

AW609: TOWARDS A REVOLUTION IN AIR TRANSPORT

Taking to the skies above our Philadelphia facility, the unique silhouette of the AW609 tiltrotor was an unmistakable sight. On October 13th, all eyes were trained on AC5, the first production aircraft, as it lifted off for its maiden flight. The successful flight marks a major milestone in the world's first multi-role tiltrotor programme that promises to redefine a range of public and commercial services.

The AW609 will revolutionise air transport with its groundbreaking capabilities that combine the flexibility of a helicopter with the performance of a fixed-wing turboprop. A dedicated 'powered lift category' civil certification is also now under development.

The maiden flight enabled the crew to perform initial evaluations of on-board systems and general handling. Subsequently, AC5 will be used to validate the aircraft's avionics as well as additional type certification testing.

From a Leonardo perspective, we're at an exciting point in the AW609's development. AC5 is joined by another prototype in the US and two more in Italy which are all involved in the last stages of testing ahead of Federal Aviation Administration (FAA) certification. Meanwhile, three aircraft are on the final assembly line in Philadelphia at various stages of assembly.

It's been a busy 12 months for the AW609 programme. Earlier this year, launch customer for the AW609 in the US, Bristow Group, completed a demonstration flight in Philadelphia as part of our collaborative approach to the introduction to service of the AW609.

In March we also added another unnamed customer for the AW609 when a long-established European operator of Leonardo helicopters confirmed its plans for the aircraft. The operator aims to introduce four AW609s to conduct a range of passenger transport missions worldwide.

The AW609 will bring a step change in capability for point-to-point transportation over long distances. It can accommodate up to nine passengers in the comfort of a pressurised cabin and will meet the needs of both the commercial and government markets. The aircraft is ideally suited for missions including VIP and business transport, Emergency Medical Services (EMS), Search and Rescue (SAR), offshore operations and patrol.



Image: Polish MoD

HUMS CONFERENCE BRINGS CUSTOMER COMMUNITY TOGETHER

Our 8th HUMS Conference marked a welcome return to face-to-face engagement after a near three-year hiatus due to Covid. We welcomed delegates to our Vergiate site for the event, which provided an opportunity for networking, workshops, sharing of best practice as well as insights about the use of diagnostic data to enhance helicopter performance and safety.

During the conference, topics under discussion included our latest HUMS developments such as the new HeliWise 2.0 and its features alongside the Heliwise4Mobile application. We also enjoyed in-depth discussions about improvements in maintenance activities, Controlled Service Introduction and threshold refinements as well as new HUMS training solutions.

We would like to thank the HUMS community for taking part in the event and for their continuous support and collaboration which is vital in enabling us to further improve our services.



TOLL AW139s CONDUCT RESCUE MISSIONS IN FLOOD-HIT NEW SOUTH WALES

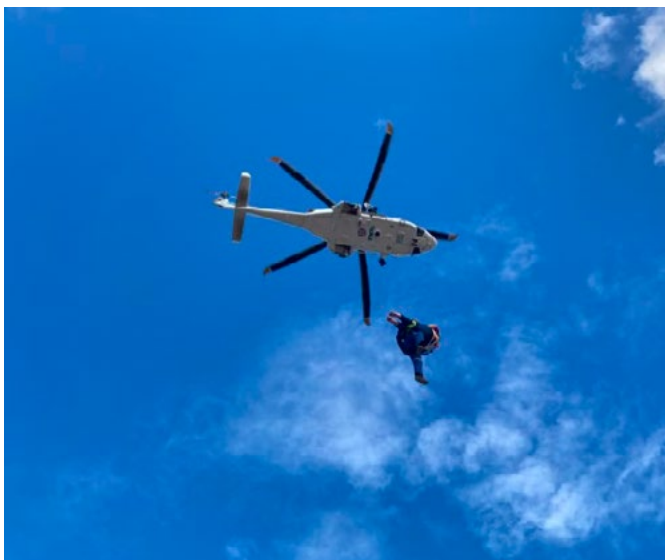


Parts of Australia have experienced devastating flooding in recent months, with New South Wales (NSW) one of the areas worst affected by the extreme weather events. The TOLL Ambulance Rescue Helicopter Service has played a vital role in disaster relief efforts by deploying its fleet of eight AW139 helicopters to the scene of major incidents.

TOLL helicopters have played a major role in rescue operations in flood-affected areas by providing aeromedical support, immediate critical care and transport for patients cut off due to the flooding.

In November 2022, the TOLL Ambulance rescue team conducted a rescue using AW139 helicopters in the town of Eugowra, NSW where up to 80% of homes and businesses were damaged during devastating flash flooding. Toll Ambulance Rescue AW139s deployed from bases in Bankstown, Wollongong, Canberra, and Orange directly to the scene at Eugowra. The helicopters conducted multiple roof-top winch rescues to help stranded families reach safety.

The Toll Ambulance Rescue Helicopter Service is tasked to carry out over 2,500 missions a year from its four bases. It has one of the largest aeromedical fleets in Australia and the eight AW139s offer the latest in performance, safety and innovation to patients across the Southern Zone of NSW and the Australian Capital Territory (ACT).



AUSTRALIA HOSTS AW139 & AW109 OPERATORS CONFERENCE

We know the importance that operators of our helicopters place on direct and local access to the services we offer, including maintenance and support – it is a commitment which goes to the heart of our mission to offer world-class support to customers.

At the end of November, we hosted the 4th AW139 Operators Conference in Melbourne, Australia and for the first time ever the event was extended to welcome AW109 customers and operators. It proved to be a valuable opportunity to discuss the latest product improvements, achievements and updates. We also shared with the operating community details of our service offering, training opportunities and relevant logistics and technical information.

A big thank you to all the operators who participated in the conference by sharing their ideas and suggestions and providing an operational perspective. All the insights from the event will support our constant drive to enhance helicopter performance, reliability, availability and safety.



SWEDISH ARMED FORCES ACHIEVES A109LUHS MILESTONE

We congratulate the Swedish Armed Forces on achieving the significant milestone of 50,000 flying hours with its fleet of A109LUHS helicopters. The Helicopter Unit of the Swedish Armed Forces deploys the aircraft for both national and international ground-based and naval operations.

The 20-strong fleet includes two variants of the A109LUHS trainer/light utility helicopter, the first of which entered service in 2006.

We have forged a successful and long-lasting relationship with the Swedish Armed Forces and the Swedish Defence Materiel Administration (FMV) over many years. Technical and logistic support has been vital in ensuring that the helicopters continue to operate with the highest levels of reliability and availability.



JAPAN SEMINAR 2022: PROTECTING COMMUNITIES AND SAVING LIVES

We're proud to have a longstanding presence in Japan with more than 130 Leonardo helicopters operating in the country's civil rotary wing sector. The Leonardo Japan Seminar 2022 held in Tokyo from October 13th to 14th turned the spotlight on the latest developments in law enforcement and firefighting/disaster relief.

The Leonardo Japan Seminar 2022 underlined the vital role that helicopter assets play in protecting communities in Japan—whether in policing operations or by responding to natural disasters and other rescue missions.

We organised the two-day event, which brought together operators and agencies from across Japan to share experiences and to discuss how new technologies and techniques are influencing the operational scenario. We also enjoyed excellent support throughout from our Japanese distributors Mitsui and Kanematsu.

In all, more than 100 attendees participated in the seminar, including Japan's National Police Agency, Prefectural Police Departments, and the Japan Coast Guard. The country's Fire and Disaster Management Agency was also represented, alongside local firefighting departments and the Ministry of Land, Infrastructure, Transport and Tourism.

A number of important themes emerged. These included the significance of international cooperation between European operators and agencies, the shift towards new generation helicopter platforms and finding ways to better coordinate resources during missions—including rotary and fixed-wing aircraft, boats and other vessels.

There was also an opportunity to learn more about new capabilities and equipment available to operators such as the use of augmented reality, hyperspectral sensors and advanced cameras alongside developments in hoisting equipment and operations.

The first day of the seminar focused on updates on products and services, including the AW Family of helicopters, our customer support and services capabilities in Japan and how we are investing to support customers' training needs. Day 2 was then split into two user conferences—the first focused on the Japan National Police Agency for law enforcement professionals and the second dedicated to firefighting and disaster relief operations.

The event proved a great success and a welcome opportunity to engage with customers and operators in Japan. Look out for more details of the Japan Seminar 2023, which is also planned to be held in Tokyo.



LEONARDO AWARDS CORMORANT TROPHY FOR THE FIRST TIME TO A JOINT CANADA-U.S. RESCUE MISSION WHICH SAVED ALL 31 LIVES FROM A BURNING, SINKING TRAWLER



A dramatic night-time rescue mission which saved the lives of 31 crew members on board a burning trawler off the coast of Nova Scotia provides the extraordinary story behind the award of the 2021 Cormorant Trophy. It also marks the first time that the trophy has been presented to a joint Canada and US team.

When the F/V Atlantic Destiny put out a distress call on March 3rd 2021, its crew faced a perilous situation. The trawler was on fire and taking water 125 nautical miles south of Yarmouth, Nova Scotia. Weather conditions were appalling with nine-metre waves, winds gusting to 60 knots and the ship was awash with freezing sea spray in temperatures of 4°C.

The vessel's distress call sparked a 12-hour rescue mission that demanded international cooperation and would test the combined expertise of the Royal Canadian Air Force (RCAF) and the US Coast Guard (USCG) to the limit. The rescue crews involved, many of whom had thousands of flight hours, would later describe the conditions as among the most extreme they had ever encountered.

COORDINATING THE RESPONSE

Responding to the call for help, the Halifax Joint Rescue Coordination Centre (JRCC) dispatched a CH-149 Cormorant helicopter (Rescue 907) and a CC-130 Hercules (Rescue 343) from 413 Squadron at CFB Greenwood to the scene. Due to the location, the JRCC also requested assistance from any USCG assets in the area.

Rescue 343 located the vessel, which had lost all power and steering control. The aircraft's crew managed to drop

a dewatering pump on board to help keep the ship afloat. Rescue 907 arrived on scene just after midnight local time and began winching operations in treacherous conditions.

Two SARTechs were lowered to the ship while being battered by the elements. On the first attempt to rescue crew members, the hoist cable became entangled in the ship's rigging and frayed. Switching to a second hoist, Rescue 907 brought the first two crew members on board before completing two more extractions for a total of six crew members.

The rescue mission then took on a new level of complexity when Rescue 907 reported a serious flight control hydraulic malfunction which forced the helicopter into a 'land as soon as possible' emergency. With USCG assets by now on scene – an MH-60 helicopter and an HC-144 'Ocean Sentry' aircraft – crews quickly adapted the mission.

A second MH-60 en route to the scene diverted to escort Rescue 907 to land in case it needed to ditch in the ocean. Rescue 343 also turned to escort the Cormorant back to base. With the helicopter later declared out of service, crews jumped back on board Rescue 343 and returned to the scene.

Continued page 5...

OVERCOMING TREACHEROUS CONDITIONS

By now, RCAF SARTechs on board the ship were helping to coordinate further rescue attempts. One of the two USCG MH-60s recovered eight more crew members via basket hoists. Conditions were so extreme that three of the helicopter's four guide lines were either broken or torn out of the hands of SARTechs who were being violently thrown about the deck by repeated waves.

The second MH-60 then took over hoisting operations and carried out multiple basket hoists to recover a further 13 crew members in dangerous seas before hitting minimum fuel levels and heading for Yarmouth escorted by Rescue 343.

THE FINAL PHASE

At this point, with both MH-60s unable to return to the incident because authorities had exhausted their supply of jet fuel, a second CH-149 Cormorant (Rescue 904) deployed to the rescue site accompanied by Rescue 343. The Hercules resumed overhead communication and coordination enabling the Ocean Sentry aircraft to return to Cape Cod for fuel.

Rescue 904 began hoisting the remaining crew but continued to be hampered by extreme weather conditions. Its first hoist cable snagged on the wildly gyrating ship and snapped. A second cable was used to lower the rescue basket to the deck and Rescue 904 was in the process of lifting two crew members when the ship hit a large wave. The rescue basket was slammed into a rail with enough force to snap the second winch line.

Unable to rescue any crew, Rescue 904 dropped additional supplies to the ship and departed the scene. Rescue 343 remained overhead and was informed that the Canadian Coast Guard Ship (CCGS) Cape Roger was 30 minutes away. It became clear that the ship would have to be abandoned and SARTechs directed the remaining crew to launch life rafts. CCGS Cape Roger arrived and launched a Fast Rescue Craft to recover the remaining four crew and two SARTechs who evacuated the ship using guide lines and rescue slings.

The life-and-death nature of the rescue was underlined just two hours later when the Atlantic Destiny sank. Thanks to the extraordinary skill and teamwork of the joint Canadian-US rescue team, all personnel on board were saved with only minor injuries.

Major Marc Saucier of 413 Transport and Rescue Squadron at CFB Greenwood, Nova Scotia:

"Given the extreme distance from shore and on-scene weather conditions in a night-time environment, all personnel involved in the rescue demonstrated unparalleled bravery and willingness to risk their own lives in the service of others. Furthermore, this rescue involved a high level of international cooperation without which the lives of these mariners would surely have been lost."



ABOUT THE CORMORANT TROPHY

The Cormorant Trophy was commissioned by Leonardo (then AgustaWestland) in 2002. It is presented annually to mark the most demanding helicopter rescue of the year performed by Canadian civil, military or government crews, particularly for missions where lives are potentially at risk.



PEAK PERFORMANCE: AW101 EXCELS IN HIGH ALTITUDE TRIALS

The AW101 is famed for its ability to operate in the most extreme environments. That capability was put to the test during recent high altitude trials that took place in the United States which the helicopter passed with flying colours.

Perched high in the Rocky Mountains, at almost 10,000ft above sea level, the city of Leadville provided the perfect location to put an All-Weather Search and Rescue (AWSAR) AW101 helicopter through its paces in a demanding high altitude environment.

Leadville was one of two sites, together with nearby Buena Vista, to play host to a Leonardo team from Yeovil in the UK that included aircrew, Field Service Representatives (FSR), and performance and handling engineers.

The high altitude trials form an essential part of the ongoing AW101 Performance Improvement Programme that certifies increased engine power and raises the main gear box torque rating to 117%. Such was the success of the planned 21-day trial plan that the aircraft completed testing within 16 days.

Testing at high altitude locations demonstrated safe landing and recovery techniques in the event of engine failure, while power consumption testing 'future proofed' the helicopter for impending certification requirements.

The aircraft involved in the testing was a Norwegian AW101-612 AWSAR helicopter, which is due to be delivered at the end of the year to the Norwegian Ministry of Justice and Public Security. It was transported to the US by sea before being rebuilt by the FSR team in Baltimore and then flown 1,600 miles west by the aircrew, which included test pilots and flight test engineers, to begin its programme of handling, performance and certification testing.

Nick Wharmby, test pilot at Leonardo Helicopters UK, commented: "The aircraft's inherent capability and equipment fit, coupled with superb work from the FSR team, meant the transit and testing went exactly as planned."

The success of the trials was down to a multi-disciplinary team that also included material, logistical and shipping support from colleagues in Yeovil. Kristian Daines, AW101 Performance Improvement Programme Manager, added: "The testing ran to plan from day one, an astounding success for the teams in Colorado and Yeovil, and a phenomenal execution by all who made it happen."

Following the trials, the AW101 completed a self-ferry flight back to Yeovil via Canada, Greenland, Iceland and Scotland. Next stop, Norway!





WILDCAT WEAPONS TRAINING ENTERS NEW PHASE

The Wildcat Training Centre at Royal Naval Air Station (RNAS) Yeovilton in the UK has added to its impressive training capability with the introduction of a new Weapons Loading System Trainer that will provide vital support to UK armed forces.

The arrival of the Weapons Loading System Trainer (WLST) marks an important step in weapons training for the AW159 Wildcat multi-role helicopter. The bespoke trainer, manufactured by Pennant International, provides a key capability for the UK Ministry of Defence's Future Anti-Surface Guided Weapon (FASGW) programme.

Operators will train on the full range of weapons loading from legacy to new weapons on board the helicopter in a high-fidelity environment. Leonardo signed a contract with the UK MOD in July 2014 to integrate, test and install the MBDA Sea Venom (Heavy) and Thales LMM (Light) missile systems onto Royal Navy AW159 Wildcat helicopters. This programme is named FASGW.

The changing nature of threats in the maritime environment brings added significance to the FASGW programme. One of the most pressing challenges is how to successfully engage smaller fast-moving asymmetric threats which are highly mobile and present small radar and thermal signatures.

The LMM missile system will provide a step change in capability for the Royal Navy in this regard. The LMM is capable of overcoming issues posed by this new generation of threats whereas traditional electro-optic and radar guidance systems do not provide the required certainty of hit.

The LMM missile and its associated launcher and airborne laser guidance unit have now been integrated successfully into the AW159 Wildcat's sensor, displays and avionics systems.

Meanwhile, in April this year Leonardo announced the next phase of the Wildcat Integrated Support and Training (WIST) contract. It confirmed a new five-year period of the 34-year contract originally signed in 2012.

Simon Jones, VP of Customer Support and Training at Leonardo Helicopters UK, commented: "The Wildcat Training Centre is the only dedicated training facility for the FASGW weapon system. It significantly reduces the dependency on live aircraft for training and it enables greater levels of integration within a state-of-the-art training facility."

SWITZERLAND HOSTS ERF 2022

The European Rotorcraft Forum (ERF) returned as a face-to-face event in 2022 after two years of Covid restrictions. The ERF brings together manufacturers, research centres, operators, regulators and academics to discuss the latest advances in rotary-wing innovation.

This year the event took place in Zurich, Switzerland, which hosted the gathering as a replacement for the original planned host, Russia. Representatives from the University of Zurich and from industry – in the shape of Leonardo company Kopter – stepped in at short notice to organise the event, which attracted more than 220 delegates.



The ERF represents an important European stage where attendees can share technological innovation in the helicopter field. During the forum, several projects funded by the European Union within Clean Sky 2 were presented, including the new generation tiltrotor and the high-speed rotorcraft.

Luca Medici, Head of Aircraft System Integration at Leonardo Helicopters and member of the ERF International Committee, supported and organised the participation of our teams. We presented a total of 12 papers and participated in sessions covering Dynamics, Flight Mechanics, Maintenance, Aircraft Design, Engine and Propulsion and Acoustics. Luca also chaired six different sessions during the event.

Commenting on what he found most valuable at the ERF, Luca said: “I had the opportunity to analyse the papers presented during my sessions and some others. I particularly appreciated the ones which focused on low Technology Readiness Levels (TRL) – concepts at an earlier stage of maturity – probably due to my own work experience. “Overall, both the quality and number of papers presented demonstrate the technological depth and high innovation level reached in the EU.”

FINAL UH-90A FOR ITALIAN ARMY DELIVERED FROM VENICE TESSERA

Our Venice Tessera facility played host to a landmark moment in the history of the NH90 – Europe’s largest military helicopter programme. On 25th November, the 60th and final UH-90A (NATO’s designation for the Italian Army’s NH90 Tactical Transport Helicopter) was handed over to the operator during a ceremony at the site.

The Italian Army is one of the earliest and largest operators of the NH90, having logged more than 31,000 flight hours in Italy and internationally to date. The fleet performs a wide range of tactical and emergency response roles.

Representatives from the Italian Army and its Aviation unit were on hand for the event, which also welcomed the Italian Secretariat General of Defence / National Armaments Directorate, NAHEMA (NATO Helicopter Management Agency), NHIndustries, and Leonardo colleagues.

The TTH fleet operates from three Italian Army Aviation bases and the aircraft’s versatile configuration enables multiple missions including tactical troop transport, logistics support, special operations, cargo resupply and hoist operations, Medical Evacuation (MedEvac), and light tactical vehicle transport. The helicopter has also supported numerous disaster relief and emergency response operations

in recent years. Meanwhile, the close collaboration between the Italian Army and Leonardo has evolved to include the capability to deliver NH90 crew training to other operators.

Our Venice Tessera facility covers 24,000m² and is the NH90’s Italian final assembly site for operators including the Italian Army and Italian Navy. Assembly of the first NH90s at the facility began in 2010, with the first aircraft delivery in June 2011. Around 490 NH90 helicopters, a mix of land and naval variants, are now in service worldwide, operating in the most demanding environmental conditions.



AW119KX BOOSTS CAPABILITIES OF CARABINIERI AIR SERVICE

Italy's Carabinieri – the country's national military police force – calls on its helicopter fleet for a diverse set of missions ranging from patrol and reconnaissance through to evidence gathering, environmental monitoring and rescue missions. The Carabinieri's Air Service will soon have a new level of capability at its disposal after signing a contract for 20 AW119Kx helicopters to be delivered between 2023 and 2026.

As part of the Air Service's fleet modernisation plans, the highly versatile AW119Kx will support existing AW139 and AW169s in service and will be deployed for homeland security, community policing and environmental activities.

The single-engine helicopters will be assembled at our facility in Vergiate and the agreement includes a comprehensive logistics support package as well as training services for pilots and maintenance technicians.

The AW119Kx helicopters feature digital technology that increases operational effectiveness and lowers operating costs. The aircraft allows operators to perform missions over urban areas effectively and safely thanks to system redundancies, high power margin, excellent external visibility, and advanced digital navigation and mission avionics.

The helicopters on order for the Carabinieri will include an HD Electro-Optic (EO) system, cargo hook, mission console with datalink, a hyperspectral system for environmental monitoring, radio, wire cutter, searchlight, and a Bambi bucket.

There are also provisions for a floatation system, life raft and a snow kit. Gian Piero Cutillo, MD Leonardo Helicopters, said: "The introduction of the AW119Kx in the Carabinieri Air Service's fleet ideally integrates the capabilities the operator already has chosen thanks to the AW139s and AW169s.

"The helicopters respond to the wide spectrum of the Air Service's requirements considering their national duties and an evolving and increasingly complex operational scenario. We're proud to continue to support the Carabinieri with capabilities that are able to face new security challenges and benefit the national communities."



AW169 CERTIFICATIONS ADD TO MISSION CAPABILITY

The AW169 has enhanced its mission capabilities still further with certification of Advanced Search and Rescue (SAR) modes and skid landing gear for the light intermediate twin helicopter.

The latest certifications by the European Aviation Safety Agency (EASA) mean that the AW169 becomes the first helicopter in its class to feature Advanced SAR modes. It is also the only modern CS-29 certified helicopter with all three landing gear options – retractable, fixed and skid versions.

The Advanced SAR modes will enable dedicated Flight Management System (FMS) search patterns. This means that the aircraft will be able to fly automatically along a pre-defined search path, reducing pilot workload during the search phase of a SAR mission. The high level of automation allows for single-pilot IFR SAR modes certification, making the AW169 the first civil-certified helicopter with this capability.

Meanwhile, the introduction of a skid landing gear option will kickstart the delivery of AW169s in this configuration, with first deliveries expected to law enforcement operators in Italy.

Continuing the principle of maximum flexibility, we are developing further options and kits for the AW169, including a 700-880kg capable modular fuel tank option, in addition to the option of a three-seat installation in the helicopter's third row of seats. This will increase the number of passengers in the cabin to 11, giving operators maximum mission versatility in terms of payload and range.

The AW169 has benefited from other enhancements in recent months, including the introduction of Phase 8 core avionics software combined with Offshore modes for the Helicopter Terrain Awareness Warning System (HTAWS).



BRISTOW BUYS SIX AW139S TO SUPPORT UKSAR2G PROGRAMME

The AW139's ability to perform lifesaving missions in the toughest conditions has been underlined by Bristow's decision to purchase six of the intermediate twin helicopters to support the UKSAR2G search and rescue programme.

The AW139s will supplement the existing fleet of nine AW189 super medium twin helicopters. Deliveries are due to take place between 2023 and 2024 and the helicopters will support the Second-Generation Search and Rescue Aviation (SAR2G) programme of the UK Maritime and Coastguard Agency (MCA).

The AW139s feature the latest product enhancements, technology and mission capability. These include a seven-tonne maximum take-off weight, Honeywell Primus Epic integrated avionics Phase 8 and an advanced Synthetic Vision System (SVS), which together with improved 2D maps and wireless data loading will enhance all-weather capabilities. The helicopters will also feature a Limited Ice Protection System (LIPS) to deliver even greater mission capability in extreme weather conditions.

The six AW139s will undergo mission system integration to be carried out by Bristow in partnership with Nova Systems, ensuring an even greater involvement of UK-based industry. Meanwhile, the fleet will also benefit from the new Leonardo-Bristow long-term global service programme. Commenting on the agreement, Gian Piero Cutillo, MD of Leonardo Helicopters, said: "This latest step supporting our key partner Bristow to meet major users' needs is further testament to the outstanding capabilities of our best-selling AW139 as the aircraft of choice in its category for SAR among prime operators and countries.

"It perfectly complements the medium to long-range SAR capabilities of the AW189 delivering unparalleled combined capabilities for the task. We're proud to continue to provide our contribution to the MCA partnership with this type, its technology and support solutions which will benefit the served communities in UK."



AW609 CREATES A BUZZ IN THE UNITED STATES

2022 has proven to be a great year of visibility for the AW609 in the United States. After sparking debate on the future of aviation at Expo 2020 Dubai where the Italian Pavilion hosted the “The Flying Society” event, the AW609 has garnered a lot of attention in the US with a series of major events and milestones.

It all started in May with the inaugural test flight by our launch partner, Bristow, and the first flight by a woman pilot, Sheikah Mozah bint Marwan Al Maktoum of the United Arab Emirates’ ruling family. Both took place at our US headquarters in Philadelphia.

The beginning of October saw the first flight of Aircraft 5 with the entire Philadelphia AW609 team gathering to witness this historic moment. Next up was the NBAA Business and Aviation Conference and Exhibition, back in Orlando, Florida for the first time in four years.

It took place October 18-20 at the Orange County Convention Center, where we joined the business aviation community to explore the future of the industry. Along with providing an update on what’s next for VIP/corporate transport, NBAA marked the introduction of our new VIP Agusta brand to the North American market.

We featured the AW609 along with a VIP mock-up configuration, showcasing its bespoke interior options and marking the first time it has made an appearance at a business aviation conference. Our chalet was positioned directly across from the entrance to the show, making the AW609 a ‘can’t miss’ for attendees. We had some great media coverage, including a front-page photo in the local daily newspaper, the Orlando Sentinel.

A few days later at the Air Medical Transport Conference (AMTC2022) in Tampa, FL, we showcased the AW609’s Emergency Medical Services mock-up. AMTC is the annual tradeshow for the Association of Air Medical Services (AAMS) and focuses on the newest technologies and the most innovative products and services for the medical transport industry. The AW609 most certainly fits those criteria and was, once again, a huge hit.

We are ending 2022 with great momentum for the AW609 programme in the United States!



STUDENT AVIATORS FLY TH-73A "THRASHER" AIRCRAFT

In the summer of 2021, we officially delivered the first of 130 TH-73A "Thrasher" training helicopters to the United States Navy during a ceremony on our Philadelphia campus. Despite operational difficulties throughout the Covid pandemic, we achieved this milestone in just 18 months.

Five years in the making, the first 12 student naval aviators at Naval Air Station (NAS) Whiting Field in Milton, Florida, began advanced helicopter training in the new TH-73A Thrasher this past September.

The TH-73A provides the training tools required to develop and deliver the next generations of rotary and tiltrotor pilots for the US Navy, Marine Corps, Coast Guard and selected allied nations with current and relevant training. Along with newly developed simulators, the new training "system" will make student training more reflective of the aircraft they will eventually fly by streamlining training using current cockpit technologies and a modernised training curriculum that reflect the capabilities found in the current operational fleet.

A huge amount took place behind the scenes between first delivery and the first student aviators. A comprehensive training curriculum and syllabus had to be developed for both the student aviators and flight instructors. The

instructors had to learn to fly the new aircraft as well as develop the techniques and procedures to teach their undergraduate flight students, all while testing the validity of the new training materials.

From start to finish, the naval aviation students spend approximately 38 weeks in the advanced training regimen at Whiting before they graduate and move to larger operational aircraft. It's also worth noting Training Air Wing Five (TW-5) is the largest training airwing in the Naval Air Training Command.

On November 14, the first two student naval aviators completed their solo flights in their new aircraft. They were greeted upon arrival by both the TW-5 Commodore and their Squadron Commanding Officer. You can see their smiling faces in the accompanying photo and we most certainly share their excitement during this landmark moment. Our team on both sides of the Atlantic has much to be proud of!





HELISERVICE APPOINTED AS LEONARDO EXCELLENT SERVICE CENTRE

We are continuing to enhance support and maintenance services for customers in Germany and other parts of Europe with the appointment of HeliService as a Leonardo 'Excellent Service Centre'.

Under the new agreement, HeliService will deliver the highest levels of service across the AW109 series, AW139 and AW169 types. The 'Excellent' ranking is assigned to selected service centres worldwide focused on maintaining third-party fleets with the widest scope of service capabilities while meeting the specific requirements of local markets.

HeliService becomes one of six Leonardo service centres to be appointed to the Excellent category – four in Europe, one in the United States and one in Japan, in addition to those managed directly by Leonardo. The plan is to establish at least one 'Excellent' service centre in each of Leonardo's strategic markets. In all, there are more than 110 helicopter service and maintenance centres worldwide.

The agreement is recognition of the increasing importance of the AW109 series, AW139 and AW169 in Europe over recent years and the further potential in Germany into the future. Established in 1987, HeliService already operates both the AW139 and AW169 for offshore wind farm support missions in the North Sea. It has a track record of delivering outstanding operational capability and safety standards. The company has also successfully expanded operations into Asia and the US, where three AW169s will begin operation from summer 2023.

Vittorio Della Bella, SVP Customer Support & Training Worldwide Services at Leonardo Helicopters, said: "We're delighted to reinforce our partnership with HeliService. With this service capability expansion HeliService will be able to deliver in Germany. The company's expertise in operating our helicopters in the demanding conditions of maritime and offshore wind farm environments makes HeliService an even stronger supplier of quality support and maintenance to maximise mission effectiveness and safety, combined with the best aircraft and fleet management planning and efficiency."



MITHOS: A FULLY IMMERSIVE TRAINING EXPERIENCE



Helicopter rescue missions can be incredibly demanding, often battling hostile weather conditions and requiring precision teamwork, when minutes can make the difference between life and death. To help rescue teams be better prepared when they face emergency situations, we've developed an immersive training experience that combines virtual reality techniques with real-world training.

When crews step inside the Modular Interactive Trainer for Helicopter Operators (MITHOS) simulator, they enter an immersive world that aims to replicate as accurately as possible the cabin and operating environment of a true-life emergency scenario.

MITHOS, which we've developed specifically to train helicopter operators, enables crews to recreate complex and dangerous interventions from the safety of the ground. It blends both the physical and virtual environments, preparing crews to react swiftly in any emergency, particularly if they encounter unexpected events.

Among those to have tested the capabilities of the simulator at our Sesto Calende Training Academy are experts in the field of helicopter rescues, including instructors from the Scuola Nazionale Tecnici del Soccorso Alpino e Speleologico (National Mountain and Speleological Rescue School). Featuring a 1:1 scale helicopter cabin equipped with a winch, crews are 'transported' into a rescue scenario thanks to augmented reality technology that employs a visor helmet and smart touch gloves.

As well as providing a highly realistic training experience, MITHOS also helps operators rationalise their training. The simulator can recreate an array of operational scenarios that would be impossible using a helicopter in-flight. Enabling operators to reduce in-flight training by between 40% and 60%, there are also sustainability benefits in terms of greenhouse gas emissions and noise pollution.

In future, MITHOS will be connected to a full flight simulator so that pilots and mission operators can collaborate and train together in the same environment.

Meanwhile, during the European Rotors event held in Cologne, Germany in November, visitors were able to get a hands-on feel for a light version of the MITHOS trainer. The simulator was on show along with an AW169 light intermediate helicopter configured to perform Emergency Medical Services (EMS) missions.



ECHO PUBLIC SAFETY AVIATION CONFERENCE

We're proud to be a committed local partner to law enforcement and Emergency Medical Services (EMS) organisations across North America. The 2nd ECHO Public Safety Aviation Conference which took place in Austin, Texas in August was a valuable opportunity to share insights and the latest technological developments with counterparts from the law enforcement and EMS communities.

ECHO (Every Coast Helicopter Operations) is a non-profit organisation that provides free to low-cost education to helicopter crews including pilots, paramedics, doctors, nurses, Tactical Flight Officers (TFOs) and hoist operators. Hosted by Travis County STAR Flight, which operates the AW169 helicopter, the event attracted more than 350 attendees from over 40 US states as well as delegates from Canada. Major themes included in-flight medical procedures, EMS interiors and equipment, Crew Resource Management, emergency procedures and TFO best practice.

We took the opportunity to underline the crucial role that Leonardo rotary-wing platforms and their mission systems can play in supporting the most demanding law enforcement and EMS operations. As part of that, we had on display our Mission Management System (MMS) console simulator.

The three-day summit included training courses, workshops, pilot and safety panels as well as an exhibition area. We look forward to continuing to work with the law enforcement and EMS communities in 2023 and beyond to meet their constantly evolving requirements.

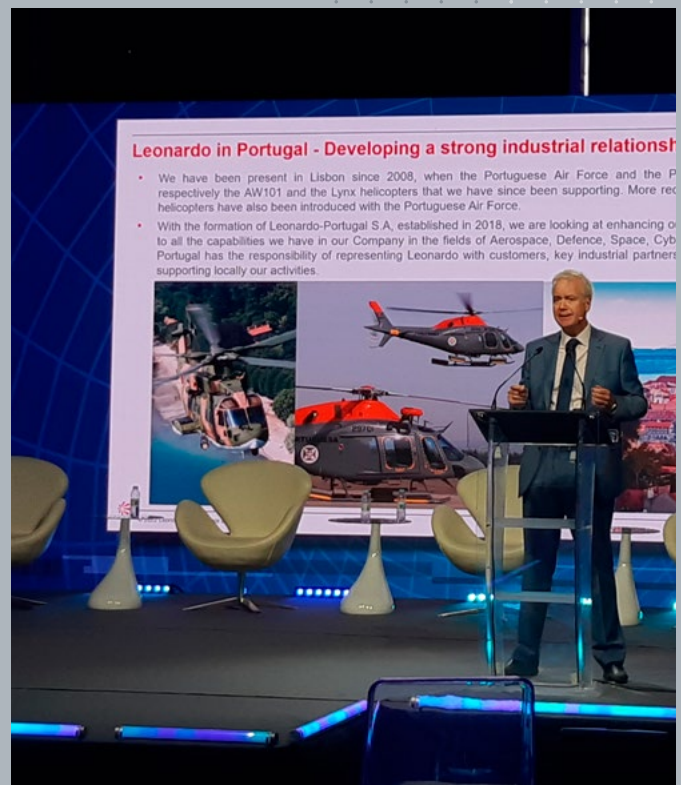


PORTUGAL AIR SUMMIT 2022

We were delighted to participate in the Portugal Air Summit 2022 which took place from 12th to 15th October at Ponte de Sor Aerodrome near Portalegre. Leonardo was the only helicopter OEM to take part in the event which brought together Portuguese industry, investors and local small and medium enterprises (SMEs) to discuss the future of aviation, aeronautics and defence in the country.

The event focused on developments in general aviation, in addition to the growing market for uncrewed aircraft systems (UAS). As well showcasing our portfolio of new generation, multi-mission rotary wing platforms, the summit provided an opportunity to engage with Portuguese customers and government agencies.

During the event, we had the chance of having some customers take a short demonstration flight in a Babcock EMS-configured AW139 from the Babcock Air Base at Évora, while we had an AW109E in a Babcock EMS configuration on static display at the summit site.



INDODENCE EXPO AND FORUM 2022



INDODENCE 2022 EXPO & FORUM

The IndoDefence Expo and Forum 2022 took place in Jakarta from 2nd to 5th November and brought together industry and government delegates from across the globe. It was the 9th edition of the Expo, which is described as Indonesia's official tri-service defence, aerospace, maritime and security event and is one of the largest industry gatherings in Southeast Asia.

As a longstanding partner to the Indonesian Government and defence industry, we used our presence at the event to showcase Leonardo's multi-domain technologies that meet the needs of government and armed forces worldwide. In particular, we highlighted the AW149 and AW169 as cost-effective solutions for both military and parapublic roles and the AW159's capabilities in the naval arena.

Over a busy four days, we welcomed more than 20 delegations to our stand, including the Indonesian Minister of Defence Prabowo Subianto. We look forward to the next IndoDefence event, which is due to take place in 2024.



WARSAW HOSTS GLOBAL DEFENCE HELICOPTER EVENT



GLOBAL DEFENCE HELICOPTER

18-20 Oct. 22 | WARSAW, POLAND

Global Defence Helicopter is Europe's largest dedicated military helicopter event and this year it welcomed more than 600 delegates to the Polish capital Warsaw. The three-day programme took place from 18th to 20th October and attracted all the main helicopter Western helicopter OEMs alongside senior military and government representatives.

Poland is one of our domestic markets and we had a strong presence at the event, which focused on the future requirements and capabilities of NATO and partner nations for next-generation rotary-wing platforms, as well as future innovation.

Colleagues from Italy, the UK and our Polish business PZL-Świdnik highlighted our comprehensive range of crewed and uncrewed platforms, allied with cutting-edge mission systems, dedicated to military missions including battlefield, combat and maritime operations.

We addressed the conference and presented the credentials of the AWHEREO Rotary Uncrewed Aircraft System (RUAS), the AW249 combat helicopter, and the medium multi-role AW149 helicopter among other platforms and highlighted how Leonardo's state-of-the-art mission systems enable operations in high-threat environments.

The conference also provided a welcome opportunity to engage with military representatives and to be briefed about current operational demands and future capability requirements.



MESSAGE FROM THE EDITORIAL TEAM

As 2022 draws to a close, the Editorial Team would like to take this opportunity to send all our customers, operators, partners and readers our warmest Season's Greetings and wish you all a successful and prosperous 2023.

As we look ahead to next year, we are planning some changes to the way that we keep you up to date with everything that is happening here at Leonardo Helicopters. This will be the final issue of the AWWnewsletter in its current PDF form. From next year, we'll be sharing the latest updates as easy-to-access links on a regular basis throughout the year.

Thank you for your valuable contributions to the Newsletter over the years and we look forward to collaborating again in 2023 and beyond.

With best wishes
The Editorial Team



Leonardo - Società per azioni
Registered Head Office:
Piazza Monte Grappa, 4
00195 Rome - Italy
Tel. +39 06 324731

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.