



Available Services

- Technical customization
- Application development
- Phase-in services
- Installation and set-up
- Feasibility studies

CONVERSION SYSTEM

UNMANNED SURFACE VEHICLE [USV]

COST-EFFECTIVE AND RISK-REDUCING MARITIME DATA ACQUISITION

A unique opportunity to take advantage of the possibilities of unmanned surface operations.

Some industry professionals want the option of using their survey boat in an unmanned mode, while still having the option of manned use. Others see potential in using Unmanned Surface Vehicles, but are not yet ready to invest in a custom USV platform. The Maritime Robotics USV Conversion System offers a unique opportunity to combine the best of both worlds.

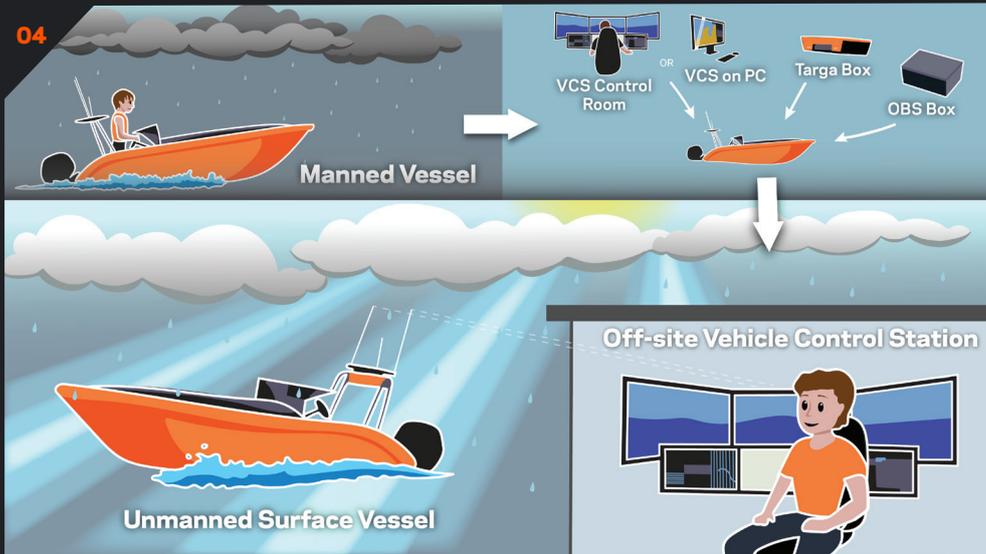
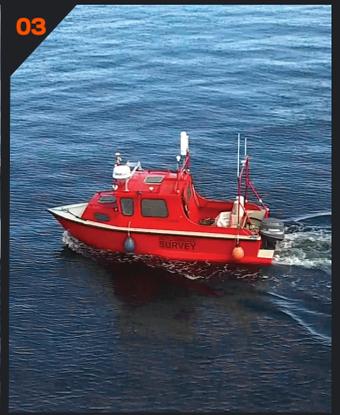
The system includes the same Vehicle Control Station, Communication and On-Board Systems as the more integrated Mariner USV system, but can also be highly customized for your special needs and requirements. Patrol boats of any kind can now be converted for unmanned operations, and equipped with custom payload and sensor solutions.

For bathymetric surveys, we often see that users have invested in smaller, specially equipped, manned survey boats. These users can now get their boats converted for unmanned operations, gaining the HSE and cost benefits.

SPECIFICATION

	On-board system box: 60cm x 40cm x 20cm Targa box: 70cm x 30cm x 15cm *Custom enclosures dependent on engine & propulsion setup, i.e. inboard/outboard/electric control				
	WiFi: 300m	Radio: 2km	MBR: 15km	4G: Near shore	Iridium: Global
	Remote control	Course & speed control	Waypoint control	Option for industrial remote	
	Real-time access to all on-board sensors		Collision detection warnings		
	Customizable camera system		Optional 360° video for situational awareness		
	On-line and on-site support				
	Optional moonpool elevator		Optional SVP winch		
	Integration to existing autopilot		Maritime Robotics' on-board system		
	GNSS compass		AIS		Simrad 4G or Furuno NXT radar

Add Ons	Multi-beam sonar sensors from the Norbit iWBMS family	Ecotone Underwater Hyperspectral Imager	On-board software for correction services over NTRIP protocol
	PingDSP 3DSS-iDX sonar	BioSonics MX Echosounder (habitat system)	UHF modem for RTK corrections from GNSS Base Station
	SVP winch with the AML Base X2 or Valeport Swift SVP	Biosonics DT-Extreme Echosounder (fish prospecting system)	Knudsen Echosounders
	Kongsberg EM2040		



01 TARGET BOAT

High speed, dynamically moving boats that can be controlled individually or in formation. An example of a “driver optional” conversion.

02 BLUEIMPACT VORAX USV

This catamaran-style USV was created for Blue Impact for mechanical oil spill dispersion without the conventional use of chemicals.

03 FUGRO ALUMASTER

The Fugro Alumaster survey vessel was converted to an Unmanned Surface Vehicle by upgrading existing on-board systems.

04 CONVERSION SYSTEM DIAGRAM

This illustrated diagram demonstrates how the Maritime Robotics conversion system simplifies and improves the survey experience.

05 VEHICLE CONTROL STATION

Control software that is normally operated on shore, or on a mother vessel, with a user-friendly graphical interface, marine charts and live video feed.

06 VEHICLE CONTROL STATION ROOM

Command & control room for full situational awareness and control of one or more USVs.

A LEADER IN UNMANNED SOLUTIONS

Maritime Robotics is a leading provider of innovative unmanned solutions for maritime operations and data acquisition. The company develops and delivers Unmanned Surface Vehicle Systems (USV), Moored Balloon Systems (MBS) as well as Unmanned Aircraft Systems (UAS). Our main markets are geophysical surveying, oil & gas, environmental monitoring, and the defence/security market. With technology developed in close collaboration with civilian, governmental and military partners, Maritime Robotics focuses on delivering high-quality system solutions and products that are cost effective, reduce HSE risk exposure and are highly deployable, in any conditions.