No. 140 - DECEMBER 2025

ROTOR

BY

AIRBUS HELICOPTERS

IN THEIR WORDS
Twin-engine training with the Airbus H135

IN THEIR WORDS
Born to Run: the NH90's record flight in New Zealand

OFF THE BEATEN TRACK
Aboard a crucial conservation mission with The Bateleurs

Helicopters that offer a helping hand

CONTENTS

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Bruno Even, CEO of Airbus Helicopters

"This sense of responsibility is the foundation for what we do."

Helicopter emergency medical services (HEMS) perfectly illustrate the fundamental value of our products. The work of these health-industry pilots and medical crews can mean the difference between life and death, or between a full and partial recovery. We drive continuous innovation—making our platforms faster and more effective—because in critical patient transport, every minute counts. Every avionic enhancement that reduces pilot workload and every increase in availability can mean a life saved. The quicker a patient reaches hospital, the better their chances of a successful outcome. This sense of responsibility is the foundation for what we do. That is why we were proud to announce the H140: a technologically advanced helicopter offering everything HEMS operators need, including a bespoke, modular medical cabin for ultimate patient care. In this edition you can see how vital and varied HEMS operations are worldwide, and how operators respond to diverse local challenges. In New Zealand, operator Helicopters Otago talks of the pressures of finding funding for life-saving equipment. In Brazil, we hear of crews saving lives in situations ranging from accidents to natural disasters. In Sweden, Captain Kate Lindvall affirms how the H145's avionics allow her focus to remain on the mission, with the local area presenting a variety of challenging flight conditions in a relatively small area. Our recent Australian H160 demo tour showed the need for long-range HEMS. In regions of vast geography, operators require platforms that cover great distances. Natural disasters are regrettably on the rise. Earlier this year, we saw Airtelis's Super Puma performing waterbombing missions from our offices in Marignane (France), preventing fires from reaching Marseille—a visible reminder of our mission. We were also proud to hear how Hungary's H225Ms were deployed rapidly and to great effect fighting fires in Albania, making crucial contributions to the international response. Finally, The Bateleurs' continued use of the Alouette III to survey vultures serves as a powerful reminder of the legacy and durability of our engineering.

FEATURED ARTICLES

Helicopters that offer a helping hand

Thanks to their speed and agility, helicopters are an essential tool that help medical staff save lives. Rotorcraft offer a crucial lifeline, transforming a journey of an hour into mere minutes, when each passing second can significantly affect a patient's chance of survival.

The helicopters used for emergency medical services missions are increasingly sophisticated, offering operators innovative technology and solutions. This edition's feature delves into the world of people who have dedicated their careers to saving lives, and the incredible machines that they use to make a difference.

Articles: Heather Couthaud, Alexandre Marchand and Ben Peggie

From seconds to death, to ‘until death do us part’: helicopters help lives go on

On 31 May 2009, Dan Richards nearly died in a motorcycle accident. Fourteen years later to the day, his life changed again.

1

Since his accident, Richards has learned to fly planes, qualified as a scuba diver, trained to row across the Atlantic, competed in the 2018 Invictus Games and much more. Now a motivational speaker, he recognises that none of this would have been possible without the helicopter that got him to hospital before it was too late.
“My accident occurred [at either] a 45-minute land ambulance journey to the hospital or a 6-minute flight,” says Richards. “The severity of my injuries meant that had I been taken to the hospital via land ambulance, I would have died on the way. My injury load was so significant that Eoin Walker, who was my paramedic, was convinced that I would even die in the helicopter.”

MAKING THE DIFFERENCE

Today, Eoin Walker is the EMS promoter at Airbus Helicopters. His 20 years of experience as a paramedic with 10 as a flight paramedic, provide crucial insight for his work. “Medical professionals talk about the Golden Hour – the 60-minute period of time immediately following major trauma,” explains Walker.
“A patient reaching a hospital within this window is more likely to have a positive outcome. Obviously in such circumstances helicopters can mean the difference between life and death. Airbus Helicopters is the market leader for helicopter emergency medical services (HEMS) operations,” explains Walker, highlighting how the company’s helicopters go beyond their intrinsic time-saving advantages.
By enhancing the medical cabin with a variety of equipment options, greater flexibility, and improved connectivity, a hospital is, to a degree, flying to the patient. These features all increase the chance of a patient’s survival and improve the prospects of a good recovery.
“How helicopters are used for this vital medical care can vary quite significantly worldwide, but the constant is that Airbus products are the preferred choice,” notes Walker, pointing to features such as the capability of being airborne within two minutes, an attribute that makes a difference when every second counts.

WORLDWIDE SUPPORT

The current backbone of Airbus’ medical fleet are the H145 and H135. With more than 700 H135 and more than 550 H145 helicopters currently flying HEMS missions, they are proven machines.
“These helicopters deliver what HEMS operators need,” states Walker. “They are compact enough to reach patients almost anywhere, they are quick, efficient and reliable and even their downwash is minimal, which contributes to greater patient safety.” Walker believes that the H140 and the H160 are going to offer more options and possibilities to medical operators. “We designed the H140 hand in hand with our community of HEMS operators,” says Walker. “With an optimised medical cabin, that is fully modulable and can be specifically tailored by each operator, it is going to support medical staff and, most importantly, make a huge difference to patients. Then you have the speed, ...

2

1: Dan and Zee on their wedding day.

2: The five-bladed H145 is a key part of the Norwegian Air Ambulance’s fleet.

3

3: The H140's cabin has been designed with HEMS operators in mind.

4

4: Airbus Helicopters' emergency medical services promoter, Eoin Walker, in front of the H160. The H160's cabin can accommodate more equipment and its range is ideal for longer patient transfer missions.

5

5: The H135 is the current fleet leader for HEMS missions worldwide.

6

6: Dan and Zee walk down the aisle 14 years after his motorcycle accident.

... size and range of the H160, which is going to allow more equipment in the cabin, enhancing the sophistication of medical procedures and, ultimately, increasing patient care."

LIFE CHANGING

Since his accident, Richards has been a strong advocate for the value of HEMS operations, inspiring medical practitioners and stakeholders with his story. Thanks to rapid intervention, Richards's accident was not his last day on earth. His subsequent accomplishments as a speaker are a testament to the value of the lifesaving work undertaken by doctors, nurses and paramedics. One of these talks even introduced Richards to the love of his life. "She was the only person asking me questions," remembers Richards. On 31 May 2023, Richards marked the date with another life-changing event: he married Zee. "My accident doesn't dictate my life," he reflects. "Setting my wedding day and marrying my wife, surrounded by those memories, gives that date new significance."

The H160 in Australia: next-level emergencies need a next-generation response

A land of incredible natural beauty and welcoming hosts is also equally known for the danger of its wildlife and landscapes. Emergency medical services operators in the country need a helicopter that they can rely on to respond to a huge variety of missions—so Airbus Helicopters took the H160 for a demo tour down under.

People in Australia can encounter many things that could conceivably kill them. Huge deserts. Coastlines with great white sharks. The bush with all manner of deadly spiders and snakes. The local population is accustomed to living alongside such threats so deaths are rare, but people in trouble can often find themselves far from help. Australia understands the necessity of emergency medical service provision like few others. The H160 spent nearly a month in the country, visiting Melbourne, Sydney, Canberra, Newcastle, Brisbane and the Sunshine Coast. The operators who saw it were impressed.

A GENERATIONAL LEAP

Richard Ward, Sales Manager at Airbus Helicopters, believes that the H160 perfectly corresponds to what Australia needs for its helicopter emergency medical services (HEMS). “Australia is a vast country with a population distributed over huge distances requiring aircraft with a longer range,” he explains. “The H160 has a spacious cabin—perfect for HEMS and search and rescue. Plus, it’s reliable. It flew nearly 70 hours in less than a month with 100% availability.” Beyond size and range, Ward also highlights the next-generation advantages that only the most recent addition to Airbus’ range possesses—reduced downwash and smoothness in flight. “In the case of HEMS, these often-critical patients can spend increased time in the aircraft,” says Ward. “High vibration and sound levels can both exacerbate patient distress and negatively affect their medical condition, which can also increase demands on crew. The H160 addresses both of these factors with the lowest in class sound and cabin vibration. Ultimately, it offers the appropriate combination of range, cabin size and comfort and efficiency. It is the most effective way to safely transport patients over vast distances in the Australian environment.”

TAKING CARE OF PATIENTS AND PRESSURE OFF PILOTS

As the pilot chiefly responsible for the demo tour, few people would be as well placed as Olivier Gensse to talk about how well suited the H160 would be for Australian HEMS missions. He points out that when time is of the essence and when pilots and crew really need to focus on the patient, the H160 has the features to make a difference. This is because one of the ambitions for the H160’s design was to create avionics which support the pilot and allow them to focus on the mission.”We really tried to institute a step-change for the future of safety with this aircraft,” says Gensse. “Pilot workload is very low, which I think is a key point—especially for HEMS missions.” Even after being in Australia for a relatively short period of time, the variability of the climate and geography left an impression on Gensse but he firmly believes that the H160 is the best option to respond to both of these challenges thanks to systems designed to prevent human error, even in the harshest Australian weather. “The pilot can really use the autopilot, for example, to recover and stabilise the helicopter, whatever the conditions, and you even get a pre-alert [for vortex phenomenon] and if the pilot requires it, with only the press of one button, it will fly safely.”

A NEW STANDARD FOR CRITICAL CARE

The demo tour allowed operators a futuristic glimpse of HEMS. Bigger cabins and smoother flights to help patients. A larger radius of operations to reach people who need help. Avionics which allow pilots to prioritise the patient. High availability that ensures the helicopter is always ready to answer the call. In Australia, where the landscape is rugged and challenges fierce, the H160 is ready to offer a lifesaving helping hand.

1: Richard Ward, Sales Manager at Airbus Helicopters.

2: Olivier Gensse, Airbus Helicopters Test Pilot.

3: The H160’s range makes it ideal for patient transfer missions across Australia’s vast continent.

4: The H160 flying above the iconic Sydney Harbour bridge.

5: The H160 flies off into the sunset.

Technology that saves lives and warms hearts

Graeme Gale is the CEO of Helicopters Otago in New Zealand which operates a fleet of emergency medical services helicopters for the lower half of the country's South Island.

1: Graeme Gale, CEO Helicopters Otago.

2: The five-bladed H145 has transformed how Helicopters Otago operates.

FOR WHICH SPECIFIC HEMS MISSIONS DO YOU USE YOUR AIRBUS HELICOPTERS AND HOW HAVE THEY IMPROVED YOUR OPERATIONAL CAPABILITIES?

Graeme Gale: We use them for everything. We do everything from pre-hospital, in the hospital, we do search and rescue, we do offshore missions, we do mountain rescues, we do police operations. So, we use them for everything that we're commissioned to go and do. Moving to the H145 and then the five-bladed H145 has transformed how we operate. It's brought a whole lot of new technology, it's brought reliability, it's brought a lot of safety aspects, and it's enabled us to do missions that we couldn't do before and do them safely, by having a four-axis autopilot, for example, and doing instrument flight rules (IFR). It actually opened up a whole window of safety aspects in that area.

HOW DO HELICOPTERS CONTRIBUTE TO MEDICAL PROVISION THROUGHOUT THE COMMUNITIES YOU SERVE?

G.G.: The helicopter is absolutely a critical component of getting the medics to the patient, whatever care they need, and then getting them to definitive care and starting their rehabilitation with the right level of paramedics to give the care on the scene. And I think that's important, that we're not just going with any old paramedic. We're going with high-level critical care paramedics, or doctors if we need them, to actually get that patient to definitive care in a better state than what we've picked them up in. One group that gets consistently overlooked is the engineers. Without the engineers, no one is going anywhere. They are one of the most critical parts of the operation.

WHAT CHALLENGES DO YOU FACE IN THE HEMS SECTOR?

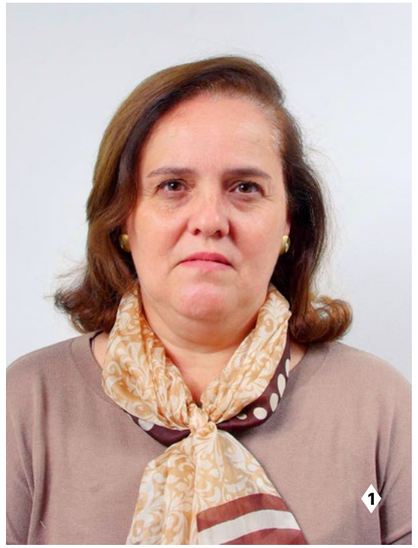
G.G.: I think the biggest challenge, and not just in New Zealand but in all operations around the world from what I can see, is the funding models. The funding models are not that good in the EMS sector, period, in my view. But we're still relying on the community to fund the shortfall. And that is a challenging issue for the community trusts, particularly when we've got multi-million-dollar helicopters now. And we need the latest machines to be able to do these challenging, life-saving missions that we previously couldn't do. You know, in the last 10 years, we're doing probably 20% more missions that we couldn't even look at before. So, that's transformed, but with that, there comes a cost—to actually fund it. That is probably our biggest challenge.

ARE THERE ANY EXAMPLES OF WHEN YOUR HELICOPTERS HAVE BEEN CRUCIAL DURING A RESCUE MISSION?

G.G.: Often people want to know the goriest, blood thirstiest job that we've been to but don't let that take away from the little old lady that's 85 years old that needs transport to the hospital, because she's just as important as the person that we're rescuing on the top of a mountain at 11,000 ft. Or someone that's had a really bad day in a car accident. Whilst we do all the critical missions, there's still those other missions, for example getting that little old lady safely and quickly into the hospital in the time frame. It is satisfying when you go and do a mission that's got particularly young children and they've got their whole life ahead of them, and you actually save that life. That, I think, touches the hearts of everyone that's actually on the mission and it's only made possible because of the amazing new equipment we're using.

Brazil: its doctors, helicopter crew and the H135

Local helicopter emergency medical services (HEMS) crew and medical practitioners share their experiences of the successes and challenges of saving lives in a Brazil that is constantly evolving.



1: Dr. Maria Cecilia Damasceno.

In a country as large as Brazil, with a geography encompassing long coastlines, mountains, rainforests and the urban megacities, ensuring consistent healthcare provision is a continual challenge. Across the country, HEMS pilots and paramedics respond quickly to incidents of serious trauma, making lifesaving interventions by urgently transporting victims to hospital, where dedicated doctors provide deeper care. As Dr. Maria Cecilia Damasceno, the emergency doctor overseeing all emergencies within the São Paulo State Health Department, explains, “[helicopters] can shorten the distance and take the patient to the right hospital. In other words, the hospital with the speciality or all the specialities that the patient needs and that will make a difference to their survival.” However, even successful HEMS networks such as in Brazil may face new challenges, like higher volume from growing populations and even increasingly severe natural disasters, due to the consequences of climate change.

TECHNOLOGY AND TEAMWORK

Colonel André Madeiro, Head of the State Department of Aviation, and Lieutenant Colonel Elaine Monteiro, Director of Internal Control at the State Department of Aviation, have experience of both flying HEMS missions and of strategic responsibility at a state level. They highlight the importance that a particular helicopter can have in saving a life and how a HEMS crew must operate in perfect harmony with each other to save lives. For Colonel Madeiro, a HEMS pilot, a helicopter that allows crews to focus on the mission can make a huge difference. “Today, the technology that adds the most value to our service is automation,” he notes. “The H135’s four-axis autopilot reduces workload, brings much more peace of mind to the entire crew, and also raises operational standards to new heights.” Lieutenant Colonel Monteiro also highlights another aspect of a perfect HEMS helicopter: space. “Using the H135 for aeromedical operations is a major advantage,” she states, “because in addition to being a versatile aircraft, it also offers more space inside the cabin. Having more space allows us to better position patients and attend to them with all the resources and technical equipment we need to use in a way that is more comfortable, not only for the crew, but also for patients.” Both crew members emphasise the necessity of seamless teamwork to manage such high-stakes missions. “The relationship between the pilot and the medical support operator needs to be synergistic so that we can operate effectively in Alagoas,” says Monteiro. Madeiro agrees, underlining the pressure everyone is under: “They [crews] have to work in harmony. We work with clearly defined responsibilities, where everyone knows their role inside the aircraft. Communication is very restricted. We only really talk about the key aspects of the incident and the flight.” ...

2: The versatility of the H135 is ideal in Brazil which uses it for a variety of missions—including HEMS.

... SUCCESSES BRING CHALLENGES

The constant challenges faced by medical staff and HEMS crew are both highly demanding and incredibly rewarding. These difficulties and job satisfaction demonstrate how highly appreciated helicopters are, as part of the lifesaving chain. Dr. Damasceno doesn't need to look far from home to be reminded of the difference that a helicopter can make. "My next-door neighbour was a police officer and she had a very serious car accident," she says. "She was rescued by the Águia [São Paulo State Military Police helicopter] and taken to Hospital das Clínicas. She spent eight months in the intensive care unit, and every time I saw her... she'd give me a big hug and say, 'Thank you so much. Your services saved my life. The helicopter saved my life.'" When asked about her most striking memory, Lieutenant Colonel Monteiro recalls an event that took place only last year. "The incident that I think stands out most in my entire career as a nurse and my stint with the State Department of Aviation was the accident that occurred last year in Serra da Barriga in Alagoas, where we had 40 victims to attend to," she says. "A school bus plunged down the side of the mountain and 40 people were injured. With aeromedical support, we were able to reach the site and rescue the people who had survived the chaos caused by that major accident." When describing the most memorable event in his career as a pilot Colonel Madeiro spoke of the flood-relief operation in 2010. "It was extremely exhausting work and it turned out to be quite remarkable, as we had to improvise in various situations in order to respond to this specific incident," he says. "We rescued around 23 people with each helicopter and really had to think on our feet, given the circumstances. The river was rising to a level that would put the people on the rooftops at risk. There was a very high risk of these people drowning. We had to get them out as quickly as possible. We had to tie things down inside the aircraft and on the winch so that we could get these people off the roofs as quickly as we could. In one day, we rescued 53 people from the rooftops and the surrounding trees."

3: The H135 lands on one of Brazil's many beaches.

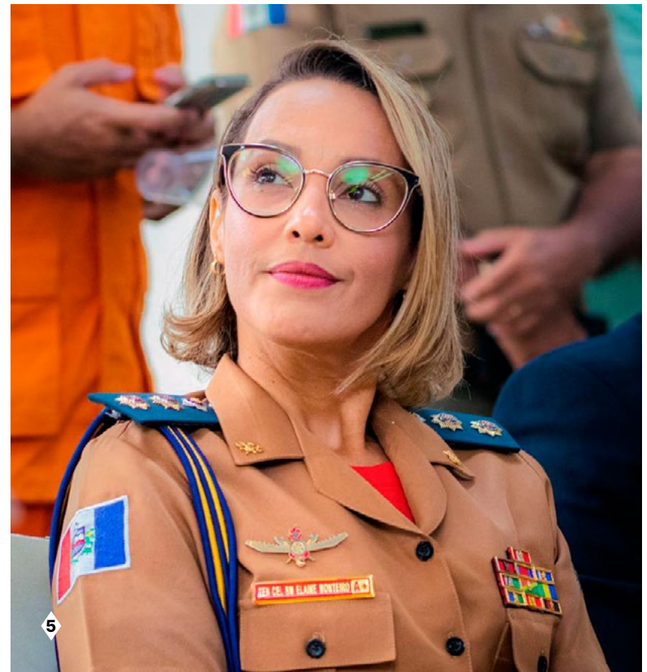
The critical success of these HEMS missions throughout the country persuades the Brazilian caregivers and HEMS crew that the biggest challenge is scaling up the provision so that more people can be rescued in the future. In a country the size of Brazil this is hugely challenging for a major public service—and the specificities of HEMS provision are not necessarily simple. Dr. Damasceno underscores the twin need for "more helipads and more safe flight locations so that we can safely transport patients to hospital; and increased development within hospitals so that true trauma centres can capitalise on the time saved by rapid air transport."

CONTINUOUS DEVELOPMENT

When the aim is saving lives, medical staff always want to do more. At Airbus Helicopters much is made of constantly enhancing the product. For the Brazilian doctors and HEMS crew this is also a priority, but they are also focused on the human factors. As Lieutenant Colonel Monteiro says, their focus is also on the commitment to "continue to improve our skills and technical expertise, and better serve our people."

"The focus is on the commitment to continue to improve our skills and technical expertise, and better serve our people."

Lieutenant Colonel Monteiro



4: Colonel André Madeiro, Head of the State Department of Aviation.

5: Lieutenant Colonel Elaine Monteiro, Director of Internal Control at the State Department of Aviation.

How book and claim enables SAF use for HEMS operations

Book and claim* is helping to promote the use of sustainable aviation fuel (SAF) with the deployment of two H145 helicopters for EMS missions in Catalonia (Spain). This major innovation has been made possible by close collaboration between SAF Hélicoptères and Airbus. An explanation follows.

3

**Book and claim* is not recognised by the regulated markets, nor by the EU Renewable Energy Directive or CORSIA certification. However, Airbus believes this could be a powerful lever to make sustainable aviation fuel (SAF) more accessible and is advocating for the recognition of this lever.*


1


2

Service Aérien Français (SAF) Hélicoptères is a long-standing operator in France. However, the acronym SAF now also stands for sustainable aviation fuel. It might be a happy coincidence that a service contract has brought the two SAFs together, but this link up also provides a valuable lesson for the future. “Under the terms of our service contract with the Catalan Department of Health’s emergency medical services (EMS), we provide two H145 helicopters along with the pilots, technical aircrew, line maintenance and training,” explains co-CEO of SAF Aerogroup, Jean-Louis Camus. “These two helicopters support two hospital bases, which in turn supply the medical teams.” So far, so very traditional. What is less conventional is the environmental stipulation written into the contract signed by both parties. “The decision to mandate sustainable aviation fuel (SAF) in our request for proposal reflects our core value of environmental responsibility,” stresses Juan Carlos Gomez Herrera, from the Catalan administration. “It’s a natural extension of our duty to promote public health—not only through immediate medical care, but also by reducing long-term environmental impacts.”

SAF Hélicoptères responded to this requirement by taking advantage of the book and claim system in cooperation with Airbus Helicopters. But what does it actually entail? Using SAF requires the fuel to be made available at a given airfield, by means of pipelines or tankers. While the logistics are perfectly possible for a major airport, they remain out of reach for a small hospital helipad. Therefore, instead of promoting the fuel by using it directly, the system requires payment to be made for a specific production volume. The fuel itself is then consumed by another operator. “In my contract, I state that I will pay the equivalent of a portion of my helicopters’ fuel usage in exchange for a certificate,” summarises Jean-Louis Camus. “But what sounds like a simple solution on paper is actually quite complex to implement.” This assessment is backed up by Laurie Ceccan, who is responsible for book and claim at Airbus Helicopters. “In the short term, SAF is the key component in our plans to decarbonise aviation,” says Ceccan. “We have therefore invested a lot of time and effort in this system, in which Airbus acts as a facilitator. We source SAF certificates at the best price through direct calls for tenders from producers. Then we work with the platform provided by our partner RSB, an organisation that supports a transition to a sustainable bioeconomy, to manage and transfer these certificates to our clients. The process is totally transparent for the operator and the end user of the helicopters. Ultimately, the convergence of everyone’s goodwill allows us to achieve this solution.”

“This collaboration has allowed us to see how the book and claim system can provide traceable, verifiable SAF benefits, even where direct physical supply is not feasible,” notes Juan Carlos Gomez Herrera. “The SAF certification system implemented by RSB and supported by Airbus provides the independent verification, traceability and compliance we require to ensure credibility. This rigorous validation guarantees that the SAF attributes we purchase translate into real, measurable carbon reductions—consistent with our ethical code’s emphasis on honesty, accountability and sustainability.” Catalonia’s ambition is now to strengthen its requirements for SAF in future calls for tender. At SAF Hélicoptères, there is a readiness to extend book and claim to other applications. For its part, Airbus Helicopters is promoting the scenario to its clients. It seems the stars are aligning to give SAF its rightful place in the world of rotary wing aviation.

1: Jean-Louis Camus, co-CEO of SAF Aerogroup.

2: Laurie Ceccan, Head of Sustainability for Global Business at Airbus Helicopters.

3: The team at the Catalan Department of Health, with Juan Carlos Gomez Herrera on the left.

SAF

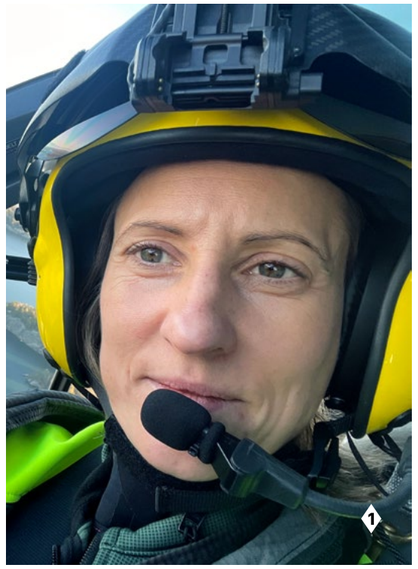
SAF Hélicoptères is a major player in the French and international helicopter world, going back more than 40 years. Three service lines have dominated the group’s activities from the outset: medical evacuation and HEMS, firefighting, and humanitarian missions. Today, SAF employs 600 people with a global fleet of more than 100 helicopters based at some 40 locations around the world. SAF was the first private operator of the H145 and currently has seven of the type in service, including the two in Catalonia. It also operates 20 H125s, 21 H135s and 7 Super Pumas.

HELICOPTERS SERVING THE CATALAN PEOPLE

Covering an area of 32,108 km² and with a population of over 8 million, Catalonia’s geography makes the helicopter an essential mode of transport for emergency services in the most tricky-to-access areas. With four bases at its disposal, Catalonia can guarantee a response time of under 30 minutes in 90% of cases. Around 3,000 missions are flown every year, resulting in a total of 2,000 flight hours. Some 85% of the activities involve emergency evacuations, while the remaining 15% relate to inter-hospital transfer flights.

Winter wonder: Sweden's helicopter emergency medical services

Flying HEMS operations requires skill in the face of the unexpected—even more so in Sweden, where climate and topography play a role. H145 chief pilot, Captain Kate Lindvall, explains.



1: Avincis Sweden's H145 chief pilot, Captain Kate Lindvall.

2: Two of the five-bladed H145 helicopters used for Sweden's HEMS operations.

3: A helipad with a view. Sweden's beautiful landscapes can also present pilots with challenging flight conditions.

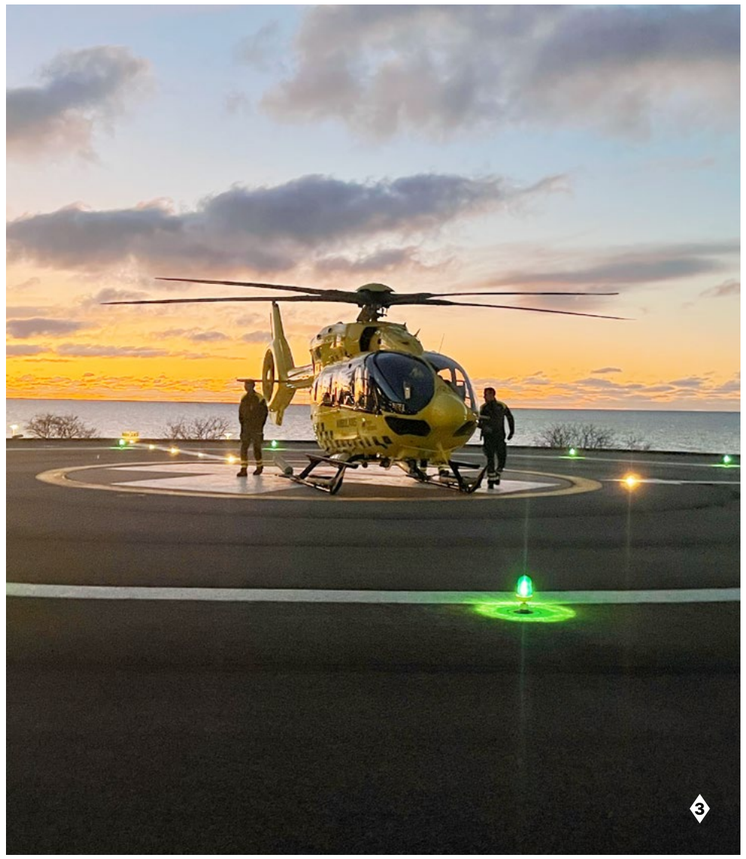
Twelve years flying oil and gas missions out of Norway was nothing compared to the unpredictability of helicopter emergency medical services (HEMS) missions in Sweden. "One minute I can be flying across the Baltic, under the clouds to avoid ice, and the next I'm landing in a green field on Gotland [off the coast of Sweden]," says Captain Kate Lindvall, H145 chief pilot with Avincis Sweden. Lindvall flies HEMS on the island of Gotland for Avincis, a global emergency aerial services operator, transferring accident victims and emergency patients to local Visby Hospital. She also carries patients on inter-facility transfers to Stockholm's Karolinksa University Hospital. While an ambulance will take hours, including the trip by ferry, the H145 does the work in less time, in poor weather, despite wind, snow and everything in between. "The Baltic gets pretty hostile in winter," she laughs.

ICE AND ISLANDS, A DOUBLE CHALLENGE

The Stockholm region with its archipelagos and the island of Gotland hold a number of challenges for HEMS pilots. When responding to emergencies in the area Lindvall's colleagues are adept at one-skid landings, setting the helicopter down on a rock to disembark the nurse and doctor. Similarly, flying low over a major city like Stockholm requires that pilots keep to strict safety and sound standards to minimise the impact on residents. Avincis Sweden operates 13 aircraft out of 10 bases, with an additional 13 aircraft and 8 bases for fixed wing ambulance services in Norway, ensuring HEMS coverage for the greater Scandinavian region—a key service both in winter and summer. During 21-23 June 2025, for instance, they recorded 124 missions for all bases, with the Stockholm area clocking more than 80 missions in 3 days. To effectively serve patients and complement an existing Airbus helicopter fleet that includes the five-bladed H145, Avincis has been investing in the fleet, taking delivery in June 2025 of two five-bladed H145s for its Stockholm operations, for a total of four of this newest H145 version.

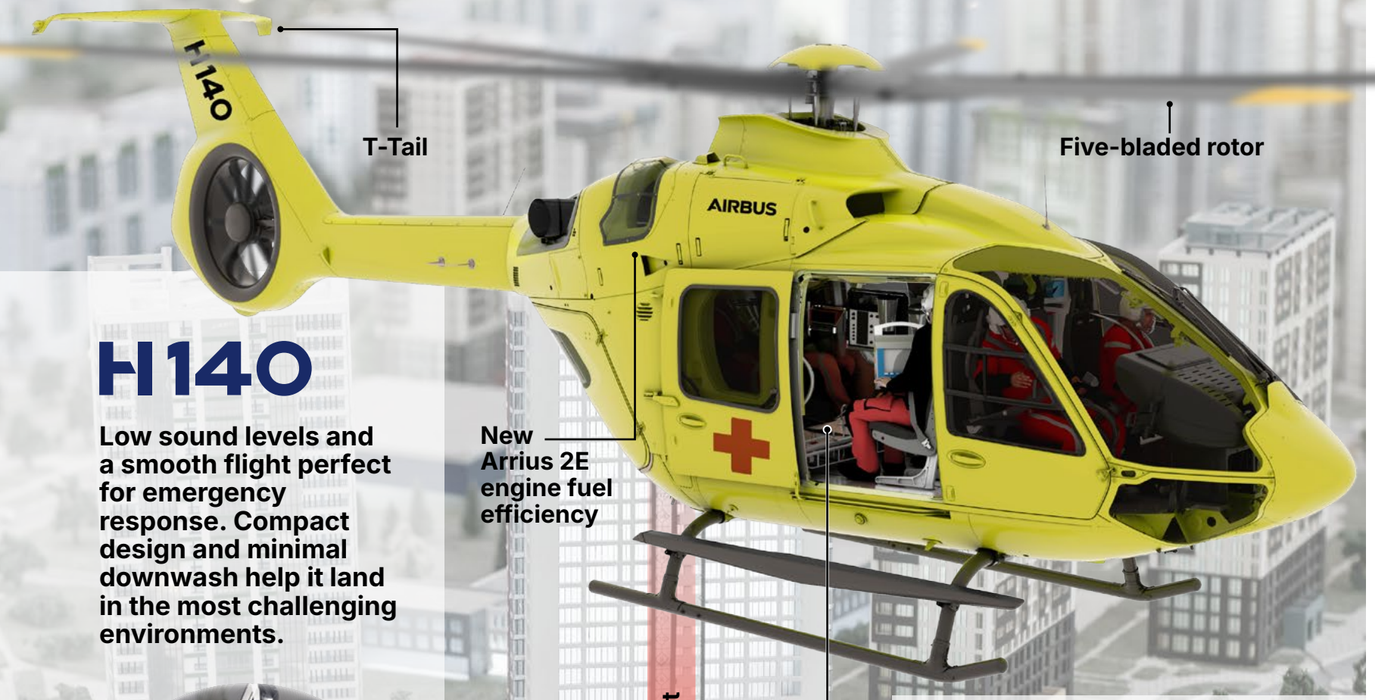
NO BETTER AIRCRAFT

"I remember thinking, 'wow, I love this aircraft,'" says Lindvall, recounting a recent flight to Stockholm with a critically ill patient. Cloud ceilings were low and she was initially on an instrument approach to Stockholm Bromma airfield but broke off for a visual approach to Karolinska hospital. She was about to tell the control tower she would need to land at the airfield when, "suddenly I said, 'I see the hospital,' and we continued in and landed. Nothing more dramatic than that, except for the helicopter," says Lindvall. "It went from being stable in poor-weather IFR over the Baltic, to changing completely to the big city, flying 200 feet above rooftops with low clouds and reduced visibility — I can't think of a better aircraft to have flown in that situation." It is precisely its advanced features that make the H145 a hand-in-glove fit in the Swedish landscape. The five-bladed H145's 3,800 kg maximum take-off weight means Lindvall can take extra fuel, allowing her a buffer when planning alternate routes. And its rear-loading patient bay and cabin capacity facilitate patient care. More, the Aerolite medical interior has everything needed for a first responder call, including oxygen, intravenous drip, trauma kit and a chest compression device. Lindvall's flights sometimes include taking a patient to Stockholm for a scheduled surgery; at these times, the helicopter is reconfigured to fit two stretchers, to bring two patients to the mainland. Other times it will be an emergency that allows only the time to go straight on. No matter the case, "the H145 is so smooth and quiet, I think that's the biggest difference to patients," she says, describing her past year at Avincis. "Flying air ambulance was always a dream. It's heartwarming to see the level of compassion the medical team shows the patient."



Airbus helicopters for emergency medical services

Air ambulance, inter-hospital transfer and critical care: Airbus' products are the backbone of modern HEMS operations.



H140

Low sound levels and a smooth flight perfect for emergency response. Compact design and minimal downwash help it land in the most challenging environments.

Helionix®

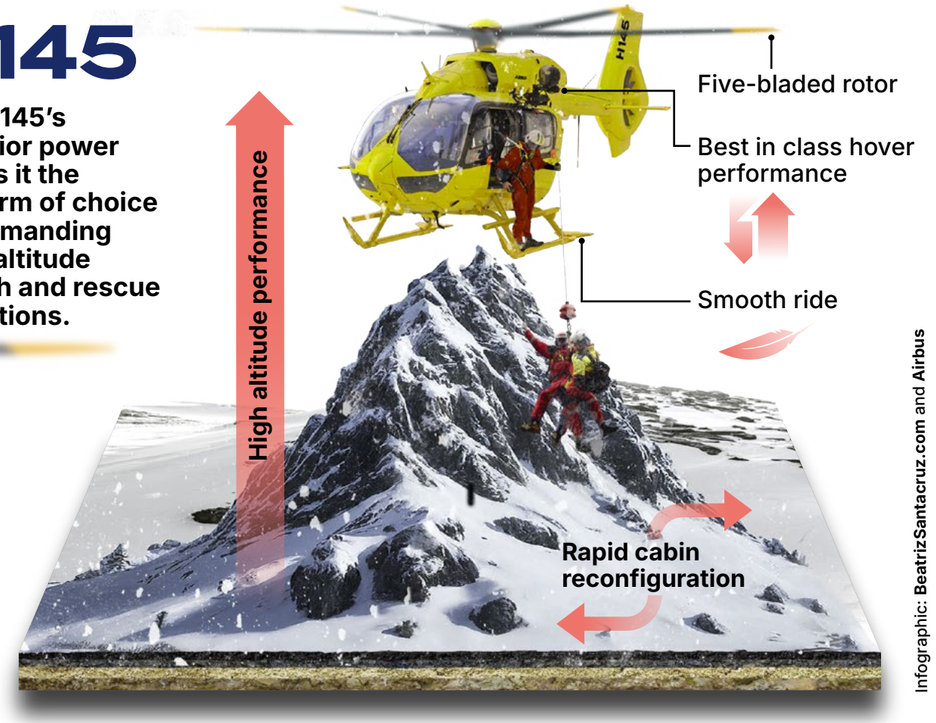
Helionix for the H135, H140, H145 and H160. Reduces pilot workload, increases safety and enhances focus during critical HEMS operations.

H135

This proven performer is the HEMS leader worldwide, logging millions of flight hours for these missions.

H145

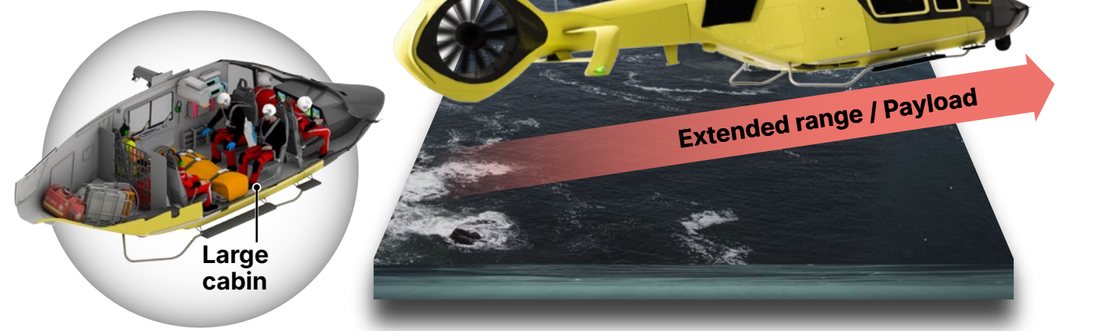
The H145's superior power makes it the platform of choice for demanding high-altitude search and rescue operations.



Infographic: **BeatrizSantacruz.com** and **Airbus**

H160

The H160 offers speed, comfort and range for long-distance medical evacuations and transfers. Made for intensive care unit (ICU) long-range transport.



H160: shaping a new generation of test pilots

TWIN-ENGINE TRAINING WITH THE AIRBUS H135

David Farman, Head of Training at SkyAlyne believes the Canadian decision to replace its single-engine training fleet with the twin-engine H135 signals the continuation of a larger trend.

Article: Ben Peggie

A number of countries, such as Australia, the UK, Japan, Germany and Spain, rely on the twin-engine H135. Last year, SkyAlyne selected the twin-engine Airbus H135 for the Royal Canadian Air Force (RCAF) Future Aircrew Training (FAcT) programme, with first deliveries planned for 2026. David Farman believes more military forces will follow suit on account of the intrinsic advantages a twin-engine offers.

A TWINNING SOLUTION

"The selection of the H135 by SkyAlyne fundamentally alters the traditional approach to pilot training," notes Farman. "Training ab-initio pilots on a twin-engine platform like the H135 means that in an emergency, or if a student mishandles the aircraft, there is the benefit of a second engine's power to 'get out of trouble.' More than that, we can avoid the time-consuming process of two separate ground schools and repeating basic manoeuvres. We've seen figures where up to 35% of the advanced course was just re-learning previously taught manoeuvres on the new airframe." Using a multi-engine means the pilot is learning on the same kind of helicopter they will fly operationally. "This choice is about real-world immersion," emphasises Farman. "Since there are no single-engine helicopters deployed operationally within the RCAF, starting on a twin conditions the student from day one for the environment they are moving into. It immediately introduces them to the more complex systems management—advanced autopilots, flight directors, and cutting-edge avionics like the Helionix cockpit—that they'll need for front-line operations."

1: An H135 flying in front of some of Canada's incredible scenery.

THE H135: THE PERFECT TEACHER

Farman is convinced that amongst the twin-engine helicopters on the market, the H135 possesses advantages that make it the perfect choice to train military pilots and rejects the notion that only single-engine helicopters provide a sufficient basis in initial skills. "The concern that a sophisticated twin can't teach basic stick-and-rudder skills is outdated," he says. "The H135 has an incredibly responsive carbon fibre hingeless main rotor head, demanding precise control input from the student, which is essential for building foundational skills." Farman believes it makes more sense to have one helicopter whose functionality can be strategically removed and then gradually added, than to use two different helicopters. "Crucially, the H135's advanced automation can be deliberately downgraded for training purposes," says Farman. "Instructors can strip away layers of the sophisticated autopilot to ensure students master hands-and-feet flying before progressing to complex scenarios. Conversely, they can activate automation to mirror advanced operational aircraft, which has the added benefit of developing systems management skills far beyond those that previous generation aircraft were able to provide. The most impressive training asset, however, is the simulated engine-out mode. With the activation of a switch, the instructor can perfectly mimic a catastrophic engine failure—complete with emergency displays, rotor droop, and a yaw kick—without any actual reduction in power available. It's an illusion, but it's fully convincing to the student and provides a superb, safe environment for mastering emergency procedures."

DOUBLE STANDARD

Farman believes the logic is so compelling that others are bound to follow suit. "SkyAlyne's decision is a clear signal," he states. "The combined advantages of enhanced safety, superior efficiency and better real-world readiness offered by modern multi-engine training platforms are now simply too compelling to ignore. We believe this is the start of a trend where twin-engine helicopters will become the standard platform for ab-initio military pilot training globally."

2: A twin-engine helicopter such as the H135 makes perfect sense for training military pilots.

3: The H135's advanced automation can be deliberately downgraded for training purposes.

4: Experts believe that more countries may seek to use twin-engine helicopters for military pilot training.

BORN TO RUN: THE NH90'S RECORD FLIGHT IN NEW ZEALAND

With a large zone of operations to cover in the southwest Pacific, the Royal New Zealand Air Force (RNZAF) needs its fleet of NH90s to go the distance. Fortunately, the specialised military helicopter is delivering.

Article: Ben Peggie

The RNZAF's jurisdiction is vast, covering a huge area including New Zealand, the Cook Islands and Vanuatu. The logistics to get assets to where they are needed are a key of any military's planning. "Until now, *HMNZS Canterbury* is our primary means to get around the islands," explains Squadron Leader Lachie Johnston, 3 Squadron NH90 Flight Commander. "When other partner nations have the capacity or the need arises, we have also been fortunate enough to have their support and the C-17s to get us around." To become less reliant on partners and minimise the impact of the loss of the *Canterbury* when it is being serviced, RNZAF Squadron 3 seized on the opportunity to perform a particularly long ferry flight from Papua New Guinea back to New Zealand. "That was our first opportunity to exercise what we term the 'extended overwater operations' component. For us, that's flight beyond 50 NM."

1: A Royal New Zealand Air Force NH90 ready to fly.

FAVOURABLE WINDS AND TARGETED TECHNOLOGY

"[In terms of planning and preparation] you talk about 'crawl, walk, run' as a concept, and our trip to Papua New Guinea was arguably our 'crawl' phase," notes Johnston. "Flying from Australia to New Zealand, where the winds are to your back, represented the 'walk' phase, which was important to complete before the inevitable 'run', which is [when] one day our needs might dictate that we have to get some helicopters up in the islands at short notice. With this mission we were able to get about half of our crews through this type of operation. In very short order, we've exercised it and we've actually created a depth of experience in our team, which is probably the most important bit." The mission necessitated long legs flown over water—the longest leg was 660 mi with 480 NM over water—though, thanks to the NH90's features and automation the crew were always confident of the mission's success. Two additional external 1,100-lb fuel tanks were added and the mission was performed under instrument flight rules (IFR). Johnston emphasises that the NH90's automation was crucial for flying such long legs—especially over water. "The fuel management system supported us incredibly well in terms of both managing and monitoring fuel consumption. We took significant confidence out of its fuel performance and its cruise speed and its capabilities with respect to anti-ice and de-icing, as well as the aircraft navigation system which has increased importance in the overwater environment. Having a weather radar that has a sea-mapping and ground-mapping mode was also essential."

SAFETY MARGINS AND INVALUABLE EXPERIENCE

Johnston also notes that while it is not uncommon for helicopters to fly long distances over water, a detailed risk assessment was completed prior to releasing the capability. Fortunately, thanks to the technology and safety features (e.g. floats, weather radar [WXR], inertial nav systems) of the NH90 and the comprehensive training undertaken by NH90 crews, the risk analysis determined these types of activities could be conducted safely, with very little additional risk. Furthermore, the RNZAF was recently able to complete its Software Release 2 programme prior to the flights in question, improving communication—crucial over long-leg flying. "It was helpful that some of the upgrades that came with either our secure comms programme or the Software Release 2 itself actually help support this operation." For Johnston, the record-breaking aspect of the mission is less important than the opportunity to increase operational agility and employment of the NH90 system: "This capability ultimately gives us a bit more autonomy and allows us in the future to respond quickly and get to the islands within a matter of days."

2 & 3: During the long ferry flight, the crew were greeted by some spectacular views.

AIRBUS SUPER PUMA: POWER AND PRECISION FOR AIRTELIS

Airtelis deploys its Super Puma fleet for diverse public service operations, ranging from emergency response during natural disasters and wildfires to critical infrastructure reconstruction.

Article: Isis Franceschetti

Aerial work has become an essential component of these vital missions. Airtelis, a wholly-owned subsidiary of the Réseau de Transport Electrique (RTE), France's electricity transmission network operator, perfectly illustrates this reality, especially for its firefighting tasks. Airtelis' Super Puma asset intervenes around the clock to put out wildfires alongside the Sécurité Civile, France's civil security agency, and the Ministry of Interior. Stéphane Lucchini, a helicopter pilot at Airtelis on the H225, was deployed to help extinguish a massive blaze that hit Les Pennes-Mirabeau and Marseille in the southeast of France in July 2025. During the deployment, the rotorcraft flew with a 30-metre sling and a 4,500-litre water bucket. "When we arrived on the scene at around 12pm, the fire had already entered the city, which means operational conditions were very demanding to make sure everyone could be evacuated and avoid the smoke. The operation took 8 to 9 hours, in coordination with the aerial and ground teams, who did a fantastic job. Overall, we dropped around 500,000 litres of water." The region's rugged terrain and high winds made the job particularly challenging. Lucchini recalls: "We had to be extremely careful in identifying the power lines so we could drop the water between the wires without hitting them. That was really the major challenge of that fire." The endurance of aerial platforms is vital during a fire, as the time spent refuelling allows the fire to reactivate and spread. The Super Puma's range and performance make it the perfect partner. "The H225 is particularly well-suited for this type of scenario. It's a fabulous machine, as it's very powerful. We also benefit from high-precision automation features, which actively help reduce our workload," Lucchini shares.

1: Pilots looking out of the cockpit window while the Super Puma fills its water bucket.

2: The H225 in action battling the fires as they encroached upon Marseille.

3: A Super Puma ready for its mission.

VERSATILITY IN DISASTER RELIEF

The platform's ability to operate across various profiles for public services and security also makes it an asset of choice when it comes to disaster relief deployments. "These are tasks that obviously have enormous meaning and allow us to put our expertise, our resources and our aircraft at the service of the French State," says Laurent Giolitti. The helicopter's versatility was recently showcased during a critical emergency mission after a cyclone hit La Réunion in March 2025. Airtelis dispatched a Super Puma to restore the island's power infrastructure. "The urgency was to restore the network to guarantee the island's electricity supply," recounts Giolitti. The H225 and teams were quickly transported from Marignane, demonstrating Airtelis' ability to deploy whenever required and get to work quickly. "We operated at La Réunion for six weeks, and it was the first time we were bringing our Super Puma so far away on an actual assignment; it was a truly memorable moment," says Giolitti. Over the course of the work, Airtelis delivered the equivalent of six containers to the island to provide temporary access to a power source. These kinds of high-precision operations on transmission lines are exactly why Airtelis chose the Super Puma for its fleet. Giolitti explains: "Airtelis' main operational requirements are related to electrical networks, and that's where a 'flying crane' is the most useful, to save time and intervene in hard-to-reach areas." The Super Puma offers a distinct advantage on complex worksites, with its lifting capacity as a key performance factor—up to four and a half tonnes. Giolitti concludes: "Successfully coordinating the ground and aerial teams' efforts on the power grid is a highly specialised task, and the Super Puma keeps rising to the challenge."

A BAPTISM OF FIRE IN ALBANIA FOR HUNGARY'S H225M HELICOPTERS AND CREW

In the summer of 2025, Albania was particularly affected by wildfires. A multinational response offered support, including aerial assets from Croatia, Italy, Czechia and Slovakia. Despite only receiving their final two H225Ms days earlier, the Hungarian Air Force also joined the operation. Major Gabor Olàh details the helicopters' critical role.

Article: Ben Peggie

1: An H225 follows the shoreline in Albania.

2: Looking down on a water drop. The Hungarian H225Ms completed 20 sorties and executed 300 water drops.

3: Smoke rising from the fires. The H225M is equipped with avionics which reduce pilot workload for such vital missions.

4: The Hungarian H225Ms waiting to be deployed.

Wildfires in southern European countries are becoming more frequent and more intense, as a direct consequence of climate change. The summer of 2025 would prove to be particularly devastating and in July, the European Union Civil Protection Mechanism was activated to trigger a coalition of countries that coordinated to protect Albanian towns and villages and the local residents from rapidly spreading blazes.

500,000 LITRES OF HELP

When responding to such intense fires, there isn't a moment to lose. The Hungarian Air Force received the call for support on the afternoon of 22 July. At 5am the following day planning and preparation began for the mission. Two H225Ms left Hungary at 10am, which meant they could be immediately deployed. "Assigning helicopters and aircrews at short notice can be challenging even with a fleet of 16 and a relatively sizeable pool of aircrews," notes Major Olàh. "We were able to depart at 10am, thus enabling us to fly our first sortie on the first day of the deployment." During a 5-day deployment from 23-27 July, 16 personnel were involved, completing 20 sorties and executing 300 water bucket drops—delivering a total of around 500,000 litres of water—going a long way to help douse the flames.

STANDING UP TO THE HEAT

Complementing local and international rotary- and fixed-wing assets, the H225Ms enhanced the flexibility of the operations, operating simultaneously across Albania. Major Olàh explains that the helicopters were a valuable support to crews in a rapidly evolving situation which necessitated quick decision making. "The crews were redirected from north of Tirana to populated areas in danger, and later had to split their efforts," he says. Obviously, flying in the face of such intense fires is difficult work. "Flying in a mountainous environment can be very challenging because of the turbulent winds, steep slopes, lack of space for manoeuvring, just to name a few reasons. However, my most memorable moment was when we were able to prevent the fire from reaching a village in the vicinity of Kucove Air Base. Dropping water almost next to the houses of the village required real precision flying and was a great success," explains Olàh. Fortunately, the H225M comes equipped with state-of-the-art avionics and automatic flight control systems that significantly reduced crew workload during these taxing operations. The major also highlights that the helicopters had technology that supported the crew's work. "Interestingly, in such a challenging environment the Airbus performance planning application (on iPad) proved to be extremely valuable for complex maximum takeoff weight (MTOW), fuel and range calculations in the challenging environment, and the aircraft delivered the performance exactly as planned."

A PERFECT INITIATION AND A BRIGHT FUTURE

Fighting the fires required seamless integration, with the Albanian Civil Defense providing liaison personnel for full-scale briefings, updates and re-tasking. As well as being ready to go to Albania, the H225M's design allows for high readiness with minimal logistic support, even in a foreign country operating within regular maintenance procedures. Though challenging, Major Olàh believes that the mission in Albania provided Hungarian crews with invaluable experience, stating: "In order to be able to use any platform to its maximum capabilities it is essential to gain real-life experience. Such complex missions, like firefighting, present a perfect opportunity for that. The H225M proved to be a solid, versatile and capable platform."

ABOARD A CRUCIAL CONSERVATION MISSION WITH THE BATELEURS

Join volunteer organisation, The Bateleurs, aboard an Alouette III on a mission to survey vultures in South Africa's northern game reserves.

Article: Heather Couthaud

They flew over a cheetah and cubs as the Alouette cruised over the plain. Martin Schulze dipped the aircraft lower to see more. The big cats didn't fall under today's purview to study vultures, but the information was important to record. "It was an individual we haven't seen in months," says Anel Swart, a conservationist with Wildlife ACT, who led the 5-day mission from 25-29 August 2025. Since 2015, the Zululand Vulture Project, facilitated by Wildlife ACT and chaired by Ezemvelo KZN Wildlife, has been studying the breeding vulture population in KwaZulu-Natal (KZN) province, South Africa. Every five years, it conducts a helicopter aerial survey, initially to understand the breeding criteria of White-headed vultures, whose local nesting has ceased since 2018, and now of Lappet-faced, Hooded, and African White-backed vultures, all in need of conservation. Anel Swart now sat in the back of the heliocpter with a digital tablet, scanning the treetops 50 m below. She'd received a report of a Hooded vulture nest on a farm, and there were signs the population of White-backed vultures were increasing in Opathe Game Reserve. It was crucial to confirm these sightings.

1: Still going strong. Lift off for The Bateleurs' Alouette III.

THE BATELEURS: EMBODYING THEIR EAGLE NAMESAKE

To carry out the mission's need for an area covering 7 protected areas, 18 hours of flight time, flown by an experienced pilot in an aircraft that could handle the workload, Swart approached The Bateleurs. Founded in 1998, the non-profit organisation puts more than 220 pilots and their aircraft at the service of conservation across South Africa. "Our Board of Directors establishes that the applicant we're working with has a legitimate need of this help in both the aerial element and funding," says Steve McCurrach, general manager of The Bateleurs. "Once this vetting is complete, I send out a broadcast email to all our members. We rely on one of them to say they'll do the mission." Thanks to the passion of its volunteer pilots—who account for 70% of the budget, with the rest through fundraising—The Bateleurs are key in helping non-governmental organisations (NGOs) like Wildlife ACT get the data to understand regional environmental issues.

SPOT THE CHICK . . .

This time, it was pilot Martin Schulze who had stepped up. His helicopter, an Alouette III, circled back to an immense tree. Anel Swart had spotted a nest in the sub-canopy. "Closer... move right...stop there..." The Alouette performed the manouevre well, letting Martin Schulze ease nearer the nest. The canopy offered no gap through which to identify the contents—an egg, a chick—and nearby wires added another element to watch for. Schulze navigated into a good angle of sight, mindful of branches. He kept the rotors' downwash from blowing the nest away... the view was good... Swart snapped a photo. Cheers erupted as everyone on board felt the challenge ebb: at last, a Hooded vulture chick in good health, the first to be recorded in the province.

AN INCREDIBLY STRONG MACHINE

To replicate the data collected five years earlier, Swart had requested the Alouette III specifically. This venerable machine, first introduced in 1959, is capable of holding six passengers, and early on had distinguished itself by landing on Mount Kilimanjaro. Swart needed it to fly low, at 20-50 kts, and perform reliably. The Alouette did everything asked of it, handling the wind, manoeuvring around obstacles (and birds), flying backwards, while efficiently using the fuel The Bateleurs supplied each morning. "It's an incredibly strong machine and we could happily have gotten all seven seats filled up," says Schulze. The identification of chick and nesting site made, the helicopter flew off to regain its route. This sighting would be analysed by Swart's team, with data from four Lappet-faced vulture nests and a cluster of White-backed vultures, to support engagement with the managers of these wildlife preserves and highlight the value of the lands under their protection.

2: Sunset in South Africa. The Bateleurs are key in helping NGOs like Wildlife ACT obtain data that helps them understand regional environmental issues.

3: Two crew members examine the Alouette III's rotor.

4: The Alouette III lifts off.

ESTIMATED VULTURE BREEDING PAIRS IN KWAZULU-NATAL PROVINCE

Lappet-faced: **5**
Hooded: **1**
White-Headed: **0**
African White-backed: **0**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