

# AW newsletter

Winter 2019

*ThinkCustomer*

## SAKHALIN ENERGY SIGNS AW189 CONTRACT TO SUPPORT OIL&GAS INDUSTRY IN RUSSIA

At the end of December, we signed a contract with Sakhalin Energy Investment Company Ltd. ("Sakhalin Energy") for the supply and maintenance of three AW189 super medium twin engine commercial helicopters, which will be deployed to carry out transport operations from Sakhalin Island in Russia, supporting the Oil&Gas industry, with deliveries scheduled to start in the first quarter of 2020.

Sakhalin Energy Investment Company Ltd. ("Sakhalin Energy") is the operator of Sakhalin-2, one of the world largest integrated projects, which has built an extensive infrastructure for hydrocarbon production, transportation and processing. Sakhalin Energy is a leader in corporate

social responsibility (CSR) and sustainability initiatives.

Roman Dashkov, CEO of Sakhalin Energy commented about the direct consequences of this contract, which will allow for safe air transportation, reliable service of offshore oil and gas objects considering the peculiar adverse natural and climatic conditions of Sakhalin shelf. He considers this a step forward both for Russian industry and for international cooperation.

This contract represents a further confirmation of the competitiveness of our modern product range supporting the Oil & Gas market, and reinforces the success of the AW189.

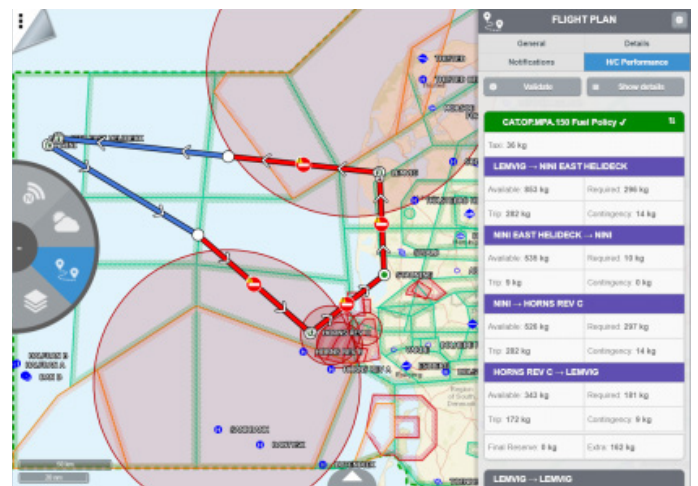
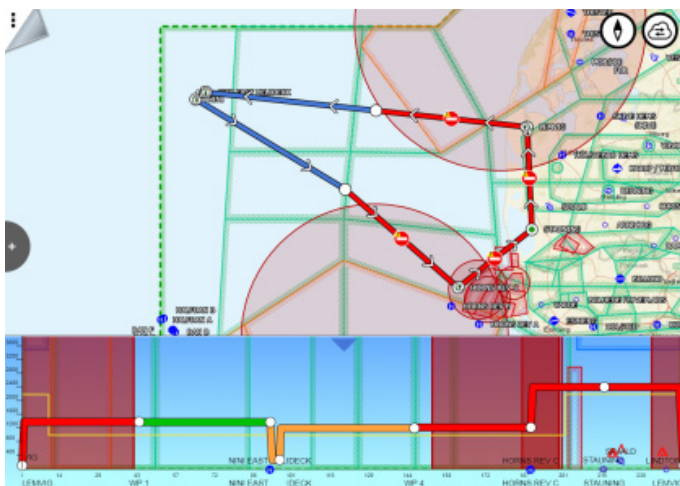


# CUSTOMERS' NEEDS AND SAFETY: KEY MILESTONES FOR SKYFLIGHT EVOLUTION

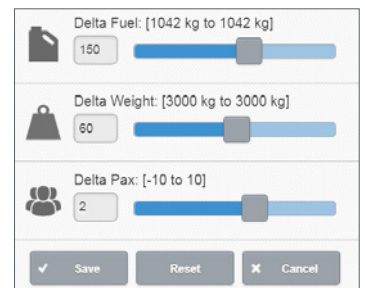
Skyflight is continuously evolving according to our customers' feedbacks, increasing the number of its functionalities and tailoring EFB solutions to meet our customers' specific needs and guarantee their operational safety.

As a matter of fact, the latest package of Skyflight enhanced features allows users to plan the mission more effectively, ensuring consistency with the requirements releases by the Authorities (in compliance with the PART

CAT - Commercial Air Transport Operations). Moreover, pilots combine multiple flights as an entire mission and customize the flight planning parameters based on the operation to be performed. For HEMS, SAR and Wind Turbine operations, weight and number of passengers may be directly changed during a hoist operation and, as typically required in offshore missions, landing and takeoff steps may be modified in terms of passengers number, loaded/unloaded weight and fuel.

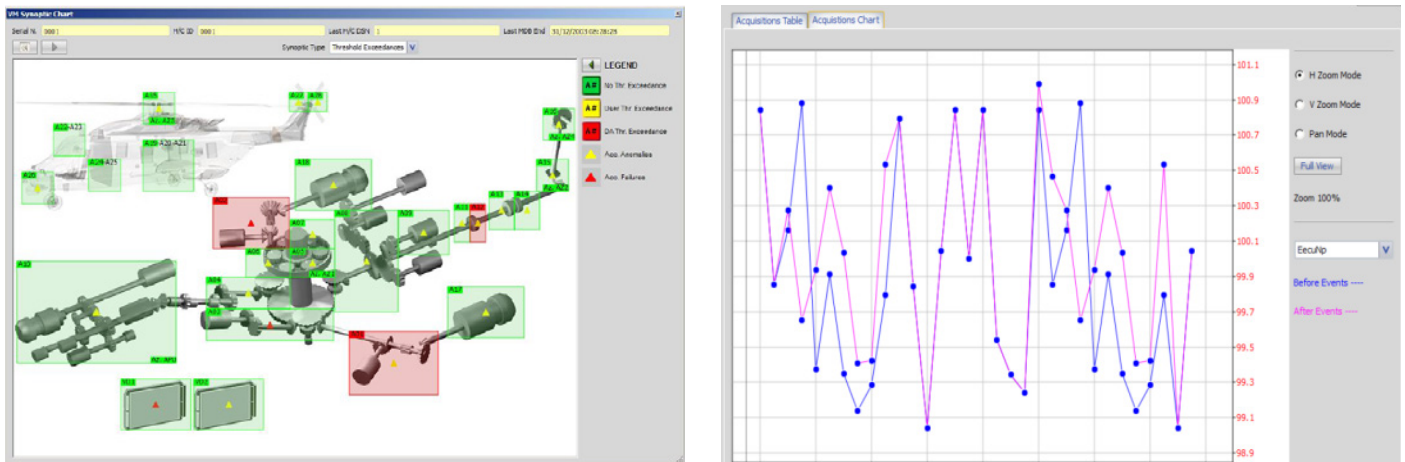


Through these improvements, it is also possible to define the alternate destination and keep key indicators under control. For example, once the mission has been planned, the required fuel amount is calculated according to the fuel policy CAT.OP.MPA.150, which provides the fuel needed for each flight phase as well as the relevant contingency.

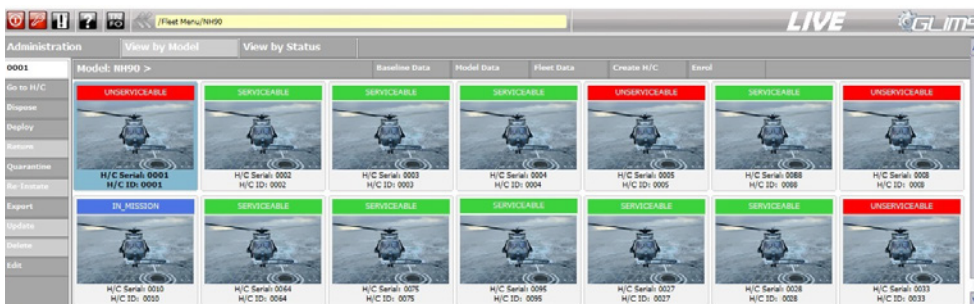


# HAPPY BIRTHDAY GLIMS - 10 YEARS OF SUCCESS

Our Ground Logistic Information Management System (GLIMS) closed out its tenth year as the Leonardo Helicopters unique software solution for maintenance and HUMS analysis on the NH90 fleet. Operators can benefit from GLIMS to download and debrief data after flight, performing Health and Usage, Transmission Vibration Monitoring (TVM) and Engine Vibration Monitoring (EVM) analysis on the whole NH90 fleet. Through the same software, maintenance technicians carry out periodic maintenance activities, assessing fleet efficiency and availability in the short and long term period. With one click, they access and check out the Interactive Electronic Technical Publications (IETP), leveraging on a quick, easy and intuitive system.



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**GLIMS system – Fleet Main Page**  
Immediate display of the fleet status and easy access to specific analysis on individual helicopters.

## GLIMS IN NUMBERS



3 Continents, 10 Countries



175 Helicopters Supported



13 Customers, 4 Conferences

## TH-119 HELICOPTER PERFORMS FIRST FLIGHT

In the last decade of December the TH-119 IFR training helicopter successfully performed the initial flight test in our facility of Philadelphia, PA, with excellent performance as well as an assessment of general handling and avionics systems. This represents a very important milestone in the programme, on the path to the achievement of full FAA IFR certification. The TH-119 represents our bid to replace the U.S. Navy's aging fleet of TH-57 Sea Ranger training helicopters. It is based on the successful AW119, manufactured in the US and is specifically configured for military training. Should it be the choice of the U.S. Navy, the fleet will be built in Philadelphia utilizing the plant's existing AW119 manufacturing and support facility.

The TH-119 is a full-spectrum training helicopter, in fact with a single variant fundamental training flights like sliding landings, hovering, and full autorotations (without offloading any of them to simulation) can be accomplished.

Furthermore it can be used for advanced training flights including NVG, instruments, navigation, tactics, hoist, external cargo, and search and rescue.

The TH-119's 4-display Genesys Aerosystems advanced glass cockpit allows instruction from either pilot seat with full IFR capabilities including flight director and 3-axis full autopilot. The observer seat features a unique 180-degree setting, giving student pilots full view of the cockpit providing a better learning environment, even while riding as a passenger. The TH-119 is equipped with a 1,000 shp Pratt & Whitney Canada PT6-B engine, and features the durability of a cocoon-type metal airframe as well as reinforced shock stabilized skids for touchdown manoeuvre training.

To minimize time on the ground and maximize operational flexibility the TH-119 can "hot" pressure refuel.



## MARYLAND STATE POLICE HOSTED THE 17TH EDITION OF THE AW139 MIT

On 16th and 17th January our usual half-year meeting with the AW139 operators' community was held in Baltimore (MD - USA), to discuss the maintainability and reliability improvements on the AW139 fleet.

The conference, at its 17th Maintenance Improvement Team (MIT) and 8th Reliability Data Sharing Group (RDSG) edition, was hosted by the Maryland State Police that, through the AW139, provides medevac and aerial law enforcement support to citizens of the State of Maryland and its neighbors.

Through the MIT work stream more than 300 improvement initiatives and actions have been agreed with the community and almost 90% have been successfully closed.

We would like to thank the community for the continuous support and collaboration that guarantees the success of this initiative.

The next MIT will be held at our premises in Vergiate (Italy) in June 2019.

If you would like to join our MIT and/or RDSG community, please contact us at the following email addresses:

[CSE.AW139.AW@leonardocompany.com](mailto:CSE.AW139.AW@leonardocompany.com)

[RDSG.mbx.aw@leonardocompany.com](mailto:RDSG.mbx.aw@leonardocompany.com)



## HELICOPTERS FROM PZL-SWIDNIK ARE COMING TO RESCUE IN THE CANARY ISLANDS

El Grupo de Emergencias y Rescate del Gobierno de Canarias (GES) uses 13 Sokół helicopters produced in PZL-Swidnik for search and rescue and firefighting missions in the archipelago of the Canary Islands in the frame of a 6-year contract with Hispánica de Aviación (HASA) - one of the largest European operators of this type of helicopters.

The demand for a large number of Sokół helicopters is due to the distinctive climate of the subtropical islands and their terrain. In the Canary Islands, sandy beaches contrast with steep hills which are characterized with completely different conditions than conditions above the sea level. The highest peak of the archipelago, Teide, reaches 3,718 meters. It is the third highest volcanic structure in the world that the islanders simply call "The Mountain". The helicopters from PZL-Swidnik are stationed on the main Islands of the Archipelago: Tenerife, Gran Canaria, La Palma, Fuerteventura, El Hierro and Gomera.

The Spanish Sokół helicopters are equipped with a range of specialized SAR and fire-fighting equipment, including 1,600 liter "bambi bucket" tank which allows to take

water from the sea and pour it over a burning area. The helicopter cabin can be quickly reconfigured depending on the tasks and requirements that the rescuers need to face.

"I am in love with the aircraft," GES co-pilot Santiago Velasco said. "Despite its robust looks, the handling is smooth and stable, while it has the high manoeuvrability necessary to conduct firefighting operations or to reach victims trapped in gorges."

"Sokół works in all conditions - both at sea and in the mountains, it is perfect", pilot Jorge Ortega agrees.

A typical rescue crew of the Canary Sokol helicopter is composed of five people: two pilots, hoist operator and two rescuers and they come to the aid of casualties at the sea, beach and on steep slopes.

The Spanish emergency services needed a helicopter with a big enough cabin to perform rescue operations over the sea and at the same time manoeuvrable enough to operate along steep slopes. They selected the proven Polish design, which is performing very well in the difficult environment of the Canary Islands.



## APACHE INTEGRATED OPERATIONAL SUPPORT CONTRACT BY THE UK MOD

In mid-January the UK Ministry of Defence awarded a contract to provide the Apache AH Mk.1 Attack Helicopter fleet with comprehensive support and maintenance services. Thanks to this Apache Integrated Operational Support (IOS) contract, the Apache AH Mk.1 Attack Helicopter fleet will be supported from 1st April 2019 until the aircraft goes out of service in 2024.

The Apache IOS programme office, manned by industry and Ministry of Defence staff, located at our Yeovil facility, will continue to manage the IOS contract. The Apache IOS contract will deliver the required levels of aircraft availability whilst reducing through life costs.

Under the contract, supported by our industrial partners Boeing, Lockheed Martin and Longbow International, we will continue to deliver complete spares provisioning, engineering, depth maintenance, repair & overhaul and technical support services for the UK MoD's fleet of Apache AH Mk.1 helicopters.

The Depth Support Unit and the associated workshops at Wattisham Airfield, the British Army's main Apache AH Mk.1 operating base, will still be managed by Leonardo.

At Army Aviation Centre Middle Wallop, Leonardo will continue to be responsible for the provision of Apache aircraft on the flight line at the School of Army Aviation, delivering the required number of flight hours to match the Army's training requirements.

We are also responsible to provide support and training services for the UK MoD's AW159 Wildcat helicopter fleet under the Wildcat Integrated Support and Training (WIST) contract and for the AW101 Merlins under the Integrated Merlin Operational Support (IMOS) contract.



## AW119KX G1000NXI AVIONICS: ADDITIONAL NVGS CAPABILITY

Within the prospects of a continuous improvement, we are glad to announce the AW119Kx G1000NXi avionic suite certification, which enables the helicopter to perform NVG operations, and pilots to benefit from several improvements.

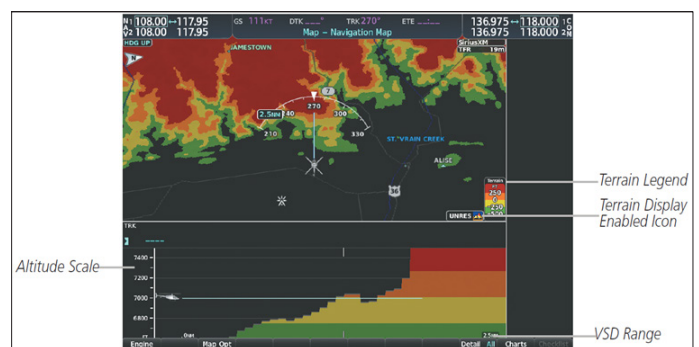
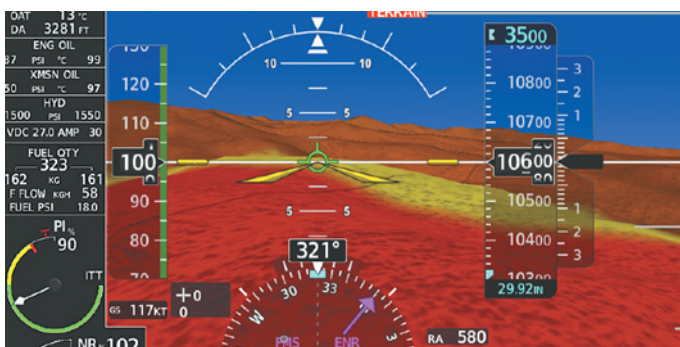
The G1000NXi kit is featured with an updated look that consists of new renderings as well as additional capability to display VFR Sectionals and IFR high/low charts on the MFD.

Situational awareness is increased through the Horizontal Situation Indicator (HSI), which is now capable of adding flight plan, traffic, terrain, and weather data as an overlay to the HSI.

Enhanced Vertical Situation Display (VSD) shows vertical aspects of flight plan with relevant supplementary information for full operational safety.

The COM Frequency Decoding feature analyses the current aircraft location and the frequency databases to determine the COM information. This last parameter can be displayed alongside the COM frequency, allowing operators to verify the tuned frequency quickly.

Enhanced Central Maintenance Computer (CMC) enables to process and store data logging and fault detection. Lastly, a substantial reduction of the pilot workload is guaranteed thanks to the Engine Power Index (PI), which integrates the three main engine indicators i.e. Torque (TQ), Inlet Turbine Temperature (ITT) and Gas Generator speed (NG) in a single tool.



## 4<sup>TH</sup> AW139 DELIVERY FOR ASESА IN MEXICO

In December of last year we hosted Mexican helicopter operator ASESА at our site in Philadelphia, to celebrate their 4th AW139 purchase with a dedicated delivery ceremony.

ASESА, in business since 1977, is the largest helicopter operator in Mexico with the most modern fleet in the country, serving primarily the offshore oil, gas and electric industries. ASESА has three service centers, which are authorized to provide maintenance on AW109s, AW119s, and AW139s.

The AW139 is ideally suited for ASESА's offshore missions. It can carry up to 15 passengers in comfort and safety and is compliant with the most stringent industry guidelines. It offers best-in-class performance including a cruise speed of 165 knots, six hours of endurance and superior hover performance.



## RIBBON CUTTING FOR THE NEW SUPPORT CENTRE IN LOUISIANA

On January 31<sup>st</sup> our new customer support facility in Broussard, Louisiana, was officially opened, bringing to four the number of such centers in the Americas.

More than 80 guests attended the event, including media, suppliers and some of our key customers: PHI Helicopters, Arrow, Era, Bristow, Kinetica, and Chevron.

According to Mike Hotze, VP, Customer Support and Training North, Central and Spanish Speaking South America, the facility represents a further step to be closer to our customers, generating multiple benefits not only for the oil-and-gas operators, but also for customers in the entire lower 48 States.

"We're trying to establish the same manufacturing capabilities that we have in Italy" Hotze said. That means turn times for most repairs will be 30 days or less; complex repairs and overhauls will be 60 days or less. "This facility is tied into all the engineering and repair capability they have in Italy. We'll be able to turn blades quickly because of that, but we're not just a blade center."

Hotze said customers will find services offered by the Broussard facility very cost-competitive, predicting services would be provided "at market rates with OEM capability. That's going to be an enormous savings".

### Comments from the field – what has been said?

*"The establishment of Leonardo Helicopters' facility will build on the region's long-standing aviation history. Leonardo will provide quality employment opportunities for our region's experienced aviation and manufacturing workforce."*

**Gregg Gothreaux, Lafayette Economic Development Authority president and CEO**

*"The City of Broussard is proud to be chosen by Leonardo Helicopters as the next city for this global company to plant root. We are committed to being a good partner to our business community."*

**Broussard Mayor Ray Bourque**

*"The team we're assembling in Broussard has decades of experience working in aviation and rotor blade repair. We're looking forward to providing the highest quality product and service to our Leonardo customers"*

**Troy Penny, General Manager of the Facility**

*"I was really impressed with Leonardo's new facility in Broussard. Being an operator on the Gulf Coast, it is very comforting knowing there is a manufacturer's presence so closely located to our aircraft. Leonardo looks well equipped to provide us with all of our blade repair needs, and I hope it can evolve into more avenues, such as parts and component repairs in future."*

**Jude Richard, Kinetica Aviation Maintenance Manager**



## SALAI - SUPPORT AND LEARNING ANYWHERE INTEGRATED

SALAI is an innovative platform designed with the aim to become the “One Leonardo” response to the support and remote training needs of Leonardo maintenance technicians for any product, anywhere in the world.

This system leverages on the expertise, the experience and the products already developed by the Company’s Divisions, expanding the range of the innovative services for training and maintenance support on the field, maximizing customer intimacy and reducing costs.

The technology behind SALAI is extremely innovative, embodying the key values of Leonardo’s Industry 4.0: Virtual/Augmented Reality, Cyber Security and Blockchain, Artificial Intelligence and Internet of Things.

The development of the platform will follow an “Open Innovation” approach that will integrate Leonardo’s expertise with a network of solutions and methodologies coming from remarkable stakeholders such as SMEs, Start-up/Spin Off, Universities and research centres.

The SALAI project, which won the Helicopters award under the category “Incremental Innovation” and received a Special Mention at the Leonardo Innovation Award Ceremony, has been developed by an integrated team of Customer Support and Training representatives of the Company.



### THE SALAI TEAM:

**Fabio Bello** - Academic Training Systems & Virtual Lab Manager, Aircraft Division

**Zaira Burlo** - Customer Support, Services & Training VP Governance, Chief Commercial Office Leonardo Corporate

**Alberto Clocchiatti** - CS&T Worldwide Business Development, Helicopters Division

**Salvatore D’Onofrio** - CS&S Co-Financed Projects Manager, Chief Technology Officer Land & Naval Defence Electronics Division

**Ludovica Rendine** - Strategic Marketing Manager - Airborne & Space Systems Division

**Fabio Russo** - Sales Technical Support & ICT Solutions, Cyber Security Division

**Roberto Sanguini** - Simulation Learning & Support Services Technology Innovation Manager, Helicopters Division

**Gabriele Tonini** - Customer Support & Training Chief Commercial Office, Leonardo Corporate

**Raffaele Vertucci** - Head of Capabilities Branding, Chief Stakeholder Office, Leonardo Corporate

# OneLeonardo

*New Training & Support Paradigm*

SYNERGY

SHARE toINNOVATE

Digital Ecosystem

CROSS  
FERTILIZATION



## MAJOR AW139 UPGRADE WITH UAE JOINT AVIATION COMMAND VIP FLEET

Leonardo and Abu Dhabi Aviation (ADA) announced in November 2017 at Dubai Air Show that AgustaWestland Aviation Services LLC, their joint venture (JV) delivering a comprehensive range of support and maintenance services in the United Arab Emirates and across the region, signed a contract with the Ministry of Defence of UAE for the upgrade of 10 AW139 intermediate twin engine helicopters including VVIP transport variants. Upgrading activities started in early 2018, 6 helicopters have been completed in 2018 and the remaining 4 will be finalized by the first quarter of 2019.

This programme, which follows the successful implementation of the first upgrade delivered on time and according to the technical specifications, is intended to further expand the outstanding capabilities of the MoD's AW139s. The programme includes among others a new FLIR, HUMS technology, a central display unit in the cockpit, nose landing gear doors, auxiliary fuel tanks, TCAS II, soundproofing solutions, cargo hook camera, 4 Axis Dual Digital Automatic Flight Control System (DAFCS) Enhanced Hover Mode (HOW) and SAR Modes, and Primus Epic® Flight Software release Phase 7.7.

Modifications and upgrades are taking place at ADA facilities in Abu Dhabi, where the JV can count on a certified MRO (Maintenance, Repair and Overhaul) supply centre, with activities already covering also the new models, such as the AW169 and the AW189. These capabilities are expected to grow further by year end. The upgrade analysis and installations involved first of all the Modification Engineering Department of Leonardo Helicopters, which studied and developed new tailored Service Bulletins for the Joint Aviation Command AW139 VVIP fleet. Leonardo, AgustaWestland Aviation Services LLC and ADA are proud to cooperate and to be part of this challenging programme that will enhance the capabilities of the MoD's AW139s operations.



## LEONARDO HELICOPTERS AT SENABOM

SENABOM (Brazilian National Firefighters Conference) is the annual exhibition and conference, organized alternately by one of the Brazilian Military Fire Fighting Corps. It is the largest and most prestigious event for fire prevention and firefighting in Brazil and aims to introduce new technologies, promote the exchange of experience and bringing professionals from the sectors of prevention and firefighting together.

The 2018 edition, which was the 18th, was organized by the Military Firefighters of the State of Paraná and was held from November 21st to 23rd in Foz di Iguacu, Paraná, Brazil.

We were the only helicopter OEM attending the exhibition and during the workshop session on the first day, we presented a general overview of the AW119Kx helicopter, focusing on parapublic missions. The exhibition and workshops were mainly dedicated to new generation as well as "smart" firefighting equipment, in terms of personal PPE, fire trucks, fire extinguisher tools, USAR equipment.

Senabom represented a good opportunity to reinforce our reputation both as manufacturer of innovative and high-performance products, as well as the good reputation of our products in the area, especially of the AW119 which is in use by Police Corps and Military Fire Departments.



## FALCON AVIATION SERVICES: KOC PROJECT STARTING IN KUWAIT WITH THE AW169

The State of Kuwait is situated in the northern edge of Eastern Arabia at the tip of the Arabian Gulf, with a surface of 18 thousand sq.km, sixteen times smaller than Italy, with a population of 4 million people, fifteen times lower than the population in Italy.

Based on the statistics, in 2016, 71,500 road accidents occurred in Kuwait resulting in 424 deaths. In comparison to Italy, in the same year, it is half the road accidents and seven times lower in deaths, but the population is 15 times lower. This result therefore brings Kuwait at the 78th place in the world rank, with a rate of 21,27 deaths per 100,000 people (Italy is at the 165th with a rate of 4,72), which accounts for one car accident every ten minutes.

Considering the above scenario, Falcon Aviation Services, the first private company to be contracted in Kuwait by The Kuwait Oil Company (KOC), is ready to undertake the challenge to support Medical Evacuation operations and On-Shore/Off-Shore Oil & GAS operations.

The 5-year contract started in mid-February 2019 and it involves three AW169s in medevac configuration,

delivered in July 2018 to undergo the training phase in Kuwait. The contract represents a significant expansion for Falcon Aviation, which employed further personnel in Kuwait, including offshore pilots, administration personnel, as well as line and base engineers.

The helicopters have been deployed in a suburb area of Kuwait City and they will operate to guarantee coverage 24 hours a day: one helicopter ready 24 hours, one helicopter from 8 am to 5 pm and one will remain in stand-by to intervene in replacement, should one of the others be grounded due to scheduled or unscheduled maintenance.

The AW169 fleet of Falcon Aviation in Kuwait is supported by a tailored Entry-Into-Service plan, which combines a power by the hour support scheme with a dedicated material stock located at the customer's premises, for immediate availability of spares.

Leonardo Helicopters is proud to be part of Falcon Aviation's success and to cooperate as a unique team in this new challenging and demanding project.



## MAIDEN FLIGHT FOR THE AW169 OF THE NORWEGIAN POLICE

The maiden flight of the first AW169 of the Norwegian Police has been successfully completed on last November 22nd at the presence of Norwegian Police Directorate. The flight took place from our plant in Vergiate and this event represents a significant milestone of the program, which will lead to the delivery of three AW169s destined to the Norwegian Police within July 2019.

In August 2017 the Norwegian Police signed a contract with Leonardo Helicopters for the purchase of three AW169s and related services, with the option of three additional helicopters of the same type.

The AW169 will enhance the Norwegian Police capability thanks to its tailored mission equipment and the largest cabin in its class, allowing transportation of six officers with equipment or alternatively a stretcher can be positioned in the cabin with six seats. The AW169 cabin will enhance law enforcement operational capabilities thanks to its easy reconfiguration capability from transport to surveillance role, feasible due to its relevant dimensions and the flexibility in installation of mission systems.

The AW169s will be deployed for fighting against terrorism and serious crime, for special assignments like surveillance and transport, as well as the deployment of personnel from the Emergency Response Center, Bomb Service and Crisis.

The police helicopter service belongs to the National Assistance Resources unit under the Oslo police district, based at Oslo Airport Gardermoen.



## AW169 AVIONIC PHASE 4 OBTAINS EASA CERTIFICATION

Last December the AW169 platform team completed the EASA certification of the latest avionic software release (Phase 4). Similar to what already developed and certified on the AW189 platform, this suite has been designed in-house by Leonardo and will introduce new features like new DMAP management and functions as well as unique Performance Based Navigation (PBN) capabilities. When operating under a Global Navigation Satellite System (GNSS), such capabilities guarantee the highest precision (defined as Required Navigation Performance - RNP 0.3) in the guidance of the helicopter through its Flight Management System (FMS) during all the phases of flight.

The suite also includes the capability to fly the RNP AR approach (RNP Authorization Required (AR) approaches) with RNP 0.3 minima/Missed approach 1.0.

This latest release is also complemented by the LPV200 (Localizer Performance with Vertical guidance down to 200ft minima) Approaches capability, enabling performances typical of conventional precision ILS (Instrument Landing System) approaches, as well as by the automatic deceleration in ILS and FMS approaches. In addition to the new navigation capabilities, Phase 4

also offers further enhanced AFCS performances, particularly in turbulence conditions, resulting in a smoother and more comfortable ride.

Strongly believing all our customers will highly benefit from the installation of Phase 4, we have recently released a dedicated Service Bulletin (SB169-105) providing the necessary instructions on how to perform the installation of the core avionics Phase 4.0 software and relevant hardware. All the components necessary to this modification will be provided at no cost.





We are pleased to invite you to visit our stand.

2019

USA



**HAI HELI-EXPO 2019**  
**Stand B7024**

Georgia World Congress Center  
**ATLANTA - USA**

**5<sup>th</sup> - 7<sup>th</sup> March**



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### Contacts

For any further information, please contact your Training Point of Contact:  
Get it from the mobile App "AW TeamUP".