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Issue 321

January 2023



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INTERNATIONAL - SPAIN

BILBAO: The 2023 edition of PAvCon Europe will be in Bilbao, the Basque country, Spain from 5-7 June 2023.

For the moment all you need to do now is ring the dates in your diary for 5-7 June 2023. The first day, a Monday will be a training day and the day when exhibitors need to be setting up their exhibition. The main conference and exhibition days will be the Tuesday and Wednesday (6-7 June). The cost should see 2023 prices the same as for 2022 but inflation is about once again so there may need to be a rethink about a modest rise in the coming days.

The final shape of the content is ongoing, the air unit is outside Bilbao and mainly deals with Mountain Rescue. It would be sensible to have an overall search and rescue theme.

PAvCon has been to Bilbao before, as the PAN images from 2011 show. Much has changed including the fleet and the unit awaits a new aircraft delivery. Whether it will take place before the conference remains to be seen.



One interesting presentation is that offered by Steve Fitzgerald late of the Royal Cayman Islands Police air support unit. He has now retired again – although in recent weeks he was still on call to fill in as a TFO when needed by the RCIPS – and set to return to his home in Lancashire UK after the very extended, 13-year, Caribbean holiday. And not just the Cayman Islands, the RCIPS helicopters were ‘out of country’ on rescue and support missions four times in the last year.

The narrative of the last 13 years in the Caribbean will be a useful subject matter for the PAvCon Europe gathering. The RCIPS Unit are probably the only police unit in the world that have responsibility for police, national security (borders), air ambulance, search and rescue up to 100 miles offshore, disaster response (four hurricanes so far) and also having Airbus Helicopter H145 that regularly travel into the US for maintenance through Cuba. It is unlikely that here are any other Western public service helicopters that land in Cuba simply transiting to a maintenance call. They regularly made it into Guantanamo Bay and escaped each time.

COVER IMAGE: MAGPAS Leonardo AW169 lifting off from the snowbound Coldhams Common, Cambridge responding to emergency at Abbey Pool. [image by Ian V Frain]

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There is no doubt that it will be an interesting presentation on one man’s 50 years in law enforcement with 26 of them on Air ops of some description. He was the UEO at the late lamented Lancashire Air Support Unit (AS355N and EC135), set up UK air support on operating the current Airwave digital radio system before retiring from that post. Shortly afterwards he set off on the Cayman Islands adventure introducing a well-used EC135T1 to a very young RCIPS and eventually creating a well-supported national air asset. Steve Fitzgerald last presented on the Airwave system introduction at the first PAvCon Conference in London back in 2009.

The PAvCon Europe police aviation conference was preceded by the Shephard Police Aviation Conferences organised by industry but with planned content by Bryn Elliott.

AFRICA

ZIMBABWE: It is reported that the African nation of Zimbabwe is planning to increase its law enforcement capabilities with the procurement of four police helicopters of an unspecified type.

The country’s Finance and Economic Development minister, Professor Mthuli Ncube, addressed parliament with plans to acquire the helicopters, citing the well-being of Zimbabwe’s Republic Police (ZRP) as being the essential driver of the move. It is said that US\$60M had been set aside for a police improvement project, that will also include the acquisition of cars and motorcycles.

Editor: There have been several reports on this announcement, all with largely the same content. Speculation suggests that the helicopter of choice will be the Robinson R66 but the Airbus Helicopters H125 is more popular in the region.

Prior to its recognized independence as Zimbabwe in 1980, the nation had been known by several names: Rhodesia, Southern Rhodesia, and Zimbabwe Rhodesia. As Rhodesia the police operated helicopters, mainly the Sud Alouette III in a para-military style operation, no independent police aviation activity has been noted recently.

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[Western Australia Police]

AUSTRALIA

WESTERN AUSTRALIA: The end of an era recently came at Police Air Wing with the decommissioning of helicopter Polair 62 in December last year.

The aircraft, a Eurocopter AS365N3+ Dauphin, VH-WPX c/n 6936 was purchased by the WA Police Force from helicopter builder Airbus in 2011 and entered service with the Police Air Wing on 25 June 2012.

During 10 years of service, it flew a total of 4917 hours, performed 8053 police tasks including 668 pursuits and 198 search and rescue missions, assisting in the arrest of 1090 offenders.

The Dauphin has been traded to Airbus and will partially fund its replacement - a second new Airbus H145 D3 helicopter which is currently under construction in Germany. The Dauphin's replacement H145 will assume the call sign Polair 62. Western Australia acquired the first five blade H145 to replace an earlier BK117 in a deal inked in 2020.

CYPRUS

POLICE AVIATION UNIT: A local investigation by the Audit Service, reported upon by a local newspaper, has found that an inspection/maintenance of a police operated Bell 412 went over budget by €2.5M.

One of the two Bell 412 helicopters operated by the air support unit may not be widely used because the contract for its inspection and maintenance did not include a provision for hourly use of the main gearbox.

The relevant Police committee in 2019 invited tenders for the inspection and maintenance of the helicopters but did not make sure to include both hourly and calendar maintenance as stipulated by the manufacturer. Something that was deemed necessary since the gearbox was close to reaching the limit of the predetermined flight hours.



[PAN Archive]

The same source of information suggests that there is also a problem with the second Bell 412, which during the inspection and maintenance process was found to have a tail problem. At the moment it remains in the workshop of a Czech company and is certainly not at the disposal of the Police force.

Local newspaper Phileleftheros contacted the Cyprus Police, in relation to the above information and authorities confirmed that one of the two helicopters is grounded for maintenance reasons until its repair is arranged [Phileleftheros]

Ed: The police air unit currently operates the AW139, a type it acquired in 2010. They acquired a Bell 412 in June 1990 and a second in 1997. The first was reported out of service in 2015.

POLAND

POLICE: The police have ordered two more Sikorsky S70 helicopters to add to their fleet. The contract, reported as worth 350M Polish Zloty, US \$78.6M will lead to delivery of one example in September 2023 and the second during the fourth quarter of 2024.

While the aircraft will be operated by the Police, their primary role will be for firefighting under a contract with the State Fire Service, and available for law enforcement at other times. Funds have been advanced by Poland's National Fund for Environmental Protection and Water Management.



Currently, the Police Aviation fleet consists of 12 aircraft: - 2 Mi-8, 2 W-3 "Sokół", 2 Bell 206B JetRanger, 3 Bell 407GX and 3 S-70i Black Hawk (acquired late 2018/19). Of these, two Bell 407GX, three Black Hawks and the Mi-8s, are stationed at the Police Aviation Authority in Warsaw, while the remainder are at spread throughout the country in Szczecin, Kraków, Wrocław, Łódź and Poznań. [via Helihub]

Two signing ceremonies were held in the police aviation hangar on December 9. The first was a operational and funding agreement between (from left) Brigadier General Andrzej Bartkowiak – Commander-in-Chief of the State Fire Service Przemysław Ligenza, President of the National Fund for Environmental Protection and Water Management Gen. Insp. Jarosław Szymczyk, Commander-in-Chief of the Polish Police. The second ceremony was the aircraft purchase, between (from left) Janusz Zakręcki, President and General Director of PZL Mielec (subsidiary of Sikorsky) Gen. Insp. Jarosław Szymczyk, Commander-in-Chief of the Polish Police



SLOVENIA

AIR POLICE: The Ministry of the Interior has signed an additional contract with Leonardo for a third AW169. The contract was signed in the presence of the Minister of the Interior, mag. Tatjana Bobnar by Acting Director General of the Police, M.Sc. Boštjan Lindav and representative of Leonardo S. p. A., Italy, Andrea Mirteto. The total value of the contract for the helicopter, which will be delivered by October 30, 2023, amounts to €14,408,532 including VAT, which includes the helicopter, training and maintenance.



The police will use the helicopter to perform all police tasks. At the same time, it also represents a new modernization of transport capabilities in the police fleet. After many years of the unit acquiring different airframes from Airbus, Bell and Leonardo the AW169 is now to be the largest number of one type in the fleet. The capabilities of this type of helicopter are now well known by the crews in the Air Police Unit, representing a saving in training costs going forward.

The main advantages over other helicopters of the same class are a high cruising speed of 260km., a huge reserve of power - the helicopter can hover with full take-off weight up to a height of 3,500 metres, and a range of 850km. The AW169 helicopter has a powerful external winch, searchlight, rappelling equipment, cargo hook and a cabin that can be configured for up to ten seats.



[SNP]

SPAIN NATIONAL POLICE

Since the original story reported on in the November edition of PAN (No. 319) some additional detail on the first flight of the Spanish National Police [SNP] EHang EH216 have emerged through Aviation Source. It relates to the same 'first flight' on September 30 but, three months on, provides more detail and access to images of the ceremony.

EHang Holdings Limited, stated that the maiden flight by the SNP took place at the National Academy of Police in the city of Ávila, Castile and León, north-west of Madrid, to initiate its trial operations by SNP in Spain, previously the exact venue and even the country was unclear.

The public maiden flight ceremony was attended and witnessed by distinguished guests and officials from the Spanish State for Security, SNP, the Spanish State Aviation Safety Agency ("AESA"), members of academia institutions, as well as the media.

The ceremony was presided by Rafael Pérez, the Secretary of the Spanish State for Security, who said: "The SNP is the first security institution in the European Union to operate an AAV."

The Director of Aerial Means of Spanish National Police suggested that they saw future operations as involving the ability to operate the EHang from a remote command and control station, potentially hundreds of kilometres from the scene of operations.

EHang, Polytechnic University of Valencia and the SNP plan to work closely to use the AAV in emergency situations such as rescue, surveillance and other missions. The technology offers the potential to improve police capabilities in mis-



[SNP]

sions, such as firefighting, accessing contaminated areas with nuclear, radiological, bacteriological or chemical risk.

Ed: This tends to mirror the aspirations of other police services across the world in focussing future reliance upon unmanned technology including BVLOS, each having as yet unknown infrastructure costs and capabilities.

UNITED KINGDOM

Since moving out of the now closed Doncaster Sheffield Airport the fixed wing element of NPAS have moved to Leeds Bradford Airport and facilities provided by Multiflight Ltd at the South Side Aviation Centre. The facility has previous airborne emergency services use. Some years ago, Yorkshire Air Ambulance shared part of the Multiflight facility.



[NPAS]

EPISODE 67

One of the latest editions of the US Hangar Z Podcast went to England to have a two-hour chat with Richard Brandon, formerly of the London Metropolitan Police. Most readers will probably have identified Hangar Z as being a very US orientated podcast, but this is one of several instances where the creators are able to get talking to other nations and to explore the differences – and the many parallels that police aviation across the world offers.



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Richard worked his way from the streets of London to the skies of the London Metropolitan Police Department—The Met—and eventually found himself in charge of the operation at Lippitts Hill.

Richard served the department for a total of 30 years as a police officer and is continuing to serve the UK as the Aviation Capability Manager for the National Police Chiefs Council (NPCC) looking at police aviation strategy and policy nationally.

Richard has as much as a passion for public safety aviation as the people at Hangar Z as evidenced in the book, he wrote a couple of years ago for Haynes that outlines much in airborne law enforcement.

During the conversation there was an opportunity to talk about a variety of different topics from safety to leadership and a lot in between. The common thread of the conversation revolved around the similarities that exist between public safety aviation agencies across the world.



Richard briefing the delegates of the 2009 PAvCon Police Aviation Conference on the features of the EC145 at Lippitts Hill.

Hangar Z Podcast have also announced they have partnered with the Airborne Public Safety Association for 2023. We will help them to promote training and networking opportunities through the podcast as well as on our website. Hangar Z have created a training page on their website <https://www.hangarzpodcast.com/> where you can see upcoming training and networking opportunities.



You can find information on the Airborne Public Safety Association as well as a list of their upcoming training and a link to The Hangar Z Podcast from their website



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Dateline December 9 2022 and the last remaining EC135 in service still fitted with the under fuselage MacPod utility feature, EC135P2 G-EMID is at North Weald undertaking pilot line assessments. [PAR]

UNITED STATES

CALIFORNIA: As the year closed out an article by Angelika Albaladejo attacking the basic premise of police air support emerged in a couple of 'progressive' political comment publications including *Capital & Main* and *Mother Jones*. It all appears to be in support of the Black Lives Matters police defunding campaign and sought to prove that police air support is costly and useless. Furthermore, it seems that the evidence includes a declaration that air support is noisy and that this annoys those that have an ethnic background and are black or brown in colour. The article goes on to suggest that only such persons could hear the noise and that therefore the noise was directed at them. Although it is not mentioned it may be based on an assumption that certain areas are exclusively occupied by particular racial groups – not a situation that necessarily applies in all countries.

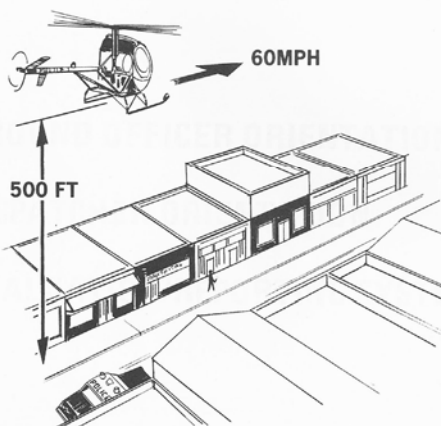


The basic question raised was whether police helicopter fleets are worth the money. The article claimed that police departments lack persuasive evidence of crime-fighting effectiveness. It is notable that like much of the airborne law enforcement material originating from the United States it was totally inward looking and disregarding of evidence from the international scene. It was again the USA totally contemplating its own navel to the exclusion of all others.

Part of the attack was on the cost of air support, with the LAPD police and sheriff's departments large air operations costing tens of millions of dollars that "disproportionately hover over low-income communities of color." There seems to be a paranoia about this hovering, time and again it seems that overflights are being proposed as helicopters in the hover. There is no real mention of fixed wing. Apparently and disproportionately "helicopters have hovered for decades". There is a clear inference that the law enforcement helicopter crews are not persons of colour but, as most appreciate, that is not the case.

The critics claim that the police rely upon dated material from the 1960s to prove the worth of their operations. Against this is recent, comprehensive tests that seek to suggest no correlation between the use of aerial patrols and declines in crime rates. No details of these tests and studies are given, instead there are repeated claims that black and brown people were suffering sleep deprivation at disproportionate levels.

Patrol Operation is Optimized



The 'blame' apparently lies with the Hughes Aircraft Company salesman all those years ago when they promoted Project Sky Knight using three Hughes 300 helicopters to patrol a tiny area of land in California. The article claims that certain US law enforcement agencies have kept a grip on the lessons learned in those early trials—very California centric in its attack—and yet they wholly ignore the fact that police air support is an international activity with similar opinions learned through numerous tests in many places over the last 100 years. Indeed, police helicopter operations started in Europe over 70 years ago but I am not aware of many reports of complaints about groups being unfairly targeted by hovering helicopters on the grounds of race, creed or colour there. Criminals may not like the probing eyes of helicopters and citizens are occasionally woken by helicopters, but no-one appears paranoid enough to be claiming it is they that are being targeted rather than the law breakers or missing people.

The US Department of Defense donation of hundreds of "free" aircraft to US law enforcement in the last 50 years is also targeted by the author. That largesse, promoted by successive US Governments, has apparently served only to make it easier for US cops to target the sleep patterns of only certain members of the population who might have specific racial grounds for complaint. As a by-product it has also massively reduced the real cost of air support across the United States and allowed tiny communities the opportunity to have air support.

The writer claims that the LAPD's Air Support Division defines its "functional objectives" based on the early study. The words are in its policy manual so it must be true. In truth many organisations have a long lived 'strapline' upon which to build themselves, they rarely change the wording, and they are but the foundation stones upon which more modern ideas are placed. The author notes that the department promotes

the NASA study on its website as part of the history of LAPD Air Support. It is asserted that even if the findings weren't outdated, they were likely inaccurate to begin with. Apparently, that is according to experts, but we are not told what the experts are most clever at. Most subsequent studies undertaken internationally have reinforced the basic findings.

One expert quoted is Nicholas Shapiro, a University of California, Los Angeles, professor on the health and climate impacts of law enforcement helicopters in Southern California. His team found problems with the crime predictions and comparisons underpinning the LAPD helicopter study, highbrow stuff comparing arrest rates with prevented crime.

There are calls for an updated review of the effectiveness of air support in Los Angeles. According to the author the last one was undertaken as long ago as 1970 and a person involved in that process 52 years ago 'thinks' that there should be another one undertaken. I can only guess that the individual is way past retirement age. Well, maybe in Los Angeles there is a dearth of such studies, but freely available are a string of more up to date assessments from police aviators across the world that take in more modern aspects of the technologies and skills involved. These are not even referred to, clearly the experts failed to make themselves and the author aware of them.

Although it had opened on the premise that the main thing wrong with air support in Los Angeles was sleep deprivation for certain targeted peoples, mainly caused by low flying, the article goes on to question the annual costs of the operation. The tactic may be that if the air operation cannot be defunded on one aspect it should be attacked on its fundamentals (the "functional objectives") and if that does not work perhaps the target should be cash as that affects every local taxpayer.

Capital & Main research claims that the police helicopter unit cost at least \$215M in the last ten years, at least \$27M in 2021, including approximately \$7M for new helicopters and equipment, \$5.2M maintenance, \$3.6M parts, \$1.3M for fuel and over \$8.5M staffing costs. The Sheriff's air fleet was another where the numbers had to be researched against a refusal of the LACS authorities to release them, they ended up with an annual cost figure similar to the police fleet.

Ed: There are times when writers coming almost fresh to the task in hand find themselves at a disadvantage. The groups that wish to defund the (US) police are restricted in where they can draw their information from – mainly because for many in America there is no world beyond their shores. Why would anyone 'out there' read an article strictly focussing on California?

The lack of global awareness can lead writers and commentators to appear to forget that fifty percent of the world's population is in China and that a very large proportion of the rest are shades of black or brown. Many of these people have law enforcement air units of their own and they are operated by their own people in a manner that suits local needs and budgets. The officials will have made their own decisions on whether the operation is financially viable (you can bet they will cost every bit as much as the LA operations) and they too will fly low on occasion. Does that then mean that black and brown people across the globe are suffering disproportionate sleep deprivation? By whom?

Although some elements of the US population continue to embrace the erroneous concept that modern airborne aids can see through walls, the fact remains that no-one in an aircraft can see what race, creed or colour the occupants of a building are whilst flying at 2,000 feet.



Many reports and research papers and numerous languages readily available from across the community of police aviators [PAR collection]

The author of the original item is Angelika Albaladejo, an 'award-winning investigative journalist' and Capital & Main staff reporter based in Denver, Colorado. Her reporting on immigration, criminal justice and gender issues has been published by the Guardian, Univision, CNN and the Miami Herald, among other major outlets. The original text of this article can be found on-line by searching her name.

Back in March of last year Bell Textron Inc., announced that the **Ventura County Sheriff** had signed a purchase agreement for the first public safety configured Subaru Bell 412EPX helicopter in North America. The new aircraft will be used for law enforcement, search and rescue (SAR), emergency medical services (EMS) and fire suppression.

Just before Christmas the Ventura County Sheriffs Office took delivery of their new Bell 412EXP at their Camerillo Airport base north of Los Angeles.

Among the more obvious difference the new Bell has compared t the earlier craft operated by the unit are the four blade main rotor, a Trakka searchlight and a new digital instrument panel. The next few weeks will see the unit training up crews and increasing the number of pilots proficient on the type.

The unit started operations on a Bell 47 over 50 years ago and mainly operated former DoD Huey derivatives in the fire attack role until recent purchases of three Sikorsky HH-60L converted to Firehawk configuration. The new 412EPX joins six other helicopters; a Bell 205B, Bell UH-1H, Bell 206L3 LongRanger and the three Firehawk's. It will replace the UH-1H in service.

The Bell 412EPX benefits from a more robust main rotor gearbox dry run capability, and mast torque output of +11% at speeds below 60 knots; providing operators the ability to transport more supplies and perform operations more efficiently.



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FLORIDA: The **Polk County Sheriff's Office** has once again partnered with GovDeals, the leading online marketplace for government agencies and educational institutions to sell surplus assets, to offer a 2014 McDonnell Douglas 369E Helicopter for sale. The former law enforcement aircraft was at auction until December 12.

This is the second aircraft sold by Polk County Sheriff's office. They previously utilized the GovDeals platform to sell a 2013 McDonnell Douglas 369E in October 2021.

GovDeals supports its sellers' sustainability goals by helping them extend the life of their assets, with a focus on zero waste through reuse and recycling. The Polk County Sheriff's Office is asking potential buyers to pay a refundable \$5,000 bid deposit prior to placing a bid on the helicopter. The deposit will be applied to the final price of the auction for the winning buyer and will be refunded to all other bidders. Serious buyers are encouraged to inspect the aircraft prior to placing any bids. To bid on this aircraft or any other assets on GovDeals, potential buyers must first create an account and complete the free registration form.

The **Bay County Sheriff's Office** operating Vietnam era helicopters out of Panama City in the north west of Florida for over 25 years is to purchase a Bell 407 to enhance and update its aged fleet.

County commissioners voted to buy a 2007-model Bell 407 helicopter from the Volusia County Sheriff's Office at a cost of \$2.15M. The cost will include new technology sensors.

Commissioners said it's a big need since the sheriff's office is currently operating Bell OH-58 Kiowa helicopters that are more than 50 years old.

No date of arrival has been announced. Volusia CSO, based in Deland, north of Orlando, have operated a fleet of three 407s for twenty years and in July last year announced their third 407 fleet change with the purchase of two new Bell 407GX helicopters. It appears the 2007 airframe being disposed of by Volusia CSO is N802DS c/n 53797

GEORGIA: As reported in an earlier edition of PAN, Atlanta Police Department has signed a USD\$10M purchase agreement for two MD 530F helicopters. Additionally, the department signed an agreement to convert one of its MD 500E helicopters to an MD 530F through MDH's FAA-approved E-to-F conversion program.

The two new MD 530F helicopters will be delivered in 2023. The MD 500E will remain in service until the 530Fs are operational. At that time the 500E will go through a three-month conversion process.

The updating process from MD 500E to MD 530F has been detailed by an MD press release to include the fitting of a more powerful RR250-C30 engine, an upgraded main rotor gearbox, and upgraded tail rotor drive shaft. New main and tail rotor blades are part of the package that will give all three Atlanta aircraft a higher 3,350 lb gross weight, increased cruise speed, improved flight characteristics in confined areas, and lower direct operating costs when compared to the current airframe.

The fleet will feature a new common tactical mapping system, EO/IR camera, a searchlight, and a downlink system, technology upgrades on the systems currently carried by the existing aircraft, the 20-years old N369PD, c/n 0557E pictured right.



OKLAHOMA: The Oklahoma Department of Public Safety, operating as the Highway Patrol are selling their 1984 Cessna 182R light single N50HP [SN:18268416]. The airframe is fitted with Dual Garmin G5, Garmin GTN650, King KX 155, Garmin GMA 340 audio panel, Garmin GTX 330 transponder ADSB out, STEC 30 autopilot with altitude hold, digital tachometer. Apparently owned from new in 1984 the airframe now has total hours of 10,304. The sale via www.govdeals.com opened at a minimum bid of \$170,000 and was due to conclude just before Christmas.

AIR AMBULANCE CANADA

ALBERTA: A second generous CAN\$1M donation from Capital Power has helped STARS—The Shock Trauma Air Rescue Service non-profit helicopter *air ambulance* organization, reach its ambitious fundraising goal for the multi-year capital campaign to renew its fleet of air ambulance helicopters. Capital Power provided the first \$1 million gift to the fleet renewal campaign and now, with this donation, have contributed the last \$1 million to this generational investment of 10 new H145 helicopters replacing a mainly BK117 fleet. Capital Power made its first gift to STARS in 2009 and has remained a strong ally, donating a total of \$2.33 M to the non-profit.

In June 2018, STARS unveiled a multi-year plan to replace its fleet of BK117 and AW139 aircraft with nine new medically equipped Airbus H145 helicopters, at a cost of \$13M each. STARS were able to purchase a tenth aircraft thanks to the continued support of generous donors.

NEW BRUNSWICK: The legislature of the province situated on the Eastern Seaboard immediately north of the USA is stepping in after Grand Manan's local medevac service was grounded. Recently a military SAR helicopter had to transport a patient to hospital. The current effort is to get the island exempted from new Transport Canada rules that require the local company, Atlantic Charters, to more than double its pilot numbers to support medevac services.

The new rules came into force last month as Ambulance New Brunswick and Atlantic Charters continued with contract negotiations brought about by the change. They were unable to agree terms before the deadline.

The hiatus means that the company is no longer able to transport residents to hospital using its specialised medevac plane, a Piper PA-31T2 Cheyenne II C-FWOF, and as a result residents fear delays in getting emergency health care.

The Health Minister Bruce Fitch said the province will apply to Transport Canada to designate Grand Manan Island a remote location, exempting the long standing contract from the new rules.

IRELAND

AIR AMBULANCE: In September last year UK-based Sloane Helicopters Limited instigated an action against the Irish Health Service Executive decision to award a 24 month EMS helicopter contract to Malta-based Gulf Med Aviation Ltd. According to the Irish Times, Sloane claims the decision is *inter alia* flawed and unlawful, and in breach of EU directives and regulations.

Early last month the notice of the contract award appeared for the first time on the EU Tenders website (TAD) as 2022/S 241-695135.

The Health Service Executive (HSE) of Eire/Ireland based in Naas, County Kildare (<http://www.hse.ie>) published the award notice of the Helicopter Emergency Medical Service (HEMS) provision of services to the community. The tender process establishes a single provider for a HEMS based within the county of Cork to primarily serve the South West of Ireland at a value put at €8.8M.

Three tenders were received from SME's, all from outside Ireland. The winners of the tender are shown to be Gulf Med Aviation Services Limited., Qormi, Malta

In early 2017 a struggling start up air ambulance commenced trial operations with a Eurocopter EC135T2 G-SASA before operations were contracted in June 2018 as Ireland's first community Air Ambulance contracted as Irish Community Rapid Response (ICRR) – a charity dedicated to pre-hospital care – with Sloane Helicopters with UK based Sloane Helicopters. The helicopter operated by ICRR operated a few weeks later using Agusta helicopters supplied by Sloane.



SWITZERLAND

REGA: The Swiss Air-Rescue Service, Rega, has ordered additional five-bladed H145s for its mountain bases.

Rega has ordered a second batch of 12 five-bladed H145 helicopters to be operated from its mountain bases. They will replace the current fleet of Leonardo AW109SP helicopters. This new order follows an initial contract for nine H145s, announced in March this year. By 2026, Rega will operate an all-Airbus fleet consisting of 21 five-bladed H145s.

The five-bladed H145s will come equipped with a state-of-the-art navigation system, especially tailored to the operator's needs that will enhance the mission capabilities and the safety of operations. The system will use new capabilities of the Flight Management System GTN750 Xi by Garmin. It will integrate and control a multi-sensor system that provides highly accurate and reliable navigation capacities. Even in the event of GPS signal loss, the helicopter will navigate safely thanks to Thales' inertial navigation system. This solution will further boost the navigation performance in low IFR conditions and allows the helicopter to be certified as navigation procedure RNP-AR 0.1, which is the most accurate navigation procedure in the helicopter environment. The configuration also includes a new hoist by Vincorian that is being certified on the five-bladed H145, ensuring highest safety standards.

Not yet a familiar name in the utility market, Vincorian received an order to supply 100 hydraulic Rescue Hoist Systems for military transport helicopters earlier this year. Field-Proven for Loads of up to 400 kg and Rescue Operations up to 270 kg the system is mainly used for SAR and military missions, but also as a cargo hoist while the helicopter is on the ground.

Rega operates 14 HEMS stations in Switzerland. Last year, the helicopter crews carried out 14,330 missions, including transporting 471 COVID patients.

Ed: REGA have been operating air rescue and aeromedical evacuation around 70 years now. In the early 1990s Sud Alouettes were replaced by Agusta A109K2 helicopter especially modified for REGA. Rega had a total of 16 A109K2 helicopters, delivered between 1992 and 1995. Only thirty-eight of the 'hot n high' versions of the Agusta 109 were built with Rega as the launch customer. In June 2001 they announced the purchase of the Eurocopter EC145 to supplement their existing fleet of Agusta A109K2

[REGA]

helicopters to be delivered commencing in 2003. The EC145 was dedicated to rescue at lower levels as it did not have the altitude performance of the Italian type.

The K2 models were replaced by another specially modified Agusta the AW109SP DaVinci twelve years ago. To enable them to operate near the top of the mountains they were extensively altered by the use of weight saving measures, including a fixed landing gear, and had Airborne Technologies design a EO/IR system for their use. The main fleet remained a mix of eleven AgustaWestland AW109SP DaVinci and six Eurocopter EC145 helicopters.

UNITED STATES

NATIONAL: In past issues of *Police Aviation News* the Accident and Incident section has drawn upon reports prepared by air ambulance operators in the United States for information. A significant number of the reports have been submitted to the Concern Network and circulated by them for wider information to around 4,000 individuals. Occasionally the reports cease for no obvious reason but start again. There have been no reports circulated recently.

Last month David Kearns of Concern sent out a message intended to highlight the lack of messages and to apologise for their absence.

For various reasons, Kearns had to transition the service to another hosting company and take on the responsibility of managing the website. As a result there was a need to rebuild pages, subscription processes and archives. The most recent hosting service did not do a good job of pruning inactive addresses, so the system is under overhaul.

Flight For Life Colorado provide financial support to continue this effort in the name of medical transport safety.



MAINE: LifeFlight of Maine added a new medical helicopter to its fleet on December 20. It's the third helicopter the service has added in as many years. The Leonardo AW109SP series lightweight, twin-engine helicopter is named Whiskey Mike (N901WM) is the same as the other two recently acquired. Life-Flight added Lima Foxtrot (N901LF c/n 22400) in 2020 and Xray Mike (N901XM c/n 22422) in 2021.

"Having three identical helicopters allows for standardization that is invaluable to the pilots, clinical crews and mechanics who work across the fleet, communications coordinator Amy Sinclair said in the release. "These three critical care helicopters feature more power, speed, a larger interior workspace and advanced aviation electronics."

The new arrival of N901WM marked the completion of a five-year, \$20M campaign to replace LifeFlight's fleet. The latest addition was made possible by donations from individuals, family and private foundations, and Maine businesses.

LifeFlight was founded in 1998. The service operates from bases in Sanford, Lewiston and Bangor and in addition to its three medical helicopters, it uses a fixed-wing airplane, rapid response vehicles and specialized ground ambulances to transport patients.

Most flights are inter facility transfers. Only about one out of every 10 transports are directly from the scene of an emergency. While most transports are within the state of Maine, LifeFlight does occasionally transport patients to Boston-area hospitals.

LifeFlight of Maine owns four A109 series light twin-engine Leonardo AgustaWestland helicopters. Two 109E models were purchased new in January 2005, and two of the latest generation SP models were purchased in 2020, with the newly arrived third SP purchase completing the fleet. [LFOM]

FIRE

AUSTRALIA

NEW SOUTH WALES: The Rural Fire Service in NSW issued a Communique late in December.

The National Aerial Firefighting Centre (NAFC) has released an Invitation to Tender for Aerial Firefighting Services 2023+, representing 103 services to be sought for locations nationally, for a range of aircraft types and capabilities.

The tender will be open for two months, with responses due by Wednesday 15 February 2023. A further tender opportunity covering an invitation to Tender for Large Airtanker Services 2023+ will be issued later this month. [Rob Rich]



FRANCE

PARIS: The Paris Fire Brigade has chosen to partner with Mérignac based Azur Drones as part of an experiment to use small quad rotor drones to drop lifebuoys in the River Seine

On October 12 last year autonomous drones made their début at the Paris Fire Brigade (BSPP). As the sun rose, the Skeyetech quad rotor drone climbed into the sky above the capital's 6th arrondissement, headed over the River Seine and dropped a lifebuoy to a "drowning" victim.

It is believed that the Paris Fire Brigade may have become the first fire and rescue unit in France, if not the world, to deploy an autonomous solution in urban areas.

Every year, the Paris Fire Brigade carries out about 300 rescue operations on the Seine with people in difficulty. In order to increase the chances of survival of victims, it is studying the integration of the drone into its operational scheme. Upon receipt of a call for help, the drone automatically deploys to the drowning zone. It is the first to be on the scene and provides rescuers, using its day and night cameras, with intelligent video feedback, via automatic victim detection. Once positioned above the person to be rescued, the drone proceeds to drop the buoy: the victim can then grab onto it while waiting for the arrival of the swimmers-divers while the drone continues its mission to support ongoing operations.

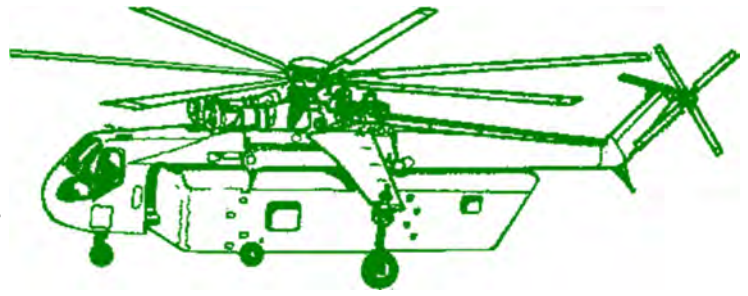
The Skeyetech system should save considerable time over the average response time thanks to its automatic systems and the sensors. The system dispenses with a remote pilot. The in-built systems arrive before the rescuers and builds up a mission profile. With the system it is expected that the asset could strengthen its response capabilities in the event of drowning in the Seine. [Azur/David Wise]



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SOUTH KOREA

FOREST SERVICE: Erickson Incorporated, has delivered a new S-64 Air Crane® helicopter to Korea Forest Service (KFS) in South Korea. The aircraft, dubbed “K-9” by Erickson associates, furthers Erickson’s global mission of protecting life and property from wildfires. Over a 20-year relationship with KFS, Erickson has produced eight S-64 Air Crane® helicopters in support of KFS operations. In 2001, KFS was the first foreign government to purchase an S-64 Air Crane®. From that point forward, Erickson and KFS partnered to establish and grow an exemplary firefighting and emergency response team. A recent initiative that epitomizes KFS firefighting strategy employs fire extinguishing technology, nighttime operations, and deployment of aerial firefighting agents.



The recently delivered aircraft, accepted by KFS on December 3, 2022, began production in January of 2020 at Erickson’s manufacturing facilities in southern Oregon. The manufacturing process persisted amid worldwide supply chain shortages, shipping obstacles, and logistics impediments. The aircraft is representative of Erickson’s ability to meet customer needs in trying times. The Erickson team was able to adapt to unforeseen circumstances to produce a superior aircraft. Erickson anticipates continued expansion of their partnership with KFS due to the capacity of the Erickson team to meet the needs of shifting global conditions.

SEARCH & RESCUE



[Leonardo]

CANADA

SEARCH & RESCUE: The Canadian Department of National Defence has awarded Leonardo (through Leonardo U.K. Ltd of Yeovil) a \$1 billion CAN (€690M) contract for the AW101/CH-149 “Cormorant” Mid-Life Upgrade (CMLU) Project for 16 aircraft in total, comprising 13 existing Cormorant Search and Rescue Helicopter (CSH) currently in-service and the augmentation of a further three aircraft. This contract will enhance the aircraft’s systems and technologies, ensure compliance with emerging air-

space requirements, extend the life expectancy of the fleet to 2042+ and enable the return of Cormorant helicopters to the Main Operating Base (MOB) Trenton.

The programme will be executed by Team Cormorant led by Leonardo and comprising IMP Aerospace and Defence, GE Canada and Collins Aerospace Canada

After a distinguished 20-years of service life, the CH-149 Cormorant fleet will now undergo a mid-life upgrade, further to Team Cormorant's proposition. The team is a collaboration of Leonardo and is supported by its principle Canadian subcontractor IMP Aerospace and Defence together with GE Canada, and Collins Aerospace Canada. The majority of the CMLU work will be performed in Canada, primarily at IMP's Halifax, N.S. facilities.

The CMLU Project will transition Canada's AW101/CH-149 "Cormorant" SAR helicopter fleet to the latest standard currently being delivered for SAR in Norway and arguably the best search and rescue helicopter in the world. The CMLU Project will include; state-of-the-art avionics, a new glass cockpit, more powerful digitally-controlled engines, wireless in-cabin communications, the latest SAR sensors including Electro Optical Infra-Red device and Mobile Phone Detection Location System –enabling less search and more rescue.

In July 2022 there was the first operational flight anniversary of the Cormorant, which took place in 2002, and the first delivery took place in October 2001. The fleet has now achieved in excess of 100,000 flight hours.

Editor: The AW101 is claimed to be the most advanced medium lift helicopter available. The AW101 offers long-range, large capacity and advanced technology, all combined in a cost-effective, multi-mission aircraft opening up a new era in rotary wing operations. Over 220 AW101 helicopters have been ordered so far by customers worldwide to perform a large number of roles including SAR, Combat SAR, Personnel Recovery, Special Forces Operations.

Although the press release does not confirm the situation it is believed that the three additional airframes will be sourced from parts acquired by the Canadians from the original but defunct US Presidential AW101 helicopter.



NEW ZEALAND

AUCKLAND: Two trustees at Auckland Rescue Helicopter Trust (ARHT) have taken legal action to stop a plan to strip the organisation of tens of millions of dollars worth of assets and vest them in a private company instead.

ARHT trustees Scott Rice and Nuwanthie Samarakone have filed a statement of claim at the Auckland High Court to try and stop a plan which they allege goes against the purpose of the trust.



The trust employs around 20 people and received revenue of \$13.5M last year. ARHT undertakes hundreds of helicopter missions a year through a private company called the Northern Rescue Helicopter Limited (NRHL) that is half-owned by ARHT and contracted by the Government-run National Ambulance Sector Office to deliver air ambulance services to Auckland, Northland and Coromandel.

But the Auckland rescue helicopter service's significant aviation assets – which run to a value exceeding \$36 million and include three BK117 rescue helicopters – are owned by a separate charitable trust that is governed by a five-member board. Rice and Samakone sit on.

They claim that transferring the assets to another entity because the entity operates in a wider area than Auckland.

UNITED KINGDOM

UK COASTGUARD: In a somewhat unexpected change of tack Bristow have ordered six new AW139s for service in the Second-Generation Search and Rescue Aviation ("UKSAR2G") programme by the U.K.

Early in December Leonardo announced that Bristow Group Inc. had signed a contract to procure six AW139 intermediate twin engine helicopters to support UKSAR2G programme for the U.K. Maritime and Coastguard Agency (MCA). Aircraft's deliveries are expected to start in this year and to be completed in 2024, they will be joining an existing fleet of nine AW189 helicopters.

These latest AW139s will feature the very latest in product enhancement, technology and mission capability for the task including a 7-ton MTOW (Maximum Take-Off Weight), Honeywell Primus Epic integrated avionics Phase 8, an advanced Synthetic Vision System (SVS), improved 2D maps and wireless data loading, which will deliver even greater all-weather capabilities and mission effectiveness. Furthermore, these AW139s will also feature a Limited Ice Protection System (LIPS) to deliver even greater mission capability in demanding weather conditions. This new fleet of AW139 SAR helicopters for the UKSAR2G requirement will benefit from the new Leonardo-Bristow long-term global service programme. The aircraft will also undergo a mission system integration to be carried out by Bristow in partnership with Nova Systems after their delivery, ensuring an even greater involvement of UK-based industry.

Leonardo and Bristow have been partners for over 26 years with Bristow using a range of types including the AW119 single engine, AW109 light twin, AW139 intermediate twin and AW189 super medium. Bristow's fleet of Leonardo helicopters will account for nearly 100 units with the arrival of these additional six AW139s. Bristow's Leonardo helicopters have successfully accomplished missions such as offshore transport supporting the energy industry, SAR, and emergency medical service throughout the Americas, Europe, Africa, and Australasia.

With more than 1,100 units in service with over 280 customers in around 90 nations and over 3.3 million flight hours logged to date since its certification in 2004, the AW139 has also proven extremely successful for rescue and emergency missions. Almost 400 aircraft, covering military, parapublic and civil operators, carry out emergency and disaster relief operations worldwide and have amassed more than 900,000 flight hours to date.

Born out of the joint Bell/Agusta AB139 project In the early days of its service it was unpopular but it quickly settled down and proved to be a good cost effective platform for a wide range of roles and the manufacturers can now rightly claim for it best in class performance and cabin space.

They have been here before. An earlier Bristow contract for the UK Coastguard also relied heavily upon the AW139. This was G-SARD c/n 31208 a 2007 AW139 was in service until 2018 before being exported to Australia. It is seen here hovering off Brighton Beach in 2015 during a SAR Conference held on the seafront. [PAR]



MIGRANT TRAFFIC: The UK government continues to struggle with the migrant traffic across the English Channel and yet another set of proposals have been put forward to resolve the many expensive issues. The overall result is that they are having to throw yet more money at the problem and hopefully bring forth greater interest from the French authorities.

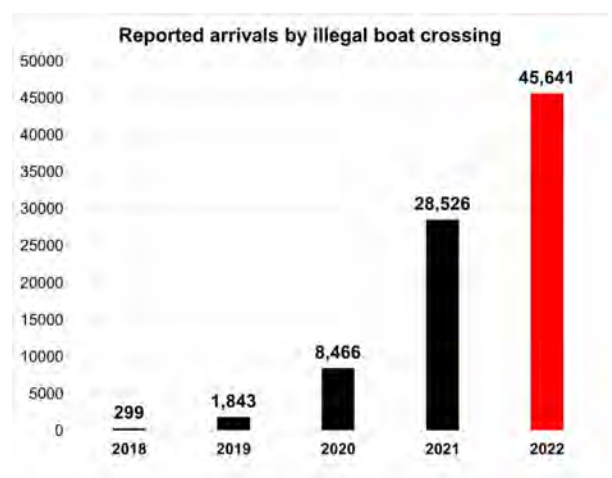
There are some cost cutting ideas, including saving on the massive hotel bill by diverting the migrants awaiting adjudication on their ultimate fate into largely empty holiday camp chalet accommodation. The savings will be real but not dramatic compared with the overall cost of operations.

Politicians continue to struggle with resolving the many problems associated with the English Channel Migrant 'invasion.' They issue many a statement and declare their position but none of them can be hands on dealing with the situation, they have to rely on others.

The chief Migrant Watcher for PAN is Tony Cowan. He watches from afar the observation and rescue traffic and has recently noted several changes in tactics between UK and French resources guarding the one of the worlds busiest sea lanes. This is his latest report:

ENTENTE CORDIALE, OR WORK IN PROGRESS?

With a forecast of very poor weather in the English Channel for the last few days of December, it's quite possible that those migrants who arrived in UK on Christmas Day, 90 migrants in 2 overcrowded inflatable boats, will be the last in 2022, bringing the total to 45,641, exactly 160% more than in 2021. The total of 28,526 in 2021 was 337% greater than the total of 8,466 in 2020! In 2019 the total number of migrants who arrived in the UK without permission was 1,843 and in 2018 it was just 299! A new twist to this ongoing crisis is that a large proportion of those who landed without permission in 2022, up to 15,000, were economic migrants, including criminals, arriving from Albanian. These migrants, those arriving from Albania, have absolutely no right to enter the UK, or to claim asylum. Moreover, these spurious applications have frustrated the application process for genuine asylum seekers by overwhelming the Home Office immigration service.



Migration Watch UK (MoD statistics)
Via Author

Despite the small number of boats that crossed the Channel on Christmas Day, just 2, the response included a Coastguard search and rescue helicopter, a patrol aircraft, both from Lydd in Kent, 2 RNLI lifeboats, also from Kent, and 2 French warships. But this cannot go on, with criminal gangs, people traffickers, abusing the hospitality of both the British and the French, whilst making millions of pounds promoting their vile trade. In the UK, the Home Office immigration service has been overwhelmed by the criminal gangs whilst, in northern France, the disgraceful migrant camps are a blight on French society.



The volunteer crew of the RNLI Dover lifeboat, 'RNLB City of London' are called out to 'rescue' migrants in the English Channel on a regular basis [Author Supplied]

In December, in the early hours of Wednesday 14th, a large group of 8 overcrowded, inflatable boats with 401 migrants on board, an average of 50 migrants per boat crossed the Channel from France to the UK. Two of these boats, with 97 migrants on board came to grief and sank in mid-Channel. Fortunately, the British fishing vessel, Arcturus was close by and the response by both the UK and France was overwhelming. A total of 15 surface vessels responded; 4 Royal Navy warships; 4 UK Border Force rescue vessels; 4 RNLI lifeboats; 2 French warships and one French lifeboat. In addition, 3 Coastguard rescue helicopters and the Kent air ambulance took part in what must have been the largest search and rescue operation to take place in the English Channel in recent years. Sadly, 4 migrants lost their lives and 4 are still missing.



In the latter part of 2022 there have been regular patrols of the English Channel by a Diamond DA62 MPP, based at Ostend, in Belgium, but operating from Lydd airfield in the UK.

Despite the fact that criminal gangs, people traffickers, have been ‘running circles’ around the British and French governments for over 4 years, there are some positive signs for 2023. First, in the UK, there is new legislation, the ‘Nationality and Borders Act 2022’ with stiffer penalties, with prison sentences, for those who choose to enter the UK without permission. Also, there is the prospect of deportation to a third country for asylum applications to be processed. There is also evidence of greater cooperation, together with the prospect of closer Anglo-French cooperation, with joint land, sea and air patrols of the beaches of northern France. In the latter part of 2022 there have been regular air patrols of the Channel with a Diamond DA62 MPP, based at Ostend, but operating from Lydd in Kent. Moreover, French warships have been in evidence patrolling the coast between Dunkirk and the Baie de Somme. Hopefully, the criminal gangs will be defeated, applications for asylum will be processed more quickly and, in 2023, the United Kingdom will regain its ‘rules based’ democracy with secure borders.

In recent weeks French warships, including the A605 ‘Garonne’, an offshore support and assistance vessel, together with the Douane (Customs) patrol vessel, ‘Kermorvan’ have made regular patrols of the French coast between Dunkirk and the Baie de Somme. [via author]



James A Cowan MBE
Squadron Leader RAF (Ret’d)



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INDUSTRY

H3 Dynamics and **HyLight** have joined forces to bring new long range, sustainable and quiet unmanned airships to a range of commercial applications. Traditionally, airships use combustion engines for their propulsion power. With new hydrogen propulsion system developments at H3 Dynamics, HyLight's new range of airships



will now offer long-range zero emission flight and open a whole new category in air mobility. The two companies share a common goal, to decarbonize the aerial industry.

The companies started working together several months ago in France, and HyLight have now achieved a first successful hydrogen-electric flight test campaign in Milan, Italy. HyLight is an up and coming French start up and one of the very few companies in the world that was able to demonstrate hydrogen as a viable power supply for small unmanned airships in real conditions. This was made possible with H3 Dynamics aerospace grade hydrogen fuel cells - the smallest and lightest in the world - have pioneered hydrogen flight research from as early as 2006. HyLight's unmanned airships move slowly but don't need to consume any power to stay aloft. They can operate for days at a time with heavier payloads compared to conventional drones, to conduct long range inspection of critical infrastructure. Airships could also hover around specific areas to provide connectivity for large scale industrial sites - or provide communications after a natural disaster.

Editor: Here we go again. Someone has invented the different lighter than air craft that is going to be a true industry changer. The fact that engineers have been inventing and reinventing these things for well over 100 years and yet they have failed to achieve diddley squat again appears to have been unnoticed by the inventors. At this present time there are less than 30 airships in service where there are thousands of other types of aircraft of various designs—some a real success others a mediocre success, but surviving nonetheless. Being unmanned is not necessarily a game changer.

Nordic Unmanned UK Ltd has received an award for a large quantity of Heimdal sensors and software from its partner and customer, Lockheed Martin UK Ltd. The announcement comes after Lockheed Martin UK Ltd. was awarded the Prime Contract for the TIQUILA drone programme by the UK Ministry of Defence.

The 10-year contract to provide the British Army with 250 mini-drones worth £129M (\$157M). Drones will deliver high-resolution imaging capabilities to locate and identify potential targets, said the UK defence ministry in a statement. The mini drones will have features enabled by the latest Artificial Intelligence including sophisticated targeting and threat recognition, said a news release by Lockheed Martin UK. The contract covers the production and supply of Heimdal sensors, maintenance and modifications related to the sensor, and other related work on the Lockheed Martin Indago 4 drone. The contract period is 10 years, with revenue effect expected to exceed EUR 5 million in 2023. Initial contract call-off is expected later this quarter. The contract work will primarily be delivered by Nordic Unmanned's subsidiary, AirRobot GmbH & Co. KG. The contract is expected to more than double AirRobot's revenue for 2023 and will make a significant contribution to the backlog of Nordic Unmanned.

Avio Aero has launched a new technology demonstration program that continues to advance development of hybrid electric propulsion technologies for commercial aviation and supports efforts to make air transport more fuel efficient to reduce CO₂ emissions.

The Clean Aviation Joint Undertaking of the European Commission has awarded approximately €34M million over four years to a consortium led by Avio Aero for the AMBER demonstrator in a recently finalized agreement.

Plans are to mature, integrate and validate key technologies necessary for a megawatt (MW)-class hybrid-electric propulsion system powered by hydrogen fuel cells. The AMBER demonstrator will study integration of hybrid electric components — including a motor/generator, power converters, and power transmission systems — with fuel cells for rig testing in the mid-2020s using Avio Aero's advanced Catalyst turbo-prop engine.

Hybrid electric propulsion technologies can help improve engine performance, reducing fuel usage and emissions. The hybrid electric technologies Avio Aero and its parent company GE Aerospace are developing are also compatible with alternative fuels like Sustainable Aviation Fuel (SAF) and with advanced engine architectures such as open fan.

The Avio Aero-led consortium consists of a total 21 members* from Europe, including Avio Aero's European technology development network of universities and R&D centres. Other GE Aerospace sites in Eu-

rope, including in the Czech Republic, Germany, Poland, Turkey, and the United Kingdom will contribute to research of the engine, propeller, and electric powertrain systems.

H2FLY, a German-based company specializing in the development of hydrogen-electric power systems for aircraft, supplies the MW-class fuel cell system, along with the corresponding architecture, interfaces, and fuel cell controls. H2FLY is also responsible for the build-up of the MW fuel cell system as part of the powertrain validation and testing in collaboration with the project partners.

Airborne Technologies, based at Weiner Neustadt, Austria, and the hosts for last years highly successful PAVConEurope gathering, have relaunched their website with new content.

www.airbornetechnologies.at

Last year the Norwegian AW101 all-weather SAR helicopter, built by **Leonardo**, undertook trials in the United States to demonstrate the AW101 take-off and landing capability at high altitude. On September 30, the aircraft then successfully completed an epic journey across the North Atlantic to return to the UK. The airframe, c/n 50265, used the UK military registration ZZ102 during the trials. When handed over to the Norwegians it will revert to 0265 the identity it held when delivered as the second airframe for Norway in 2018.



The high altitude trials took place over a one-month period in Q3-Q4 2022, from the aircraft's arrival in Baltimore, US, through to the trials in Colorado; the EH101's transit back to Leonardo in Yeovil, Somerset, UK was via Canada, Greenland, and Iceland. During that time, the aircraft flew nearly 80 hours, with minimal unplanned maintenance, this included transit from Baltimore to Buena Vista, the high-altitude trial, and the return trip to the UK.

Due to the challenges faced post-Covid with the worldwide shipping schedule, it was determined that while the airframe had been delivered by sea to Baltimore, the aircraft would be flown back to the UK from the USA, for imminent delivery to the Norwegian customer. From prior experience with deliveries in the opposite direction to Canada, the return flight post-trials was known to be achievable.

The latest AW101s are fully IFR capable with a fully integrated Flight Management System and digital AFCS (Automatic Flight Control System) that enable long distance routes to be flown easily. For example, the DAFCS provides the crew with a capability to pre-select altitudes, speed, and 'couple' the AFCS to the FMS navigation. This capability enhances safety by allowing the crew more capacity to focus on route planning, weather, and flight management. The five-tank fuel system enabled long-range flight to be achieved even without the optional extra ferry tank fitted. The fuel system meant that the crew had the security to fly long haul with fuel reserves that could be used if required.

The flight crew team took many hours of phone calls, emails to remote locations, weather checks and fuel calculations to enable the trip to be accomplished all in a very short timescale – taking into consideration likely pinch points including fuel availability and border crossing protocols.

Rotor Ice Protection provides heating along the leading edge of the rotor blade to prevent the accretion of ice during flight in icing conditions. In order to operate safely in icing conditions, these critical areas of the

aircraft require protection from the detrimental effect that ice build-up may have on the journey. Over seven days, the aircraft flew to six countries, stopped at 12 airports and covered 4,800 nm/8,889 km. The route taken from Buena Vista was broken into two 3-4 hour segments per day, with fuel stops taking place in between and encountered +23°C temperatures at Buena Vista, to -14°C over the mountains in Greenland, and icing conditions over the Atlantic Ocean. [Leonardo press release 28/12/2022]

ACCIDENTS AND INCIDENTS

27 November 2022 MBB BO105 P-1103 Polisi Udara (Indonesian Police) Water and Air Unit (Polairud) crashed into the waters off Bukulimau Island, East Belitung during poor weather with four persons on board. Two BO105 helicopters P-1103 and P-1113 initially flew from Pangkalan Bun, Central Kalimantan to Tanjung Pandan, Bangka Belitung Islands. P-1113 changed course to avoid bad weather, while P-1103 stayed on course. After that, the crew of P-1113 attempted to contact P-1103, but received no response. Local fisherman found wreckage floating on the sea. The missing helicopter carried a crew of four comprising AKP Arif Rachman Saleh, Co-Pilot First Brigadier Moch Lasminto, and two helicopter technicians namely Aipda Joko Mudo and Brigadier Muhammad Khoirul Anam. The body of Anam was initially recovered. [Observer]

1 December 2022 Bell 429 N919PD New York Police Department. A police officer fell about 20 feet from the helicopter as it hovered giving a demonstration of fast roping at a police academy in Queens, New York. It appears that the rope was not secured to the airframe. Injuries apparently confined to a severe break to leg. [New York Post]

9 December 2022 Airbus Helicopters H135 G-DAAN. Air ambulance of Devon Air Ambulance. The helicopter based at Eaglescott Airfield was tasked to Witheridge, where a casualty was reported to be trapped in a vehicle as a result of a road traffic collision. Upon approach, and as the hours of darkness were fast approaching, the crew elected to land at one of the charity's surveyed Community Landing Sites at Witheridge Football Club. The helicopter was the first emergency response vehicle to arrive at the scene and the critical care crew quickly reached the patient who was cared for at the roadside before being transported to hospital in a land ambulance for further treatment. Meanwhile the pilot had become aware of a system fault upon shut down of one of the engines which meant the helicopter could not fly until a safety inspection was undertaken and would require the attention of an Airbus Engineer based at Oxford, who would not arrive until the following morning. Overnight, significant new snow fell further complicating the otherwise routine recovery to Eaglescott. [DAAT]

11 December 2022 Eurocopter EC120B N255SD Sacramento County Sheriffs Department. California on patrol. Undertook an emergency landing, spiralled onto scrub grassland a mile south of Douglas Road by Grant Line, Rancho Cordova. Landed hard but remained upright with minor structural damage and no injuries. [Facebook/Media]

16 December 2022 Beechcraft King Air 90 N13GZ Air ambulance of Hawaii Life Flight /Global Medical Response. The flight departed Kahului Airport towards Waimea-Kohala Airport when it went missing off the coast of Maui while on the way to pick up a patient. It reportedly went off the control facility's radar while flying at 5,000 feet south of Hana, a community on the eastern end of the island of Maui. The three people aboard the aircraft are believed to have been crew members. A Coast Guard patrol boat recovered debris from the search area, "with no confirmation that it is from the missing aircraft" The US Coast Guard and the Civil Air Patrol have been searching for the aircraft. Hawaii Life Flight typically operates 24 hours a day, providing medical transport across Hawaii, and completing around 10 - 15 patient transfers daily.

SAFETY

EASA has issued an Airworthiness Directive ([EASA 2022-0233](#)) relating to the Leonardo Helicopters AW169. It requires a one-time inspection of the pilot and co-pilot door handles and, depending on findings, corrective actions and reporting. Prompted by a reported occurrence involving a protruding handle rod pushbutton on the left-hand cockpit door internal handle, which resulted in an interference with the collective stick travel. Subsequent investigation determined that vibration and/or incorrect torquing may have contributed to the loosening of the pushbutton holding screw of the cockpit door handle, with consequent excitement of the pushbutton from its seat

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UNMANNED

Tekever, the self-styled market leader in Unmanned Aerial Systems (UAS), and AltaSea, a non-profit scientific research organisation based in the Port of Los Angeles, have signed an agreement to collaborate on marine conservation projects as Tekever expands its environmental surveillance capabilities [in the US].

Tekever intends to provide aerial intelligence data regarding threats to the waters from the Port of Los Angeles to/and around the islands of San Clemente and Santa Catalina, detect whale and dolphin migrations, identify illegal fishing, and recognise potential causes of pollution over the maritime and the coast-line environments.

The European Maritime Safety Agency (EMSA) and Italian Coast Guard are already deploying Tekever's AR5 drone to monitor whale migration and merchant vessels in the Pelagos Sanctuary, a protected marine area located between Italy, Monaco and France. The collaboration with AltaSea marks the first stage of Tekever's expansion beyond Europe and Asia where it currently operates into the US market. AltaSea will work with Tekever to discover other potential collaborations with the Port of Los Angeles, the U.S. Coast Guard, and other entities that could benefit from Tekever's Surveillance-as-a-Service capabilities.

AltaSea at the Port of Los Angeles, located on 35 acres at North America's leading seaport by both container volume and cargo value, is dedicated to accelerating scientific collaboration, advancing an emerging blue economy through business innovation and job creation, and inspiring the next generation, all for a more sustainable, just, and equitable world. <https://altasea.org>.

Tekever provides Surveillance-as-a-Service through its Unmanned Aerial Vehicles (UAV), delivering real-time intelligence across ultra-wide areas. Tekever's drones are capable of flying up to 20 hours continuously while carrying cameras, radars or cell phone detectors. Built around an AI-centric platform that combines Edge AI, satellite communications and cloud computing, Tekever provides customers with real-time intelligence and advanced analytics over simple to use and globally accessible web and mobile interfaces. They have engineering and production facilities in the United Kingdom and Portugal.

In the past year Tekever flew an increase of some 50% in Live Operations. This was mostly in the UK, Mediterranean, Central and East Europe and West Africa. In the period the manufacturers team grew 30% to a total of 300. In addition they attracted £25M in investment.

Next year targets include consolidating their position as a major player in Europe not only on the maritime surveillance market but also on the land-based surveillance market. They plan to grow in new regions including the Middle East, South America and the United States.

www.policeaviationnews.com





The Avy is undertaking several trial operations. In addition to the NHS flying in Scotland they are undertaking similar flights in the Netherlands. [Avy]

I guess that with every new project we ask ourselves “What could possibly go wrong?” When the National Health Service (NHS) started its multi-million pound drone operated deliveries of drugs and samples in southern England and the Highlands and Islands of Scotland we wondered when, not if.

Last month a report was issued on an incident that took place in Scotland around seven months ago, on May 6, 2022. An investigation has been carried out into a ‘serious incident’ which saw a drone undergoing a demonstration flight at Arran War Memorial Hospital on the island of Arran plummet 50 metres from the sky.

The CAELUS (Care & Equity – Healthcare Logistics UAS Scotland) project, which launched in December 2020, uses drones to transport essential medicines, blood, organs and other medical supplies throughout parts of Scotland. AGS Airports, which owns and manages Aberdeen, Glasgow and Southampton airports, is leading the consortium developing and trialling the drone network in partnership with NHS Scotland, alongside other partners including the University of Strathclyde and leading air traffic control provider NATS.

The Air Accidents Investigation Branch (AAIB), noted that the fixed wing Avy Aera 1.5 drone was hovering at “between 50-65 metres” during the demonstration flight while being flown in various manual modes when a rhythmic, lower than normal sound was heard emanating from it. The drone spiralled downwards during which control could not be re-established” before it “hit the ground and was severely damaged. No-one was injured and no damage to third party property resulted.

The report concluded that a fatigue failure of a blade attachment bolt caused one of the lift propeller blades to detach in flight. As a result of the accident, the manufacturer, Netherlands-based aircraft manufacturer Avy, is to review propeller designs for drones under its development.

Since securing £1.5M in January 2020, the CAELUS consortium has designed drone landing stations for NHS sites across Scotland and developed a virtual model of the proposed delivery network which connects hospitals, pathology laboratories, distribution centres and GP surgeries across Scotland. Back in August, CAELUS secured a further £10.1M funding from the Future Flight Challenge at UK Research and Innovation to move onto the next phase of the project. A key aspect of the project will be designing pathways to ensure the drones can safely share airspace with civil aviation, as well as developing the ground infrastructure needed to recharge the drones. The project will also ensure critical aspects such as public safety, security and noise levels are considered.

Ed: The Avy craft is enjoying involvement in several ‘health service delivery’ projects across Europe, including Scotland and the Netherlands.

At the present time most if not all the small drone manufacturers are not faced with strict standards on parts and equipment and it might be said that this failure is a direct result of that. Perhaps if the very high standards applicable to other commercial flying machines were to be applied to the cottage industry that is currently small drones the whole industry might be priced out of viability.

In its most recent report on the subject the US Border Patrol credited its eyes in the sky for spotting more than 50,000 immigrants illegally crossing the border. This led to them being intercepted by agents on the ground.

In the US government's fiscal 2022 year, which ended September 30, 2022 Border Patrol reported that 51,248 apprehensions of illegal immigrants were the direct result of using drones.

Also, over the past decade, federal police on the southern US border have reported an increase in drug cartel-operated drones transporting small bundles of valuable narcotics through the air and down to someone on the U.S. side. Even if the drone is found or intercepted, it is nearly impossible for agents to determine who sent the drone and prosecute that person.

Federal law enforcement officers and agents do not have any tools for detecting a drone outside of their eyes and ears. Even if they do spot a drone that appears to be carrying drugs, they can't shoot it down. Counter drone tools exist in the private sector, but they have not yet been approved for agents to use, leaving them helpless to do anything.

Getting more drones and systems that can electronically force down enemy drones has been a slow process that suffers from numerous legal hurdles. The Trump administration concentrated on creating physical barriers on the border, leaving little money for technology. [Washington Examiner/PAR]

PEOPLE



Inverness based Rescue 151 [Web]

At 1431hrs on March 8, 2022, the Inverness based SAR crew, Rescue 151 (R151), were requested by Police Scotland for a tasking to a 28-year-old male who had fallen on Ben Nevis, at 3600ft, CPR ongoing.

R151 (AW189) arrived on scene at 1510hrs. Despite progressive attempts, wind speeds above 60 knots with severe turbulence meant a safe winching position or low hover was impossible. R151 landed at Halfway Lochan (1870ft) although significant aircraft power variations during the approach and landing made it extremely difficult to descend and keep the aircraft on the ground. After a thorough crew brief, the Winchman, with crampons, ice axe and First Response Bag, began his ascent whilst R151 deployed Lochaber Mountain Rescue Team (MRT) personnel; each serial requiring the utmost skill and concentration to land the aircraft without endangering it, the crew or MRT.

The Winchman saw a flashing torch up in Red Burn Gully. With a direct route looking precarious he continued up the zig-zag path and soon met 4 people descending on all fours. They confirmed one deceased and 2 injured, one with a broken leg, and another group of 8, higher up, were struggling. It was 1630hrs and conditions were treacherous. Faced with multiple casualties with unknown injuries, a Major Incident was declared and additional MRT and another SAR helicopter was requested. R151 remained airborne as on-scene commander, providing the essential communications link between the Winchman (in cloud), MRT, the MRT base and UK Rescue.

The larger group were found exhausted and barely moving. Only one, a British Army Sgt, had an ice axe and crampons. He confirmed there were 2 crag fast walkers at the top of Red Burn Gully; the companions of the deceased.

The Winchman, through a chance cloud break, saw MRT approaching the fallen casualty and could now focus on the crag fast walkers. With conditions deteriorating and, anticipating a night extraction, the Winchman asked the Sgt to assist.

R199 [another Leonardo AW189 based at Prestwick], arrived on scene at 1730hrs. By now, 22 MRT had been deployed in extremely challenging flying conditions. After establishing an airborne deconfliction plan, the 2 crews deployed another 10 MRT as night fell before R199 returned to Prestwick.

Despite high winds and visibility below 20 metres (65 feet), the Winchman eventually heard shouting and saw someone waving. The casualties were in a desperate state. Traumatized from their friend's fall, they were cold, exhausted, and difficult to motivate. Somehow, they had to cross a 20 metre, 20 degree ice-covered slope. A technically challenging traverse without crampons was extremely dangerous. Each step cut into the snow/ice filled in quickly. The casualties were escorted in turn; the Winchman standing downslope to support their feet. With no margin for error, an ill-placed foot or fall would be catastrophic.

Already in white-out conditions, it had become dark and uncertain of his position, the Winchman updated R151. The Sgt obtained a fix from his phone and together they located the path; normally 2 metres (6 feet 6 inches) wide, but now a 30 centimetre (12 inch) snow-covered ledge. On one occasion the Winchman was blown off his feet and accelerated down the mountain before arresting his slide with an axe.



Multiple casualties, exhausted and barely standing, were descending the mountain. R151 exploited a short weather window to extract 2 groups, including the stretcher casualty with a broken leg. A 3rd extraction was aborted; night light levels were extremely poor and wintry showers significantly reduced visibility just after take-off. A lightning strike then lit the sky overhead and despite further attempts Halfway Lochan was back in cloud.

The remaining casualties were walked off the mountain; the deceased and the Winchman were recovered using the MRT's soft track vehicle. After 6 hours apart, the crew of R151 finally reunited at Torlundy before returning to Inverness at 2220hrs, 8 hours after the

initial tasking. In total, 32 MRT were deployed to Ben Nevis; 24 casualties were rescued.

This highly demanding rescue was completed in the most extreme weather conditions. The winchman's actions on the mountain side demonstrated self-less tenacity and bravery in the face of the most demanding situation. However, the entire crew, faced with a developing multiple casualty scenario, displayed the highest standard of crew-cooperation, judgement and handling skills to ensure a safe outcome for those in danger. Accordingly, the crew of R151 are joint recipients of the **Prince Philip Helicopter Rescue Award**.



Now in its 44th year, the Prince Philip Helicopter Rescue Award is presented by the Honourable Company of Air Pilots for outstanding courage or devotion to duty in the course of land or sea search and rescue operations

Ben Jones completed 10 years working in Design and Completions at Bond / Babcock on December 18. He is now moving on to new adventures with Nova Systems.

Ben says that in those 10 years, he had the privilege of working with some of the best aerospace engineers, achieving great things in integrating world leading mission systems across the UK and afar, reshaping airborne utilities and policing surveillance. At his new workplace he will be meeting up with other former Babcock workers who chose to move across to Nova.

MOVE ALONG THERE



BOOM AND BUST?

Following on from the earlier stories about aircraft for sale through the US Government website, at this time the only other live aircraft item up for bidding is an anonymous helicopter tail boom. The site calls it a 'tail piece' suggesting that even they do not know what it is! It is not too popular but if you need a tail boom of uncertain origin the bids were sitting at the opening \$5 in mid-December and all bidding closes in January 4. The item is awaiting you in Oklahoma City which suggests it may be an MD500 tail boom.



Potentially slightly more interesting is a surplus example of a Spectrolab SX16 searchlight under offer on the US web site AllSurplus. The equipment is available from Bialogard, Poland and at one time it was apparently attached to a Eurocopter, Germany, product. There is no guide to the age or wear of the equipment, other than that Eurocopter clue, so it may be thirty years old. No price is suggested, offers are invited. When I recall the number of similar searchlights in store around the world it is clearly anybody's guess whether it even has a value.

In recent months it is said that morale in the UK military is suffering as ministers increasingly turn to the army to help fill civilian roles, including stepping in when public sector groups go on strike. In recent months, more than 1,200 troops have been told to cancel their holiday plans to cover for striking ambulance drivers and Border Force staff.

As ever history is being ignored here, there is nothing new in the non striking bodies, mainly the military and the police, being drafted in to undertake tasks they are unfamiliar with.

In the 1920s the army and police were escorting or driving food around, and in the 1970s it was not unusual for striking fire fighters to be replaced by wholly inadequate Civil Defence fire engines and even police vans in fire fighting roles. At least the rudimentary CD "Green Goddess" vehicles had hoses and carried water, a police 'fire engine' just carried a couple of hand held extinguishers to tackle who knows what. The world survived that and temporary use as ambulances without wholesale mental health issues that seem in vogue today.

A positive angle on this is that it appears from public opinion that the army lads are providing a far more efficient service than the absent strikers were giving when they were present at work.

NOT TO BE BOUGHT

At six o'clock most weekday evenings you can find me watching a half hour BBC Quiz programme as a lead up to the early evening news (Richard Osmand's House of Games). Most days it is far more fun than the latest version of Pravda.

One of question threads asks the panel of four to guess how many there are of a certain commodity Some are way out questions that no-one should know, like trees in Brazil or Prime Ministers called Brian, that sort of thing. The answers are inevitably way wild of the mark but it's all a bit of fun.



In December one edition asked them to guess how many blimps there are around the world. In fairness there was a bit of a hiatus about what a blimp is or was but eventually it was agreed that a blimp was a long cigar shaped balloon, not fully accurate but near enough. These were the craft used in the main bombing offensives in the Great War and the Hindenburg loss was mentioned. So it appears by default that quite a number may have been built.



The 1996 Olympics—fortunately it was just a short-term loan to Atlanta. [PAR collection]

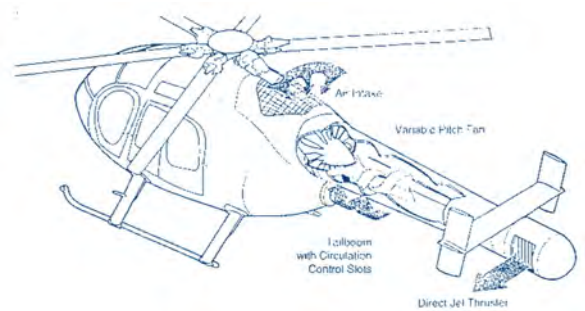
Bearing in mind that the panel struggled with what a blimp was there were some strange answers. Each of them thought at least hundreds if not thousands, one went for 139,000 clearly something that has been around for over a hundred years must have built up a massive stock.

The shock answer was a mere 25 – a number that may have been suggested to them by the fact that they had not seen one lately!

So, there is a moral here for the Chiefs of Police around the world, when the salesperson from the 'Acme Airship and Blimp company' arrives at police HQ to say they have the latest and greatest in persistent observation aircraft – do not buy one. There are some very pertinent reasons there are only 25 of them out there.

NOTAROUND HERE

The same measure might be applied to the NOTAR system adopted by MD Helicopters for incorporation in their fleet of helicopters. On the face of it NOTAR seems a great idea but it does not currently feature in the new line up of helicopters on offer to buyers by the new MD management. It was disliked by the US Army from the start and, despite all its fans, it did not sell well. Around 100 editions of the 500/600 and a similar number of the 900 were completed. Compare those numbers with the conventional alternatives and it might be concluded that the system simply failed. Even the unconventional Fenestron went on to become accepted among the 'conventional' alternatives. The reason was probably that the manufacturer was prepared to put in the time and dollars to get it right, not something MD ever really had. In terms of widespread acceptability NOTAR was effectively little better than those blimps but there might still be a chance of its return one day, all it will take is money. Lots of money.



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A minor furore broke out when a Bristow operated Sikorsky S-92 of the UK Coastguard was observed on the Flight Radar 24 App to fly in a pattern that allowed it to 'draw' the outline of a Christmas Tree. The aircraft was on a training flight over southern England at the time. [Twitter]

LATE NEWS

Late last month the Georgian Ministry of Internal Affairs revealed that it has signed a deal with Airbus Helicopters which will see the service acquire three H145s in a deal that is valued at €26.5M. Under the contract, the Border Police will trade in a single H225 Super Puma used as a government VIP transport for a number of years. The new aircraft, which are due for delivery between May and August of 2024, will be employed on firefighting and rescue missions as well as in the security role. In addition to the aircraft, the contract also calls for pilot and engineer training as well as a three-year aircraft support package. [Rotorhub]

France's DGA has taken delivery of two H145-D3s from Airbus. The two aircraft, ordered in 2021 are destined for the Directorate General of Civil Security and Crisis Management (DGSCGC) and will be based at Nîmes in support of a variety of civil defence operations including firefighting. The DGSCGC was the launch customer for the earlier EC145 and has a large fleet of 145s. The two new aircraft, are the third and fourth of the order. [Rotorhub]

2023 marks the 27th year of the publication of *Police Aviation News*. The first issue was created in the first quarter of 1996 and circulated mainly within the United Kingdom by postal mail and fax. After two years the newsletter appeared on the ALEA website as a free download and just four years after the first publication the unfettered Worldwide expansion was assured with the creation on the PDF version. in 2000.

All issues are still available. Many are on the websites and the library of the UK Police College have a full archive. A request to the publishers will release all issues in e-format.

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UPCOMING EVENTS

28 February to 5 March 2023 AVALON 2023 the Australian International Airshow at Geelong, near Melbourne, Australia. <http://www.airshow.com.au>

6—9 March 2023 HAI Heli-Expo Atlanta, Georgia, USA Registration is now open and hotel booking via HAI is available. <http://www.heliexpo.com>

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.



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North Weald Airfield, Essex, December 9, 2022. The Essex and Herts Air Ambulance Leonardo AW169 on readiness. [PAR]



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