# <u>AWnewsletter</u>

Spring 2019

ThinkCustomer

# IMPORTANT CONTRACT FOR MARITIME MULTIROLE HELICOPTERS WITH THE POLISH MINISTRY OF NATIONAL DEFENSE

We have been awarded a contract by the Polish Ministry of National Defence (MoD) for the supply four AW101s and a comprehensive integrated logistics and training package through our fully owned Polish company and main industrial presence in the country, PZL-Świdnik, valued at approximately 380 mln EUR (1.65 bn PLN).

Contract signature was marked by a ceremony held on April 26th at our facility in Świdnik, in the presence of the Prime Minister of the Republic of Poland Mateusz Morawiecki, the Polish Minister of National Defence Mariusz Błaszczak and Leonardo CEO Alessandro Profumo. In the frame of this contract, the AW101s, which are expected to be delivered by 2022, will perform a range of missions including Anti-Submarine Warfare (ASW) and Combat Search and Rescue (CSAR).

PZL-Świdnik will be the prime contractor and will be responsible for the entire contract execution. It was

selected through an accurate process consisting in many stages, which confirmed that all requirements of the Polish MoD were met. The Świdnik facility plays a significant role in the production of all the AW101s ordered worldwide. This contract follows the Offset Agreement, valued at approx. 400 mln PLN (90 mln EUR) recently announced (see page 5).

"The supply of the best-in-class maritime AW101s will allow the Polish Navy to meet its rigorous requirements for the protection of national security in the Baltic Sea and for NATO operations. It will also enable life-saving missions in demanding conditions with second-to-none effectiveness, leveraging Leonardo's leading role in the maritime helicopter field. Also, the broad scope of industrial collaboration under the Offset Agreement will guarantee secure and independent fleet management" said Gian Piero Cutillo, Leonardo Helicopters MD.





#### LONGEST OFFSHORE FLIGHT IN BRAZIL FOR THE AW189

The AW189 operated by OMNI Táxi Aéreo S.A. made the longest offshore flight in Brazil ever. The mission was carried out in support of a crew change to a CGG vessel which is engaged in offshore oil exploration and was located 247Nm (approx. 457 Km) away from the shore.

The success of this mission, which has transported 5 passengers of the way out to the vessel and 6 passengers on the way back, was guaranteed by the belly fuel tank installed on the aircraft.

OMNI Táxi Aéreo S.A.operates the biggest fleet of our helicopters in Brazil, consisting in 14 AW139s and one AW189 - which is also the only of the type currently operating in the country - to perform offshore missions.

OMNI Táxi Aéreo S.A. is part of the OMNI Helicopters International group (OHI), a financial holding based in Portugal which administers fleets and investments in helicopter operators, contributing to the development of the oil and gas sector and to global emergency medical transport. It was founded in December 2000 and offers services to the largest companies in the oil sector as well as solutions for air transport, offshore and onshore, anywhere in Brazil, including external cargo and aeromedical transport.



## MORE VERSATILE CHARTER SERVICES IN THE UK WITH THE AW109 TREKKER

Apollo Air Services, the largest operator of AW109 GrandNew in the UK with a fleet of six units, is expanding its existing fleet with the addition of its first AW109 Trekker in VIP configuration, provided by Sloane Helicopters, the official sole distributor of Leonardo's AW109 and VIP AW169 helicopters in UK and Ireland, and schedule to start operations in Q4 of 2019.

Apollo Air Services manages and operates its VIP GrandNews from three main bases (Carlisle Lake District Airport, Cardiff City Heliport and Leeds East Airport), with a dedicated team working together delivering fast,

safe, comfortable and versatile door-to-door luxury VIP charter services across the nation. It is also the first operator in the UK to gain approval to operate the AW109 in the Multi Crew role and to fully integrate the Leonardo FFS simulator into their training philosophy.

The AW109 Trekker maintains the outstanding performance, dynamics, cabin space and best-in-class VIP comfort. This combined with all new avionics is the first AW109 provided with skids, which will allow Apollo Air Services to provide VIP luxury charters with an all new degree of versatility.

This is the first AW109 Trekker to enter the UK and Ireland market, with two further aircraft expected to be delivered within the next 10 months.



### WIKING HELIKOPTER SERVICE GMBH EXPANSION WITH THE AW139



Originally founded 43 years ago to support the transfer of harbor pilots, through the years Wiking has developed capabilities to perform a wide range of helicopter missions basically in the North and Baltic Sea areas, where provision of high-value services without delays and in line with no-compromise highest safety, quality and performance standards is fundamental to support customers operational and economic business targets.

After acquisition by the Swiss company Kaan Air in 2017, Wiking Helikopter Service GmbH has started its most meaningful expansion plan relying on its fleet which included 4 AW139s (1 additional in 2018 and 2 more in 2019). With the support of its own PART-145 and PART-M departments, the company further extended its business with Crew Change Service on Offshore Platforms/OSS, Jack-up and Offshore Service Vessels, wind turbines hoisting (including service technicians and parts & tools supply). Furthermore, in cooperation with ORS (Offshore Response Safety), Wiking operates an AW139 HEMS helicopter with aviation- and medical crews as an emergency evacuation unit for the offshore wind industry in general, which is on standby at the JadeWeser Airport 24/7, as an emergency service for workers in the offshore wind industry.

Concerning wind farm O&M support in particular, at the end of 2017 Wiking signed a multi-year contract with Siemens Gamesa Renewable Energy (SGRE) to support their wind turbine maintenance process activities to the "Galloper" Offshore Windfarm in South UK and has been contracted in August 2018 from SGRE for their "Beatrice" Offshore Windfarm - O&M Helicopter hoisting services in Northeast of Scotland - North Sea territory.

In 2018 Wiking has been awarded with an exclusive, important O&G contract, operating all crew change services with 2 AW139s for a gas pipeline construction in the Baltic sea from its new bases in Finland, Sweden and Denmark; most recently, in 2019, the company has been contracted for an additional O&G project "Baltic Connector" in the Baltic sea, which will be operated by one AW139 based in Finland.

Wiking is continually confirming its drastic improvements and its consolidating market position as one of the leading European offshore system operators in the reference Wind Farming – O&G business, where key support of its successfully growing, technologically advanced Leonardo Helicopter fleet plays a fundamental part to address service where fast response needs means less transit time, less maintenance backlog and less technicians in order to meet customer expectations in such a high-standards operational environment.

### JOINT VENTURE WITH THE ALGERIAN MINISTRY OF NATIONAL DEFENCE

Together with the Algerian Ministry of National Defence, we announced at the end of March the creation of a joint venture, which will be owned 51% by the Ministry of National Defence and 49% by Leonardo, which follows the industrial and trade partnership agreement signed in August 2016.

The company will be based in a new facility at Aïn Arnat, in the Sétif Province and will be providing assembly, sale and support of our helicopters for various applications first of all to support Algeria's national requirements, but also destined to the foreign market.

The joint venture will be operational in 2021, and will be offering also technical support, maintenance and training services therefore supporting Algeria's plans to enhance its capabilities in the industrial aeronautical sector.

### THREE ADDITIONAL AW169S AND TWO AW139S FOR WESTSTAR AVIATION SERVICES

Weststar Aviation Services, leading regional offshore helicopter transportation services provider, signed an order for three AW169s and two AW139s. The three AW169s helicopters will be for Weststar's ExxonMobil & Noble contract in Equatorial Guinea while the two AW139s are for the Al-Khafji Joint Operations contract in Saudi Arabia, which is a joint venture between Kuwait Gulf Oil Company (KGOC) and Aramco Gulf Operations.

The signature was celebrated with an official ceremony during the Langkawi International Maritime and Aerospace Exhibition (LIMA) in the presence of the Prime Minister of Malaysia, YAB Tun Dr. Mahathir Mohamad.

"This procurement further strengthens the partnership between Weststar Aviation Services and Leonardo and is a key factor in Weststar's overseas business expansion. The AW169 and the AW139 twin-engine helicopters are the most successful new generation models in their class worldwide, and the most demanded helicopter types in the Oil and Gas industry. We are pleased to purchase yet more helicopters from Leonardo to support our offshore helicopter operations and we will use the newly purchased helicopters for our operations in West Africa and the Middle East." said Tan Sri Dr. Syed Azman Syed Ibrahim, Group Managing Director of The Weststar Group.



### OUR TH-119 FOR THE US NAVY TRAINING HELICOPTER RFP

We responded to the US Navy Request for Proposal (RFP) for the manufacture and support of up to 130 training helicopters with the TH-119, the best and most capable solution to train the next generation of Navy helicopter pilots.

The TH-119 is equipped with a Pratt & Whitney PT-6 engine, and ensures the highest power margins in its class. It features Genesys Aerosystems' avionics, allowing pilots to fly safely during low visibility and challenging weather conditions. Thanks to its "hot" pressure refueling it is possible to fill the tanks with the engine still on. It has a rugged and durable metal box-beam airframe which enables repairs to be carried out on-site. Both features enhance the helicopter availability.

The TH-119, the only full-spectrum IFR training helicopter boasts a flexibility that allows it to perform basic and advanced mission training, from fundamental autorotations to difficult search and rescue procedures, shipboard operations and beyond. The TH-119 has completed its flight tests and meets all FAA requirements and safety standards for IFR certification.



For more information on the TH-119 helicopter, visit: AdvancedHelicopterTrainer.com

### OFFSET AGREEMENT FOR AW101 HELICOPTERS WITH THE POLISH MINISTRY OF NATIONAL DEFENCE

On April 8<sup>th</sup> we announced the signature by Leonardo MW Ltd of an offset agreement with the Polish Ministry of National Defence. This contract, valued at approx. 400 mln PLN (90 mln EUR), precedes the contract for the supply of AW101 military helicopters.

This offset agreement, from which many entities including the Gdańsk Technical University will be benefitting, is a commitment to the



Polish Ministry of National Defence for the establishment of critical maintenance capabilities for the AW101 helicopters and its dedicated mission equipment in the Military Aviation Works No.1 in Łódź, part of the Polish Armaments Group (PGZ).

The Polish Ministry of National Defence has stringent requirements, which are fully met by the scope of this offset programme, which also reinforces the company's commitment to maintain a solid and long-term cooperation not only with the Polish Armed Forces, but also with the Polish industry, so that the capabilities required for the maintenance of modern military equipment, as well as development and sustainment of the necessary skills and experience in the country can be delivered.

### ITALY'S NATIONAL FIRE CORPS RECEIVES FIRST TWO AW139S



On April 18<sup>th</sup>, the Italian National Fire Corps (Vigili del Fuoco, part of the Ministry of the Interior) took delivery of the first two AW139 intermediate twin engine helicopters during a ceremony held in our plant at Vergiate, in the presence of Government representatives and local authorities.

The two AW139s will perform search and medical rescue, firefighting and disaster relief missions, with enhanced operational effectiveness from all national bases, in the frame of over 816,000 rescues and sorties performed every year countering fires across Europe, including many in Italy. They will be progressively replacing the AB412s in use by the Corps, guaranteeing optimal coverage and an even more rapid responsiveness across the country.

The National Fire Corps AW139s feature a wide range of mission equipment, including an external rescue hoist, cargo hook with bambi bucket provision, weather radar, multi-band and satellite communication systems, high definition Forward Looking Infra-Red / Low Light TV (FLIR/LLTV) system, Leonardo's high definition mission console with digital recorder, high definition down link, Leonardo's Optical Proximity LiDAR System (OPLS), Night Vision Goggle (NVG) capability, new generation Trakka searchlight, emergency floatation system and external life rafts, external loudspeaker, medical rack and bubble windows.



### AW109 TREKKER RECEIVES FAA CERTIFICATION

At the beginning of March, FAA issued the type certification for our AW109 Trekker, which now officially enters the US market.

The Trekker is particularly suited for quick law enforcement missions and rescue interventions, as it allows full patient body accessibility thanks to its large cabin, representing an effective choice for this kind of missions in North America, which is the largest EMS market for light twin helicopters like the Trekker.

The Trekker was designed based on the AW109 Grand, it is equipped with skid landing gear and it offers greater payload and has a competitive cost. It features a Genesys Aerosystems "glass" cockpit which provides the pilots with the necessary information in order to reduce their workload in challenging operational conditions.

The spacious cabin, the same size as the Grand/GrandNew, can accommodate up to six passengers or one stretcher

with three/four medical attendants or two stretchers and two medical attendants. It can perform single pilot operations, therefore an additional passenger can be seated in the cockpit if required.





Our Training Academy in Malaysia has launched an AW189 Flight Live Training Maturity Program of 300 flight hours for BOMBA pilots.

The Malaysian Fire Brigade, BOMBA, currently owns a fleet of two new AW189s used for a wide operational range such as firefighting, law enforcement and search and rescue.

After successfully completing their AW189 rating, the six BOMBA captains together with their rear crew staff first attended a highly skilled training course, conducted by Leonardo Training Academy's instructors with expertise in special operations.





Afterwards, the six pilots performed an AW189 Training Maturity Program, conceived to explore all AW189 features and capabilities, with particular regards to missions.

The Maturity Program consists of 50 flight live hours per pilot, under actual operations conditions. It was required by the Malaysian Civil Aviation Authority and designed with the support of our Training Academy to assure safe and efficient operations.

The Program started last March and will be completed by end of July 2019. The first crews have already completed the Program. The BOMBA pilots who took the Maturity Training course treasured the huge capabilities offered by such an aircraft to the benefit of their daily operational activities.

The Maturity Program has been possible thanks to the significant support of the Malaysian Civil Aviation Authority and is the result of the precious cooperation between Leonardo Training Academy in Malaysia and its partners TPG Aeronautik Sdn Bhd, BOMBA.

Leonardo Helicopters Training Academy Malaysia has a staff of 15 people and is located at Subang Airport. It was established in 2012 and provides OEM qualified training services focused on operations of customers based in South East and Australasia. A large range of training services are available both for engineers and pilots.

With regard to pilots, the training service is delivered in cooperation with PWN Excellence Sdn Bhd (PWNE), a Leonardo Helicopters Authorised Synthetic Training Centre (ASTC) with an AW139 Full Flight Simulator (FFS) Level D certified by EASA, CAA Malaysia and other National Civil Aviation Authorities.

Regarding technicians, the Malaysian Academy has been recognised by EASA, CASA and other National Civil Aviation Authorities and is equipped with an AW139 Maintenance Training Simulator (MTS), a helicopter used only for Practical Elements training purposes.

Moreover, Leonardo Helicopters Training Academy Malaysia pilots are supporting and helping local customers with the entry into service of their new helicopters, facilitating their operations and missions.

AgustaWestland Malaysia Sdn Bhd, a subsidiary fully owned by Leonardo, continues to play a major role in the Malaysian helicopter market expanding its presence and increasing its capabilities through a continued programme of investments.

AgustaWestland Malaysia is a regional maintenance centre and a support centre to CAA Malaysian approved maintenance and repair organization.

### ENHANCED AWHERO UNVEILED AT THE NEW FACILITY IN PISA

The new facility dedicated to the development and production of the AWHERO was opened in Pisa (Italy) on February 15<sup>th</sup> with an official ceremony in the presence of local authorities and representatives from the industry, during which we also unveiled the first pre-production aircraft, meeting two major milestones in the AWHERO programme.

The programme was originally launched in 2012 under a joint venture with Sistemi Dinamici S.p.A, which was acquired by Leonardo in 2016.

The pre-production aircraft unveiled during the ceremony is in the 200kg class, and features an optimised airframe and aerodynamics, new fuel system, new composite tail rotor drive shaft and a new liquid cooled rotary engine.

Last December it performed its maiden flight in Nettuno, in the area of Rome, while a second pre-production AWHERO is expected to join trials in the next few months, on track for the Italian military certification, which is expected by the end of 2019.



### FORBES DIAMOND 2019 RANKING FOR PZL SWIDNIK



PZL-Świdnik, where our helicopter industrial operations are managed in Poland, has received the Forbes' Diamonds 2019 ranking last March. PZL-Świdnik was listed among more than thirty distinguished entities from the Lublin region out of which it had the highest net profit in 2017.

The awarded companies are divided into three categories according to sales revenues in the last financial year and PZL-Świdnik was awarded in the large-sized companies category. Companies listed in the "Forbes' Diamonds" ranking represent an elite of native entrepreneurship. With publication of this summary, editors of the monthly magazine become a guarantor that cooperation with the Diamonds is safe, because they are trustworthy, solid, professional partners which skillfully and effectively use trends to gain value.

Such a prestigious recognition marks the well-established position of PZL-Świdnik in Leonardo's industrial base and its contribution to the development of the Lublin province, where it represents one of the largest entities in the region, paying a crucial role in the development of the entire country.

PZL-Świdnik is core to Leonardo's industrial presence in Poland, and essential to our growth in this home market, being also a key partner of the Polish Ministry of National Defense as part of the most important helicopter programs.

# OUR AW119S TO SUPPORT THE ECUADORIAN AIR FORCE FOR TRAINING AND MULTIROLE OPERATIONS

Four AW119Ke helicopters will be deployed by the Ecuadorian Air Force, one from the base in Quito and the other three from Guayaquil, to perform a range of roles including training, utility, patrol and MEDEVAC, enhancing significantly the SAR capabilities in the country.

The four helicopters are equipped with rescue hoist and the most versatile cabin in its class, which can accommodate up to six passengers or one stretcher plus medical attendants, and thanks to its hot & high capability, they will be the ideal aircraft for missions in the Ecuadorian environment.

The AW119Kes mark the official entry of our helicopters in the Ecuadorian military market, adding to the already large number of military, government and parapublic operators who chose and are using the AW119.



# CUSTOMER ACCEPTANCE OF THE FIRST TWO UPGRADED BRAZILIAN SUPER LYNX HELICOPTERS

Teams from across the business work together to achieve the same end goal...exceeding our customers' expectations.

After a challenging couple of weeks, overcoming issues such as shipping delays and severe storms, the first two of the eight Brazilian Navy Super Lynx helicopters, which were upgraded with new cockpits, avionics and engines, completed final customer acceptance on Friday 22nd February 2019.

A small team from Yeovil has been at the Brazilian Navy's São Pedro da Aldeia base, 100 miles North East of Rio de Janeiro, performing the rebuild activities, system tests, ground runs, final flight test, acceptance and ground station training. The next stage, which started recently, is to provide the in-country 'Conversion to Type' and 'Competence to Instruct' support to the Brazilian Navy aircrew.

Jeremy Fox, Programme Manager for the modernisation contract, said: "The successful acceptance of these two aircraft, supported by the Leonardo Project Manager, Field Service Representatives and Flight Crew, represents the culmination of a very complex design, development and build activity. It has challenged every discipline on site to cover the new design, procurement and build aspects, as well as the repair, overhaul and modification of the legacy 'in-service' components. I would like to thank all those involved, who can be very proud of this achievement and the increased capability it will give the Brazilian Navy when the helicopters enter operational service later in the year."



# SEA KINGS OUT OF SERVICE IN BELGIUM AFTER MORE THAN 40 YEARS

3309 SAR MISSIONS - 1757 LIVES SAVED - 60,000 FLYING HOURS

On the 21st March 2019 the last flight was conducted by 40 Squadron Heli in Koksijde, Belgium. After delivery in 1976, the five MK48 Sea King helicopters of the Belgian Air Force made their first appearance from their base

at Koksijde, on the Belgian coast. The helicopters performed a SAR role: rescuing swimmers in difficulties, attending ships in difficulty, transporting burns victims, tracing missing persons and performing security duties along the coast.

During their service over the years, the Koksijde crews carried out a total of 3,309 SAR missions. Resulting in a total 1,757 lives saved and a total of 60,000 combined flying hours completed. The last flight consisted of a coastal tour where a commemorative flag was placed on the beach of every municipality. This was followed by a formation fly past that included German Navy and Norwegian Air Force Sea Kings, the NH-90 replacement helicopter and the Allouette which is also stationed at Koksijde.

Two of the retired Sea Kings will be placed in museums and the rest sold. A team from Leonardo Helicopters (Customer Support and IGS) attended the ceremony.



### JAPAN COAST GUARD EXPANDS AW139 FLEET

In the first decade of March we announced, together with our distributor Mitsui Bussan Aerospace, that the Japan Coast Guard has signed an order for an additional AW139, which adds to the 18 AW139s in its current search and rescue fleet.

The aircraft will be equipped with rescue hoist, cargo hook and the dedicated equipment for the SAR missions, and is scheduled for delivery in 2021.

Over 130 Leonardo helicopters of various models are in service in Japan today performing a wide range of missions including law enforcement, emergency medical service, search and rescue, firefighting, disaster relief, VIP/corporate transport, electronic news gathering and naval utility. The AW139 has been extremely successful in the country, and is operated to perform many different missions by the Japan Coast Guard, the Japan National Police Agency, the Tokyo Metropolitan Police and Fire and Disaster Management Agency and it also supports several prefectures and city authorities.



### LEONARDO HELICOPTERS AT LAAD 2019

LAAD (Latin America Aerospace & Defence) is the biggest and most important trade fair for defense and security in Latin America, it is held yearly and it is the best occasion to meet Brazilian and international companies specialized in providing equipment and services for armed forces, special forces, security services, consultants and government agencies.

As a matter of fact the exhibition's visitors are mainly coming from Armed Forces; Ministry of Defence; Ministry of Justice and Subsidiary Institutions; State Departments of Public Security; Municipal Departments of Urban Security; Civil and Military Police State; Fire & Safety Departments; Municipal Guards; Civil Defence; Law Enforcement; Homeland Security.

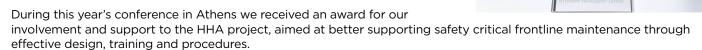
The 2019 edition (Defence & Security) was held from April 2nd to 5th in Rio De Janeiro, Brazil, where we attended and showcased the scale model of the AW109 Trekker and of the AW169, to reinforce our growing position in the parapublic market. We are successfully working to meet the growing demand for law enforcement and fire-fighting helicopters, thanks also to our good reputation as OEM of innovative and high-performance products, supported by the availability in the region of our Service Center (AW do Brazil) and our regional offices. Furthermore our AW119 series is very well considered by the military and government customers.

### AN AWARD TO THE HUMAN HAZARD ANALISYS (HHA) PROJECT DURING HELIOFFSHORE CONFERENCE

HeliOffshore is the global, safety-focused association for the offshore helicopter industry. Every year a conference is organized for all members and stakeholders to meet and discuss the most important themes in the industry. The 2019 HeliOffshore conference, held in Athens from May 3rd to May 6th, focused on the achievement of safety excellence to save lives in offshore helicopter operations.

In May 2018 HeliOffshore launched a project on Human Hazard Analysis (HHA), with the aim of identifying a method for the evaluation of the human factor of maintenance activities already in the design phase with two workshops in October of last year, which were dedicated to the analysis of the maintenance tasks of the AW139 for rotors and drive systems.

Some colleagues from Leonardo Helicopters – from Systems Reliability & Safety (SRS) and Product Support Engineering (PSE) – were involved with HHA experts from HeliOffshore in the more general session. We attended the workshops with Design Safety and Maintainability Engineers from the SRS Civil Department, System Design Engineers from the Rotors and Transmission Department, Product Support Engineers, together with Maintenance Engineers from HeliOffshore member operators, CHC Helicopter and Weststar Aviation Services, HHA experts from HeliOffshore.



Leonardo Helicopters is actively involved in several other working groups which are managed by associations of the rotorcraft industry or the authorities, in order to listen, keep in touch with the main stakeholders, develop and keep the standards high.



The Malaysia Fire and Rescue Department (Jabatan Bomba dan Penyelamat Malaysia) and Korea's Seoul Fire Department have started operations with their AW189s, to be followed by the Tokyo Fire Department.

Public utility operations such as firefighting, search and rescue and disaster relief capabilities are growing rapidly in the Asia Pacific region, and we are meeting this market requirement with our AW139, AW169 and AW189 helicopters, which are quickly becoming a standard for emergency management in the area.

These helicopters add to an already impressive fleet of our helicopters across countries in the region, we are leaders in many sectors in Malaysia, South Korea, Japan and Australia.



We have also a regional hub for

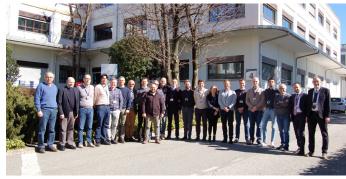
Customer Support and Training based at Subang Airport, confirming our long lasting presence in the region, where our helicopters are performing missions such as offshore and passenger transport, utility, homeland security, law enforcement, search and rescue, emergency medical services, maritime patrol, military naval roles and armed reconnaissance.

#### AW609 CUSTOMER SUPPORT & TRAINING DEVELOPMENT

In view of the AW609's initial certification, Leonardo has made significant investments in Customer Support and Training. After years of teamwork with customers and regulatory agencies Leonardo has finalized the framework to carry out a successful entry into service for such a revolutionary aircraft.

We achieved important results, such as the development of Continued Airworthiness Instructions in accordance with the latest standard, including features to allow a higher visualization and navigation of Maintenance Procedures. Furthermore we reached the definition of the Maintenance Plan, thanks to the cooperation between Authorities and Operators in the Maintenance Review Board process (MSG-3 Methodology). Ground Support Equipment and Special Tools design and validation as well as MRO capabilities are in place. We identified the entire revolutionary AW609 Training Solution for both pilots and technicians, including the Distance Learning model and Interactive Computer Based Training; the AW609 full set of Training Aids required to deliver a comprehensive and first class training experience.





a superior level of support for the AW609 and a growing Leonardo fleet in the North American market.

#### FIRST PRODUCTION AW609 ENTERS FINAL ASSEMBLY

The AW609 program has recently taken a leap forward as final assembly begins on the first production model at our plant in Philadelphia. Aircraft 5 is the first sellable tiltrotor Leonardo is building as it ramps up production to meet demand.

Production AW609s will feature enhanced Pratt & Whitney PT6C-67A turbine engines, a modern Collins Aerospace Pro Line Fusion touch-screen cockpit with advanced full fly-by-wire digital flight controls and a large cabin door for easy access.

The fuselage, which arrived in March, was manufactured at our site in Brindisi. Its composite skin panels were made using an advanced digital manufacturing technology called Automated Fiber Placement (AFP).

The AW609 will transform downtown to downtown travel, air ambulance service, search and rescue and para-public operations among other applications, uniquely combining rotorcraft flexibility and turboprop performance into one versatile type.



### 2<sup>ND</sup> SERVICE CENTRE CONFERENCE: WHAT IF YOU SAY YES?

Four years after the launch event, on May 29<sup>th</sup> and 30<sup>th</sup> we hosted the 2<sup>nd</sup> Service Centre Conference at our site in Vergiate, with the aim of renewing the identity of Leonardo Helicopters network, as we wish to transform the traditional interaction among its members into a real partnership, for us all to be more recognizable, consistent and focused on our customers' needs.

This year's conference was attended by 75 representatives of our Service Centres and Blade Repair Centres from all over the world, spanning



from technical representatives to MD and General Managers, who were involved into a rich programme. The topics covered the presentation of new services open to our network community, such as the Special Tools Drawings and Electrical Load Analysis reports now available through the Leonardo Portal; network digitalization through "smarter" tools and platforms that change how the network operates and delivers value to our customers.

We also discussed the launch and promotion of special initiatives aimed at encouraging the sense of inclusion and belonging such as the online forum to share thoughts and opinions with the Community and webinars.

More in detail on the network digitalization, related to technical applications and digital services we illustrated Heliwise, which analyzes fleet data and monitors the helicopter's health status and HeliLink, which provides remote support for troubleshooting and maintenance technical operations.

We introduced the "Call for Job", a new process to post and share job opportunities within the network, leveraging on process digitalization to create win-win business solutions.

We covered training solutions and e-learning which can be accessed through our distance learning portfolio allowing the network to improve skills and expertise with great benefits in terms of effectiveness.

We also gave a preview on some "coming soon projects" such as the new E-Commerce platform to replace the current MyOrder system and also the new Customer Portal, which will have a completely renewed layout and will be designed to be more user-friendly.

In addition to the above topics specifically related to the network management, strategy and future expansion, the programme included also a specific focus and presentations on compliance, anti-corruption laws and document

**HAVE A LOOK** 



#### FLYING INTENSIVE CARE PROJECT

Leonardo Helicopters keeps working with the main medical associations to improve HEMS operations and release the new guidelines. In the frame of this activity, the collaboration agreement with SIAARTI (the Italian Society for Anesthesia, Analgesia, and Intensive Care) is aimed at the development of the helicopter of the future, in order to increase mission capabilities of ambulances and the effectiveness of connected medical services. This can be achieved through the study of new internal configurations of future helicopters, the definition of new guidelines and standards for doctors and their training. Therefore, focusing on the helicopter capabilities, we will put at SIAARTI's disposal our industrial and technological capabilities, as well as our consolidated international experience in the helicopter rescue sector.





For helicopter emergency services SIAARTI adopts the model of a flying intensive care using, which can ensure the possibility of treating the most critical patients both on the site of the accident and in flight, while being transported to the hospital, with the aim of stabilizing the patient both in-flight or on the road.

The helicopter of the future will have to guarantee the necessary access spaces to load the patient from both sides, the possibility of allocating Critical Patient First Treatment Medical station, the possibility of sending all available clinical parameters and images during flight.

SIAARTI, in this perspective, is working hard on several activities, and it has also created a working group for the writing of HEMS guidelines on helicopter rescue according to the GRADE methodology adopted by the Ministry of Health. Futhermore it organizes training activities using high fidelity simulation, with the support of and AW169 mock-up specifically tailored for this kind of mission.

The non-exclusive collaboration agreement in the field of helicopter emergency medical service (HEMS) between Leonardo and SIAARTI was signed in November of 2018.

Under the agreement, Leonardo will take advantage of SIAARTI's support to further improve HEMS helicopters capabilities in line with the evolving operational and scientific requirements of the medical community and HEMS national system while delivering advanced medical personnel training. Through this collaboration, SIAARTI sees a great opportunity to enhance the rescue and emergency network and the relevant helicopter services and medical interiors with the long-standing expertise of Leonardo in this sector. Both partners acknowledge the unique and key importance of the role played by physicians anaesthetists of critical care, representing the largest part of paramedics in the HEMS field.



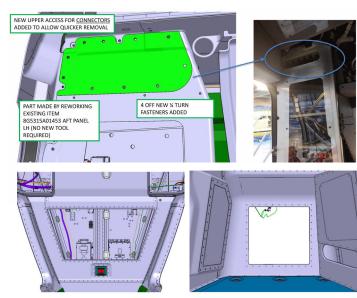
### NEW ACCESS PANELS TO AVIONIC BAYS

Good news for the AW189 Community: the new retromodification of the baggage compartment liners which offer additional access to the avionic equipment located in the areas behind liners and to the avionic cabinet achieved certification.

This modification, developed also to meet customers' requests, improves the accessibility to the avionic equipment and maintenance connectors, optimizing access to dedicated areas and reducing liner removal requirements.

Thanks to this new option, customers will have the possibility to speed up their maintenance activities.

The modification will be performed through the Technical Bulletin BT189-203, and will be applicable only to basic liners configurations excluding sonomex baggage liner kit and other configuration listed in the SB. It consists in performing cut outs in the existing liners and proceeding to the installation of removable panels fixed to the liners by means of turn locks.



### MAIN ROTOR BLADE IMPROVEMENT - HIGHLIGHTS ON SB139-501

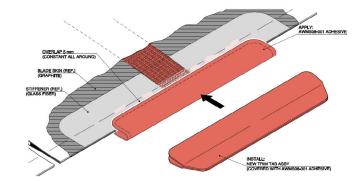
With the aim of a continuous product improvement, design and certification activities have been focused on different areas of the MR Blades and through the Service Bulletin SB139-501 we introduced the following modifications:

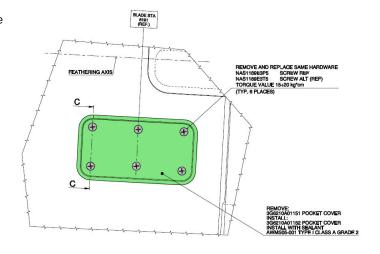
- Replacement of the aluminium trim tabs with the new design parts, made of stainless steel (Part I);
- Replacement of the existing weight pocket cover with the titanium one (Part I);
- Installation of the new lightning bonding strip and bonding mesh (Part II).

Such modifications, impacting on weight distribution, require a re-evaluation of the static balance of the Main Rotor Blade; for this reason, only Service Stations capable of performing the static balance procedure were authorized to apply Part I and Part II of SB139-501. At the same time, Leonardo Helicopters has been working on some tests with the target to prove the adequacy of analytical compensation instead of static balance procedure application.

In light of the positive outcomes of such tests, the SB139-501 Rev. B has been recently issued to introduce the possibility to perform a weight compensation procedure after Part I application. This allows to skip the static balance check, provided that the amount of balance weights installed on the Main Rotor Blade is sufficient to guarantee the re-balancing of the blade. It also allows the possibility to perform the Part I of the Service Bulletin at Operators' Organizational Level.

The new procedure eases embodiment of the latest design features by the Operator's Organization, which can take advantage in terms of increased reliability of the Main Rotor Blades.





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