

# USV PIONEER

## Open-Ocean Multi-Purpose Platform

The Pioneer-class USV is an open-ocean, high-endurance platform, capable of deploying a range of sensor and system payloads of up to 6.5 tonnes in its ISO-standard footprint moonpool.

Configurable C3 and surface sensor suite

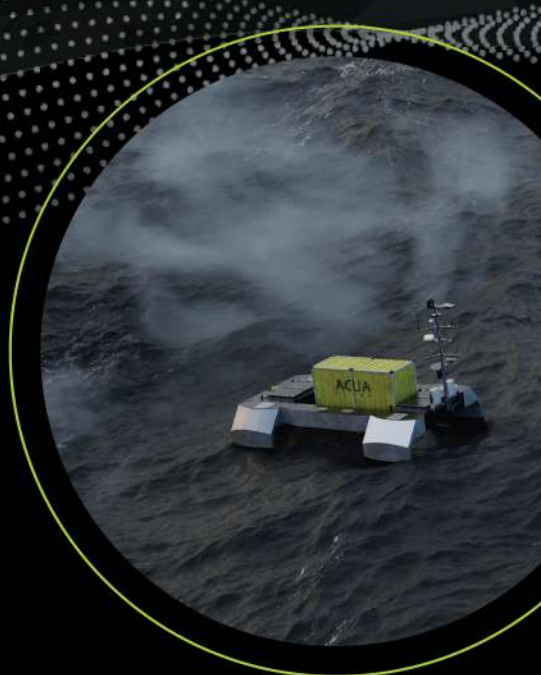
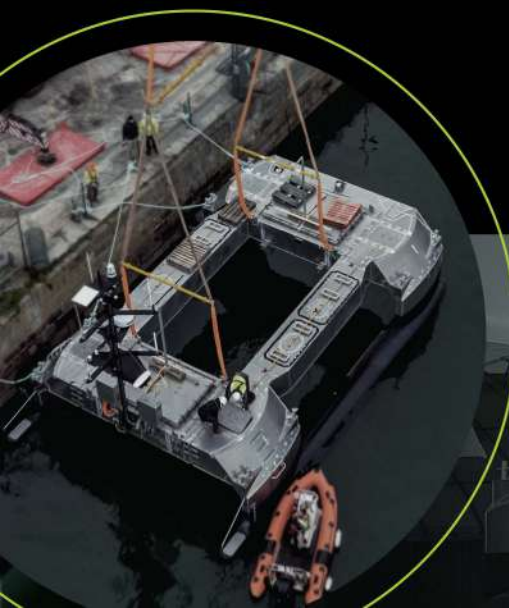
ISO unit footprint moonpool accommodates 1 x 20ft or 2 x 10ft units

Modular shock-mounted equipment racks for robustness and maintainability

Battery-electric hybrid powertrain with optional hydrogen or diesel range extender

Modular hull components disassemble into road-transportable parts

Aluminium Small Waterplane Area Twin Hull (SWATH) form for seakeeping and stability



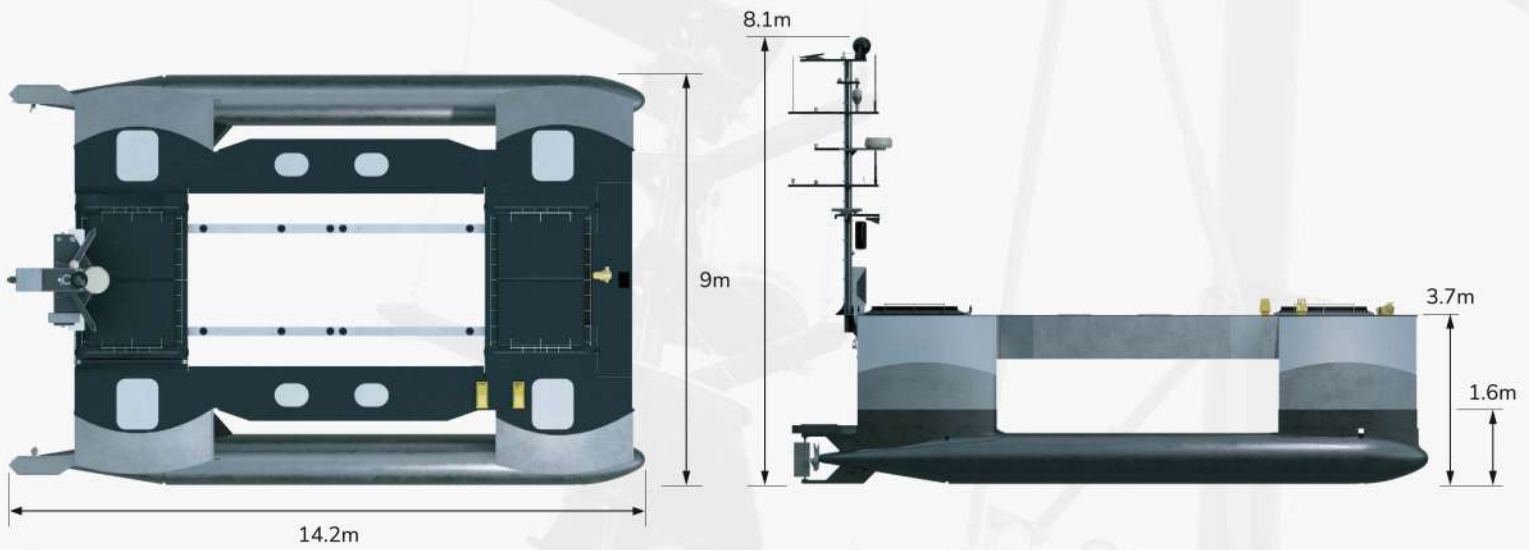
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LET'S DISCUSS THE FUTURE OF OFFSHORE USVs

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## PIONEER DESIGN FEATURES



**UK MCA Commercially Coded:**  
Compliant with UK Maritime and Coastguard Agency Workboat Code Edition 3 for Remote and Unmanned Vessels (pending April 2025)



**Payload Modularity:**  
Features an ISO-container footprint moonpool for ease of payload integration, interfacing, air gapping and logistical management. The moonpool enables the stable deployment of surface, subsurface and aerial payloads through the centre of the vessel



**Reliability and Maintainability:**  
Installed redundancy in C3 systems, easily-removable modular rack-mounted electrical and propulsion systems



**Persistence:**  
Multi-week seagoing endurance for unlimited open-ocean operations, capable of payload operation in significant sea states (capability for ROV operation in >4m Hs)

<b>CRAFT TYPE</b>	Uncrewed Remotely-Operated SWATH: Cat 0 (Open-Ocean Unlimited)
<b>DRAFT</b>	1.6m
<b>LENGTH</b>	14.2m
<b>BEAM</b>	9m
<b>MAST HEIGHT (FROM DWL)</b>	8.1m
<b>MAX DISPLACEMENT</b>	25.7t
<b>MOONPOOL DIMENSIONS</b>	6.5m x 3.8m (accommodates a TEU 20ft ISO or 2 x 10ft ISO containers)
<b>MAX PAYLOAD</b>	6500kg
<b>OPERATIONAL SPEED</b>	4 knots
<b>MAX EFFICIENT SPEED</b>	6.5 knots
<b>ENDURANCE</b>	18 days at 4 knots (CGH2 @ 350 bar), 50 days at 4 knots (Diesel)
<b>POWERTRAIN OPTIONS</b>	Battery-Electric Powertrain (Standard): 2 x 124kW E-motors, 2 x 63kW Li-ion Batteries, Range Extender (Options): 2 x Hydrogen Fuel Cells (350 bar CGH2 tanks) or 2 x Diesel Generators (3,000l tanks)
<b>NAV SUITE</b>	Fixed Cameras, EO & IR PTZ Cameras, Nav Radar, AIS, Weatherstation, GPS, Heading Sensor, VHF Radio Relay
<b>COMMUNICATIONS</b>	LeoSATCOM, Wifi, 4/5G, UHF Radio
<b>PAYLOAD OPTIONS</b>	Utilitarian ISO-footprint moonpool permits various air, surface and sub-surface payloads and/or sensors.

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The image shows a large, dark-colored USV (Unmanned Surface Vehicle) named 'Pioneer' docked at a pier. The vessel is silhouetted against a bright sunset sky with scattered clouds. The sun is visible through a window on the side of the vessel, creating a lens flare effect. To the right, a tall mast with various antennas and sensors is visible. The foreground is a dark, paved area, likely a dock or pier. The overall scene is dramatic and emphasizes the vessel's presence in an open-ocean environment.

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