

A front-facing view of an AgustaWestland AW139M helicopter in flight against a light sky. The helicopter's main rotor blades are blurred from motion. The fuselage is white with dark accents. The tail boom is visible at the bottom. The background is a light, hazy sky. There are several small, white, square-like geometric shapes scattered across the upper right portion of the image. A large, thin white circle and a thin white line are overlaid on the left side of the image.

AgustaWestland AW139M

The logo for Leonardo Helicopters, featuring a stylized red fan-like symbol with eight curved blades radiating from a central point.

LEONARDO
HELICOPTERS



AW139^M

SIMPLY NO RIVALS

DELIVERING CAPABILITY FOR DEMANDING MISSIONS

The AW139M is the militarised version of the AW139, a new generation intermediate twin-turbine helicopter that sets the standard against which all intermediate twins are now measured.

Built on the considerable success of the AW139 in the worldwide military and homeland security market, the AW139M has been developed to meet the stringent military and civilian certification requirements of military, homeland security and government users.

The “Commercial Multi-mission Off-The-Shelf” AW139M can perform a wide range of military and homeland security missions including: Surveillance, Utility, Troop Transport, Special Forces Insertion / Extraction, MEDEVAC / CASEVAC, SAR / CSAR, Command & Control, Fire Support.





EXCEPTIONAL CABIN FLEXIBILITY

Designed with inherent multi-role capability and flexibility of operation, the AW139M features the largest passenger cabin in its class. Unobstructed and regular in shape, the cabin design also allows for internal access to a spacious baggage compartment. The AW139M can quickly carry heavily laden troops, with all the equipment necessary for the mission, to their drop-off point in support of high tempo operations. Alternatively, the large cabin space may be utilised to fit specific mission and role equipment including weapon system and ballistic protection. The AW139M is equipped with two large sliding doors ensuring rapid egress from both sides. This feature makes the AW139M an excellent platform for quick troop deployment in operational theatres or recovery of stretchers in flight, supported by covering-fire from window-mounted machine guns.

SUPERIOR PERFORMANCE UNDER ALL CONDITIONS

The AW139M features outstanding power, agility and manoeuvrability, providing excellent handling qualities in the whole range of the operating conditions including 'hot and high'. Its Pratt & Whitney Canada PT6C-67C turbines, together with a state-of-the-art 5-bladed main rotor, deliver a high cruise speed, even in demanding conditions and at all weights. The AW139M provides the best power reserve of any helicopter in the intermediate twin-engine class. The AW139's exceptional One Engine Inoperative (OEI) capability brings added confidence and survivability, with the capability to complete the mission. It fully complies with the latest stringent FAR / JAR / EASA requirements in terms of performance and safety.

SAFETY AND SURVIVABILITY BUILT-IN

Engineered to the highest safety and survivability standards, the AW139M is built incorporating the latest advances in aviation technology for greater dependability and safety. In particular, these advances include:

- High main and tail-rotor ground clearance providing added safety for troops and crew during ingress and egress
- State-of-the-art integrated avionics improving operational safety and systems monitoring (CMC, HUMS)
- Complete redundancy of all vital systems
- Damage tolerant and fail-safe design
- Survivability in emergencies based on energy-absorbing landing gear, crashworthy crew and pax seats, fuel tanks and airframe

NEW TECHNOLOGY FOR REDUCED PILOT WORKLOAD

The AW139M's NVG-compatible glass cockpit is based on four large Liquid Crystal Displays and a state-of-the-art integrated digital avionics system, coupled with the 4-axis digital autopilot. SAR modes and various search patterns are also supported. Its Full Authority Digital Engine Control (FADEC) minimises pilot workload and optimises helicopter control in any condition. Inlet particle separators (or Inlet barrier filter) and the optional ice protection system enable safe operations in all environments both day and night. The AW139 cockpit's ergonomic design, high visibility, excellent handling characteristics and low vibration levels minimise pilot fatigue, allowing the crew to concentrate on achieving mission objectives.



MISSION EQUIPMENT

The AW139M features an extensive range of military role and mission equipment including:

- NVG-compatible internal and external lighting
- Secure communications including V/UHF, HF, SATCOM
- Tactical Data-Link and Video Down-Link
- Nose-mounted surveillance and weather radar
- Electro-Optical / Infra-Red (EO / IR) with Laser Range Finder and Illuminator
- Mission console in cabin, enabling 'tactical' management
- Defensive Aids Suite (DAS) including RWR, LWR, MILDS and Chaff and Flares
- IR Suppression system
- Modular armour in cockpit and cabin
- Self-sealing crashworthy fuel tanks
- Heavy duty landing gear providing increased ground clearance
- Wire Strike Protection System
- Inlet engines barrier filter or particle separator
- Internal weapons (sniper rifle, general purpose and heavy machine guns)
- External weapons (7,62/12,7/20 mm machine guns and/or laser guided or unguided rockets launchers or/and air to ground/air to air missiles)
- Fast Rope and Rappelling Kits
- Cargo hook (2,200 kg / 4,850 lb)
- Rescue hoist (272 kg / 600 lb)
- Search light
- 10/12/15 crashworthy seating layouts
- Single/Dual/Multiple stretcher layouts.

Further additional options and role equipment are available for other requirements. Customer specified or furnished equipment can also be installed.

WORLDWIDE CAPABILITY

The AW139M provides battlefield commanders with:

- Exceptional day and night, and all environment single pilot IFR / VFR operational capability from the Arctic regions to hot and high mountains
- High useful load and high speed for increased mission effectiveness
- "Best in Class" power to weight ratio enabling safe operations in demanding hover conditions, including OEI
- Low levels of detection through low noise signature, reduced infra-red signature and low radar cross-section
- High levels of survivability due to systems redundancy, damage tolerant design and crashworthiness
- Rapid self deployment or by strategic air and sea transportation with minimum disruption to operational tasking.

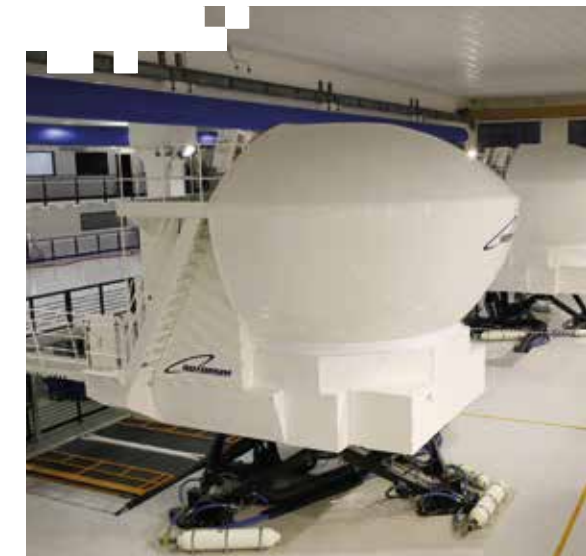


CUSTOMER-TAILORED TRAINING & WORLDWIDE SUPPORT

Leonardo Helicopters assures full simulator training capability for pilots through Rotorsim, a joint venture with CAE, including: Full flight, mission training and rehearsal using a Level D simulator with customised database.

Comprehensive training is also provided for air-crew members and maintainers to ensure mission success.

As a result of the new design approach the AW139M uses fewer components and provides easy accessibility to all systems for simplified maintenance tasks. AW139M customers benefit from a worldwide regionally-based network of overhaul facilities and spares depots.



AW139M CHARACTERISTICS

Dimensions

Overall length ⁽¹⁾	16.66 m	54 ft 08 in
Overall height ⁽¹⁾	4.98 m	16 ft 04 in
Rotor diameter	13.8 m	45 ft 03 in

Propulsion

Powerplant	⁽²⁾ Pratt & Whitney PT6C-67C Turboshafts with FADEC	
------------	--	--

Engine Rating

AEO Take off power	2 x 1,252 kW	2 x 1,679 shp
OEI 2.5 min contingency power	1,396 kW	1,872 shp

Weight (MTOW)

Internal load ⁽²⁾	6,400 / 6,800 kg	14,110 / 14,991 lb
External Load	6,800 kg	14,991 lb

Capacity

Crew	1-2
Passenger seating	Up to 15 in light order, or 8 deployable troops in combat order and 2 armed cabin crew for aircraft protection

Stretchers	Up to 4 (with 5 attendants)
Baggage compartment	3.4 m ³ 120 ft ³

⁽¹⁾ Rotors turning

⁽²⁾ An optional MTOW (internal) of 7,000 kg (15,430 lb) is available as a kit

Performance (ISA, S.L., MGW)

VNE (IAS)	310 km/h	167 kt
Cruise Speed	306 km/h	165 kt
Rate of Climb	10.9 m/s	2,140 ft/min
HOGE	2,478 m	8,130 ft
Service Ceiling	6,096 m	20,000 ft
OEI service ceiling	3,536 m	11,600 ft
Maximum range ⁽³⁾	1,061 km	573 nm
Maximum endurance ⁽³⁾	5 h 13 min	

⁽³⁾ No reserve, with auxiliary fuel



Leonardo - Società per azioni
Registered Head Office:
Piazza Monte Grappa, 4 - 00195 Rome - Italy
Tel. +39 06 324731 - Fax +39 06 3208621
Leonardo Helicopters
Head Office:
Via Giovanni Agusta, 520 - 21017 Cascina Costa di Samarate - Italy
Tel. +39 0331 229111



© Leonardo - Società per azioni

This document contains information that is proprietary to Leonardo - Società per azioni and is supplied on the express condition that it may not be reproduced in whole or in part, or used for manufacture, or used for any purpose other than for which it is supplied.

leonardocompany.com