



Many Missions. One Solution.™  
[www.umsskeldar.aero](http://www.umsskeldar.aero)



# SKELDAR V-150

Versatile, Multi-role & Mission Ready  
Unmanned Aircraft System

# System Introduction

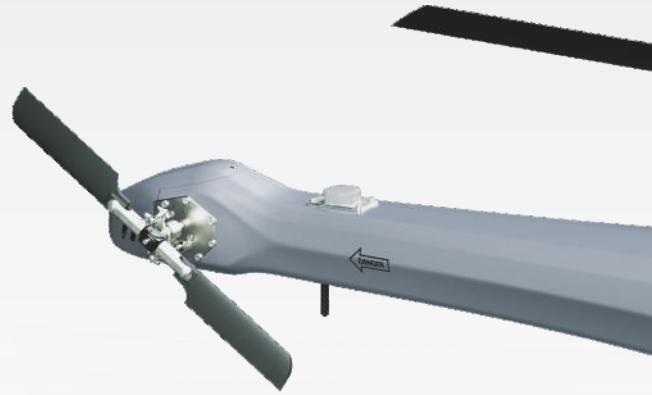
## KEY FEATURES AND CAPABILITIES

### Designed to Deliver Intelligence & Support Tactical Operations

Suitable for deployment in a wide range of operating scenarios, the runway independent Vertical Take-off and Landing (VTOL) SKELDAR V-150 has been designed to support emergency response, tactical surveillance, homeland security and time critical, high-risk search operations.

Deployable from non-permissive sites and ideally suited to irregular environments, the SKEDLAR V-150 heightens situational awareness by delivering real-time intelligence for extended periods in high-threat scenarios.

The unique modular design of the SKELDAR V-150 enables ease of transportability and accelerated maintenance. Its small logistical footprint can be halved for transport and storage thanks to an easily removable tail boom and rotor section. Routine engine overhauls and maintenance are carried out efficiently thanks to one easily removable engine and sub-frame Line Replaceable Unit (LRU).



### Long Range Data Link



Range 100 km+

### Ready to Support

The SKELDAR V-150 can be fully prepared for take-off in under twenty minutes. This includes unloading from a mobile vehicle and set-up of all necessary equipment, making it the perfect VTOL UAS for providing critical visual and communications information in time-critical scenarios.

### Multiple Payload Bays

Nose and centre payload bays enable the SKELDAR V-150 to be equipped with a wide range of easily interchangeable payload configurations, including powerful Electro-Optical and Infrared (EO/IR) sensors in combination with long-range, SIGINT, WAMI, SAR, COMINT or LIDAR payloads.

### Automatic Support Features

Fully Automatic Take-off and Landing (ATOL) combined with a host of mission automation features allow the Pilot in Command (PIC) and payload operator to focus on safely providing the critical intelligence needed to support vital mission objectives.





# Payload Flexibility

ENHANCING SITUATIONAL AWARENESS



## Excellent Endurance & Performance

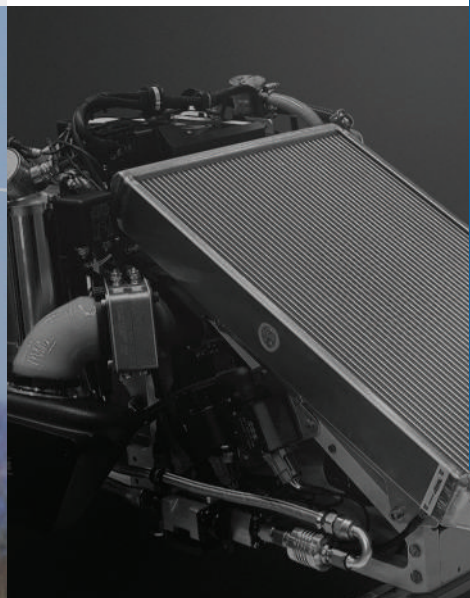
Extensively tested to ensure maximum reliability and performance, the SKELDAR V-150 offers a best-in-class endurance time of five hours. Maximum cruise speeds of up to 120 km/h are also achievable, making it the preferred VTOL UAS for coastal border surveillance, blue force, and search operations.

### **B** Center Bay (up to 30 kg)

Designed to accommodate Long-Range, SIGINT, WAMI, SAR, COMINT or LIDAR payloads.

### **A** Nose Bay (up to 10 kg)

Designed for Electro-Optical & Infrared (EO/IR) Sensors



## Heavy Fuel Capabilities

Operable on Jet A-1, JP-5, and JP-8 Heavy Fuels (HF), the SKELDAR V-150's powerplant options have been engineered from the ground up to align with single-fuel objectives, making the system compatible within existing operating infrastructures.

# System Integration & Sensors

IMAGING, RADAR SENSING AND COMMUNICATIONS OPTIONS

## Payload Options

- ▶ Synthetic Aperture Radars (SAR)
- ▶ Light Detection and Ranging (LiDAR)
- ▶ Communication Monitoring and Intelligence (COMINT)
- ▶ Communication Relay Payloads (CRP)
- ▶ Ground Penetrating Radar (GPR)

## Ground Penetrating Radar (GPR)

Greatly reduce threats facing ground-based personnel by safely scanning large areas for buried Improvised Explosive Devices (IED) and landmines with a GPR equipped SKELDAR V-150 without contacting the investigated ground.

## Light Detection & Ranging (LiDAR)

Equipping the SKELDAR V-150 with one of a range of LiDAR payloads allows the UA to efficiently map conflict areas to help better prepare ground-based forces for possible high-risk engagement scenarios. A LiDAR equipped SKELDAR V-150 can also be deployed to detect methane leaks and efficiently map vast areas.

## Synthetic Aperture & Maritime Radars

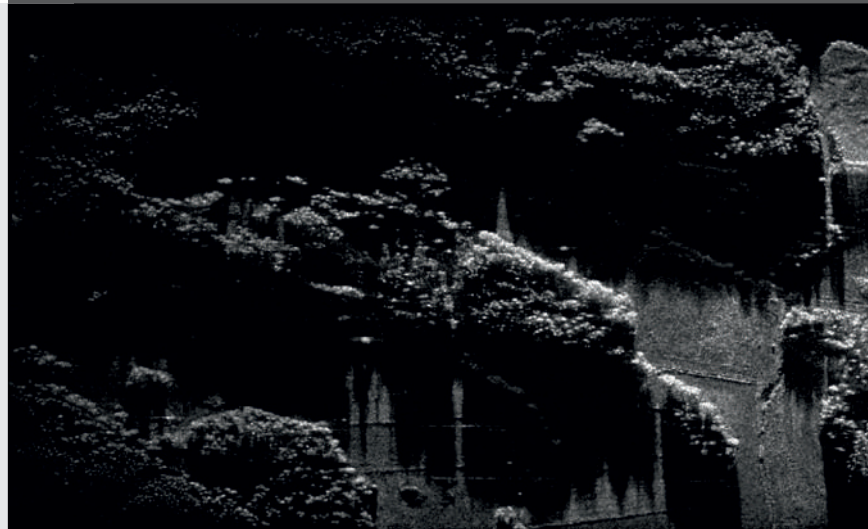
Equipped with an Active Electronically Scanned Array (AESA) Synthetic Aperture Radar (SAR) payload, the SKELDAR V-150 provides Ground Moving Target Indicator (GMTI) capabilities and superior imaging enabling high precision ground-mapping and surveillance to take place in all weather conditions. The SAR unit's low weight enables installation in combination with EO/IR payloads.



## Remote Pilot Station (RPS)

User friendly and easy to integrate, UMS SKELDAR can provide a full range of Remote Pilot Stations (RPS) including man portable, on and off-road vehicle-mounted and intermodal container systems.

Our professional and dedicated team of engineers can integrate an RPS into existing mobile or stationary infrastructure.





# Equipment & Serviceability

REDUCED MAINTENANCE & DEPLOYMENT TIMES

## Support Equipment

The SKELDAR V-150 is supplied with all necessary ground support equipment including a ground ventilator, power unit, generator, refueling system, fire extinguisher, ground-handling wheels, and all required tools.



## Class Leading Serviceability

UMS SKELDAR's UA's achieve high Times Between Overhauls (TBO) thanks to superior engine longevity and the use of high-grade components throughout.

Routine service procedures can be carried out by technicians in the field without the need for special tools or equipment.

## Efficient Ground-Handling

Skid-mounted ground-handling wheels enable efficient pre-deployment maneuverability, preparation, and transportation. Lockable with two pins, ground-handling wheel installation and removal takes seconds and requires minimum effort.



## Engine Servicing & Overhauls

The SKELDAR V-150 introduces the industry's first and only thirty-minute engine removal and replacement system. The engine Line Replacement Unit (LRU) can be exchanged by technicians in the field without the need for special tools or equipment.



# Supporting Critical Scenarios

CIVILIAN, BLUE FORCE & TACTICAL APPLICATIONS

## COMINT - Communications Intelligence

Growing communication density, diversity and complexity calls for highly automated interception for detecting and locating potential threats at the earliest possible opportunity. Unique among intelligence assets, COMINT offers a strategic advantage in a variety of policing scenarios such as missing persons searches thanks to its ability to reveal information about the source such as location, activity and ultimately intent.

When equipped with an aerial Communications Intelligence (COMINT) payload, the V-150 can undertake a wide variety of communications intelligence missions that could previously only be carried out by manned aircraft.

### COMINT can be used to determine:

- ▶ Communicating party identities
- ▶ Communicator locations
- ▶ Time and duration of communication
- ▶ Organizational function of receivers and transmitters
- ▶ Frequencies and other technical details of note in the transmission



## Intelligence, Surveillance & Reconnaissance

UMS SKELDAR's V-150 is the perfect Rotary Unmanned Aircraft System (RUAS) for Intelligence Surveillance & Reconnaissance (ISR) missions, giving coastal or land-based teams the tactical advantage needed to stay one step ahead of escalating threats. Equipped with an EO/IR, SAR or COMINT sensor combination, the SKELDAR V-150 offers the possibility to monitor infinitely more area when compared to ground-based alternatives.



## Law Enforcement

The SKELDAR V-150 can respond to the enforcement needs of a wide range of land border protection, coastal security, fisheries control, anti-piracy, oil and air pollution and anti-smuggling policies. An unmatched small logistical footprint provides easy maintenance, transport, and preparation for take-off in under fifteen minutes from remote sites near non-permissive environments.





## Search & Rescue

Highly time-critical maritime and overland search & rescue operations can be accelerated by deploying an EO/IR and COMINT equipped SKELDAR V-150. Fire brigade, mountain rescue, and missing person search crews can benefit from the SKELDAR V-150's extended endurance and capability of locating survivors following floods, avalanches, and other man-made and natural disasters.



## Critical Infrastructure Protection

Efficient and reliable aerial imaging capabilities enable the SKELDAR V-150 to be deployed to safely identify critical infrastructure defects and methane gas leaks. Compared to fixed-wing manned alternatives, inspections completed using RUAS can be carried out time and cost-efficiently without the need for additional supporting infrastructure such as a runway.



## Environmental Disaster Monitoring

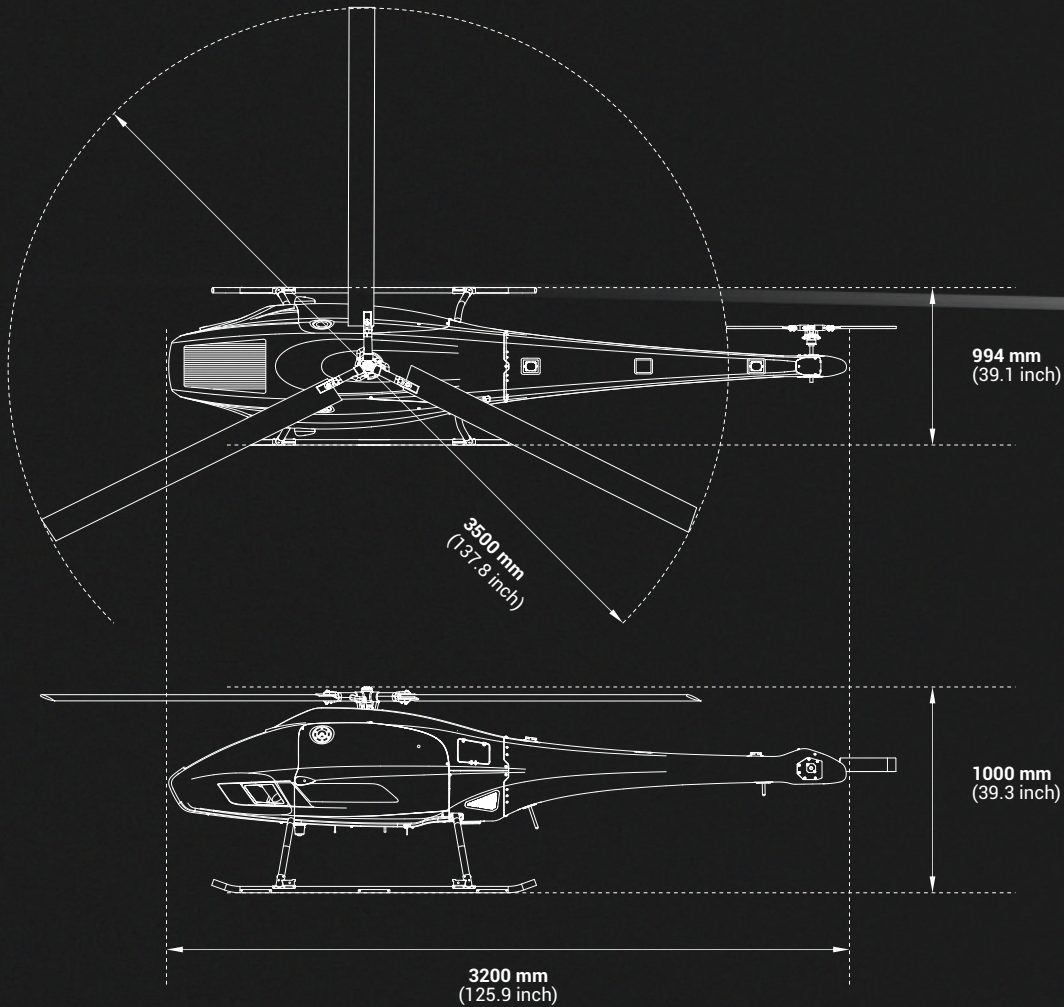
Efforts to contain and monitor the effects of natural and man-made disasters can be supported thanks to the information provided by the SKELDAR V-150. Land-based and sea-based emergency response services can benefit from the information provided by powerful EO/IR and COMINT payload combinations capable of geo-locating victims.



Scan to learn more about **Defence and Security** applications.

# Technical Specification

## & PERFORMANCE DATA



### Performance

Payload:	<b>10 kg</b> in nose (22 lbs) <b>30 kg</b> in center bay (66.1 lbs)
MTOW:	<b>150 kg</b> (330.7 lbs)
Data Link Range:	<b>100 km+</b> (54 NM) According to customer requirements
Service Ceiling:	<b>3000 m</b> (9842 ft)
Max. Airspeed:	<b>120 km/h</b> (65 kts)
Fuel:	<b>Heavy Fuel</b> (Jet A-1, JP-5 & JP-8)
Endurance:	<b>5 hours*</b> *Endurance will vary according to engine choice and payload configuration

### Physical

Rotor Diameter:	<b>3.50 m</b> (11.48 ft)
Airframe Length:	<b>3.20 m</b> (10.5 ft)
Height:	<b>1.00 m</b> (3.28 ft)
Width:	<b>0.994 m</b> (3.26 ft)

#### UMS SKELDAR AG

Headquarters / Production Plant

Gewerbepark Bata 8  
CH-4313 Möhlin  
Switzerland

P.: +41 61 377 68 68

#### UMS SKELDAR SWEDEN AB

Production Plant

Låsbomsgatan 18  
S-589 41 Linköping  
Sweden

P.: +46 13 10 17 00

For more information please email: [info@umsskeldar.aero](mailto:info@umsskeldar.aero)



This publication is issued to provide outline information only and is supplied without liability for errors or omissions. No part of it may be reproduced or used unless authorized in writing. We reserve the right to modify or revise all or part of this document without notice.

2022 © Copyright - UMS SKELDAR AG  
[www.umsskeldar.aero](http://www.umsskeldar.aero)