Awareness / ISR Solution Autonomous Vehicles Providing Persistent Presence at Sea

Near-real-time intelligence via affordable Contractor Owned/Operated (COCO) service

Saildrone is a US business providing comprehensive turnkey data solutions for real-time ocean mapping, ocean data, and maritime security. With its fleet of environmentally friendly uncrewed surface vehicles (USVs), Saildrone provides actionable intelligence, not just data, to your force.

Eliminate maritime gaps above and below the sea surface while reducing risk. Saildrone USVs are predominantly powered by wind and solar and are capable of extreme-duration missions up to 12 months in the open ocean while producing a minimal carbon footprint. The Saildrone MDA solution uses machine learning combined with AIS, passive acoustics, and/or cameras to detect, track, and classify contacts of interest in near real time.

The impressive capabilities of Saildrone's autonomous vehicles have been proven in numerous operational missions, covering 1,000,000+ nautical miles from the Arctic to the Antarctic. The Saildrone fleet has logged 25,000+ days at sea in some of the most extreme weather conditions on the planet.

EXECUTABLE MISSIONS

- IUU (Illegal, unreported and unregulated fishing)
- Ecosystem monitoring
- Pattern of life monitoring
- Law enforcement and maritime safety
- Drug interdiction
- Border patrol
- Harbor security
- Guard vessel roles
- Sanction monitoring
- Range clearing
- Acoustic/SIGINT baselining

ENVIRONMENTALLY FRIENDLY

MACHINE LEARNING CAPABILITIES

END TO END ENCRYPTION

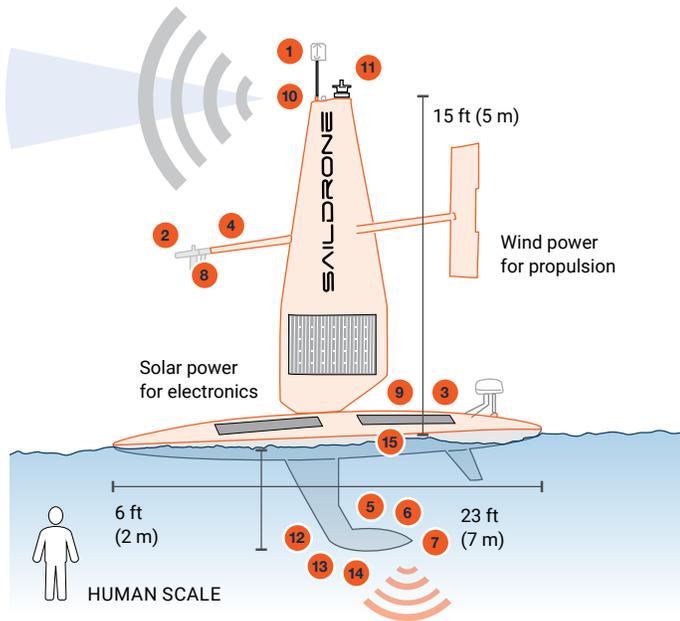
SECURE CLOUD STORAGE

 AMERICAN MADE, OWNED,
AND OPERATED



SCAN TO
VISIT WEBSITE

Navigating an ocean of data. Delivering a world of possibilities. [Saildrone.com](https://www.saildrone.com)



VEHICLE SPECIFICATIONS

Hull length:	23 ft (7 m)
Wing height:	15 ft (5 m)
Draft:	6 ft (2 m)
Primary propulsion:	Wind (Saildrone wing)
Average speed:	2 – 3 knots
Endurance:	12+ months
Range:	Unlimited
Payload power:	Solar and hydro

PAYLOAD OPTIONS

No.	Variable	Sensor
1	Wind speed & direction	Gill Windmaster 3D Ultrasonic 20Hz @ + 5.2 m
2	Air temp & humidity	Rotronic HC2 - S3 with rad shield @ + 2.3 m
3	Barometric pressure	Vaisala Barocap PTB210 @ +0.2 m
4	Photosynthetically active radiation	LI-COR LI-192SA @ +2.6 m
6	Salinity, temperature & dissolved oxygen	Seabird SBE 37 SMP ODO @ -1.7 m
7	Chlorophyll-a	Wetlabs ECO-FL-S G4 @ -1.9 m
8	Skin temperature	Heitronics CT 15.10 @ +2.3
9	Wave height & period	Dual GPS aided IMU
15	Carbon dioxide	NOAA PMEL ASVCO2 (pCO2)
10	AIS transceiver	
11	Smart camera array	360° High-resolution optical cameras with ML target detection
12	Ocean currents	Teledyne RDI Workhorse ADCP 300 kHz @ -1.9 m
13	Fish biomass	Simrad WBT Mini (EK80) @ -1.9 m
14	Bathymetry	Shallow-water single-beam: Airmar DT800
		Deep-water single-beam: Teledyne EchoTrac E20
		Deep-water single-beam: Simrad WBT Mini

ATMOSPHERIC

OCEAN

MDA

ACOUSTIC

Maximizing Information for Decision Advantage

Saildrone's technology enhances maritime domain awareness by collecting and distributing data, identifying potential threats, supporting informed decisions, and sharing insights with appropriate partners in real time.

Saildrone USVs utilize ML models to deliver real-time, visual detection of targets that may not be transmitting their position. These detection events are then fused with other data sources to deliver a fully informed picture of the surrounding maritime domain.



ML-enabled Maritime Domain Awareness (Illustrative image only)

