EXTENDING THE REACH

OIL & GAS OPERATIONS
For Oil and Gas Producer (OGP) operations the ability to transport safely, quickly and efficiently enables greater productivity and flexibility in operations.

AgustaWestland provides a comprehensive range of rotorcraft meeting OGP industry requirements.
Rotary wing aircraft deliver essential capability to the Oil & Gas Producer (OGP) industry around the world and are helping to meet growing demands to fly with greater payload, further and faster.

The requirements of year-round, high intensity OGP operations mean that operators need safe, efficient and rapid transportation mostly to and from offshore platforms. The widespread use of helicopters to replace traditional sea transportation is critical in enabling greater productivity and more flexible operations.
MISSION REQUIREMENTS

Rotorcraft play an intrinsic role in OGP operations. This publication discusses the evolution of the use of helicopters in the OGP sector, the changing nature of missions and the key operational drivers that are effecting demand.

Missions are diverse. By far the largest requirement in terms of aircraft numbers is the safe and timely transfer of people and essential production materials to and from offshore oil and gas platforms. Helicopters enable operators to ensure that crews and equipment are where they need to be, supporting efficient operations.

Rotary wing aircraft are also deployed for maintenance and pipeline surveillance missions as well as in exploration roles such as geophysical and seismic surveying.

OGP Helicopter Fleet by Role

<table>
<thead>
<tr>
<th>Role</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offshore</td>
<td>80%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
<tr>
<td>Pipeline</td>
<td>4%</td>
</tr>
<tr>
<td>Geophysical</td>
<td>2%</td>
</tr>
<tr>
<td>Seismic</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: International Association of Oil and Gas Producer (2007 data)
EVOLUTION OF THE MARKET

The OGP industry has undergone significant changes since the earliest days of rotary wing transport in the 1950s. In those formative years the aircraft in use were largely light single engine helicopters. However, the rapid expansion of oil and gas operations in subsequent decades has driven the need for larger helicopters and the greater use of twin engine aircraft. Today, with resources closer to shore being rapidly exhausted, exploration is gradually moving further offshore to a radius of 200 nm and beyond, leading to greater demand for aircraft capable of operating in long range, deepwater environments.

The overall size of the market for OGP aircraft is also increasing. In 2007 the total number of units worldwide stood at 1,443. In 2013 there were 2,064 helicopters deployed in the sector - an increase of 43%. The fleet is spread across key geographies including Australasia, Brazil, the Gulf of Mexico, the Middle East, the North Sea and West Africa. Future fleet growth is expected to be driven by Asia, Oceania and South America. Alongside several large operators, smaller operators account for more than 60% of the market.

Safety remains the OGP sector’s number one priority and since 2001 significant technology advances and greater industry-wide collaboration has led to goals of an 80% reduction in reported accident rates by 2016.
By 2022 the total turbine OGP fleet is expected to reach 2700 units with the greatest regional growth in South America, Africa and Asia.
NORTH AMERICA
OGP Aircraft Numbers

- 2002: 146
- 2013: 363

SOUTH AMERICA
OGP Aircraft Numbers

- 2002: 190
- 2013: 255

EUROPE
OGP Aircraft Numbers

- 2002: 131
- 2013: 220

AFRICA
OGP Aircraft Numbers

- 2002: 117
- 2013: 233

MIDDLE EAST
OGP Aircraft Numbers

- 2002: 233
- 2013: 312

ASIA
OGP Aircraft Numbers

- 2002: 73
- 2013: 123

AUSTRALASIA
OGP Aircraft Numbers

- 2002: 2064
- 2013: 312

* Source: AgustaWestland
The OGP market remains strong and demand for rotorcraft is expected to continue in the next decade. The number of aircraft is expected to increase along with a continued trend towards use of aircraft with greater payloads. The increase in longer range operations is reflected in predictions of an average 10% increase in range of platforms through to 2018.

New energy sources such as onshore shale gas or wind may emerge to need rotorcraft for surveying and maintenance tasks. For all roles there will continue to be a strong focus on improving safety, driven both by regulatory changes and by the industry’s own OGP standards, which are influencing the fleet renewal decisions of operators.

Technology will have an important role in the drive to further improve safety. Developments in precision GPS enabled instrument approaches together with technologies enhancing crew awareness are likely to influence future operations.

The company also continues to innovate for the future with the development of the AW609 civil TiltRotor. The TiltRotor offers unique operational advantage to operators needing to combine speed and ultra long range capability.
AgustaWestland has a proven heritage in the OGP sector with Customers for more than 270 helicopters, a number expected to increase by approximately 50% in the next couple of years.

The AW139 intermediate twin is widely acknowledged as the reference in its class for the OGP mission and there are more AW139s flying with OGP operators than in any other application – approximately one third of the total AW139 fleet.

The AW139 offers a unique combination of built-in safety, performance and operational effectiveness, allied with latest generation technologies including an optional Full Ice Protection System and state-of-the-art avionics.

Everything that AgustaWestland has learned from the AW139 is now being applied to the wider AgustaWestland ‘Family’ of helicopters, which also comprises the AW169 and AW189. The ‘Family’ concept offers operators benefits through common features including the same design philosophy, common avionics, the same certification requirements and a high degree of commonality in maintenance and training.

AgustaWestland is well placed to meet operators’ needs from the light class of aircraft through to larger helicopters in the medium category.
Bel Air began offshore operations in 2009 when it took delivery of its first AW139 intermediate twin. The company’s credentials in the sector were quickly underlined with the award of a contract from Maersk Oil & Gas in 2010 to operate a helicopter shuttle service between offshore platforms in the Danish sector of the North Sea.

INTENSE OPERATIONS IN DEMANDING CONDITIONS

Danish offshore helicopter company Bel Air Aviation operates a fleet of three AW139 helicopters from its main base at Holsted Heliport and an offshore base at Esbjerg Airport, supporting a broad base of customers including Shell, Maersk, Dong Energy and Hess.

One demanding operation involves a busy shuttle service connecting its Esbjerg Airport base with platforms that range from 129 nm to 157 nm offshore. The crew of two pilots and one engineer conduct between 8 and 15 landings each morning and evening, spending a week on the platform before re-starting the same shuttle service.
Susanne Hessellund  
Owner, Managing Director and Pilot in Bel Air:  

“THE AW139 HAS EXCEPTIONAL PERFORMANCE CLASS 1 CAPABILITY – AS A PILOT YOU KNOW THAT IF YOU HAVE ONE ENGINE INOPERATIVE YOU CAN CONTINUE TO FLY WITH NO ISSUES AT ALL. THE PC 1 PERFORMANCE IS ALSO A BIG ADVANTAGE FOR SHIP OPERATIONS BECAUSE IT MEANS YOU CAN FLY AWAY FROM HELIDECKS THAT ARE VERY CLOSE TO THE SEA WITH COMPLETE CONFIDENCE. THE AW139 IS DEFINITELY THE BEST HELICOPTER I’VE EVER FLOWN.”

Bel Air will add new capability with two 8-tonne class AW189 helicopters in 2014.

Susanne Hessellund  
Owner, Managing Director and Pilot in Bel Air:  

“WE HAVE SELECTED THE AW189 BECAUSE OUR CUSTOMERS ASK FOR A LARGER HELICOPTER WITH ADDITIONAL SIZE AND PAYLOAD. PLUS WE LIKE AND SEE BIG ADVANTAGES IN THE AGUSTAWESTLAND HELICOPTER FAMILY CONCEPT – FOR INSTANCE WE EXPECT THAT WE CAN MOVE PILOTS AND ENGINEERS EASILY BETWEEN THE TWO TYPES WITH MINIMUM TRAINING GIVING US EXTRA FLEXIBILITY IN HOW WE DEPLOY OUR FLEET”
With a heritage dating back to 1948, Era Group is the longest-established helicopter operator in the United States. Headquartered in Houston, Texas, the company is one of the largest helicopter transport operators worldwide with a total fleet of more than 180 aircraft, a large proportion of which are dedicated to the OGP sector.

Era’s expertise in the offshore oil and gas market includes a significant presence in the United States, Gulf of Mexico and Alaska, as well as aircraft in countries including Brazil, Indonesia, Mexico, Spain, the United Kingdom and most recently, an Era crewed AW139 in Uruguay.

In the Gulf of Mexico, Era operates a mixed AgustaWestland fleet of AW119s, selected for their speed and performance, together with AW109s and AW139s, flying to platforms between 85 and 210 nm offshore. One of the key missions for the AW119 is supporting an Era contract with the US Government’s Minerals Management Service (MMS) conducting pipeline inspections in the Gulf of Mexico.

Era manages a large fleet of AgustaWestland helicopters including 7 AW119MKII, 17 A119, 9 A109E and 41 AW139s and is positioned to become one of the first customers to operate the full AgustaWestland family of AW169, AW139 and AW189 helicopters.

The Prudhoe Bay field at Deadhorse, Alaska is North America’s largest oilfield, located inside the Arctic Circle and presents an extremely challenging environment for helicopter operations with temperatures dipping below -40 °F in winter. Era deploys the AW139 helicopter in Alaska to provide personnel transport services to customers including BP, Eni and ExxonMobil. The aircraft also performs regular cargo hook operations, transporting essential equipment in a landscape where road infrastructure is sparse and often impractical. The recent addition of two Full Ice Protection Systems (FIPS) AW139s to the Alaska fleet has furthered our Arctic Operational Expertise and brought added mission capabilities and safety margins to winter operations.
Stuart Stavley, says:

“COMMONALITY OF SPARES, SYSTEMS, AND TRAINING OFFER A SMOOTH TRANSITION BETWEEN DIFFERENT HELICOPTER TYPES AND ASSISTS ERA TO DRIVE DOWN OPERATING COST BY IMPROVED EFFICIENCIES. WE COMMITTED TO THE AW189 BECAUSE WE SEE THE NEED OF AN AIRCRAFT WITH THIS PAYLOAD AND RANGE AND DON’T ALWAYS SEE CUSTOMERS REQUIRING A HEAVY AIRCRAFT FOR THESE MISSIONS. WE ARE ALSO EXTREMELY PLEASED WITH THE SAFETY STANDARDS AND SINGLE ENGINE PERFORMANCE OF THE AW189.”

Stuart Stavley, Era Group’s SVP, Fleet Management:

“OUR CUSTOMERS ARE LOOKING FOR A HELICOPTER THAT IS FULLY COMPLIANT WITH OGP STANDARDS. FROM AN ERA PERSPECTIVE WE LOOK FOR SAFETY, MISSION CAPABILITY AND RELIABILITY. THE AW139, FIRST DEPLOYED IN 2005, HAS PERFORMED VERY WELL - IT HAS BEEN AN EXCELLENT HELICOPTER.”
OPERATIONAL DRIVERS

PERFORMANCE

The challenging OGP operating environment means that aircraft need to offer the right combination of payload, range and speed. Performance Class 1 and the offshore optimised PC 2e standards enable offshore fly away even in One Engine Inoperative (O.E.I.) conditions.

AVAILABILITY

Aircraft reliability is critical as are the right management tools. A manufacturer-supported Health and Usage Monitoring System (HUMS) and Flight Data Monitoring system (FDM) are essential along with round the clock support in the form of the right level of expertise on hand. Clear ‘go’ or ‘no go’ thresholds to assist decision-making on when it is safe to fly must support these intensive operations.

The extreme, particularly low temperatures, common to many operating sites may benefit from the installation of a Full Ice Protection System to support flight during known icing conditions.

SPACIOUS INTERIOR

Cabin interiors need to be spacious, bright and comfortable with low noise and vibration and good storage space for luggage and equipment. The aircraft should have large sliding doors allowing easy access and egress, including for larger passengers.
SAFETY

Aircraft need to adhere to the latest FAA and EASA Part 29 safety requirements. Safety must be built in.

Together with an airframe, seats and fuels cells that are crashworthy in design, features such as main gear box ‘run-dry’ capabilities of up to 50 minutes (AW189) and lightning strike protection, are critical.

The ability for a helicopter to stay afloat and upright in rough seas aids survival. An egress process allowing rapid exit of no more than two people per exit with emergency lighting guiding passengers towards life rafts accessible directly from the cabin is preferable.

The addition of an Automatically Deployable Location Transmitter (ADELT) aids fast recovery.
Beyond regulatory requirements, different in every country, significant improvements in accident reduction are being achieved through intense industry engagement.

The adoption by the OGP Aviation Subcommittee of a seven-point Air Safety Strategy focusing on new helicopters, training, quality and safety management systems, HUMS, Flight Data Monitoring, the discipline in take-off and landing profiles and collision avoidance technologies is yielding tangible safety improvements in the industry.
Technology has the potential to take offshore flight operation safety to a new level.

The extended use of satellite navigation technology alongside a Satellite-Based Augmentation System (SBAS) allows the development of offshore-specific approach and flight procedures. These technologies can be accompanied by Automatic Dependant Surveillance-Broadcast (ADS-B) and complemented with Enhanced Vision and Synthetic Vision Technologies (EVS – SVT), improving offshore flight operations both night and day.

Traffic Collision Avoidance Systems (TCAS) and Enhanced Ground Proximity Warning Systems (EGPWS) further improve crew awareness in all phases of helicopter flight.
Health and Usage Monitoring System (HUMS) technology augments basic aircraft monitoring from the Central Maintenance Computer with data from sensors on major components and systems, analysing it against the fleet norm for variances. The AW139 HUMS solution developed with operators for operators offers basic and enhanced services. The enhanced service ‘HUMS Web Service’ includes automatic data upload. In addition Automatic Anomaly Detection is available via a 24/7 web interface, using simple indicators to speed interpretation of results. These early warning tools are valuable fleet management tools in offshore contributing to improved safety.

Critical to intensive operations are services to support maximum availability of aircraft. Business planning benefits too from clear costs determined by hours flown. Proactive monitoring to identify Aircraft On Ground incidents allows for fast response times and minimises disruption to schedules.

AgustaWestland’s services include Fleet Operations Centres in the UK, Italy and the USA (Gulf of Mexico) for
round-the-clock, proactive fleet monitoring and a range of Extended Warranty Programmes. In addition, Performance Based Logistics service agreements may be put in place to share risk.

The group continues to grow its global footprint of service centres ensuring expert personnel are locally available.

**TRAINING**

A highly trained workforce benefitting from the latest in offshore best practice underpins operational safety. High quality training from traditional pilot type ratings, delivered on aircraft or via state-of-the-art advanced Full Flight Simulators, to maintenance courses and mission specific training modules drives effectiveness.

AgustaWestland’s expanding network of training centres optimise learning through customised offshore courses which mirror the real operating environment i.e.: weather, ocean states and landing requirements.

A customised ‘OGP Aviation Safety Advisors Programme’ allows logistic aviation specialists to focus on platform familiarisation, safety in design and specialist training and support methodology.
The AW119Kx, an evolution of the successful AW119 Koala, is the modern light single helicopter from AgustaWestland. Well suited to demanding offshore missions due to its speed and internal capacity, it retains features typical of a light twin-engine such as system redundancy.

MISSION READY

The AW119Kx enjoys success with missions such as passenger transport, aerial survey work and pipeline inspections. Additional equipment such as air conditioning, Stability Augmentation System (SAS), Traffic Advisory System (TAS), ELT and skid mounted pop-out floats may be fitted to enhance mission effectiveness.

FAST AND FLEXIBLE

Leading Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW / Gross Weight</td>
<td>2,850 kg / 6,283 lb</td>
</tr>
<tr>
<td>Seating Capacity</td>
<td>1-2 Pilots, 6-7 Passengers</td>
</tr>
<tr>
<td>Cruise Speed</td>
<td>244 km/h / 131 kt</td>
</tr>
<tr>
<td>Maximum Range</td>
<td>954 km / 515 nm</td>
</tr>
<tr>
<td>Maximum Endurance</td>
<td>5 hrs 20 mins</td>
</tr>
<tr>
<td>Powerplant</td>
<td>1 x Pratt &amp; Whitney Canada PT6B-37A</td>
</tr>
<tr>
<td>Power Range - Take-off</td>
<td>747 kW / 1,002 shp</td>
</tr>
</tbody>
</table>

The AW109 Trekker is the newest light twin-engine helicopter in the 3 ton class equipped with robust skid landing gear. With a high payload and superior range, the Trekker represents excellent value for money.

MODERN AVIONICS

The modern glass cockpit is configured with Garmin’s G1000H™ Integrated Flight Deck system bringing new levels of flight information to the cockpit. Pilot workload is reduced and situational awareness is enhanced through a Synthetic Vision System with Highway In The Sky (HITS) depiction, a moving map and a Helicopter Terrain Avoidance Warning System (HTAWS).
Joining the AgustaWestland highly successful A109 series is the GrandNew, a light twin helicopter featuring the very latest developments in avionics. Configurable to meet the demanding safety standards required for offshore operations, the GrandNew is seeing commercial success due to its modern cockpit, superior performance, high payload, spacious interior and attractive operating economics.

**SAFETY**

Unique Cat A performance ensures safe operations from the smallest of landing sites such as an oil rig even in single engine conditions. Redundancy in core systems and a powerplant controlled by FADEC maximise safety in an emergency. Pilot workload is further minimised by a 4-axis digital duplex autopilot, excellent external visibility and enhanced situational awareness information.

**COMFORT**

The quiet, spacious cabin accommodates up to six passengers in comfort, forward facing, on individual crashworthy seats. Large passenger sliding doors with a 1.40 m opening allow for easy boarding and quick exit in an emergency. The two life rafts are embedded in the front emergency float assemblies to maximise interior cabin space.

With a capacity of six passengers in a forward facing configuration the AW109 Trekker allows crews to travel comfortably in a quiet environment. Access to and from the helicopter is via 1.40 m large sliding doors. Pop-out floats may be fitted to enhance mission effectiveness.

**Leading Features**

<table>
<thead>
<tr>
<th>MTOW / Gross Weight</th>
<th>3,175 kg</th>
<th>7,000 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seating Capacity</td>
<td>1-2 Pilots, 6-7 Passengers</td>
<td></td>
</tr>
<tr>
<td>Cruise Speed</td>
<td>289 km/h</td>
<td>156 kt</td>
</tr>
<tr>
<td>Maximum Range</td>
<td>859 km</td>
<td>464 nm</td>
</tr>
<tr>
<td>Maximum Endurance</td>
<td>4 hrs 31 min</td>
<td></td>
</tr>
<tr>
<td>Powerplant</td>
<td>2 x Pratt &amp; Whitney Canada PW207C</td>
<td></td>
</tr>
<tr>
<td>Power Rating - Take-off</td>
<td>2 x 548 kW</td>
<td>2 x 735 shp</td>
</tr>
</tbody>
</table>
NEXT GENERATION VERSATILITY

Ideally suited to the demanding offshore mission, capable of carrying up to 10 passengers in comfort and safety, the AW169 exceeds the latest regulatory requirements (EASA/FAA Part 29, JAR OPS 3/EU-OPS). Based on the operationally proven, market-leading AW139 platform and belonging to the AgustaWestland ‘Family’ of products (with AW189 and AW139), mixed-fleet operators can leverage the advantage of a common design philosophy across platforms. The AW169 is the ideal modern technology replacement for older types in the 4 to 4.5 tonne range of helicopters.

INTERIOR

Layouts include 8/10 seat OGP compliant passenger configurations. In all cases the 6.3 m³ volume cabin allows passengers wearing survival suits the room to travel comfortably in a bright uncluttered space. A further, easily accessible, 1.4 m³ storage compartment for luggage or cargo optimises the use of interior space. The extensive square cabin allows for flexible operations and may be quickly reconfigured in the event of a role change such as the need to recover a patient on a stretcher or to deliver equipment urgently needed to maintain production.

8 Passenger seats, forward facing

10 Passenger seat configuration

Emergency pop out Exits exceeding type IV
Performance and safety are delivered to the highest OGP standards and meet the latest FAA and EASA Part 29 certification specifications. Two powerful Pratt & Whitney Canada PW210A engines with dual channel FADEC combine with the advanced aerodynamics of the airframe and rotors to provide superior Cat. A performance Class 1.

The brand new AW169 design incorporates many features maximising safety such as: superior pilot external visibility, critical systems redundancy, ‘run-dry’ capability for the main gearbox in excess of 30 min, and state-of-the-art navigation aids integrated in the glass cockpit. In the event of an emergency, egress via wide sliding doors and pop out windows maximises survivability.

Leading Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Category</td>
<td>4.5 tonne range</td>
</tr>
<tr>
<td>Seating Capacity</td>
<td>1-2 pilots, 8-10 passengers</td>
</tr>
<tr>
<td>Cabin volume</td>
<td>6.3 m³ 222 ft³</td>
</tr>
<tr>
<td>Powerplant</td>
<td>2 x Pratt &amp; Whitney Canada PW210A Turboshafts FADEC and APU Mode</td>
</tr>
<tr>
<td>Power Rating - Take-off</td>
<td>2 x 745 kW 2 x 1000 shp class</td>
</tr>
<tr>
<td>Baggage compartment</td>
<td>1.4 m³ 45.9 ft³</td>
</tr>
</tbody>
</table>
Superior performance, excellent handling characteristics and compliance with OGP guidelines have enabled the AW139 to become the benchmark intermediate helicopter of choice in the industry.

**POWERFUL**

Incorporating proven technologies, the AW139 provides the highest power to weight ratio in class. Two powerful Pratt & Whitney Canada PT6C-67C engines, with single channel FADEC, efficient rotor design and superior handling quality with high controllability margin, deliver unparalleled Cat. A Class 1 performance ensuring that even with the loss of one engine, the AW139 can safely take-off or land on an offshore helipad.

**VERSATILE**

The fully articulated main rotor assembly, optimised blades and aerodynamic airframe design provides for low vibration and noise in the cabin to create a comfortable travelling environment for passengers. Bright and spacious, the 8.0 m³ area may be configured with a standard twelve seat layout out or a higher density fifteen seat alternative. Modular components ensure the cabin is quickly reconfigurable should operational circumstances change.
Leading Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>MTOW/Gross Weight 6,400 kg</th>
<th>MTOW/Optional Weight 6,800 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTOW/Optional Weight</td>
<td>6,400 kg</td>
<td>6,800 kg</td>
</tr>
<tr>
<td>Optional Weight</td>
<td>14,110 lb</td>
<td>14,991 lb</td>
</tr>
<tr>
<td>Typical offshore Equipped Weight</td>
<td>4,400 kg</td>
<td>9,700 lb</td>
</tr>
<tr>
<td>Seating Capacity</td>
<td>1-2 pilots, up to 15 passengers</td>
<td></td>
</tr>
<tr>
<td>Cabin Volume</td>
<td>8 m³</td>
<td>283 ft³</td>
</tr>
<tr>
<td>Max Speed</td>
<td>306 km/h</td>
<td>165 kt</td>
</tr>
<tr>
<td>Max Range*</td>
<td>&gt; 1,250 km</td>
<td>&gt; 675 nm</td>
</tr>
<tr>
<td>Max Endurance*</td>
<td>5 hrs 56 mins</td>
<td></td>
</tr>
<tr>
<td>Powerplant</td>
<td>2 x Pratt &amp; Whitney PT6C-67C Turboshafts with FADEC</td>
<td></td>
</tr>
<tr>
<td>Power Rating - Take-off</td>
<td>1,396 kW</td>
<td>1,872 shp</td>
</tr>
</tbody>
</table>

* at 6,000 ft, No reserve, with Auxiliary fuel

SAFETY

State of the art avionics work together with the 4-axis digital autopilot with auto hover and digital electronic engine control to minimise pilot workload.

Exceeding the FAA and EASA Part 29 certification requirements, designed-in safety is core to AW139 success. Fail safe design, critical system redundancy, a proven 30 minute ‘run-dry’ capability coupled with survivability equipment such as floatation systems, life rafts, ADELT and HEELS all support safe operations.
LATEST GENERATION PERFORMANCE

The AW189 is a brand new 8.3 tonne, twin-engine helicopter, designed to answer the growing market demand for a versatile, affordable, multirole platform. Ideally suited to long range, deep water missions typical of current offshore operations, AW189 features high performance, state-of-the-art technologies and exceeds the latest regulatory requirements (EASA/FAA Part 29, JAR OPS 3/EUOPS).

Belonging to the AgustaWestland ‘Family’ of products (with the AW169 and market-leading AW139), mixed-fleet operators can leverage the advantage of a common design philosophy across platforms.

CAPABILITY

AgustaWestland has leveraged decades of collaboration with customers worldwide to ensure unrivalled versatility in the AW189 platform. The AW189 is certified for all weather, day and night, VFR/IFR operations, critical for the harsh conditions prevalent in offshore operations.

The spacious, versatile cabin seats 16 passengers as standard and can be configured with up to 19 seats for high density missions and 12 seats for ultra-long range requirements. High cruise speed, an extremely high payload due to the efficient rotor system design and superior O.E.I capability ensures safety and reduces operational costs.

Latest generation avionics enhance situational awareness, reduce crew workload and expand operational capabilities.

PERFORMANCE

The AW189 is powered by two GE CT7-2E1 engines, delivering high speed and superior performance in hover and Cat. A.

The aerodynamic fuselage and innovative rotor blade design reduce fuel consumption and maximise range. The excellent helicopter radius of action allows the AW189 to transport 16 passengers at 140 nm (ROA).
SAFETY

The AW189 exceeds the airworthiness requirements of the most recent EASA/FAA amendments in the transport category (Part 29), qualifying it for the most stringent guidelines of the major Oil and Gas companies.

Further safety features include:
- Structural, fuel system and seats crashworthiness
- 50 minute ‘run-dry’ capability
- HTAWS, TCAS II
- HUMS
- Latest generation avionics
- Large push out emergency windows
- External life rafts (2 x 21)
- Emergency floats (Sea State 6)
The AW609 TiltRotor’s unique combination of speed, range and altitude with the vertical take-off and landing capabilities of a helicopter, and the comfort of a turboprop will redefine operational capability. Meeting the stringent requirements of the OGP sector, the innovative AW609 provides operators with significant operational advantages over helicopters.

**TIME CRITICAL**

Flying at speeds of up to 275 kt in the cruise, the AW609 is capable of carrying up to nine passengers in the comfort of a pressurised cabin. With journey times typically half those of a conventional helicopter, routine crew changes can be achieved quickly and with the minimum of fatigue. For time-critical access such as medical emergencies or urgent delivery of essential production equipment, the AW609 provides unprecedented increases in speed and range.

**PERFORMANCE**

Powered by two fuel efficient PT6C-67A engines, and operating to PC1 at MTOW, even in one engine inoperable (O.E.I.) conditions, the AW609 allows operations to offshore helipads and ship decks to occur routinely and with confidence. Flying above the weather at altitudes up to 25,000 ft ensures minimum disruption to schedules. With its full flight in icing clearance, AW609 operations can also be flown in harsh Arctic conditions.

The proven Pro Line Fusion system from Rockwell Collins ensures the availability of the very latest in commercial aircraft cockpit and navigation technologies including touchscreen control on the three 14-inch primary flight displays and an option for a head-up guidance system capable of displaying synthetic vision imagery. Crew workload is reduced and safety is maximised.
## Leading Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>MTOW</th>
<th>STOL MTOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max cruise speed</td>
<td>510 km/h</td>
<td>275 kt</td>
</tr>
<tr>
<td>Max range (std tank)</td>
<td>1,296 km</td>
<td>700 nm</td>
</tr>
<tr>
<td>Service ceiling (ISA)</td>
<td>7,620 m</td>
<td>25,000 ft</td>
</tr>
<tr>
<td>Hover OGE (ISA)</td>
<td>1,829 m</td>
<td>6,000 ft</td>
</tr>
<tr>
<td>Fuel load (std tank)</td>
<td>1,134 kg</td>
<td>2,500 lbs</td>
</tr>
<tr>
<td>Crew</td>
<td>2 pilots, up to 9 Passengers</td>
<td></td>
</tr>
<tr>
<td>Powerplant</td>
<td>2 x Pratt and Whitney Canada PT6C-67A With FADEC</td>
<td></td>
</tr>
<tr>
<td>Power Take-Off (30 min)</td>
<td>1,447 kW</td>
<td>1,940 shp</td>
</tr>
</tbody>
</table>
AgustaWestland, the Anglo-Italian helicopter company owned by Italy’s Finmeccanica, is a total capability provider in the vertical lift market.

Through its rotorcraft systems design, development, production and integration capabilities, its experience in the training business and its customer focused Integrated Operational Support solutions (IOS), the Company delivers unrivalled mission capability to military and commercial operators around the world.

This expertise, backed by technological excellence and innovation, makes the Company a leader in a number of the world’s most important helicopter markets offering the widest range of advanced rotorcraft.

**AgustaWestland is a total rotorcraft capability provider.**

**A GLOBAL PRESENCE TO SUPPORT ITS CUSTOMER**

AgustaWestland is further expanding its global presence, opening new regional support and authorised customer service centres. This ongoing investment and commitment to support its commercial, government and military customers through a dedicated network of local service centres is maximizing the effectiveness of customers helicopters.
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