

ROTOR

JOURNAL



A EUROPEAN FIRST

Inter-hospital Air Service in IFR

EUROCOPTER DE MEXICO SA

Mexico, Land of Opportunities

POLICE AND HOMELAND SECURITY

THE LONG ARM

OF THE LAW



More than a helicopter. A place where medical science can work wonders.

Quieter, smoother, and with more flexible options, Eurocopter EMS helicopters are designed by doctors for doctors with the highest levels of emergency medical care in mind. Ergonomic cabins with easy patient access. Space onboard maximised for superior medical treatment, from transporting patients to offering in-flight intensive care. Engineered for faster response times to get patients to the treatment they need quicker. When you think saving lives, think without limits.



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Fully Committed to Safety

Lutz Bertling, *President and CEO of Eurocopter*

Recent news sadly reminds us of the importance of flight safety. Safety has always been Eurocopter's number one priority: It is our solemn pledge to repay the trust shown by thousands of passengers and crews who fly in our helicopters every day.

Because we know how important it is to listen attentively to you, our customers, Eurocopter teams once again organized an Oil and Gas Safety Conference which coincided with Heli-Expo 2009. Such conferences illustrate Eurocopter's commitment to collaborating with oil and gas customers in order to develop robust safety programs that meet their safety needs and offer the highest quality products and services.

In terms of training, the new simulation equipment for the EC225 that recently became operational at Helisim, our training center, and that we will soon be introducing in the North Sea, Brazil and Malaysia is a clear example of our vow to continuously improve safety. Another example is the flight simulators we are introducing in Germany for the EC135 and the NH90 and in the United States for the EC145 and the EC135.

Furthermore, in November 2008, we performed several IFR, GPS-based connecting flights at low altitudes between two hospitals near Paris as part of a campaign to demonstrate safety enhancements for EMS flights.

We are also continuing to make efforts in innovation: As a member of the consortium behind the HeliSafe® TA project, we have played an active role in developing the HeliSafe® concept by contributing our expertise in several areas, especially in terms of parameter optimization for airbags and safety restraint systems. These safety devices, much like those used in cars, will play an essential role in the near future in reducing the risk of serious or fatal injuries in the event of an accident.

We are also developing new offers such as ALERTS Vision, an innovative flight data monitoring and cockpit imaging device that will soon be standard on Ecureuil family helicopters.

At Eurocopter, we are fully committed to safety as the most important aspect of our business.

A handwritten signature in black ink, appearing to read "Lutz Bertling". The signature is stylized and written in a cursive-like font.



Skis for the NH90

The TTH “Tall Cabin” version of the NH90 has been equipped with skis for the Swedish Army, which will be operating the helicopter in areas with thick snow cover. Development flights were performed in the Alps in February 2009 to determine the new flight envelope of the NH90, as its behavior is affected by the skis. All the flight phases were assessed: taxiing, takeoff and landing.



The EC725 is Put to the Test

The three EC725s of the French Air Force based in Kabul are on alert round-the-clock. They must be ready for take off within 30 minutes during the day and within less than an hour at night. Dust, heat, high altitudes and ground-air threats are all part of a day's work for the EC725s.

EUROCOPTER DE MEXICO SA

MEXICO, LAND OF OPPORTUNITIES



► MEXICO

- **Population:** 109,955,400 (2009 estimate)
- **Surface area:** 1,984,375 km²
- **Capital:** Mexico City
- **Official languages:** Spanish and 62 indigenous languages

The Mexican Ministry of Defense recently signed a contract for six EC725s—a major success for Eurocopter de Mexico SA (EMSA), which sold the first Eurocopter helicopter to the Mexican Air Force in forty years.

ARTICLE: BELÉN MORANT

The six EC725s, which are scheduled for delivery in 2011 and 2012, will be used to transport troops and to evacuate natural disaster victims.

“This is a major achievement for us,” says Dominique Gavault, CEO of Eurocopter de Mexico SA, “but it also sets a major challenge. Up until now, American and Russian helicopters have been the mainstays of the Mexican Ministry of Defense. This new contract marks the dawning of a new era.”

The contract also includes support services, such as training for pilots and technicians, technical support and spare parts procurement. Once the helicopters have been delivered, EMSA will be tasked with providing logistics support, managing warranties and repairing spare parts.

“We have already implemented measures to adapt our activities to better meet our customer’s needs,” explains Mr. Gavault. “According to estimates, the Ministry of Defense and the Mexican navy will need several dozen medium- and heavy-lift helicopters.

is contract may only be the first of many, and we plan to increase our work force to 200 employees and to add another 1,000 m² to our facilities in order to strengthen our maintenance and support activities.”

In related news, EMSA has created a flight school to provide pilots with ab-initio training (see article, page 29). Eurocopter’s Mexican subsidiary also plans to expand its support activities to provide overhaul and repair services for the entire Eurocopter fleet in Central America, and will also be increasing its industrial activities in Mexico. ■

► THE CENTRAL AMERICAN MARKET

Close to 350 Eurocopter helicopters are currently flying in Central America, representing more than half the local market. Energy (oil and gas) and the public sector (security, emergency services, passenger transport, etc.) are the most active market segments.



FEBRUARY 22 TO 24, 2009

► HELI-EXPO

At Heli-Expo 2009 held in Anaheim, California, Eurocopter unveiled the corporate version of the EC175 to the public for the very first time. Eurocopter also showcased an EC145 in its law enforcement configuration, an AS350 B2 AStar belonging to the Los Angeles Police Department and the EC135 training cockpit. This year, Eurocopter highlighted its service offers, with a special area on the stand set aside for presentations throughout the show: A total of 14 sessions were held over three days for more than 500 people. Visitors were also able to discover the full range of Eurocopter services via a high-definition multi-touch interactive table.



FEBRUARY 22 TO 26, 2009

► IDEX

Eurocopter was part of the EADS stand at the International Defence Exhibition and Conference (IDEX) held in Abu Dhabi (United Arab Emirates). An EC135 in its law enforcement configuration was on static display, and mock-ups of the NH90, EC725, EC635 and EC145 could also be admired by visitors to the stand.

More than 650 Eurocopter helicopters are currently flown in Arab countries, with 80% operated by the military.

MARCH 10 TO 15, 2009

► AUSTRALIAN INTERNATIONAL AIR SHOW

At the Australian International Air Show held in Avalon from March 10 to 15 of this year, a support contract was signed by the Australian Commonwealth and the consortium Team Aero, made up of Eurocopter's subsidiary Australian Aerospace, Lockheed Martin and StandardAero, for the fleet of C130J Hercules operated by the Australian Royal Air Force. Australian Aerospace has already gained a great deal of experience performing maintenance work on the Caribou and Orion airplanes flown by the Australian Royal Air Force.



FEBRUARY 11 TO 15, 2009

► AERO INDIA

Eurocopter recently participated in Aero India, the largest defense trade show in Asia, which took place from February 11 to 15, 2009, in Yelahanka. Eurocopter has enjoyed strong ties with India for many years now, which has helped the Group secure a 55% share of the military market (including the aircraft manufactured by Hindustan Aeronautics Limited) and approximately 50% of the civil market. This is further proof that Eurocopter's wide range of helicopters perfectly meets the needs of Indian operators.

UNITED KINGDOM

SUPPORT CONTRACT SIGNED

On December 19, 2008, Eurocopter and the UK Ministry of Defence signed a through-life support (TLS) contract for the Puma and Gazelle helicopters operated by the Royal Air Force. This contract, which will run through to the end of 2013, is in line with the approach adopted by the UK Ministry of Defence for modernizing and streamlining all the support contracts for the armed forces' helicopter fleets. It supersedes a number of former contracts for the Royal Air Force's HC1 Pumas and AH1 Gazelles, and contains firm guarantees concerning equipment availability. ■



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UNITED KINGDOM
THE EC135 GOES AN EXTRA MILE FOR WIND FARMERS

At the end of December, 2008, Bond Air Services ordered an EC135 to perform maintenance at the Greater Gabbard offshore wind farm 15 miles off the eastern coast of England. The helicopter will enter service by the end of 2009. Its main missions will be to perform wind turbine maintenance operations and to transport personnel and complex equipment. Markus Steinke, CEO of Eurocopter UK, was delighted to have signed the contract with the largest EC135 operator in the United Kingdom: "The EC135 is the safest, most economical solution for operators working in this fascinating field." ■



► CORRECTIONS

An error was included in the article on page 25 of Rotor Journal 79: Two helicopters participated in the rescue operation performed in December, 2006, off the coast of Iceland—an AS332 Super Puma and an AS365 Dauphin. Both flight crews were made up of members of the Icelandic Coast Guard. Only the copilot of the Super Puma was on a temporary assignment from the company Airlift.
On page 14 of Rotor Journal 79, the correct title is: The EC725: In-Flight Refueling
On page 12 of Rotor Journal 80, the announcement of the new Eurocopter internet site was a bit premature. The site is still under construction and should be on line soon.

10,000

... The number of flight hours performed by the first EC130 that was delivered to the operator Blue Hawaiian in 2001—an event that was celebrated with Eurocopter on February 22 at Heli-Expo 2009. The launch customer for the EC130, Blue Hawaiian has a fleet of nine EC130s and eight AS350 B2 AStars. The helicopters are based on the islands of Maui, Oahu and Kauai.

AGENDA

In June and July, Eurocopter and its subsidiaries will be participating in various air shows and events all over the world.

JUNE 3 TO 5, 2009

► URGENCES
Paris (France)

JUNE 15 TO 21, 2009

► PARIS AIR SHOW
Paris (France)

JULY 15 TO 19, 2009

► KUALA LUMPUR
AIR SHOW
Kuala Lumpur (Malaysia)

FRENCH GOVERNMENT MCO AND RESCO CONTRACTS

The MCO-RESCO⁽¹⁾ seminar organized by the Eurocopter Repair and Overhaul Department for representatives of the French Army was held on February 5, 2009. The RESCO contract has been in effect for three months now, whereas the MCO contract has just completed its first full year. The goal of the workshop was to perform an assessment of the 2008 activities, and to see what was on the agenda in 2009 in order to improve customer satisfaction. The French Army awarded Eurocopter a score of 7.31/10 in the customer satisfaction survey conducted in 2008. Three improvement priorities were established for 2009: Respect commitments for on-time deliveries, halve the number of penalties incurred by Eurocopter and improve the processing of delivery errors. ■

(1) Maintaining in operational conditions the French Army aircraft and EC725s in RESCO (combat search and rescue) configuration



DISTRIBUTION AGREEMENT EUROCOPTER: A MAJOR FORCE IN THE ITALIAN MARKET

On March 3, 2009, Eurocopter and Aersud signed a distribution agreement that will strengthen the hand of Eurocopter's historic partner on the Italian market—the two companies have been working together since 1973. As the numbers go to show, Aersud, which is headed by R. Aichner and V. Morassi, has convinced numerous civil and parapublic customers to opt for the Eurocopter range: The company sold 23 helicopters in 2007 and 34 in 2008. Eurocopter's sales network in Italy can offer customers a full range of services, including spare parts, technical assistance and warranty management. ■

HELISAFE® TA

BETTER PROTECTION FOR HELICOPTER OCCUPANTS

The HeliSafe® TA project has been initiated by the aeronautical industry to develop specially-designed equipment to reduce the risks of serious or fatal injury in the event of a helicopter accident. Devices used in cars, such as airbags, safety restraint harnesses, special seats and safety belt pretensioners may be introduced for helicopters. *Interview with Edgar Uhl, HeliSafe® TA project coordinator for AutoFlug (Germany).*

ARTICLE: GUILLAUME CADEC



© HeliSafe® TA Consortium

► MEMBERS OF THE HELISAFE® TA PROJECT

- Autoflug GmbH (project coordination)
- Centro de Investigacion y Desarrollo en Automocion (CIDAUT)
- Centro Italiano Ricerche Aerospaziali S.C.p.A. (CIRA)
- Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)
- Eurocopter SAS France
- Eurocopter Deutschland GmbH
- Politecnico di Milano
- PZL Swidnik
- Siemens Restraint Systems GmbH
- The Netherlands Organisation for Applied Scientific Research
- Coventry University
- Technische Universiteit Delft

For more information, visit: www.helisafe.com



Who was behind the HeliSafe® TA project?

Edgar Uhl ▶ The project was launched by Autoflug GmbH in 1999 and came to an end in 2007. Our company specializes in the development and production of safety equipment, seats and electronic sensors for helicopters. The original consortium initially included eight partners from seven EU member countries, but as the project advanced, four new partners joined our ranks. All of the partners operate in the aeronautical or automobile manufacturing sectors.

Why was the HeliSafe® TA project launched in the first place?

E. U. ▶ Our main goal was to provide better protection for people in helicopters. Helicopters are extremely complex aircraft, which are normally used for tricky missions. Over certain types of terrain, the helicopter is sometimes the only possible means of transportation.

Helicopters also operate in difficult weather conditions and perform search and rescue operations. Current regulations have focused mainly on overall protection: Energy-absorbing airframes and seats, fire-resistant fuel systems and aircraft structures which maintain their integrity in the event of a crash. Experience we've obtained from real-life situations has convinced us we need to do more. We are developing innovative systems that increase safety for occupants inside the cabin.

What did the project set out to achieve?

E. U. ▶ From the outset, we focused on protecting people. We took inspiration from the automobile industry, where safety standards have improved dramatically. However, unlike cars, many different types of helicopter accidents are possible, and they often occur in inaccessible zones. Our priority therefore was to make it possible for passengers and crew to get out of the aircraft as quickly as possible with no external assistance.

Could you talk us through the project's main stages?

E. U. ▶ The first step was to gather all the available information throughout the world on helicopter accidents. We were then able to devise standard crash scenarios, which we used to perform accident tests in real-life conditions. This first step provided us with a whole range of data on the damage inflicted during accidents. We then performed more precise tests, focusing on seats, to gather comprehensive reference data that we used to design safety equipment for the cockpit and the cabin. A digital simulator was built and validated by comparing its results with the test results. Based on the seat testing, we developed a safety and protection concept that we integrated in the digital simulator. This phase helped us to optimize our equipment and make it as safe as possible. We then manufactured the parts we had designed and installed them in the test mock-ups so we could perform a series of seat tests. At the end of the project, we performed another test in real-life conditions on actual equipment to specifically try out the new concepts we had developed.

What were the results of this project?

E. U. ▶ We have developed a safe cabin concept that includes special safety seats, airbags, optimized safety restraint harnesses with automatic inertia reels, safety belts with pretensioners and load limiters.

Our experiments have demonstrated that these devices can significantly reduce severe or fatal injuries. In horizontal or vertical crash test scenarios, injuries are reduced by 30 to 40%. The results of our research were sent to the regulatory authorities to show them the new technology that is available for improving helicopter safety. ■



▶ EUROCOPTER'S CONTRIBUTION

As a member of the consortium, Eurocopter played a major role in developing the HeliSafe® TA concept. The Group offered its expertise in several areas, such as the definition of crash test scenarios and the optimization of parameters for airbags, safety restraint harnesses and safety belt pretensioners.

A EUROPEAN FIRST - GPS GUIDANCE

IFR INTER-HOSPITAL AIR SERVICE

A major breakthrough in helicopter ambulance services in Europe: Last November, in cooperation with the DGAC⁽¹⁾, the Dreux Hospital Center and the French Association for Hospital Medical Transport via Helicopter (AFHSH), Eurocopter broke new ground in inter-hospital connecting flights. For the first time in France, flights in complete IFR⁽²⁾ conditions were flown between the Dreux and Nogent-le-Rotrou hospitals southwest of Paris.

ARTICLE: RÉGIS NOYÉ

“For a full week, an EC145 in EMS configuration performed the connecting flights at low altitude (3000 feet) with complete GPS guidance using a Garmin GNS-430 receiver,” explained Philippe Rollet, from the Eurocopter Research and Development Department. “For takeoff and landing, we also used the Point-in-Space (PINS) concept: The flight path incorporated a defined point in space that could be flown to after takeoff in visual flight rules (VFR) using ground references visible from the helicopter. Once the defined point had been reached, the same process was used to arrive at the destination, and then an IFR landing was performed. The DGAC, which defined a controlled airspace specifically adapted to our flights⁽³⁾, was completely satisfied with our performances.”

The All-Weather Helicopter

The test flights, which are part of the “All-Weather Helicopter” research program that Eurocopter has been conducting for the past few years, were the second in a series of three test phases focusing on inter-hospital air services.

Phase one was successfully completed in January, 2007, when testing validated the GPS guidance system’s accuracy to follow flight paths. Radar coverage between the Dreux and Nogent-le-Rotrou hospitals was also successfully tested. Once the DGAC completes the necessary regulatory paperwork, a local subsidiary of the INAER Group based in Dreux, the operator Proteus



© INLAAS

Helicopters, will begin transporting actual patients in IFR conditions between the two hospitals.

“Our end goal is to make inter-hospital helicopter services commonplace for certain pre-defined flight routes,” explained

► INCREASING DEMAND IN FRANCE

The use of helicopters for low-altitude IFR medical transport flights in France has become an important issue, due to current plans to reorganize healthcare into specialized centers. This restructuring will increase transport needs for patients requiring specialized care. Yet another reason why the AFHS is studying a possible network of low-altitude IFR flight routes for helicopters between certain pre-designated hospitals. The idea of creating a domestic network of this type originally came from the Swiss air rescue service REGA. "But the project never went through," regrets Heinz Leibundgut, Director of Helicopter Operations at REGA, "because the Swiss authorities have still not officially recognized GPS as a reliable IFR navigation and approach system, despite the many conclusive demonstrations that have been performed." Eurocopter was responsible for one of these demonstrations, performed in Lausanne in 2007 as part of the GIANT European research project. "Our six EC145s have even been certified by the EASA for GPS approaches, and they also meet the Eurocontrol criteria for P-RNAV⁽¹⁾," added Mr. Leibundgut.

(1) Precision Area Navigation, which is even more precise than the basic Area Navigation (RNAV).

© Eurocopter / Eric Raz



► NORWEGIAN TRAILBLAZERS

In September, 2006, the Norwegian operator Norsk Luftambulans (NOLAS) was the first to have a GPS approach procedure certified by its national authorities (Norwegian CAA) for use at the Stavanger hospital, which also makes use of the IFR/VFR PinS concept. "Since then, three other procedures have been approved for other hospitals and are used regularly," said Erik Normann, Chief Pilot at NOLAS. "A total of around forty procedures are to be approved throughout the country. Standard IFR PINS procedures are also used for takeoffs from certain hospitals with air traffic control coverage. All the different points are linked by low-altitude Area Navigation (RNAV)⁽¹⁾ flight routes that are also covered by air traffic control.

The current system makes it possible to satisfy at least part of the ever-increasing demand for IFR medical transport flights." More widespread use of low-altitude IFR flights is likely to spark interest from other public operators, such as the French Gendarmerie and Civil Defense. Both agencies already operate the EC145, which has become the reference in EMS missions in both Europe and the United States.



© NOLAS

(1) Independent navigation via radio-electrical ground beacons, using GPS guidance for example

New Landing Areas

Although hospitals such as Dreux have been able to set up bona fide heliports that are well adapted to this type of operation, most hospitals make do with simple helipads that are often quite rudimentary. It won't be possible to transform all these landing areas into true heliports. Efforts are now being made therefore to find a way of modernizing some of these helipads to allow for IFR PINS landings and takeoffs in complete safety without too many constraints. "It may be possible to progressively implement the procedures over time," suggested Mr. Rollet, "with IFR take-offs and landings performed at authorized heliports. One reason such a compromise could work is that the procedures will only be used by EMS operators, who know the flight paths and visual references like the back of their hands." ■

(1) Direction Générale de l'Aviation Civile / The French Civil Aviation Authority

(2) Instrument Flight Rules

(3) An airspace in which both IFR and VFR flights can be performed

Mr. Rollet. "Helicopters can still be grounded due to weather conditions, even though they can transport patients at least three times faster on average than ambulances and help save more lives!"





THE LONG ARM OF THE Law

The terrorist attacks on September 11, 2001, led to radical changes throughout the world in the way national security issues and possible threats were approached. The most modern surveillance, reconnaissance and communication systems—both on the ground and in the air—now play an essential role in international security policies.

ARTICLE: REGINA LANGE

In response to the 9/11 terrorist attacks, national security agencies with expanded powers were created throughout the world: The Department of Homeland Security in the United States is one of the best-known examples. Their mission is to analyze genuine threats, and to take the necessary preventive measures. Protection

has systematically been beefed up at sensitive sites, such as airports, train stations and public buildings, and along the European Union's external borders in order to fight organized crime and prevent terrorist threats. The most modern helicopters have been called on to act as surveillance and reconnaissance platforms and to provide aerial support. The role of these helicopters has taken on a whole new dimension.

A Key Element of Security Policies

Since 9/11, the surveillance and reconnaissance provided by the most modern airborne systems have become increasingly important. The helicopter can act alone or in tandem with other systems within this new security drive, and has become an irreplaceable element in the fight against terrorism and the war on drugs. The helicopter is particularly effective for reconnaissance, airspace surveillance, data and video transmission, and also for the coordination of rapid deployment forces and RABIT⁽¹⁾ and SWAT⁽²⁾ elite tactical units (see inset).

Helicopters with multifunction capabilities are therefore in increasing demand, and the market has taken off accordingly. Throughout the world, 28 different countries use Eurocopter helicopters for security missions, and the most important markets are currently found in the United States, South America, Europe and Asia. There is high growth potential in Eastern Europe, the Middle East, and certain parts of Latin America, without forgetting China, of course.

An Experienced Security Consultant and Partner

In addition to its wide range of products, Eurocopter offers its experience to its customers to help them develop and implement security policies and standards. The Group can even adapt these measures to local infrastructures and to the specific geography of each country, and can help oversee the different implementation and launch phases on-site. This concept

has already proved successful in the Latin American and Asian markets, and in the new EU member countries in Eastern Europe. ■

- (1) Rapid Border Intervention Teams
- (2) Special Weapons and Tactics (police units specialized in paramilitary operations that work within law enforcement agencies)

► THE INTERNATIONAL CONTEXT

Whereas national security policies used to be limited to each country's own borders, they are now taking on an increasingly international dimension since the events of 9/11. The opening of borders within Europe (Schengen Area) has also required more and more coordination between the police forces, border protection agencies and justice systems of European countries. This new context has increased the role of transnational organizations such as the Organization for Security and Co-operation in Europe, Europol (the European Law Enforcement Organization) and the European Organization for Security, which was created in May 2008. Joint operations to protect the external borders of the European Union from drug trafficking, illegal immigration, organized crime and terrorism are coordinated by the European Agency for the Management of Operational Cooperation at External Borders (Frontex), which set up its offices in Warsaw in 2005.

Eurocopter helicopters are used for law enforcement





and homeland security missions in 28 countries.

LAW ENFORCEMENT AND HOMELAND SECURITY

A Wide Range of Specialized Products

ARTICLE: REGINA LANGE

Helicopters operated by law enforcement and homeland security agencies are judged according to three main criteria, to which the products developed by Eurocopter already fit the bill.

First of all, interoperability and increased compatibility between systems have become increasingly important in the current international context, as countries are working more and more closely together. Second of all, these cooperative efforts require extremely complex, specialized mission equipment and more com-

prehensive support platforms. And last but not least, helicopters must be multifunctional and offer easily changeable configurations, maximum reliability and low operating costs.

As the figures show, Eurocopter has become the reference in the law enforcement and homeland security segment, with an



► international market share of over 50% and a European share of nearly 90%. Michael Rudolph, who is in charge of development at Eurocopter for the public services and EMS segment, explains why the Group has been so successful: “Eurocopter is constantly improving its product range, and has also introduced new equipment standards and the family concept⁽¹⁾. These have been major factors behind our impressive sales and our dominant position on the world market. The main priority of our product policy is to meet the needs of our customers. Missions are becoming more and more complex and varied. In this context, the operating costs of Eurocopter helicopters are comparatively low, which is a key factor when potential customers make their choice.”

Thanks to its complete range of specialized mission equipment, which in many cases has been developed in close cooperation with customers, Eurocopter is now tackling other issues as well: “Helicopters are mainly operated in dense urban areas, and thus draw a great deal of public attention,” explains Mr. Rudolph. “For these reasons, we are doing our utmost to reduce their environmental impact. In fact, environmental protection—reduced CO₂ and NOx emissions, fuel efficiency, lower noise levels, and more effective industrial recycling processes—has been given top priority at Eurocopter, along with flight safety.”

EC120, EC130 and AS350 B2, B3 and AS355 NP Ecureuil

Tried and Trusted Support

These twin- or single-engine light helicopters can be equipped with a plethora of systems, such as tactical radios, FLIR cameras and searchlights that are specifically adapted to many different types of missions. The helicopters are operated mainly in North and South America under the name AStar, and in Central Europe, certain regions of Asia and South Africa. Their primary missions are patrol flights, crime prevention (war on drugs) and border surveillance. All the aircraft are known for their high reliability and low operating and maintenance costs. The EC120 has also made a name for itself as the ideal machine for basic helicopter training.

EC135 and EC145

Multifunction Capabilities for a Wide Range of Missions

Because of their multifunction capabilities and spacious cabins, these twin-engine helicopters are used mainly in Europe for different types of police support missions, surveillance and reconnaissance flights, and multi-role missions such as rescue work and emergency medical services. The EC135 and EC145 both have modular kits that can be adapted to complex law enforcement and border patrol missions (tactical radio, FLIR camera, operator console, video



© Eurocopter / P. Penna

Eurocopter has become the reference market share of over 50% and a

transmission system, hoist, cargo hook, rappel descent system and stretchers). These specialized equipment packages have made both helicopters the reference platforms throughout the world in this market segment.

In addition, the higher payload of the EC145 has led to continued success on international markets, in particular in Eastern Europe.

EC155 and AS365 Dauphin

Personnel and Equipment Transportation

With their increased payloads, both helicopters are particularly well-adapted to the transport over long distances of elite tactical units (SWAT and RABIT), kit and equipment. They can hold eight to ten fully equipped people, and are used most often in Europe to patrol land and sea borders. In Asia, they are used mainly to patrol territorial waters and for firefighting missions.

EC225

A Versatile, High-Potential Helicopter

The heavy-lift EC225 is used mainly for sea rescues, troop and passenger transport, and for combating terrorism. It is particularly well adapted for use in extreme operating conditions and for missions covering large regions. Eurocopter has also developed a unique product in this category—the EC225 Water Bombing Helicopter (WBH), which is specialized in firefighting missions (see article, page 30). This configuration makes use of a modular kit, which means that the operator can still use the helicopter as a multifunctional platform. ■

(1) The family concept for a standardized fleet in terms of size, equipment, maintenance and training

GERMAN FEDERAL POLICE

On the Lookout

With a force of nearly 850 officers and 79 Eurocopter helicopters, the Airborne Unit of the German Federal Police tirelessly protects the country's borders and ensures national security. It performs a wide range of missions in many different theaters of operations. *Rotor Journal* talked with Thomas Helbig, who replaced Gunter Carloff in March 2009, at the helm of the German Federal Police's Airborne Unit.

INTERVIEWED BY: REGINA LANGE

in the law enforcement and homeland security segment, with an international European share of nearly 90%.



What are the main types of missions performed by the Airborne Unit of the German Federal Police to protect borders and ensure homeland security?

Thomas Helbig ► Our missions have changed over the past few years due to the Schengen Agreement. We are moving away from border protection to concentrate more on homeland security. In

July 2005, the German Federal Border Guard changed its name to become the German Federal Police. Another new development was Switzerland joining the Schengen Area. Now, with the exception of our airports and maritime borders in the North Sea and the Baltic Sea, Germany no longer has any borders with non-EU countries. But even if there are no more checkpoints along the borders with EU countries, these are still important security zones, and the ►



© Bundespolizei-Fliegergruppe

► RESUME

Name: Thomas Helbig

1991-1994: Fuhlendorf Deputy Squadron Leader

1994-1996: Police training academy

1996-2003: Saint Augustin Squadron Leader

2003-2005: Oberschleissheim Squadron Leader

2005-2009: Deputy Chief, Airborne Unit of the German Federal Police.

Thomas Helbig has been flying for 25 years with the Airborne Unit of the German Federal Police. He has logged a total of 3,100 flight hours (in the SA318 C Alouette II, the B0105, and the SA330 J Puma) and has obtained type ratings for the EC155 and Super Puma and for IFR and night flying.

► Federal Police performs patrols both on the ground and in the air over a 30-km wide strip. The Airborne Unit also works with the German Coast Guard to ensure overall protection of the German borders—even out at sea. Two helicopters perform missions each and every day—one over the North Sea and the other over the Baltic Sea—to prevent illegal border crossings, smuggling and environmental pollution. Since 2006, our range of missions has increased, as we are now working in cooperation with FRONTEX, the European agency for border security. We perform patrols in the Mediterranean and are also working in the new EU member countries in Southeastern Europe to fight illegal immigration, human and drug trafficking, money laundering and contraband. The opening of borders between European countries has not only facilitated the circulation of goods and people; it has also made it easier for organized crime to spread from one country to another. This is one of the reasons why the German Federal Police is adopting an international approach.

In 1992, our mission scope was also expanded to include rail transport, when we were called on to patrol the German railways. We are particularly focused on the high-speed train network. We also perform missions to protect the Castor nuclear waste trains and to secure the airspace during major events in Germany. A case in point was the NATO summit meeting held in Strasburg and Baden-Baden on April 3 and 4, when all our helicopters and personnel were on duty. We were also tasked with transporting rapid deployment forces and guests for the summit.

The Airborne Unit of the German Federal Police operates one of the largest non-military fleets composed almost exclusively of Eurocopter helicopters. Which helicopters do you fly, and for which types of missions?

T. H. ► Our 17 Super Pumas are used mainly to transport rapid deployment forces and the GSG 9 special forces unit of the German Federal Police, but they are also called on in response to natural disasters. Our 15 EC155s fly transport missions to protect German airspace and perform surveillance work. Three

Super Pumas and five EC155s are set to be added to the fleet. The Super Pumas are scheduled for arrival at the end of 2010, and the EC155s at the end of 2011. The EC135, which you might call our “all-purpose utility vehicle”, is specialized in rescue missions. Sixteen of our 41 EC135s are operated by the Federal Office of Civil Protection and Disaster Assistance. They are maintained in perfect working order at twelve different air rescue centers. We also have a fleet of six EC120s for training.

What makes these helicopters so well-adapted to the aerial work performed by the German Federal Police?

T. H. ► By law, before choosing a helicopter, we must issue a call for tenders in which the profile of the aircraft we want is precisely defined. Each of these calls for tender has led us to the same conclusion: Eurocopter offers the helicopters that are best adapted to the types of missions we perform. Another important point for us is that the different helicopters have similar cockpits, which facilitates piloting, maintenance and training. We feel we have established a true partnership with Eurocopter where both partners can air their views constructively. Eurocopter is very responsive when we make suggestions for improvements, and in terms of reliability, their products have never let us down. ■

High performance levels, reliability helicopters for law enforcement



© Eurocopter / Patrick Penna



© Eurocopter / J. Deulin

and operational flexibility are the major advantages offered by Eurocopter and homeland security missions.

LOS ANGELES

The True Stars are in the Los Angeles Sky

With 14 AS350 B2s already in its fleet, the Los Angeles Police Department's (LAPD) order of an additional AS350 B2 serves as incontestable proof that the Ecureuil/AStar family continues to fit the bill in the City of Angels.

ARTICLE: PAIGE STANTON

At the end of last year, the LAPD renewed its commitment to Eurocopter helicopters by ordering a 15th AS350 B2 from American Eurocopter for its Air Support Division (ASD); its delivery is scheduled for April 2009. LAPD's ASD, which started out with a single helicopter in 1956, now runs the largest municipal airborne law enforcement operation in the world. Its current fleet

includes 14 AS350 B2s, five Bell 206 Jet Rangers and one King Air 200 airplane.

LAPD's 10,000-strong police force maintains law and order for the 3.8 million residents of a city that stretches over 468 square miles and includes an arid, desert climate, the Pacific Ocean shoreline and mountainous terrain. As Captain James Miller, Commanding Officer of the ►►

Captain James Miller of the ASD, next to an AS350: The recently adopted black and white paint scheme reflects unity with the LAPD's ground units.



➤ ASD points out, "We're working with a relatively small number of officers. When you compare L.A. to New York City, which has twice the amount of residents, yet four times as many officers, you can understand why we turn to helicopters to enhance our ability to provide law enforcement." LAPD's aircraft must be in the air at all times to provide backup support to the city's patrol officers. Their fleet, which performs high-altitude surveillance missions and provides transport for SWAT insertions and other special LAPD units, logs between 17,000 and 20,000 flight hours annually.

Proven Effectiveness

And their dent on crime is well documented: according to a study⁽¹⁾ on the effect of airborne law enforcement on crime and criminal activity, the number of arrests associated with radio calls tripled when the LAPD aircrews were involved. In addition, the number of part one property crimes⁽²⁾ dropped when helicopters were overhead to assist ground officers. In 2008, the ASD responded to some 45,903 calls for service, which included roughly 227 vehicle pursuits, 946 foot pursuits, and 7,233 perimeters, resulting in up to 5,049 felony arrests and 1,863 recovered vehicles.

The LAPD relies on the AS350's performance, reliability and multi-mission flexibility to protect and serve the city's residents. "Given the demands we put on our aircraft, we favor the AS350, in particular because it provides better lifting capabilities compared to the Bell Jet Ranger. The AS350 is a more suitable platform and a move up for us in that regard," explains Captain Miller. The AS350 family has become the standard for a growing number of law enforcement agencies across the nation: it is used by 75 US agencies, including major federal operators such as the Federal Bureau of Investigation (FBI), the Drug Enforcement Agency (DEA) and the Department of Justice (DOJ). ■

(1) Study conducted by the Jet Propulsion Laboratory's Space Technology Applications Office
 (2) Part one property crimes include burglary, larceny, theft (regardless of the value of the item), motor vehicle theft, and arson.

The Ecureuil/AStar in its many different versions is the choice for law



SANTA CATARINA MILITARY POLICE

To the Rescue

In November and December of 2008, torrential rains caused widespread damage in the State of Santa Catarina in Brazil. Lieutenant Colonel Kern of the Santa Catarina Military Police talked to Rotor Journal about the rescue operations performed by his units.

ARTICLE: BELÉN MORANT



© Sgt. Ralston Silva Johnson / FAB

► EXEMPLARY COORDINATION

The rescue operations were coordinated by the aviation battalion of the Santa Catarina Military Police, backed by 105 police officers. Many other government and civil defense organizations joined in the effort with their helicopters:

- Santa Catarina Civil Police
- São Paulo Civil and Military Police
- Rio de Janeiro Military Police
- Minas Gerais Military Police
- Federal Traffic Police
- Brazilian Navy
- IBAMA (Brazilian Institute of Environment and Renewable Natural Resources)
- Rio Grande do Sul Military Brigade
- Military Staff of the Parana Government
- Minas Gerais Military Firefighters

enforcement agencies around the world.



What was the extent of the damages in Santa Catarina due to the floods at the end of 2008?

Lieutenant Colonel Kern ► The flooding caused damages in five large cities and many smaller towns. It was the landslides that caused the most

destruction: Hundreds of people were buried alive, and thousands more lost their homes. In addition to the natural catastrophe, businesses were looted, which spread panic in urban areas. Our primary missions were to reestablish order and do whatever it took to save lives in the most affected areas.

What types of missions did you perform with your helicopters?

Lt Col. K. ► We used 21 aircraft, including 15 Eurocopter helicopters (twelve AStars⁽¹⁾, two EC120s and an AS332 Super Puma). During the two-week period that we performed operations in Santa Catarina, we logged more than 640 flight hours with our helicopters. We performed reconnaissance missions and flew over the flooded areas, and also used the aircraft to clear away debris,

evacuate areas at risk and to rescue the wounded from landslides. The roads were blocked, which meant that rescue teams could only travel by air. Without helicopters, the number of victims would therefore have been substantially higher. When the looting began, we had to use helicopters with multifunction capabilities, such as the AStars, so that we could combine a wide variety of missions. In addition to performing rescues and evacuations and transporting materials, medicine and provisions, we also had to continue our patrol duties without having to make significant changes to the helicopters' configurations. Overall, we rescued 1,250 people from areas at risk, performing a total of 733 missions.

What advantages does the AStar offer for these types of missions?

Lt Col. K. ► What is most important for us in this type of situation is its multifunction capabilities. The AStar also has a great deal of available power, excellent maneuverability and a high payload. We also really appreciated the reliability of the AStar: During the two weeks of operations, the helicopters were only unavailable for a matter of minutes! ■

(1) Four AS350 Bs, three AS350 BAs and five AS350 B2s

POLICE AND HOMELAND SECURITY

THE RIGHT EQUIPMENT FOR EACH JOB

ARTICLE: REGINA LANGE

Eurocopter offers many different equipment packages, often developed with the Group's customers. Modern technology and modular design make them perfectly adapted to each mission, and are important selling points due to the increasing complexity and range of law enforcement work.



1,500 kg

The maximum weight of materials or equipment that can be lifted with the EC145 cargo hook.

Forward-Looking Infrared (FLIR) camera and video with data management system

When combined with slaved searchlights for automatic tracking, the FLIR is the perfect tool for hunting down criminals, locating missing persons and tracking environmental pollution. Modern communication techniques, such as the touch screen SkyQuest image management system, make it possible to analyze the images. They can be archived or used as evidence, and can also be transmitted to the ground via an air-ground link. ■





Operator console

This portable work station can be used by the tactical officer in the cabin or can be integrated in the cockpit. The flight crew in the back of the helicopter also has access to all tactical radio equipment, and can continuously monitor infrared or video images on a fold-out screen. ■

**15-20
minutes**

The time it takes to transform the EC145 for troop transportation with three rows of three seats.



SX-16 IR searchlight

The searchlight is attached to the landing gear, and can operate with normal white light or in infrared mode. The infrared light is not visible to the human eye, but members of the flight crew wearing night vision goggles (NVG) can spot objects when they are exposed to its rays. The 1,600 W searchlight can illuminate a single point or an area as large as 10,000 m². ■

1,300 kg

The maximum weight of materials or equipment that can be lifted with the EC135 cargo hook.

Glass cockpit with tactical communication system

This ultramodern cockpit is equipped with LCD displays and is NVG compatible, so that the cockpit and cabin lighting do not bother the crew when amplified by the NVG goggles. A user-friendly human-machine interface (HMI) allows pilots to concentrate on the most essential tasks while flying increasingly complex missions.

Eurocopter is currently developing a product family concept, which uses the same cockpit design for all its helicopters. This concept will considerably reduce the pilot's workload, shorten training time and make it possible to use the helicopters for different types of support work. ■



FLIGHT SIMULATORS

Entry into Service

Eurocopter has made concrete efforts to bolster its training offer worldwide—both in terms of quality and quantity—illustrating the importance the Group places on training, flight safety and listening to its customers.

ARTICLE: REGINA LANGE

In October, 2008, the first NH90 mission simulator was accepted by the customer and entered service right on schedule in Bückeburg. This delivery marked a decisive new phase for the largest military helicopter program launched to date in Europe. The simulator is part of the contract signed in 2004 between BWB⁽¹⁾ and HFTS GmbH⁽²⁾ for four NH90 flight simulators. Robert Hollensteiner, Managing Director of HFTS GmbH, spoke about the contract: “As part of our Public-Private Partnership, BWB has agreed to acquire a specified number of training hours over a period of fourteen-and-a-half years. In exchange, the industrial partners are responsible for the development, manufacturing and operating costs of the



► EC135 FLIGHT SIMULATOR IN GERMANY

“It says EC135 on the label and that’s exactly what customers are getting,” said Wolfgang Schoder, CEO of Eurocopter Germany. Mr. Schoder spoke on March 12 in Donauwörth to commemorate the official entry into service of the new EC135 flight simulator. He also underscored the decisive contribution made by Eurocopter as the original equipment manufacturer (OEM) of the flight loop software. All the necessary funding for the new simulator’s development was provided by Eurocopter. Civil and military operators—both in Germany and abroad—will be able to use the new ultra-modern training platform, which marks an important step in Eurocopter’s efforts to optimize training solutions and increase flight safety.

simulators.” Along with their German counterparts, the armed forces of Finland and Sweden have also acquired training hours. The three remaining simulators are scheduled to enter service this year.

The bases in Fassberg and Holzdorf will each receive a simulator for training that is specifically adapted to the helicopter configurations that will be operated there. Bückeburg will also receive a second simulator to perform training for the NH90 type certification. The customers have already expressed their satisfaction with the new training tool. The simulators provide extremely realistic flight and tactical

training (in which the helicopter is flown in specific mission conditions), allowing the trainee to learn to fly in operating conditions that are very close to reality. Mr. Hollensteiner summed up the advantages of the simulators: "Approximately 60% of the NH90 training is conducted with the flight simulator, and only 40% in actual flight, which helps reduce costs, equipment wear and even the environmental footprint." ■

(1) German federal armament procurement agency

(2) CAE, Eurocopter, Rheinmetall Defence and Thalès are equal partners in this entity, which was created specifically for the contract



© J. Drogen

► EC135/EC145 AND ASTAR SIMULATORS IN THE UNITED STATES

The first EC135/EC145 flight simulator has been operational in Dallas, Texas, since December 2008, and is being used to train UH-72A pilots from the US Army. The EC135 flight simulator for civil and parapublic customers received its certification in February 2009. Eurocopter has installed this type of flight simulator in both Germany and the United States at almost the same time because the largest fleets of EC135s and EC145s are operated in the United States and Europe. The flight simulator can be used to train pilots for both day and night flights, IFR flights and flights with night visions goggles. It also offers trainees a wide range of mission scenarios.

In related news, American Eurocopter will receive the first Eurocopter flight simulator for the AStar at its Dallas site in late 2010. The Group's US subsidiary will thus be able to offer more comprehensive services to major customers, such as the Los Angeles Police Department and the Massachusetts Air Ambulance Services.



ABERDEEN



NEW EC225 FLIGHT TRAINING SIMULATOR FACILITY

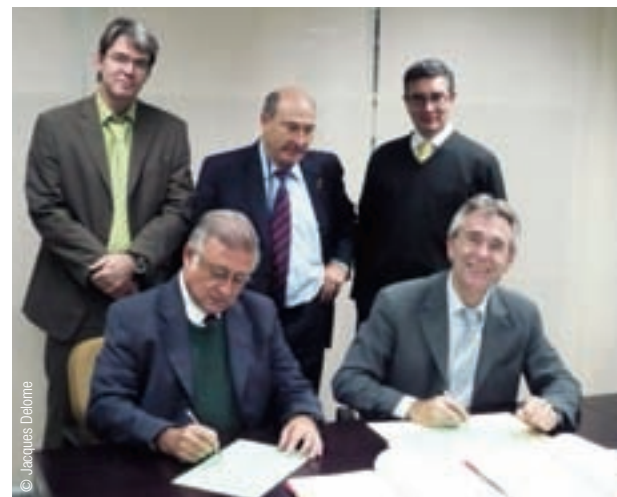
The state-of-the-art flagship helicopter service and simulator facility in Aberdeen, Scotland, is expected to conclude December 2009 with arrival of the EC225 Simulator in 2010. The facility will provide up-to-date helicopter support technology to one of the busiest offshore oil and gas helicopter maintenance hubs. Eurocopter UK's new helicopter service center, located at Kirkill Commercial Park in Dyce, Aberdeen, will comprise a 10,000 square feet logistics warehouse, 5,000 square feet of offices and 5,360 square feet EC225 Flight Training Simulator (FTS) accommodation. Aberdeen is home to major offshore helicopter operators such as Bristow Helicopters, Bond Offshore and CHC Helicopter Corporation, and already hosts a maintenance center for 59 Super Pumas and EC225s. ■

HELIESCUELA

AB INITIO TRAINING

For the first time on the American continent, Eurocopter is offering ab initio training courses entirely in Spanish. Heliescuela, which opened its doors in October 2008, will be able to train up to 100 students per year over time, and is already conducting classroom training in Mexico City and hands-on training in Veracruz. Dominique Gavault, CEO of Eurocopter de Mexico, explains why the school was created: "We set

up Heliescuela for two main reasons. First of all, our customers in the region suffer from a lack of pilots. Secondly, the accident rate for helicopters in Latin America is five times higher than in the rest of the world, mainly due to lack of training. That's why Heliescuela will be a real shot in the arm for helicopter flight safety." ■



© Jacques Belome



► IMPRESSIVE EQUIPMENT

- Deicing system
- Double hoist
- EMS kit (stretchers, medical equipment, etc.)
- Emergency flotation gear
- Searchlight
- FLIR (infrared camera)
- Loudspeakers
- Water bombing kit



EC225

DECKED OUT AND READY TO ROLL

On December 16, 2008, the first production EC225 equipped with a water bombing kit and many other equipment packages giving it full Search and Rescue (SAR) capabilities was delivered to the Korean operator "119 Rescue".



► AN INNOVATIVE SYSTEM

The water bombing kit offered by Eurocopter for the EC225 can be quickly installed or removed. The system uses a flexible water tank that is strapped to the cabin floor. The tank can hold up to 4,000 liters of water, which is released through the central manhole beneath the main gearbox.

No structural modifications are necessary for its installation on the helicopter, which thus retains its full multifunction capabilities.

The EC225 was delivered following the contract signed in December 2006 with the National Emergency Management Agency, which coordinates the purchasing of equipment for South Korea's public emergency services. The EC225 will be operated by South Korea's "119 Rescue". It will be the first multifunction helicopter flown by the Korean operator, whose fleet already includes two AS365 Dauphins. The EC225 can perform an extremely wide range of missions: Troop transport to scenes of catastrophes, firefighting, SAR and emergency medical services (EMS). In addition, the Koreans will now be able to perform night flights for the first time, as the EC225 is equipped with night vision goggles.

Water Bombing Capabilities

During the summer of 2007, a series of tests were conducted in Corsica using an EC725 on loan to the French Civil Defense from the French Air Force. The crew included test pilots from Eurocopter and pilots from the French Civil Defense. Following the tests, many improvements were made to the water bombing kit (see inset), which now includes a retractable pumping system. The water dumping capacity has been increased by 25%, and the human/machine interface (HMI) has also been optimized, as the crew can now display specific firefighting data (such as the weight of the water being carried, for example). The certification for these improvements is due to be issued by the European Aviation Safety Agency in May 2009.

Firefighting with a helicopter is serious business, and many different parameters must be taken into account (terrain, air currents, approach paths, etc.). Training is crucial for flight crews who perform these types of missions, and Eurocopter is currently setting up a specialized training module for water bombing helicopters. A two-part training program has been devised: The first part will be conducted by the Civil Defense Training School, and part two will be handled by Eurocopter Training Services (ETS). The first sessions will take place in mid-2009. For the time being, the flight crews of "119 Rescue" are being trained in Korea by ETS instructors. Their training, which will be completed in May 2009 covers many different areas: Familiarization with the EC225 and its SAR modes, night flights, and the use of optional equipment such as the hoist. The Koreans will then be the first trainees for the brand new water bombing module, which will round off their training. ■

ARTICLE: MONIQUE COLONGES

NH90

COLD WEATHER CAMPAIGN

From February 3 to 9, 2009, four NH90 specialist pilots and technicians from the German Army traveled to Rovaniemi, in Northern Finland, to take part in a cold weather campaign together with a team from the Finnish Jaeger Regiment based at Utti.



ARTICLE: REGINA LANGE

The cold weather campaign, which was conducted in Lapland, included a series of flights in an arctic environment (both day and night), training for technical personnel in the same arctic conditions and testing to determine how well the Finnish NH90 could stand up to the cold. The primary goal of the mission was to conduct training for army special forces, but it also provided an excellent opportunity for the Finnish and German Army Air Corps to work together. Nearly 50 flight hours were logged on two NH90s during the campaign.

Minor malfunctions were corrected and two inspections were performed after the first fifteen flight hours, and then again after fifty hours, but this maintenance work hardly slowed down the campaign. The cold-resistance capacities of the NH90 were tested from the parking area, and were a complete success.

Although the results for the entire campaign are not yet available, there is no longer any doubt that all the objectives were met. For the German and Finnish participants, the campaign was a shining example of a successful international training

exercise on a helicopter operated by different countries. The Finnish Army Air Corps was also extremely satisfied with the NH90's performance in winter conditions, and is preparing for the helicopter's entry into service in early 2010. ■

▶ ENONTEKIÖ AND BACK

"Our mission was to perform a flight from Rovaniemi to Enontekiö, a small town about an hour north of Rovaniemi. On the way out, we practiced performing landings on powdery snow. Our Finnish colleagues did a great job during the approaches, taking full advantage of all the flight assistance features of the autopilot. The NH90 flew through swirling snow without a problem, and showed it was ready to take on even harsher conditions. And even harsher conditions were just around the corner, as icing hazards were reported for the return flight. But the flight went off without a hitch thanks to the excellent performance of the de-icing and anti-icing systems, and after more than three hours of flight, we landed in complete safety at our base. I thanked the flight crew for letting me take part in such an exciting and instructive training flight over the deep snows of Lapland!"

Achim Kuwert-Behrenz, commanding officer of the NH90 special forces unit of the German Army

ECOCOPTER

The Unsung Heroes of the Dakar Rally

The Dakar Rally is one of the most grueling competitions in the world—both for the participants and the helicopters flying overhead to help make sure the race runs smoothly.

ARTICLE: BELÉN MORANT

In January 2009, the organizers of the Dakar Rally decided that, for the first time in its 31 years, the rally would not be held in Africa, but in Argentina and Chile instead. The 580 participants (including cars, trucks and motorcycles) would run the gauntlet of a 6,000-kilometer course beginning and ending in Buenos Aires.

“The Dakar is a one-of-a-kind mission for helicopters,” explains Rubén Céspedes, President of EcoCopter. “If you want to successfully complete your mission in total safety, you can only count on the most experienced pilots flying the latest generation helicopters. These are the reasons why the Dakar organizers chose EcoCopter, the only operator in the region who could give them what they needed.”

EcoCopter operated eight helicopters during the rally: Four AS350 B3 Ecureuils equipped with Wescam and Cineflex cameras for filming and broadcasts, two Ecureuils (an AS350 B3 and an AS350 B1) carrying a doctor and a medic for EMS missions, an AS350 B3 Ecureuil for the press corps and officials and an

EC130 B4 for the race organizers. Mr. Céspedes was extremely pleased with his company’s performance: “We were working in some difficult conditions: Besides the high temperatures, there was also a great deal of wind and dust. It’s no surprise then that the customer wanted pilots with a minimum of 3,000 flight hours of experience. The helicopters worked like a charm in the harsh environment. Each one flew for over 60 hours over a two-week period without the slightest hitch. The AS350 B3 Ecureuil was already being used in Africa fourteen years ago, and everybody knows that it is perfectly adapted to this type of activity. Its multifunction capabilities allow it to meet every challenge the race can throw at it. Our pilots were thrilled with their first taste of the Dakar, and they can hardly wait to participate in the 2010 competition, which will be back in Chile and Argentina again.

We’ve already had discussions with the members of the organizing committee, and they’ve decided to entrust us with the job next year as well.” ■

AMOA

“United in Safety”

The Air Medical Operators Association (AMOA) is making its helicopter industry debut at HELI-EXPO 2009 conference. *Interview with AMOA Managing Director Christopher M. Eastlee and Howard Ragsdale—the Director of PHI Air Medical, who also is serving as the association’s first President.*

ARTICLE: AMERICAN EUROCOPTER



What is AMOA’s “reach,” and how do you see the association contributing to the improvement of helicopter safety for emergency air medical service providers?

Christopher Eastlee ▶▶ I think our association’s tagline says it

all: “United in safety.” AMOA’s current membership represents some 700 helicopters that perform air medical transport in the U.S., which is just over 92 percent of all rotary-wing aircraft that transport patients throughout the country. These companies are joining together to share best practices, standardize their approach to operations, and seek opportunities in forming a coordinated process for safety.

We are looking across the industry, including working with partners such as the Helicopter Association International (HAI) and the Association of Air Medical Services (AAMS). As an example, AMOA cooperated with AAMS and HAI on a joint statement for the National Transportation Safety Board ahead of public hearings it held earlier this month on helicopter emergency medical services operations.

How did AMOA’s relationship begin with American Eurocopter?

Howard Ragsdale ▶▶ American Eurocopter and its Eurocopter parent company were the first of the manufacturers to step up with support, and this action follows these companies’ long-time commitment to flight safety. They have opened their doors to us, and immediately began sharing data—which includes providing assistance in an operations data management and analysis project.

We’re looking for areas in which American Eurocopter and Eurocopter are passionate, and scenario-based training is an excellent example

of where they are taking a leadership role. Together, we are examining not only what we can do to apply scenario-based training to the flight crews, but to the clinical component that goes on in the back of the aircraft. I also want to point out that Marc Paganini, American Eurocopter CEO, has urged our association to embrace all of the helicopter manufacturers—which is in line with his philosophy that improving flight safety is a common interest for all of us in this industry. This has created a very good environment, as other manufacturers are now making contact and are preparing to work with us.



What will AMOA’s focus be during the first months of its life as a new industry organization?

H. R. ▶▶ We want to be looking at the whole picture by sharing information, and doing it more in real-time than before. Our members have the opportunity to communicate on factors that could be very, very significant, and which go well beyond the accident reports and other information that currently is in circulation.



© Eurocopter / P. Poin

© Med Trans Corp.



I call it: focusing on the “why factor.” We want to better understand why accidents are happening with experienced people, in quality equipment and involving well-funded companies. None of the accidents in 2008 were a direct result of lack of investment by the operators that were operating the aircraft, or were related to the training hours, or even linked to their investment in technology.

Is the AMOA looking for cooperation beyond the industry itself?

C. E. ▶ One of our primary goals is working cooperatively with the federal government—the Department of Transportation, the Federal Aviation Administration, the Department of Health and Human Services, as well as the Congress—to enhance existing regulations and policies, and work together on practical performance-based regulations for the future. We also will be working with Congress to provide both short- and long-term solutions to issues of weather reporting and infrastructure to improve the operating environment for all low-altitude operations.

A strength of AMOA is our membership diversity, which includes large companies with hundreds of helicopters in their fleets as well as those flying one or two aircraft. As our association matures, we

will learn not only from the major players, but from those smaller operators—some of whom are focused on some very specific areas of flight safety, and they are bringing a lot of value to the organization as well. All members have an equal voice at the table when looking at best practices. ■



CANADA

TRAINING HITS ITS PEAK

Eurocopter has given its approval to the mountain training program of the operator Canadian Helicopters.

ARTICLE: FRÉDÉRIC LERT



Eurocopter CEO Lutz Bertling attended the ceremony held at Heli-Expo 2009 to celebrate the contract signed by Eurocopter and Canadian Helicopters.

With a fleet of more than 130 helicopters, Canadian Helicopters is currently the largest operator in Canada. The lion's share of its activities focuses on three areas: IFR flights (EMS, oil and gas, infrastructure maintenance), aerial work in VFR, and aircraft maintenance/pilot training (from ab initio to advanced training).

"Our flight school in Penticton is specialized in advanced pilot training and mountain flights," explains the President of Canadian Helicopters, Jean Pierre Blais. "We use five helicopters for these flights, including two EC120s. But over the long term, we'd like to have a fleet made up entirely of EC120s. It's a lighter aircraft, which forces our students to really nail down the techniques. Plus the EC120 has been officially recognized as an optimum training tool for mountain flying." Since 1951, Canadian Helicopters has trained more than 1,000 pilots for mountain flying in a special two-week course, which is world-renowned for the caliber of its training. Didier Delsalle, the Eurocopter test



pilot who is the only pilot to have landed on the summit of Mount Everest in a helicopter, has confirmed the course's reputation.

Mr. Blais talked about his visit: "Didier Delsalle spent four days with us performing an informal audit. He went over our course contents, met with our instructors and participated in several training flights. He was fully satisfied with our program, and his and

Eurocopter's stamp of approval are further proof of the high quality training provided by our team."

Eurocopter has always had a very productive relationship with Canadian Helicopters. Since it first introduced the AStar in Quebec more than thirty years ago, the operator has always remained a faithful Eurocopter customer. ■



© Eurocopter / J. DeJin



JAPAN
AN ORDER FOR THE EC135

The Japan Ministry of Defense ordered two EC135s from Euroheli, Eurocopter’s distributor in Japan, and a second contract for three additional EC135s is to follow next year. The goal is to ultimately obtain fifteen EC135s to provide training for the Japan Maritime Self-Defense Force. The contract signing, which took place on February 26, capped off a rigorous selection process, in which the performance levels of the helicopter and its cost over its entire life cycle were assessed. The first two EC135s are scheduled for delivery at the end of the year, and will be used by the Naval Training School of Kanoya, on the island of Kyushu.

The new fleet of EC135s will join the three EC225s in VIP configuration that entered service with the Japan Self-Defense Forces last year. ■

AFRICA

THE LONG ARM OF THE AS350 B3 ASTAR

On January 19, the Botswana Police Air Support Unit received its first two AS350 B3 AStars, opening a new chapter in the country’s crime prevention and law enforcement history. Eurocopter also provided training for six pilots and three technicians, and a third AS350 B3 is scheduled for delivery later in the year.

A few days later, Eurocopter delivered an AS350 B3 AStar to Namibia’s Police Airwing at a ceremony held in Windhoek. The helicopter will be used to fight crime throughout the country. Eurocopter is also providing all the



© Eurocopter / E. L. de Klerk

necessary support—tooling and spare parts—to ensure maximum availability for the AStar. In both cases, the AS350 B3 was selected for its unequalled performance levels—in particular in “hot and high” conditions. ■



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JAPAN

A Stronger Presence

Eurocopter has strengthened its presence in Japan by increasing its share of capital in its distributor Euroheli to 90% and merging the company with its subsidiary Eurocopter Japan. The new entity, based in Tokyo, has retained the name Eurocopter Japan and has been operational since April 1, 2009. This strategic decision is in line with Eurocopter’s policy of reinforcing and further developing its subsidiaries throughout the world.

Eurocopter Japan has several objectives: Become a true Japanese entity while retaining direct ties with the parent company, develop local service and support activities and bolster Eurocopter’s corporate image and credibility inside the country. This is an absolute must for the Group to increase its share in the Japanese defense market, where Eurocopter has just recently gained a foothold. ■



THE MASTER OF THE PEAKS

Two instructors from the EPNER, the French Test Pilot School (TPS) in Istres, followed a one-week training course to learn the ins and outs of high-mountain flying. The EPNER is one of the most prestigious flight academies in the world, along with the US Air Force TPS (California), the US Navy TPS (Florida) and the ETPS in London.

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Flying at altitudes of over 3,500 meters (11,483 feet) was something they had never done before. Nor had they ever landed an Ecureuil on the summit of Aiguille Verte (4,122 meters/13,524 feet) in the Mont Blanc mountain range. Commander Jean-Éric Vague and Major Patrice Gaillon normally fly in the Pyrenees Mountains, but in the winter of 2009, they made the journey to Annecy, where training courses for elite French helicopter test pilots are held each year. The master of ceremonies in Annecy is René Romet, “Mr. Mission Impossible”, who first set up his base camp here in 1972. With 50 years of experience flying helicopters, Mr. Romet has set the standard for high-mountain helicopter flight, and has seen his share of pilots: For 40 years he has been training the world’s best to spot poten-

tially dangerous air currents and ascents. The “instructors’ instructor”, Mr. Romet has already trained more than 70 instructors, along with some 300 civil and military pilots from France and abroad who have come to visit him in his favorite stomping ground: The high mountains. After 296 combat missions in Indochina, Israel and Algeria, Mr. Romet gained precious experience flying in extreme conditions, which stood him in good stead for the next stage of his career: performing mountain rescues. During his 22 years of service in the French Civil Defense, he pulled off some of the most remarkable exploits in air rescue history. A true “man for all seasons”, he set off in his bright red Alouette III to rescue climbers in difficulty throughout the year. Defying the steep cliff faces and tempestuous clouds of blowing snow, he has safely brought home more than 4,000 people. He and his Alouette III traveled to lands





as far away as Langtang, in Nepal to perform missions in extreme conditions at altitudes of 7,800 meters (25,591 feet). His dream was to land on Everest—the “Roof of the World”. All the decorations he has received haven’t gone to his head. “The pilots that I meet are true gentleman: Highly qualified and skilled, but very modest,” explains Mr. Moret, who still cannot understand why civil pilots can fly in the mountains with no special certifications, whereas their military counterparts must be qualified for these types of flights. A youthful 72, with 17,000 flight hours under his belt (including 10,000 in the Mont-Blanc mountain range), Mr. Moret has no intention of stopping now. Since his retirement from the French Civil Defense, he has been running Héli Secours Assistance, the company he created. And he still spends his days soaring over the summits. This master of high altitudes imparts all his know-how to his

trainees—pilots who have a great deal of experience, but may be lacking that little something extra which separates the great from the good. “With proper training, an average pilot can be qualified for IFR missions. But mountain flying is something altogether different,” Mr. Moret explained, just back from a two-hour flight over the “Roof of Europe”. “Mountain flying is visceral: You have to feel it in your bones!” The two EPNER instructors, who have each chalked up more than 2,800 flight hours, took turns flying with their venerable instructor over the storied peaks, performing improvised landings and approaches to breathtaking cliff faces. Before heading off to Germany to accept an EC145 for the French Civil Defense, both men got their full share of fresh air in the Haute-Savoie region, and refreshingly down-to-earth instruction from the Master of the Peaks himself. ■



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