

# SEA-KIT



## SEA-KIT INTERNATIONAL SEA-KIT Ω USV

The SEA-KIT Omega Uncrewed Surface Vessel (USV) is designed for extended endurance, fully uncrewed maritime operations. With a large payload capacity and the capability to autonomously launch, recover and control subsea vehicles, including ROVs and AUV/UUVs, SEA-KIT Omega meets the demands of current and future offshore operations above and below the water.

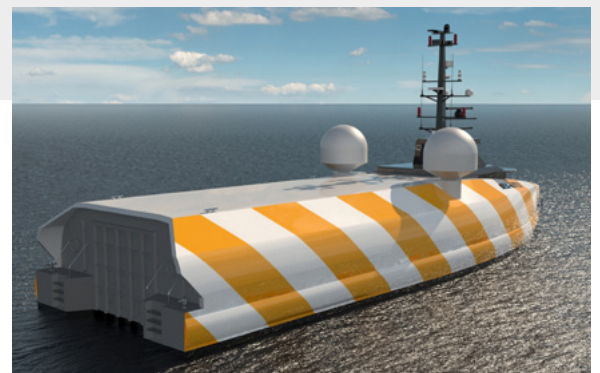
Reduced crewing, with personnel controlling the USV in a safer, onshore environment, significantly reduces risk and costs. The vessel's hybrid propulsion system delivers over-the-horizon endurance with minimal acoustic signature and a reduced CO2 footprint.

The SEA-KIT Omega is controlled by SEA-KIT's proprietary G-SAVI control and surveillance platform, which provides safe and secure operation from remote control centres.

### KEY BENEFITS

- Improved safety & reduced environmental impact
- Safer, reduced risk, low environmental impact maritime operations
- Commercially proven technology with extended endurance & full ocean capability
- Fully uncrewed launch & recovery of underwater vehicles & sensors
- Highly configurable, large payload capacity
- Acoustically quiet operation
- COLREGS compatible
- On-board processing capability, including ATR & data compression

- Remote operation from secure location anywhere in the world
- Multiple mission & offshore payload variations
- 30-foot cargo container platform & interchangeable cargo pods
- Optional AUV/UUV & ROV configurations
- Bathymetry & seabed survey capabilities



## OPERATIONAL VARIANTS

The SEA-KIT Omega USV is designed to support a wide range of maritime operations and is highly configurable.

## OPTIONS INCLUDE

- ▲ F FATHOM with MBES package
- ▲ P PROVIDER with logistics package
- ▲ S STEADFAST with station holding package
- ▲ V VIGILANCE with maritime security package
- ▲ T TRANSPORTER with launch & recovery package

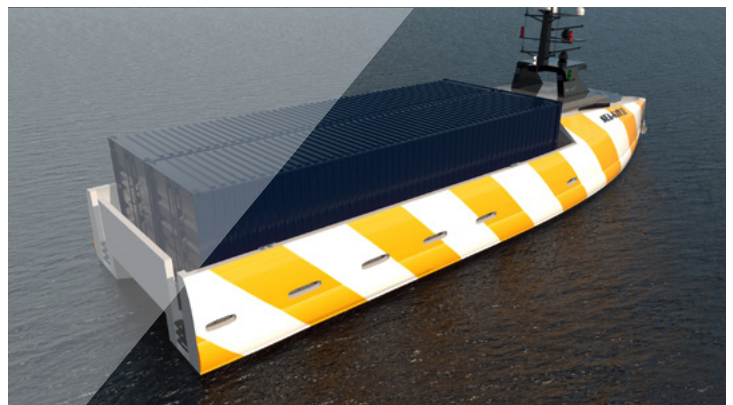
### E.G. SEA-KIT Ω ▲ F ▲ S ▲ T



The **SEA-KIT Omega FST** includes a multibeam echo sounder, station holding and underwater vehicle launch and recovery packages to deliver versatile ocean survey capability. When equipped with a swarm of AUVs, large areas of the ocean can be surveyed by the vessel and its assets fully autonomously. The long endurance and robustness of the Omega allows for surveys many miles from port or mother ship and in conditions up to force 10.

### E.G. SEA-KIT Ω ▲ S ▲ P

The **SEA-KIT Omega SP** is configured for uncrewed cargo transport with station holding and logistics options. Freight can be transported in SEA-KIT's safe, enclosed and interchangeable podded payload area, with a fluid capacity of up to 30m<sup>3</sup>. Larger items can be transported in the open-topped cargo bay. SEA-KIT Omega can transit to the point of hold station and remain in position as cargo is being loaded or unloaded.



Variations of sub-categories available on request

## VESSEL SPECIFICATION

LENGTH OVERALL	23.7	metres
BREADTH	4.15	metres
HEIGHT (FROM UNDERSIDE OF FINS)	12.1	metres
OPERATIONAL DRAFT *	4.0	metres
MAX DISPLACEMENT *	85.0	tonnes
BUNKERING CAPACITY	3 x 10m <sup>3</sup> Moon Pool Pods	m <sup>3</sup>
PAYLOAD	UP TO 25	tonnes
	1 x LARGE CONTAINER	30 foot
	3 x SMALL CONTAINERS	8 foot
	CAPABLE OF TRANSPORTING SEA-KIT 12M	30 foot
ENDURANCE *	102	days
AUV VARIATIONS	3 x HUGIN SUPERIOR AUV	(OR SIMILAR)
ROV VARIATIONS	1 x ROV (E.g. SMD ATOM) – OPTIONAL ROV CARGO ENCLOSURE	
CABLE LAYING CAPACITY	10 TONNE CABLE BARREL FOR SUBSEA CABLE INSTALLATION	
HULL CONSTRUCTION	Steel	material
MAST CONSTRUCTION	Aluminium	material
PROPULSION	360° Azimuth thrusters	thrusters
BOLLARD PULL	TBC	kN
LOITERING CAPABILITIES	Force 10	Beaufort scale
MAX SPEED	10	knots
ENDURANCE SPEED	6	knots
OPERATIONAL SPEED	8	knots
RANGE *	12200	nautical miles
FIXED FUEL CAPACITY	7900	litres
OPTIONAL ADDITIONAL FUEL	15500	litres
COMMUNICATIONS	Vessel control and monitoring via the purpose-built G-SAVI package Remotely controlled VHF & DSC system with two-way onboard sound feed	
COMPLIANCE	COLREGS	Compatible
OPERATIONAL ENVELOPE	Multiple worldwide control stations	Cat-0 Unrestricted
SELF RIGHTING	YES	

\* Values will depend on the operational profile



CONTACT US FOR INFORMATION ON THE SEA-KIT Σ CLASS (36M)





## G-SAVI – A VIRTUAL HELM FOR REMOTE USV CONTROL

**G-SAVI** is SEA-KIT's proprietary, purpose-built virtual helm station. Numerous software elements interact with onboard systems, allowing the vessel operator to:

- Take direct control of the vessel's autopilot and access all features, including multiple control modes
- Access full admin control through various levels of operator user accounts
- Monitor the connection state of all systems onboard the vessel

- Switch power to all onboard systems and control their function
- Monitor machinery, environmental and vessel health data and easily recall data from any point in time.

**G-SAVI** can be easily customised to control additional equipment. It also incorporates the vessel's numerous redundancy features and can be installed on most standard desktop computers for the control of USVs located anywhere in the world.



## REDEFINING THE WAY WE WORK OFFSHORE

SEA-KIT International is a British SME providing hi-tech, robust USV solutions for nearshore and over the horizon deployment. The company is sharply focused on driving down the cost of geo-data collection and reducing the sector's carbon emissions. Since Shell Ocean Discovery XPRIZE success in 2019, SEA-KIT USVs have achieved numerous world firsts and are now deployed around the world on commercial projects.

### FIRST INTERNATIONAL COMMERCIAL UNCREWED TRANSIT IN 2019

- 22** hour transit in busy shipping lane
- 5%** fuel consumption compared to crewed vessels
- 2.5** Only 0.2% of 2.5 tonne payload capacity used
- 1** shipping container needed to deploy USV globally

### FIRST UNCREWED OFFSHORE PIPELINE INSPECTION IN 2019

- 4** offshore pipelines inspected
- 175** 175km of pipe surveyed
- 100** Up to 100km from shore
- 6** days offshore operation
- 0** risk to personnel with no crew onboard

### UNCREWED ATLANTIC SURVEY MISSION IN 2020

- 22** days offshore
- 1.5** billion data points gathered
- 24/7** remote operation from UK control centre
- 1200** 1200+nm travelled
- 1000** 1000+km<sup>2</sup> ocean floor mapped