

AW newsletter

Summer 2018

ThinkCustomer

MH-139S WILL REPLACE UH-1N "HUEY" HELICOPTERS OF THE U.S. AIR FORCE

The United States Air Force (USAF) announced on September 25th that the MH-139, based on the Leonardo best-seller AW139 and offered by Boeing as prime contractor, has been chosen to replace its fleet of UH-1N "Huey" helicopters. In the frame of this programme up to 84 helicopters will be built in our site at Philadelphia, PA, with additional components to be integrated into the military MH-139 at the Boeing Philadelphia facility in Ridley Township, PA. We will offer also training devices and associated support equipment. The aircraft are expected to enter into service by 2021 and will be deployed to protect the nation's intercontinental ballistic missile (ICBM) bases and

to transport U.S. government and security forces. The MH-139 is the right-sized aircraft for this kind of mission, and it exceeds the Air Force's speed, payload, range, armament and survivability requirements for protecting ICBM bases. Furthermore it is perfectly suited for VIP transportation. The MH-139 offers modern design and guarantees the best level of affordability, allowing savings of \$1 billion in acquisition and lifecycle costs over the life of the fleet. Gian Piero Cutillo, MD Leonardo Helicopters, said "This announcement is a strong recognition of the world-class quality and competitiveness of our product to meet the most demanding needs of leading customers."



SKY SHUTTLE AW139 SETS 10,000FH MILESTONE

The major operational goal achieved by one of the AW139s operated by Skyshuttle, which performs scheduled flights between Hong Kong, Shenzhen and Macau, was celebrated during an official ceremony at Farnborough International Airshow.

Skyshuttle, also celebrating its 30th anniversary, has a fleet of five 12-seat configured AW139s carrying out 46 flights a day transporting passengers between the three destinations. It introduced the AW139 into service in 2009, operating from a brand new helipad in Hong Kong, where passengers have a comfortable check-in and lounge area at their disposal. Skyshuttle is known for providing a range of passenger transport services which ensure quality, comfort and versatility and a unique flying experience thanks to its AW139s, delivering also outstanding reliability and safety.

The AW139 sets new standards as a result of its advanced technology, high performance, reliability, safety, role flexibility and cabin space. Its modern avionics reduce crew workload allowing the pilot to focus on the mission. Over 300 customers from more than 70 nations have already ordered over 1000 AW139s, around 900 of which are in service logging in excess of 2 million flight hours, confirming the AW139 as the bestselling aircraft in its category.



MAINTENANCE IMPROVEMENT TEAM MEETINGS - SUMMER EDITIONS

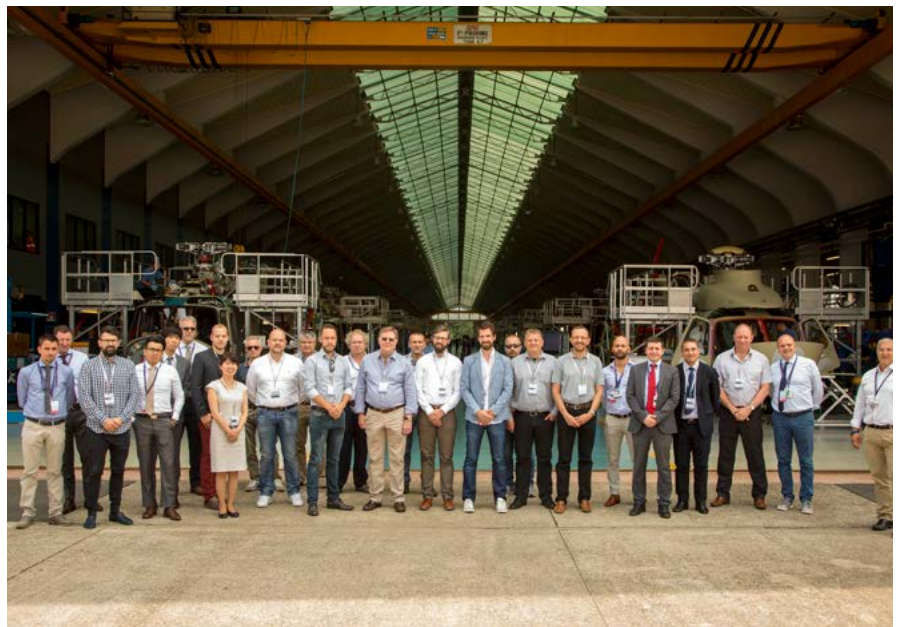
In July we had the pleasure of hosting the summer editions of our Maintenance Improvement Team (MIT) meetings at our premises in Vergiate, with the participation of a large community of customers and operators. On this occasion, we launched the first AW169 MIT where our operators had the chance to share feedbacks and experiences on a growing fleet of helicopters that are marking the success of the product in the EMS and utility markets.

A reshaped format of the AW139/AW189 MIT combined the traditional AW139 conference with a new event focused on the AW189 which, after three years of growing operations worldwide, is establishing itself as the benchmark of the super-medium class helicopters.

The key topics discussed during the two MITs included the latest In-Service Events and the Reliability Data Sharing Group on both AW169 and AW189.

During the round table, a dedicated action items list was setup with the aim of collecting inputs on product maintainability and reliability and developing dedicated actions to enhance these aspects.

Customers' feedbacks on both the events were positive. Customers' evaluation forms reconfirmed that MIT meetings are an excellent opportunity for networking and



indicated that the topics addressed, the quality of the speakers and the organization as the most-valued aspects of the initiatives.

Click on the links here below to view the post-event gallery and get more information on contents and presentations.

[AW169 MIT](#)
[AW139/189 MIT](#)

NEW WIPERS AND WINDSHIELD WASHING SYSTEM

Leonardo Helicopters has developed a new installation for Wipers and Windshield Washing System (WWWS) on the AW139 fleet which increases and improves visibility for pilots and co-pilots in case of rainy conditions. This updated system includes a new design of windshield wiper arms and blades. The length of the blades, together with the double-arm system, has been specifically modified

in order to increase the swept area and expand the field of view even in the most demanding weather conditions. The new WWWS is available for both new helicopters and the in-service fleet. For more information log into the Leonardo Customer Portal and look at the Service Bulletin SB 139-506.

CZECH SOKOL HELICOPTER REACHES 5,000 FLIGHT HOURS

On 12th June 2018 the 37.07.18 W-3A Sokół hit the record of 5,000 flight hours, thus becoming the first helicopter of the range to achieve such an important milestone. Ten W-3A Sokół helicopters are operating from Prague-Kbely air base. The aircraft are mainly employed for rescue tasks together with other ten helicopters, which have been specifically customized for medical transportation. Six of them have been fitted with specific medical equipment such as stretchers and a high capacity winch. To date the fleet has reached more than 40,000 flight hours, assisting 11,600 patients.

The W-3A Sokół helicopters, produced by PZL Swidnik, were delivered to the Czech Republic Ministry of Defence in 1995, and only two years later, started to perform rescue missions during the flood in Morava. In 2016, a specific agreement between the Ministry of Defense and Ministry of Health established that these helicopters would be more widely used for rescue missions, carrying ECMO (Extracorporeal Membrane Oxygenation) medical teams, extending the range of the services deployed.



CUSTOMER SERVICE WITHOUT A CRACK

We are happy when our customers are happy, customer satisfaction is one of our goals in Customer Support. It makes us proud to receive messages like this one, which we are pleased to share.

“Recently while complying with TB 109EP-158, we found a crack in our transmission support torque plate on our AW109 Grand.

The crack was found on a Monday, and we contacted the customer support team that same afternoon and within 2 days there was a group of your sheetmetal technicians on site to perform the removal and replacement of the cracked torque plates.

With the support of our maintenance technician on site, who had the transmission and interior removed for the work that needed to be completed when the technicians arrived, your sheetmetal technicians had the torque plates removed and were headed back to Philadelphia on the Friday for the machining process that was needed to be done to the new parts that were being installed. The technicians returned the following day, a Saturday, and stayed through the weekend to finish the installation of the new torque plates.

I understand the challenges the 145 repair station can encounter when the aircraft is not on the repair station premises, and there were some challenges and some minor setbacks such as the machining process, certain hardware, and certain tooling, but with the efforts and communication of the customer support team, the 145 repair station, and the AOG team we were able to work through these issues.

Overall I could not be more pleased of the support, service and outcome of the repair.

With the down time of the aircraft, I was also able to take advantage of those days for further inspections and works, such as the tail rotor gearbox which was due for the 1600 HR inspection.

The gearbox was delivered to the 145 repair station overhaul shop on Wednesday, the inspection complied with, and returned to our facility on the following Tuesday.

We were also able to perform several large inspection items that were coming due, further reducing down time of the aircraft. Our maintenance technicians began reassembling the aircraft on Thursday afternoon, by Saturday evening we were flying on a maintenance test flight. The aircraft flew with no issues; in fact our pilots have commented the aircraft has never felt smoother.

Although we did not use the helicopter on Sunday for our anticipated trip, the aircraft was ready. On Monday we flew the aircraft an additional 2.5 Hours, again with no issues. The aircraft is back in service and the Chairman is happy to have the aircraft back.

I would like to take this time to thank the customer support team of Al Vazquez and Michael Gaines, the 145 Repair station led by Gordon Leathead along with all the individuals associated with the logistics working from within the repair station, the overhaul shop, the spares department, and the AOG team for the efforts in couriering parts and tooling to our facility along with finding the parts we needed.

I would especially like to thank the sheetmetal maintenance team of George Neikens, Mike Dison, Dave Smith and Carlos Escorcia for the excellent sheetmetal work and the professionalism that they exhibited while at our facility.

This is the type of service that we expect from an OEM. Thank you once again.”

This kind of feedback is what drives our continuous improvement philosophy and keeping the customer always at core of all our daily actions.



SKYFLIGHT MOBILE SERVICE: “WHAT’S NEW” ACHIEVEMENTS

Skyflight 3.4.0 release offers three new advanced features that make your flight experience even more complete and productive:

1. GPS Flight Track recording: record flight track using your own iPad GPS even without an internet connection.
2. Debriefing: after your flight, display the flight path data into the map, make evaluations and accurate debriefings, share results with your team and other pilots.
3. Performance calculation - custom weather inputs: input and modify weather conditions acting on wind direction and speed, temperature and QNH. METAR data for performance calculations area are now automatically retrieved!

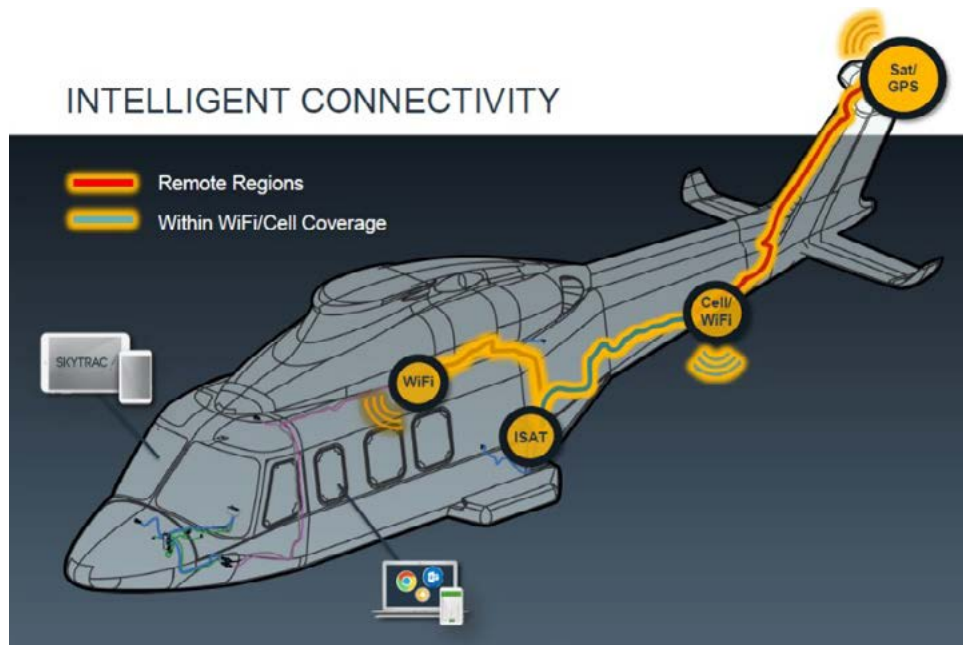


AW Skyflight 3.4.0 is already available on the Apple Store: get it now!

REAL-TIME AIRCRAFT DATA SOLUTION: GREEN LIGHT FOR FIRST PHASE IMPLEMENTATION

We have successfully completed the first phase of the real-time aircraft data solutions technology. This key milestone includes installation, testing and implementation of a cockpit Electronic Flight Bag (EFB) solution on an AW139. This advanced technology, when fully implemented, equips the aircraft with our Heliwise libraries on-board to enable real-time alerting of 300+ HUMS indicators inflight, makes available real-time weather and marine vessel location to the crew inflight, and allows the automated download of flight data from the aircraft post-flight. Phase 1 delivered live weather and Marine Automatic Identification System (AIS) feeds to the cockpit EFB, which allows crews to make decisions based on the most up-to-date information at all times. When the aircraft returns to base, it now automatically downloads Flight Data Monitoring (FDM) and HUMS data as soon as it is in range of a company-secured Wi-Fi hotspot. This data is seamlessly and securely uploaded into the system, replacing a manual transfer process previously possible only when the aircraft was parked. The second and final phase of the project will expand the AW139 HUMS solution to provide real-time data throughout the flight, not just within range of a hotspot. “This is an important historical milestone for Leonardo AW

HUMS development, based on Leonardo’s thirty years of experience with this technology,” said Maurizio D’Angelo, Head of PSE & Licenses, Leonardo Helicopters. “It also demonstrates Leonardo’s commitment to the continuous development of leading edge technologies that enhance operational safety for our customers and improve the customer service offering. The successful real time in flight transmission of HUMS data has been achieved with the full collaboration of CHC and SKYTRAC and a tangible outcome of this teamwork is a solution that is designed to support commercial helicopter operations in a range of market segments.”



OPLS: HOW TO IMPROVE SAFE OPERATIONS IN CONFINED AREAS

Several studies on aircraft accidents report human error rather than mechanical failures as major proximate cause, most of which are linked to obstacle collision and controlled flight into terrain (CFIT) events.

Due to the nature of the terrain and the presence of obstacles some helicopter missions, such as HEMS, offshore, cargo and utility operations, can be risky as they may require the helicopters to fly close to rigs, cranes and wires or over unsuitable emergency landing terrains as well as to reach remote landing sites.

For this reason the pilots' awareness of the external environment, the aircraft position and altitude, the aircraft state and flight envelope, the presence of potential surrounding hazards and obstacles has become increasingly vital.

Several tools have been developed and certified to assist pilots during their missions, improving and anticipating external threats recognition therefore enhancing the safety levels of operations.

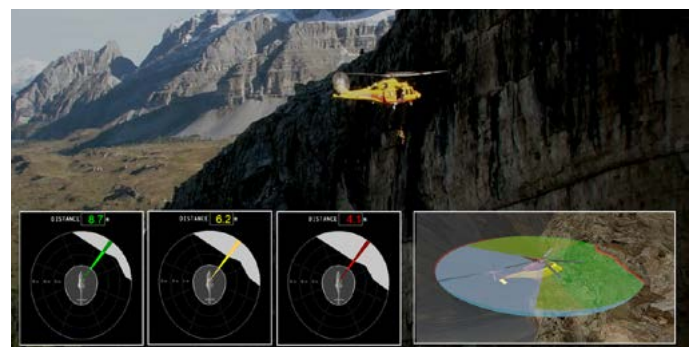
The most recent safety system, called Obstacle Proximity Lidar System (OPLS), has been implemented on the AW139 fleet since 2014, followed by the certification and installation on the AW189 and the AW169 models.

The OPLS, available also in retrofit for the AWFamily helicopters, consists in three main rotor-head-mounted LiDAR (Laser imaging Detection and Ranging) sensors, that generate a 360 degrees radial view around the

aircraft, and a dedicated cockpit control panel. It assists pilots in hovering through confined areas providing the flight crew with the distance of main and tail rotor blades to the closest surrounding obstacle (e.g. rig structure, rocks, trees and buildings) up to a distance of 25 meters (80 feet).

Almost forty OPLS kits are now in service and additional ones are going to be installed in the next few months. In 2019 we plan to have more than fifty AW139s equipped with OPLS, operating in offshore and HEMS missions: a clear sign our customers consider it a good solution to their requirement of further enhancing safety and operational capability of their helicopters.

For any additional information on OPLS and retrofit options please contact your Customer Support Manager.



AN AW119KX FOR THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION POLICE

The delivery of an AW119Kx single engine helicopter to the New York City Department of Environmental Protection Police was celebrated with a ceremony at APSCON 2018 in Louisville, KY, last July.

The New York City water supply system is of paramount importance, being the largest single source water supply in the United States, so it is protected on the ground and from the air to prevent terrorism, pollution and crime. Our AW119Kx will play an important role in supporting operations for water supply protection.

The AW119Kx of the Department of Environmental

Protection is fully customized and features searchlight, FLIR, external loudspeakers, rappelling and cargo hooks, expanded fuel system, a foldable stretcher, and high visibility crew doors on both sides of the aircraft. The aircraft also includes provisions for a Bambi Bucket to be used for firefighting operations.

The new AW119Kx is perfectly suited to perform many roles including law enforcement, utility, fire-fighting, EMS, passenger transport, training and government/military duties.



LETTER OF INTENT ON THE AW249 COMBAT HELICOPTER BETWEEN LEONARDO AND PGZ

In July Leonardo and Polska Grupa Zbrojeniowa S.A. (PGZ) signed a Letter of Intent (LoI) for the joint collaboration on the AW249, which is aiming to meet the Polish Army's requirement for a new combat helicopter. This collaboration represents a unique opportunity for Poland's defence industry to participate in a brand new helicopter development programme, while at the same time contributing to the modernization plans of the Polish Armed Forces with a new state-of-the-art platform. The AW249 project will benefit from the extensive operational expertise logged by Leonardo's AW129 and the know-how of the Company in this specific helicopter sector and will incorporate all the latest technology developments in its market segment. Based on such premises the AW249 will offer significant improvements in life-cycle costs over previous generation helicopters. Polish Armaments Group (PGZ) is a leader of the Polish industry and one of the largest armaments holdings in Europe, which brings together over 60 companies operating in the defence, shipbuilding and new technologies industries. PGZ possesses competence in the field of designing, constructing, and equipping military ships and additionally it is experienced in modernising and maintaining vehicles, airplanes,

helicopters, and military ships. In the near future, PGZ will be developing space and satellite technologies as well as cyber technologies.

Leonardo and PGZ have an established dialogue on defence and security industrial cooperation, with multiple



agreements signed in 2016, 2017 and 2018. In the frame of this LoI, the two companies will be able to collaborate in many different areas from design to manufacturing and final assembly, from marketing to aftersales support, as they both share the interest in developing and producing a new combat helicopter.

NEW CUSTOMER SERVICE POLICY

After a deep analysis of our customers' requirements and the examination of key parameters and operational data linked to their satisfaction, we are now pleased to share an optimized revision of the Leonardo Helicopters Service Policy. This is the third release of the official document aimed at regulating and controlling the supply of spare parts. It covers the whole range of our commercial products and it is applicable to any spare part delivered from our main logistic hubs (Italy, USA, Malaysia, Belgium and Brazil). The previous Service Policy foresaw almost 13,000 part numbers, clustered

in three classes, with delivery time based on material class and priority. Now, with the new standard, we have 14,000 part numbers with one unique material classification, therefore increasing the flexibility of our model and optimizing the level of our customer service. In addition to the above, stock orders on part numbers included into the new policy will benefit from a 2.5% discount from any geography.

Look at the new Service Policy and feel free to contact your Customer Support Manager for any further information.

OLD Service Policy LT* (days)

P/N Class	AOG	Urgent	Stock
Class A	24HRS	8	60
Class B	24HRS	60	120
Class C	24HRS	LT* or 180	180

NEW Service Policy LT* (days)

P/N Class	AOG	Urgent	Stock
"IN"	24HRS	6	90
"OUT"	24HRS	within LT*	within LT*

*LT: Lead Time

TH-119 AVIONICS POWER ON AT PHILADELPHIA FACILITY

Mid-September saw a major milestone in the certification process of the TH-119 single engine helicopter. At our Philadelphia facility our team performed the first “power on” of the new Genesys Aerosystem avionics, which is integrated in the helicopter new avionics and cockpit, enabling unique IFR operations.

The TH-119 is a variant of the AW119, and is specifically designed for military training customers, primarily to meet the U.S. Navy requirements. It has the same certification advantages of the AW119 but it offers specific capabilities and unique features. The TH-119 will be built, like the commercial AW119, at our facility in Philadelphia.

The TH-119, just like the AW119, was engineered with redundancies on several key systems to guarantee maximum safety, and it features a highly reliable Pratt&Whitney Canada PT6-B engine, which offers a high power margin. The TH-119 is equipped with a modern Genesys Aerosystems cockpit that gives flexibility to instruct from either seat. All these features make the TH-119 the only full-spectrum training helicopter, as a single variant, single configuration of the helicopter allows the operator to accomplish the most basic VFR training flights (hovering, full auto-rotations) as well as advanced

training flights (NVG, Instruments, Tactics, Hoist, cargo hook, shipboard landings). This makes the TH-119 the best single engine solution in the market for training in demanding weather and low visibility conditions. The maiden flight of the TH-119 is expected to take place later in autumn, to achieve the final goal of FAA certification in the first quarter of 2019.



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

FUTURE-FOCUSED TRAINING: NEW FEATURES TO BOOST YOUR E-LEARNING EXPERIENCE

We are glad to share the latest developments achieved by our e-learning working team that has recently completed a further step on our e-learning programme.

Among the new features now available on our Leonardo Helicopters Training Academy Portal and the mobile application AWTraining, you can find:

- New sections and contents: eLearning catalogue and Classroom catalogue to learn about the whole range of our training modules and explore relevant topics and admission criteria
- Recognized certification system: release and download of eCertificates that validate the training level achieved after course completion
- Self-enrolment for e-learning courses by means of a “Coupon” that makes your registration easier and quicker
- FAQ / Useful Info to find immediately solutions and solve common issues



LEONARDO HELICOPTERS e-LEARNING AREA



Explore our E-learning [brochure](#) and download the AWTraining mobile app to learn about all the latest news!



GRANDNEW ENTERS IRISH VIP MARKET

Together with our official distributor in the UK, Sloane Helicopters, we announced at a ceremony during the Farnborough International Air Show that QME Mining Equipment Ltd of Ireland, a leading company in the supply of complete solutions to the Mining and Tunnelling industries worldwide, signed a contract for a GrandNew helicopter.

The GrandNew will be deployed to perform VIP/Corporate transport operations, with a delivery expected in early 2019.

This marks the entrance of the GrandNew in VIP

configuration in the Irish helicopter market, while Irish operators can also leverage on the service of an established and expanding in-country support presence, following the set-up of an Authorised Service Centre by Sloane Helicopters in St Angelo, Enniskillen in 2007.

Leonardo Helicopters keeps increasing its dominant position in the UK and Irish VIP/corporate market, where with Sloane we delivered 15 helicopters including the AW109, AW169 and AW139 models in the last 18 months.



LEONARDO AND ROTORTRADE EXTEND COOPERATION

At Farnborough International Airshow we announced together with Rotortrade, a mutual agreement to further extend our cooperation through the purchase of an additional batch of helicopters, following the renewal in February for three more years of Rotortrade's pre-owned helicopter global distributorship agreement, which foresaw the purchase and sale of two batches of five helicopters.

The cooperation with Rotortrade has consolidated over the past years, with the successful sale of 70 aircraft in the last five years. Rotortrade has been the sole worldwide distributor for Leonardo Helicopters of pre-owned helicopters, offering our aircraft with manufacturer warranty therefore ensuring a reliable and cost/effective service guaranteed by our full support and highest quality standards.



LEONARDO HELICOPTERS AT THE 1ST POLICE AVIATION CONFERENCE IN ABU DHABI

In July we attended the 1st Police Aviation Conference in Abu Dhabi. It is an initiative started by the Abu Dhabi Police, which is addressed to Police corps of the Middle East Region and also to industries and OEMs present in the area. It lasts two days, and while the first one is for Police corps only, the second day is open so that also industries and OEMs can attend.

Leonardo was the only OEM at the conference, and we had a chance to present our range of helicopters for law enforcement operations, with a specific focus on the AW139, the AW169 and also AWHEREO. It was a good occasion to highlight the features that make our helicopters successful in law enforcement missions such as streamlined aerodynamics and retractable landing gear, which allow for enhanced speed to reduce time to target, and endurance to maximise time on target. We pay significant attention to safety, focusing on rotor clearance from ground and people, and our helicopters, thanks to a compact shape and design, have reduced external dimensions without compromising cabin volume. As a matter of fact we have a 'wide-body' airframe with large sliding doors, large and regular cabin,

and separate stowage compartment.

One of the conference main goals is to establish a calendar for a periodic "workshop" amongst the Police corps of the Region, about common topics such as operations and missions, regulations, training, procedures and safety. It is a good occasion to share and compare experiences.

The conference is also aimed at sharing information about new products and services offered by the industries and the OEMs active in the Region.



ARAMCO MEDIUM HELICOPTER RENEWAL PROGRAM

The joint announcement was made in mid-July with Milestone Aviation Group Limited, a GECAS company, when the contract for the renewal of the medium helicopter fleet of Aramco Overseas Company, a subsidiary of Saudi Aramco, was awarded.

We signed a contract with Milestone for 17 AW139s plus 4 options, and Aramco expects to take delivery of a total of 21 aircraft over the next three years, starting this year. Together with Milestone we had the key features to meet the programme requirements. Milestone's financial stability, the outstanding capabilities of the modern and proven AW139 and the ability of both companies to deliver were fundamental in the decision. Furthermore, Milestone offered a leasing solution encompassing the entire medium fleet which turned out to be compelling, as it enabled Aramco to

invest in their operations.

Our business relationship with Milestone, which has now become the largest owner or financier of civil Leonardo helicopters in the world, goes back to 2010 and its first leasing of our helicopters. Its fleet will exceed 100 of our helicopters after the accomplishment of this transaction. Milestone and Aramco have been working together since 2016 and the lease of three new AW139s, then the energy company's first helicopter lease transaction.

Aramco has been operating a mixed fleet of our helicopters, consisting in 14 AW139s since 2008 and seven AW109s since 2006, mainly operating in support of offshore operations in Saudi Arabia, making it one of the largest operators of our helicopters in the Middle East.



THE AW169 GROWS STRONGER IN THE UK EMS MARKET

During the Farnborough International Airshow, Magpas Air Ambulance announced that the AW169 was selected as its new generation helicopter thanks to its features and its unrivalled medical interior enabling a 360° patient access, therefore increasing mission effectiveness. Magpas Air Ambulance is a leading HEMS provider, operating 24/7, and is also the oldest emergency medical charity in the UK.

Specialist Aviation Services (SAS) that will operate the AW169 on behalf of Magpas Air Ambulance, will not only provide pilots and maintenance service, but will also take care of customizing the aircraft with an advanced medical interior.

SAS has placed orders for 12 AW169s and is also an Authorized Service Centre for the AW169 in the UK, providing a range of support and maintenance services to AW169 customers. Furthermore SAS has recently been appointed also as an Authorised Service Centre for the AW139 to support the growing number of customers in the UK that are operating the type.



Several air ambulance charities in the UK are already employing our AW169, comprising Kent Surrey & Sussex Air Ambulance (2 aircraft), Children's Air Ambulance (2 aircraft), Dorset and Somerset Air Ambulance, Lincs & Notts Air Ambulance, Cornwall Air Ambulance and Essex & Herts Air Ambulance. During the first year of service, the first four AW169 air ambulances to operate in the UK, performed nearly 3,000 lifesaving missions and flew more than 2,200 hours.

Click [here](#) to watch the video interviews to the CEOs of the charities.



AIRGREEN RESCUE OPERATIONS ACROSS SARDINIA

Airgreen has gained a large experience in helicopter rescue activities. Since 1995, it has been working for the Valle d'Aosta region in Italy and in 2003 it started providing its services across Sardinia, performing HEMS missions through its three bases of Cagliari-Elmas, Alghero-Fertilia and Olbia-Emerald Coast. Activities on the north-western coast are guaranteed round the clock thanks to the AW139, which is equipped with the newest medical technology to undertake emergency-health operations, assisting even the most critical patients during transportation to the nearest hospital.

The AW139 allows Airgreen to fly over 300 kilometers, from north to south of the Mediterranean island, above the tortuous roads of the region, and to reach even the smaller islets like the Maddalena which, taking off from Olbia, can be reached in just ten minutes.

During the first two weeks of July 2018, Airgreen received from the 112 Medical Center 67 emergency calls, 47 of which were for primary operations. Five were in impervious places, unreachable with any other HEMS means of transport.



AW139 AIR AMBULANCE SERVICES IN NORWAY

The Norwegian Air Ambulance Service provides specialized emergency medical services across the country through Norsk Luftambulans AS and Lufttransport AS, which perform their activities thanks to a varied fleet of aircraft.

The two operators have about 200 employees performing air ambulance missions. Every year about 20,000 patients benefit from the service and almost a third of them are transported by ambulance helicopters. On the whole, the operators' fleets fly about 18,000 hours every year.

The National Air Ambulance AW139 helicopters are based at Tromsø and Ålesund and are typically staffed with a pilot, one rescue crew/HEMS crew member and one anesthesiologist/emergency doctor. These helicopters are provided with advanced medical equipment such as a dedicated hoist to lift patients in harsh conditions and the cabin has enough space to accommodate two patients on stretchers.

The key mission of the AW139 ambulance fleet is to transport patients to the appropriate health care facility, guaranteeing the most accurate and advanced emergency medical treatment before reaching the

hospital. The Air Ambulance Service cooperates closely with the Norwegian Search and Rescue Service and the ambulance helicopters are often used for simpler search and rescue missions. When needed, a doctor can accompany the patient on board to provide immediate medical support.



“REMOTE” CONGRESS TO BE HELD IN VERGIATE

REMOTE is a congress dedicated to HEMS, with both medical and aeronautical sessions, organized by SIAARTI, which is the Italian Scientific Society of Anaesthesia and Intensive Care (Società Italiana Anestesia Analgesia Rianimazione e Terapia Intensiva). It will take place on December 1st and 2nd at our premises in Vergiate. The purpose of REMOTE is to give operators in the helicopter rescue sector the opportunity to share their views on the state of the art of rescue, aeronautics and related technology. In such a different worldwide scenario, REMOTE aims to bring together experts from the worldwide HEMS and SAR service to discuss all the issues with a 360 degrees view.

SIAARTI has started, by Italian Law 24/2017 - “Legge Gelli” and then accredited with the Italian Ministry of Health, the process to define and to write the Medical Guidelines, and therefore a standard for Italian HEMS operations. SIAARTI will also define and write the HEMS Guidelines with the support of the Italian National Medical Associations, the Medical Trade Union of Anesthesia and Intensive Care (AAROI-EMAC), the National Alpine Rescue Corp (CNSAS) and other HEMS Entities, which have accumulated in these

30 years, since the beginning of HEMS in Italy, a long and deep experience as well as core competencies in the HEMS world.

The HEMS Guidelines will define better and more efficiently the scope of HEMS and the medical care that should be performed in the frame of an HEMS mission, with the goal to save more lives and to reduce possible permanent damages to patients. SIAARTI will announce the Italian HEMS Guidelines program status by October 2018 at their National Congress. REMOTE, on the 1st and 2nd December 2018 at Leonardo Helicopters premises in Vergiate, will represent an important development step for the HEMS guideline program. The principles of SIAARTI HEMS Guidelines will be presented to the attendees, extending the scope also to other International Medical Associations, Aeronautical Authorities, HEMS Operators, Aeronautical/Emergences/Medical/SAR Providers, Stakeholders and Suppliers.

For more information please visit <https://siaarti2018.com/remote/>

VERGIATE-MALPENSA
LEONARDO HELICOPTERS

1-2
DECEMBER

SAVETHEDATE

REMOTE
INTERNATIONAL MEETING
HEMS, search and
rescue operation

*From HEMS to SAR, from sea to mountains,
from urban to combat, a thorough Congress.
This is Remote.*

www.siaarti2018.com

SIAARTI
PRO VITA CONTRA DOLOREM SEMPER

REGISTRATION FEE [22% VAT non included] <small>Maximum number of attendees 300</small>	EARLY BIRD FEE until 15 th September 2018	LATE REGISTRATION FEE
Resident	€ 30,00	€ 80,00
Nurse-Pilot-Technician-Paramedic-Rescuer	€ 75,00	€ 135,00
SAR Volunteer	€ 30,00	€ 80,00
Medical Doctor	€ 150,00	€ 200,00

MAIN TOPICS

- SAR : mountain rescue, air-sea rescue over water, urban rescue, ground rescue
- Long-distance flights: intensive care on board
- HEMS and fixed wing ambulance flights: selection processes for personnel
- Regulation and standards in Europe and Worldwide
- Future medical and Aviation concepts
- Safety management: Flight and Patient conditions
- Night Flight: implementation plan
- High altitude operations
- SBAS approach procedure for H24 operations
- HEMS Medical crew : high fidelity simulation

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AW189 AVIONIC PHASE 5 SETS HIGHER NAVIGATION STANDARDS

The AW189 platform now benefits from the EASA-certified latest avionic software release (Phase 5), which has been designed in-house by Leonardo to introduce unique Performance Based Navigation (PBN) capabilities. When operating under a Satellite Based Augmentation System Global Navigation Satellite System (SBAS 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 - including the final stages of the approach and the potential missed approach. It is also possible to design curved approach paths with the same level of precision (RNP Authorization Required (AR) approaches), allowing dedicated helicopter procedures when operating in congested airspaces without interfering with ILS fixed wing traffic, thus reducing flight time and ultimately saving fuel. The AW189 is the first helicopter in our range to offer the above RNP features and, leveraging on the Common Cockpit Concept (C3) approach, it will soon be followed by our AW169, AW139 as well as AW109, so that our customers will benefit of the same level of technology across platforms.

The latest AW189 avionic suite is complemented by the LPV (Localizer Performance with Vertical guidance) Approaches capability, enabling performances typical of conventional precision ILS (Instrument Landing System) approaches, which exploit the SBAS GNSS precision and do not need to rely on costly ground infrastructures.

The AW189 avionics is further enhanced with automatic deceleration in ILS and FMS approaches. The LPV capability, already available also on AW139 and AW109, will soon be released also on the AW169.

In order to support the Oil & Gas market, the AW189 avionic suite can optionally be completed with an automatic oil rig approach. This FMS functionality assists

and automates the oil rig approach procedure during the final approach and descent phases, decreasing the pilot workload and increasing flight safety. It also guarantees the same stringent precision requirements even without the need of SBAS coverage, thus allowing worldwide applicability. The AW189 will pave the way to the introduction of this automation on other Leonardo helicopter platforms such as the AW139, within the energy segment market. Moreover, AW189 Search And Rescue operators will benefit from the new Ground Speed mode on the five available search

patterns, guaranteeing a constant speed on ground in the execution of the selected pattern, independently of the wind speed and thus providing the highest effectiveness in the recognition of survivors.

GLOSSARY:

- RNAV: aRea NAVigation enables aircraft to fly on any desired flight path within the coverage of ground-or-space-based navigation aids, within the limits of the capability of the self-contained systems, or a combination of both capabilities.
- RNP: Required Navigation Performance is RNAV with the addition of an on-board performance monitoring and alerting capability. A defining characteristic of RNP operations is the ability of the aircraft navigation system to monitor the navigation performance it achieves and inform the crew if the requirement is not met during an operation.
- GNSS: Global Navigation Satellite System is a network of satellites that provides accurate navigation capability worldwide without specific ground infrastructure required for different types of users such as civil aviation and in particular for rotorcraft.
- SBAS: Satellite Based Augmentation System is a further network of satellites that augment the existing GNSS signal, offering enhanced vertical precision and integrity ("guaranteed signal").
- ILS: Instrumental Landing System is a ground-based instrument approach system that provides guidance to an aircraft approaching and landing on a runway, using a combination of radio signals to enable a safe landing during instrument meteorological conditions (IMC), such as low ceilings or reduced visibility due to fog, rain, or blowing snow.



AW169 AND GRANDNEW AMONG YACHTS AND VIPS

During the Monaco Yacht Show, our AW169 in VIP Silver configuration was on static display at our booth. Our helicopters, leaders in the Executive Transport segment, provide a spacious, comfortable and luxurious environment both for business and leisure; where you can relax, enjoy the on board entertainment or continue your work while you're in the air.

The Monaco Yacht Show was the ideal venue to showcase our VIP helicopters, and especially the AW169 and the GrandNew, which can be accommodated also on the helideck of yachts. The GrandNew was on board the Power Play, the SuperYacht by Damen Amels, as an example of easy and comfortable passenger transport from the shore directly to the yacht helideck.

The AW169 on display at our booth has a very special livery, which has been created by Espen Oeino, the world famous luxury yacht architect, who for this occasion has designed exclusively for Leonardo Helicopters a livery which is a good example of customization according to our customers' wishes and requirements. The high level of personalisation of our products represents one of their distinguishing features. Our design team, who have been working for years with our customers around the world, have the specialist expertise to advise you on the perfect mix of features and high quality furnishings for your helicopter.

The AW169 benefits from all of the signature features synonymous with this class-leading product range; elegance, style and sophistication, combined with unrivalled performance and safety.

Click [here](#) to watch the video of our Project Dragonfly





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LEONARDO HELICOPTERS e-LEARNING AREA



 **LEONARDO**
HELICOPTERS

LEONARDO HELICOPTERS e-LEARNING AREA

New e-Learning Area

Leonardo Helicopter believes that learning is not only for the classroom or just a one-time event.

We trust in e-Learning and Blended Learning.

This is the reason why “**Leonardo Helicopter Training Academy Portal**” enhances the range of training e-Learning courses available to its **Customers** through the “**e-Learning area section of the Portal**”.

This approach aims at reaching those who would not travel to be trained due to logistic, time, or budget constraints, and permits **significant savings for our Customers**.

The e-Learning Area is adapted for any desktop and portable devices, and can be reached by using any web browser or the “AW Training” App.

Students can take advantage of e-Learning training **24 hours a day, 7 days a week**.

Instructor support is also available depending on the selected training course.

The e-Learning course portfolio encompasses a wide range of training courses, from ab-initio aeronautical concepts to Type Training subjects, including optional equipment and helicopter features.

For those Students enrolled into a Type Training course, completing the applicable e-Learning Type Training modules prior to entering the classroom provides them with a sound understanding of the basic information.

This enables the time spent in the classroom to be focused on the more advanced subjects, thereby maximizing the benefits of the direct interaction with the instructors and the usage of advanced training aids.

Additionally, through the Training Academy Portal students can:

- access the course reference material
- find the contacts of all course participants
- obtain logistic information about the Training Academy
- gather other useful information about the local area (hotels, attractions, places of interest, transportation, etc.)



e-Courses Structure, Tracking and e-Certificate

Based on a **Training Needs Analysis**, the LH **e-Courses** are structured by topics that build up a complete **learning path**. Once the students complete a topic the coming next will be available.

The students are also able to track their progress within the courses.

Once all the lesson are completed, in order to complete the **e-Course** an **e-Assessment** will test the students' knowledge.

Based on the result of the **e-Assessment** a **Leonardo Helicopters e-Certificate** will be issued.

AW Training Mobile App

Leonardo Helicopters knows that our Students live increasingly mobile, digitally connected lives.

We've responded by providing anytime, anywhere access through the interactive mobile App

“AW Training”.

In fact, the students can perform e-Learning courses by means a web browser (PC or MAC), at the URL <https://academy.agustawestland.com> or through the App “AW Training” available on iOS and Android devices (both smartphone and tablet).

Mobile learning happens in **micro-moments** as lessons can be interrupted when using AW Training App.

Some of the features offered by “AW Training” App are:

- Browse the content of the courses, even when offline
- Track progress, mark tasks as complete and browse the learning plans
- Attempt quizzes, post in forums and edit wiki pages
- View the courses grades

DOWNLOAD THE APP TODAY





LIST OF AVAILABLE e-LEARNING COURSES



Controlled Flight Into Terrain (CFIT)

AW139 SAR Mode

AW139 Full Ice Protection System (FIPS)

AW139 Passenger Briefing

AW139 Helicopter Terrain Awareness and Warning System

AW139 Primus EPIC® Phase 7

AW169 HTAWS - SVS

AW169 Cabin Management System e-Learning Briefing

AW189 Fire Safety Information

AW189 RFM Charts (Limitations and Performances)

AW189 Passenger Briefing

AW189 Phase 4 Software Update

AW189-AW169 HUMS

Interactive Electronic Technical Publications (IETP)



Visit the following web page in order to be updated on the latest e-Learning courses available.

https://academy.agustawestland.com/local/staticpage/view.php?page=AW_eLearningArea





CONTROLLED FLIGHT INTO TERRAIN (CFIT) e-LEARNING COURSE



Course Objectives

The aim of the course is to discuss a particular type of aeronautical accident/incident known as Controlled Flight Into Terrain (CFIT), describing the safety methodologies and measures we can put in place to reduce this kind of event.

The main objectives are:

- to improve the knowledge and attention about this incident typology, and
- to show the best tool to assess the risk of each aeronautical operations in order to better evaluate the GO/NOGO decision.

Course Contents

Starting from the acronym definition, the CFIT will be dimensioned in terms of frequencies of events and their consequences thanking advance of the data collected in the most important aeronautical incident databases (FAA/EASA).

The most frequent causes are analyzed, the best barriers against them are discussed and some helicopter systems especially helpful against the CFIT are described.

Finally all the chapters are quickly resumed and some safety recommendations are provided.

e-Learning Course Data

Target Population: Flight Crew members (pilots and cabin crew), Technicians, HEMS Operators' employees, Aviation and First Aid Specialists in general which are involved in HEMS operations.

Regulatory Requirement: Non-specific

Duration: 12 hours

Progress/ Final Test: Yes test required. At the end of the course you will obtain a "Leonardo Helicopters eCertificate"

Course Delivery Method: self-paced eLearning training; Interactive; Multimedia

Course Access: Leonardo Helicopters Training Academy Portal - eLearning Area; AW Training App

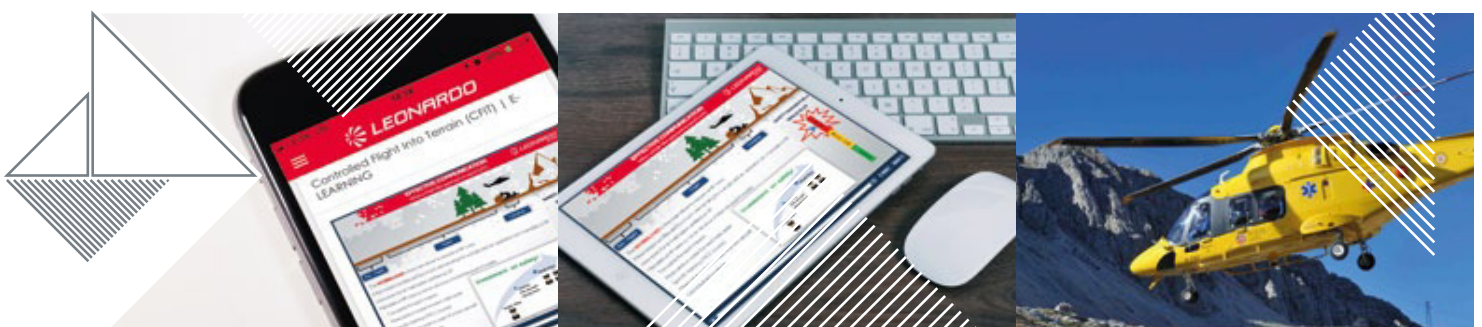
Access Availability: Unlimited - 24/7

Access Expiration: No less than 1 year

Device Compatibility: Desktop, Tablet, Smartphone

OS Compatibility: Windows, iOS, Android

Offline Availability: Yes (through AW Training App)





AW TRAINING

AW139 SAR MODE

e-LEARNING BRIEFING



Briefing Objectives

At the end of this briefing you will have gained a complete understanding of the AFCS SAR Modes and FMS SAR patterns for the AW139 helicopter.

Briefing Contents

AFCS SAR Modes, as FMS SAR patterns, of the AW139 helicopter are integrated in the most complete development of the 4 axis Flight Director. This configuration, as optional equipment, is available with the phases 5,6 or 7 of the Honeywell Primus EPIC®. We are focusing there on the issue for the phase 7.

The 4 axis Enhanced Flight Direct with SAR Modes has been developed in order to make easier and more safe the SAR missions by decreasing the workload of the crew. Then basically, the SAR Modes are intended to enter into Hover mode, automatically and safely, starting from various situations.

Through this briefing, we are going to see how to operate the SAR modes, what are the limitations and the process of each modes. Because to operate safely, it's crucial to understand what you can expect to be done when you decide to engage a SAR mode.

This briefing covers the following topics:

- Overview of FD SAR modes
- Detailed explanations of the operation of each SAR mode, Controls and indications in the cockpit
- Operation of the FMS SAR Patterns, controls and indications
- Safety Fly Up function

e-Learning Briefing Data

Target Population: AW139 aircrews, AW139 avionics technicians, AW139 managers

Regulatory Requirement: Non-specific

Duration: 3 hours

Progress/ Final Test: Yes test required





AW139 FULL ICE PROTECTION SYSTEM

e-LEARNING BRIEFING



Course Objectives

At the end of this course you will have become familiar with the architecture and the operation of the Full Ice Protection System that can be installed as an optional kit on the AW139 Helicopters.

Course Contents

Different types of ice may form on the aircraft depending on the flying conditions; although rare, ice formation may have serious effects on aircraft performance. Pilots must use normal operational planning and techniques to avoid flight in these conditions.

The AW139 Helicopter may install the Full Ice Protection System (FIPS) kit that provides fully redundant ice detection, de-icing of the Main Rotor blades, anti-icing for the Tail Rotor blades, and Windshield heating.

The course content covers the following topics:

- FIPS description
- FIPS operation
- Abstract from RFM including operational limitation

e-Learning Course Data

Target Population: AW139 Type Rated Pilots and Engineers

Regulatory Requirement: Non-specific; could be beneficial for specific Training programs

Duration: 3 hours

Progress/ Final Test: None



AW139 PASSENGER BRIEFING

e-LEARNING BRIEFING



Course Objectives

At the end of the course you will know how to:

- safely approach the AW139 helicopter as a passenger
- prepare yourself for a safe flight
- board and disembark

Through the course you will gain a sound knowledge about the AW139 safety devices and procedures.

Course Contents

All passengers, while boarding or disembarking, and during flight must adopt safety behavior to avoid incidents. This cannot be done without knowing:

- the dangerous areas around the helicopter
- configuration of the doors and their usage
- cabin layout and position of the emergency life jacket
- description of the emergency exits and how to operate them during an evacuation procedure

e-Learning Course Data

Target Population: ground and flight crew; passengers

Regulatory Requirement: Non-specific

Duration: 1 hour

Progress/ Final Test: None





Briefing Objectives

At the end of this briefing you will have gained a complete understanding of the Helicopter Terrain Awareness and Warning System, HTAWS, for the AW139 helicopter.

Briefing Contents

The HTAWS, called Enhanced Ground Proximity Warning System, EGPWS, by Honeywell, is an optional equipment of the AW139, available with the phases 5,6 or 7 of the Honeywell Primus EPIC®. We are focusing there on the issue for the phase 7.

Since the beginning of the aviation story, the Controlled Flight Into Terrain (CFIT) is one of the major source of the fatal accident. That's why, in 1974, the Ground Proximity Warning System is a mandatory equipment on large commercial aircraft. Along this last years, the system has been developed, becoming an Enhanced Ground Proximity Warning System (displaying the terrain and obstacles, with a "look ahead" function), and in the meantime, the system has been adapted to the helicopter operations.

Through this briefing, we are going to see how the system is operating, what are the visual and aural alerts and the processes that generate the alerts in different configurations of flight. Even if the system operates autonomously, it's essential to understand without doubts the meaning of the different alerts and terrain images, what can do, or what cannot do, the HTAWS. In order to increase your situational awareness and keep you safe

This briefing covers the following topics:

- The Functions of EGPWS.
- Terrain and Obstacle Database.
- System Operation.
- Limitations
- Aircrew Actions

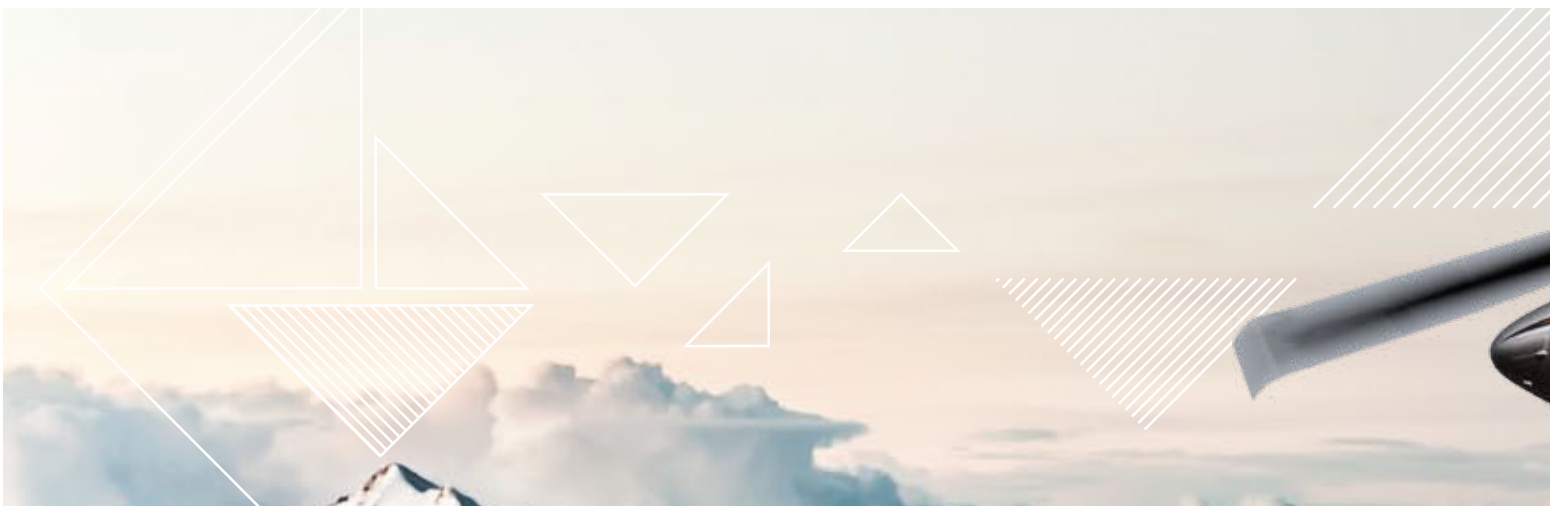
e-Learning Briefing Data

Target Population: AW139 aircrews, AW139 avionics technicians, AW139 managers.

Regulatory Requirement: Non-specific

Duration: 2 hours

Progress/ Final Test:Yes test required.



AW139 PRIMUS EPIC® PHASE 7 e-LEARNING BRIEFING



Briefing Objectives

At the end of this briefing you will have gained a general understanding of the new features provided by Primus EPIC® Phase 7 and of the associated documentation for the AW139 helicopter.

Briefing Contents

Honeywell Primus EPIC® is the integrated avionics system of the AW139 helicopter based on modular computers to provide pilots with navigation, communication, aircraft system monitoring, crew alerting, and auto-flight functions, in addition to driving and management of the integrated display system.

Improvements in aircraft and system performances, as well as the increase of its capabilities and of the available features, are made available through upgrades named “Phases”, the latest of which is Phase 7.

This briefing introduces the new features brought in by Phase 7 by covering the following topics:

- Honeywell Primus EPIC® Phases
- RFM and QRH Supplements applicable to Phase 7
- General description of the new features provided by Phase 7
- Documentation available for AW139 Honeywell Primus EPIC® Phase 7

e-Learning Course Data

Target Population: AW139 aircrews, avionics technicians, and managers already acknowledge with Phase 4 and 5.

Regulatory Requirement: Non-specific

Duration: 1.5 hours

Progress/ Final Test: None





Briefing Objectives

At the end of this briefing you will have gained a general understanding of HTAWS - SVS and of the associated documentation for the AW169 helicopter.

Briefing Contents

Controlled Flight Into Terrain (CFIT) accidents occur because pilot' situation awareness is lost. The Helicopter Terrain Awareness and Warning System (HTAWS) and Synthetic Vision System display the aircraft position relative to the surrounding terrain and known obstacles, minimizing the risk of CFIT. They provide a combination of visual annunciations, aural alerts and aural warnings.

The course content covers the following topics:

- HTAWS introduction and definition
- AW169 HTAWS
- FLTA Operation
- GPWS Operation Modes
- SVS introduction and Definition
- SVS Controls and Indication

e-Learning Briefing Data

Target Population: AW169 aircrews, AW169 avionics technicians, AW169 managers

Regulatory Requirement: Non-specific

Duration: 2 hours

Progress/ Final Test: Yes test required





Course Objectives

At the end of this briefing you will have gained a general understanding of the new features provided for full-featured in-flight entertainment system, designed for cabin use and of the associated documentation for the AW169 helicopter.

Course Contents

This CMS control unit combines Custom Control Concepts' s latest technologies with existing solid designs -all compacted into one box - for entertainment and cabin management on AW169 helicopters. The CMS SkyOne houses a sub-system within one unit, incorporating most functions necessary in a typical cabin management system. The total control of CMS system is possible of touch screen tablet with an iOS 7 operative system and the iPlan™ software installed. Is possible downloading a free copy of software from the Apple App Store.

This briefing introduces the features brought in by CMS SkyOne by covering the following topics:

- Introduction
- How to start CMS
- Intercom function
- Cockpit Call function
- Ipad - Satcom Call
- Ipad - Light Preset Mode
- Ipad - Light Colours and Intensity
- Ipad - Air Conditioning
- Ipad - Maps Show and Cruise Information
- Ipad - Media Player
- Ipad - Cockpit Separation Windows (LIMO Window)
- Windows Transparency function

e-Learning Course Data

Target Population: AW169 aircrews, AW169 avionics technicians, AW169 managers

Regulatory Requirement: Non-specific

Duration: 0.5h training (8 min video length)

Progress/ Final Test: None



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AW189 Fire Safety Information - Part 1



AW189 FIRE SAFETY INFORMATION

Fuel system

The AW189 helicopter is equipped with five fuel tanks located in the fuselage, on the rear of the passenger compartment and under the passenger floor. The gravity refuel point is on the left side in line with the top of the main tank and the pressure refuel point is located on the right side.

Maximum tank capacity
1650 Kg



click the icon  for more info



AW TRAINING



AW189 FIRE SAFETY INFORMATION

e-LEARNING COURSE



Course Objectives

At the end of the course you will know how to:

- Recognize helicopter dimension and fuselage materials
- Locate the pitot probes and the fuel tanks;
- Identify the rotor brake control and engage it
- Locate the emergency floatation bags.
- Locate the AW189 power plant
- Shut down the main engines in normal mode, in emergency mode and in case of fire
- Safely approach the AW189 helicopter and disconnecting the main battery;
- Safely unlocking the pilot and co-pilot seat to support the crew leaving the helicopter;
- Safely remove the cabin emergency windows from outside and inside to help the passengers leaving the helicopter.

Course Contents

Firefighting teams providing assistance to the helicopter in the event of a fire on the ground must adopt safety behaviors aimed at reducing the risks for the crew of the helicopter and for themselves. This cannot be done without knowing:

- Airframe structure materials
- configuration of the fuel system
- rotor brake system and operation in order to stop the rotor speed
- description of the emergency floatation bags
- the power plant of the helicopter
- the procedure how to shut down the engines in normal mode and in emergency mode
- the location of the main battery and how to disconnect it from the electrical system
- the procedure how to remove the cabin emergency windows from inside and outside

e-Learning Course Data

Target Population: Ground firefighting team

Regulatory Requirement: Non-specific

Duration: 2.0 hours

Progress/ Final Test: None



Course Objectives

At the end of the course you will have improved your knowledge and skills in reading and computing AW189 RFM Charts (Limitations and Performances)

Course Contents

For all pilots taking the right decision during a flight is often vital: a sound knowledge and a prompt ability in computing the limitations and the performance data permits pilots to stay safe while optimizing their helicopter capabilities.

The Rotorcraft Flight Manual contains all the applicable graphs, tables and diagrams that permit pilots to determine the helicopter limitations and performances for any scenario. This course focuses on the practical use of those charts for the AW189 Type, with special emphasis on the most complex ones.

This course provides students with practical examples and a guidance on the most effective way to determine the required data from the charts.

The course content covers the following AW189 RFM sections:

- Section 1: Limitations
- Section 4: Performance Data (including Category A Clear Area Performance Data)
- Section 9: Supplemental Performance Information

e-Learning Course Data

Target Population: AW189 Type Rated Pilots; qualified Flight Dispatchers and SMS Specialists

Regulatory Requirement: Non-specific; could be beneficial for Recurrent Training programs

Duration: 3 hours

Progress/ Final Test: None



AW189 PASSENGER BRIEFING e-LEARNING



Course Objectives

At the end of the course you will know how to:

- safely approach the AW189 helicopter as a passenger
- prepare yourself for a safe flight
- board and disembark

Course Contents

All passengers, while boarding or disembarking, and during flight must adopt safety behavior to avoid incidents. This cannot be done without knowing:

- the dangerous areas around the helicopter
- configuration of the doors and their usage
- cabin layout and position of the emergency life jacket
- description of the emergency exits and how to operate them during an evacuation procedure

e-Learning Course Data

Target Population: ground and flight crew; passengers

Regulatory Requirement: Non-specific

Duration: 1 hour

Progress/ Final Test: None





AW189 PHASE 4 SOFTWARE UPDATE

e-LEARNING BRIEFING



Briefing Objectives

At the end of this briefing you will have gained a general understanding of the new features provided by the software Phase 4 and of the associated documentation for the AW189 helicopter.

Briefing Contents

The Aircraft and Mission Management System (AMMS) installed in the AW189 integrates and manages navigation, communication, aircraft system interfacing and monitoring, crew alerting, auto-flight, digital map, HUMS, and data upload/download functions, in addition to driving and managing the cockpit displays. Improvements in aircraft and system performances, as well as the increase of its capabilities and of the available features, are made available through upgrades named "Phases", the latest of which is Phase 4.

This briefing introduces the features brought in by the Software Phase 4 by covering the following topics:

- Publications (RFM and QRH)
- Flight Management System (FMS)
- Cockpit Display System (CDS)
- Vehicle Monitoring System (VMS)
- Enhanced Control Display Units - ECDU
- Communication System
- Automatic Flight Control System (AFCS)

e-Learning Course Data

Target Population: AW189 aircrews, AW189 avionics technicians, AW189 managers

Regulatory Requirement: Non-specific

Duration: 1.0 hours

Progress/ Final Test: None





Course Objectives

At the end of the course you will have improved your knowledge on the theory of operation of the Health and Usage Monitoring System (HUMS) for AW189/AW169 Leonardo helicopters.

Course Contents

HUMS is a Key system in today's helicopter maintenance operations, used to determine the actual status and predict impending failures of the monitored critical components. Rotors, Transmissions, and Airframe are the typical helicopter areas monitored by HUMS which gathers data from specific sensors and permits accurate vibration analysis of their components. Evolution in time of the recorded vibration data values allows the calculation of the Health and Usage parameters which have a direct correlation with component impending failures, hence give straight indication for on-condition preventative maintenance. The course recalls the principles of vibration analysis and provides the fundamental characteristics of the AW189/AW169 HUMS: purpose, architecture, components and operation.

The course content covers the following topics:

- HUMS introduction and purpose
- Principles of HUMS vibration analysis
- AW189/AW169 HUMS architecture
- AW189/AW169 HUMS components
- AW189/AW169 HUMS controls and indicators
- Use of HUMS for Rotor Track and Balance

e-Learning Course Data

Target Population: HUMS Specialists; Maintenance Engineers

Regulatory Requirement: Non-specific; recommended for maintenance personnel approaching to HUMS; could be beneficial for Initial/Recurrent Training programs

Duration: 12 hours

Progress/ Final Test: Progress test embedded in the D/L; No final test





Course Objectives

At the end of this course you will have become familiar with the architecture and the features offered by the Leonardo Helicopters Interactive Electronic Technical Publications (IETP).

Course Contents

The Interactive Electronic Technical Publications (IETP) allow the Customer to consult the latest version of the maintenance publications related to Leonardo helicopters. Interactive Electronic Technical Publications (IETP) may contain , depending on the helicopter model, the Aircraft Maintenance Manual, the Illustrated Parts Catalogue, the Wiring Diagram, the Structural Repair Manual, the Overhaul Manual ect. The course content covers the following topics:

- What is the IETP
- Which is the purpose of the IETP
- How the IETP is structured
- How to identify a connector pin part number
- AW189/AW169 HUMS controls and indicators
- Which are the details of an item in the Illustrated Part Data (IPD)

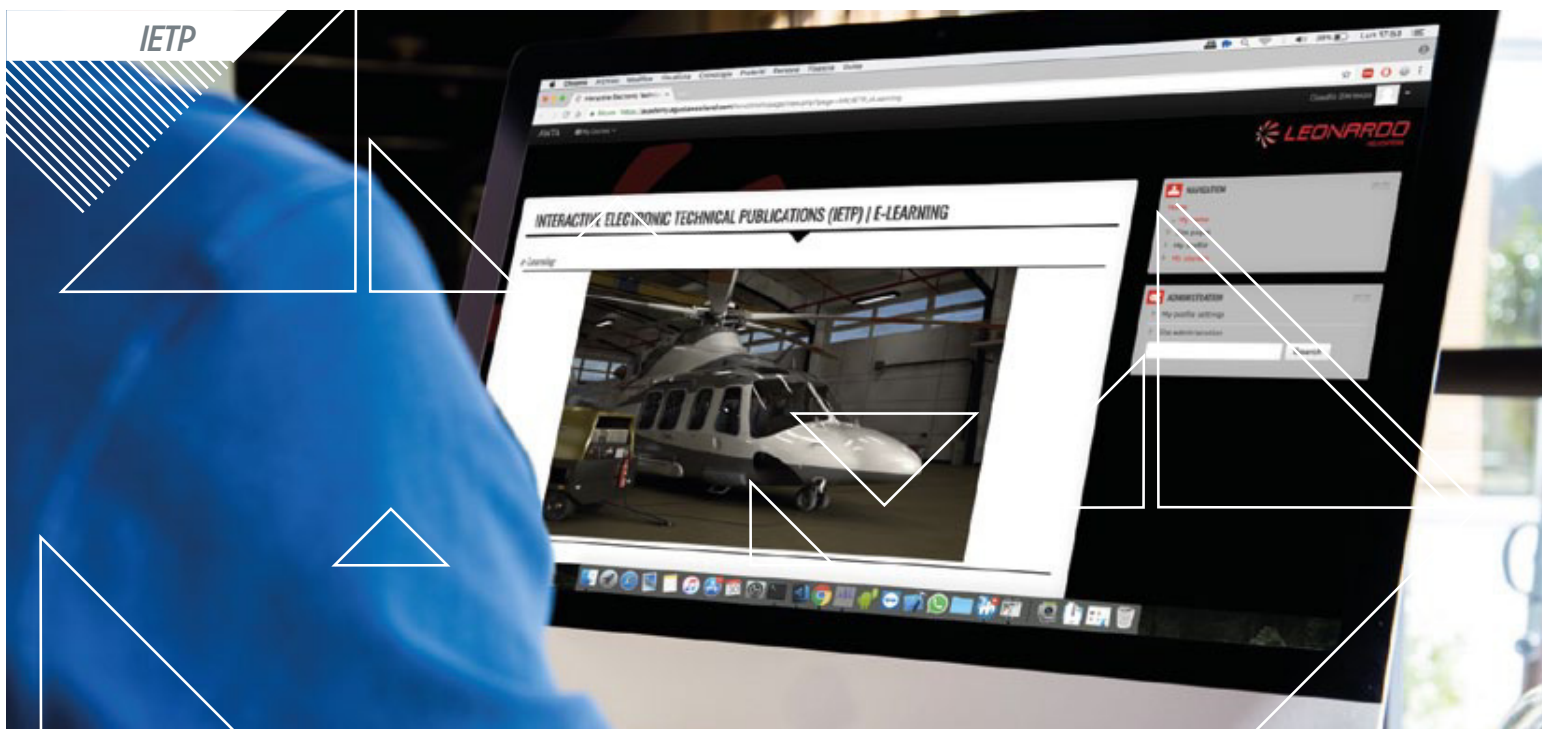
e-Learning Course Data

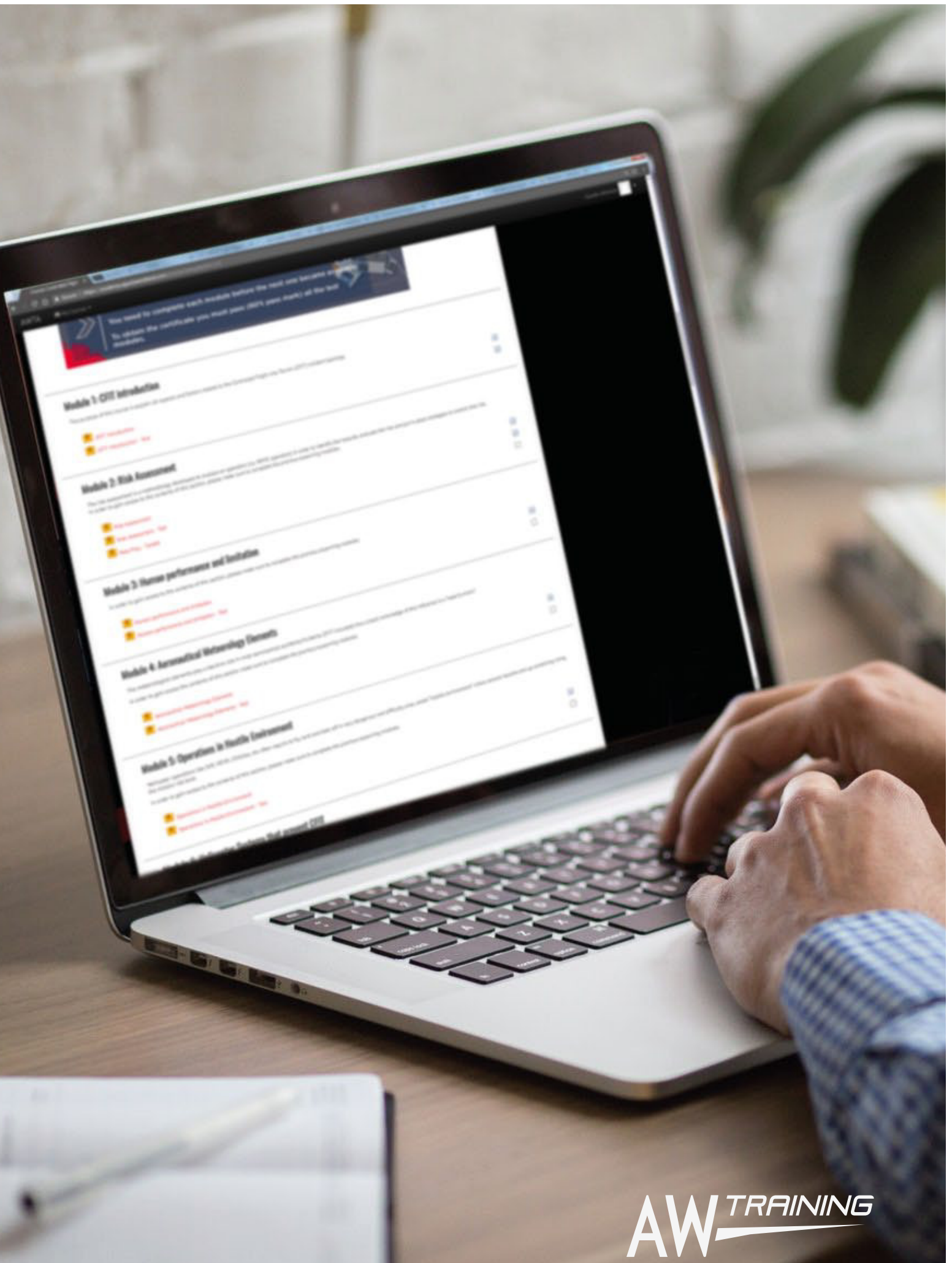
Target Population: Helicopters' aircrews, technicians and manager

Regulatory Requirement: Non-specific; could be beneficial for specific Training programs

Duration: 4 hours

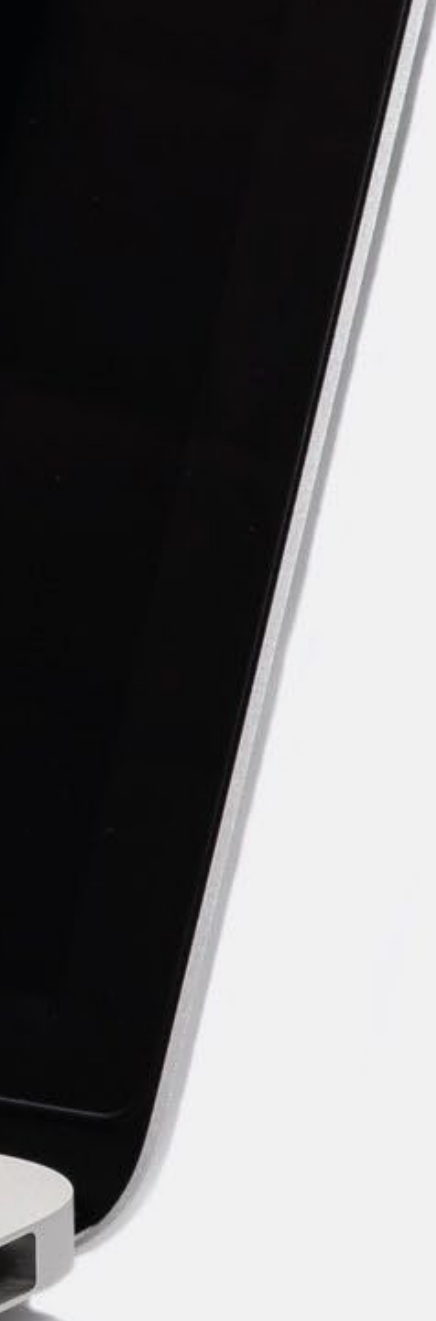
Progress/ Final Test: None





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Contacts

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

