



Battlefield Deployable Uncrewed Aerial System

[BDUAS]

Marshall Land Systems and UMS Skeldar have partnered to offer a highly mobile, multi-purpose Battlefield Deployable Uncrewed Aerial System (BDUAS) to provide end-users with enhanced reconnaissance capabilities.

The unique BDUAS is highly ruggedised to withstand all harsh environments and provides fast redeployment to minimise any logistical footprint. This end-to-end, turnkey solution has multiple capabilities in only one container, such as uncrewed aircraft (UA) transport and storage, a heavy duty maintenance and repair workshop and a Remote Piloting Station (RPS) for two operators.





Uncrewed Aerial Systems (UAS)

UMS SKELDAR is a System House, providing 'UAS' systems to Military, Civil and Commercial customers world wide.



UMS Skeldar is a joint venture (JV) between Saab AB, which is and has been the main supplier for aircraft and defence systems to the Swedish armed forces and other countries for more than 85 years, and UMS Aero Group AG, a Swiss investor company with strategy to invest in and develop medium sized high-tech companies.

The Multi-Purpose Container

- Provides a large, versatile workspace for users
- Rapid deployment
- Full environmental control
- Designed to accommodate personnel and equipment systems
- Full system human factors and safety assessment
- Air transportable by C-130 Hercules and larger transport aircraft
- Compatible with DROPS, PLS and all in service NATO Hook Lift Systems

Transport & Storage

- Ruggedised fully integrated UAS solution
- The containers are transportable by road, rail, sea and air
- UAV is stored in the central compartment when the container is stowed for transport and when deployed

Remote Pilot Station

The Remote Pilot Station (RPS) is built as a scalable system that enables single or multiple operator configurations in accordance with operational needs. STANAG 4586 design and the separation of flight and mission critical commands and information ensures the integrity of data.

Features:

- NATO STANAG 4586 design
- Modular design for different types of configurations
- Open interface to BMS and C4ISR systems
- Single or multi operator setup

Repair Workshop

These are commonly deployed to support armed forces engineers and can be installed with lathes, milling machines, pillar drills, grinders, work benches, de-greasing sinks and a variety of tool storage options. The well-being of our customers is crucial, so our workshop containers all offer air conditioning and fume ventilation for a healthy, safe work environment. The repair workshop is operational when the container is mounted on a support vehicle.



The UAS – Skeldar V-200

Overall length (incl. rotor)	5.2 m / 17.1 ft
Airframe length (excl. rotor)	4.0 m / 13.1 ft
Height	1,3 m / 4.26 ft
Width	1,2 m / 3.93 ft
Rotor Diameter	4.6 m / 15.1 ft
Empty weight	175 kg / 386 lbs
Max fuel + Oil weight	60 kg / 140 lbs
Max Payload weight	40 kg / 88 lbs
Max Payload Power	1200 W
Max take-off weight	(MTOW) 245 kg / 540 lbs
Service ceiling	3000 m / 9 842 ft
Max speed	140 km/h / 75 kts
Endurance speed	75 km/h / 40kts
Endurance	7+ hrs
Wind (take off and landing)	> 25 knots
Data Link Range	150 km+ (80 NM)
Sea state	3 – 4 (depending on ship type)



Battlefield Deployable Uncrewed Aerial System



Stowed for transport

Deployed and stowed

Expanded and operational

Applications – Many Missions

Numerous payload combinations enable the SKELDAR V-200 to be used for a wide range of Intelligence, Surveillance and Reconnaissance (ISR), maritime and overland missions.

Maritime Intelligence, Surveillance and Reconnaissance

- EEZ monitoring
- Counter-Piracy (CP)
- Counter Narcotics (CN)/ People smuggling
- Custom and Fisheries
- Environmental Protection

ASW (Anti-Submarine Warfare)

- Surveillance, coordination, control, response
- ASuW (Anti-Surface Warfare)
- Surveillance, coordination, control, targeting, OTHT “over-the-horizon targeting”

Long Range Search and Rescue

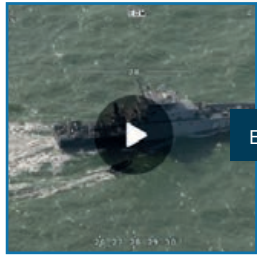
- Search and rescue (SAR) search, coordination, control
- Combat search and rescue (CSAR) support
- Air drop of markers and survival equipment

Over land ISR and border patrol ELINT and EWS operations

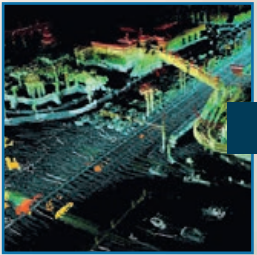
- Communications intelligence
- Signals intelligence

Specialist over-land and over sea operations.

- Maritime Counter Terrorism (MCT)



ELECTRO OPTICAL



LIDAR



INFRARED

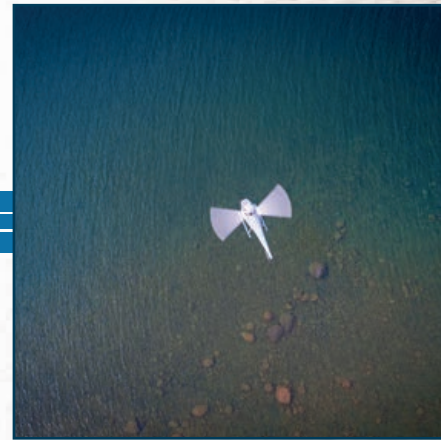


RADAR



Applications – Maritime Concept of Operations

- UA flight profiles that provide persistent, stealthy surveillance of suspect vessel from outside visual and aural range.
- Payload and datalink capability to support continuous recording of live imagery and provide metadata of suspect vessels through to the RPS system database in support of evidentiary collection.
- Delivery of live imagery to boarding party with Remote Video Terminal (RVT).
- Delivery of live imagery to the ship combat management system and bridge remote viewing display.





Training

Marshall and UMS Skeldar can offer their Managed Support Services to ensure the container and sub-systems are fully maintained and re-paired, along with fully integrated logistical support and engineering consultancy.

Technical Information

We produce manuals that are tailored to meet your needs, from traditional text booklets to fully interactive electronic manuals. We ensure that these assets conform to required military or commercial standards, and available in multiple languages.

- Technical Publications
- Technical Manual
- Interactive Electronics
- Notices
- Pamphlets

Training Support

The Training Team provide guidance, support and upskilling for our customers around the globe in accordance with JSP822 (Defence Standard Approach to Training). Our approach to training embeds crucial skills quickly within end users, operators and maintainers, damage repair engineers and those working on extremely specialist equipment.

We conduct theory training within a classroom environment, hands on and practical training in the field if required, and remote training if needed. The full scope of the training requirement is defined by identified resourcing issues, policies, constraints, risks and assumptions.

Complete Capabilities Provider

UAS		
Remote Pilot Station (RPS)	Data Links	Unmanned Aircraft (UA)
V-150 RPS CIVIL	Long Range Data Link 1 UA / GND Assembly	SKELDAR V-150
V-200 RPS	Long Range Data Link 2 UA / GND Assembly	SKELDAR V-200
	C2 LinkUA / GND Assembly	

Customer Specific Equipment	
Role Change Equipment	Permanent Equipment
EO/IR Sensors	
Chem, Bio, Nuclear	
SIGINT, COMINT	
RADAR	
Transponders, ADS-B, Mode 5, iFF, AIS	
Anti-Jamming	
Ship Landing Systems	

Service		
Training	Service	Inst. (Customer) infrastructure
UMS-173 VTOL UAS Ground School	AOG Field ServiceFlight Operations Warranty	Vehicles
UMS-174 Introduction to UAS Operations	ILS (maintenance support & planning, unscheduled and scheduled Maintenance etc.)	Containers
UMS-177 Conversion to Type	Demonstration	Trailers
UMS-CE Endorsement & UMS 176 Direct Entrant Live	Continued Airworthiness & in-ser-vice updates	Ships

Support Equipment
Ground Support Equipment
Spare Parts
Technical Publications
Training System

Overview – Marshall Land Systems

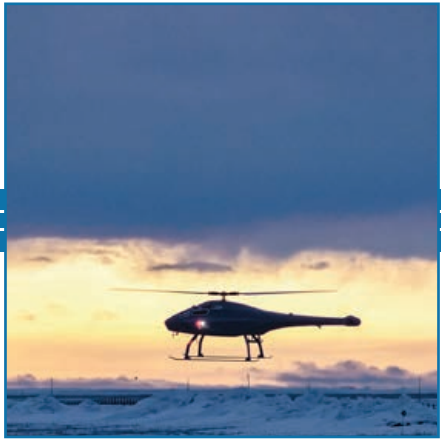


Deployable Solutions
For more than 70 years Marshall has supplied proven deployable solutions and operational infrastructure for customers facing challenging scenarios. Our products and solutions are manufactured to be transported wherever they are needed worldwide. Our containers are designed to house ground based air defence systems, ammunition storage. CT Scanners, field hospitals, forensic analysis facilities or any other complex capability. The solutions can be single, expandable or multiple units linked together depending on the requirement.

Managed Support Services
We offer the full spectrum of Managed Support Services to optimise availability of assets and reduce through-life support costs for projects around the globe.

We're proud to deliver upkeep, update and upgrade services, meeting availability requirements and assuring capability through-life. This support includes a full range of post-design services that enable our customers to control their operations and complex supply chains with complete confidence.

Overview – UMS Skeldar



UMS SKELDAR, a joint venture between Saab and UMS AERO Group, aims to be the world leading provider of VTOL Unmanned Aerial Systems across NATO reference customers.

UMS SKELDAR provides excellence in mid-market Remotely Piloted Aircraft Systems (RPAS) and is the provider of choice across maritime markets where the highest quality systems are required.

We're headquartered in Switzerland, just outside of Basel. Twin manufacturing facilities in Switzerland (Möhlín) and Sweden (Linköping) allow our company to offer a comprehensive Unmanned Aerial Systems (UAS) solutions portfolio.

The company provides a total solutions capability globally, including Development, Manufacture, Testing, Training, Consultancy, Maintenance, Managed Services, and others.



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