

# Police Aviation News

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Issue 333

January 2024



## MORE LITHUANIAN H145s

*Fleet expansion underway*

## FINLAND PLANNING

*Replacing the Dornier 228*



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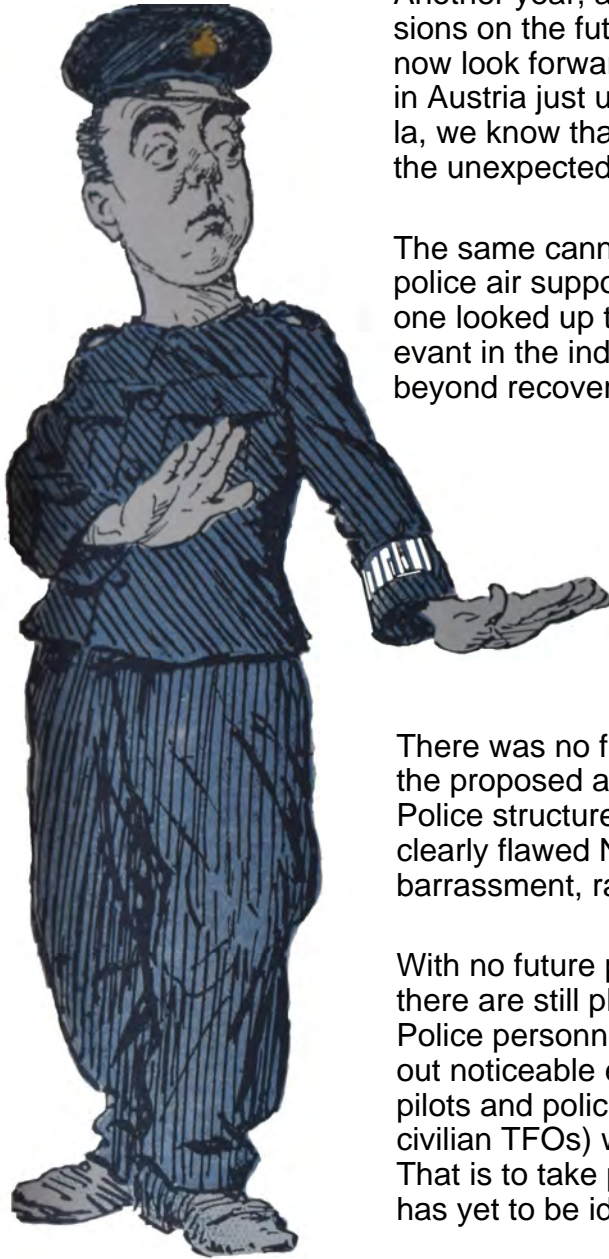
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# EDITORIAL

*Happy New Year.*



***“Not my scene...”***

**George Robey comedian, singer  
and actor 1869-1954**

From an image of him as a policeman  
appearing in *Punch* over 100 years ago.

Another year, another set of decisions to be made. The new decisions on the future of PAVCon Europe having already been made we now look forward to enacting that new future to bring about an event in Austria just under six months from now. As it is to a known formula, we know that it stands a great chance of being successful even if the unexpected glitch, or two, appear.

The same cannot be said for NPAS. From being the most relevant police air support industry in the world – the organisation that everyone looked up to and aspired to match – to being almost totally irrelevant in the industry has taken ten years but it now appears to be beyond recovery.

This year is the one where it is all supposed to happen and the future to be set in place. It looks unlikely. In the spring of 2022, the Mayor of West Yorkshire Tracey Brabin declared that West Yorkshire Police no longer wished to run police aviation. The plan was that a new operator was to be announced a year later for enacting by June 2024.

There was no future plan, no force in their right mind would take on the proposed air operation – effectively to run the west Yorkshire Police structure by remote control. It seems that deconstructing the clearly flawed NPAS was not an option. Something to do with embarrassment, rather than a firm business case.

With no future police ‘partner’ in this enterprise in sight it seems there are still plans to devolve the operation from West Yorkshire. Police personnel will continue to be assigned to the new entity without noticeable effect on their salary or pensions but the commercial pilots and police staff (office workers, Control Room staff and some civilian TFOs) will be cast adrift without a transferable pension fund. That is to take place in nine months’ time even though the ‘entity’ has yet to be identified.

Even though it was discredited many years ago because there were difficulties with claiming back taxes it seems the most likely scenario is to create a new “NPAS Ltd.” The result would likely be an immediate 20% hike in costs (the current rate of VAT) – thereby, at a stroke, undoing every single one of the cost savings made to date.

There are alternatives but no one in Wakefield Towers or the NPCC has been listening for some time, nor are they likely to in the near future.

*Bryn Elliott*

COVER IMAGE: Airbus Helicopters and the Lithuanian State Border Guard Service announced a contract for three five-bladed H145 multi-mission helicopters at the 2023 European Rotors trade show, expanding the service's fleet. The additional H145s bring the total number of Airbus helicopters in service with the Lithuanian government to eleven. The helicopters will be operated for a wide range of missions including search and rescue, disaster relief and medevac, border patrol, firefighting, transport of donor organs, and operational deployment of the Lithuanian Special Forces. [Airbus Helicopters]

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# LAW ENFORCEMENT

## INTERNATIONAL

**CONFERENCE EUROPE:** In mid-December Forces Aériennes de la Gendarmerie Nationale (FAGN) confirmed that they had decided to forgo hosting the PAvCon Europe Police Aviation Conference and exhibition in 2024. The event is normally run in late May or early June. FAGN are expected to be deeply involved in training for the Paris Olympics and Paralympics in July and August. A later idea that they may host later in September was considered and rejected for similar, post-Olympics, time constraints. The present expectation is that FAGN will host in mid-2025. This is subject to a request being made by PAvCon Europe to FAGN in the coming weeks.

As a result of the FAGN decision Airborne Technologies (ABT) in Wiener Neustadt, Austria have again invited PAvCon Europe to hold the event with them. Thank you to ABT for facilitating this option.

The event will be held on 28-29 May 2024 with the expectation that Monday 27 May will be both a training day and the exhibitors set up day.

The last event in Austria was in 2022, which means that 2024 is perhaps a little early in the repeat sequence. However, with the ongoing transfer of administration functions to Dynamic Range it does make sense for the new team transition with a familiar venue. The event may also coincide with the opening of the new air base for the air police. The former air base at the police headquarters in central Vienna will close and the aircraft and staff will transfer to Wiener Neustadt when the new facility is complete next year.



*Diamond in the static park*

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## FINLAND

**BORDER GUARD:** The Finnish Government decided on 5 April 2022 in the discussion on spending limits to allocate EUR 163 million for the procurement of multi-purpose aircraft to replace the Dornier 228 surveillance planes for the Finnish Border Guard. The research into what aircraft would be acquired was termed the MVX programme. Over the ensuing months the number of aircraft being considered has dropped from five to three and the latest tendering schedule aims to conclude a delivery contract during the summer of 2024.

In June 2023, the four remaining prime candidates (Field Aerospace, Canada, L3Harris Technologies, USA, Sierra Nevada Corporation, USA, ST Airborne Systems, Sweden. were invited to FBG HQ in Helsinki for 3-day negotiations each. Negotiations covered the offered package, price and contract terms, among other items. The aircraft types currently on offer are the Bombardier Challenger 650, Canada Dassault Falcon 2000LXS, France and the Cessna Citation Longitude, USA. When launched the programme was also assessing the Embraer Praetor 600 and the Gulfstream G280 these have now dropped out of the programme.

The aircraft were evaluated in stages between May and August. Aircraft evaluations consisted of a considerable amount of ground inspections and in-flight tests, both in daylight and darkness. Also, full flight simulators were used to assess handling qualities of the candidate aircraft.

*The MVX evaluation team and factory test pilots in Wichita, USA, before the evaluation flight of the Cessna Citation Longitude.*



*The evaluation team and factory test flight personnel in Wichita, Kansas, USA, after the evaluation flight of the Bombardier Challenger 650..*



The MVX evaluation team and factory test flight personnel in Istres, France, after flying in the Dassault Falcon 2000LXS.



During 2023, MVX has been an Intermediate RFQ phase, during which the tender request has been updated, negotiations with the prime candidates have been held and the proposed aircraft and sensors have been evaluated. The schedule aimed to conclude the procurement contract by the end of 2023. However, due to additional work identified in the autumn, there is now a delay that should not exceed six months.

According to the new schedule, the procurement contract with the selected supplier will be concluded in the coming summer, it will not delay entry into service during 2026–2027.

The current Dornier 228 surveillance aircraft, introduced in 1995, are reaching the end of their life cycle and are becoming increasingly difficult to maintain. The Finnish Border Guard has decided that only a manned aircraft can cope with varying tasks in demanding Finnish conditions. A versatile and adaptable solution is both operationally practical and cost-effective.



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The Finnish Border Guard is responsible for Finland's border security, and border patrol aircraft are vital for the surveillance of Finland's extensive land and sea borders. The aircrafts' main tasks are to monitor land and sea borders, to search and rescue, to identify vessels in the Baltic Sea, and to detect, manage and combat marine environmental damage. In addition, the aircraft participate in the control of Finland's territorial integrity and support other authorities in monitoring the state of the Baltic Sea.

The Finnish Border Guard's aircraft also participate in obligatory international cooperation including FRONTEX missions.

*Editor: In spring 1932, a Decree was issued on the use of the Coast Guard's aircraft in ambulance traffic. Ambulance planes were allowed to transport patients in need of urgent care, or a doctor or a nurse could be transported to the patient. For patient transports, artificial breathing apparatus was installed in the planes. The most remote ambulance flights were flown all the way to Enontekiö, Utsjoki and Petsamo. In 1932, the Coast Guard acquired two all-metal, six-seat single-engine Junkers F-13 seaplanes from Aero Oy. Aircraft LK-2 was stationed in Helsinki and LK-3 in Vaasa. LK-4, which was acquired in 1934, was stationed in Maarianhamina. The planes were equipped with radios and first aid equipment. The crew comprised a pilot, a radio operator-medical officer and a flight engineer. The safety of the crew was improved by the introduction of parachutes and life vests.*

## ITALY

**CARABINIERI:** On November 14, 2023, the first Leonardo RH-119A Koala (civil designation AW119Kx) helicopter with test registration CSX82103 (c/n 15501) destined for the Arma dei Carabinieri (Italian Military Police) made its first flight.

In October 2022, the Arma dei Carabinieri signed a deal with Leonardo Helicopters to acquire twenty RH-119As between 2023 and 2026. The single-engine helicopters will be assembled at Leonardo's Vergiate facility near Milan.

The Koala's are part of a fleet modernisation and will be used for a variety of intelligence, surveillance, reconnaissance, environmental monitoring and protection, disaster relief, and firefighting missions from eighteen bases across the country. The helicopters will be equipped with a Garmin G1000H cockpit featuring wide colour screens, synthetic vision, helicopter terrain awareness warning systems, and satellite navigation/moving maps.

The RH-119A will complement the capabilities and wide spectrum of requirements of the Leonardo UH-139D (civil designation AW139) and Leonardo UH-169C (civil designation AW169). In the near future, they will replace the current ageing fleet of AgustaWestland AW109N Nexus and Agusta-Bell AB412SP/HP helicopters.

## LITHUANIA

**STATE BORDER GUARD:** Airbus Helicopters and the Lithuanian State Border Guard Service have announced a contract for three five-bladed H145 multi-mission helicopters at the 2023 European Rotors trade show, expanding the service's fleet. These three additional H145s bring the total number of Airbus helicopters in service with the Lithuanian government to eleven, further strengthening Airbus Helicopters' position in this mission segment. The helicopters will be operated for a wide range of missions including search and rescue, disaster relief and medevac, border patrol, firefighting, transport of donor organs, and operational deployment of the Lithuanian Special Forces.

"We are allocating significant resources to provide our State Border Guard Service with state-of-the-art equipment such as the multi-mission H145 helicopters," said Agnė Bilotaitė, the Lithuanian Minister of Interior. "Funded in part by the national budget and also thanks to European funding, the H145s will further strengthen the intelligence and response capabilities of our border guards and contribute to Lithuania's security," she added.

The new version of Airbus' best-selling H145 adds a new, innovative five-bladed rotor to the multi-mission H145, increasing the useful load of the helicopter by 150 kg. The simplicity of the new bearingless main rotor design will also ease maintenance operations, further improving the benchmark serviceability and reliability of the H145, while improving ride comfort for both passengers and crew.

## UNITED KINGDOM

**NATIONAL:** It has been reported that UK police forces are dealing with a serious and growing number of instances where drones are being used by criminal gangs and stalkers for spying upon each other and potential victims.

The current National Police Chiefs Council [NPCC] Lead on Drones, Chief Constable Lucy D'Orsi CVO QPM who heads up the British Transport Police, she took up the post three years ago, highlighted the problem recently.

Many thousands of instances of drone misuse are being flagged up each year and the Civil Aviation Authority say that the problem is increasing by 10% each year. The targets for this unwanted surveillance include remote farms being spied upon prior to raids to steal machinery and rustle stock.

Senior police officers are calling for a new registration system for drones that might improve the ability of the police to track errant drone pilots with greater ease. [DM]

## UNITED STATES

**US COAST GUARD:** Structural cracking has forced the U.S. Coast Guard to ground its entire fleet of 14 C-27J Spartan maritime patrol aircraft, slashing the Coast Guard's fixed-wing surveillance and light transport capabilities.



The precautionary measure was enacted after Leonardo issued an Alert Service Bulletin directing users to inspect for cracks in the upper rear of the aircraft, where the Spartan's horizontal and vertical stabilizers attach to the fuselage. It is reported that a subsequent inspection of the USCG aircraft revealed cracks of varying degrees. Leonardo has already identified a repair solution in case an issue is actually detected, the implementation of such repair can be performed at customer premises by the Operators and does not require significant effort.

Despite the confidence of the Leonardo statement the USCG has stated their fleet will remain grounded until a thorough evaluation is completed, and any issues are addressed. The mid-range, fixed-wing patrol



aircraft primarily operates in the Pacific, where it is a critical enabler of the Coast Guard's drug and migrant interdiction, disaster response and search-and-rescue missions.

Seventeen nations operate around 90 C-27J airframes, any extended safety stand-down and repair process threatens to disrupt mid-range tactical transport and maritime surveillance missions worldwide.

**ARIZONA:** The city of Peoria is taking the first steps toward establishing an aviation unit for its first responders.

The idea for the Peoria Police & Fire Aviation Unit came after Peoria Mayor Jason Beck secured \$3.5M in funding for a helicopter. This led to discussions of a combined aviation unit for police and fire and that led into plans for and patrol and search and recovery service.

**CALIFORNIA:** The attacks on the cost and effectiveness of the Los Angeles Police Department helicopters continue. A newly published audit document claims that Los Angeles spends nearly \$50m a year on its police helicopter programme, or roughly \$3,000 for every hour of flight.

The LA controller's report released in early December suggests the use of LA police department (LAPD) helicopters is nearly constant across the city, and the majority of flight time is not in response to reports of major crimes, but instead for mixed uses including transportation, ceremonial trips or patrols. In a further negative comment, the document states that the flights are a major source of pollution and appear to disproportionately affect some communities of colour.



LAPD's Air Support Division (ASD), operates 17 helicopters and has more than 90 employees, costs the city an average of \$46.6M a year. The yearly cost exceeds that of fourteen other city departments.

APD's chief refutes the methodology and some findings.

The controller's analysis of air operations from 2018 through 2022 found that there are typically two helicopters flying for 20 hours a day every day of the year, logging an average of 16,000 hours of flight time each year. The helicopters burn an estimated 761,600 gallons of fuel yearly, releasing more than 7,400 metric tons of carbon dioxide, according to the report, which said this output was equivalent to over 19M miles driven by petrol powered cars.

The audit identified 783 instances of ceremonial "fly-by" activities of the helicopter unit over the five-year period. That included flights over LAPD graduations, retirements, funerals and community events. Considered inappropriate were flights that included a six-hour flight for a gathering called a "Chili Fly-In"; seven "fly-by" activities at golf tournaments; and a roundtrip helicopter ride that took two LAPD officials from downtown headquarters to a meeting at a station 20 miles away.

*Ed: The text in the report stated that it was not clear how the controller calculated the estimated \$3,000 an hour cost, a figure more appropriate to European police air support helicopters with two engines and often a larger crew, the LAPD helicopters are of the H125 model and single engine. That \$50M a year overall cost is similar to the figures being quoted for the NPAS fleet in the UK. The controller states that the estimates were based on costs of labour, fuel, procurement, helicopter acquisition, maintenance, overhead and other related expenses.*

# AIR AMBULANCE

## AUSTRIA

ÖAMTC: Airbus Helicopters and ÖAMTC Air Rescue announced a new contract for two H135s during the third edition of European Rotors. The announcement follows an initial contract for five H135s signed at the end of 2020.

ÖAMTC Air Rescue operates 31 H135/EC135 helicopters from 17 permanent bases and 4 additional winter bases in Austria. Last year, the operator flew more than 20,000 missions, with an average of 52 missions per day. The operator began providing air rescue services in Austria in 1983 and is celebrating its 40<sup>th</sup> anniversary this year. The H135 is the helicopter of reference for helicopter emergency medical service operators worldwide. It combines a wide, unobstructed cabin with excellent performance, range and payload capacity, as well as low sound levels. The oversized sliding side doors and rear clamshell doors enable fast loading/unloading of patients, with additional safety during ground operations provided by Airbus' signature shrouded Fenestron tail rotor. The H135 is the global market leader for helicopter emergency medical services with more than 700 helicopters all around the world being used for life-saving missions.

## BULGARIA

HEMS: Currently seen as the only European country without an air ambulance system, the delivery of six Leonardo helicopters to undertake HEMS is imminent.

Twenty years ago, there was an ad-hoc air ambulance provision based on private companies utilising Mil Mi-2 and Eurocopter BO105 helicopters but it was not a formal air ambulance.

In 2019 it was announced that support from the European Regional Development Fund [ERDF] was being channelled towards providing Bulgaria with a HEMS. As Bulgaria was the only country without a helicopter-based air rescue and air ambulance service, resolving the matter was seen as urgent and temporary helicopters were assigned from Babcock MCS. In 2019 it was said that a new emergency helicopter would be purchased as early as 2020 – although others thought it could not be put in place before 2023. It appears that operations will actually commence this year. The cost of a fully role equipped helicopter for the new service was being quoted as €4M each in 2019. The project has a budget of €20M of which half will be from ERDF sources.

Last month the Bulgarian authorities started the technical acceptance of the first Leonardo helicopter for the operation, the flight to Bulgaria will take place by mid-January 2024, after which the helicopter will be licensed in the country. The Ministry of Health confirmed plans to acquire six Leonardo helicopters for 135.6 million leva (US\$74.5M) earlier this year. The aircraft will be used to establish a state-run helicopter emergency medical service (HEMS) in Bulgaria.

Bulgaria short of pilots and its therefore having to await them being trained up. The training is expected to last between one-and-a-half and two years.. By 2026, when the last helicopter is to be delivered, it is hoped that Leonardo will be able to train at least 20 pilots, which will be enough.

## DENMARK

NATIONAL: The Norwegian Air Ambulance has ordered three H135s and two five-bladed H145s that will be used for life-saving missions in Denmark, following a tender the operator recently won in the country. In addition, the HEMS operator will take delivery of two new H145s in 2024 to expand their fleet in Norway.



The advertisement features the Smith Myers logo on the left, which consists of a stylized 'S' and 'M' above the text 'smith myers'. In the center, the text reads 'TURNS ANY MOBILE PHONE INTO A LOCATION BEACON' in all caps, followed by 'DETECT - LOCATE - COMMUNICATE' and the website 'artemis.smithmyers.com'. On the right, there is an image of the Artemis beacon device, a black rectangular unit with various ports and a small screen. To the right of the device is the Artemis logo, a stylized compass rose with a large 'A' in the center, and the word 'ARTEMIS' below it.

"I would like to thank the Norwegian Air Ambulance for its continued trust in our helicopters to support their essential life-saving missions," said Thomas Hein, Head of Europe Region, Airbus Helicopters. "Our mission is to provide our operators with the best solutions possible, in order to make the world a safer place. Representing more than 1100 of the 2700 helicopters deployed for HEMS operations across the globe, it is a genuine source of pride to see that the H135 and the H145 are the benchmark for those missions worldwide, making a positive difference to people requiring urgent medical care."

The Norwegian Air Ambulance operates all 13 HEMS bases in Norway and all 4 bases in Denmark using a 100% Helionix-equipped fleet of H135s and H145s. The organisation's parent company, the Norwegian Air Ambulance Foundation, was the first operator in the world to take delivery of a five-bladed H145 in 2020.

## ON TEST IN GERMANY



*Airbus H145 on flight trials in December as D-HBKU will be delivered to Paris for air ambulance service  
© Michael Mau*

## UNITED KINGDOM

ESSEX & HERTS: Cliff Gale of Essex & Herts Air Ambulance (EHAAT) is the deserving winner of the prestigious Air Ambulance UK Chair's Award. This award, chosen by AAUK's Chair, recognises individuals who've made remarkable and lasting contributions to the air ambulance sector.

With a background of the joint police and air ambulance helicopter operation in Sussex Cliff's exceptional leadership over 15+ years steered EHAAT to incredible milestones and laid the groundwork for exceptional growth.

His vision led to transformative changes - from establishing a new base at Earls Colne to acquiring the Leonardo AW169 helicopter and developing the North Weald Airbase. His dedication and strategic prowess have propelled EHAAT's growth and enhanced its operational excellence. [EAAAT]



## ON TEST IN GERMANY 2

*Airbus H135 on flight trials in December as D-HCBA will be delivered to the London Air Ambulance to replace the second of the current MD900 fleet as G-LAAB © Michael Mau*



WALES: A new aviation provider has taken to the skies in support of the lifesaving Wales Air Ambulance Charity. It was announced in February this year that Gama Aviation had successfully bid for the seven-year contract to provide aviation services to the air ambulance in Wales. The decision was made by the Charity's Trustees following an extensive 18-month procurement process which included input from both aviation and medical professionals. The Gama Aviation contract, valued at £65M, covers the operation and maintenance of a primary fleet of four Airbus H145 helicopters, operating from the Charity's current sites in Dafen, Cardiff, Caernarfon and Welshpool. It additionally includes a backup H145 helicopter to ensure service continuity during periods of maintenance for the primary fleet.

This will be an enhancement compared to the previous fleet, which was made up of three H145 helicopters and one smaller EC135 helicopter. As part of the new contract, the EC135 aircraft has been replaced with a H145, giving the Charity a consistent fleet of advanced helicopters to deliver Wales' vital air ambulance service. Gama Aviation was due to start operations on 1 January 2024, with the previous contract ending on 31 December. However, to avoid such a complex process taking place over the Christmas and New Year holidays, all parties agreed to bring forward the transition date. As a result, Gama Aviation has now taken full control of the operation and maintenance of the Charity's fleet of aircraft. A majority of the pilots and engineers who worked with Wales Air Ambulance as part of the previous contract, will be joining Gama Aviation to continue working with our lifesaving service. It just goes to show how passionate they are about serving Wales and saving lives. Gama Aviation will operate and maintain four aircraft, plus a backup helicopter, on behalf of the Charity but the Charity will be the direct leaseholder for three of them." Seven years on from the last aviation contract procurement process, a like-for-like aviation service now totals just over £3M more per annum. Wales now need to raise £11.2M every year to cover the cost of the aviation operation and maintenance, the direct lease of three of the aircraft, a fleet of rapid response vehicles, and fuel.

The Service is often described as a 'flying emergency department', however, it can also deliver the same standard of care by road via its fleet of rapid response vehicles. This 24/7 pan-Wales service is delivered via a unique Third Sector and Public Sector partnership. The Wales Air Ambulance Charity relies on public donations to raise the amount required every year to keep the helicopters in the air and rapid response vehicles on the road.



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## UNITED STATES

**NATIONAL:** At the request of Russell Griffin, a former flight paramedic in the Dallas Fort Worth (DFW) area and now currently working toward his Ph. D, he is researching information on near-miss reporting in U.S. air medical transport. As this is central to the mission at CONCERN, they have set up a survey that takes approximately 20-25 minutes to complete and can be accessed using the link below. Please share the survey link with your social media channels, colleagues, and peers. If you have any questions or need more details about the research, please do not hesitate to contact [russell.griffin@okstate.edu](mailto:russell.griffin@okstate.edu) directly.

[Air miss Medical Survey](#)

## FIRE

### EUROPE

**MILITARY:** Airbus Defence and Space has conducted a new flight-test campaign of the A400M Roll-on/Roll-off firefighting prototype kit, dropping 20,000 litres of retardant and creating high concentration lines over 400 metres long. Over a period of two weeks, the A400M carried out a ground and flight-test campaign in south-western and central Spain, including six drops, three of which used red-coloured retardant and three using water.

This roll-on/roll-off kit does not require any modification to the aircraft and, therefore, is interchangeable to any aircraft in the A400M fleet. The water or retardant is stored in a tank in the cargo hold of the aircraft and, by using a mechanical lever, a door is opened to allow the liquid to flow out of the aircraft by gravity means through a discharge pipe. The current design of the prototype is capable of dropping 20,000 litres in a single discharge.



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The tanks can be filled in less than 10 minutes using standard high-pressure pumps on ground. The A400M is characterised by its ability to take off and land on short and unpaved runways, and a wide range of air bases and airfields.

In July 2022, Airbus tested a removable firefighting demonstrator kit on the A400M for the first time. The company concluded that the A400M firefighting kit offers additional capabilities not available on the market thanks to its high-dropping capacity, high manoeuvrability with the latest safety standards, day and night operation and the potential to convert any regular A400M in any fleet to a firefighting aircraft at very short notice.



## UNITED STATES

**CALIFORNIA:** Orange County Fire Authority has a new tool in their arsenal to fight wildfires. Last month the agency unveiled one of two HeloPods on designed to enhance their wildfire fighting capabilities. Getting water in remote parts of the county during wildfires can be hard and takes up valuable time. Time is lost transiting to standing water sites close to fires and the new equipment is set to improve the situation in some cases. Choppers will be able to lower their hoses into the HeloPod and fill up. The tanks are connected to a hydrant and will refill automatically.

One of the pods is on the Quest Diagnostics campus off Ortega Highway in San Juan Capistrano, another in L.A. County, is a similar 8,000-gallon heli-hydrant serving as a dip source for helicopters. This tank is radio controlled by the pilot of the helicopter, the pilot can tell this tank when to fill up and when they will be lowering their hose to take water.

Prior to the HeloPod being put in place, the nearest standing water added around 12 minutes to the turnaround time. A long time in fire terms.

*Ed: As is often the case, the TV report on these water dams over did the rhetoric in calling these facilities "state of the art" but they are new equipment.*

## SEARCH & RESCUE

### SPAIN

**MILITARY:** The Spanish Ministry of Defence has ordered 16 Airbus C295 aircraft in Maritime Patrol Aircraft (MPA) configuration and Maritime Surveillance Aircraft (MSA) configuration. The contract amounts to €1.695 billion. These new aircraft will enable the Spanish Air and Space Force and the Spanish Navy to strengthen the national anti-submarine warfare capability as well as increase and enhance its surveillance, reconnaissance and search & rescue units.



The aircraft will be fully designed and manufactured in Spain. The contract also includes training systems (Full Flight Simulator and Mission System Simulator) and an initial logistics support package. The C295 MPA will conduct the missions performed by the P-3 Orion fleet, which were retired at the end of 2022.

The C295 MSA is the natural replacement for the CN-235 VIGMA aircraft fleet, which have been in service with the Spanish Air and Space Force since 2008. It will be primarily equipped for maritime and overland operations such as anti-smuggling, anti-illegal immigration and anti-drug trafficking operations, as well as national and international search-and-rescue missions.

## UNITED KINGDOM

### DOVER PATROL

#### INTRODUCTION

Regular readers of *Police Aviation News* will be aware that, despite the pledge made at the beginning of 2023 by the British Prime Minister, the Rt Hon Rishi Sunak MP, to 'stop the boats', many thousands of migrants crossed the English Channel in 2023, now an illegal route, to enter the UK without permission. At one point the Home Office predicted 45,000 landings in 2023, presumably based on the 45,774 arrivals in 2022, but the true total is just short of 30,000 (29,437), a third less than the previous year, but, nevertheless, almost a thousand more than the 28,526 migrants who were 'rescued' by the Border Force and Royal National Lifeboat Institution in 2021, before they were landed in the UK, the majority at the Port of Dover.

#### WHO IS IN CONTROL

With the Royal Navy handing back control of Channel operations to the Home Office (Department of the Interior) at the end of 2022, was this reduction in the numbers in 2023, from over 45,000 to less than 30,000, the result of some new government initiative? The politicians' will, of course, claim the credit. The new Home Secretary, the Rt Hon James Cleverly MP, appointed in November 2023, recently reported that, *"The incident in the Channel last night is a horrific reminder of the people smugglers brutality. 25,000 people have been averted from crossing this year [by the French] - but we must, and we will do more. Every boat stopped is a potential life saved."* This statement was made on the 16 December, the day after 2 migrants were drowned, one was critically injured and 2 were reported as missing from 2 boats; on the same day 292 migrants were landed in the UK from 7 boats. One of the boats that foundered off the French coast was found to have 66 migrants in board, the other, which turned back, had 70 migrants on board. On the same day that the Home Secretary made his statement, on the 16 December, a further 55 migrants were landed in the UK from just one boat.

#### ***"Every boat stopped is a potential life saved" - The Rt Hon James Cleverly MP***



Utopia 56/Twitter

More recently, the Home Secretary was pleased to announce, on X, formerly known as Twitter, that no landings, by migrants crossing the English Channel in small boats, took place on Christmas Eve, on Christmas Day, or on Boxing Day, the 26 December 2023. Although he is new in post, the Home Secre-

tary must surely have been briefed by his subordinates in the Border Force of the significance of 'Red Days', those days when crossings are most likely. Also, the fact that the new generation of very large, flimsy inflatable boats, described by the UK National Crime Agency as 'death traps', can only be used in near perfect weather, with a light breeze and a calm sea. In the Christmas period, the cross-Channel ferry operator, DFDS had to delay its services due to high winds out at sea! The former politician, Mr Nigel Farage made the observation, "You may be called *Cleverly* but you are clearly a moron. I am close to Dover now, the wind has been gusting 50 mph. That is why there are no migrant crossings."

In truth the UK Home Office has no idea how many individual migrants have been turned back on the beaches of northern France. The number quoted by the Home Secretary, 25,000 turned back in 2023, is, more than likely, a much smaller number of individual migrants; those individuals who have been turned back many times, by the French police, after making multiple attempts to cross the Channel in a small boat. The number of boats destroyed by the French police is also reported, by the Home Office, to be unknown to the British government! This does seem a bit odd after taking into account the fact that the government has agreed to pay £478M to the French to part fund what is now a joint Anglo-French operation. Common sense suggests that this battle will only be won when more boats are destroyed than can be delivered to northern France. Moreover, the UK's policy of deterrence, by processing asylum applications in a third country, in Rwanda in central Africa, remains mired in controversy.

### **Small boats and their outboard engines destroyed on a French beach, at Wimereux, near Boulogne-sur-Mer in northern France.**



AFP

### **ROUGHER SEAS ACCOUNT FOR DROP IN NUMBERS**

The reason for the reduction in number of migrants crossing the Channel, by a third in 2023, is most likely the result of adverse weather, weather that makes it impossible to set sail in the current generation of very large, unseaworthy inflatable boats. Boats that are believed to be built in China and Turkey before being transported covertly across Europe. In France there is a view, amongst those living near Calais, that, *Rougher seas can account for the drop in numbers this year.* Others point to the deal between the UK and Albania that has put an end to illegal migration by young men from Albania. In 2022 the number of economic migrants entering the UK from Albania, after crossing the English Channel in a small boat, was 12,658, the majority of whom have now been returned to Albania.



Large, flimsy inflatable boats, built in China and Turkey and carrying up to 70 passengers. Described by the UK National Crime Agency as 'death traps'.



AFF

CONCLUSION

With a general election in the New Year, in 2024, will a new Conservative government, or a Labour government, finally 'stop the boats' and, whichever political party is returned to power, will they accept the fact that this 'battle' can only be won on the beaches of northern France, as part of the joint Anglo-French operation? Certainly, not by flying nugatory air patrols with several different types of patrol aircraft, a deHavilland Dash 8, a Diamond DA62 and a Beechcraft King Air, together with a variety of drones, 'ploughing' up and down the middle of the English Channel. These aircraft are, most certainly, spotting boats, those carrying migrants, but they are not, by any stretch of the imagination, 'stopping the boats'!

James A Cowan MBE

Note:

1. New legislation, the Illegal Migration Act 2023, which gained Royal Assent on the 20 July 2023, changes the law so that those who arrive in the UK illegally will not be able to stay and will instead be detained and then promptly removed either to their home country or a third safe country.
2. The author's recommendation to support the French police, those patrolling the beaches of northern France, with light aircraft, with 'spotter planes', has, so far, fallen on deaf ears within the British government. This is despite the fact that the larger, much more expensive aircraft, those used to patrol the English Channel, are not known to have stopped any boats, those carrying migrants, from crossing the English Channel in 2023, or in previous years.

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# INDUSTRY

**Airbus** has successfully tested a new simplified human machine interface (HMI) along with advanced autonomous features through a project code-named Vertex. These technologies, developed by Airbus Up-Next, are controlled by a touchscreen tablet and aim to simplify mission preparation and management, reduce helicopter pilot workload, and further increase safety.

The Airbus Helicopters' FlightLab flew fully automated from lift-off, taxi, takeoff, cruise, approach and then landing during a one hour test flight by following a predefined route. During this flight, the pilot monitored the system which is able to detect unforeseen obstacles and automatically recalculate a safe flight path. Whenever necessary the pilot can easily override the controls through the tablet and resume the mission afterwards. The flight test period ran from the 27th of October through to the 22nd of November at the Airbus Helicopters' facility in Marignane, France.

Airbus Helicopters will continue to mature the different technologies that comprise Vertex: vision based sensors and algorithms for situational awareness and obstacle detection; fly-by-wire for enhanced auto-pilot; and an advanced human-machine-interface - in the form of a touchscreen and head worn display for inflight monitoring and control.

A November 29 meeting of the **Home Affairs Select Committee**, Chaired by the Rt Hon Dame Diana Johnson MP, grilled the Permanent Under-Secretary of State at the Home Office, Sir Matthew Rycroft and the Interim Second Under-Secretary, Simon Ridley for 2 hours. The resultant answers did not seem to impress the members of the Committee.

Quote, from Dame Diana to Sir Matthew, "Do we have any figures about anything? The 'big boss' (Sir Matthew) hasn't got a clue!" The bulk of the meeting was in relation to asylum seekers and stopping the boats which, according to Sir Matthew, has high priority within the Home Office.

As part of this grilling the Home Affairs Select Committee heard information on the **Emergency Services Network (ESN)** radio system in relation to it replacing the current Airwave radios used by the emergency services. They were informed that the new system is designed to work in the air, underground and in rural areas and provide a service better than Airwave. Some 95% of the radio masts have been built and the system was belatedly scheduled to enter service in 2024, although that was a delay of several years on the original plan of 2017. In the event one of the main contractors, Motorola has pulled out and the total cost has increased by around 50% to £11.3billion. The ESN is now due to enter service in the 2030's, when Airwave becomes obsolete! The savings, to the public purse, after replacing Airwave, are expected to be in the order of £200M per year.



Other gems are that the Home Office cannot account for 17,316 asylum seekers whose asylum applications have been withdrawn. Also, 154 migrant children are missing from hotels. Some 50 hotels used by migrants will be withdrawn from the Home Office estate with an increase in dispersed accommodation. In closing, the Chair, Dame Diana warned Sir Matthew that at the next meeting, in January, which will be attended by the new Home Secretary, the Rt Hon James Cleverly MP, she expects him to be more prepared, armed with facts and figures, to answer the questions from members of the Committee!

*Editor: ESN appears to be yet another instance where the phrase "lions led by donkeys" is fitting. It is another NPAS. Now running six years late, ESN looks unlikely to meet the current expectation of it, I note that this latest statement is of an imprecise 2030's – that can even mean 2039 and be accurate. We are supposed to be waiting for the last 5% of radio masts to be installed in remote areas and yet even the less remote areas remain poorly served.*

*Ed: Back in history, well the 1970s, serving officers knew where their personal radios failed to work efficiently and, for their own personal safety, planned their activities accordingly. Decades later little had changed, the black spots were still black spots with poor reception and that same trouble carried forward into the mobile phone networks and Airwave.*

*Now we have the promise of ESN which is based on mobile phone technology and I know that the diners at the restaurant at the Wake Arms, Epping find it very difficult to get a mobile signal without using wi-fi. Nothing has changed in 50 years - just like in the 1970s!*

**Axnes** participated in the Oslo HEMS Conference, which took place December 4-6, 2023 at Soria Moria Hotel. The Axnes PNG Wireless Intercom System (WICS) was showcased to the conference participants during 3 live hoisting demos. The conference participants of the European HEMS community were able to listen live to flight crew communication via a broadcast from the PNG WICS.

Effective communication is paramount in Helicopter Emergency Medical Service (HEMS) operations, especially during high-risk missions such as rescue hoist operations. **Wireless ICS systems** provide en-

hanced situational awareness, hands-free communication, full-duplex capabilities, instantaneous communication, noise suppression, and clear audio quality, these systems optimize crew coordination and operational effectiveness. In high-stress and time-critical situations, wireless crew communication systems play a pivotal role in ensuring rapid response, crew safety, and successful outcomes. Investing in advanced wireless crew communication technology is an indispensable step toward enhancing your HEMS crew capabilities and improving the overall safety of your operations.

**SPAES** recently completed a Minor Change for a customer. This change involved applying wrapping film to a previously plain white AS 332 Super Puma. With the "Firecat" paint scheme, the customer highlights their skills in aerial firefighting operations. The updated appearance not only catches the eye but also meets safety standards set by the European Union Aviation Safety Agency (EASA).

The modification began with the application of lettering on the AS 332 helicopter, followed by the addition of the FireCat Motive. The foil was removed in specific areas of the aircraft, including window sections and moving parts like doors. A Fire Test Certificate for the Motiv was obtained as part of this modification.

It is planned to apply this Wrapping Film to more helicopters in the future. The Minor Change has been designed to include a palette of 16 different colors. This strategic decision allows the customer to easily customize the colours of their helicopters in the future. This is especially important as there are plans for additional helicopters to be introduced in the future so the customer can choose from a variety of colours. The Minor Change was done in the EASA Part21J Design Organization of SPAES. Applying the wrapping film was carried out in the customer's own Part145 Maintenance Organisation.

Lord Markham The Parliamentary Under-Secretary for Health and Social Care University Hospitals Sussex NHS Trust has undertaken remedial works to fix the issues with the cladding on the helipad at **Royal Sussex County Hospital** in Brighton. However, additional surveys have identified concerns with the glazed curtain wall. The trust is discussing these with its building contractor to determine the likely extent of additional remedial works. Noise issues are considered as part of the design of helipads as referenced in the relevant guidance from the Civil Aviation Authority Standards for helicopter landing areas at hospitals. [Hansard]

*Brighton hospital's helipad, part of a £500M redevelopment of the hospital, was delayed by a year over fears helicopters could blow cladding off the hospital's walls. The platform at the hospital was originally meant to open in 2019, but was hit with multiple delays due to the pandemic.*

*Plans to launch it in November 2022 were shelved after surveys found aircraft could damage the tower it sits on.*

*The cladding on the top 10 metres of the building needed to be re-attached, delaying the opening until the autumn, now met by new delays. In September the estimate for it being ready for service was several months.*



**Babcock and Airbus Helicopters** have been awarded a new contract to support the Airbus H145-D3 fleet of the Direction Générale de la Sécurité Civile (DGSC), an agency of the French Ministry of Interior that performs rescue services throughout France.

The four-year contract, awarded by the French Ministry of Defence's Directorate of Aeronautical Maintenance (DMAé), includes Maintenance in Operational Condition (MCO) of the four Airbus five-bladed H145 helicopters, operated by the Sécurité Civile in France, its mission equipment and support resources. Established in 1957, the helicopter division of the Sécurité Civile operates a fleet of 37 Airbus helicopters on call 24/7 throughout France for rescue missions. With 15,000 missions carried out each year, one person every 33 minutes is rescued throughout the country.



The Gloucestershire Airport near Cheltenham, better known as Staverton and the home base for aviation entities including Specialist Aviation, Safran and Babcock is for sale.

It has been confirmed to Gloucestershire Live that the leaders of Gloucestershire City Council and Cheltenham Borough Council the current joint owners are seeking a new owner to take the airport forward. The airport is run by Gloucestershire Airport Ltd., which was established in 1993, each council has a 50% shareholding.

The 300 acre airport site was set up in 1936 as Staverton Airport, a name which remained the official title and still the locally preferred name, until 1993. It is among the busiest of General Aviation airports in the UK. [GL]

**Airbus Helicopters** and **Indamer** have joined together to service helicopters in India. The companies inaugurated a joint Indamer-Airbus Helicopter MRO facility on December 8 at the Multi Modal International Cargo Hub and Airport at Nagpur.

There are more than 125 Airbus helicopters currently operating in the India and South Asia region. Airbus says the strategic partnership will provide quicker turnaround for servicing and create an efficient aftermarket experience for helicopters in the region.

As a part of the deal, Indamer will provide MRO services for Airbus helicopters at its facilities in Mumbai, New Delhi and Nagpur under authorization from Airbus Helicopters. Indamer also operates a facility in Pune. Its Nagpur facility currently only caters to Airbus A320s, servicing approximately 60 aircraft annually. Indamer established its helicopter MRO division more than a decade ago. Airbus Helicopters' collaboration is the latest development in Airbus' efforts to expand its footprint in India. To that end Airbus is planning to hire another 2,000 engineers in India over the next two years, increasing its total engineering staff to 5,000.



In November, **Leonardo** delivered the 700th American-made helicopter from the company production line in Philadelphia. This delivery represents an enormous milestone achievement in the United States that speaks to the technical maturity of its industrial operations in the U.S. The actual 700th aircraft, an AW119Kx single engine, was delivered to the Florida Department of Agriculture and Consumer Services (FDACS).

While Leonardo began operating in the United States in 1980, it was only in 2004 when the site began to fully-produce helicopters on an FAA-Certified Part 21 Production Line. Beginning first in 2004 with the AW119 and in 2005 with the AW139, a 115,000 sq/ft addition was built onto the sprawling, 26-acre campus that already included aftermarket support and administrative functions for the US.

"With the 700th aircraft delivery, Leonardo continues to grow in the U.S. market significantly," said Clyde Woltman, Chief Executive Officer of Leonardo Helicopters US. "This milestone solidifies Leonardo as a domestic leader in the research, design, development, and production of rotorcraft for civil and military applications, using the latest technology and highest quality standards."

In less than 20 years, Leonardo has locally produced aircraft for a multitude of mission sets, including emergency medical, homeland security, search and rescue, firefighting, offshore energy, utility missions, and corporate transportation. In 2018, the site began to include production for military programs, first with the MH-139 Grey Wolf for the U.S. Air Force with Boeing, a variant of the popular AW139, and in 2021 the TH-73 Trasher for the U.S. Navy, derived from the AW119.

"The United States remains the world's largest market for helicopters and the constant expansion of our industrial and service capabilities in Philadelphia and other US locations over years has provided evidence of our commitment to being an in-country reliable and leading partner of US operators, industry players and authorities," said Gian Piero Cutillo, Managing Director of Leonardo Helicopters. "While the achieved results speak for themselves, we are ready to do more as testified by the continued flow of AW119/AW139 export and the start of production of the first batch of customer AW609s, the world's first tiltrotor set to be civil certified."



The 700th US factory delivery was a AW119Kx Koala single engine, delivered to the Florida Department of Agriculture and Consumer Services © Leonardo image

With the earlier expansions, the most current additions, and employee growth nearing 1,000, Leonardo continues to maintain its high standards delivering best-in-class aircraft and comprehensive support and training services.

The waiting time for those potential operators of the H145/BK117 may be getting longer. Last month it was announced that the German Bundeswehr and **Airbus Helicopters** have signed a contract for the purchase of up to 82 multi-role H145M helicopters (62 firm orders plus 20 options). This is the largest order ever placed for the H145M and consequently the largest for the HForce weapon management system. The contract also includes seven years of support and services, ensuring optimal entry into service. The German Army will receive fifty-seven helicopters, while the Luftwaffe's special forces will receive five.

**British passport holders** look to be spared from facial recognition and fingerprinting until after the Paris Olympics according to latest information.

Hillsboro Aviation, a full-service rotary and fixed wing operator based in Hillsboro, Oregon, has been designated as an authorised **Airbus Helicopters** service centre. In 2016, Hillsboro was appointed Airbus Helicopter's first-ever North American commercial sales agent in the aircraft manufacturer's 47-year history. "We are thrilled to celebrate our long partnership with Airbus Helicopters with the addition of an authorised service centre," says COO and Vice President Ryan McCartney. "As the only combined authorised reseller and service centre in the northwestern United States, we look forward to supporting the lifecycle of our customers' aircraft from acquisition to maintenance and upgrades." With its service centre appointment, Hillsboro Aviation is positioned to provide a comprehensive suite of services to customers, filling a long-awaited niche in the region. In addition to maintenance and upgrades, the company can now perform warranty work, cost-competitive aircraft completions and Airbus OEM part sales. Hillsboro also undertakes authorised work for other OEMs including Bell, Beechcraft, Cessna, Cirrus and Robinson, as well as several instrument and sensor suppliers. <sup>[Helihub]</sup>

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# ACCIDENTS AND INCIDENTS

**8 December 2023 Airbus Helicopters H145 C-GLLS.** Air Ambulance of A STARS Aviation Canada. Helicopter was operating from Edmonton international airport, to the hospital in Two Hills, Alberta. The flight was stood down 20 minutes from the destination and returned to base. As the helicopter began the right turn to return, the flight crew experienced an issue with the autopilot. The recovery mode was selected in order to switch from NAV mode to HDG mode. Expecting a turn to the right the aircraft immediately began a turn to the left with a greater than normal roll rate. The pilot flying (PF) allowed the un-commanded left roll to continue, guarding the cyclic. Through 30° of bank, the PF began to over-ride the roll while allowing some more bank to develop. As bank approached 60° degrees (and upon completion of the 180° turn) the PF manually rolled out with normal over-ride indications displayed. Altitude was lost. Significant lateral force on the cyclic was required to keep the aircraft straight. The pilot in command (PIC) took control to confirm the control issue, and again a significant roll rate to the left began, stopped by manual pilot over-ride as the bank angle approached 60°. A while later the autopilot was set up the same way with no unusual responses from the autopilot. The flight landed safely. [Concern]

17 December 2023 Cessna 208B Grand Caravan 5Y-GOK Government of Kenya utility flight hit electricity wires and crashed in a coconut palm plantation after takeoff from Kiunga Airstrip, Kenya. The aircraft caught fire, but all occupants escaped. The aircraft had just dropped off ten top performing students from an educational trip to Nairobi and was returning with seven military officers and one police officer.

2 January 2024 de Havilland Canada DHC-8-315Q MPA JA722A Japan Coast Guard. Aircraft collided with Japan Airlines flight JL516, an Airbus A350-941, on the runway at Tokyo-Haneda Airport. JL516 was landing on runway 34R when the accident happened. Video footage shows that the nose wheel of the A350 collapsed after the collision. A fire started and spread while the A350 was evacuated on the runway. According to a Japan Airlines spokesperson, there were 367 passengers and 12 crew members on board JL516 and all were believed safe. The Coast Guard DHC-8-300MPA was on its way to transport supplies to Niigata Air Base in response to the Noto Peninsula earthquake.

Reports state that one person escaped from the smaller aircraft but five died in the impact and subsequent fire. [Media]

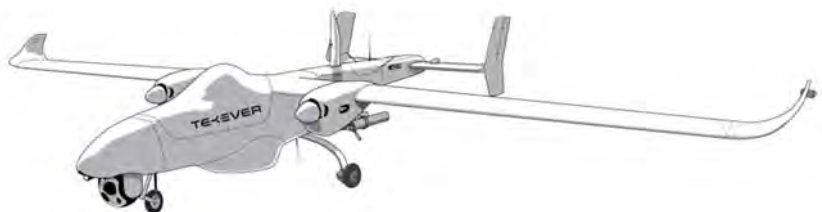


## UNMANNED

TEKEVER a manufacturer of unmanned systems technology and CRFS a pioneer in building ultra-sensitive RF receivers for spectrum monitoring and geolocation, have successfully completed phase one of their system integration partnership and launched the first sub-tactical unmanned aerial system (UAS) carrying highly sensitive RF sensors as a payload.

They have successfully completed phase one of their system integration partnership and launched the first sub-tactical unmanned aerial system (UAS) carrying highly sensitive RF sensors as a payload.

The TEKEVER AR5 has an endurance range of 20 hours, a payload capacity of 50 kg, and a cruise speed of 100 km/h. The RFeye Node is a lightweight and rugged RF receiver with a 100MHz IBW and a frequency range of up to 40GHz. Integrating an RFeye Node into an AR5 allows teams to geolocate ground-based targets situated beyond the horizon – vastly increasing intelligence, surveillance and reconnaissance (ISR) capabilities.



Capable of taking off from short, unpaved airstrips, the wide-area surveillance AR5 is easily deployed. When integrated with ruggedized RF sensors that have an IP67 form factor and are optimized for size, weight and power (SWaP), the UAS offers unparalleled spectrum monitoring, detection, signal capture, and geolocation (TDoA – time difference of arrival) capabilities.

The partnership between CRFS and TEKEVER gives end-users an asset covering vast land or sea areas with many potential applications – maritime surveillance, search and rescue, border monitoring, military ISR, and even regulatory spectrum monitoring. Thanks to the altitude at which the drone operates, the increased signal collection radius results in unprecedented operational range gains – enabling new con-

cepts of operation.

For advanced capabilities, combining the integrated UAS with existing ground-based units allows users to create an adaptable multidomain network of receivers for superior passive ISR over huge areas. This is particularly important in active combat zones, as increasing altitude allows signals to be detected at greater distances – further from the front line.

Another interesting item from Tekever is that they are now positioning themselves as the only UK commercial customer BVLOS provider in the UK. A recent advertisement for an External Safety Pilot stated “Tekever, the market leader in Unmanned Maritime Surveillance and the first to provide a BVLOS UAS commercial service in the UK, ....”

They see a safety pilot as a person who preferably have previous experience of working with and flying UAVs, or able to apply their knowledge and experience of flying models to enable the safe operation of UAVs up to 180kg.

Safety pilots are responsible for the safe operation and manoeuvring of the UAV during the initial start-up procedures through to take off. After successful missions the Safety Pilot is required to receive the UAV, assist with the landing and control of the aircraft on the ground and be able to operate safely in the event of an emergency situation. Following the landing they will assist in the servicing and maintenance of the UAV to prepare for the next mission.

This is not just anyone, and it is noticeable that the current requirement for a candidate is they must have a minimum of an ‘A’ and ‘B’ fixed wing competency certificates for UK pilots or equivalent, considerable experience of model flying and some experience of flying at night. There is much more, and it is clear that senior police officers simply do not grasp the skills and expense of a team of people that are required to operate these nominally ‘pilotless’ aircraft.

## PEOPLE

Vislink Technologies, a global technology leader in the capture, delivery, and management of high quality, live video and associated data in the media and entertainment, law enforcement, and defence markets, has announced the appointment of Bill Sweeney as the Managing Director of its MilGov business. His appointment is a strategic move following Vislink’s acquisition of Broadcast Microwave Services (BMS) assets in September 2023.

Sweeney is an esteemed leader in the Airborne Video Downlink Systems (AVDS) industry, and he joins Vislink with over a decade of experience in roles that transformed Troll Systems Corporations and Broadcast Microwave Services. His contributions at these companies were instrumental in establishing significant domestic and international client relationships, leading to notable business successes. His expertise in building high-performance sales teams has been pivotal in driving revenue growth.

Before his tenure at Troll Systems Corporations and Broadcast Microwave Services, Sweeney held various sales positions at Tileria, Axiom Microdevices, REMEC, and Cisco Systems. He is an alumnus of San Diego State University, holding a Bachelor of Arts in Economics.

Mickey Miller, CEO of Vislink, stated: “Bill’s deep understanding of the AVDS market and his impressive sales leadership skills fit perfectly with our strategic vision for the MilGov segment, which is central to Vislink’s growth. Bill’s role will be critical in integrating our existing services with the newly acquired BMS capabilities, enhancing our offerings in the military and public safety markets and further cementing Vislink’s position in the dynamic AVDS market.”




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## MOVE ALONG THERE

Which is the oldest commercial, rather than ex-military, police helicopter still in regular use? That was the question raised by APSA member and former NYPD air support member Jon Goldin recently.

Within the confines of North America, it seems that the ready answer was a 1973 Bell 206B3 operated by King County Sheriff in Seattle, Washington. N411KS/1128 has 24,000 hours on it and they hope to trade it in for something newer next year

Although they have received numerous examples of the Bell OH58 and Huey in the past, the Air Support Unit currently operates six days per week using the Bell 206, one UH-1H "Huey" helicopter received from the Federal 1208 (surplus) programme and one Bell 407 received from regional UASI funds. The total annual flight time averages about 1,200 hours a year.

*Do you operate something older than this 1973 Bell in police air support? Ex-military machines do not count!*

*The latest instalment of the seemingly never-ending saga of the National Police Chiefs Council Aviation Lead still centres on the, now suspended, Chief Constable of Northampton, Nick Adderley.*

*He was the chappie who wore his brothers service medals in the wrong manner, despite of having supposed significant previous Royal Navy service himself – he should therefore have known better. Now it appears that the 'significant' prior service has been caste into doubt and what the police had recorded as 12 years is now said to be just two years as a seaman.*

*The current situation is that he remains suspended amid ongoing gross misconduct investigations. Meanwhile he will receive full pay throughout the entirety of this investigation - his yearly salary amounts to £165,000*

*If true it places the whole situation surrounding this officer and many others beyond belief. How can the police be able to vet people – strangers – requesting to join the service when they are patently unable to realise that some of those embedded in their midst are charlatans?*



CC Nick Addersley ©Northampton Fire and Rescue.

## THE FUTURE

EcoPulse, the hybrid-electric technology demonstrator aircraft being jointly developed by Daher, Safran, and Airbus, has started its flight-test campaign. The partners announced that the first flight happened on November 29, with the modified Daher TBM 910 taking off from Tarbes Airport in the southwest of France for a 100-minute sortie.

During the flight, pilots deployed all parts of the powertrain, including the six 50-kilowatt electric power units, the turbogenerator, and six sets of electric thrusters, or "e-propellers," installed along the wing. The flight tests will validate the results of earlier ground testing and also 10 hours of flight tests that were conducted without the electric propulsion system functioning in May and June. The first test also evaluated the flight control computer and high-voltage battery pack.

Safran is responsible for the integrated motor/thruster units, as well as for the turbogenerator, which com-



bins a gas turbine with a generator. The French aircraft engines and systems group has also developed EcoPulse's power distribution and rectifier unit that protects the high-voltage network, in addition to the power harnesses.

Airbus developed the high-energy density battery pack, which is rated at 800 volts DC and can deliver 350 kilowatts of power. The European airframer also made aerodynamic and acoustic modifications to the TBM testbed aircraft, as well as developing the flight control computer.



## BUT IN THIS NEW YEAR IT IS ONLY FAIR TO CAUTION

Gradually questions are being asked about how the power sources of the future are really going to work in practice.

Those of us with all-electric or hybrid cars are aware that they come with limitations—the least of which is the lack of space for a spare wheel.

Few have yet been faced with a bill for replacing the battery pack in their vehicle, but projections suggest it will be every bit as painful as a failed engine or gearbox in a conventional car.

This is a Tesla model Y battery. It takes up all of the space under the passenger compartment of the car.

To manufacture it you need:

- 12 tons of rock for Lithium (can also be extracted from sea water)
- 5 tons of cobalt minerals (Most cobalt is made as a byproduct of the processing of copper and nickel ores. It is the most difficult material to obtain for a battery and the most expensive.)

- 3 tons nickel ore

- 12 tons of copper ore

You must move 250 tons of soil to obtain:

- 26.5 pounds of Lithium

- 30 pounds of nickel

- 48.5 pounds of manganese

- 15 pounds of cobalt

To manufacture the battery also requires:

- 441 pounds of aluminium, steel and/or plastic

- 112 pounds of graphite

The Caterpillar 994A is used for the earthmoving to obtain the essential minerals. It consumes 264 gallons of diesel in 12 hours.

Finally, you get a "zero emissions" car.



Presently, the bulk of the necessary minerals for manufacturing the batteries come from China or Africa. Much of the labour for getting the minerals in Africa is done by children! If we buy electric cars, it's China who profits most!

Based on the prices two years ago battery packs have the capability to empty your bank account at a stroke.

This 2021 Tesla Model Y OEM battery (the cheapest Tesla battery) Has been for sale on the Internet for \$4,999 not including shipping or installation. The battery weighs 1,000 pounds (you can imagine the shipping cost). The cost of Tesla batteries is:

- Model 3 -- \$14,000+ (Car MSRP \$38,990)
- Model Y -- \$5,000–\$5,500 (Car MSRP \$47,740)
- Model S -- \$13,000–\$20,000 (Car MSRP \$74,990)
- Model X -- \$13,000+ (Car MSRP \$79,990)

It is reckoned that it takes SEVEN years for an electric car to reach net-zero CO2. The life expectancy of the batteries is 10 years (average). Only in the last three years do you begin to reduce your carbon footprint. Then the batteries have to be replaced and you lose all the gains you made in those three years.

As one commentator cautioned....” The oil company propaganda is working on the gullible” but really all of the above is indefensible. Roll on hydrogen power, at least a suitable gas storage system for motor vehicles was tried and tested 80 years ago.....



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