

No. 131 - OCTOBER 2023

ROTOR

BY

AIRBUS HELICOPTERS



IN THEIR WORDS

**Powering climate research
aboard Polarstern**

FEATURED ARTICLES

**A range that's ready
to serve**

OFF THE BEATEN TRACK

A stellar career

Helicopters for the here and now



H160 LIFTS OFF IN THE US

The H160 achieved a significant milestone in its development, receiving certification from the Federal Aviation Administration (FAA) and positioning it for entry into the US market. Packed full of innovations, with 68 patents, and offering a strong customer support network in place, the H160 looks set to become an extremely popular choice for American operators. Having previously received certification from the European Union Aviation Safety Agency (EASA) in July 2020, the helicopter has proven to be a popular choice for customers across the globe. Airbus Helicopters has received orders for more than 100 H160s from customers around the world, including more than a dozen from US customers. The H160 has entered service in Japan, Brazil, Saudi Arabia, and Europe with the fleet accumulating more than 1,700 flight hours.

CHINESE CERTIFICATION PAVES THE WAY FOR THE H175

Airbus Helicopters has received certification from the Civil Aviation Administration of China (CAAC) for the H175 helicopter. This certification will allow H175 deliveries to begin in China, meaning Airbus Helicopters' record setting helicopter can begin serving one of civil helicopters' most demanding markets worldwide, which has an increasing need for the super-medium segment. The 54 H175s currently in service have accumulated over 200,000 flight hours in 13 countries.



Global



AIRBUS AND KOREA AEROSPACE INDUSTRIES TO LAUNCH LIGHT ARMED HELICOPTER SERIAL PRODUCTION

Airbus Helicopters and Korea Aerospace Industries (KAI) have signed an agreement to initiate the serial production phase of the Light Armed Helicopter (LAH). This follows the contract awarded by the country's Defence Acquisition Programme Administration to KAI in December 2022 to supply an initial batch of ten LAH to the Republic of Korea Army. Deliveries will begin at the end of 2024, with follow-on orders to continue into the next decade. Airbus and KAI began their long-standing industrial partnership in 2006 when the two companies jointly worked on the KUH Surion, followed by the development of the LAH.



US ARMY AWARDS AIRBUS CONTRACT FOR HELICOPTER MODERNISATION

The US Army awarded Airbus a \$27.8 million contract to upgrade the Army National Guard Security and Support Battalion mission equipment package (MEP). Upgrades to the MEP expand the UH-72A Lakota's capabilities to conduct day and night operations by providing an advanced moving map, enhanced digital interfaces, new monitors, an airborne mission management system and other system improvements. MEP-equipped UH-72As are specifically designed to execute National Guard operations across a range of missions including domestic operations, counter-drug and border security.

GERMAN POLICE FORCES ORDER MORE FIVE-BLADED H145s

The Ministries of Interior of Lower Saxony and Mecklenburg-Western Pomerania have ordered two five-bladed H145s each for their respective police forces, following a joint European tender that was launched in August 2022. The aircraft will replace the H135 and MD902 helicopters currently in service in the two states. The H145s will feature a state-of-the-art police configuration including the latest generation of police mission equipment and Bambi Buckets for firefighting.



Growth



EUROPAVIA SWOOPS IN FOR SIX H125s

Airbus Helicopters and Europavia SA, a distributor of Airbus helicopters for platforms and services serving Switzerland and the Principality of Liechtenstein, have signed a new purchase contract for six H125 helicopters to be delivered in the following years. The order assures Europavia SA's customers of the swift availability of H125s, with configurations customised according to their needs.



LE HAVRE PORT OPT FOR AN H135 FOR MARINE PILOT TRANSFER OPERATIONS

Le Havre-Fécamp Pilot Station has signed a contract for the acquisition of an H135 to be used for marine pilot transfers. By the end of 2024, the H135 will replace an AS365 N3 Dauphin helicopter that has been in service for more than 12 years. The agreement also includes a 10-year support and service contract covering spare parts, training, and logistics services. Le Havre's decision to sign for an H135 will allow synergies with the ports of Dunkirk and Gironde, which also operate helicopters of the same type. Le Havre was the first port in the world to introduce helicopter services for marine pilot transfers in 1976 with the acquisition of an Alouette III.



PHI SIGNS FOR 28 HELICOPTERS

Airbus Helicopters and PHI Group (PHI) have signed a framework agreement that includes commitments for 20 super-medium H175 helicopters and 8 H160s to serve the energy market worldwide, including in the US. These 28 state-of-the-art helicopters will better position PHI to respond to the energy market's expected growing offshore transportation needs. These commitments are composed of firm orders as well as purchase options that PHI may exercise during the course of the framework agreement. PHI has been supporting the energy industry for 74 years. Today, it has over 200 helicopters in operation across the globe, serving a number of markets, including energy and air medical. The company's Airbus fleet consists of H125, H135, H145, H160 and H175 family helicopters—with the H175 being the latest addition. The H175 is a catalyst for the energy sector with 175,000 of its total flight hours just for its work in the industry.

24
UP ABOVE
 The H160: flying for French Customs

26
IN THEIR WORDS
 Powering climate research aboard *Polarstern*

28
THE LIFE OF THE RANGE
 Behind the scenes of 20 years of Airbus Helicopters in Mississippi

08

FEATURED ARTICLES

A range that's ready to serve



30
THE LIFE OF THE RANGE
 Pioneering for the programmes

32
SERVICES
 Transforming helicopters

34
OFF THE BEATEN TRACK
 Sophie Adenot: A stellar career

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Bruno Even, CEO of Airbus Helicopters

“As armed forces are facing new and emerging threats, innovation remains essential.”

In the increasingly complex times that we are experiencing, it is fair to say that people are yearning for a return to simplicity and certainty. Governments around the world are acknowledging that strategic defence is a necessity to deliver a return to stability and ensure sovereignty. We recognise the importance of the missions being flown by our customers, which is why we have developed a thoroughly versatile range of helicopters. Platforms like the H225M and NH90 have consistently demonstrated their exceptional support to our military customers. Now, having proved itself in the unforgiving heat of Saudi Arabia, the H175M, the newest addition to our military range, stands ready to do the same.

Of course, as armed forces are facing new and emerging threats, innovation remains essential. With military operators looking for better connectivity and targeting increased interoperability with drones, everyone is modernising their helicopter fleets. Naturally, our range continues to perform vital operations all over the world and our strategy of ensuring that our helicopters can be continuously enhanced means operators will be able to assimilate innovations, allowing them to rely on our fleet for years to come.

Fuelling innovation in both civil and military programmes is our company's purpose: to pioneer sustainable aerospace for a safe and united world. Our latest flying laboratory, the aptly named PioneerLab, encapsulates this spirit. This new FlightLab will allow us to introduce new technology that will increase efficiency and ultimately reduce emissions on twin-engine helicopters. It has been a summer of firsts and pioneers: our H160 received FAA certification and Sophie Adenot flew this helicopter in France's 14 July celebrations, exemplifying the essence of Airbus Helicopters. Sophie began her career with us and is now part of the astronaut programme. Not everyone will see the world from space, but I am convinced that all of our colleagues are committed to pushing their careers as far as they can, delivering quality and value to our customers. This commitment is, of course, driven by our values. Our recent celebrations of our Columbus (US) site's 20th anniversary and reflecting on 10 years of progress on our Transformation journey are perfect reminders. These milestones are testimony to our teamwork and quest for reliability, and show that when we make changes, customers are at the forefront of our thoughts.

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A range that's ready to serve

In an increasingly challenging world, helicopters are vital to the success of military campaigns that aim to make the world a safer place. With the emergence of new technologies and strategies, rotorcraft must be ready to respond to new threats and perform operations that may never have been envisaged until now.

Articles: Belén Morant and Ben Peggie

Designed to be versatile and modular, Airbus Helicopters' in-service fleet is adaptable to any mission, playing essential roles in armies, navies and air forces across the globe, combining the best of a market-leading civil range with the company's extensive expertise in military mission requirements. Combat proven and combat ready, Airbus Helicopters' range strongly benefits from its strategy of constantly pioneering innovation. Through the continuous integration of new technology, Airbus ensures that its products and services remain decisive on demanding, high-intensity modern battlefields – anywhere and everywhere in the world.

SPAIN

Home grown capabilities and renewed fleets

Following a 2%⁽¹⁾ increase in its defence budget, Spain is showing a clear willingness to equip itself with top level defence and security capabilities to allow it to respond to high intensity conflict situations. This represents an opportunity for Airbus Helicopters, although undoubtedly with very demanding standards in terms of lead times, quality and support.



While Spain has historically always had one of the world's leading fixed wing industries, a little over 15 years ago major efforts began to also develop national engineering and industrial capabilities for helicopters. Airbus Helicopters in Spain is now capable of providing any military helicopter solution required by the Spanish Ministry of Defence.

INDUSTRIAL SOVEREIGNTY

One of the major exponents of this industrial convergence in Spain is the NH90 HSPN anti-submarine warfare (ASW) helicopter. Airbus Helicopters in Spain is the driving force behind this project, which includes participation by major national companies such as Indra, Navantia, SAES and Tecnobit, among others. The resulting rotary wing consortium will ensure sovereignty in terms of industrial development and use, autonomy of services and the creation of around 400 jobs. This joint project with the Spanish Ministry of Defence is expected to be up and running before the end of the year. Apart from the industrial and engineering resources that Airbus Helicopters already has to provide support for the Spanish Ministry of Defence, the imminent opening of Airbus' logistics hub in Albacete will also provide it with new logistical capabilities to bolster the supply chain, as well as meeting the logistical needs of the helicopters operated by all of Spain's armed forces.

(1) Spain's defence budget has increased by 26% compared to 2022, with the aim of reaching 2% of GDP before 2029 in line with other NATO member states.



“Airbus Helicopters in Spain aims to contribute to the reinforcement of Spain's autonomous strategic security and defence capabilities through platforms and services adapted to the needs of its armed forces and law enforcement agencies.”

Fernando Lombo, Managing Director of Airbus Helicopters in Spain

NEW PLATFORMS

“We are reaching a very high level of capabilities in Spain due to the renewal of the different platforms used, resulting in modern, highly qualified and standardised fleets. The Air Force has the H135 and the NH90; the Army operates the Tiger, NH90, H135 and Chinook; and the Navy will soon have the H135, NH90 and MH 60R in its fleet,” explains Fernando Lombo, Managing Director of Airbus Helicopters in Spain. The Spanish Army has also expressed a need in the medium term for light utility helicopters to bridge the gap between the H135s it currently has for training purposes and emergency operations, and the NH90s which are replacing the Super Puma and Cougar. The H145M is the leading platform on the market in that category and is perfectly adapted to the Spanish Army's requirements. Moreover, the Spanish Army Airmobile Force (FAMET) already operates the H135, a helicopter from the same technological family and with a number of common features, which will generate important synergies for operations, support and services. “We have achieved an outstanding fleet of airborne units with new and highly advanced models offering top level operational capabilities for all the Spanish armed

forces. The upcoming incorporation of the NH90 for the navy in 2024 will constitute a definitive step in this modernisation process and Airbus Helicopters will be up to the task to ensure that all our Spanish customer's requirements are met,” says Fernando Lombo. “We also never lose sight of one of our most important objectives: fleet availability, an area we devote considerable resources to, in keeping with the demands of the armed forces.”

NATIONAL SECURITY

Helicopters are also a key asset in maintaining national security and protecting citizens. Apart from the 70 helicopters operated by the Guardia Civil and the National Police, all of which are Airbus aircraft, the Spanish Army also has an Emergency Military Unit (UME) with four H135s, four H215s and two Cougars to manage natural disasters, humanitarian aid, rescue missions and firefighting operations. Where necessary, the UME can call on aircraft of the Ministry of Defence, the Ministry of Interior and even those of Spain's autonomous communities to provide urgent responses in the most effective manner possible, as in the case of Storm Filomena and the wildfires in the Canary Islands. In addition, the different autonomous communities are making important efforts to equip themselves with helicopters to provide EMS and firefighting services, and in some cases to augment civil defence and rescue services in their respective territories.

1: The H135 plays an important role in Spain's military operations.

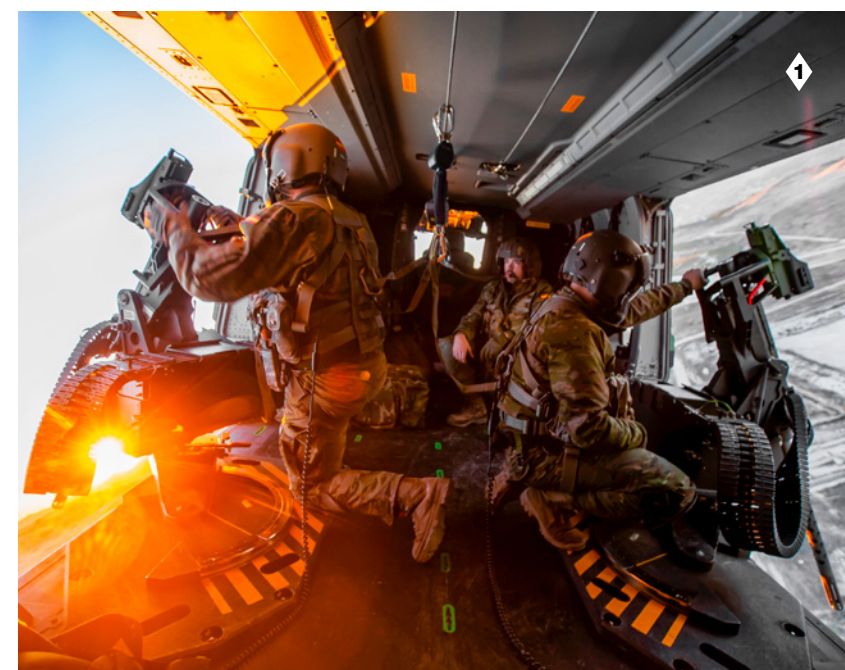
2: Fernando Lombo, Managing Director of Airbus Helicopters in Spain

3: The Spanish Tiger in flight

NH90 SPAIN

The family keeps growing

With more than 10,000 flight hours under its belt, the NH90 has provided the Spanish Army and Air Force with new capabilities, fleet rationalisation and safety improvements. The deliveries of the second batch beginning in 2024 will also equip the Navy with the most modern amphibious helicopter ever operated in Spain.



Spain's close relationship with the NH90 began in 2006, when the Spanish Ministry of Defence purchased its first batch of NH90s. A total of 15 helicopters were ordered for the Spanish Army and six for the Spanish Air Force, all of which have now been delivered. With the aim of continuing to renew its tactical helicopters, in 2018 Spain gave the green light for a second batch of 23 NH90s. On this occasion, it also included the development and production of seven naval MSPT (Maritime Spanish Tactical Transport Helicopter) variants to equip the Spanish Navy with multi-purpose tactical transport helicopters capable of operating in low visibility or adverse weather conditions and at night. It is also fitted to perform combat search and rescue (CSAR), medical evacuation and logistic transport missions if required. The first MSPT will begin the customisation phase in Spain in accordance with the requirements of the Ministry of Defence (DGAM) in the coming weeks.

THE CAÏMANS OF THE SPANISH ARMY

The incorporation in 2014 of the NH90 by the Spanish Army, which dubbed it the Caiman, enabled a significant gain in effectiveness for tactical transport, aerial assault and special operations in demanding conditions. General Pablo Muñoz Bermudo, General of the FAMET, had the following to say regarding the incorporation of the NH90: "The introduction of the NH90 as a high-performance tactical helicopter has allowed a quantum leap in both our capabilities and the safety of army personnel. It has proven itself to be highly reliable in flight in hostile environments, as we recently saw during their deployment in Mali. The FAMET is looking to progressively integrate this helicopter with the army's other weapons systems in order to provide an effective response on all the missions we carry out." New mission systems have also been progressively incorporated to optimise its features (ballistics protection, roller loading system, 12.7mm machine guns, electronic warfare (EW) system, rappel and fast rope systems and a cargo hook).

SIX WOLVES IN MADRID

The six NH90s based with the 48th Wing of the Spanish Air Force in Madrid carry out missions such as personnel recovery, combat rescue and special operations. They may also be called upon to carry out medical evacuations and SAR missions. "The step up from the Super Puma to the NH90



has been significant in terms of speed (from 120 to 150 knots), load capacity (500 kg more), flight time (up to 5 hours compared to the 3.5 hours of the Super Puma) and of course range (430 NM instead of the 220 NM previously without optional equipment)," explains Major Cristina Pampliega, Commander of the 803rd Squadron. At the end of September, the 'wolves' of the Spanish Air Force as they are known reached 3,000 flight hours. According to Major Pampliega, "We've reached our operational capacity in the three main roles: Personnel Recovery, Special Aerial Operations and SAR/MEDEVAC Missions." The unit also forms part of the NATO Response Force (NRF) for Special Operations. Based on a rotational system, NATO allies commit their units to the NRF for a period of 12 months, during which they may be rapidly deployed to wherever they may be required.

THE FIRST NH90 FOR THE SPANISH NAVY IN 2024

The first NH90 to be delivered to the Spanish Navy, the MSPT, will be the best amphibious helicopter the navy has ever had and will significantly enhance its strategic capabilities. The MSPT is an evolution of the GSPA (Ground Spain Army) Standard 3 version operated by the Spanish Army. It has new reinforced landing gear, a maximum take-off weight of up to

11 tonnes, integration of an automatic identification system (AIS) for vessel/helicopter tracking and an automatic blade and tail folding system to minimise flight deck time and enhance safety for on-board technicians. What's more, with the deliveries of the H135 to the navy beginning now in autumn, this twin-engine light helicopter will be of major assistance for training given that the Helionix avionics system integrated in the H135 is very similar to that of the NH90.

1 and 2: Aerial exercise: The incorporation of the NH90 in the Spanish armed forces also represents a significant leap in terms of fleet synergies and standardisation.

THE NH90 HSPN: MADE IN SPAIN

Airbus Helicopters has proposed a national solution to the Spanish Ministry of Defence for the development of the new anti-submarine helicopter for the navy, the NH90 HSPN, which will continue the efforts being made to harmonise the fleets of the three branches of the armed forces. In keeping with the guidelines of the Defence Industrial Strategy 2023 aimed at strengthening and consolidating the national defence industry, the development studies for the HSPN propose a sovereign solution, with Airbus Helicopters acting as coordinator of other Spanish defence companies such as Indra, TecnoBit and Navantia. As well as ensuring national industrial involvement and support, the HSPN will be a modern, fully tested and certified product that is already used by a number of Spain's international allies such as Belgium, France, Germany, Italy and the Netherlands. It may be deployed by the Spanish Navy in multiple scenarios.

Top of the range

As one of the newest members of Airbus Helicopters' military range, the H175M flew to one of the most demanding environments on the planet to prove that it has what it takes to go the distance.



"There's performance on paper and then there's what you do in real life, and I think that the H175M leaves a big impression on the people who fly in it," says Experimental Test Pilot, Marc Prunel. Even beyond proving that the reality of the H175M's performance matched what it promises on paper, traversing deserts in Saudi Arabia in 48°C heat took the opportunity to extremes.

MILES BETTER

According to Alain Fugit, Utility Market Segment Manager at Airbus Helicopters, what makes the H175M so strong, either on paper or in the air, is its exceptional efficiency, giving it an unmatched range that makes it stand out from the crowd. "If our helicopter weighs 600kg less than its competitors, accommodates the same number of people on board and flies much further... That's real efficiency. When both are operating on standard tanks the H175M can fly nearly twice as far as its rival, 600 NM." Prunel underlines that this superiority was perfectly illustrated in the challenging desert conditions on a flight from Riyadh to Abha, a location at altitude in a mountainous region of the country. Prunel explains: "We flew exactly 486 NM in one go. We left with a full two tonnes of fuel and when we landed we had 470kg left, which is still plenty. It's really one of the H175M's big assets and it's something its competitors can't do and the people on board were able to see that for themselves."

For any helicopter, an ability to fly further is a significant advantage but as Fugit explains, with advancing weapon systems and evolving combat, the ability to fly long distances and spend longer in the air is absolutely critical. "The H175M can travel a long way to get to the battlefield. One of the things we can see in Ukraine is that long-range firing is becoming more and more precise, and distances are increasing. Today, the zero-to-80-kilometre zone means that if you're 80 kilometres from enemy artillery, you're already in danger. Helicopters will have to start from further away. That's what makes this helicopter, in terms of its range, its autonomy and its technological level, truly exceptional."

OUTSTANDING PERFORMANCE

Another distinguishing feature that sets the H175M apart is its autopilot which—like everything in Airbus' range—is designed specifically for helicopters. "A fixed-wing aircraft's autopilot is based on the speed at which the aircraft is flying," explains Fugit. "An autopilot designed for helicopters is based on height, so we have an autopilot that is effective

at low speeds. The military helicopter pilot often works at low speeds. When they're shooting, when they're observing, when they're on approach to land, many of the critical phases of flight are not transition phases, they're low-speed phases." The ultimate effect of the autopilot's pilot assistance capabilities is that the pilot is more available to carry out the mission. A pilot at the controls of an old-generation helicopter has to concentrate on holding the hover, while the H175M's autopilot makes maintaining a hover easier, allowing the pilot to do other things. Customers really wanted to see this for themselves, as Prunel notes: "We were asked to fly from Abha, where you're already at an altitude of 7,500 feet, to go into some nearby mountains and simulate a Bambi Bucket mission, to put out fires and a winching mission, so we had to be able to hover in the mountains. They asked us to go to the highest peak in Saudi Arabia, called Jabal Sawda, which is at 9,700 feet. That's a density altitude of around 12,000 feet. We hovered there automatically to perform the winch demonstration. That also impressed them."

1: Alain Fugit, Utility Market Segment Manager at Airbus Helicopters

2: Marc Prunel, Experimental Test Pilot

3: Face-to-face with the H175M in Saudi Arabia

4: The H175M combines the quality of Airbus Helicopters' civil range with the company's extensive military know-how.





5: The desert is a hostile environment but the H175M's sand filters ensured it could take off and land with no problems.

6: The H175M proved its quality at operating in mountainous terrain.

7: The H175M's superior range makes it ideal for traversing expansive deserts.

8: Inside the H175M's cockpit, which boasts the latest avionics which will be continuously upgraded.

9: Hovering with minimal vibrations offers significant advantages for military missions.

GOODBYE TO BAD VIBES

Another area where the H175M offers outstanding performance is in the total absence of vibration in flight and Fugit highlights that this is not the case with every helicopter. "Some competing platforms experience a great deal of vibration at low speeds. In the military market, low-speed vibration is not just about comfort. A military helicopter is an observation platform. If it doesn't vibrate, you can observe much better. It's like looking through a pair of binoculars: if you look through your binoculars while moving, it's a lot harder. What's more, it's a shooting platform. At low speed, you're going to be shooting from the helicopter, so a stable platform is really important."

SMOOTH OPERATIONS IN THE DESERT HEAT

Flying in Saudi Arabia also demonstrated that the H175M could deal with everything the desert could throw at it. "It's a hostile environment to fly in," notes Prunel. "We had a desert survival kit. In the desert you can have sandstorms, we had very strong winds, very heavy turbulence and the helicopter performed well. Sand is an enemy, so the helicopter was equipped with anti-sand filters that served us well on the flights we did, proving that we could land in the dunes and that the filters did their job of protecting the engines." Beyond comfortably handling inhospitable conditions the flights also proved

that the helicopter could keep its passengers cool and comfortable—something which is absolutely vital for the military personnel it is likely to carry. "This helicopter also has a large cabin and a bigger hold which allows you to take things with you. There's plenty of room to take stretchers and other kit. In the super-medium range, you can take 15 soldiers or commandos, so it's very versatile." Crucially the comfort, lack of vibration, reduced noise and high performing air conditioning system means less fatigue for the crew, but according to Prunel, in the military market segment this is even more important for the passengers. "We understand the importance of mistakes that pilots can make when they're tired. However, this helicopter is not only sold for the pilot, it's sold for the mission. A military mission could involve flying these commandos for three hours and then landing for their operation. If, after three hours, the soldiers arrive and are uncomfortable, they may not be at their best to do their job on the ground."

DUALITY AND MODULARITY

A key aspect of Airbus Helicopters strategy is its dual range, which ensures that every advantage available on the civil version will therefore be found on the M variant. The civil version of the H175 has already passed 200,000 flight hours, largely thanks to Energy sector customers—operators who are



known to be very demanding, particularly in terms of maintenance. "The duality of the Airbus range means that we have civil helicopters that are tried and tested. The H175M will therefore benefit from the safety and maintenance standards of the civil market—and avionics which are continuously upgraded." Added to this is Airbus' extensive experience in the defence sector. "We have a wide range of combat-proven helicopters," states Fugit. "The Tiger, the NH90, the H145M, H215M and the H225M. All these helicopters are combat-proven." This helps create an extremely versatile product, as Fugit notes. "Whereas a civil customer will likely buy a helicopter to do a very specific job that has been defined in advance and very often for a specific period, a military customer is buying the capacity to carry out a range of missions that have not yet been identified. These missions will be carried out day and night, in any climate. The customer may not yet even know exactly where they will need this helicopter to fly, so modularity is very important." Showing that the helicopter delivers what it says it will is an impressive achievement and this isn't lost on prospective clients. As Fugit says, "what's certain is that everyone who flew on it, came away with stars in their eyes. They really did. Everyone was enthusiastic."



Ahead of the pack: Brazil's H225M

With a version in every branch, the H225M is clearly vital to the Brazilian military. The helicopter's effectiveness in the country's challenging environment illustrates why it remains unbeatable.

“The partnership between Helibras and the armed forces has been going on for 45 years. We emphasise the implementation of strategic capacity through the transfer of technology in order to develop the Brazilian aeronautical industry.”

Alberto Duek, Managing Director Helibras



It is a versatile all-terrain giant that goes where the others don't. What's more, it is Brazilian to the core - built in Itajubá by Helibras, the only helicopter manufacturer based in the country. This local infrastructure is clearly important in a nation where seven out of ten military helicopters flying carry the Helibras mark on their paintwork. Encompassing roughly half of the South American continent, Brazil has a territory that is both enormous and enormously varied. The country possesses a long coastline, the world's largest rainforest, mountain ranges and lowland plains. It stands to reason that only the most versatile helicopter, one capable of fulfilling any type of mission, in any given environment, would meet its requirements.

THREE BRANCHES, BUT A COMMON PLATFORM

Currently, the 2nd General Purpose Helicopter Squadron (HU-2) has 10 of the Navy's 13 H225M helicopters. This squadron has probably the most complex version, the H225M Naval, which can be armed with up to two MBDA Exocet AM39 B2M2 anti-ship missiles, providing the Brazilian Naval Aviation force with the most sophisticated aeronautical weaponry. Its missions play an important role in protecting Brazil's territorial waters, known as the Blue Amazon, in actions to combat drug trafficking and smuggling, contributing to naval power actions. Its deterrent presence and ability to respond promptly to maritime threats make it an important ally in protecting Brazil's maritime borders. The Brazilian Air Force, which has already 13 of the 15 units it acquired, has an H225M version that can be refueled in flight, effectively increasing its in-flight autonomy for long-range missions, a very common case for the Latin American giant. It is worth recalling, for example, the extreme rescue mission with a FAB H225M of a sick man aboard the Harbour Progress ship located 220 km off the coast of Fernando de Noronha, who was able to be transferred to hospital in time thanks to the rapid and effective action of the Esquadron Falcão last year. AvEx, Brazil's Army Aviation, which has 14 H225M "Jaguar" aircraft already in its ranks, received its first unit in April 2011, representing a real leap in operational capabilities. Thanks to the Jaguar's arrival, AvEx can now offer the Brazilians search



and rescue missions, special operations and a high degree of transport options. The ability to use these aircraft with the Brazilian Navy and Air Force has exponentially increased the interoperability of the three forces' H225Ms.

OPERATION YANOMAMI SHIELD

In 2023, H225Ms from all three armed forces were used extensively in humanitarian relief operations in the Yanomami Indigenous Land, Brazil's largest reservation which has faced emergency situations often resulting from mining ambitions. H225Ms have proven irreplaceable for rapid access to very remote areas with impractical ground access, both day and night, and in all weather conditions. In addition to troop transport, H225Ms were used to transport rescue equipment, relief supplies and medical aid to those affected. They also proved their worth in emergency medical evacuation of injured or sick indigenous people. The H225Ms carried over 2.5 tonnes of materials, and up to 3.5 tonnes of external cargo. The helicopter's versatility was also demonstrated by its ability to carry 28 passengers or 11 stretchers plus medical equipment, depending on the needs of the moment.



Signed in 2008, the H225M contract, known as the H-XBR programme, has now delivered 43 units out of a total of 47 acquired, making the Brazilian Armed Forces the largest H225M operator in the world.

H145M

One helicopter, many missions

In an increasingly uncertain world, militaries are looking for proven battlefield solutions to make a decisive impact. As a former captain in German army aviation with 12 years of experience, including tours of service in Afghanistan and a degree in mechanical engineering, H145M programme manager Constance Pinsdorf tells *Rotor* why this helicopter makes a difference in theatres of combat worldwide.



1: Constance Pinsdorf, H145M Programme Manager

2: The H145M is capable of integrating a wide range of weaponry.

3: Looking over the shoulder of the H145M

WHAT ARE THE ADVANTAGES OF THE H145M?

Constance Pinsdorf: From search and rescue to light attack, armed escort to VIP and troop transport to training, the sheer variety of operations that the H145M performs is its key strength. One helicopter can fulfill many missions and can even be converted to implement a new role in just one hour. Connectivity is also a key strength, as is the digitalisation of the battlefield and the interoperability with ground forces—therefore the H145M is ready to handle datalinks like VMF (a kind of “whatsapp” for soldiers) or Link 16 and can display this information in a digital battlefield system directly inside the cockpit. Of course the range of weaponry that the H145M can integrate increases the scope of missions that it can perform. HForce [modular weaponry] is very flexible in terms of integrating whichever weapons a customer might want, allowing operators to choose different options. The H145M offers both unguided and laser guided rockets, as well as 20mm cannon and 12.7mm gun. The main difference, compared to some of its competitors, is the Spike ER2, which has a firing range of up to 16km, if controlled via radio frequency, or 10km, if controlled via fibre optic—depending on a customer’s operations. This allows the helicopter to eliminate targets from a distance without encountering enemy fire.

THE H145M HAS PERFORMED LOTS OF EXERCISES FOR MANNED UNMANNED TEAMING. ARE THERE ASPECTS OF THIS HELICOPTER THAT MAKE IT PARTICULARLY SUITABLE FOR THIS KIND OF INTEROPERABILITY?

C.P.: It is important for us to be unprejudiced and flexible in the platforms used for communication with drones. We are open to working with several kinds of platforms and we have already handled two drones in parallel. For these capabilities it’s essential to have an algorithm that can handle a drone by itself and supports the operator, so the crew won’t have to contend with additional workload; doing the mission and in parallel handling the drone. Therefore we are happy to have a strong partner who is working with us developing these algorithms. The next step should be the ALE capability (Air Launched Effects)—starting a drone, or drones, directly from the



helicopter, not from the ground. We know for sure that we can handle one drone and even two different types of drone in parallel but if we have five, six, ... eight drones—strong algorithms that are really mature become even more important.

THE H145M IS BASED ON A CIVIL HELICOPTER: IS IT BATTLEFIELD PROVEN?

C.P.: Absolutely. It’s no secret that the H145M went to Afghanistan and Niger. It is militarily proven. We are in close contact with military regiments to understand how the helicopters were used and what can be improved (as a next step). The H145M is much more than a civil helicopter—we simply used civil advantages and merged them with military needs like installing a self-protection-system [Electronic warfare system (EWS)] which includes laser-, radar- and missile-warners on board; LAPKs [light armament protection kits against 7.62mm] for the pilot, copilot and cabin; helmet mounted side displays; self-sealing supply tanks; encrypted communication and further capabilities. The H145M is much more than a civil helicopter with attached weapons. The fact that everything is qualified and battlefield proven is a big advantage for the H145M. We are convinced that we made the right steps to find new serialised versions for future capabilities, which can be offered and delivered in upcoming contracts.

H145M

The battlefield helicopter

The cost-effective and versatile H145M covers the full spectrum of military missions from basic training to light attack. Its multimission capabilities are enhanced by the latest technology and packages. The HForce weapons system allows it to integrate a wide range of armaments. More than 500 H145M helicopters are operated by customers across the world, including North America, Latin America and Europe.



Flare dispensers

Electronic warfare system (EWS)

Electro Optical System

Pylons with armament



Helmet mounted sight



Long range 16 km missile

Light Attack

Possessing a sophisticated Electronic warfare system (EWS), Electro optical system (EOS) and guided weapons, the H145M has excellent stand-off capabilities, allowing it to deliver optimal performance in all types of operational scenarios, from high intensity to asymmetric conflicts.

Ballistic and guided axial armament



Combat Search and Rescue / Medevac

The large unobstructed cabin offers space for up to two stretchers and two paramedics. It also provides great modularity and its layout can be quickly converted to meet changing requirements with twin rails on the flat floor. Quick and safe rear loading is possible, even when the rotors are turning – making a life or death difference, when every second counts.

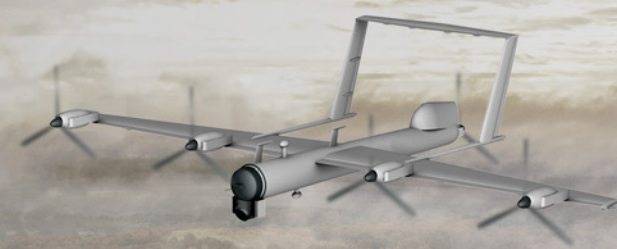


Removable medical kit

Up to 2 stretchers + 2 paramedics

Manned-Unmanned Teaming

Unmanned aerial systems support helicopter missions by accessing areas where it's not safe for crews to fly. The H145M has repeatedly demonstrated its platform agnostic MUM-T capabilities with repeated tests of fixed and rotary wing unmanned aerial systems.



C4I working station



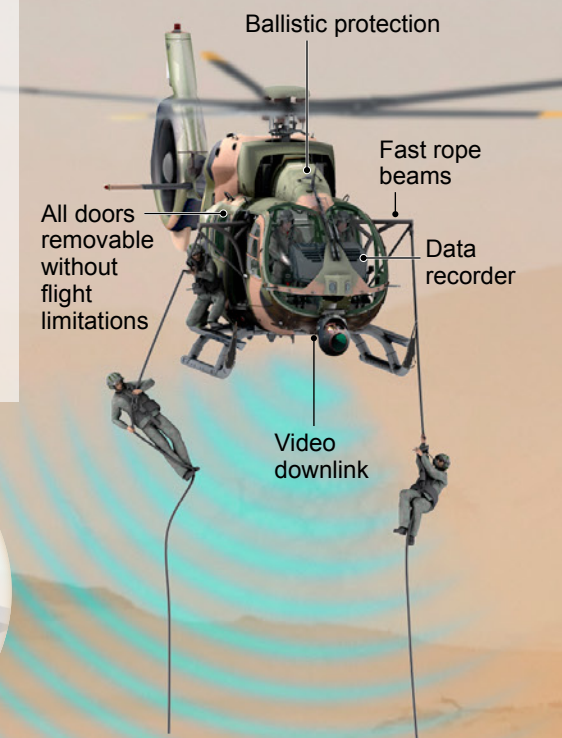
Battlefield Deployment

The H145M can be easily airlifted to any hotspot in the world for quick deployment. The A400M can carry two H145M helicopters.



Special Forces

Particularly adept at landing in confined spaces and featuring ballistic protection and fast rope beams, the H145M excels at special forces missions. Special operations teams can quickly access the spacious cabin that seats up to 10, via two large sliding doors or rear double clamshell doors.



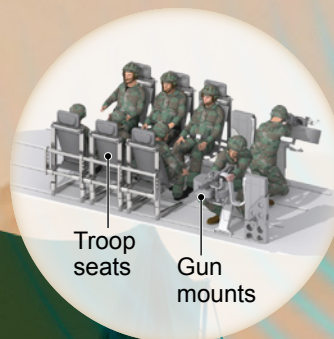
Ballistic protection

Fast rope beams

Data recorder

All doors removable without flight limitations

Video downlink



Troop seats

Gun mounts

360° access with quick and safe rear loading, even with rotors turning



360° access

The H160: flying for French Customs



1



POWERING CLIMATE RESEARCH ABOARD POLARSTERN

For nearly a decade, Lars Vaupel of NHC Northern Helicopter (based in Emden, Germany) has been one of the pilots accompanying climate research expeditions aboard the Alfred Wegener Institute's icebreaker *Polarstern*. A few days before embarking on a new adventure, *Rotor* spoke to him about his day on board a research vessel and how helicopters are helping to better understand the effects of climate change.

Article: Jörg Michel

It's the end of July 2023 and Lars Vaupel, a helicopter pilot for more than 24 years, is preparing for a new mission aboard *Polarstern*, a research icebreaker operated by the German Alfred Wegener Institute that specialises in studying climate change and its effects on ice and the oceans. Vaupel, who began his career as a pilot in the German Armed Forces flying the BO105, is one of two pilots on board the ship. "We are responsible for supporting the scientists on board. One day we use our EMBird, a sonar-like device on our helicopter, to measure the electromagnetic thickness of the ice, the next day we take the scientists onto the ice to

collect samples, and we are also the means of transport for anything that needs to go where the ship can't," explains Vaupel, who made his first deployment as a pilot on *Polarstern* in 2008. "And that's not all: we also use our helicopter as an outpost to check the sea ice, and if something goes wrong, our BK117 (a precursor of the H145) is our HEMS helicopter and much more—with our helicopters we are the backbone of *Polarstern*."

ONE ICEBREAKER, TWO HELICOPTERS AND FOUR PEOPLE

Vaupel is not the only one on board to look after and operate the helicopters. "We have a total

of three BK117s, two of which are always on board *Polarstern* when we go out on a mission, while the third remains in Germany as a back-up. To operate these two helicopters, we need two pilots and two mechanics," explains Vaupel, who has already completed more than 25 missions aboard the research icebreaker. "And we have a good supply of spare parts on board. Our expeditions usually last eight weeks and we are far from any maintenance centres. But fortunately the BK117 is a very robust helicopter and we have had only minor repairs and maintenance in the past." And it is equipped to cope with the tough conditions, with an emergency flotation device, weather radar and polar equipment—everything you need to survive seven days in the wilderness in case of an emergency. But operating and maintaining a helicopter in often difficult conditions with strong winds, low temperatures and the sea is not the only challenge: "When you spend eight weeks together on a ship, you really have to work as a team. That's why it's not just a team member's professional qualifications that count, but also their social skills. We spend eight weeks together on a boat measuring no longer than 120m. So you really have to get on well with each other," Vaupel says.

A DAY ABOARD POLARSTERN

The Arctic and Antarctic are usually the destinations for *Polarstern* expeditions. And in these regions, it's often the weather that dictates the pace.



"We start the day with a weather briefing by the meteorologist. In the Arctic, the weather can also change quickly. Depending on the weather forecast, the pilot suggests what could be done," says Vaupel. "One of our two helicopters always remains on board *Polarstern*, as it is our backup in case of problems with the first helicopter." When asked what's really memorable about helicopter flights from *Polarstern*, Vaupel enthuses: "We are able to see nature and animals in a way that others can only do by watching documentaries on National Geographic. When you see a pod of killer whales swimming underneath your helicopter or a polar bear on an ice shelf nearby, it really connects you to nature."

1: The BK117 in front of the Neumayer III research station in the Antarctic.

2: An EMBird on a longline, which is used to measure the thickness of ice.

3: Lars Vaupel in his survival suit during one of his missions.

4: The icebreaker *Polarstern* with one of the two BK117 helicopters.



20 YEARS OF AIRBUS HELICOPTERS IN MISSISSIPPI

On 25 August, Airbus Helicopters, Inc. celebrated the 20th anniversary of its industrial site in Columbus, Mississippi (MS) with a retrospective—and a look ahead.

Article: Heather Couthaud

Under skies as colourful as the Mississippi flag, an audience of employees and elected officials applauded the addition to Airbus' Columbus facility: a display H125 aircraft right by the entrance, with a very Mississippi livery. The magnolia flower was just one reason to cheer. "We are an entrepreneurial business at heart," says Johannes Dienemann, Vice President Industry and Civil Programs at the facility. "Many of our employees have stories of working their way up into leadership roles." A truth that dates from the start. Veronica Harris, Supervisor of Planning and Control, was first hired as a security guard, just a year after ground was broken. "My children have grown up while I've been at Airbus, so we've become a family here," she says. Yet why build a manufacturing site far from headquarters (Grand Prairie, TX) in an area that was not exactly

known for high-tech business? The answer lay in the location: the tri-city "Golden Triangle" of economic cooperation provided a ready technical workforce, consisting of about 35% military veterans who could put their skills to use. It also lay in the political support that the area provided. The state was eager to work with Industry in creating jobs and in planting seeds for economic growth. The Golden Triangle has since attracted several other key industrial players.

FROM THE START, TIRELESS PRODUCTION

Over the years, work came in strong. A few examples: Airbus started with the re-engining of several US Coast Guard H-65 Dauphin aircraft. This was followed by close to 500 Lakotas—463 UH-72A and 18 UH-72B

models for the US Army, five for the US Naval Test Pilot School, and a handful of aircraft for the Royal Thai Army. Roughly two dozen H125 aircraft were built for Customs and Border Protection. And the first wave of US Army National Guard aircraft is starting to come back to Mississippi for an upgrade to its Security and Support Battalion mission equipment package, the first of which was delivered back in 2010. "This is significant for us but also for the US Army because those aircraft are flying and protecting our nation," says Dienemann. It would be easy to cite the close to 500 UH-72A and UH-72B aircraft delivered to the army as success, but the Columbus facility has notched other achievements, too. In 2014, the plant began building the H125/AStar, producing 30-40 a year of this popular model. What's more, over 1,000 newly manufactured or retrofitted helicopters for commercial, medical and law enforcement missions are proof of the facility's flexibility and its role in creating a safer and tighter-knit society. Look up in any US city and you're likely to see a Columbus-built aircraft.

HOMEGROWN AND HARD-WORKING

Starting with the first 7 employees to 300 today, the site's impact in creating jobs and opportunities is evident. Veronica Harris is a case in point; first a security guard then an administrative assistant, she grew interested in Planning and Operations. "I loved everything about shopfloor control. They were the go-getters. I wanted to become a planner," she says. She now leads her own "busy, busy" team, juggling evolutions such as preparing new programmes like the H160. Meanwhile, customisation on the first two H160s, recently certified by the FAA, has begun. Twenty years, and the spirit in Columbus is as much go-get-'em as ever.

COLUMBUS, MISSISSIPPI BY THE NUMBERS

- 1,700+ deliveries
- 480+ Lakota UH-72 aircraft
- 500+ H125 aircraft
- 60+ Department of Homeland Security aircraft
- 500+ Retrofit modifications
- 200+ Completions
- 12 Re-engined MH-65 aircraft



MISSISSIPPI H125 STATIC DISPLAY

The H125 helicopter that now graces the entrance to the Columbus facility joins other display aircraft at Airbus Helicopters sites in France, Germany, Spain and Canada. Its paint scheme reflects its American heritage, as well as that of its home state. The new state flag of Mississippi, a magnolia flower and stars, was ratified in 2021; it is known as the Magnolia flag, featuring red, gold, blue and white. Like the 500 other H125 aircraft that have left the Mississippi facility, the display H125 is a symbol of "what a helicopter is made for: saving lives and protecting the nation," says Johannes Dienemann.



1: Re-engining the US Coast Guard's H-65 Dauphin helicopters was part of the foundations of the Columbus site's work.

2: The H125 on static display, with a livery inspired by the Magnolia flag.

3: The site's colleagues celebrating the 20 year milestone together.



PIONEERING FOR THE PROGRAMMES

Arriving as Airbus Helicopters' third flying laboratory, the PioneerLab (a converted H145) will be used as a testbed for technologies that are currently being researched. *Rotor* discovers: "What will it test that couldn't be done on the existing FlightLab or DisruptiveLab?"

Article: Ben Peggie

"This is a good question!" according to Dominik Strobel, Programme Lead for PioneerLab. "Of course, from a technology side, we can test anything. However, it helps if we utilise the idea of a testing pyramid. You start with the fundamental demonstration tests on the ground. At the peak of the pyramid, however, you have to bring it to a platform and you simply cannot test everything on a single-engine helicopter, if it is ultimately meant for a twin-engine helicopter. They have different requirements, sizes, you have to integrate things in a different way and the systems are

different. There are many reasons why the twin-engine PioneerLab makes sense."

WHAT'S IN THE TEST?

The PioneerLab will test new technology in three areas: emission reduction, autonomy and sustainable materials and Strobel is keen to point out that it will not simply be testing existing technology for a larger platform. "If we look at the Rotor Strike Alerting System (RSAS) system, it is an enhanced system on what we have previously done—the requirements are different and therefore

we will scale up on what we already have on the RSAS system. The goal is to improve the existing technologies to make them valuable for the targeted platform. On the other side, there are technologies like the autonomous take-off and landing (ATOL) feature and there is a need for this on twin-engines due to the higher level of integration of the systems and functions. Using a lot of different technologies, we are preparing how to integrate an easy method of doing a fully automated take-off and landing, into the helicopter." Emission reduction is a target not without its challenges, as Strobel explains: "Our aerodynamics are already quite advanced, so it's difficult to make advances there but improvements to the airframe and empennage are possible." The research does have one highly significant goal, though. "We are looking for the next possible evolutions and especially at hybridisation. We are hoping to bring the engine to a more efficient point, throughout the whole flight, with an e-motor taking over spikes [of power, for example] and inefficient areas of flight, which will lead to an emission reduction." The third area of interest is in terms of testing materials that are more sustainable. "Bio-based items will be introduced which will enable us to recycle parts of the aircraft", notes Strobel.

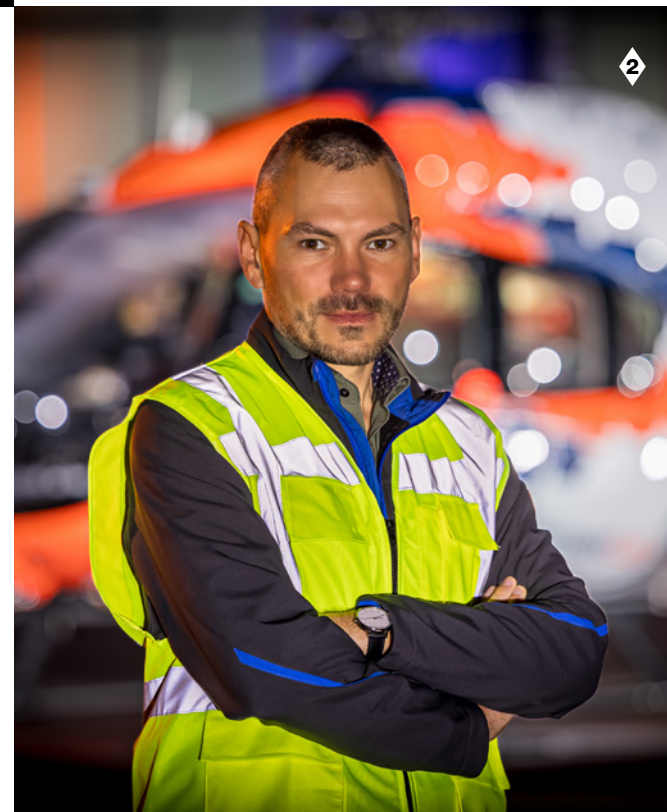
SHARED SUCCESS THANKS TO THE GERMAN "LAB"

This is also the first flying laboratory to be based in Donauwörth, Airbus Helicopters' German site. With reducing emissions a priority for the country, the government is supporting the PioneerLab's research, with projects partly co-funded by the country's Federal Ministry of Economic Affairs and Climate Action, via LuFo. To Strobel it makes perfect sense to situate the PioneerLab at the Donauwörth site but he is keen to stress that its research will benefit the entire company. "The heart of the light twin-engine helicopter programme is in Germany so it makes sense to locate it here but we have a lot of support from across the business and our ambition is to have an open, transparent project. The technologies we are researching and our findings will bring value and knowledge to every programme." Indeed, Strobel states that programmes integrating the research into tangible innovations is a key indicator of success. For Strobel, hybridisation will also be an important measure and, "though the timeframe is much longer, my ambition is to see it become part of the fleet in some form or another."

1: The PioneerLab will test innovations that can be used on twin-engine helicopters.

2: Dominik Strobel, Programme Lead for PioneerLab

3: The PioneerLab, ready for take-off



TRANSFORMING HELICOPTERS

Ten years ago, Airbus Helicopters embarked on an ambitious transformation programme to improve quality and safety as well as increase efficiency. Head of Digital and Company Transformation, Dr. Martin Werner, summarises the different phases of the Airbus Helicopters transformation aiming to reach excellence for its business processes.

Article: Diane Bosserelle



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THE BEGINNINGS OF THIS TRANSFORMATION WERE IN 2013. WHAT WERE THE CHALLENGES THAT AIRBUS HELICOPTERS NEEDED TO ADDRESS?

Martin Werner: No business can last if it does not change and adapt to meet the needs of its customers. Ten years ago, we were facing some challenging times, there had been aviation safety concerns, a number of work accidents, missing parts hampering our delivery targets and cash management was at risk. So improving our performance, enhancing quality, further increasing safety and driving customer satisfaction were absolute priorities.

WHAT PROCESSES WERE PUT IN PLACE TO ADDRESS SUCH CHALLENGES?

M.W.: We had to build strong foundations and it was clear that we had to initiate a culture shift, putting safety at the centre of everything we do. Overall, we had to gain the trust of our customers and partners. The plan was based on four pillars: Customer Satisfaction, Quality and Safety, Competitiveness and New Ways of Working. These priorities became our driving force. We organised multi-functional teams to tackle key areas of improvement and year after year, we started to successfully implement strong improvements. It was also during this period that major transformation projects like MECA 4.0 started to enhance our quality in dynamic

systems. Specialising our competencies on the different sites is another good example of transformation.

AFTER TEN YEARS OF TRANSFORMATION, ARE WE NOW STARTING TO SEE SOME RESULTS?

M.W.: Yes, of course. After addressing some immediate challenges, it became apparent that we had to make these improvements sustainable. We had to install an approach to build on our basics, to avoid duplication between the industrial sites, reduce complexity and streamline processes. We've built a transformation of resilience, simplification, cost management and customer satisfaction. Thanks to that, it was possible to remain resilient during Covid-19 and to continue to launch further major transformation projects to ensure continued innovation and performance. Thanks to the collective successes of our transformation, we see solid improvements in areas like safety at work, efficiency and customer satisfaction. The journey is not finished. Embedding the transformation over time is a permanent challenge.

BUILDING ON A SUCCESSFUL TRANSFORMATION – WHAT ARE OUR AMBITIONS MOVING FORWARD?

M.W.: The environment we are operating in is complex. Therefore, we need to stay focused

on our long-term priorities, the decarbonisation of our industry, but also digitalisation, a reliable end-to-end supply chain, competitiveness and leadership. The next stage of the transformation aims for excellence—moving from effectiveness to efficiency. One strong lever will be our digital strategy, to replace our digital backbones in how we design, manufacture and support our helicopters. Our vision is to be the benchmark on safety, have a strong customer-oriented approach, be agile with short lead-times and an on-time delivery rate at 95%. Those will be the markers of our successful transformation by 2026-2028. To secure them, our teams must be aligned with the same values and same leadership practices, ensuring the conditions for collective success of Airbus Helicopters and our customers.

10 YEARS OF TRANSFORMATION:

- 5 times fewer accidents at work
- 53 safety enhancers implemented on the Airbus helicopter fleet
- 216 irritants solved for customers
- Late delivered spare parts divided by 2 for commercial helicopters
- More than 12,000 employees trained in Safety Box (occupational safety)
- Opening of aviation safety centre (flight safety) in 2023
- Digital shop floor deployed for all assembly activities

1: Dr. Martin Werner, Head of Digital and Company Transformation.

2: The company's transformation has introduced state-of-the-art facilities, like MECA 4.0.

3: Airbus colleagues using tablets that have been introduced as part of the transformation process.



A STELLAR CAREER

Beginning as an engineer at Airbus Helicopters, Sophie Adenot's career has been exceptional from the very start. Subsequently becoming a helicopter pilot and then the first woman to be a helicopter test pilot in the French military, the next phase of her career should take her into outer space as she stood out from 22,350 other candidates to become one of the next European Space Agency astronauts.

Article: Ben Peggie

DID YOU ALWAYS WANT TO BE A TEST PILOT AND ASTRONAUT, OR DID YOUR AMBITIONS EVOLVE AS YOUR CAREER ADVANCED?

Sophie Adenot: Yes, I always wanted to become a test pilot and astronaut; it was a dream since I was a little girl and it never changed. What evolved throughout my career was developing the self-confidence to be able to actually try to make these dreams come true. It was initially challenging

for me to give direction to my career path. Although I knew what I ultimately wanted, I rarely knew if the most recent choice I made for my career was the right one. As I gained experience, I learned to listen more to my intuition...which was not easy because many people would give me advice that did not always resonate with my inner thoughts. Although I respectfully listened to people saying things like, "You should do this", or "You should not take certain risks", or "You must learn

this", I increasingly tried to trust my own choices. In the end, I never imagined I would have such a packed career. I started as an engineer at Airbus Helicopters. Then I tried a new challenge —becoming a helicopter pilot, then another— becoming a helicopter test pilot, and then a new one...Had anyone told me that I actually would end up here today, I would never have believed it.

YOU BEGAN YOUR CAREER WITH AIRBUS HELICOPTERS; WHAT WAS YOUR ROLE AND HOW DID IT HELP YOU PREPARE FOR YOUR FUTURE?

S.A.: Being an engineer at Airbus Helicopters in 2004 was my first job right after my aeronautics and astronautics studies at SUPAERO and Massachusetts Institute of Technology (MIT). I was fascinated by helicopters. I felt lucky to have an opportunity to work with teams in the design office. I worked on the design of the H225 cockpit, particularly the implementation of the EGPWS (Enhanced Ground Proximity Warning System) and the TCAS (Traffic Collision Alert System). It was challenging because at that time, it had never been implemented in helicopters. Now, this system is fully operational and enhances flight safety.

AS A PILOT AND TEST ENGINEER, WHAT INNOVATIONS DO YOU THINK WILL BE IMPORTANT FOR HELICOPTERS IN THE FUTURE?

S.A.: First, I value all steps which will contribute to enhancing flight safety. Airbus has many innovative ideas on this topic. It is challenging, and the effort is worthwhile. Second, today, we are all concerned by the climate crisis. I know Airbus is



1: Ready for action – Sophie Adenot before the 14 July celebrations.

2: Crowds queue up to get a glimpse of the latest addition to the Airbus Helicopters family.

3: In the cockpit with Sophie Adenot, piloting the H160 during a live broadcast on French TV.

already working hard on this topic, doing research and testing equipment to help reach IATA's net zero CO₂ emission objective by 2050. We need to gather all forms of intelligence, because our true challenge is to leave a sustainable planet for future generations. Third, as I have a passion for human-machine interaction and cockpit design, I hope many innovations will change the future of cockpit design, to help crew members with decision making, situation awareness, flying skills, handling emergencies in uncertain situations. I will be keeping a keen eye on any advances in this area.

HAVING HAD THOSE EXPERIENCES, WHAT DOES IT MEAN TO YOU TO NOW PLAY A PART IN THE 14 JULY CELEBRATIONS?

S.A.: I am very happy to share my enthusiasm with hundreds of men and women who share the same values for France's freedom and democracy, as well as their passion for aeronautics and astronautics. This year, for the 14th of July, I was in the H160 from Airbus Helicopters, in a formation flight with my former colleagues from the French Air and Space Force. I was wearing my blue astronaut flight suit. It was the intersection of the three institutions I have dedicated my career to: Airbus Helicopters, the French Air and Space Force and the European Space Agency.



EVERY
CALL
IS
A
CALL
TO
ACTION



When armed forces are scrambled, they put their lives on the line, so they need a helicopter they can trust to get the job done, whatever the weather, whatever the situation. Versatile, multi-purpose, and equipped with a renowned automatic flight control system and upgraded avionics, the H225M is the long-range helicopter they can rely on. There will always be risk and danger, but wherever the call comes from, the H225M will help to keep our world beautiful and safe.

AIRBUS