



Image credit Valeport Limited

Long-endurance multi-purpose Uncrewed Surface Vessel

HydroSurv's award-winning REAV-60 provides long-endurance, self-transiting capability for multi-mission applications within inshore areas and further offshore. System integrity and reliability are central to the design philosophy of the low-impact Uncrewed Surface Vessel (USV) platform, which can be configured for operations Beyond Visual Line of Sight (BVLoS).

The symmetrical catamaran hull form is designed to Lloyd's Register Special Service Craft (LRSSC) rules and satisfies the freeboard and stability requirements prescribed within the UK Workboat Code. Underpinned by extensive hydrostatic and hydrodynamic analysis, the optimised hull is designed to perform well in offshore environments, whilst the subdivision enables the vessel to satisfy damage stability cases.

Benefits

Aluminium construction, built under survey to LRSSC rules

Modular, demountable structure capable of shipping in 20' container

Hybrid and electric powertrains with twin 3.8kW or 7.5kW outboards

Configurable, front-end mission manager to customer requirements

High-integrity Virtual Watchkeeper proprietary vessel control system

Radar, AIS and navigation camera packages available to customer specification

WiFi and cellular communications

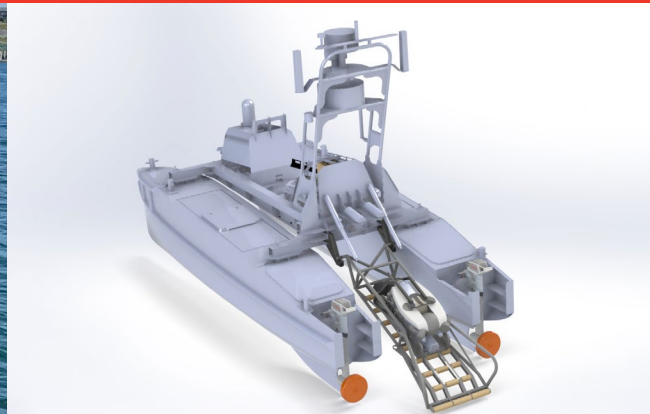
Docking joystick

Embedded ruggedised and base station computers included

Trailer portable

Long-endurance multi-purpose Uncrewed Surface Vessel

REAV-60

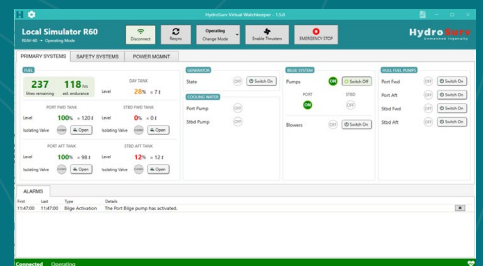


The robust, fully-welded marine-grade alloy construction is built under survey. REAV-60's principal dimensions enable the USV to be transported, launched and recovered by road-trailer, whilst its modular construction enables the system to be shipped inside a standard shipping container for rapid global mobilisation.

The vessel is available with a choice of twin, independently steerable 3.8kW or 7.5kW outboard powertrains in fully-electric and hybrid configuration to suit customer requirements. In its single 6kW generator-hybrid format, REAV-60 is capable of up to 14-days endurance at sea. Extensive research and development has focused on optimising the hybridisation system for remote applications, including features such as arriving at certain mission waypoints fully-charged and no-charge mission geofencing.

REAV-60 is delivered with HydroSurv's Virtual Watchkeeper vessel control system (VCS) for control and monitoring of critical navigation and situational awareness equipment and shipboard safety systems. The VCS includes Dynautics' SPECTRE 2 autopilot system which utilises the RCW front-end mission management application.

The versatile REAV-60 platform is capable of carrying large payloads up to 200kg. HydroSurv has also developed specialist variants of the USV including configurations capable of hosting small, inspection-class ROV systems from the USV. HydroSurv has worked closely with leading OEMs to develop turnkey solutions and sensor integrations for specialist use-cases.



REAV-60's critical systems are controlled and monitored through HydroSurv's proprietary *Virtual Watchkeeper* vessel control system. REAV-60 is available with a choice of industry-leading autopilot systems NaviSuite Kuda developed in close-consultation with HydroSurv.

EIVA



Image credit: EVA A/S

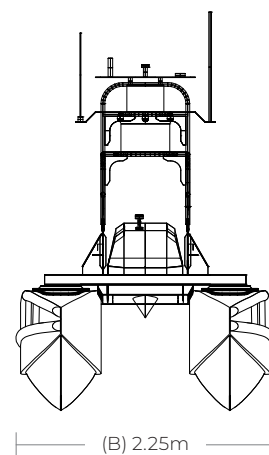
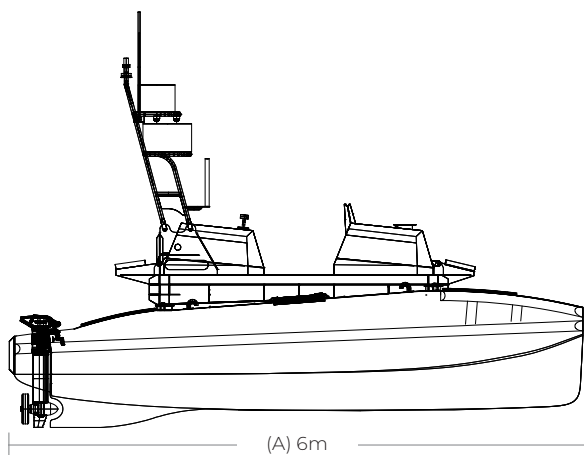
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HydroSurv
Unmanned Ingenuity

Length overall	6m
Length waterline	5.32m
Breadth	2.25m
Lightship draft	0.65m
Displacement ¹ (Lightship)	1,990kg (hybrid format)
Hull form	Symmetrically hulled catamaran
Construction	5083 marine-grade aluminium alloy
Propulsion	Hybrid or electric options: - (2) x FP 3.8kW - (2) x FP 7.5kW - (2) x TQ 4.0kW
Propulsion batteries	Hybrid or electric options: - 26kW Mastervolt + 6kW DC generator - 40kW Torqeedo + 13kW Mastervolt
Fuel capacity	380 litres
Max. speed	6.5kts (with (2) x 3.8kW outboards)
Communications	Joystick RF (<200m) WIFI 2.4 / 5 GHz (<1.5km) Cellular L-Band satellite
Payload	200kg (6) serial ports (6) Ethernet ports 12/24/48vDC + 230vAC
Support equipment (standard)	Docking joystick (4) navigation camera + 360 IR camera Rugged embedded PC (IP66) Base Control Station PC (IP54) ²

1. Approximate value subject to configuration specific design.
 2. Excludes screen, keyboard, mouse, etc.





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