

Police Aviation News

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Issue 324

April 2023



THE SAME AGAIN
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LAW ENFORCEMENT

AUSTRALIA

FEDERAL: Five alleged criminal syndicate members accused of orchestrating a black flight from Papua New Guinea to Australia with 52kg of methamphetamine on board have been charged under an AFP-led investigation..

Four of the five men, all from NSW, appeared before Bundaberg Magistrates Court late on March 22 on charges relating to their alleged involvement in the black flight.

A black flight is commonly a light aircraft that logs false flight plans (or no log at all), flies at a very low altitude or turns off flight monitoring systems to avoid law enforcement or aviation monitoring systems. It is alleged the men charged were transnational serious organised crime (TSOC) members who handled the practical arrangements for the methamphetamine to be imported on board a black flight from PNG to rural Queensland. It will be alleged that once the flight landed in Queensland, the aircraft would be re-fuelled and flown to NSW.

Three of the arrested men allegedly provided ground support for the flight and had staged themselves in Queensland since February in preparation for the flight. The two pilots who allegedly flew the black flight were also charged.

The methamphetamine had an estimated street value of more than \$15M.

The investigation was part of Operation Gepar, which is a joint investigation with the AFP, the Police allege that over two days (20 to 21 March, 2023), two men flew a twin-engine Beechcraft light aircraft from Wilton, a rural area south west of Sydney, to the town of Bulolo in PNG, which is more than 250km north-west of Port Moresby, refuelling at an airstrip at Monto, Three Moon Queensland.

Their actions were monitored by members of the Royal Papua New Guinea Constabulary (RPNGC).

The pilots allegedly collected 52kg of meth-



COVER IMAGE: On March 15 Yorkshire Air Ambulance unveiled the first of two new Airbus Helicopters H145 helicopter - G-YAAA - at a private media event ahead of its entry into service at the Nostell Air Support Unit near Wakefield. This and its other new 5-blade D3 example will replace two earlier H145 in service by the summer. [PAR image]



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amphetamine in PNG and then returned to the remote air-strip at Monto 450km north-west of Brisbane. The men allegedly flew at an unauthorised low altitude with the aircraft’s transponder switched off during the return journey in an effort to avoid radar detection.

All five men were arrested by specialist AFP and Queensland Police Service members shortly after the plane arrived at the Monto airstrip on March 21. Police located and seized five duffle bags concealed in the plane, containing the methamphetamine.

In subsequent raids on the homes of those arrested further paraphernalia and items of interest were seized and may add to the case being formed against those arrested and others.

All five men were charged with importing a commercial quantity of methamphetamine contrary to section 307.1 of the Criminal Code Act 1995 (Cth), and face a maximum penalty of life imprisonment if convicted.

This black flight is not the first attempt by alleged TSOC members to transport illegal substances from PNG into Australia. In 2020, an alleged black flight carrying 550kg of cocaine attempted to leave PNG but crashed when trying to take off.

The pilot of that venture is serving an 18-year-prison sentence term in PNG for the attempted import. Other prosecutions, both in PNG and in Australia, relating to that matter are ongoing.

Ed: This 'day in the life' story is extracted from a joint media release by the Australian Federal Police, New South Wales Police Force, Queensland Police Service, Australian Criminal Intelligence Commission and the Royal Papua New Guinea Constabulary that included 22 images.



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BELGIUM

POLICE: A year ago it was surmised that the Belgian military would be replacing its NH90 and A109 BAI Power helicopters with the Airbus Helicopters H145M. Although the prospect seemed unlikely – the NH90 is far bigger than the 145 and the 109 slightly smaller - one year on it is being suggested by a site in Belgium that the prospect may well see the light of day.

It is said that the military have commenced a tender process through NATO to order 15 helicopters for its own use and five for use by the “Gendarmerie” with a target delivery date of 2026. The police air unit has not called itself the Gendarmerie for many years, but it may well be true. The process seems wedded to the H145 and H145 on the grounds that MD are not offering the option of any customer having the MD902 but may well be pure speculation. At the recent HAI Heli-Expo in Atlanta MD said it was having difficulties keeping the parts supply of the MD902 at an acceptable level.

Ed: After most of its existence as a good but not outstanding design, with steady sales it appears that renewed and wider interest in the venerable BK117 may force it into becoming a very long lead item. Few cannot have noticed that the 44 years old design is becoming something of a must have vehicle for police and air ambulance work across the world. If there is any truth in the latest story that Germany's Defence Ministry wants to buy 82 of the H-145 (BK117D3) to convert some of them into combat helicopters to replace its Tiger combat fleet, the fact that there is a war looming out there may well suggest that prospective customers need to get their orders in now. While the type is seen as too flimsy for front line work the numbers of them being incorporated in war work grows.

CANADA

ONTARIO: York Regional Police have taken delivery of its new Can\$7.1M Airbus Helicopters H125 C-GYRP to replace their current EC120 “Air2” C-GYRC which they have used since 2002. The earlier aircraft accrued 20,000 hours in its two decades of service. The EC120 is no longer available to purchase new. The aircraft will be used for law enforcement missions in Ontario, Canada including speed patrol, suspect surveillance and pursuit, and search and rescue.

Last year the air unit supported over 1,300 calls for service, helped to make 213 arrests and assisted in finding 15 missing and vulnerable people. [Airbus]



The new York Regional Police H125 replaces a now out of production H120 ©Supplied

GERMANY

BUNDESPOLIZEI: Another major operator of out-of-production EC120 is the German Federal Police (Bundespolizei). They have used the type for pilot training at their Hangelar/ St. Augustin facility near Bonn for some years now.

They are retaining the type in service and have signed a long-term HCare Classics support contract for ten H120 helicopters. The support contract will secure the availability of H120 parts, as well as obsolescence management and technical support.

“Our pilot aviation school is the key pillar for pilot training, not only of future pilots of the Federal Police but also of Länderpolizei pilots. Thanks to the high availability and performance of our H120 training helicopters we can ensure a continuous training schedule which is critical for our entire training organisation,” said Matthias Achteresch, Head of Staff Division Administration & Police Technology, Bundespolizei. “The HCare Classics support contract will help us ensure that the fleet is performing at its peak while optimising costs and streamlining maintenance activities.”



The Bundespolizei undertake pilot training at their Hangelar facility near Bonn ©Airbus

Over 700 operators continue to fly the EC120 helicopters from the legacy fleet. A major factor in its removal from production was that its build cost was too high when compared with the newer Robinson R66

and the Bell 505, rather than any fault of the airframe. There are more than 1,800 out-of-production legacy Airbus helicopters in service with approximately 750 operators around the world. These out-of-production aircraft include the H120, Dauphin, Puma and Gazelle and account for 15% of the flight hours generated by the entire Airbus Helicopters fleet.

GHANA

POLICE: The three police helicopters assigned to the police in Ghana have finally appeared in public at a public event in Ghana. The single AS350 and two SA341 helicopters have been known about for some time now but were presumably kept in the background while their pilots built up experience after flight training in South Africa.



Two SA341Gazelle and the AS350 ©Ghana Police

Airbus AS350 ©Ghana Police

©Ghana Police

Back in the autumn of 2021 The Ghana Police Service announced it would take delivery of three helicopters, made up of two gazelle light attack helicopters and one Airbus 350 helicopter but no details were forthcoming. All subsequent announcements merely reiterated the story, though it was confirmed that the hangars for the helicopters,

located at the National Police Training School, have been completed and six officers, who will fly these helicopters, had completed their training in South Africa.

It appears that all three helicopters were equipped for service at Excel Helicopters, one of the leading engineering supporters of the Aerospatiale AS341 Gazelle based at Stapleford Aerodrome in Essex. Certainly, one of the Gazelle's appeared in undated video footage in Hangar 17 at Stapleford Tawney. The level of the role fit is unknown, to date images have shown no sensor fit but if these are former UK forces airframes they may still be wired for weapons. New footage taken last month shows one of the Gazelles at the National Police Training School base in Ghana.

Ed: Excel Helicopters declined to comment on this contract, or even to confirm their part in it.

NEW ZEALAND

HAWKE'S BAY: It seems that any time the population of New Zealand get to experience the capabilities of their national police aviation unit and its Bell 429 'Eagle' helicopters they want more. The attest area to come to appreciate their worth are those in and around Hawke's Bay.

The helicopter was deployed in the wake of Cyclone Gabrielle to reassure residents following reports of looting and opportunistic crime and now hundreds of Napier residents are calling for the police Eagle helicopter to stay in Hawke's Bay beyond the disaster response. It seems locals had been worried about crime long before the storm, brought about in part by the centralisation of local policing in Hastings about a decade ago. That seems to be a common problem worldwide. Local resources are confined to a satellite station in Napier, but it has no cells, as is not accessible to the public in the evening or night-time. That leads to the local police spending an inordinate time travelling to and from Hastings with prisoners. The presence of the helicopter overhead depressing crime and giving a sense of enhanced policing has been welcomed as a result.



The last order for Bell 407 helicopters led to the delivery of these three to Poland ©Bell Textron

POLAND

NATIONAL: Bell has announced the signed purchase agreement for four additional Bell 407GX_i aircraft for the Polish National Police (PNP). The helicopters will be purchased as part of road safety project. The supplier is again JB Investments Limited, Bell's Independent Representative (IR) for Poland and the host of the 2018 PAvCon Europe police aviation conference.

The four Bell 407GX_i aircraft will join three aircraft of the same type which were delivered to the PNP in October 2020. The PNP also operates two Bell 206s and a Bell 412HP. With a total number of seven Bell 407GX_i Polish National Police will become the largest user of this type of helicopter among other public institutions in Europe.



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As with the aircraft already delivered to the PNP, the new Bell 407GXis will come equipped with the Trakka Systems Total Solution Package which includes a searchlight, camera and moving map as well as downlink system and operator console. The system enables the crew to detect, identify and track vehicles, as well as estimate their speed.

“During the 30 years of our company's operation, we have already delivered more than 50 aircraft for public tenders for various institutions, including the Polish Police. Now, thanks to our 15 years of experience working with Bell Textron, we have the honor to be a prime contractor for the delivery of another four Bell 407 helicopters,” said Magdalena Karska, board member, JB Investments Limited.

There are now 1,590 Bell 407 operating around the world, with 109 located in Europe. The aircraft has proved popular with parapublic operators, with 131 used globally for this mission.

The Bell 407GXi is powered by a Rolls-Royce M250-C47E/4 turbine engine featuring two dual-channel FADECs. This high-performance yet fuel efficient engine delivers impressive performance in hot and high conditions and delivers a cruise speed of 133 kts (246 km/h). The aircraft also features the latest Garmin G1000H NXi avionics, featuring high resolution LED displays, faster processing power and the ability to connect to tablets and smartphones.

UNITED STATES

ARIZONA: StandardAero is actively completing Phase 2 and 3 of a 3-phase process to upgrade the Pinal County Sheriff Office (PCSO), Arizona, Bell UH-1H helicopter for hot, high, and heavy operations in Arizona, underway at StandardAero's helicopter airframe facility in British Columbia, it was due for completion last month.

Included in the modifications are airframe modifications to the lift beam, main beams, and tail boom attach areas, as well as engine mount and main transmission mount areas. Main transmission, driveshaft assemblies and engine also are upgraded. Phase 2 modifications are designed for increasing horsepower and torque that is required to improve lift capability to 5,000 pounds of external cargo capacity and a 10,500-pound external gross weight limitation.

Included in Phase 3 is the Bell 212 main rotor hub and blades upgrades to provide a 10,500-pound internal and 11,200-pound external gross weight capacity. These modifications are in addition to Phase 1 modifications for improved hover-hold, yaw control and reduced torque, tail rotor power requirements, and fuel consumption. Phase 1 upgrades completed in 2021 also included an upgraded T53-L-703 engine and transmission cooling system.

FLORIDA: Bell has a purchase agreement for a Bell 407GXi aircraft to St. Johns County Sheriff's Office (SJSO). The Bell 407GXi aircraft will join the Aviation Operations Unit to serve the citizens of St. Augustine, Florida and surrounding counties. St. Johns County has selected to replace its venerable Bell OH58 aircraft with the 407GXi. The new avionics and upgraded engine will deliver increased readiness and reliability that is critical to the vast mission portfolio of St. Johns County Sheriff's Aviation Operations Unit.

Dating back to 1821, St. Johns County Sheriff's Office has served with excellence to protect and serve St. Augustine and St. Augustine Beach as well as neighboring communities in northeastern Florida including Ponte Vedra, Hastings, Switzerland, Crescent Beach, Toco, Bakersville, Picolatta, Orangedale, Fruit Cove, Summer Haven and Vilano Beach.

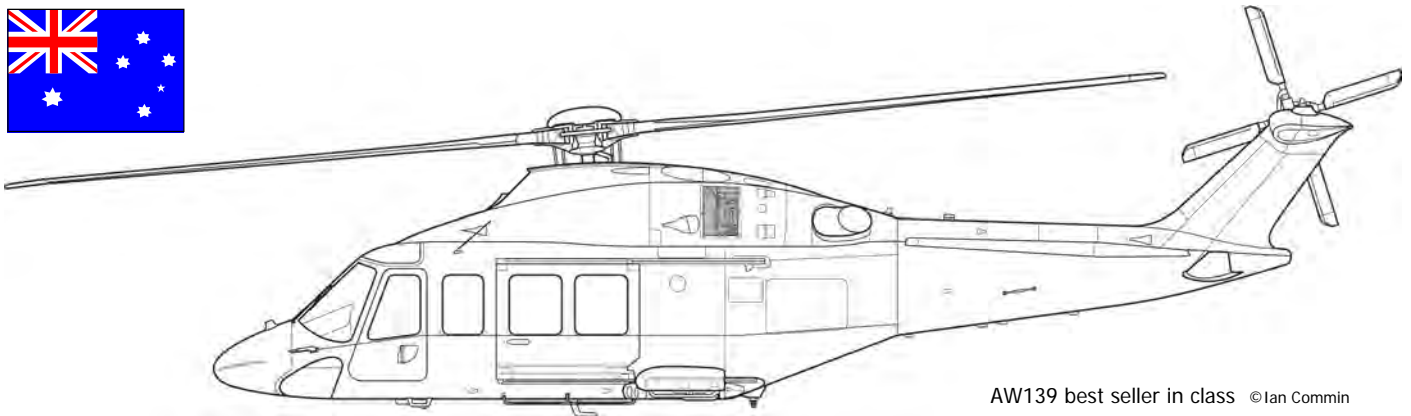
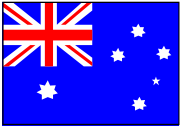
The Sheriff's Office got their first helicopter in 1996. In 2002, Sheriff's Office mechanics used three inoperable helicopters, donated from the DoD to build up the first helicopter, Air II, a 1971 Bell Helicopter Model OH-58A or Kiowa. A 1973 Bell Helicopter Model OH-58A was acquired in flyable condition in 1996 for \$500. From 1997 to 2003 the operation undertook 1,089 patrol missions, assisted other agencies 221 times, undertook 115 aerial photo missions – 115, 59 drug eradication sorties, 126 fires, and 744 searches. The missions led to 282 arrests, 19 stolen vehicle recoveries and the seizure of cocaine and marijuana plants.

Based on figures released a few years ago operating the venerable Kiowa for 700 flight hours a year was an economic at \$72,000 a year maintenance, plus some \$10,000 a year in insurance for each aircraft. Air II cost \$40,500 when it arrived. Air II cost \$74,640.87 for labour and equipment. Each would have cost at least \$1M to buy commercially. The move to operating a modern Bell 407 with drastically alter those numbers.

AIR AMBULANCE

AUSTRALIA

NATIONAL: At the Avalon Air Show Leonardo announced further growth in presence of the AW139 intermediate twin engine helicopter in Australia, with orders for a total of six aircraft by three different prime operators: Babcock Australasia (Babcock), RACQ CQ Rescue (CQ Rescue) and StarFlight Australia. All six aircraft will be delivered from Leonardo's Vergiate final assembly line facility in Italy during 2024.



AW139 best seller in class ©Ian Commin

The two AW139 platforms ordered by Babcock will carry out a range of HEMS, Search and Rescue and Inter-Hospital Patient Transport missions on behalf of an undisclosed client. The AW139 platforms will be delivered in 2024 and will commence service in the second half of the year, following dedicated mission customisation performed locally. The new aircraft will feature a wide range of tailored equipment including: 4-axis DAFCS (Digital Automatic Flight Control System) autopilot enhanced with Hover Mode; brand new Avionic Phase 8; TCAS II (Traffic Collision Avoidance System); searchlight; camera; wire cutter; and rescue hoist, among others. This new order will bring the total Babcock AW139 fleet to nine, as they already operate seven AW139s in Australia on behalf of Air Ambulance Victoria and RACQ CapRescue.

The two AW139 platforms ordered by CQ Rescue will be used in the Mackay region of Central Queensland to perform both on-shore and off-shore EMS/SAR missions' day and night and in most weather conditions. The aircraft will feature the latest in product enhancement, technology and mission capability such as advanced avionics including the latest night vision goggle capability, search and weather radar and the latest in communications to support CQ Rescue's extensive mission requirements. Thanks to the new AW139s, CQ Rescue will fly twice as far and with a 30% increase in mission speed compared to the previous helicopters, reaching remote and rural communities faster than ever before. The AW139s are expected to be delivered in the second quarter 2024 and will enter service prior to the end of year.

StarFlight Australia's order consists of two AW139s that will be operated in Queensland and other parts of Australia, carrying out EMS/SAR missions in both on shore and off shore capacities. The new aircraft featuring all the latest avionics technology, patient care and search and rescue capability are expected to be delivered in late 2024 and will enter service following local inclusions and modifications required for the mission sector. This new order will bring the total of AW139s operated by the StarFlight and LifeFlight groups to 15, nine of which are dedicated to EMS/SAR missions.

With more than 1,130 units in service for over 280 customers in around 90 nations, and over 3.6 million flight hours logged to date since its certification in 2004, the AW139 has proven extremely successful for rescue and emergency missions.

IRELAND

COUNTY OFFALLY: There are calls for a new helicopter for emergency medical services to be based in a mid-Ireland army barracks.

The HEMS needs of the region are served by a military AW139 helicopter based at Custume Barracks in Athlone, but the capability of the medical crew is restricted and there is no dedicated HEMS vehicle. Doctors, nurses or an emergency physician are typically on-board a HEMS helicopter, which offers critical care at the scene of road traffic collisions.

The Republic of Ireland operates a single charity air ambulance from Cork in the south of the country. The charity set up was unable to fully support the HEMS ideals and as a result the government was obliged to

take on the service. The rest of Ireland is served by military helicopters with a service that is often less well equipped to serve.

NEW ZEALAND

OTAGO: The Airbus Helicopters H145 has gained favour with operators in the Pacific region, with New Zealand's HeliOtago deploying the rotorcraft on Helicopter-based Emergency Medical Services (HEMS) being one such example.

HeliOtago's CEO, Graeme Gale, shared that the H145's readiness and ability to operate 24/7 in all weather conditions has significantly enhanced its mission successes. This is supported by the Helionix suite features, reliability and serviceability, as well as its cabin space and architecture. The H145 also fulfilled the criteria it had, including safety, Instrument Flight Rules capabilities, performance, and reliability.

NORWAY

NATIONAL: The Norwegian Air Ambulance is ordering two additional H145s to be used for missions in Norway. They will be delivered as the five-bladed D3 model.

The five-bladed H145 has proven to be the perfect helicopter for our HEMS operations," said Leif Olstad, CEO of the Norwegian Air Ambulance. "With the new helicopters we will continue to serve the people of Norway with state-of-the-art equipment to ensure the best service possible."

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



©Airbus Helicopters

There are more than 1,600 H145/BK117 family helicopters in service, logging a total of more than seven million flight hours. Powered by two Safran Arriel 2E engines, the H145 is equipped with full authority digital engine control (FADEC) and the Helionix digital avionics suite. It includes a high performance 4-axis autopilot, increasing safety and reducing pilot workload. Its particularly low acoustic footprint makes the H145 the quietest helicopter in its class, while its CO2 emissions are the lowest amongst its competitors.

HAMMERFEST: A contract has been awarded for the building of a helicopter landing pad at the new Hammerfest Hospital. Hammerfest or Håmmárfeasta is a town in Troms og Finnmark county, Norway. It is located on the northwestern coast of the island of Kvaløya, off the northernmost area of Norway.

Sykehusbygg HF, Trondheim, Norway, procured an architect and consultancy services for a helicopter landing place at the Hammerfest Hospital (NHS) on behalf of Finnmark Hospital Trust. The structure is to be a landing place with an elevated footbridge to the emergency department at the hospital. The primary user of the pad will be 330 squadron is located in Lakselv, the hospital receives patients from them approx. 2-3 times a week. In 2020 330 Squadron started to replace its Sea King helicopters with the EH101. The last Sea King departs this year. In terms of patient traffic, Hammerfest Hospital is no. 2 in North Norway, with only Nordland Hospital in Bodø having more landings a year from rescue helicopters.



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The value of this contract is given as 11,500,000 Norwegian Krona (€1M) plus tax and it was awarded to Cowi AS (Hovedenhet) in Oslo. [TED]

UNITED KINGDOM

EAST ANGLIA: Last month Anglia Two, the Cambridge Airport based H145 helicopter, G-HEMC flew off for its 5-blade upgrade. For the next 12 weeks she will be at Staverton, where the charity's aviation partner Babcock undertake their engineering and maintenance works. Whilst there, she will be getting her scheduled maintenance checks and will be fitted with a brand-new 5 blade rotor head.

The new upgrade will reduce vibrations in flight, meaning more comfort for patients experiencing significant pain and will enhance patient safety through more stable monitoring during flight. The increase in lift will provide greater weight allowance, resulting in EAAA being able to carry more fuel and equipment.

G-HEMC joined the charity in 2015 and was not only the first H145 for EAAA, but also the first in the UK! Until the return of the prime helicopter the Cambridge base will be using the 2018 Babcock training and stand in H145 airframe G-EMSS. [EAAA]

YORKSHIRE: On March 15 Yorkshire Air Ambulance unveiled its new Airbus Helicopters H145 helicopter - G-YAAA - at a private media event ahead of its entry into service at the Nostell Air Support Unit, off Doncaster Road, Foulby, Wakefield WF4 1QA. It was not a major event and attracted just a television company, the York Press, Wakefield Courier and PAN. Even the BBC were otherwise engaged with "staff training" it seems!

After operating the H145 for some years the Yorkshire Air Ambulance (YAA) decided to buy new D3 5-blade helicopters to replace the existing fleet rather than upgrade their still relatively young airframes. The residual value of the current airframes at changeover was seen as offering good value to the charity. The rapid response emergency service is updating both its current aircrafts, G-YAAC and G-YOAA, and the last of these was on hand and operational to compare with the newer airframe. Most of the verbal and demonstration presentation was made by Steve Waudby, Director of Aviation, who delivered a brief overview explaining the decision process behind the new helicopters and showing the benefits of the new model.



As has become clear with recent orders for the H145 across the market, this type has reached the pinnacle of its capabilities in the eyes of prospective buyers. The night-capable aircraft, still produced on a MBB BK117 building block, now demonstrates exceptional flight performance and offers significant technological advancements, including the reduced vibration, which will considerably improve ride quality. Comparing the H145 D3 with the original 1979 vintage BK117 is not that easy, so much has changed visually that it is only obvious to technicians. About the only element that has not radically changed over the years is the structure where the engines are installed, that has resulted in a fairly common rear cabin headroom in all versions.

The new version of Airbus' best-selling H145 light twin-engine helicopter adds a new, innovative five-bladed rotor to the multi-mission aircraft, increasing the useful load of the helicopter by 150kg (330 lbs.). The simplicity of the new bearingless main rotor design also eases maintenance operations, further improving the benchmark serviceability and reliability of the H145, while improving ride comfort for both passengers and crew.

Externally there is little to see between the old Yorkshire H145 airframes and the new, they are all yellow and have the same sponsorship logos applied. The only real difference to the casual viewer is the registration. The type has a very different rotor head, chunkier and more streamlined and now five blades that gives a very different smoother ride to the emergency crew and their patient and several different aeri-als.

For the men and women of the crew the main changes are those incorporated in the internal Bucher medical fit. The rear clamshell doors of the older helicopters each have a glazed panel, where the new airframes only feature glazing on the left door, the right door now incorporates a handy storage bin. The most obvious change is to the stretcher fit. The old aircraft use a floor mounted device that requires two or more people to remove it from the rear, the new AC70 Flex device can easily be loaded and unloaded by a single person even when the patient is in situ. The stretcher considers all the 'manual handling' lessons and drops wheels as it slides out – not necessarily something that works well in a field, but fine at the receiving hospital and obviates the need to take a hospital trolley to the aircraft.

The old delivery method usually resulted in the patient being off loaded whilst covered in medical aids and medicine containers, not necessarily something that a conscious and severely traumatised patient would want. All these are set aside with the new design. There is a bracket for everything, and the future patients will no doubt learn to appreciate that particular option. Time will tell whether the medical crew have the same appreciation of the changes in equipment in the wake of experience.

There is no immediate intention to move the current business model into new areas, the new helicopters may be night and bad weather capable but Yorkshire did not operate a night service before and sees no pressing reason to change their plans. When the aircraft are down due to weather or maintenance there is a road car service delivering the medical crew to emergencies.

Launched as the West Yorkshire Air Ambulance 20 years ago flying the Bolkow BO105 the operation quickly renamed itself as Yorkshire AA to serve the whole county. After some severe learning experiences the operation has come a long way in the last decade in terms of operational efficiency and capability. They faced hard times with unreliable and spares denuded MD902s before selecting the H145 as their future mount.

Emergency service operators have long complained about how the salesmen in the industry have consistently mislead them over what they might expect from their aircraft, not just performance but more importantly availability. It seems that most manufacturers promote the theory of a two week downtime for an annual inspection for their products and consistently deliver a six week delivery time. As a result most operators now assume long absences and try to mitigate them as best they can. Having a pilot grounded and ineffective for a month and a half is wholly inefficient for those directly employing their pilots. Yorkshire entered into an agreement with Gama Aviation to use their spare H145 aircraft, but even that failed to effectively fill the gap. Gama have a primary responsibility to customer Scottish Air Ambulance and the aircraft was not therefore available for much more than one of the six weeks as far as Yorkshire were concerned. Potentially the new Gama contract with Wales Air Ambulance will see them getting an additional H145 as a fleet spare and therefore increasing availability to Yorkshire and others operating the type.

www.yaa.org.uk

UNITED STATES

FLORIDA: Metro Aviation recently delivered an EC135P2+, N893HF, to Health First, headquartered in Melbourne, Florida. The aircraft has Metro's standard EMS interior, a Ferno litter, and the Outerlink IRIS system.

The new EC135 is Single Pilot IFR (SPIFR) equipped and will replace an older VFR EC135 aircraft. Metro Aviation has provided aircraft operations services to First Flight for 28 years since 1995. They operated their previous EC135 for 23 of those years. [Metro Aviation]

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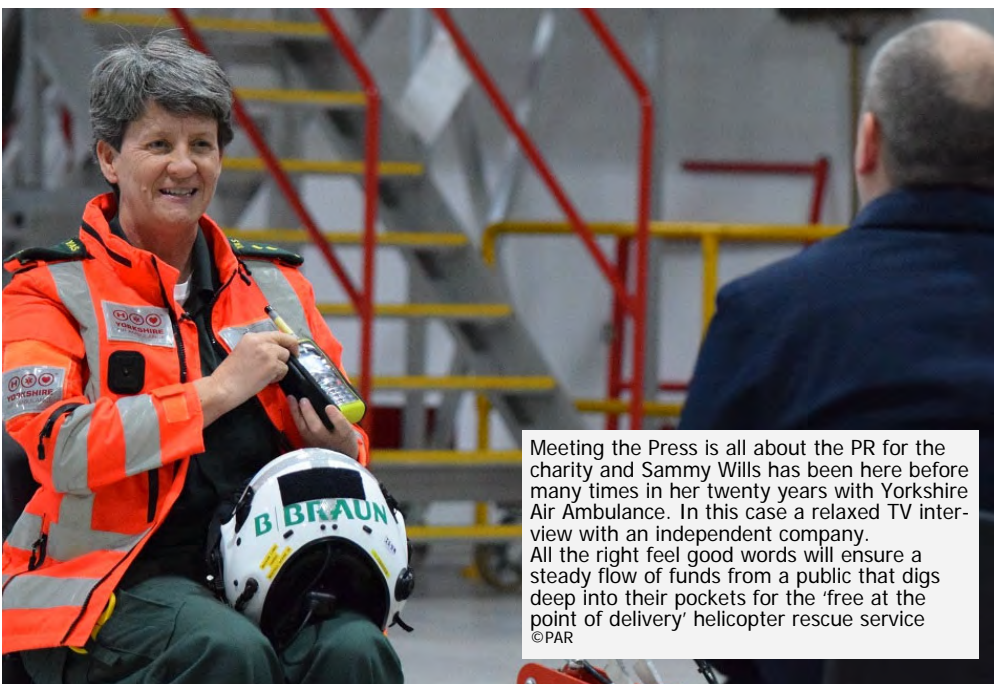


The New

Looking to all intents and purposes as being identical, the new airframe with the five blade rotor head is on the left, the interior medical fit is the main difference. On the left is the new interior and its self supporting AC70 Flex stretcher, on the right the much more rudimentary stretcher. Note the blue bag on the AC70, just one of a number of clip on medical additions that take the load off the patient. ©PAR



The Old



Meeting the Press is all about the PR for the charity and Sammy Wills has been here before many times in her twenty years with Yorkshire Air Ambulance. In this case a relaxed TV interview with an independent company. All the right feel good words will ensure a steady flow of funds from a public that digs deep into their pockets for the 'free at the point of delivery' helicopter rescue service ©PAR



The New

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FIRE

INDIA

WILDFIRES: Early last month the Indian Air Force deployed one Mi-17 helicopter for fighting raging forest fires in Goa, using Bambi Buckets.

Operations have seen this helicopter flying multiple missions dispensing almost 22,000 litres of water to fight the fire. The Indian Air Force is coordinating with the Indian Navy and the civil administration in combating forest fires in the affected areas of the coastal state.

In the recent past, the IAF had also undertaken similar operations in Rajasthan, Himachal Pradesh, Mizoram and Manipur.

UNITED KINGDOM

AVON: A new fire and rescue hovercraft could be on its way to Weston-super-Mare. Avon Fire and Rescue Service has a Firefly hovercraft based in the seaside town's fire station, primarily used to rescue people stuck in the Severn Estuary, the second highest tidal range in the world.

Although they can be tricky to handle, hovercrafts can quickly glide across water and mud, making them suitable rescue vehicles for the tidal environment.

The fire and rescue hovercraft needs replacing — at a cost of half a million pounds. It is not just the cost of the hovercraft, the vehicle needed to transport it to suitable launch points is now a very old vehicle and no longer fit for purpose.

Editor: Although the first practical hovercraft was credited to British engineer inventor Sir Christopher Cockerell (1910-99) over 68 years ago the numbers of these craft in the UK is relatively low. In terms of rescue craft there are a number operating over tidal sands operated by individual rescue services, even the largest operator, the RNLI, only have seven in service around the coasts of Britain. There have been a few hovercraft ferry services over the years but now the Isle of Wight Hovercraft between Ryde and Southsea in Portsmouth, is the last remaining commercial hovercraft service in the world. In 1963, a hovercraft ferry briefly took passengers between Weston and Penarth in Wales, but the six-week experiment was never repeated. At the height of its success there were many manufacturers of hovercraft, including numerous aircraft companies, but now most of the need is met by Griffon Hoverwork in Southampton.





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UNITED STATES

MONTANA: Billings Flying Service (BFS) is in final negotiations to purchase six Netherlands Defence Ministry surplus Boeing CH-47D Chinook helicopters. The sale was approved by the Netherlands' Defence Material Sales committee at the end of 2022.

Once the contract is signed the aircraft will be transported to Billings, Montana, to undergo a role fit series of modifications to support the company's heavy lift, aerial firefighting, and utility/infrastructure operations. Expected entry into service is later this year and early 2024.

*Editor: **Billings Flying Service is celebrating 40 years in business this year. They are a heavy lift helicopter solutions provider specialising the in CH-47 Chinook operations in aerial firefighting, utility, and construction.***



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SEARCH & RESCUE

EUROPE

There appears to be a growing willingness to cooperate within Europe and even to extend this to include the British Brexiteers – for a tidy price. Tony Cowan updates the situation over the English Channel.

‘STOP THE BOATS’

Until very recently, until after the Anglo-French summit in Paris on the 10 March 2023, many probably didn't fully appreciate the determination of the British Prime Minister, The Rt Hon Rishi Sunak MP to 'stop the boats'! These are the same boats, mostly large inflatables, which carried 45,755 migrants across the English Channel in 2022, from France to England, to enter the United Kingdom without permission. In the New Year, the Prime Minister made five pledges, the first three were initiatives to improve the UK economy, the fourth was to improve health care, the fifth was to 'stop the boats'.

The British Prime Minister, Rishi Sunak and the French President, Emmanuel Macron met in Paris, where they agreed to 'stop the boats', those small boats carrying migrants across the English Channel from France to England.



No doubt further details will emerge in the coming weeks and months, together with a more deeper analysis. In the meantime, the British Government and the national press has reported that the new Anglo-French agreement, to stop migrants crossing the English Channel in small boats, will cost the UK £478million (\$576million USD) over 3 years. The new package will include more gendarmes patrolling the beaches of northern France, doubling the numbers to 800 (in Army terms, a full infantry battalion) with, in addition, British 'observers'. Also, a new detention centre near Dunkirk and a new 24/7 Anglo-French 'zonal coordination centre' at Lille in northern France. There are also references to more drones, more aircraft and other surveillance technology.

AIR SUPPORT

It is doubtful that the proposal to deploy more drones will provide the speed, the reach and the agility that was demonstrated earlier this year by light aircraft over a period of 3 days, Friday, 3 to Sunday, 5 March. Principally, a Cessna C182 and two Piper PA-28's flown by civilian aircrew, members of the 'voluntary sector', patrolled the northern French beaches at dawn and at sunset, from their bases at Le Touquet and at Merville. A total of six patrols, at sunrise and at sunset, beginning on the Friday evening were completed in 3 consecutive days.

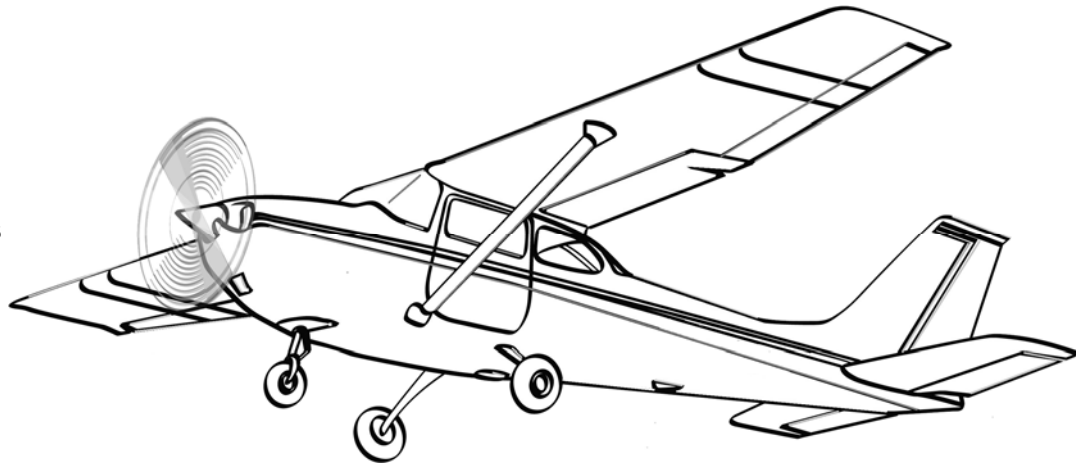


The utility of a light aircraft, their speed, reach and agility, has been demonstrated over the beaches of northern France where they have been used to deter as well as detect migrants intending to cross the English Channel in small boats.

These patrols were flown at low level and at low speed above the beaches and the sand dunes between the Baie de Somme and Dunkirk. Also, above the migrant camps near Dunkirk to detect and deter migrants planning to cross the English Channel, in a boat, to enter the UK without permission.

There were no reported landings in the UK by migrants in small boats during these 3 days, 3-5 March 2023. Later, in the same month, 17-19 March, also a weekend, Friday to Sunday, 482 migrants in 12 boats, crossed the Channel. On this occasion there was just one 'dawn patrol' by a light aircraft, a Cessna 182, on the morning of Friday, 17 March. This aircraft became airborne over an hour after sunrise. Other patrols were flown mid-Channel by the HM Coastguard King Air and a Diamond DA62 MPP operating from Lydd in Kent. However, these mid-Channel patrols simply report the location of those inflatable boats carrying migrants, so that the occupants may be 'rescued' by members of the UK Border Force. Unlike those patrols that take place over the beaches of northern France there is no deterrence in conjunction with the detection provided by mid-Channel air patrols. The utility of light aircraft, together with its crew using stabilised binoculars, as opposed to a drone with its crew in a cabin, on the ground, or a larger aircraft flying too fast and lacking the agility of a small aircraft, should not be underrated. On this occasion, 'cheap and cheerful' has the edge over other forms of aerial surveillance, including drones and the larger maritime patrol aircraft.

Although more capable aircraft, such as the Diamond DA62 MPP, equipped with both radar and an electro-optical camera turret, will continue to patrol the English Channel to detect boats carrying migrants, less sophisticated 'spotter aircraft' will be required to provide close air support for the gendarmes patrolling the beaches of northern France.



As the year progresses and the days get longer, if more light aircraft, 'spotter planes' are required to support the 'battalion' of 800 gendarmes on the French beaches, to provide an 'eye in the sky', then additional aircrew, together with their aircraft, could, if needed, be recruited in the UK. As a former RAF maritime patrol pilot, and former police pilot too, I would, if required, be pleased to support the new initiative with my own aircraft.

JOINT FUNDING

Since 2018 the British Government has paid the French £200M (\$244M USD) to improve security and to prevent migrants from crossing the English Channel in small boats. This amount includes the £63M paid in 2022 and the £55M paid in 2021. However, the recent reports also highlight the fact that the French will now make their own contribution of 5x as much as the UK's new, additional payment of £478M, bringing the total to £3billion (\$3.620billion USD) over the next 3 years. Currently, the UK is reported to spend around £5.5M + per day (£2billion + per annum) to pay for hotel accommodation for migrants. So, if the hotels are returned to their original use, to support business and tourism, then £478M over 3 years will be money well spent, it may be agreed.

The new plan, the way ahead, does not include any detail on how the new, yet to be built, detention centre at Dunkirk will work? It's reported that it will house up to 140 migrants for up to 90 days, which can be extended by a judge, whilst awaiting deportation. What is unclear is, will the new detention centre be used to detain migrants who have been detained on a beach in France, or will it be those migrants who have entered the UK illegally by crossing the English Channel in a small boat? Will those migrants who are detained in the UK, be returned to France to the new French detention centre?

NEW LEGISLATION

In addition to a much improved Anglo-French operational response, in France, the British Government has introduced new legislation, the '**Illegal Migration Bill**' which, when approved by Parliament, will make it an offence to enter the UK without permission. In the words of the Prime Minister, "*If you come to this country [the UK] illegally you will be detained and swiftly removed.*" The total number of migrants who crossed the English Channel in small boats between 2018 and 2022 stands at 84,889, with, in addition, almost 4,000 arriving in the early part of 2023. Many of the large inflatable boats carry 40 to 50 migrants, the record is 67 migrants in one boat! This number has proved a challenge in terms of accommodation and has placed increasing pressure on public services, including health care and education. In addition, enormous pressure has been placed on the UK immigration service. There are, regrettably, also an increasing number of reports of civil unrest in some areas of the UK, those areas where migrants are accommodated in hotels.

“If you come to this country illegally you will be detained and swiftly removed.” Prime Minister Rishi Sunak MP.



Early analysis indicates that less than 4,000 migrants, an average of 43 migrants per boat, landed in the UK, from small boats, in the first 3 months of 2023. In the first 3 months of 2022 there were 4,548 with an average of 31 migrants per boat. The inflatables are getting larger. The reduced number of migrants arriving is most likely the result of the adverse weather in March, strong winds, heavy rain and poor visibility.

Hopefully, the Home Secretary, The Rt Hon Suella Braverman MP KC and her colleagues at the Home Office, including the Director of the recently formed Small Boats Operational Command (SBOC), Major General Duncan Capps CBE, will soon be quizzed by the Government cross-party Home Affairs Select Committee to explain in more detail the new Anglo-French ‘entente cordiale’. Moreover, it would be very helpful if the French were to follow the example of British Home Office (Department of the Interior), which publishes the number of migrants who arrive in the UK illegally, each day. The French should, it may be agreed, also publish, on a daily basis, the number of migrants prevented from leaving France in a small boat, together with the number of inflatable boats destroyed each day on a French beach.

James A Cowan MBE

Note: The author is a former member of the Royal Air Force, a pilot and aircraft commander who flew the ‘Mighty Hunter’, the BAE Nimrod maritime patrol aircraft. After leaving the RAF he was employed as a police pilot and as an air ambulance pilot.

The citizens of Britain may well be unhappy about the numbers of ‘illegal’ migrants crawling up on their shores and filling hotels but they are at least lucky that there is a 21 mile wide stretch of water that stops them arriving every day. There are always the bad weather days to look forward to.

A promotional poster for the Police Aviation Conference (PAvCon) 2023. The background is an aerial view of Bilbao, Spain, showing the Guggenheim Museum and the city's architecture. A red and white helicopter with 'ERTZAINTZA' and 'EC-GMZ' on it is flying over the city. The text 'PAvCon POLICE AVIATION CONFERENCE EUROPE' is at the top. At the bottom, it says '6-7 June 2023 Bilbao, Basque Country, Spain' with the Basque flag, 'The Networking continues' and the website 'www.pavconeurope.eu'.

Meanwhile the European Parliament is demanding Asylum seekers arriving in the EU to apply for asylum in the country they arrive in, according to a leaked European Parliament document.

As we know the shrewd and well-heeled migrant heads for the best option and that is often the British Isles where the best handouts exist. Many put off making an application for international protection until they arrive at the best country.

The document suggests that the EU the intended direction of travel for the EU is to produce a coordinated approach to asylum and migration. The text was due to be voted on at the end of March by the European Parliament's civil liberties committee, after more than two years of negotiations.

The provision on applying in the country of arrival marks a major change of tack by MEPs.

UNITED KINGDOM

HUMBERSIDE: Diamond Aircraft has delivered the first of three DA62 MPP (Multi-Purpose Platform) to the UK aerospace services company 2Excel Aviation. Two aircraft are configured for Maritime Reconnaissance, one will be equipped with Aerial Survey equipment.

The new aircraft add the most modern technology to 2Excel's fleet of Special Missions-- aircraft and is reducing the carbon footprint significantly at the same time. G-HMGD 62.217 tested at Diamond as OE-VDM

Equipped with the first ever Trakka TC-375 camera and the Diades Marine C-Ranger 200 maritime radar, the aircraft can locate and identify targets at sea most efficiently. The DA62 MPP at loiter speed can achieve mission flight times of up to 10 hours and collects the same data as larger platforms at a fraction of the cost.

"It is fantastic to see how this still young relationship with 2Excel has grown. 1,5 years ago, we first visited 2Excel with a DA62 MPP for some flight trials. Soon they will have three of our planes in operation. It was



a perfect match from the beginning”, says Mario Spiegel, Sales Manager Diamond Aircraft Special Mission Aircraft Division.

Arnie Palmer, 2Excel Aviation’s Director of Special Missions, said: “These DA62 MPPs bolster our fleet of special missions’ aircraft to service our rapidly growing customer base. They’re equipped to handle many of our mission requirements and our crews have been training on how to use them to best effect, so that we can continue to provide the superb level of service our customers have come to expect from 2Excel Aviation.”

Purchasing the DA62 is aligned with both 2Excel’s fleet upgrade strategy and the company’s commitment to reducing emissions as part of its wider carbon reduction and ESG strategy.

Ed: The DA62 MPP is the latest variant of Diamond Aircraft’s successful Special Mission Aircraft portfolio. The all-carbon-fibre, twin-engine aircraft is equipped with a state-of-the-art glass cockpit and a fully integrated autopilot. It is powered by two turbo charged jet-fuel engines with superb fuel efficiency. The carbon fibre material provides for unlimited airframe life and is not subject to corrosion, even when operated in saline and humid environments. Together, fuel efficiency and the unlimited airframe life combine for extremely low direct operating costs, making the DA62 MPP the most cost-efficient Special Mission Aircraft in its class.

2Excel is an innovative aerospace services business working across a range of industries including defence and security, engineering, events and disaster response. Activity is organised around two business lines: 2Excel Aviation, which comprises Capability Development, Special Missions and Charter; and 2Excel Engineering, which is a Maintenance and Repair Organisation (MRO) for Boeing and Airbus narrow-bodied aircraft.

Among the Company’s work is its support for the UK Maritime and Coastguard Agency, including acquiring and delivering fixed-wing Search and Rescue missions for HM Coastguard and aerial tasks for other government departments, such as border, fisheries and counter-pollution patrols. In mid-March the airfield at Lasham, Hampshire, saw a flurry of activity as the future HM Coastguard fleet was being prepared by 2Excel Engineering. The 1980 Beech King Air 200 G-HMGC BB-655 acquired by 2Excel last year arrived from Humberside joining the brand new Diamond DA62 62.217 tested at Diamond as OE-VDM but now G-HMGD. Another recent acquisition is G-HMGF FL-402 a 2004 Beech 350 King Air (ex N78CA).



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INDUSTRY



The **Royal Aeronautical Society** in London is holding a free Alan Bristow Memorial Lecture this month. Joint Helicopter and UAV Operations in Search and Rescue given by Graham Hamilton, UKSAR Director on Tuesday 18 April 2023 from 18:00 - 19:00 BST at No.4 Hamilton Place, London, W1J 7BQ.

The lecture will discuss current joint helicopter and UAV SAR operations conducted by Bristow Helicopters on behalf of the Maritime and Coastguard Agency. This will include the lessons learned both from an operational effectiveness viewpoint and having to work within the current airspace regulations and constraints. The potential for future medium and long term joint crewed and uncrewed operations will then be identified, along with any regulatory and airspace changes necessary to support them.

The latest Leonardo AW09 prototype, designated PS4 and featuring the new Safran Helicopter Engines Arriel 2K engine, performed its maiden flight in Mollis Switzerland on 16 March 2023.



The flight lasted 20 minutes and successfully completed all set objectives, performing hovers at low altitude, spot turns, straight and sideways flights up to 20 knots as well as several landings and take-offs. The crew was very pleased with the behavior of the aircraft and looks forward to the opening of the flight envelope during the upcoming tests.

Leonardo distributor **Mitsui Bussan Aerospace** (MBA) of Japan has ordered six more AW139 intermediate-twin helicopters. The deal will bring the number of AW139s in Japan to nearly 70. The agreement follows AW139 deliveries and orders in the country for end users such as the Japan Coast Guard (21 AW139s built up over the last 15 years) and the Japan National Police Agency (two). In addition, three AW139s will be delivered in 2024 to Ishikawa Prefecture Fire Fighting & Disaster Relief; Ministry of Land, Infrastructure and Transport of Hokuriku; and Saitama Prefecture Fire Fighting and Disaster Relief.

AW139s in service in Japan have logged more than 110,000 flight hours. MBA was founded in 1982 and is based in Tokyo.

Decatur, Texas-based aircraft MRO, completion, and support provider **AeroBrigham** has purchased the SkyDisplay head-up display (HUD) division from MyGoFlight. The HUD was developed by the late founder of MyGoFlight, Charlie Schneider, who spent years bringing the SkyDisplay HUD to market at a cost far lower than any other HUD product. It will now be marketed as the AeroDisplay.

You may recall from last month that AeroBrigham did a completion of a law enforcement Bell 407 for Orange County Sheriff in Florida.

SkyDisplay holds STC installation approvals for numerous aircraft including Cirrus SR piston singles and SF50 Vision Jet; Beechcraft Bonanzas, Barons, and King Air 300s; Cessna turboprops and light jets; Embraer Phenom 100; Mooney M20; Pilatus PC-12; Piper Twin Comanche, Cheyenne, and Malibu Matrix; and Daher TBM 700 and 850.

AeroBrigham plans to continue the development of the HUD and add additional fixed and rotary wing types to STC. For rotorcraft, the HUD will add engine, external load values, and other critical information to its display. [AIN]

At the Australian Air Show near Melbourne - AVALON 2023 – on February 28, **Smith Myers** formally announced its ANZ (Australia and New Zealand) expansion strategy.

Smith Myers have been partnered with Kim Blacker and his company Stratelo in the ANZ region for a decade now. Kim, founder and MD of Stratelo, will be using AVALON 2023 to kick-off Smith Myers ANZ expansion strategy by presenting ARTEMIS to government and industry search and rescue groups, aircraft and aircraft system manufacturers and prime integrators. ARTEMIS airborne capabilities are available for use on manned rotary and fixed-wing platforms and drones with large and small payloads.

“Mobile phones hold the key to speedy and pinpoint location of people who are lost and offer a key opportunity to augment search and rescue (SAR) services during natural disasters in the ANZ region”, according to Blacker.



In the case of Australia alone, the search and rescue region covers the Australian continent and large areas of the Indian, Pacific and Southern Oceans as well the Australian Antarctic territories. This region is nearly 53 million square kilometres (one tenth of the Earth's surface) and borders the search and rescue regions of 10 other countries.

Embraer has signed a commercial agreement with Ocean Explorer, a Brazilian helicopter operator, for the use of Beacon, the maintenance coordination digital platform that connects resources and professionals for a faster return-to-service. Ocean Explorer is the first helicopter operator to use Beacon to help bring contextual communication between its maintenance teams and external partners, simplify flows and improve maintenance operations.

Ocean Explorer is a Brazilian helicopter aircraft management company, which operates an Airbus ACH160, one of the most sophisticated and technological helicopters in the world. Brazil has more than 2,000 helicopters flying every day, and São Paulo has the largest fleet in the world among cities, with more than 400 aircraft and 2,200 daily take-offs and landings, according to a survey carried out by the Brazilian Association of Helicopter Pilots (Abraphe).

Beacon is the innovative maintenance coordination digital platform for faster return-to-service of all types of aircraft. Beacon is a digital platform born of Embraer-X market accelerator and powered by Embraer to synchronize the aviation services ecosystem in a more agile and efficient way to keep aircraft flying. Beacon aims to unleash high-value interactions and business opportunities to multiple stakeholders within the service ecosystem. The platform provides solutions to streamline unscheduled aircraft maintenance interruptions.

A global aerospace company headquartered in Brazil, Embraer has businesses in Commercial and Executive Aviation, Defense & Security and Agricultural Aviation. The company designs, develops, manufactures and markets aircraft and systems, providing after-sales service and support to customers.

Tracker Network UK, the UK arm of the US LoJack vehicle tracking system, has reported that the Range Rover Sport continues to be the most commonly stolen and recovered car, according to their analysis. Tracker's 2022 data has also revealed that hybrid vehicles are now being seen as among the rich pickings for criminals.

The Lexus RX 450h enters Tracker's top ten most stolen and recovered league table, which is the first time a Lexus vehicle has ever appeared in its annual review of stolen and recovered vehicles.

The Volkswagen Golf has re-entered Tracker's top 10; it last appeared in 2017.

The highest value stolen car recovered by Tracker in 2022 was a Mercedes-Benz AMG with a retail price of £182,000 and the lowest value car recovered was an Audi A4, priced at £1,000.

Spare parts shortages also affected the numbers last year, this led to a boom in 'chop-shops' where the stolen cars are disassembled rather than moved abroad in shipping containers.

Tracker is aware of thirty-two illegal chop shops in 2022 where Tracker fitted cars were located – that led to hundreds of other vehicles without security devices being found by police and recovered.

Back in 2017, 80% of all vehicles stolen and recovered were stolen without using the owner's keys, now the availability of keyless cars has led to 93% of losses being keyless related.

Tracker Network UK's vehicle tracking systems are supported nationwide by UK police forces. Its detection units are fitted in more than 2,000 police patrol vehicles and throughout the national fleet of police helicopters that comprise the National Police Air Service (NPAS). [Tracker]

In January and February the UK Government issued updates on the current position with the Home Office new **Emergency Services Network (ESN)** critical communications system. According to those reports, apparently timed to coincide with the BAPCO conference and expedition, they were firmly stating that the system will replace the current Airwave service used by the emergency services in Great Britain (England, Wales and Scotland) and transform how they operate. ESN promises that it will enable fast, safe and secure voice, video and data across the 4G network and give first responders immediate access to life-saving data, images and information in live situations and emergencies on the frontline. Unfortunately, within days and issued on the eve of the BAPCO event, the National Audit Office (NAO) were reporting that the roll out of ESN was looking increasingly unlikely. The Home Office still does not know when the Emergency Services Network (ESN) will be ready for use, despite having spent almost £2 billion on the programme so far, according to the NAO. Central government's auditor has published a highly critical report on the programme. It also points out that the Home Office has had to spend a further £2.9 billion than expected on keeping the predecessor Airwave network operational. This continues to work effectively, but the department cannot be sure that this will continue into the 2030s.



The aerials supporting Airwave have some years to go before they get taken down.
©PAR

Across the UK there has been a relentless programme of selling off police buildings. Many of these continue to host Airwave equipment and aerials, a factor which creates difficulties for the new owners wishing to repurpose the structures and also acting as a financial drain on the police budgets as the police pay thousands of pounds rental for the nominally defunct equipment to remain in place and operational beyond its intended life cycle. They also have to pay for the system to continue to operate.

Two earlier NAO reports, in 2016 and 2019, stated that the ESN programme was high risk, the new report says a reset from 2018 has not worked. The system was due in operation in 2017 and simply was not ready.

The situation has been complicated by the role of communications technology provider Motorola Solutions. They have concerns that profits from providing Airwave would hold it back from completing its work on the software and systems for the ESN. This led to an agreement for the company to withdraw from the ESN contract with a payment of £45M. The Home Office

will award a new contract to a different supplier – that will lead to further delays as they have first to identify what other entities can undertake such a task.

ESN itself is beset by delays in many areas. EE has nearly completed its work to establish the main network and is expected to be offered a new contract without competition to avoid additional delays. Meanwhile, five years after the system was supposed to be live, the Home Office still must obtain planning permission for work on 42 of the 292 remote area sites, let alone construct them.

The forecast for completion has been pushed back to 2026 at the earliest but remains uncertain. Meanwhile, the overall cost of maintaining Airwave could be £250M a year. Individual police forces will make their own decisions about when to stop using Airwave and move to the ESN.

The report makes a series of recommendations to the Home Office, including that it completes its reassessment of the programme's objectives, assumptions and timeframe, and establishes a process for continually assessing the investment required and risks by the end of this year. It should also use its experiences from the user service contract to better manage the risks, improve management information, ensure the new infrastructure has mechanisms to provide value for money, and provide a strategy to avoid future supplier lock-in.

Little or no clear cut progress has been made on the airborne element, ESN Air. The contract has been let to Cobham but they cannot hope to complete their part until the whole ground network is in place.

ESN Air is being delivered to support the emergency service aircraft. The product consists of two elements; firstly, a 4G network, enhancing the current EE terrestrial network to allow users to operate to an



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altitude of 10,000 feet above sea level. Secondly, an aircraft communication system designed and built for installation and operation in all types of emergency service aircraft - for use by police helicopters and air ambulances when the time comes to turn Airwave off.

The new array of base stations has enabled the ESN Air team to carry out a programme of planned tests. Richard Watson, formerly of Kent Police, the South Coast Project (see last month) and of NPAS is the programme's User Engagement Lead for ESN Air. He is now employed as a consultant, Public Sector Aviation Specialist. He said "This test network will be used as part of our work to ensure all emergency service aircraft have access to critical communications at operating altitudes. The ESN programme is developing an exclusive 4G air network which will ensure 4G coverage to augment EE's terrestrial network, giving coverage up to 10,000ft above mean sea level.

"To develop the service, the programme has built a test network, which consists of a small number of antennae - one covering northern London and several others covering the north of Wales and north west England.

"The test network location has been chosen to represent the topographical challenges across the whole of Great Britain including mountains and valleys, littoral waters, rural, semi-rural and large urban areas."

When ESN Air is used in the future, the entire network will consist of more than 80 antennae, using predominantly existing masts, to give coverage across Great Britain and up to 12 nautical miles offshore.

The smaller set of test network antennae has been established as a micro-network, a smaller version of what will eventually be used.

The new test system will play an important part in making it possible for the ESN Air team to trial the low altitude network, using helicopters and planes, at 10 critical operational locations (COLs). These are sites where coverage has been identified by future users in the emergency services as being particularly important for their day-to-day work

Ed: With a programme that is five years late and often lambasted in PAN it is difficult to find something new to say on the subject. Lots of plans in place of course but the late build in remotest Scotland can be blamed for some of it. I have now seen so many staff of the ESN project passing through and giving positive but wholly fanciful presentations on the progress of the system that it is difficult to engender much interest. Time alone will tell when and whether the Air system will even work.

On a more positive note, the new **Emergency Alerts** system will "transform" the UK's warning and informing capability, providing a means to send urgent messages rapidly to circa 90% of mobile phones in a defined area and providing clear instructions on how best to respond.

The system is now ready to be tested across the country following successful tests in East Suffolk and Reading as the Government continues to strengthen the nation's resilience capability, making sure it offers the best possible protection against what is now an ever-evolving range of threats.

Broadcasting from cell towers in the vicinity of an incident, the Emergency Alerts system is secure, free to receive and one-way. Alerts do not reveal anyone's location or collect personal data. Alerts can only be sent by authorised Government and Emergency Services users.

Successful live tests of the service have already taken place in East Suffolk and Reading.

A UK-wide alerts test will take place in the early evening of Sunday 23 April, which will see individuals receive a test message on their mobile phones.

The alerts from the Government or the Emergency Services will issue a warning, always include the details of the area impacted and provide instructions about how best to respond. The alert will provide a link to a government website where fuller information will be available.

Emergency Alerts will be used very rarely and will only be sent where there is an immediate risk posed to people's lives.

The Emergency Alerts service has already been used successfully in a number of other countries, among them the US, Canada, the Netherlands and Japan, where it has been widely credited with saving lives.

Epi Guard have announced that the **EpiShuttle** is approved by the Therapeutic Goods Administration (TGA) and is now fully available for use in the Australian market.

The EpiShuttle has been in service with RAAF for some time now, the new move is making it available to the civil Australian market – including front running Australian players like CareFlight in their H145, and especially LifeFlight Australia, with their Challenger 604.

SPAES GmbH & Co. KG, a leading provider of avionics solutions based in Germany, announced the successful installation of a Radar Altimeter Indicator on MD 902 for a customer.

For design and certification, a Minor Change was carried out in coordination with the customer and the EASA Part 21J Design Organization of SPAES. After completing the installation tests, the documentation was finalized, and the installation's Minor Change was issued. The installation was performed at the customer's own Part 145 maintenance organization.

For more information about SPAES' avionics solutions and services, please visit www.spaes.de.

The UK Home Office is working with US defence start-up Anduril Industries to identify migrants crossing the English Channel, using the company's artificial intelligence-powered surveillance technology to track small boats.

Anduril is best known for its work with the US military, its surveillance towers being used to autonomously identify, detect and track people crossing the US-Mexico border. One of the towers is currently installed in Dover overlooking the English Channel.

The British use of the equipment is likely to be controversial in that its use of artificial intelligence is seen by many as being as invasive.

The UK Prime Minister Richie Sunak was photographed in front of the Dover tower early last month with French President Macron.

The tower is said to be able to detect vessels more than 15km out to sea and identify them as "suspicious". In January, Sunak charged the Home Office to take over through a newly created Small Boats Operational Command unit. Duncan

Capps, a Major General in the British Army recently appointed to lead the unit, was also pictured with Sunak during the visit to Dover, in photos released by Downing Street that appear to show the Anduril sentry tower in view.

The Home Office said "drones, boats, land-based radar and cameras" would be introduced when it created the specialised small boats unit at the end of January. It is also recruiting 730 extra staff to support its work in tackling the small-boat crossings. The Home Office has also taken other controversial steps to address the issue. Suella Braverman, home secretary, introduced an illegal migration bill to the House of Commons last month that would impose a "legal duty" to remove all asylum seekers considered to have entered the UK "illegally" to a "safe" third country or their country of origin.



HELI-EXPO NEWS CORNER

Reports from Atlanta, Georgia, USA suggest that the aftermath of Covid continues to depress the performance of Heli-Expo, the prime helicopter event in the world. Exhibitor numbers were down, as were visitors and the show hall employed the well understood ploy of super wide walkways to hide the fact.

That is not to diminish the event, it is the place to be, it is just that various factors continue to depress the uptake of attendees.

No doubt the analysts will discover whether it is the shortage of money, fear of Covid, or the fear of whether Atlanta is a safe city (all have been mentioned) or something else. Either way the show will go on and be back to attract the crowds in Anaheim, California, February 27-29, 2024.

MD Helicopters took a brand-new look to this year's Heli-Expo, launching their new branding and a new booth to showcase the new company leadership and its renewed commitment to the industry. Two helicopters were on display: Trinity Aviation's VIP MD 530F that showcases comfort doors and windows, a wire strike kit, and a sleek executive interior; and one of Huntington Beach's new MD 530F helicopters, featuring a full law enforcement communications and avionics package.

MD Helicopters also hosted a number of events and celebrations throughout the show, including a raffle to win a new Garmin watch or an Apple HomePod.

MD Helicopters, LLC (MDH) now promote themselves as manufacturers of high-performance rotorcraft solutions that support operators flying military, commercial, law enforcement, utility, and VIP mission profiles. Their website still includes a listing for the MD902 Explorer but is not actively marketing that airframe for new sales. The MD600 is no longer promoted on the website. mdhelicopters.com

MD Helicopters are ramping up production line capabilities and increasing staffing to accommodate additional sales orders. This includes 12 Cayuse Warrior Plus scout/attack helicopters awarded by the Nigerian Army to assist in counter insurgency and counter terrorism operations in Nigeria. Not exactly police work but not entirely removed either in a country beset with homeland security issues.

The Cayuse Warrior Plus is a derivative of the original Cayuse Warrior and is a combat proven tactical scout and light attack aircraft like the MD530 offered to police operators.

The aircraft will be used for area security, tactical reconnaissance convoy escort, and drug interdiction missions in Nigeria. The Nigerian selection includes a complete ILS package, spares, pilot and maintainer training, and Flight Training Device (FTD).

MD announced changes to its Authorized Service Center (ASC) and Parts Retailer (PR) agreements at the company’s annual service center and sales representative meeting. The purpose of the changes is to help ASCs and PRs attract and retain more local MD operators and provide better service.

Included in the changes are adjustments to the network to help ensure that MD service facilities are geographically aligned with the fielded fleet and MD will stop selling direct to most parties to allow more business to flow through the authorized MD network.

MDH is also actively working to transform the type certificate-based MD 500E to MD 530F upgrade to a Technical Bulletin. This move will allow qualified and approved MD Authorized facilities to perform the upgrade around the world. Currently, the E-to-F upgrade must be performed under the FAA-approved quality system at the Mesa factory. The process is complex and financially and logistically challenging.

Tennessee based **Paraclete Aviation Life Support Aviation Helmet Standard** meeting the certification set forth by the U.S. Department of Interior/U.S. Forest Service [DOI-USFS] was highlighted at the show. As the company continues to push its products beyond the current specifications, Paraclete’s unveiling of its new maxillofacial shield product was highlighted in Georgia.

The Aspida-D Type 1 and 2 represents the modern helmet certified by the DOI/USFS Aviation Helmet Standard and is well-known through the industry.

Paraclete designs, develops and manufactures Aviation Life Support Equipment [ALSE] focused on reusability driven by the company’s ALSE training services to ensure the helmets are properly and timely maintained. As an ISO 9001:2015 certified corporation, Paraclete has secured Helmet Aviation Standard certifications for its entire product line and all sizes for its civilian aviation helmets set forth by the U.S. Department of Interior [DOI] /U.S. Forest Service [USFS] www.paracletelifesupport.com

Airbus Helicopters opened the Heli-Expo with its customary breakfast press conference and Q&A session at the Hyatt Regency Hotel. On the booth they were showing a H145 of the Canadian STARS HEMS programme, marking the recent completion of a fleet reequipment for the operator. Canadian non-profit critical care provider STARS has taken delivery of its tenth Airbus H145 helicopter. An Airbus operator for nearly four decades, STARS exclusively entrusts its air medical missions to its fleet of H145s.

STARS’ fleet renewal commenced with the first delivery in 2019. The initial five deliveries were the four-bladed variant. These aircraft are being upgraded to five blades, with one of the retrofits having already been completed. The final five aircraft were delivered in the 5-bladed configuration.

Airbus Helicopters has launched the development of an Instrument Flight Rules (IFR) capability for the H125 in partnership with Genesys Aerosystems which will be available in the second half of 2024 from the Airbus Helicopters’ final assembly line in Columbus, Mississippi. It will consist of an upgraded cockpit, a new autopilot along with redundant hydraulic and electrical systems. Thanks to its recent innovations, the H125 remains an unrivalled product in terms of perfor-



Original supplier of role equipment mounts ©Cal Meeker



Original supplier of role equipment mounts ©Cal Meeker



mance and value for money. This new IFR feature will expand the helicopter's mission capabilities in all weather conditions especially for critical missions such as public services, including law enforcement, emergency medical services, and enhanced training - all missions that are in high demand worldwide, and in North America.

Airbus Helicopters is targeting certification from major aviation authorities, including FAA, during the second half of 2024, with the first deliveries by the end of that year.

Today, close to 4,200 H125 family helicopters are flying around the world in the most demanding conditions. The H125 is the absolute market leader in the Intermediate single-engine helicopter category, where it achieved a market share of 63% in 2022. Last year, 161 H125 helicopters were ordered, 39 of which were in North America, setting a sales record for the past decade.

Several customers signed on for Airbus Helicopters' **HCare In-Service** packages at this year's Heli-Expo, demonstrating the success of the new global contracts with operators around the world. Four operators, 2MH Jet System group, Helisul, Henrimar, and EFAI, all signed on for HCare In-Service packages with Part Availability Commitment, with the main goal of optimising their fleets' maintenance and performance.

Helisul, based in Brazil, signed an HCare In-Service contract to cover 23 H125 helicopters. Helisul is the second largest civil aircraft operator in Latin America and performs air taxi, HEMS, and parapublic activities.

HCare In-Service is one of the three flexible solutions included in the Airbus Helicopters HCare offer, which also includes HCare Initial and HCare Lifetime. For specific fleets, HCare First is available for Airbus Corporate Helicopters (ACH) aircraft and HCare Classics for the out-of-production legacy fleet (H120, Dauphin, Puma and Gazelle).

Airbus Helicopters has partnered with the Norwegian Air Ambulance Foundation to develop CityAirbus NextGen's future missions for medical services in Norway. To this end, the parties will jointly measure the added value of electric vertical take-off and landing (eVTOL) aircraft for a selection of medical services use cases across the country to integrate the operational requirements right into the configuration of Airbus' eVTOL.

Focusing on how eVTOL aircraft can be used for different types of air medical missions, Airbus Helicopters and the Norwegian Air Ambulance Foundation will elaborate a comprehensive roadmap toward reducing emergency response time through the researched scenarios in Norway. In order to improve patient outcome and the overall performance of the Norwegian Emergency Medical Services system, the signatories will follow a long-term strategic approach to research the complementarity of existing assets, such as conventional helicopters, and eVTOLs when the technology enters into service. This approach could be further expanded in the region through collaboration with other countries to optimise operations beyond the national healthcare system.

The first step toward the creation of a medical eVTOL ecosystem will be the evaluation of the efficiency of the current emergency medical system in Norway, to then simulate different air medical services scenarios, integrating advanced air mobility assets. To develop the right concepts of operations for these complementary air medical missions, Airbus Helicopters and the Norwegian Air Ambulance Foundation will drive the definition of the foundational elements of the eVTOL ecosystem in the country, including for infrastructure, traffic management and energy sourcing and distribution.

Operating a mixed fleet of H135 and H145, the Norwegian Air Ambulance is Norway's national Helicopter Emergency Medical Service (HEMS) operator. With more than 40 years of experience in emergency medical response, the Norwegian Air Ambulance supports pre-hospital care across the country by delivering air ambulance services to provide patients with advanced medical solutions through state-of-the-art aircraft configurations and equipment.

Bell Textron Inc., announced the signed purchase agreement for a Bell 429 to be operated by World Aviation, the Independent Representative (IR) for Bell in Spain. The aircraft will be delivered to a private owner and operated for charter and corporate VIP transport in the Costa del Sol and other regions in the country.

The Bell 429 has proved popular for the corporate VIP mission in many of the most prestigious locations throughout Europe. The aircraft is operated in the French Riviera and the French Alps by Helisecurite, Wucher Helicopter in Austria, Starspeed in London, and in Greece and Cyprus. It has proved particularly popular in Switzerland where it is operated by HeliAlps, Airport Helicopter, Air Zermatt, and Centaurium



Aviation. Bell has now delivered more than 90 429 aircraft in Europe.

World Aviation, based in Málaga, was established in 2014 and was appointed as a Bell Independent Representative in 2020. It specializes in passenger and cargo transportation, aerial work, and VIP transfers. Additionally, it offers pilot training, maintenance, engineering, and other operational services. World Aviation are scheduled to attend the PAVCon Europe event in June.

Bell announced the signed purchase agreements for three Bell 407GX – two in the UK to corporate customers and one in Ireland to Zeus Essential Holding Limited (Zeus), an Irish-owned global packaging solutions company. With more than six million flight hours and nearly 1,500 Bell 407s across six continents, the aircraft sets high standards for single-engine aircraft with its advanced technical features.

Guardian Mobility & Flightcell partner to provide cost-effective Iridium Certus 100 satcom & cellular aviation solution.

Guardian Mobility and Flightcell International, global leaders in aircraft communications, have developed a first-to-market aviation communications system that provides cellular and satellite mid-band data and voice services to light fixed-wing and rotorcraft operators.

Flightcell's DZMx, an all-in-one cellular and satellite voice, data, and tracking system, will be complemented by the new Guardian Mobility G6 Iridium Certus 100 satellite terminal, adding 88kbps bi-directional satellite data connectivity. The new Guardian Mobility G6 is a one-box unit with Size Weight and Power (SWaP) advantage, proven to be a great solution for installation on smaller aircraft.

Integrating the Flightcell DZMx and Guardian Mobility G6 provides a reliable and global data service optimized for small, low-power equipment. Key benefits include:

Mid-band Bi-directional 88Kbps IP Data

The Iridium mid-band Certus service provides a cost-effective solution to global data transmission. Guardian's G6 uniquely provides uplink (transmission) speeds of up to 88kbps, making it ideal for data transmission from aircraft, including email, flight following and data monitoring, medical device data, images, and compressed video.

Iridium Messaging Transport (IMT)

Iridium Messaging Transport (IMT) service optimizes data transport across the Iridium network for small to moderate-sized messages, allowing increased data and reduced costs compared to Iridium Short Burst Data (SBD).

Two High-Quality Voice Lines

Operators will benefit from high-quality Certus satellite voice-based communication for up to two (2) simultaneous voice lines integrated into the aircraft audio system.

Significant Cost Savings

Operators can see significant cost savings when data is routed through the Flightcell DZMx cellular option and using the 88/88kbps data link of the G6 Certus satellite service when cellular is not available.

Simple Installation

Flightcell's and Guardian Mobility's small form factor devices provide an easy and cost-effective installation option to meet any connectivity requirements.

Donaldson Aerospace & Defense has experienced strong growth and sales of its popular and highly effective inlet barrier filter (IBF), due in part to an increase in aircraft sales. A growth in helicopter emergency medical services (HEMS) overseas has led to increased sales of aircraft utilizing Donaldson's IBF. Bell orders for IBFs have also increased based on aircraft sales, especially the Bell 407, 429 and 505, as have orders for the Leonardo 119 by the U.S. Navy. Additionally, IBF orders from MD Helicopters have begun again after a pre-pandemic halt.

To support the increased demand, the company has updated forecasting, expanded supply chain support, improved overall response time, and invested in customer service support personnel. In addition, Donaldson is experiencing more OEM development projects than it has at any other time in its history and today has more standard production units in the field than ever. www.donaldsonaerospace-defense.com.

On an otherwise typical day in January, a helicopter operated by **Metro Aviation** lifted off in Indiana. That helicopter belongs to Indiana University Health, and that flight marked the one-millionth flight hour for Metro Aviation.



©Metro Aviation

Metro Aviation has no reason to slow down on their celebrations. The company celebrated 40 years in 2022, and with this latest milestone, it seems they are just tapping the surface of what they'll accomplish over the next four decades.

As a purely traditional, family-owned air medical operator, Metro operates and maintains 170 aircraft for 43 operations across the United States.

Metro Aviation has partnered with CommLink Network to enhance training for its customer communication centers by creating the Metro Program. The Metro Program emphasizes improved training by offering every Metro Aviation operations customer membership to the CommLink Network. This membership will provide each communication centre with increased resources and training capabilities to ensure that all Communication Specialists are Certified Flight Coordinators and have the most up-to-date industry information. CommLink Network is a web-based training platform that offers specialised individual training, certification, and resources to the Certified Flight Coordinator for rotor-wing, fixed-wing, and critical ground transportation logistics coordination. All training includes resources from instructors who are experts in their field and exceed the requirements for certification and accreditation for a Certified Flight Coordinator. In addition to initial required training, Communications Specialists are provided quarterly continuing education modules which address a variety of topics from Medical Terminology to Crew Resource Management.

CommLink Network also offers all members access to CommConnect, a professional networking platform where Communications Specialists can participate in forum discussions, view informational blogs and employment opportunities, and become familiar with industry operations and communicators with quarterly featured spotlights.

Spectrolab, Inc. exhibited its flagship Nightsun® XPM searchlight and new SpectroLink M2 linking system at HAI HELI-EXPO 2023 in Atlanta this week. Spectrolab's second generation SpectroLink system is designed to add digital control and linking capability to SX Series Nightsun® searchlights. The second generation SpectroLink adds multiple inputs and outputs for display of system status on various mission management mapping system displays. The new design has successfully completed a rigorous battery of DO-160G and MIL-STF 461 qualification tests, and the system will be available for deliveries in the third quarter of 2023. For more than 50 years, Spectrolab, a wholly owned subsidiary of Boeing, has been designing and manufacturing high-intensity searchlights for military and commercial customers around the world with its Nightsun® series of high-powered searchlights for use on helicopters and fixed-wing aircraft. For more information on Spectrolab visit www.spectrolab.com.



THE EMERGENCY SERVICES SHOW
 NEC | BIRMINGHAM | 19-20 SEPTEMBER 2023

This year promises to see the welcome return of aviation content.

Details are awaited.

Watch this space

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24 February 2023 Pilatus PC-12 N273SM Air ambulance operated by the Regional Emergency Medical Services Authority (REMSA Health) crashed near Stagecoach, Nevada, USA killing all five persons on board. Stagecoach is approximately 40 miles east of Reno. The five people on board included the pilot Scott Walton, Paramedic Ryan Watson, Flight Nurse Ed Pricola, patient Mark Rand and his wife Terri. icing was reported and there was mild turbulence in the area, but the conditions did not preclude the plane from flying. The medical flight took off from the Reno-Tahoe International Airport heading to Salt Lake City, Utah when it crashed just 14 minutes after take-off. The plane was cleared for 25,000 feet but never reached above 19,000 before the radar noticed the descending right turn at a high rate of descent. The last radar return was at roughly 11,000 feet. Initial reports state that the aircraft broke apart in mid-air, with the multiple parts of the plane, including the upward section of the right wing and the horizontal stabilizer being found roughly half a mile from the main wreckage site. The wreckage was difficult to find due to laying and falling snow, it was snowing steadily, and winds were around 20 mph and gusts up to 30 mph. [Fox/Media]

28 February 2023 Airbus Helicopter EC135T3 N912UT. Air ambulance of UT Health East Texas. While enroute to commence an interfacility transport, the EC135 was descending through 2000 feet when a bird struck the aircraft on the right nose and then into the rotor system. Pilot diverted to nearby Wood County Airport Mineola, Texas to make a precautionary landing. Bird fragments evident on the nose of the aircraft and on all four rotor blades. No damage was noted and the aircraft was returned to service. [Concern]

1 March 2023 Helicopter (believed to be a Robinson R44). Air ambulance operated by the Philippine Adventist Medical Aviation Services went missing on March 1, according to a report from the Associated Press and posts on social media. The helicopter, carrying five people, including a hospital patient and a nurse, went missing in a western Philippine province while flying to a hospital in Brooke's Point in Palawan from another town in the island province. All those aboard are Filipinos except for the nurse, who is American. Southern Adventist University identified the nurse on the flight as Janelle Alder. [AMAS]

5 March 2023 Eurocopter AS355N EC-JMK. Highways observation helicopter of General Directorate of Traffic (DGT), Spain. (Trafico) Crashed in the Madrid municipality of Robledo de Chavela. The pilot attempted to make an emergency landing. The aircraft ended up on its left side with the MRB smashed and the tail boom folded back under the cabin. No fire. There were no serious injuries.

9 March 2023 Eurocopter EC135P2+ N558MT Air ambulance, Life Force 6 of Erlanger Health System based at Western Carolina Airport at Andrews North Carolina. Crashed with four aboard crashed in a field adjoining Burningtown Road near the Macon County Airport in the Burningtown Community, Macon County, North Carolina, USA. All four survived the initial crash and the patient and two staff members were taken to hospital in Asheville, NC, with minor injuries. The pilot believed not hurt in the crash. Aircraft destroyed but largely intact and upright in the crash. [Media]

26 March 2023 Robinson R44 N441PD. Law enforcement helicopter of Baton Rouge Police Department, Louisiana. Took off from its base at 2am and around three miles from its base it hit a tree and crashed into a sugar cane field near Port Allen killing the two police officers aboard, Sgt. David Poirrier, 47, and Cpl. Scotty Canezaro, 38. Baton Rouge acquired the helicopter in January 2010 [Media/PAR]



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UNMANNED

The UK's leading drone operators have called on the Government to change the way uncrewed aviation is regulated and break down the barriers to uncrewed flight that risk the UK missing out on the 'drone opportunity'.

The comments come in a new 19-pge White Paper published by the BVLOS Operations Forum, a consortium of advanced drone and technology companies that are pioneering the use of remotely piloted aircraft 'beyond visual line of sight' (BVLOS).

'*South of the Clouds: A roadmap to the next generation of uncrewed aviation*', sets out the industry's vision of how new types of aircraft, like drones, can be integrated into the UK's busy skies, and what steps the Government needs to take to make it happen.

Organisations in the Forum are among those highlighted in recent issues of PAN, delivering medical supplies and drugs in remote areas and undertaking SAR missions to prove the concept with HM Coastguard. Because government regulations have evolved more slowly than the technologies in this sector, these flights are limited to very restricted areas of airspace, making regular commercial services difficult to deliver.

Among the policy recommendations is a call for all aircraft to be equipped with 'electronic conspicuity' technology to show their location – without this, drones would effectively be flying blind to what's around them – as well as reform of the regulatory system to enable remotely piloted flights in more areas of airspace, rather than restricted or temporary environments.

This electronic conspicuity can help pilots, uncrewed aircraft users and air traffic management service providers to see where other aircraft are. This means all airspace users can not only 'see and avoid' other aircraft, but also 'detect and be detected' by others in a trusted manner – in current situations there is always a pilot on board to verify the information and make decisions, but that facility will not exist in a future airspace state.

Also proposed is a roadmap that sets out a vision for how airspace could be managed for uncrewed aircraft in the future, and the steps required to get there, so that those in the industry can plan and invest accordingly.

To read '*South of the Clouds: A roadmap to the next generation of uncrewed aviation*', visit: <https://www.nats.aero/sotc>

The BVLOS Operations Forum is made up of 15 organisations, all of whom are involved in developing or operating beyond-visual-line-of-sight drone operations. They are Apian; ARPAS-UK; Blue Bear; Callen-Lenz; Flylogix; Maritime & Coastguard Agency; Ministry of Defence; NATS; National Police Chiefs Council; Network Rail; Skypoints; Sees.aie; Windracers.

The Forum was established by air traffic control leader, NATS, to bring drone operators together to learn from each other's operations, collectively advance safety in uncrewed flight, and support policy makers in developing the policies and

Ed: Readers of PAN last month will be well aware that the Editor remains sceptical about the progress of this whole industry. It has long been predicted but its progress is quite rightly slow. There appears to be a sizeable gap between aspirations and capability.

Among the policy recommendations in the White Paper is a call for all aircraft to be equipped with 'electronic conspicuity' technology to show their location. This is a complete reversal of earlier aspirations. Sense and Avoid was the 2009 aspiration for free flying drones, now – the whole idea is turned on its head and they now want whatever they might collide with to take responsibility for avoiding the drone.

Electronic conspicuity can help but as we have known for a long time, the military are the worst for bumping into things in aircraft not individually fitted with IFF and that is not likely to change anytime soon.

This comes in a month when the UK CAA was emphasising its position on allowing some manned aircraft not to have Collision Avoidance Systems fitted [ORS4 No. 1570- Exemption for certain categories of Annex I aircraft from the ANO requirement to carry Airborne Collision Avoidance System equipment]. Their position is that they will allow some specific historic and ex-military aircraft this latitude but they are the exception not the rule. It amounts to if they ordinarily need TCAS/IFF, so do drones.





Rafael Drone Dome ©Rafael

Dubai Police is collaborating with Rafael Advanced Defense Systems Ltd. in addressing regional UAS challenges and strengthening security of valued assets through the utilisation of multiple different technologies and systems.

The two sides have agreed to engage in a programme to utilise the DRONE DOME for the Dubai Police's air defense needs. RAFAEL's teams and the Unmanned Aerial Systems Centre of Dubai Police will collaborate in the field of Counter UAS.

Both parties have agreed to continue this collaboration so as to ensure that the Dubai Police can continue to offer high level security services through operating state of the art C-UAS technologies.

The Technology Partnership has published on-line "Ready for Take-off?" a white paper discussing the progress of detect and avoid for commercial UAVs.

The 12 page report concentrates on "Detect and Avoid" issues that will eventually free drones into the world of BVLOS. Current aircraft are already operating within the restrictive alternates of segregated flight or within sight of the controller.

In discussing the options the report concludes that no single sensing technology drawn from visual, acoustic and radar, will meet the performance needs in all environments, which suggests that sensor fusion may become more important in future. Ultimately, whatever the technology, the detection system needs to have a reliable and positive effect on the probability of missing a potential airspace threat.

The discussion paper offers no timelines or solutions but invites contact and discussion. TTP plc can be contacted in the UK at www.ttp.com/uavs_enquiries@ttp.com

Ed: The recent US Government footage release of visual footage of the Russian Air Force interfering with a Reaper drone over the Black Sea tends to underline a statement within this paper that even though the MX-15 daylight camera output was excellent the timeline of the operator being able to see the approaching fighters was extremely small and would certainly need to be enhanced by such as radar warning.

The MQ-9 was conducting a surveillance mission when two Su-27 Flankers intercepted it. The Su-27s harassed the U.S. drone by making close passes and dumping fuel over it before one collided with the drone.



The organisers of the annual Commercial UAV Expo in Las Vegas have announced a list of influential leaders in the drone industry who will be participating on the Advisory Board. Following record-breaking attendance at the 2022 event, the Advisory Board will guide programming, recommend speakers, and deliver critical insights about the commercial drone market. The event will take place September 5 – 7, 2023 at Caesars Forum in Las Vegas.

The Commercial UAV Advisory Board brings together industry leaders who have insights and expertise that are key to programme development around commercial UAS technology, trends, and expansion. Board members are at the top of their fields, and they are committed to delivering the high calibre education commercial UAV professionals have come to expect from Commercial UAV Expo. Members of the Commercial UAV Expo Advisory Board include:

Dallas Brooks, *Wing*

Michael Cohen, *Aerial Evolution Association of Canada*

Toni Drummond, *Titan Aviation*

Lisa Ellman, *Commercial Drone Alliance*

Dyan Gibbens, *Trumbull Unmanned*

Shayne Gill, *AASHTO (American Association of State Highway and Transportation Officials)*

James Grimsley, *Choctaw Nation of Oklahoma*

Brendan Groves, *Skydio*

Ashley Hanson, *John Deere*



Thomas Haun, *Turner Staffing Group*
 Ethan Hunt, *AT&T*
 Grant Jordan, *SkySafe*
 Ted Kalnas, *Los Angeles City Fire Department*
 Eszter Kovács, *DroneTalks*
 Eileen Lockhart, *Spright an Air Methods Company*
 Rishap Malhotra, *DroneUp*
 Robert McCoy, *Crown Castle*
 Jennifer Pidgen, *Sundance Media Group*
 Christopher Todd, *AIRT (DRONERESPONDERS)*
 Gretchen West, *Brayker Consulting Group*
 Anne Zink, *5x5.ai*



The 2022 edition of Commercial UAV Expo drew over 3,400 verified professionals and 232 exhibitors from throughout the world. An exclusive (and enthusiastic) report on the event by Mark Colborn (Dallas PD) appeared in Police Aviation News last October. This is still on-line on the website.

In addition to the sessions in the extensive conference line-up, Commercial UAV Expo offers a vendor neutral show floor with more exhibitors than any other commercial UAS event, featuring best-in-class solutions from manufacturers, suppliers and service providers that focus on commercial drone applications.

Registration will open in May. Commercial drone professionals are encouraged to register early to secure discounted conference pricing.

Commercial UAV Expo, presented by Commercial UAV News, is an international conference and expo exclusively focused on commercial UAS integration and operation covering industries including Construction; Drone Delivery; Energy & Utilities; Forestry & Agriculture; Infrastructure & Transportation; Mining & Aggregates; Public Safety & Emergency Services; Security; and Surveying & Mapping. It takes place September 5-7, 2023, at Caesars Forum, Las Vegas NV.

PEOPLE

An air ambulance's first female pilot is flying the helicopter that she helped design. Hannah Nobbs studied aerospace engineering at Southampton University and subsequently landed a job at Agusta-Westland, now Leonardo. Hannah has been working for Specialist Aviation Services at Staverton, Gloucestershire for 20 months and is currently a HEMS First Officer flying the Leonardo AW169 of Dorset and Somerset Air Ambulance (DSAA). So, the story is not exactly news but the *Western Daily Press* recently highlighted aspects of her career as 'interesting' and I tend to agree.

DSAA has played a significant part in her overall career aside from her current role. Over a period of eight years, Hannah was been a volunteer for the charity, both on the fundraising side and then subsequently as a trustee, undoubtedly an unusual combination.

Hannah grew up with fluctuating ambitions to be an actress, journalist, vet and a diplomat, all pretty much simultaneously! A visit to the superb International Helicopter Museum at Weston-super-Mare as a teenager sparked an interest in helicopters that was to grow to the point that her family arranged for a trial lesson in a small two-seat helicopter for her 16th birthday primarily to get it out of her system. The experience pretty much cemented vertical lift into her DNA.

As we all know learning to fly is expensive and helicopters particularly so. Hannah was not able take the cheaper route of a military career because she wore glasses and would not pass the initial military pilot medical. A future in flying appeared unlikely.

During my A-level course she was presented with a list of university courses in alphabetical order, she got as far as "A" for Aerospace Engineering, which seemed as good a way as any of becoming part of the world of aviation. Four years of study later, she left the University of Southampton as an Aerospace Engineer in 2006 and joined AgustaWestland in 2008 as a rotor system engineer.

Even before she finished at the university she was pursuing the flight dream. An announcement over the public speaker system at an air show informed the crowd that the Dennis Kenyon Junior Memorial Scholarship was open for applications, for a fully funded helicopter Private Pilot's Licence. The scholarship had been set up in memory of Dennis's son who had tragically died in a helicopter accident in October 2000. Dennis Kenyon (1932-2020) was a renowned S300 display helicopter pilot.



It was a long process of a written application, interview and aptitude test, but she made it through and by the summer of 2005 had a licence. The cost of keeping the licence current was so high that within a few years, despite much support from friends and family, she was not able to fly often enough to use the licence.

The move to AgustaWestland took her from her home in Essex to Somerset and provided a lifeline for the thoughts of a career in helicopters. She worked on concept designs for heavy lift helicopters and tilt rotors. It was an exciting role and offered an opportunity to work in Italy on a brand new helicopter, known then as the "special project, XX9". This was to become the now familiar AW169.

After a period working in the rotors department as a structural analyst, developing a blade design for a European tilt rotor aircraft Hannah returned to Somerset to continue with design certification analysis and testing for the AW189, the type now used by the UK Coastguard.

It was during her time working in Yeovil that Hannah started volunteering for the local DSAA, giving talks and presentations to interested groups and helping at events and more interested in the charity and how it was governed. Several years later, she took up a role as a trustee. After more than 9 years with what was now Leonardo, she moved on to work for the Royal National Lifeboat Institute, another lifesaving charity in their Innovation Team on the future life-saving programme, exploring the use of drones for Search and Rescue. In 2019 an opportunity arose with the Civil Aviation Authority in West Sussex, developing regulations to enable commercial spaceflight from the UK. More importantly it allowed her to work on the 14 written theory exams and build the flight experience needed to start the commercial course.

During this time, (and this is the luck in timings), some air ambulances began flying with two pilots, meaning that a co-pilot role could be a possible opening into the world of HEMS, if she was able to complete her commercial licence with an IR. The IR course is crippling expensive because although 40 hours of training can be done in a simulator, a minimum of 10 hours is required in a twin turbine engine helicopter, at an average cost of about £1,400 per hour.

Having gained the commercial licence, the Civil Aviation Authority were supportive of Hannah taking a period of unpaid leave to do the IR course. Fortunately she gained a scholarship from the British Women's Pilot Association and the rest was funded by a loan against her house and a loan from family.



During the 2021 course, an advert for DSAA co-pilots went out from one of the UKs major AW169 operators, Specialist Aviation Services, and she applied for it. After a series of assessments by SAS she was offered one of the co-pilot roles conditional on the completion of the instrument course. The good news is that she completed the course and remains with the charity.

Extracted from <https://www.dsairambulance.org.uk/News/a-flying-dream-for-hannah>

ON-LINE NEWS

www.POLICE AVIATION NEWS.info

www.POLICE AVIATION NEWS.com

A photograph of a blue police helicopter with "BUNDESPOLIZEI" written on the side, parked on a snowy field. The helicopter is facing left. The background shows a clear blue sky and some trees.



PAvCon Europe Bilbao 5-7 June 2023

If you check on the PAVCon Europe website, just now you should find it greatly upgraded and with additional information.

Since last month revisions have been made to the on-line PDF Event Guide and sponsorship options. Be aware the printed version in circulation does not contain the revisions.

The bookings have continued but the event is far from full and there remain plenty of spaces for would be exhibitors in the hall. Compared with the last time PAVCon was in Bilbao there are many additional exhibiting spaces and many more interested companies. The earlier event attracted just over a dozen exhibitors and was crammed in the foyer of the conference. That is not possible on this occasion when double that number are already booked in. On the downside the space between the conference and the exhibition is greater.

There are still two months to go and already we have Airbus Helicopters confirming as one of the major sponsors of the event, they join other recent signatories Airborne Technologies, Centum Research, ECS, Global and SVP to lay claim to 28 of the 40 exhibitor spaces so far configured.

The first day, a Monday will be a training day and the day when exhibitors need to be setting up their exhibition.

The training day will primarily be run by Harald Brink of the Netherlands Police air operation in Amsterdam. They have regular training days at their facility through the year and invite police air operations from across Europe to join them. Some of these events use invited guest speakers from the USA.

On the occasion the training will be held at the conference room in the police base and be focussed on rear crew interaction and CRM.

The main conference and exhibition days will be the Tuesday and Wednesday (6-7 June). The cost will see only a small rise on the 2022 exhibitor prices to meet growing inflation across Europe. On the PAVCon Europe website you will find booking forms for Exhibitors and Visitors in standard format. In addition this year we can offer Exhibitor links to an e-format PDF from the website.

Although the base is accessed via the Durango exit on the motorway the address is nominally in Iurreta. UVR Ertzaintza, Iurreta Auzoa, 11, 48215 Iurreta, Bizkaia, Spain. The entrance is on an unnamed road which is at **mute.thudded.feels** on What 3 words



Since the original **PAVCon Europe Event Guide** was created and circulated details of the local freight handlers in Bilbao, ACPSI, have been ascertained.

The latest on-line version of the Event Guide includes them.

ACPSI are based on the south side of Bilbao Airport at Pol. Larrondo 5, nave 1B – 23A- P, 48180 Loiu, Spain Telephone: +34 94 4712046

E-mail: operaciones@acpsi.net Web Site www.acpsi.net Operations Manager Borja Climent



UPCOMING

Next month, 3-5 May 2023, sees the return of the **Rotorcraft Asia and Unmanned Systems Asia** to the Changi Exhibition Centre, Singapore. Held in the heart of the fast-growing Asia Pacific region, Rotorcraft Asia and Unmanned Systems Asia is a small but locally important event presenting an array of current and nascent technologies. The event will be held concurrently with IMDEX Asia 2023. Further ahead Singapore will be holding its bi-annual Air Show next year. It is important locally (as in Asia Pacific) but often clashes with the even more important HAI Heli-Expo in the USA. The result is that the important helicopter MROs are faced with a choice – and really there is no choice. They stay in the USA. The clash next year is Singapore runs from February 24-25, 2024 at the airport and the US show is in Anaheim, California, February 27-29, 2024. The international dateline helps but they are very close dates and transits from one to the other are therefore physically challenging.



The 2019 event ©PAR

3-4 April 2023 Aerial Fire Fighting – Pacific Northwest Wildfire Conference and Exhibition, Seattle, Washington, USA Organised by Tangent Link. Chilterns House Business Centre, Eton Place, 64 High Street, Burnham, SL1 7JT UK. t: +44 (0) 1628 660 400 www.tangentlink.com

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25-27 April 2023 World Border Security Conference, Skopje, North Macedonia (Balkans).

The Republic of North Macedonia is a landlocked country in the South-eastern region of Europe known as the Balkans. It gained independence in 1991 as one of the successor states of Yugoslavia. In March 2020, North Macedonia acceded to NATO, becoming the 30th member state and accession process to join the European Union remains ongoing. The

World Border Security Congress is a high level 3 day event that will discuss and debate current and future policies, implementation issues and challenges as well as new and developing technologies that contribute towards safe and secure border and migration management. www.world-border-congress.com



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Tangent Link, in partnership with all supporters are delighted to invite all stakeholders to our 2023 Aerial Firefighting events.

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