

Configurable autonomous operations.

Uncrewed Surface Vessel

Designed specifically for uncrewed operations, the USV is a fully autonomous and integrated companion to current and future fleets, and can fulfil the widest range of missions.

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BAE SYSTEMS

Configurable autonomous operations

Designed specifically for uncrewed operations, the USV is a fully autonomous and integrated companion to current and future fleets, and can fulfil the widest range of missions.

- Supported, launched and recovered from the mission bay of a Type 26 Global Combat Ship and compatible with other surface ships
- Powerful seakeeping performance – operates alongside surface ships in 'blue water' zones
- Versatile payload deck – with configurable sense, decide, and effect capabilities including third party products to deliver maximum military effect
- With our Nautomate® autonomous control system at its core, the USV is capable of the highest IMO Degree four level of autonomy

Integrated autonomous platforms to grow maritime capability

Our technologies help protect people from the most hazardous mission scenarios, grow maritime capability even when recruiting skilled seafarers is challenging, and drive success in complex, rapid-tempo and collaborative mission delivery.

In an environment where technology solutions must keep pace with regulatory and operational requirements, our solutions provide the safety and security assurance needed to dependably deliver complex missions.

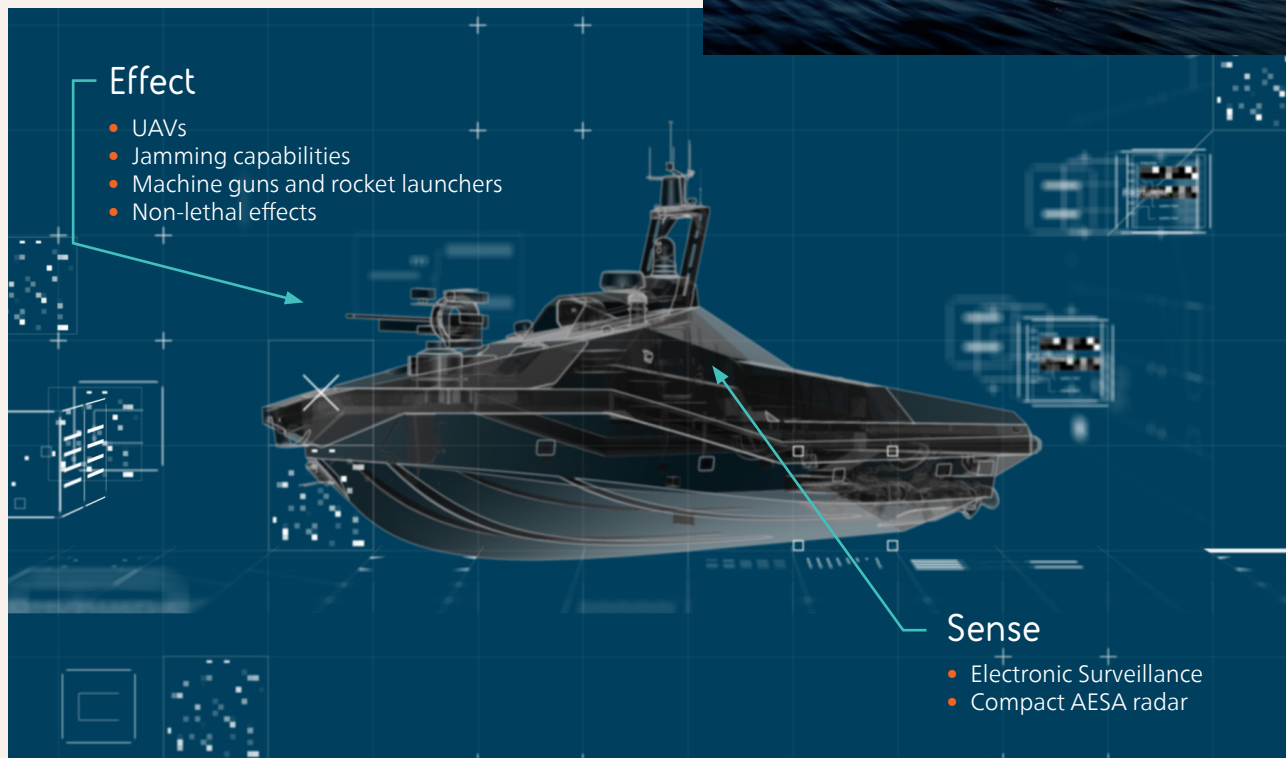


Configurable autonomous operations - Advancing military capability through payload integration

A key part of the capability is the flexible payload integration which enables a range of autonomous maritime operations dependent on the user's mission. A range of sensors and effectors can be easily and quickly integrated to adapt to the specific mission required.

Roles and configurations include the following operations:

- Warship Escort
- Electronic Warfare and Sensing
- Anti-Submarine Warfare augmentation
- Base security
- Intelligence, Surveillance and Reconnaissance (ISR)
- C4I



Support, launch and recovery

The size of the USV has been designed to be launched, recovered and supported from the mission bay of a Type 26 Global Combat Ship as a minimum. It uses an autonomous launch and recovery cradle, which is compatible with the mission bay handling system and enables safe launch and recovery in sea state 3.

The USV is also compatible with a range of other UK and International surface ships with launch and recovery means.

This considered design feature enables the USV to act independently or as part of an integrated maritime operations group whether that be with a mothership or wider disaggregated capability.



Supported, launched and recovered from the mission bay of a Type 26 Global Combat Ship and compatible with other surface ships



Proven experience in autonomous capabilities

At BAE Systems we have a proven pedigree in Autonomy across air, land and sea. We have successfully delivered:

- The first integration of an autonomous surface platform in to a warship's Combat Management System
- Live weapon firing from an autonomous surface platform
- The first to achieve the Lloyds Register Unmanned Marine Systems certification, for our Autonomous Pacific 24

In 2024 we successfully collaborated with Cellula Robotics on an in-water demonstration of our military assured Herne XLAUV - showcasing advanced autonomy behaviours on an ISR mission.

Our knowledge and experience underpins our ability to design and deliver complex autonomous solutions that meet stringent safety and operational performance standards including compliance with applicable laws. Our autonomous platforms are able to comply with a range of standards including UK MASRWG code of practice and part B of 1972 COLREGS navigation requirements.



Nautomate® Intelligent autonomous control system

At the core of the USV is Nautomate®, our high specification fully autonomous military control system that integrates on surface and sub-surface vehicles.

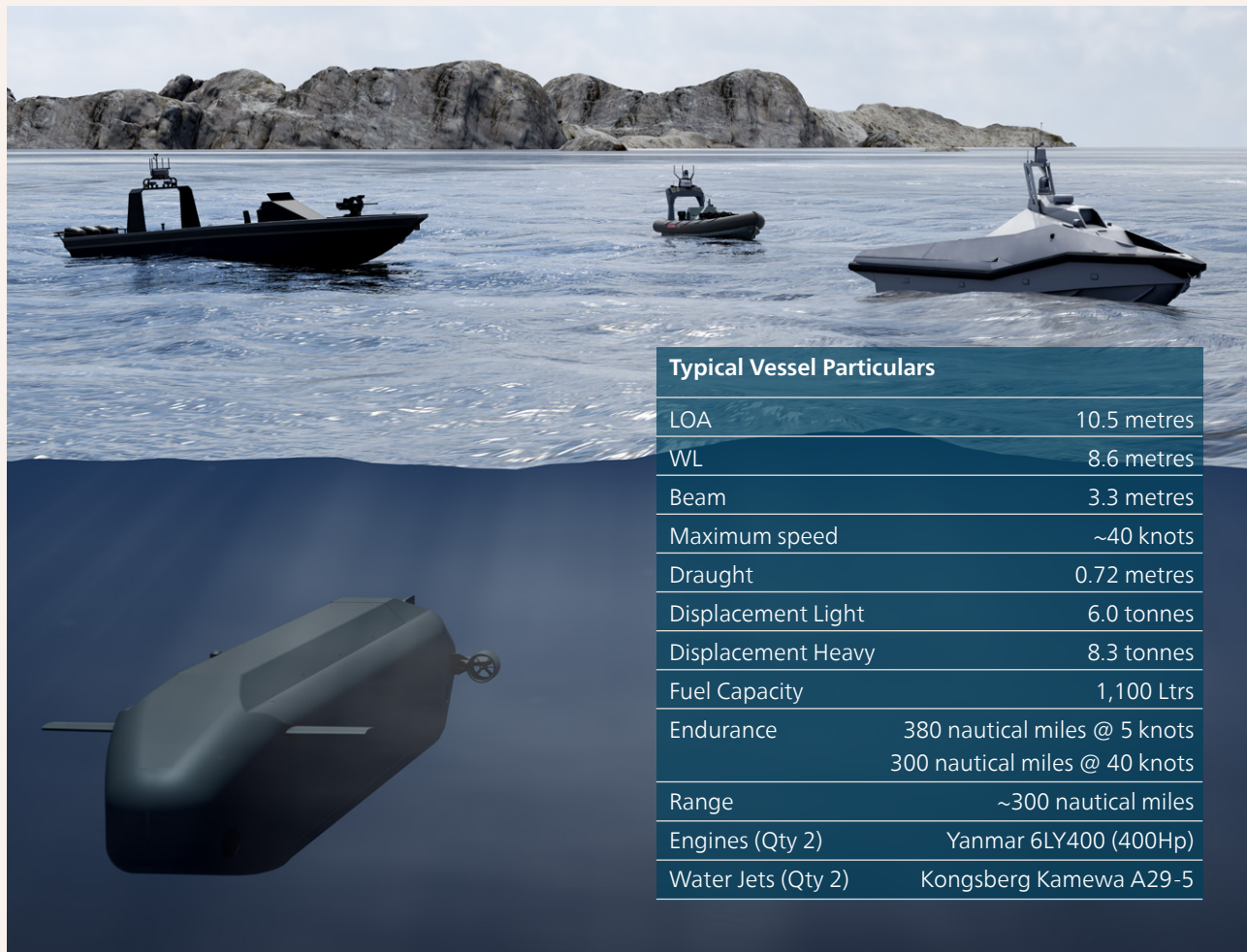
Nautomate® has the capability to operate across the full range of levels-of-autonomy. From direct operator “remote control” through to IMO Degree Level 4, a fully autonomous capability.

BAE Systems provide the ability to operate across the full spectrum of autonomy. As experts in military integration, we specialise in the delivery of autonomy levels 3 and 4 for complex, high tempo, and long endurance missions or where communications may be compromised.

Our open interfaces and modular mission plug-ins allow capability to be upgraded as technology advances predominantly in artificial intelligence guided tactics and decision making. This same flexibility supports the continuing evolution of new mission requirements and regulatory environments.

Key features:

- Scalable autonomous capability
- Safety assured
- Mission plug-ins including open interfaces enabling third party plug-ins
- Versatile payload options
- Smart collision avoidance
- Machine vision
- Compact command and control



Typical Vessel Particulars	
LOA	10.5 metres
WL	8.6 metres
Beam	3.3 metres
Maximum speed	~40 knots
Draught	0.72 metres
Displacement Light	6.0 tonnes
Displacement Heavy	8.3 tonnes
Fuel Capacity	1,100 Ltrs
Endurance	380 nautical miles @ 5 knots 300 nautical miles @ 40 knots
Range	~300 nautical miles
Engines (Qty 2)	Yanmar 6LY400 (400Hp)
Water Jets (Qty 2)	Kongsberg Kamewa A29-5

BAE Systems
e: mandlsales@baesystems.com
w: baesystems.com/uncrewed
[LinkedIn](#) BAE Systems Maritime

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