# Police Aviation News

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Issue 31

February 2022

# France: H160 orders

NPAS: Four P68 to stay

UK Air Ambulance 2021 results



U.K. Coast Guard 200

Helian

# **EDITORIAL**

Heaven preserve us from planners and consultants. Only a couple of years ago it was being Predicted that Britain was finished - killed off by Brexit and other causes.

Now it seems that the projections were wrong after all. For a start the economy is supposedly back where it was pre-Covid and now we learn that the prediction that only 3.5million EU nationals would stay after Brexit was massively wrong. It was 50% wrong, 5.2 million stayed, and not only that thousands of people in Europe are getting into wholly unsuitable boats and risking their lives time and again by rowing across Ice cold seas to get into Britain.

Last year was bad enough, in January the numbers illegally entering Britain are five times more than they were in the same period last year!

There must be a positive story or two out there even in the depths of a Northern Hemisphere Winter. Fortunately Helicopter Association International posted their list of winners for this year's awards and I did find a few other bright stories to lift the gloom. So read on, but perhaps avoid the flimflam of negative storylines on UK police aviation for a while at least! They just seem to be never ending but this month we seem to be nearing a happy ending. Or do we? Hopefully you will read through the text for there are two potential bright spots in among all the hidden stories that the organisation has thrown up for PAN to try and make sense of.

Bryn Elliott

# LAW ENFORCEMENT

# **AUSTRIA**

**POLICE AVIATION CONFERENCE:** The take up of the forthcoming event in the past month has been promising. Several new attendees and others with previous experience of the PAvCon Europe conference and exhibition prior to 2019 when we were able to have our last one in Amsterdam have signed up and indicated where they would like to have their stand space.

A previous attendee was Churchill Navigation located in Boulder, Colorado. The old name has now gone and the company is now known as Shotover Systems with the CEO the familiar figure of Tom Churchill. They are after attending and hope to get one of the few industry speaking slots to introduce a new EO/IR gimbal - the six-axis M2 which they feel will be particularly well-suited for the European ALE market. Also signed up are SAFRAN and they are bringing their military grade EO/IR system and also want to speak about it. There will be others. As you can see it is a difficult call for the organisers to avoid the whole speaking arena being gripped by industry! The prime conference is about talking about best practice rather than best product so some are going to have to be rejected.



Arrival by air to the PAvCon Europe site remains an option.

This month should allow the long delayed trip to Austria to finalise the finer details of the planning.

Meanwhile decision to be made about other upcoming events on the aerospace calendar including the Singapore Air Show in mid-February, Heli-Expo at the start of March, Aero, Farnborough, APSCOM... are they all going to operate near enough normally this year?

We can only hope so.

**COVER IMAGE:** Last month UK Coastguards around the country were marking the 200th anniversary of the service dedicated to saving lives at sea. Established on January 15, 1822, Her Majesty's Coastguard has in the following 200 years expanded to its current form, which involves 3,500 volunteers in 310 teams across the UK, which are supported by 10 search and rescue helicopters. No real chance of an event marking the anniversary of course so this Royal International Air Tattoo 2019 line up of an S-92, AW189, Piper Navajo and Schiebel Camcopter will have to do. © Helian International

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### **BELARUS**

**PIRACY:** Even as the enquiry into the incident continues, the US Department of Justice (DOJ) has charged four Belarusian government officials with conspiracy to commit aircraft piracy. The charges stem from the diversion of a regularly scheduled Ryanair flight which was en-route from Athens to Vilnius, Lithuania on 23 May 2021, due to an purported bomb threat. The Boeing 737-800 - registered to Ryanair's Polish division Buzz and operating as FR4978 - made an emergency landing in Minsk. While on the ground security forces arrested Roman Protasevich, a political activist who had been living in exile and was travelling on board the aircraft.



The DOJ allege the defendants concocted the elaborate scheme of a fake bomb which led to the crew of the aircraft diverting and landing in Belarus. There are other elements of the scam that have yet to be clarified but the evidence so far supports this allegation.

Ed: This story is on the edge of PAN interest, but Piracy in all its forms is a crime of interest to many operations.

### **FRANCE**

GENDARMERIE NATIONALE: The French Armament General Directorate (DGA) has signed a contract, on behalf of the Ministry of Interior, for the procurement and maintenance of 10 H160s in a law enforcement configuration for the Gendarmerie Nationale. Linked to the contract for the procurement of 169 H160Ms for the French Ministry of Armed Forces, this order is part of the Stimulus plan to support the national aeronautical industry announced by the French government in 2020.

France is the first country to order the H160 for law enforcement missions. The H160s for the Gendarmerie Nationale will be equipped with a Safran Euroflir 410 electro-optical system, winching, and fast roping capabilities. The air force command centre of the Gendarmerie Nationale and Airbus Helicopters are also working closely together to develop a tailored mission management system.

The French Gendarmerie Nationale already operates a wide fleet of legacy Airbus helicopters from the AS350, EC135 and EC145 families. On top of its improved performances and advanced mission systems, the H160 will bring a new troop transport capability for the French Ministry of Interior's security forces, mainly tactical units, such as the Gendarmerie Nationale's intervention group (GIGN). The first H160s will be delivered before the Olympic Games that will take place in Paris in 2024 Ed: Seems that Airbus Helicopters have rewritten their own history by referring to the GN operating the H125, H135 and H145 family in





the original text. If they had they surely would not need new airframes. I really do not think a 35 years old Aerospatiale AS350, and fifteen year old Eurocopter EC135 and EC145 re quite the same beasts as any of their modern equivalents!!!

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# **MAURITIUS**

**POLICE:** Hindustan Aeronautics Limited (HAL) has signed a contract with the Mauritius government to deliver an advanced light helicopter (ALH Mk-III) for the country's police force. The helicopter is a multirole, multi-mission helicopter in 5.5 tonne category mainly sold to military operators.

The Mauritius government already operates HAL-built ALH and Do-228 aircraft, this sale will strengthen long standing business relations over three decades.

Ed: Mauritius has been operating a police air wing for more than forty years, starting with a Sud Alouette III in 1974. Since then they have evolved into being the military air arm for the country but always retaining a police interest and crewing. They have used other Alouettes, a AS555 Fennec and, since 2009, the Dhruv. It is currently unknown whether this new helicopter will feature role equipment. Last September the police leased a transport configured Dornier Do-228 from the Indian Navy.



# **PHILLIPPINES**

**NATIONAL POLICE:** A ranking police aviation officer who injured a subordinate who was blinded in one eye due to the incident may face dismissal from the service.

A probe has been ordered on the incident involving Colonel Dulnoan Dinamling Jr., then commander of the PNP Aviation Security Group in Bicol region, who hit the victim Master Sergeant Ricky Brabante of the Regional Mobile Force Battalion-5 with broken glass in his face.

PNP chief General Dionardo Carlos gave the Police Regional Office (PRO)-5 a week to complete its investigation on the incident and at the same time reminded all police personnel that drinking sessions inside police stations, camps, and other police offices are prohibited.

Carlos said Colonel Lawrence Gomeyac was also sacked as commander of the Regional Mobile Forces Battalion 5 over the incident which happened during his birthday party on November 13, 2021. Initial investigation showed Gomeyac invited Dinamling to his party.

Dinamling has been transferred to the Administrative and Resource Management Division - Personnel Holding and Accounting Section headquarters in Pasay City. (PNA)

Ed: This story broke in late November last year but no final report has been released.



# UNITED KINGDOM

**NATIONAL POLICE AIR SERVICE:** Unfortunately the latest sets of NPAS Strategic Board minutes 'crossed in the post' as it were and were not seen in time for inclusion in the last edition of Police Aviation News. After the bland offerings of recent months the minutes from July and September 2021 turned out to have plenty of content but even so they appear to have failed to get much activity going by the turn of the year. Despite the passage of three months from the last set of minutes it seems that the conclusion of PAN January that no new lead force had been agreed held true.

With the constant changes of mind over a period of some six months it is clear that these minutes only serve to illustrate a zig zag pattern of wildly different ideas that spring into view before disappearing again in a void of indecision.

According to the recorded business in the minutes of last July a group of members under the NPCC lead (CC Rod Hansen of Gloucestershire) were meeting fortnightly to identify a new host and supporting the new lead force to host NPAS. The minutes relating to these multiple meetings have not been seen. A tactic was to give the four large forces (MPS, GMP, WMP, WYP) two weeks to provide a clear and articulate rationale as to why they would not be leading the collaboration and provide written confirmation that they are not going to do it rather than affirm they wish to. It was agreed that the remaining forces be given two to three weeks to rationalise why they would not be undertaking the process. This was a positive shift from simply waiting for a volunteer but as we have seen it did not lead to an answer, let alone by the deadline in early August. The apprentices remain in charge of the process.

Although a meeting was scheduled for August it was September before the results of the edict came to the fore. It seems that two of the larger forces the Metropolitan Police Service (MPS) and West Midlands Police (WMP) were pushed into undertaking due diligence process in order to see what they were letting themselves in for. They in turn asked for up to £500,000 to be available to ease their enquiries along the way. It was suggested that overall due diligence might cost up to £5M, more wasted money! Along the way it was acknowledged that the new fleet acquisition was being delayed, something to do with time but the expenditure on due diligence might empty the already empty coffers! The due diligence process was expected to take 6 weeks.

On fixed wing T/ACC Scott Bisset presented a report that reflected feedback from a meeting with the North East Chief Constables. When these police chiefs were informed that removing two of the four fixed wing aircraft from the programme significantly increased the cost per unit. (*Ed: Basic maths it would seem*). As a result the North East Chief Constables had formally stated they no longer accepted the position. The new position was that all four aircraft were now to be disposed of. That fact failed to enter public knowledge for the rest of the year. The suggestion was that the four MX-10 turrets would be kept as spares and there would be some value in selling the airframes. Even so the decision was deferred from July to September. In the event it was discussed but was not covered by a decision on their asset. They were never going to get any of the alleged £50M outlay back. Even getting out of the 25 year lease with Doncaster Sheffield Airport would probably cost more than any financial return.



There are still issues of course in that serving the whole UK on a 24/7 basis from Doncaster will not work that well but it is probably the best news to emerge from NPAS in a while. The future may be multi-base daylight and nights from Doncaster only but regardless they will need to get enough pilots. They were lined up for a full complement of pilots a year ago but former boss, Scott Bissett, crushed that idea around the time that all the sums were found to add up to £50M for the four aircraft and their infrastructure.

If confirmed, the reversal of last years minuted decision to delete the fixed wing by March 2022 shows a glimmer of sense prevailing in Wakefield Towers. Will it last, and will Vicki White the apparent architect of the new thinking last? Her profile has been more positive than some of her predecessors and she has engaged with the media – something unheard of since Chief Superintendent Ian Whitehouse was in charge five years ago.

In his seemingly never ending round of writing to the press and getting air time on BBC Question Time (for non-UK readers that is an often boring sometimes leading edge political talking shop) Tony Cowan a regular correspondent in PAN and the Daily Telegraph has had a letter the February edition of The Pilot.

The content will be familiar in that it highlights the issues with NPAS and BVLOS and the P68R fleet. It raised familiar issues of performance and size. It was written at a time when the unit was disposing of two airframes not the four that replaced that plan - only to be reversed yet again last month.

The interesting bit is perhaps that the publishers submitted the letter to NPAS for comment. There is a reply from Vicki White the recently appointed current head of the organisation while T/ACC Scott Bisset attended a course to be a substantive ACC. As a new person in post, I believe we can assume she signed off on text provided by the unit.



The latest edition of Pilot features the GROB and an NPAS storyline ©Pilot

"To clarify, the NPAS has been asked by the Home Office to lead the work to better understand the capabilities that BVLOS drones may provide to police aviation in the future, in terms of efficiency, sustainability and affordability. There has been no contract tender but rather a request for information at this time. "In terms of the fixed wing aircraft, its mission equipment and flying in icing conditions, the aircraft meet the original specification required to provide support to operational policing, as part of a blended fleet. To suggest otherwise is incorrect. It is also inaccurate to state the aircraft are too small to carry more than two people. Our operating model requires them to carry one pilot and one TFO but they have the capacity to carry more and do occasionally, for training purposes. The aircraft are operated in a manner that minimises any waste of fuel.

"They have excellent endurance which makes them particularly suitable for policing large public events, conducting missing person searches and lengthy vehicle pursuits. Most notably, they successfully deployed to G7 and COP26 events, proving their value in delivering borderless police air support for prolonged periods.

"In total they have been effectively deployed to 1,800 incidents in England and Wales since January 2020, plus six times in support of Police Scotland."

We can argue about the detail until the hell freezes over and even then we will probably never agree to differ. The fact that they are now 'saved' is probably all that matters for the moment. That service availability amounts to an average of 2.4 incidents attended per day for the years 2020 and 2021 with two aircraft. If we assume that the support team was able to offer one aircraft every day that's still a long way behind the typical 800-1,000 hours per year that the rotary wing fleet has been providing and illustrates a lot of sitting around doing nothing and/or a lot of transit flying.



Good Morning from

@NPASNorthEast team. With
the help of clever software we've
tracked tasking since 2019. The
map shows the range of locations in

### The majority of
deployments are from our base

@DSA\_Airport however we've
utilised numerous airports and
smaller airfields ^KF





Meanwhile the beleaguered staff – police officers and pilots based at the airport in Doncaster – who recently expected to see their pet project being arbitrarily discarded by the hierarchy at NPAS were fighting back with regular public exposure on Social Media.

The new strategy clearly fits in with the thinking of others. The Home Office were not happy. They put up the funds for the four aircraft and expected them to be used to improve UK air support not some disposal strategy and bean counters working out how much that might put in the bank. If the Home Office decided to simply have their money back, a not unlikely scenario, there would be no cash to be made and that would further damage overall viability of NPAS operations.

The history of police aviation has been littered with police buying something that they subsequently regretted. Go back 30 years (and I can) and there were plenty of moaning aviation police to be found. The salesman told them that the helicopter could fly six people and that it could fly for four hours. But due diligence, a relatively new word, would have told them that what he meant was it could fly up to six people or fly for four hours, not both at the same time.

Police aviation has moved on from the simplicity of a two seat single engine helicopter of the 1970s. Role fit in those days meant a carry on radio and a pair of binoculars. No more.

That was before for they started lifting more and more role equipment to make the task more efficient. Weight watching has become a primary task in air support. Some police units refused to carry Tracker/LoJack receivers to save weight and improve rapidly degrading performance. Towards the end of its police service the AS355 twin struggled to stay in the air for an hour with three crew on board and most of



In simpler times. A single engine helicopter reliant on the eyesight of the crew and probably flying out of the corner of a field gave way in stages to the requirement for two engines and a whole raft of ever heavier and more sophisticated specialist role equipment

the people were on a strict diet. The replacement EC135 was much better, retained the three crew but recent moves towards selecting and operating the ever larger H145 should underscore the problem that simply has not gone away.

On other matters raised in the July minutes (items that might still survive to be relevant today) James Cunningham the safety manager highlighted that NPAS had seen a very sharp increase in the fatigue trend from October 2020 to July 2021 which he suggested was caused by reaction to change (change in processes, additional tasking, additional demand and distraction due to the ongoing programme of change). This is in part due to induced fatigue brought on by the changes in hours the NPAS imposed for 12hr and 20hr bases. In the September meeting it was highlighted that the ill conceived transition to the 1500-0300 had a part to play in fatigue – a move sensibly blocked by the CAA – but that belatedly the change in hours to 1300 to 0100 had turned around the problem. At the time NPAS were experiencing one Serious Incident Rate (SIR) every six months (the industry average is one every two years) and were awaiting the report from the Air Accident Investigation Branch (AAIB) regarding the heavy landing at North Weald.

The latest from the NPAS Strategic Board, a monolith of the unknowledgeable is that they want to bring in

all sorts of additional representatives. They are already straining under the virtual presence of three dozen attendees and eight apologies and now they want more!

This is not a strategic meeting this is a quarterly conference and a million miles away from an inspector popping up to headquarters to brief the unknowing. It is also worth noting that the NPCC answer to its



many worries was to call in a now retired "police inspector" for advice. No one is perfect but ... advice from an inspector? That must really stick in the craw of many a County Police ACCs throat.

If indeed this monolith goes to The Met or West Midlands I cannot see the Met accepting a reporting body the size of the current Strategic Board. That must go first. They can have the unredacted minutes to read every quarter if they must. If not it will never work, far too many fingers in the pot.

Perhaps the overall NPAS problem lies in size. There seems to be a belated realisation that the project needed a lead police force that was big in the first place. For a large force NPAS might be a relatively small division but for West Yorkshire it was a monster they apparently could not control. At the beginning



most of the forces were set against a large force undertaking the task – jealousies prevailed. And yet, for all its faults, the Metropolitan Police had operated multiple aircraft of varied types for years yet the police chiefs agreed to West Yorkshire, the volunteer that had never operated multiple aircraft in its history, tak-

ing on the role.

Aside from an apparent renewed need for fixed wing pilots, NPAS continue to seek staff. They are currently looking for a handful of pilots to serve at Lippitts Hill [NPAS London] and North Weald. Although the rate of pay is considered poor by some others believe that the £65,000 being offered looks good for a non-instrument rated post. It is better than that offered elsewhere in the emergency services and for some it comes with an attractive additional feature.

The advert warns applicants that those applying for NPAS London should be aware that their time under the NPAS banner is limited as they are likely to transfer to the new commercial provider in approximately 18 months' time. The rate of pay would be ring fenced under TUPE (the Transfer of Undertakings Protection of Employment, was introduced to protect employees when a business, or a part of a business, is transferred to a new owner or merges with another company to form a new entity). The timescale quoted gives some indication of the thought processes current for the future of police aviation over London.

### **TENDER NOTICE**

As this edition closed for press a late notice appeared on Linked In. Originating from Blue Light Commercial the tender has been published for the procuring a Police Aviation Services Framework Agreement.



LOT 1 The lease or capital purchase of seven rotary aircraft for the police purpose, such aircraft to be modified with police role equipment. This is projected as a 6-year Framework Agreement (4 years plus an optional extension of 2 years). The estimated value of £184,000,000 for Lot 1 is based on the potential value over the full framework term. It is envisaged that the value for the initial call-off contract will be £80,500,000.

LOT 2 Delivery of Police Air Support service to London Region. The estimated value for the London element is £92,680,000. It anticipates that the call off contract length a transition period (inclusive of obtaining PAOC) plus a 10-year contract period.

The alternative strategy is LOT 3, a combination of Lots 1 and 2 that is estimated to have a value of £276,680,000.

Much of the broad brushwork is not new but the numbers are, as the deadlines - interested suppliers should submit a response to the initial SSQ shortlisting phase by noon on February 28. The contract start date is March 1, 2023 and it will end in February 2029. All they need now is a volunteer.

### **UNITED STATES**

The question was asked last month whether police law enforcement was mainly done with fixed or rotary wing. The question has a relevance when considering whether one is better than the other and which is most economic – even after one operator is alleged

to been spending a reported £50M on four aircraft and support infrastructure – and can undertake the task.

On the face of it most US operations have helicopters but that is because that is what the public see or perceive. Even the great APSA and its 2,000 or so members does not really know. Not all US airborne law enforcement aviators are members of APSA, many others just fly what they have access to and that might tend to be someone who has an elderly Cessna pushed in the back of a barn. It may come out twice a year for a police



search (probably without a pre-flight check or even a walk around) but that is still airborne law enforcement aviation. There may be hundreds of unaccounted for aircraft among the supposed 17,000 law enforcement agencies in the USA. They only come to notice if a story is noted in the local paper or if they have a mishap.

While we do not know the answer, we might hazard a guess. Most US ALE units have fixed wing even if the primary mission sits with the rotary. Trainers, transports, spotters or hacks they sit there largely unnoticed to swell the real numbers of fixed wing out there.

Even the much maligned Partenavia/Vulcanair P68 in standard or Observer form is well known, and respected, in police circles across the USA. A dozen US State Police operations either have them or have had them in the past. They have extended range fuel tanks - up to 177 USG – and an endurance of 8.85 hours flying at 20 US gallons an hour. Given the right tasking it works well as a clean light transport for visual patrol or undertaking extradition flights. Overburdened with role equipment or sent out into icy night skies – or both - and it appears the formula starts to unravel and the endurance and general capability to plummet.

In the following pages are a few illustrations of how US law enforcement uses fixed wing economically and efficiently.

**CALIFORNIA:** Locally the storyline was that a *motorcyclist died* after crashing head on into a *car* while being monitored by police in West Hills on January 20. By the time the wider media picked up the story-

line the whole flavour of the fatal incident was warped to the detriment of police. It became a perfect example of media manipulation of the truth and the facts.

The headlines included such as that from the British Daily Mail "A *rider* fleeing police on an allegedly *stolen motorcy-cle died* in a collision," another stated "A speeding *motor-cyclist* looking to evade the Los Angeles Police Department ... *hit head*-on by a *vehicle* making a left turn." Terms such as "killed after LAPD police pursuit" and ".... fleeing police" set the tone but twisted the truth.



With those headlines there was an expectation that the video of the LAPD pursuit was going to be up close and clearly visible in the footage. There isn't a police car to be seen. The motorcycle is racing at speeds estimated to be up to 130 mph on a very busy street. He is weaving in and out of traffic. Finally, he hits another vehicle head on and is propelled high into the air. He is fatally injured. The only police presence was the police helicopter following at a significant height – certainly high enough to expect the rider to not know it was there.

It seems that the police did attempt to stop him because the motorcycle was stolen but once he took off they were unable to follow at the speeds involved, there was no pursuit. Despite the headlines he died because he was simply a reckless individual that endangered the wellbeing of hundreds of people.

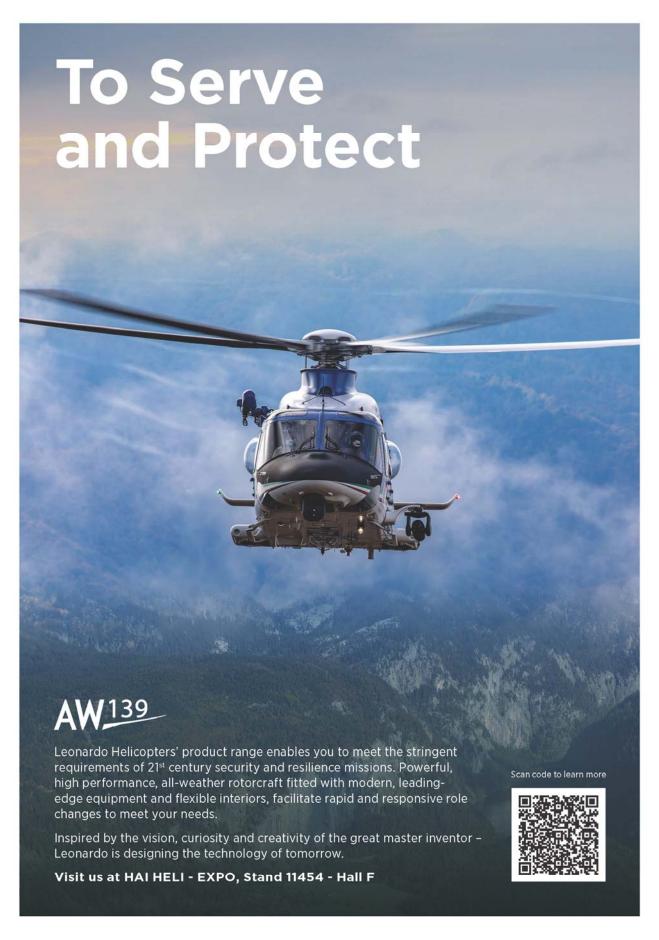
**FLORIDA:** A man that will have an opinion on the relative merits of both rotary and fixed wing airborne policing is Bryan Smith the Safety Officer with APSA, he is a regular at the PAvCon Europe event as well as a whole swathe of APSA events and training sessions in the USA.

These days he is Chief Pilot with Pinellas County Sheriff's Office on the peninsular of land to the west of Tampa Bay and taking in the iconic St Peterburg Beach. It is a relatively small area, just over 600 square miles and most of that water. The population is nearly one million – greatly boosted in holiday periods.

AirMed 2022 WORLD CONGRESS

Salzburg, Austria June 28 - 30, 2022

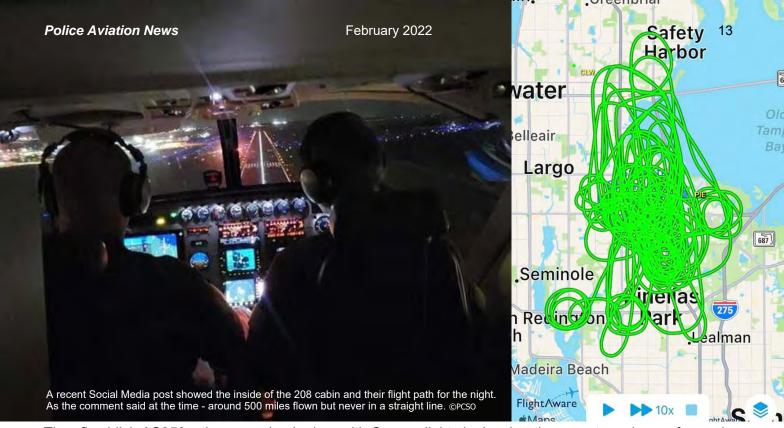




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They fly oldish AS350s, they were backed up with Cessna light singles, but the recent purchase of a modern Cessna 208 (N1287G) has greatly enhanced the fixed wing capabilities of the unit at an economic price. That said there was a political furore over its purchase back in 2019 – something about it not appearing in the budget paperwork. Now it is in service, and they put in a fair few hours on the 208, it certainly outperforms the earlier elderly fixed wing, representing added value to the local taxpayers.

**MARYLAND:** Last month PAN carried news that the police in Baltimore were exchanging their EC120 helicopters for three new H125. It was carried as a matter-of-fact story but it seems that some sections of the media and politicians were soon up in arms about the intended purchase, and this is a repeat of the issues raised in Pinellas.

The City Council's Public Safety Committee were unaware of the contract's existence before the announcement of the \$41M being approved for the helicopters and cars. As a result of the media interest a FOI request was sent in and the contract with Davenport Aviation has emerged. It contains a great deal of detailed information that rarely gets to see the light of day, including detailed pricing of equipment and installation processes.

The aircraft will be completed by Metro who will fit the rear TFO console, and LoJack system. Cal Meeker is set to supply many of the mounts for the external items including the \$1.094M L3Harris Wescam MX-10 EO/IR cameras. Other items in the purchase are a \$25,000 Vislink downlink, Macro Blue monitors, Aero-computers moving map systems and \$226,953 Spectrolab SX-16 searchlights.

Additional equipment highlighted by the media story included David Clark headsets (18, not itemized), extended seat rails, document holder pockets and dual cup holders (they come out at \$1,902), and they mention \$388,176 for Tyler fast rope equipment for rescue operations but there is no sign of a hoist.

The delivery schedule is for the first airframe to be taken charge of at the end of November this year, with airframes two and three delivering in February and August 2023. It is unclear whether the delivery will be of the role completed helicopters to the unit or if that is delivery to Metro for the role fit.

The political furore continues. Questioners are asking where the purchase of the helicopters was itemised in the 2022 department budget, whether the purchase of new helicopters was disclosed to the City Council, the public, the media?

The critics want to know why the contract was not open to competitive bidding, why the unit price of the new helicopters is nearly double the previous price (the 3 new helicopters cost \$17.9M where the four existing EC120s cost just \$9.5M).



**TEXAS:** In Dallas the police have officially launched their drone programme. Over a year in the making, lots of writing, planning, coordinating, training (and scrounging!), went into getting the UAS Squad off the ground.

The mission of the Squad is to support public safety by providing a safe and efficient aerial observation perspective on law enforcement, fire, and other public safety incidents. The sergeant led UAS Squad will provide de-escalation tactics, transparency, and increased officer and citizen safety during challenging situations. And missions will be accomplished efficiently and safely while respecting the law and the privacy of the citizens being served. [MC]

**UTAH:** The Utah County Sheriff's Office based in Spanish Fork and serving around 600,000 population across 2,000 square miles including desolate mountain lands has a new fixed wing asset.



In 2020 the Sheriff had a couple of light aircraft including a 1961 Cessna 180 that was 59 years old. It was purchased used in 1993 from a government surplus sale in Maine. Many lives have been saved because of this equipment when it is used in Search and Rescue operations. Since it was purchased by the Utah County Sheriff's Office the engine has been replaced twice, along with numerous other repairs, replacements, and upgrades. It was airworthy, but repairs were an increasing burden. The Cessna was mainly used for Search and Rescue operations (probably its most common use), extraditions, criminal surveil-lance, and area surveys. The county has about 50 search-and-rescue volunteers who give of their time and money to help in search efforts and the aircraft are their air support.

The Sheriff's Office identified a new replacement for the old aircraft and placed an order. The CubCrafter Carbon Cub FX-3, is lighter, has better power (critically important in mountain flying), better climb performance, and lower stall speed and slower search speed. The cost of the FX-3 was \$326,000.00 and it was estimated that the Cessna 180 could be sold for \$120,000.00. They also sought funding from Utah County Government with the remaining \$75,000.00-\$80,000.00, raised through donations.

On January 11 they took delivery of their FX-3 N505UC. They reckon that the aircraft can do about 85% of the missions that a helicopter can, but at around 1/10<sup>th</sup> the hourly operating cost. This is the first-ever experimental category aircraft CubCrafters of Washington State has built for this type of purpose.

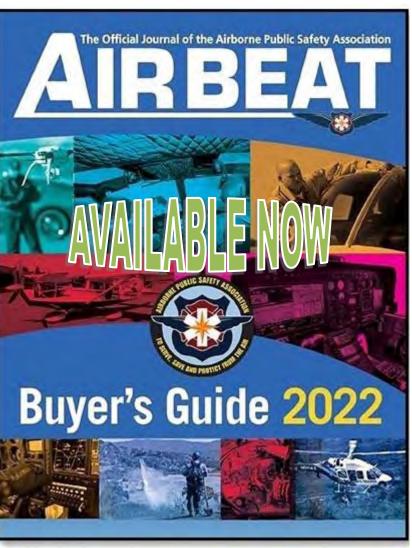
Utah County have been quietly operating light fixed wing aircraft to serve it area for at least 25 years. The aircraft, mainly old have been a mix of government surplus and donations from the public, in terms of numbers there have been around six different airframes in that time. In 2007 they were donated a 1974 Cessna 210 worth over \$190,000 thanks to a generous gift from anonymous donors. The sheriff's office had recently sold two aircraft and was hoping to purchase another one to bring its total back up to two planes when the local couple from Spanish Fork handed one over. The only stipulation was that their

identity was hidden.

Ed: Current estimates of the number of aircraft in use in the USA are based on feedback from APSA members. There are currently just 13 members of APSA in Utah, none of them with Utah County Sheriffs. There are 29 counties in the State of Utah, each has a Sheriff's Office, some large some small. If even ten percent of the 136 law enforcement agencies said to be in the State have the use of an aircraft, and a similar pattern was reflected elsewhere, it would massively increase the potential number of aircraft available for use in US police aviation.

Right: Out now and available through APSA.





# **AIR AMBULANCE**

# CHINA

**WINTER OLYMPICS:** Perhaps the strangest of modern day winter Olympics is about to commence this month near Beijing, China.

An icy landscape virtually devoid of ice and snow is just part of the unbelievable series of elements being presented to a world that finds the whole concept unbelievable at this 20th Games. It is as if someone forgot that snow and ice were a basic requirement.

The authorities have the rescue services in place though and that includes a rescue helicopter team equipped with two helicopters and crews trained to deal with all the worst case scenarios of athletes competing in the mountains. They have a HEMS configured Airbus Helicopters H135 B7168 and a hoist equipped Dauphin B7005 to undertake their work.





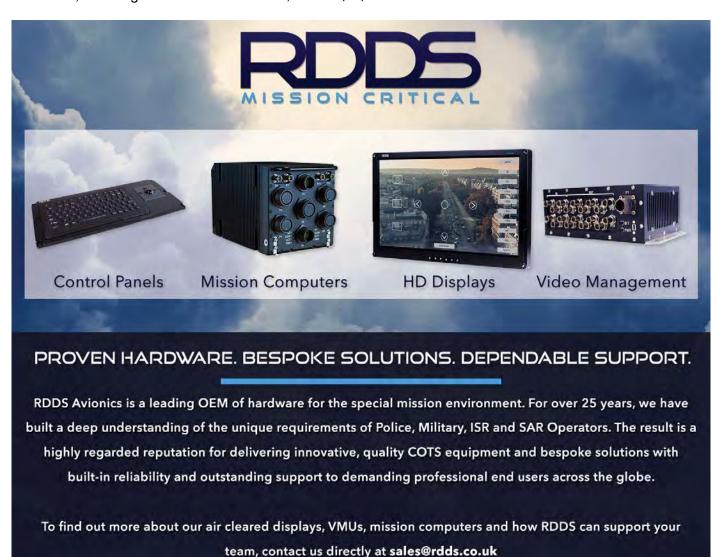


### **GERMANY**

**DRF LUFTRETTUNG:** The need for rapid air rescue has been greater than ever during the Covid-19 pandemic. The 2021 mission figures published by DRF state that the fleet received 38,076 alerts, a 4% increase over the year. By performing a total of 881 intensive-care transport missions for Covid-19 patients last year, DRF Luftrettung had a crucial role in relieving the pressure on hospitals that had reached their capacity.

The provision of two additional helicopters, the modernisation of the H145 fleet with five-bladed rotors, and the start of pilot training are new advances over the year.

The crews on the two ambulance aircraft performed 242 repatriations. The LearJet pilots flew aircraft to 69 countries, covering a total distance of 828,570km. [DRF]



AS9100 - EASA Part 21.G and 21.0 - EASA Part 145 - UK MOD DAOS Approved - FAA Repair Station

# UNITED KINGDOM

**CORNWALL:** Out on the extreme west of England, last year Cornwall Air Ambulance responded to more than 1,000 incidents in the county and Isles of Sicily from its base at Newquay Airport.

The helicopter attended 733 incidents and 359 were covered by the rapid response vehicles. The charity's critical care team also carried out a total of 12 blood transfusions at the scene as part of a new initiative for this operation. The first blood transfusion carried out was on a 17-year-old who was involved in a car accident, the crew were able to give him blood at the roadside and because of that he survived.

CAA

A total of 551 missions were to people injured in traumarelated incidents and 534 in response to medical emergencies.

**HAMPSHIRE & ISLE OF WIGHT:** Hampshire and Isle of Wight Air Ambulance responded to 1,570 potentially life-saving callouts in 2021. The highest number of missions were cardiac arrest, 491 (31% of total), closely followed by medical emergencies, such as strokes, 268 (17%), road traffic collisions, 228 (15%) and falls from height, 226 (14%). Other incidents included rail and sporting incidents, drownings, assaults and stabbings. December was the busiest month for the team on the front line, with 148 incidents across the region. In April, the charity hit a significant landmark when it flew to its 10,000th patient in need of critical care when a young male was involved in a road traffic collision in Ringwood, Hampshire.

The crew administered emergency blood 37 times in 2021, most commonly used at road traffic collisions and major traumas, and, since 1 November 2018, have administered blood products 129 times. Major traumas and major incidents played a vital role in the charity's operations in 2021. These included callouts to a train crash near Salisbury, a domestic gas explosion in Portsmouth and an incident on Salisbury Plain.

The 2021 Mission breakdown: 887 servived by air (56%), 683 serviced by road (44%). 110 calls to the Isle of Wight (7%), An average of four missions were performed per day using both aircraft and response vehicles. The aircraft was airborne for more than 460 hours • The three emergency response vehicles covered more than 42,000 miles

**THAMES VALLEY:** Located to cover the area west of Greater London crews were called out 2,880 times in 2021, the highest number since the operation became an independent healthcare provider in 2018. 1,125 call outs took place in Berkshire, with 1,018 in Buckinghamshire and 640 in Oxfordshire. Crews delivered critical care to 1,819 patients when they needed it most, attending the most serious incidents across the community. Call outs included 922 cardiac arrests, 643 medical emergencies, 493 accidental emergencies and 367 road traffic collisions.

The team saw a surge in activity when lockdown restrictions eased in spring, but the busiest months of the year were actually December and November, with 295 and 276 call outs respectively.

### UNITED STATES

**IDAHO:** Life Flight Network, held to be the largest not-for-profit air ambulance provider in the USA, announced the addition of a helicopter critical care transport base in Coeur d'Alene, Idaho.

The new service will augment existing helicopter and fixed-wing services in supplementing the coverage provided by bases in Spokane and Pullman, WA, and Sandpoint and Lewiston, ID and western Montana. The new helicopter base, slated to open this spring, will serve as a standalone base of operations with dedicated pilots, mechanics, nurses, and paramedics to serve a rapidly increasing population in this region.

The helicopter based in Coeur d'Alene will be an AgustaWestland AW119Kx 'Koala,' providing safe, reliable, and efficient rotor-wing transport and the highest productivity levels among single-engine helicopters. Equipped with a state-of-the-art Garmin G-1000H cockpit, it provides excellent situational awareness to the pilot. The aircraft is spacious with the capacity to transport two patients or a specialty team with unencumbered full-body access while cruising at an impressive speed of 166 miles per hour. Life Flight Network is the largest operator of medically equipped AW119Kx's in the United States, with twenty-one operating across Oregon, Washington, Idaho, and Montana.

# **FIRE**

# **AUSTRALIA**

**QUEENSLAND:** Queensland Fire and Emergency Services is seeking Proposals to join the "Call When Needed" Register for Helicopter, Fixed Wing and Remote Pilot Aircraft Systems (RPAS) Support for Fire and Emergency Operations.

The objective of this procurement is to maintain a "Call When Needed Register" with a panel of prequalified suppliers for the provision of Helicopter, Fixed Wing and Remotely Piloted Aircraft Systems (RPAS) Support for Fire and Emergency Operations. The requirement will be primarily during the bushfire/severe weather season with occasional requirements outside of the season as directed by the State Air Desk within the Air Operations Unit of QFES. This support will consist of transportation of personnel and equipment, reconnaissance, aerial incendiary and water bombing services as detailed in Schedule 1 Statement of Requirements.

### **UNITED STATES**

**COLORADO: In** the wake of recent devastating fires that heralded the New Year, the Colorado Division of Fire Prevention and Control based in Rifle Colorado is making its staffing less seasonal and purchasing a \$24M Sikorsky Firehawk helicopter to be more prepared to fight future fires.

The helicopter, due for delivery at the end of this year, is expected to have a 30-to-50-year life span. It will be the third aircraft owned by the operation and will operate alongside two multimission fixed wing aircraft. Most air assets are owned by private contractors and leased in seasonally to fly missions over the ground fire fighters' workers and volunteers who number some 17,000.



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Missions are longer, more complex and need to be executed faster. More is expected of you and your crew each and every time you fly. L3Harris' electro-optical and infrared systems are designed with the latest technologies to address changing mission requirements. Delivering robust performance and ease-of-use, WESCAM MX™ sensor systems enable operators to see more, operate easier and analyze live video intelligence with confidence. When minutes count, trust WESCAM MX systems to help you see first and act first.



The inferno that swept into Louisville and Superior in the first week of January proved the destructive power of a winter wildfire, but many of the aircraft and crews available in the late spring, summer and fall to fight massive Western blazes are not working in the heart of winter when many fire-prone states should see snow.

The Legislature approving funding for the new FireHawk will ensure the state always has one available no matter how busy California and other fire-prone states get in what is now an evolving situation.

# SEARCH & RESCUE

### CANADA

**COAST GUARD:** The Royal Canadian Air Force has retired its De Havilland Canada DHC-5 Buffalo aircraft. Its last operational mission took place on January 15, 2021.

The search and rescue aircraft, known in Canada as the CC-115, was operated by the 442 Transport and Rescue Squadron based at Comox air base on Vancouver Island, British Columbia.

The CC-115 entered service in 1967. It succeeded another De Havilland Canada aircraft, the DHC-4 Caribou. As such, the utility transport aircraft needed to be agile, and capable of operating from almost any runway. Its half-century of service life is a testimony to its efficiency, having saved countless lives over the years in areas such as the Arctic Sea and the great snowy plains of Canada, even all the way to the Rocky Mountains.



The CC-115 will eventually be replaced by a fleet of 16 Airbus CC-295 Kingfisher. In the meantime, the CC-130H Hercules will take over some of the CC-115 missions.



# **EUROPE**

It is difficult to know whether to file this under Europe or Africa as it is simply a record of the death toll of yet more migrants making their way to the apparent safety of Europe.

In 2021 a similar number of migrants attempted to cross the Atlantic, from North Africa to the Canary Islands as had taken place between France and the UK. In sharp contrast the estimated number losing their lives was over 4,000! This sea crossing is, of course, much longer and more violent and unforgiving and there are far fewer patrol boats and lifeboats available to undertake 'rescues'.

The estimate of 4,400 is just that, twelve a day on average. Where the boats leaving the north of France on a 21 miles journey may "lose" a few in the process whole boats go missing without trace in the Atlantic. Missing is a debatable term of course, in many instances there is no-one to miss them, they are just assumed to be lost, a floating wreckage or bodies provide no more than an indication of loss. Either way the estimate speaks of a doubling of losses since 2020.

The organisation counting them in and out is Caminando Fronteras (Walking Borders) and they say that the figures are the worst they have compiled since they began keeping count in 2007. They believe that the bodies of 95% of those who died or disappear are never recovered. The International Organization for Migration has described 2021 as the deadliest for migration routes to and within Europe since 2018. At least 1,315 people have died on the central Mediterranean crossing, while at least 41 lives were lost at the land border between Turkey and Greece. In November, 27 refugees, including a pregnant woman and three children, drowned in the Channel while trying to cross from France to the UK. The latter number is barely significant compared to other areas, but like all it is merely an estimate.

Three U.S. Coast Guard cutters and a Moroccan navy frigate rescued 103 people in the Atlantic Ocean in early January. On January 5 the vessels encountered a migrant raft spotted by U.S. Coast Guard cutters and the Moroccan coast guard in the Atlantic Ocean. (Ade Gills/U.S. Coast Guard)



The ships — the Thetis, the Glen Harris and the Emlen Tunnell — answered a rescue call after Spain's Las Palmas Rescue Coordination Centre received reports of two migrant rafts taking on water about 40 nautical miles off the coast of Morocco.

Working together, the crews rescued 103 people and recovered two bodies. The survivors later were transferred to the Moroccan navy.

The Coast Guard is on a routine deployment in the U.S. 6th Fleet area of operations. The deployment coincides with the escort of the Glen Harris and Emlen Tunnell across the Atlantic to their new home port of Manama, Bahrain, as part of the Navy's 5th Fleet.



USCGC Thetis (WMEC-910) is a Famous Class medium endurance cutter. She was laid down in 1984 and commissioned in mid-1989. Thetis conducts patrols throughout the Caribbean and the Gulf of Mexico operating from a home port of Key West, Florida. Her duties include law enforcement, search and rescue, homeland security, and national defence.



### **FRONTEX**

According to preliminary figures collected by Frontex, the total number of illegal border-crossings in 2021 was just short of 200 000, the highest number since 2017.

This is an increase of 36% when compared with 2019 and an increase of 57% compared with 2020 when we could observe a strong impact of COVID-19 restrictions. This suggests that factors other than the lifting of restrictions on global mobility are the cause of increased migratory pressure.

Last year Syrians remained the most frequently reported nationality, followed by Tunisians, Moroccans, Algerians and Afghans. Women continue to make up fewer than one in ten arrivals. Last year the Central Mediterranean route was again the most-used migratory route to Europe, accounting for one-third of all reported illegal border-crossings.

On the Western Mediterranean route, roughly 18 000 arrivals were reported, which is comparable to the same period in 2020. The majority of the migrants were of Algerian nationality, followed by Moroccans.

The Western African route also saw a similar number of detections as in 2020 with about 22,500 detections, with the usual seasonal peak occurring in September. The main nationali-ties registered were again Moroccan, followed by various Western African nations.

Detections continue to drop in Greece, but Cyprus recorded a sig-nificant increase in the migratory flow compared to previous years. The approx. 10,400 detections in Cyprus represented more than double the same period in 2020.

With around 8,000 illegal border crossings on the Eastern land borders, a tenfold increase compared to 2020 there is continued pressure associated with Belarus, Lithuania, Poland and Latvia.

The EU has allocated €15M to upgrade the technical capability of some of the ground and air assets on borders in eastern Europe. The ground and helicopter-mounted border surveillance equipment is to detect illegal migrants. The project is scheduled for completion by the end of September. [BSR]



# **INDIA**

**COAST GUARD:** Russia has withdrawn from the \$1 billion contest to supply Kamov twin-engine helicopters to the Indian Coast Guard, with the procurement now heading to a single vendor situation as there was no participation from the US side either reported Economic Times.

Sources said that the ongoing procurement process for the new twin-engine heavy helicopters for the Coast Guard now just has Airbus as the single vendor. The Coast Guard requires 14 new helicopters for a variety of offshore security and surveillance tasks.

### UNITED KINGDOM

**MIGRANTS:** Crossings resumed on January 4, 2022, sixty persons were reported as successfully making the journey to a point across the sea where they were 'rescued' by the Border Force or the RNLI. The weather stayed relatively mild and benign, and the numbers crept up towards an unprecedented 1,400 in the depths of winter. The weather of course was being kinder than might be expected in winter and the migrants made full use of it.

Plans to bring in the military to help are at hand. The Army will start building camps to house up to 30,000 Channel migrants from next month. Soldiers are to construct temporary housing on Ministry of Defence land across the UK at a cost of further tens of millions of pounds on top of the millions paid over to France to stop the migrants reaching the beaches never mind launch boats from them.

Beset by various historical and embarrassing cheese and wine party issues in his 'Home Office' (No 10 Downing Street) the Prime Minister is exasperated with the seeming impasse in the English Channel.

The British pay large sums to France and they seemingly throw a few more cops onto the beaches, fly a Frontex loan bizjet from Denmark and a Cessna 172 over the beaches and nothing much seems to change. Now Boris Johnson wants something done that works. Short of bombing the beaches of France [again] there is not a lot that fits in the humane treatment category.

Home Secretary Priti Patel first requested military involvement - *military aid to the civil power* - in summer 2020, when the numbers crossing from France stood at just a few thousand a year. There was a brief flurry of inappropriate heavy metal sent to assist but it faded fast. Well now it is coming back again. The military are expected to take on the thankless task.

An exasperated British Prime Minister, Boris Johnson, is planning to slow the flow of migrants into the UK by calling in the army, building accommodation and potentially flying out asylum seekers to a number of African countries to process their applications there. A broad series of options are being looked at, but the problem is not new and all prior attempts at control have been far from successful for the last three Prime Ministers.

# **OPERATION ISOTROPE** the role of the military in controlling Migrant arrivals

An enquiry by the Parliamentary Defence Committee on the role of the military in countering migrant crossings took place last month. The enquiry was in the wake of military aviation input which included some large aircraft apparent poorly suited to the task including the Watchkeeper drone and Atlas transport aircraft in August 2020. The enquiry was into Operation Isotrope and commencing January 26.

Despite the onset of winter, the criminal gangs, the people traffickers have continued to pursue their lucrative trade in human misery by facilitating the crossing of the English Channel, from England to France, in large purpose built inflatable boats. Boats that have been described by the UK National Crime Agency as 'death traps. Twenty-seven migrants perished In November 2021 when their boat deflated near Calais. At the beginning of a new year, in January 2022, over 1,300 migrants have now landed in the UK without permission, six times the total of 223 in January 2021. The forecast for 2022 is 65,000 migrants. In 2021 the number of migrants landing in the UK from small boats was some 28,400.

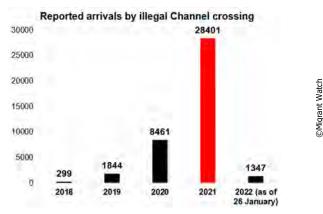
Since 2018 the number of migrants arriving in the UK by boat without permission have increased year on year. The forecast for 2022 is 65,000.

Frustrated by the continued increase in numbers and, despite the best efforts of the UK Border Force and HM Coastguard with patrol boats, aircraft and drones, together with the French Police Aux Frontiere (Border Police), the UK Home Office (Department of the Interior) has now turned to the Ministry of Defence for support. A two-star Royal Navy commander Rear Admiral Mike Utley CB OBE RN has been appointed as overall commander of the UK's English Channel task force.

At a meeting of the Parliamentary Defence Committee in January, chaired by John Spellar MP the committee, members of Parliament from all political parties, took evidence, both oral and in writing, from those with expert knowledge to determine if a military presence in the English Channel, ships and aircraft, would make any significant difference and frustrate the people smugglers. The principal witnesses were Vice Admiral Sir Charles Montgomery KCB, a former Sea Lord and former head of the UK Border Force (2013-2017) and Commander Tom Sharpe OBE, a retired RN commander now a communications consultant and defence commentator. Written evidence was submitted by a wide range of experts; from industry, from universities and from those with hands-on experience of airborne surveillance.

Although the strategic objective is to stop migrants arriving in the UK without permission and, inter alia prevent the migrants from risking their lives, by crossing the English Channel in overcrowded, unseaworthy boats, a practical solution remains elusive. A key point is that arriving in the UK by landing on a beach without permission is an offence. However, if you are 'rescued' at sea and then brought to the UK by your rescuer the rules become much more complicated. This loophole has, to date, been exploited by the people traffickers and human rights lawyers!





Arriving on a British beach without permission is illegal. Landing in the UK after being 'rescued' at sea is more complex with a loophole in the current legislation which is exploited by the people smugglers and human rights lawyers.

One idea, promoted by Cdr Sharpe would be to build a network of shore based stations equipped with radar, long-range cameras and the automatic ship identification system (AIS) to detect boats carrying migrants approaching the UK coast, however, as one committee member pointed out, detecting the migrants isn't a problem as once they're half-way across the Channel they use their smart 'phones to inform the Coastguard of their location and make a 'Mayday' call to be 'rescued'! Moreover, it was agreed that more vessels at sea would make the Channel crossing safer for the migrants, which would, in turn, fuel more Channel crossings. Royal Navy warships patrolling UK waters could then become a 'honey pot' for those boats carrying migrants. Also, the RN could easily become a taxi service, for migrants, with consequential reputational damage.

Moving forward there would seem to be only two practical solutions. One would be to retain the status quo, until after the French presidential election, in April, and pending the introduction of new UK legislation, 'The Nationality and Borders Bill'. Those migrants entering the UK without permission will continue to be detained, rather than 'rescued' and then accommodated in safe, secure reception centres, possibly offshore, for their applications for asylum to be processed. This would replace accommodation in hotels in the UK, which is the current norm, and which is regarded by many to be a 'pull factor'. Without any change to the current modus operandi the numbers of migrants arriving in the UK will continue to increase.

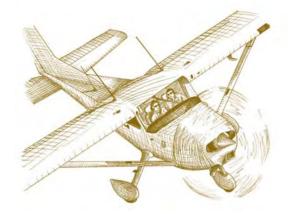
Alternatively, if the new RN commander for coordinating Channel operations, Rear Admiral Utley is receptive to 'blue sky' thinking he will, hopefully, review the recent oral and written evidence of the Parliamentary Defence Committee. Also, after acknowledging that migrants cross the English Channel in good weather, the same weather that favours light observation aircraft, he may, with the support of a new

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French President, agree to promote a policy of persistent air patrols of the coast of Belgium and northern France to disrupt the people smugglers on the beaches before any inflatable boats have been launched.





The Saab T-17 Supporter, a light training and air observation aircraft, would have far greater utility for a close, persistent search of a coastline than a large maritime patrol aircraft. It would also be proportional to the threat and more affordable too.

The direct operating cost of a light observation aircraft is in the order of £100 per flying hour. Moreover, for searching a beach for migrants with inflatable boats the light 'spotter' aircraft is more proportional to the threat and has far greater utility than, for example, a Boeing P-8 Poseidon maritime patrol aircraft belonging to the Royal Air Force and costing £35,000 per flying hour! Also, aircraft such as the Saab T-17 Supporter would prove to have greater value, as well as a much lower operating cost than the Bombardier CL-604 Challenger, also belonging to the Royal Danish Air Force, which featured in last month's edition of Police Aviation News. This aircraft, the Bombardier Challenger, a 'bizjet' adapted for maritime patrol, is currently being used by the European Border and Coast Guard Agency (Frontex) to patrol the English Channel, but without any notable success.

James A Cowan MBE Squadron Leader Royal Air Force (Ret'd)

28 January 2022

### Note:

- 1. A transcript of the recent meeting of the Parliamentary Defence Committee, which took place on the 26 January 2022, together with copies of the written evidence may be accessed at: <a href="https://committees.parliament.uk/work/6463/the-role">https://committees.parliament.uk/work/6463/the-role</a> To view the meeting, select 'Past events' and follow the link to 'Formal meeting (oral evidence session) >'To read the written evidence, select 'Publications' and follow the link to 'View all written evidence >'.
- 2. The author, Squadron Leader James A Cowan MBE RAF (Ret'd) a former maritime patrol aircraft captain, also a former police and air ambulance pilot, was invited to submit written evidence to the meeting of the UK Parliamentary Defence Committee which investigated the role of the military in countering crossings of the English Channel by migrants.

# **UNITED STATES**

**COAST GUARD:** Halting the migrants is a never-ending problem across the world. The USCG are faced with overloaded and less than seaworthy boats navigating the Florida Straits, Windward and Mona Passages as the population of Haiti skirts around the Dominican Republic, Cuba, Puerto Rico, and the Bahamas, to seek a better life in the black economy of the USA.

Last month the Coast Guard and Royal Bahamas Defence Force (RBDF) intercepted 88 Haitians aboard an overloaded sail freighter, 23 miles west of Great Inagua, Bahamas.

A Coast Guard Air Station Clearwater forward-deployed Operation Bahamas and Turks and Caicos MH-60 Jayhawk helicopter aircrew located the craft and vectored two RBDF ships to the migrant vessel to take them on board. A second forward-deployed Jayhawk aircrew was launched to the location of the sail freighter to assist.

In the last three months Coast Guard crews have rescued 559 Haitians this compares with 1,527 Haitian Migrants in Fiscal Year 2021, 418 in 2020, 932 in 2019, 609 in 2018 and 419 in 2017.

# **INDUSTRY**

In November, aircraft operations, management and maintenance service provider DEA based at Retford took delivery of another **Diamond DA62 MPP**, marking the 10<sup>th</sup> addition to its fleet of Diamonds. The company claims pole position as the largest MPP operator in Europe.

The new aircraft is in a maritime patrol configuration, equipped with a state-of-the-art EO/IR camera, maritime radar, AIS receiver, marine band radio, SIGINT system and a beyond line-of-sight datalink. For the installation of the radar, a new radar pod had to be designed and developed and, as a result, the

BR-700 (Belly Radome 700mm) pod has been certified. This new pod combines aerodynamic as well as radar specific requirements.

With the competence of designing and certifying a new pod from scratch in parallel to the normal programme schedule, Diamond says its special mission aircraft division demonstrated its capability as a provider of turnkey special mission aircraft. [BAN]

Aerial emergency medical services company Babcock has **AvSax lithium battery fire containment bags** protecting its 20-strong UK fleet. Many air ambulance helicopters in the UK are now carrying a specialist piece of equipment to help keep the crew, patients and aircraft safe in the event of a fire or even an explosion.

More than 20 helicopters are operated by specialist aerial emergency medical services (EMS) company Babcock and following a detailed look into the possible risks posed by lithiumion batteries on aircraft, Babcock now carries specialist AvSax battery fire containment bags on board their UK air ambulance fleet

This means that in the very rare situation of a battery malfunction - a process known as thermal runaway - the crew can seal the battery inside one of the specialist bags, ensuring that it stays safe, even if it's at risk of bursting into flames.

Thermal runaway happens when one cell in a battery overheats it can produce enough heat – up to 900°C (1652°F) – to cause

adjacent cells to overheat. This can cause a lithium battery fire to flare repeatedly, and they are very difficult to put out which is why AvSax battery fire containment bags are needed.

AvSax have proved themselves on fixed wing aircraft across the world and every time they have been deployed to deal with an overheating personal electronic device the planes have been able to continue their journeys rather than having to divert and make emergency landings. The same potential dangers exist on helicopters and the space on board is even more confined which is why AvSax have become such an important piece of risk management kit for them. AvSax are now on more than 15,373 aircraft operated by 80 airline companies. They have been used 33 times to deal with emergencies in flight since the start of 2017. They are designed to cool down the overheating device and are strong enough to withstand a blast should they explode.



Savback Helicopters, the expanding helicopter sales and marketing company and Dufour Aerospace, an innovative Swiss eVTOL company, announced Savback's appointment as distributor for Dufour's innovative eVTOL aircraft. Sweden based Savback Helicopters will exclusively represent Dufour Aerospace's 8-seater Aero3 tilt-wing aircraft in Sweden, Norway, Finland, Denmark and Iceland. The agreement demonstrates the confidence that Savback Helicopters have in the future of eVTOL, and the advantages to be gained from being an early mover in the urban air mobility sector, worth an estimated \$1.5 trillion by 2040 according to Morgan Stanley.

The tilt-wing design of Dufour Aerospace's aircraft family combines the ability to take-off and land vertically like a helicopter with the efficiency and speed of a conventional

aircraft. The Aero3 has a maximum take-off weight of 2800kg (6173 lbs), useable weight of 750kg (1653 lbs), maximum speed of 350 km/h (189 knots) and a range of 1020 km (551 nm). The aircraft is being designed to meet EASA's SC-VTOL (Special Condition for VTOL) standards, making use of a hybrid electric propulsion system to meet the requirements of operators in multi platforms.

Dufour Aerospace is initially focused on applications that do not require additional new infrastructure, such as Air Ambulance and Search and Rescue.

The Mighty Merlin starts 2022 strong as **Leonardo** celebrated a number of key milestones across customer programmes at the end of last year, including the AW101 global fleet reaching a 500,000-flight hour milestone.

At the end of 2021, the Norwegian customer accepted its 13<sup>th</sup> aircraft from a batch of 16 on order. This aircraft delivery to the customer will be critical in contributing to the go live of Base 3 at Banak in Norway which is expected in the near term. The Banak Base will be significant for rescue missions. Development of the AW101 Merlin will continue in 2022 including a product improvement programme has

Development of the AW101 Merlin will continue in 2022 including a product improvement programme has been underway at Leonardo in Yeovil since 2020 to increase the AW101's Main Gearbox torque rating and utilise the additional power already available from its engines. The endurance testing of the MGB will demonstrate that it can handle the new torque rating without a significant increased maintenance burden. This undertaking will see an increase of the AW101's Main Gearbox ToP (Take Off Power) torque rating to 117%.

This private venture initiated by the AW101 team at the Yeovil site will increase lift capability and overall performance of the three-engine helicopter. The team is looking to undertake a hot and high campaign flight test in the US this year and it is anticipated that FAA certification of the FADEC will be achieved in summer 2023. The capability will be delivered to some existing customers and all new AW101 customers.

**CarteNav**, based in Canada, and UK company **Smith Myers** have announced the integration of the Smith Myers Artemis Mobile Phone detection, location and communication sensor with CarteNav's AIMS-ISR mission software enabling operators to turn every tracked mobile phone into a geo-referenced cellular track

Smith Myers Artemis range of equipment has been designed to accurately locate mobile telephones in the challenging airborne environment. The system is designed to maximise the ability to detect a phone at extended ranges and to provide unique capabilities whilst minimising crew workload. Artemis is now fully integrated with AIMS-ISR to provide operators with cellular tracks geo-referenced on augmented reality moving maps alongside other equipped sensors such as active EO/IR track following. Both CarteNav and Smith Myers will be at the 2022 PAvCon Europe event in June.

**Piaggio Aerospace** extraordinary commissioner Vincenzo Nicastro has officially reopened the bidding process for the sale of the Avanti Evo manufacturer after negotiations with a single prospective buyer—reportedly a consortium headed by the Swedish fund Summa Equity—faltered late last year. Parties have until February 28 to send expressions of interest.

The company, which entered receivership in 2018, had originally attracted 19 expressions of interest for the acquisition of Piaggio Aero Industries and Piaggio Aviation, the companies operating under the Piaggio Aerospace brand. That was narrowed to four parties a year ago and in July Nicastro began negotiations with a single potential investor.

**Enstrom Helicopter Corporation** located in Michigan announced last month that after 64 years of near continuous operations, it was to close its doors on January 21, 2022. Due to several financial difficulties, Enstrom's owners have directed the company to declare Chapter 7 bankruptcy.

Over that period the helicopter brand had built more than 1300 helicopters which had operated in over 50 countries around the world. They had flown millions of hours and trained thousands of pilots as well as playing a significant part in the development of police aviation.

Enstrom delivered its final helicopters, a pair for 280FX's for the Peru Air Force, in December 2021. On January 7 Enstrom ceased taking new parts orders and supplying overhauls. Technical support continued up until January 19<sup>th</sup>. For the future industry will slip into filling the gap left by the company. Whether, ultimately, there will be a single 'go to' support organisation remains to be seen. Enstrom is a wholly owned subsidiary of Chongqing General Aviation Industry Group Co., Ltd. (CGAG).



In the mid-1970s the London Metropolitan Police relied wholly upon the Enstrom F28 flying from Lippitts Hill and Battersea ©MPS

**Airwolf Aerospace** has announced that it will continue to produce flight critical components for Enstrom aircraft, following the manufacturer's declaration of Chapter 7 bankruptcy.

Airwolf will continue to support tension torsion (TT) straps and TT strap conversion kits for the Enstrom 480B, 280 and F28 operators, having been an official supplier to Enstrom and its operators since 2015.



Airwolf products for Enstrom helicopters hold Supplemental Type Certificate (STC) approval from the US Federal Aviation Administration, the European Union Aviation Safety Agency and India's Directorate General of Civil Aviation.

Airwolf says it also expects to receive similar certification from the Civil Aviation Administration of China soon and is willing to achieve STCs from other civil aviation authorities if necessary.



It has been a year since Shotover, and Churchill Navigation merged to create **Shotover Systems.** The company electrical, mechanical, and software engineering teams have all grown substantially and are working on the design of the next generation of products for the creative industry, while also enabling customers to recognise additional revenue by pursuing work in the utility, firefighting, and other markets. On display at events this year is a gimbal simulator that will allow operators the ability to develop proficiency while training on the ground in a realistic environment as well as conduct pre-flight rehearsals. In addition, the company is working on advanced motion control capabilities for more sophisticated creative possibilities, beacons that can be attached to anything to enable automatic camera following, real-time augmented reality graphics that work seamlessly with the Shotover camera gimbals and much more.



In 2021, **Airbus Helicopters** logged 419 gross orders (net: 414) showing solid signs of recovery from the 2020 market situation which was heavily impacted by the economic consequences of the COVID-19 pandemic. (2020 – 289 gross/ 268 net orders). The increase in orders for light helicopters, H125 and H130, reflects the recovery of the civil and parapublic market. The Company saw strong momentum from its home countries, with France ordering 40 H160s (civil and military versions), eight H225Ms, and two H145s, Spain ordering 36 H135s, and Germany pro-

curing eight H145s for the Bavarian police force. Deliveries increased from 300 in 2020 to 338 in 2021, contributing to Airbus Helicopters' preliminary 52 % share of the civil and parapublic market and confirming its position as market leader. In number of aircraft units, Airbus Helicopters recorded a net book to bill ratio above one.

In the year Airbus Helicopters ramped up its five-bladed H145 deliveries and the first five-bladed H145 retrofit to DRF Luftrettung. [Airbus Helicopters]



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# **ACCIDENTS AND INCIDENTS**

**3 November 2021 Beechcraft King Air 200 N917SH.** Air ambulance of Sanford AirMed. At Sioux Falls, South Dakota, USA A pilot replaced the batteries for the active noise cancelling headset inflight and put the used batteries in his flight suit pocket. A few minutes later, he felt the pocket area becoming warm and determined the batteries were the cause. The crew placed the batteries into an empty bottle and monitored the temperature while continuing the flight. It was discovered that lithium-ion batteries were accidently purchased by admin staff. Fleet to get fire bags shortly. [Concern]

**31 December 2021 Britten Norman BN2T CN-TW?** Royal Moroccan Gendarmerie. Crashed in sea off N'Tireft/Dakhla, Western Sahara, Morocco. All three-crew rescued.

8 January 2022 Airbus Helicopters H145 G-DAAS. Air ambulance of Devon Air Ambulance Trust. After landing a patient at Derriford Hospital Helipad damage was found to the landing skid that was sustained during a HEMS (Helicopter Emergency Medical Service) task on Dartmoor. The aircraft skid was damaged during the landing on the moor, probably as a result of impact with a sub-surface rock; the damage only became apparent after the patient whom the crew were called to assist, was safely transferred to Derriford Hospital. (DAAT)





11 January 2022 Airbus Helicopters EC135P2 N531LN Air ambulance operated by Air Methods

Departed from Hagerstown Regional Airport Maryland and was on its way to Children's Hospital of Philadelphia when it got into difficulties and crash landed on a small area of grass in front of a church in Delaware County, Pennsylvania. The helicopter was seen to be flying erratically with four aboard, including an infant child in clear weather before coming down on Burmont Road and Bloomfield Avenue near the Drexel Hill United Methodist Church. The baby and pilot were listed in stable condition with minor injuries. Two other passengers were not injured, authorities say. [media/ASN/Rind/AP]

**13 January 2022 Bell 412 EC-GSK** FireFirefighting helicopter operated by Babcock, Spain. Crashed into Amadorio Reservoir, 4km from Villajovosa, Alicante, Spain whilst training in water uplift. Helicopter sank but crew safe. [ASN]

**19 January 2022 Beechcraft C90 King Air PT-OSO** Polícia Militar de Minas Gerais. Air ambulance flight. Aircraft departed Belo Horizonte/Pampulha - Carlos Drummond de Andrade Airport, in Brazil with four persons aboard and called a technical emergency and returned. [ASN]

**24 January 2022 Eurocopter EC120B Colibri F-HBKB** French Gendarmerie Training Formation Heli-Dax. While on a training flight from Dax Airport crashed on its right side on grassland at Tinon, Landes. Significant damage to MRB and structure [ASN]

Ed: One of those debatable entries. The Gendarmerie is a military police formation supplying both military and civil policing to France. No clear link in this accident to law enforcement aviation.

**26 January 2022 Bell 429 5N-MDA**. Nigerian Police. Helicopter reported crashed with injuries in unknown circumstances at Bauchi Sir Abubakar Tafawa Balewa International Airport. Other reports claim it was a controlled emergency landing without damage or injuries. Another that there was in fact minor damage to the tail rotor at the point of landing. The flight with six persons aboard originated at Abuja at the centre of the country. [media]

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# **SAFETY**

From January 27, most aircraft have been banned from passing below a 2,500ft altitude within a 1.4-mile radius area the centre of which is Windsor Castle. The Queen has spent the most part of the past two years at her Berkshire residence.

An information notice jointly published in mid-December by NATS – the UK Aeronautical Information Services – and the Civil Aviation Authority (CAA) stated it is necessary in the public interest to restrict flying in the vicinity of the Windsor Castle "having regard for the significance of the security considerations associated with this location by reason of it being the residence of a member of the Royal Family".

The flying ban applies to all aircraft with the exception of those operated by or on behalf of a member of the Royal Family, the National Police Air Service, the Helicopter Emergency Medical Services, the Maritime and Coastguard Agency during a search and rescue operation and the Queen's Helicopter Flight. Among others, exemptions are also applied to any aircraft "making an approach to or departing from London Heathrow Airport whilst under the control of London Terminal Control, Swanwick, or the air traffic control unit at London Heathrow Airport".

A great deal of media attention is being directed towards the alleged negative interaction between new 5G communications systems and aircraft radar altimeters. In many ways it reflects the fears being expressed in technical circles in 1999 when it was thought that a simple date change to 2000 would lead to all electronic systems collapsing and killing thousands.

The centre of attention in the USA, the 'problem' if indeed it is a problem does not appear to have been highlighted in other countries where 5G has been rolled out. It is estimated that some 30% of the world has 5G rolled out – but none have 100% coverage.

Perceiving a problem, US authorities manages to talk the communications providers into a number of delays and stops in the vicinity of airports, but they appear no closer to a solution.

The decision makers at Helicopter Association International (HAI) perceived that the US helicopter fleet, including airborne law enforcement and air ambulance services, faced the imminent likelihood of being grounded when Verizon Communications and AT&T plan to activate new 5G communication towers across the US. No reports of such grounding have been noted.

The potential grounding results from an unprecedented number of Notices to Air Missions (NOTAMs) issued by the FAA overnight. At one point the FAA published over 1,450 NOTAMs, which prevent pilots from operating aircraft near known hazards. In the FAA's determination, these hazards include the 5G communications towers that AT&T and Verizon Communications were to activate on January 19. The travel industry has to be risk averse of course and several foreign nations fell in with the situation and started cancelling flights or changing the aircraft type operating a schedule from Boeing to Airbus. The latter were less susceptible to the issues.

Ed: All seems quiet so far and there have been no reports of issues across the aviation industry in the last ten days. So far, the 'noise' appears to be coming from the other end of the scale with potential users complaining that 5G was not working on their phones.

In early January Robinson Helicopter issued a service bulletin on the tail rotors of the R44 and R66 after reports of corrosion cracks on R44 tail rotor blades. Early reports involved blades manufactured from a single lot of skin material with a suspected heat treat anomaly. Impacted blades have serial numbers (S/Ns) from 9910 through 10659 and were factory-installed on R44 S/Ns 2599 through 2619; R44 II S/Ns 14360 through 14394 (except 14363); and R44 Cadet S/Ns 30064 through 30068. Affected blades were also shipped as spares between August 2019 and December 2020. The R66 document states the tail rotor blades have S/Ns 2410 through 2589 and were installed on R66 S/Ns 1035 through 1090 (except 1039, 1067, 1076, 1077, and 1081). Some affected blades were shipped as spares between January 2021 and November 2021.

The blades must be removed from service, and operators must perform an additional preflight inspection to continue to operate them until they are replaced.



# UNMANNED

Lithuania monitors ship emissions in the Baltic Sea using EMEA's unmanned aircraft. The joint project between the European Maritime Safety Agency and Nordic Unmanned was implemented to monitor atmospheric pollution using a range of sensors, probably the most prominent being the Wescam MX-10. That sensor though is ruled by ITAR considerations so in different areas other sensor systems not having to meet the US military requirements are flown.

The TrakkaCam TC-300 is a versatile, compact, long-range, multi-sensor surveillance system designed for installation on a variety of manned, and unmanned platforms. Its advanced features and sophisticated image processors are embedded within the single-LRU configuration and feature 4 axis, active gyrostabilization, and integrated 6 axis passive isolation to provide highly stable, crystal clear high-definition imagery. Advanced image processing modes, image blending, split-screen, and picture-in-picture, allow users to simultaneously exploit images from the different sensors and extract details that would otherwise go undetected by a single sensor. Moving Target Detection (MTI) is embedded right into the system.

A recent report by the Teal Group claims that Civil Unmanned Aerial Systems (UAS) will be the most dynamic growth sector of the world aerospace industry this decade as nations opens their airspace, commercial applications take off, and civil governments adopt systems for new roles in border security and public safety.

The lack of a regulatory regime for beyond visual line of sight operations continues to hold back market growth. The Teal study projects that the U.S. will integrate unmanned systems into its national air space within the next decade, but it is difficult to specify in which year that will occur.

The greatest potential appears to be the delivery market, which has the possibility of touching every household in the world. It will have to operate in the most complicated regulatory environment, with not just national bodies but localities and even homeowners' associations having a say in whether and when delivery drones appear.

NUAIR and the New York UAS Test Site have received authority from the Federal Aviation Administration (FAA) to fly unmanned aircraft systems (UAS), drones, beyond visual line of sight (BVLOS) across 35 miles of airspace within New York's 50-mile Drone Corridor. Current regulations require drone operators to always have a pair of eyes on the drone, limiting the ability to fly long distances. The ability to safely fly BVLOS is the key to unlocking the full potential and economic advantage of routine commercial drone operations like medical and package deliveries. In 2019, NUAIR and the Test Site received their first BVLOS authority for an eight-by-four mile stretch of airspace from the New York UAS Test Site, at Griffiss International Airport, south to the State Preparedness Training Center in Oriskany. This new airspace authority extends west of Griffiss towards Oneida Lake increasing their overall BVLOS airspace to 35 miles.

TEKEVER has raised €20M to accelerate its global expansion. The round was led by Ventura Capital, a global growth fund specialising in pre-IPO technology leaders, and joined by financial investors including Iberis Capital, and strategic investors including leading Maritime Industry and Shipping OEMs. The Growth Stage acted as Placement Agent for this funding round. The European Maritime Safety Agency (EMSA) and the United Kingdom's Home Office were among the first governments, major agencies and global companies to adopt TEKEVER's droneservice to gather real time data across ultra-wide areas and create the intelligence needed to predict and act timely and efficiently to avoid major threats to life, the environment and the economy in maritime context, like Piracy, Drugs and Human Trafficking, Migrant Smuggling, Pollution, Illegal Fishing, and threats to Infrastructure Secu-



Based in Portugal, TEKEVER builds multiple types of drones, capable of flying up to 20 hours continuously while carrying a range of sensors, including cameras, radars or cellphone detectors. The drones are built around an Al-centric platform that combines Edge Al, satellite communications and cloud computing to provide customers with real time information and advanced analytics over simple to use and globally accessible web and mobile interfaces.

On January 26 the UK Civil Aviation Authority based near London Gatwick Airport announced that they were looking to employ an innovation advisor. The role is for a person working with the Innovation Advisory Services team guiding and supporting industry towards regulatory readiness, guiding them with the aim of sharing knowledge and helping to recommend future regulatory frameworks.

Due to expansion in the team, the CAA are looking for five specialists to assist industry with developing innovative solutions for remotely piloted aircraft systems (RPAS) and greener ways of flying through advances in electric and autonomous flight technologies.

The specialist will also be working with a broad range of organisations including the consortia which have received funding from the Future Flight Challenge, the National Police Air Service, and many other industry stakeholders for a salary range of £37,513 to £45,000 dependent on experience

# **PEOPLE**

Two officers who tried to save five people - including the Leicester City Football Club chairman - killed in a helicopter crash have received awards. Police Constable Stephen Quartermain (left) and Sgt Michael Hooper were among the first on the scene when the Leonardo AW169 helicopter came down on its side outside the King Power Stadium in 2018.

Despite intense flames the pair tried unsuccessfully to get to those inside. They were presented with Queen's Gallantry Medals by the Duke of Cambridge at Windsor Castle last month.



The first fully rated female pilot in the Kenya National Police Service (NPS) is Eunice Dobby, a Commissioner of Police. She is a flight instructor and a pioneer female police pilot and currently the chief pilot at the National Police Airwing that is under the National Air Support Department (NASD).

She joined the police service as a recruit immediately after her O-levels education at Kisumu Girls High School, opting to defer joining university despite an impressive performance. During the recruitment period that is usually characterised by intense training, Dobby's leadership skills were recognised by the instructors, and she was appointed the Squad Leader of the female recruits. Joining the service, Dobby extended her commitment that later earned her a promotion to the rank of a Chief Inspector Superintendent.

In 2016, she received yet another promotion becoming the Commissioner of Police. This led to her being selected to join the police airwing. Dobby started her training in flying police helicopters at the CMC Flying School and received a Private Pilot's License (PPL).

With the desire to learn more and expand her skills, Dobby got an opportunity to join Oxford Aviation School in Texas, United States. At the institution, she was successfully trained for a commercial Instrument, Multi-engine Pilot's License, and Ratings that is certified by US Federal Aviation Administration (FAA).

She holds three degrees; a Master of Business Administration in Strategic Management from Jomo Kenyatta University of Agriculture and Technology, a Master of Arts in International Relations and Diplomacy, and a Bachelor of Commerce in Human Resource Management both from the University of Nairobi. She also attended the prestigious National Defence University - Kenya (NDU-K, for the National Security and Strategy Course.



**Helicopter Association International** (HAI) has announced the **2022 Salute to Excellence** award winners ahead of the Heli-Expo in March. The awards will be presented March 7, 2022, at HAI Heli-Exo 2022 in Dallas, Texas.

This year is the first for the HAI Salute to Excellence Land & LIVE award, presented in honour of the late Matthew Zuccaro, who introduced HAI's "Land & Live" campaign during his time as HAI President.



US Coast Guard Avionics Electrical Technician Second Class **Andrew Champagne** is the first recipient of the Matthew S. Zuccaro Land & LIVE Award. This award recognises aeronautical decision-making, crew resource management, and coordinated actions by flight crews that result in the decision to terminate a flight before an accident could occur. Since joining the USCG in 2011, Champagne has made a lasting impact on countless lives, including those of his own crew. Stationed at Coast Guard Air Station Cape Cod in Massachusetts. He is responsible for maintaining the electrical systems of all the station's Sikorsky MH-60T Jayhawk aircraft. As part of his training, he attended vibration-analysis school for the aircraft's systems. For rescues, Champagne also serves as a flight mechanic, a member of the flight crew working the hoist and with the rescue swimmer and pilots.

Early in the pre-dawn morning of June 8, 2021, Champagne's rescue crew was dispatched to support a search near Boothbay Harbor, Maine, more than 175 miles away. Local conditions were 300 feet with visibility down to half a mile with mist. Due to the distance and IFR conditions, the crew elected to load the full 5,800 lbs. of fuel onboard, filling all three of the aircraft's external tanks.



Shortly after take-off, Champagne began to feel a vibration in his seat. It wasn't immediately obvious where the vibration initiated. After ruling out his seat as the source, he announced an abnormal vibration. No other crew member felt it, yet the aircraft commander immediately asked if Champagne felt the flight should be aborted.

Champagne called for the abort without hesitation. Once back at the hangar, he inspected the aircraft. When he reached the left inboard external tank, he was able to move it back and forth. It was loose and, with a full load of fuel, could have easily come off the aircraft. He and his crew immediately realized the potentially catastrophic situation they'd narrowly avoided. Had the 120-gallon tank come loose in flight, it would have landed over a populated area and could even have caused the aircraft to crash.

Thanks to Champagne's bold and concise actions and directions during take-off, the crew averted a potentially deadly situation. His actions and the culture of the US Coast Guard to trust and follow any crew member's call to abort illustrate the value of former HAI President Matt Zuccaro's program Land & LIVE.

HAI announced that *Helicopter Life* Editor **Georgina Hunter-Jones** is the recipient of the Salute to Excellence Communications Award. The award, sponsored by Lightspeed Aviation, recognizes an individual for creative distinction in disseminating information about the helicopter industry. For more than 35 years, UK resident Georgina has highlighted the importance of helicopters in our everyday lives, promoting their use, merits, and capabilities while generating curiosity and interest in helicopters from people outside the helicopter industry.

Hunter-Jones's passion for rotorcraft started early. She wanted to work a summer in Kenya, but her mother offered her a different adventure: If Hunter-Jones would remain in the UK, her mother would pay for her private-pilot single-engine land airplane license. Hunter-Jones took her mother up on the offer, a decision that changed her life.

Hunter-Jones was hooked. She went on to earn additional airplane ratings, including flight instructor, before receiving similar ratings in helicopters. Since earning that first license, she has flown around the world in a variety of helicopters and airplanes, building more than 8,500 hours of flight time. She has competed in the World Helicopter Champion-



ships, set a world altitude record in a helicopter, and gained UK CAA examiner authorization for both aircraft categories.

Not long after she started flying, she began writing about aviation in a variety of publications, including *The Financial Times*, *Octane Car* magazine, *Rotor and Wing*, *Flight International*, *Air Pictorial*, *Helicopter World*, *4 Rotors*, and *Flyer Magazine*. In 1997, she became the editor of the Helicopter Club of Great Britain's periodical, *Rotor Torque*, turning it into a full-colour magazine and expanding its content. In 2004, she developed her own publication, *Helicopter Life*, dedicated to educating and inspiring those in the helicopter industry. She has also written and published a children's book *and* two nonfiction books about her aviation experiences. A member of the Whirly-Girls, she often mentors the next generation of female helicopter pilots and volunteers as a member of The Skinners' Co., a London charitable organization dating to the 15th century that supports the education of young people.



**Scott Tinnesand** is the Flight Instructor of the Year. This award, presented by H. Ross Perot & Family, recognizes superlative contributions by a helicopter or UAS flight instructor in upholding high standards of professionalism.

Flight instructor and experimental test pilot Scott Tinnesand, a pilot with 33 accident-free years of flying experience. With the start of his aviation career in the US Army he was familiar piloting the AH-1 Cobra and AH-64 Apache. After eight years of service, he entered the civilian world as an instructor pilot and test pilot for the gyroplane manufacturer Groen Brothers Aviation. After leaving Groen, Tinnesand took a helicopter EMS position that grew into an opportunity to earn his helicopter CFI and to mentor, train, and support his fellow company pilots. Then, in 2011, he joined The Boeing Co. where he trains domestic and international pilots as well as conducting experimental test flights on company products.





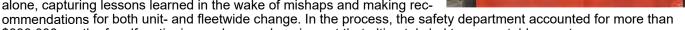
Panther Helicopters mechanic **Jeffrey Donnell** is the recipient of the Salute to Excellence Maintenance Award. This award, presented by Rolls-Royce, recognises an individual for long-standing excellence in rotorcraft maintenance, maintenance instruction or supervision, or a single significant contribution to rotorcraft maintenance. For more than 25 years, aircraft and powerplant mechanic Jeffrey Donnell has ensured that helicopters are safely and properly maintained while providing superior customer service. Donnell enrolled in a technical school in Bedford, Massachusetts, receiving his airframe and powerplant license in 1976. While he planned to work for the airlines, it was the helicopter industry that was hiring at the time. He landed his first mechanic job at Petroleum Helicopters Inc. the same year. In the early 1980s, Donnell took a lead mechanic job that soon led to a director of maintenance position in Houston, other posts followed. In 2001, he was recruited by

StandardAero, only to be laid off 13 years later due to budget cuts. After a year he was approached by Panther Helicopters, a customer he had known for 20 years, to be a mechanic. He has been in the industry for 45 years.

**United States Coast Guard Air Station Cape Cod, New England**, is this year's Safety Award. The award, sponsored by BLR Aerospace, recognises outstanding contributions to the promotion of helicopter safety and safety awareness.

Initiatives in the safety department at USCG Cape Cod, have not only increased safety at the air station but have had far-reaching effects across the service branch.

Fostering a strong reporting culture, the air station's safety department conducts in-depth analyses following unit mishaps. The department's expertise was utilised on at least 70 occasions during the past fiscal year alone, capturing lessons learned in the wake of mishaps and making rec-



\$390,000 worth of malfunctioning or damaged equipment that ultimately led to a reportable event. Historically, the department flags potentially catastrophic aircraft malfunctions. For instance, when erroneous radar altimeter readings of 70 to 100 ft. above true altitude were observed while crews were practicing instrument approaches to water at night, the safety department investigated. They learned that the anomaly was known and occurred around electromagnetic interference (EMI). Though engineering solutions had been implemented to mitigate the effects of EMI, the experience of Cape Cod's crew demonstrated that the hazard had not been entirely eliminat-

This led to an effort to increase awareness about the issue across the entire Coast Guard rotary-wing fleet. This invaluable exchange of information following a near catastrophic mishap is one of many examples in which sharing lessons learned and potential equipment vulnerabilities has sparked training and safety-related discussions within Coast Guard units across the country.

The Neonatal/Pediatric Transport Team at **Children's Health of Dallas**, Texas, is the recipient of the Salute to Excellence Golden Hour Award. The award recognizes the efforts of an individual, group, or organization that, through a particular activity or contributions over time, has advanced the use of helicopters or UAS aircraft in the vital mission of air medical transport.

In the early morning of August 10, 2021, a vehicle carrying two adults and five unrestrained children was traveling 65 miles northeast of Dallas, Texas, when it was struck by a semi-truck. The vehicle rolled, severely injuring all occupants and ejecting at least one of the children.

First responders on the scene alerted the local community hospital of multiple casualties and five pediatric patients with significant traumatic injuries. Unequipped for such a large patient load, especially children, the hospital's emergency-room staff called Children's Health Access Center to request support. Children's Health operates 12 neonatal/pediatric-equipped ambulances, one Citation Encore jet, and one Sikorsky S-76C++ helicopter.

Children's Health critical care nurse Brandon Gardner, RN, was standing by at the hospital's airbase at Dallas Love Field when the Access Center's team called. Gardner, his pilots, and medical crew at the station sprang into action to devise a plan to transport all the children to Children's Health, a Level I trauma center. It was agreed that Children's Health would send an ambulance, helicopter, and pediatric medical specialists to help assess, treat, and transport the children to Dallas.

Gardner and a paramedic immediately left in an ambulance with the intention of providing support in advance of the helicopter's arrival. Before launching, the rest of the crew—medics, respiratory therapists, and the two pilots—recon-



©HAI Supplied

figured the helicopter to transport two patients.

Gardner and the paramedic arrived on scene first and promptly triaged, assessed, and helped stabilise the children. Injuries varied from multiple lacerations to a pulmonary contusion and spleen laceration. Two children were identified as critical enough to require helicopter transportation. Gardner coordinated with the receiving emergency-department physicians at Children's Health, reporting on injuries and priorities. The helicopter landed within 20 minutes of the ambulance's arrival and the two most critical patients were loaded onto the aircraft.

The Children's Health ambulance transported a third child while the other two children were transported by local EMS services. In the end, all five children were safely and quickly transported to Children's Health, where they eventually made full recoveries.

Mesa Arizona based **MD Helicopters** is the recipient of this year's Salute to Excellence Humanitarian Service Award. The award, sponsored by Sikorsky, a Lockheed Martin company, recognises those who best demonstrate the value of helicopters to the communities in which they operate by providing aid to those in need.



When the coronavirus pandemic began sweeping across the United States in 2020, the Navajo Nation quickly experienced the country's highest per-capita rate of infections and deaths. Located mainly in Northeast Arizona, the reservation also expands into the high desert of South-eastern Utah and North-western New Mexico. The Navajo Nation's nearly 300,000-member population is spread throughout the 27,000-square-mile reservation. Many members lack utilities and live in communal groups far from modern medical facilities. It can take hours to reach some members of the tribe by vehicle. As the pandemic raged, the Navajo Nation was forced to close its borders to outsiders, including supply trucks, to reduce the spread

MD Helicopters became aware of the situation and the leadership board put the company and its helicopters forward as a potential lifeline for the situation. They had helicopters, time, pilots, fuel, and maintenance to fly supplies into the Navajo Nation, but needed

guidance on how they might be best employed.

The Veterans Medical Leadership Council (VMLC) was one of the few with permission to enter the Navajo Nation. The VMLC immediately took MD up on the offer.

MD were expecting to be flying such as PPE, but there was a more dire need initially. Winter temperatures drop to freezing in the Navajo areas and many tribal members rely on wood to heat their homes and cook food. Usually, wood is delivered to them. Without the supply trucks, they needed a way to collect their own wood. The first load of supplies MD flew was chainsaws.

For more than a year, MD Helicopters provided nearly weekly deliveries of everything from chainsaws to PPE. While almost every flight delivered critically needed supplies, on its final relief flight, on June 25, 2021, MD Helicopters participated in a Christmas-in-summer operation, bringing gifts to the Navajo children who had missed out on the previous Christmas

To date, MD Helicopters has flown 52 volunteer supply missions to the Navajo Nation, delivering more than 40,000 lb. of supplies and equipment. The company has received no renumeration for the investment of time, fuel and equipment use.

This year's Law Enforcement Award goes to Michigan State Police Aviation Unit **Sgt. Matt Rogers.** This award, sponsored by MD Helicopters, recognises an individual who has contributed to the promotion and advancement of helicopters in support of law enforcement activities. He earned his private pilot licence in high school and, after graduation, enrolled in Western Michigan University's aviation technology programme.

After he left college and enrolled in Michigan State Police Recruit School in 1995. During the next 19 years, Rogers worked assignments including road patrol, narcotics, training academy, drive track, and desk sergeant. Then, in 2014, he was selected to join the aviation unit as the police department's first tactical flight officer (TFO). Until that time, the Michigan State Police (MSP) had operated its fleet of helicopters and airplanes with two pilots. In his new position, Rogers would help develop the MSP's TFO operation from the ground up. After attending the Los Angeles Police Department's TFO school, he came back home to help establish an extensive curriculum to train all incoming MSP TFOs.

Rogers then focused on building the MSP's UAS operation. The aviation unit had already purchased an Aeryon SkyRanger, but wider use of UAS technology had yet to be created. Through the work of Rogers and his team, the MSP became the country's first police department to receive a state-wide certificate of authorisation for UAS operations in uncontrolled airspace. He soon added to the authorisation approvals for day and night operations in controlled airspace, including emergency exceptions into Class B airspace.

Rogers built the programme from the ground up, creating a framework that would not only ensure unit and personal growth, but also create opportunities for a diverse UAS mission set. As it grew, additional UAS platforms and personnel were added, and missions were expanded from crime and crash-scene documentation to tactical overwatch and building searches.

Rogers developed processes and procedures for the UAS program that exceeded all FAA and legal requirements while ensuring full privacy protection for the population the agency serves. He also became a founding member of the National Council on Public Safety UAS and held a governor-appointed position on Michigan's Unmanned Aircraft Systems Task Force. Along with this work, he spoke at conferences and gave demonstrations to help other agencies use UASs effectively.



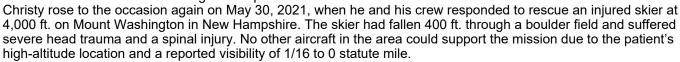
**USCG Lt. Commander Travis Christy,** an MH-60 aircraft commander, is to receive the Pilot of the Year Award. The award, presented by ROTOR Media, recognises an outstanding single feat performed by a helicopter pilot dur-

ing the year or extraordinary professionalism over a period of time.

On March 2, 2021 at 8 pm, a call came in to USCG Air Station Cape Cod in Massachusetts. Atlantic Destiny, a 140-foot fishing vessel with 31 onboard, had caught fire and was taking on water more than 200 nautical miles east of Cape Cod.

Facing darkness, freezing cloud layers, and turbulent winds, Christy set out for the disabled vessel. Shortly after the aircraft arrived on scene, the decision was made to evacuate most of the boat's crew. After a Royal Canadian Air Force helicopter hoisted six crew members, Christy manoeuvred his helicopter into position to begin hoisting other survivors. Battling 40- to 60-kt. winds and 33-ft. waves, Christy and his crew lifted eight survivors from the dark, pitching vessel.

With a full cabin, Christy departed and flew 125 miles through rain to Yarmouth International Airport (CYQI) in Nova Scotia, Canada, where the survivors were transferred to awaiting rescue personnel.



Christy flew under an IFR flight plan to Eastern Slope Regional Airport near the injured skier. From there, he identified a safe route and briefed his team on how they would transit the remaining 20 nautical miles to the injured skier, including an inadvertent-IMC plan. The aircraft followed the road, navigating around clouds and mountainous terrain at 40 to 70 kt. and altitudes of 100 to 200 ft.

Once on scene, Christy used the aircraft's direction finder to pinpoint the injured skier's position. As the helicopter hovered near its maximum available power, Christy served as the safety pilot while the patient was hoisted via litter. Once the skier was safely onboard, Christy and the crew transported the patient to Maine Medical Center. In August 2021, Christy was also instrumental in discovering and rescuing eight people and two pets from a severely damaged beach hotel on Grand Isle, Louisiana, while supporting post-hurricane rescue efforts in the wake of Hurricane Ida.

The final award is the one marking Lifetime Achievement which goes to **Dwayne Williams** and is sponsored by Bell. This award recognises excellence in management and leadership and is granted to an individual for long and significant service to the international helicopter community. Dwayne Williams learned to fly in 1965 with the US Army, he's accrued more than 16,000 hours of accident-free flight time and 57 years of experience flying combat, offshore oil-support, flight-training, and test-pilot operations.

After leaving the army, he joined Petroleum Helicopters Inc. (PHI), where he flew offshore in the Gulf of Mexico for almost five years. From 1974 he was training Iranian Army pilots for Bell Helicopter.

On his return to the USA, he joined Bell Helicopter Textron as a production test pilot, demonstration pilot, and international delivery pilot and travelled to virtually every corner of the globe promoting Bell and its products. He later joined Bell's experimental test-pilot staff at Bell's Flight Research Center and in 2000 became Bell's chief pilot.

He was the first person to fly several Bell aircraft, including the 206L-3, 400, AH-4BW SuperCobra, and 230. He was also a test pilot on the XV-15 tiltrotor, then the Bell/Agusta Model 609.

Not long after retiring from Bell in 2005, Williams accepted the position of chief pilot, director of flight operations, at MD Helicopters, where he directed helicopter production and delivery flights as well as pilot and maintenance training service.

In 2013, Williams accepted the chief test-pilot position at Marenco, the designer, developer, and producer of the first Swiss-made helicopter, the SH09. There, he had the honour of performing the aircraft's first test flight.

In 2015, Williams received the FAA's highest honour for a pilot, the Wright Brothers Master Pilot award, which recognizes 50 years of safe flight with no accidents on a pilot's record.

Today, Williams serves as chief test pilot and certification pilot for Aero Dynamix, a company that designs cockpits that are night-vision goggles (NVG) compatible.





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MST GUARD

On another strata, congratulations to **Sarah Schumacher** a pilot with South Dakota Highway Patrol. She made sergeant. The fact alone is never likely to win her plaudits at HAI Heli-Expo especially as she is mainly the driver of a small Cessna fixed wing.

She posted to social media her elevation from Trooper to Sergeant and declared thanks to all those that had helped her on her way....

"Thank you to my friends, family and co-workers for their support and encouragement. Thank you to my Tactical Flight Officers - who arguably have the most difficult job on the Patrol - hanging out with me. They go on callouts at all hours of the day and night and never get tired of sweating, freezing, getting bounced around by turbulence, or listening to my puny jokes and/or Octane on XM. Thank you to my Command Staff by taking a chance and hiring me 5 years ago - jokes on them, now they have to listen to me every day."

The South Dakota Highway Patrol is based in Pierre, SD and currently owns and operates a Cessna T206 aircraft for various missions to assist troopers and they also have a Bell OH-58 Kiowa.

In the 1960's the unit was set up with a primary speed enforcement tasking using a leased Super Cub. Pilots and spotters utilised stop watches to determine speed over distances. In the late 1970's, SDHP purchased a used Cessna 182 Skylane and in 1995 added OH-58C Bell Helicopter for marijuana eradication, emergency relays, natural disaster response, etc. In 2007 SDHP purchased a 2004 Cessna T206 to replace the ageing 182.

In 2010 they were working with Cloud Cap technology in operating their Kiowa with a sensor fitted. Eventually they bought a FLIR 230-HD EO/IR imaging system for approximately \$500,000 in 2014. The price covered the camera, mounting, monitors and controllers, radio upgrades, weight and balance changes for helicopter and airplane.

Now equipped with modern day/night technology the SDHP began shifting from their 1960s speed enforcement role towards "tactical" enforcement.

An average of 353 hours is flown a year covering 81 different missions. That modest amount is despite their area of responsibility being 77,000 square miles. Increasingly drones are entering service in the state with a handful in use operated by eighteen trained personnel across the state. [Sarah Schumacher/PAR]



# **MOVE ALONG THERE**

For those looking to operate BVLOS drones in the future a cautionary word. The US Department of Defense announced last month that it had sold a mobile control room for the operation of such devices in a military scenario to France.

General Atomics Aeronautical Systems Inc in California has been awarded a \$14.5M order for just one such control room. That does not include inflation of course but I guess it is marginally cheaper than some manned aircraft purchases.

On which note, I have been assured that the recent reprieve for the four P68R aircraft operated from Doncaster is not so that they can maintain a standing patrol on alleged Whitehall partying.

Another 'steal' from social media is this image of a police officer with a drone. Not quite in the same class of those operating in police support these days, iit was powered by two noisy Korba 2-stroke 2-cylinder piston engines. This natty ball of fun was one of three mid-1970s Westland Wisp's built for military observation at Yeovil, Somerset, not as a drone, it was then a remotely piloted observation helicopter. They now live in museums including the Museum of Army Flying. The Wisp appeared at the Farnborough Air Show in 1976 and, along with this copper in September 1978. [SBAC]





# **FUTURE EVENTS**

**15-16 July 2022 DefenPol China 2022** the 6<sup>th</sup> Guangzhou International Defence and Police Exhibition & Summit to be held at the Nan Fung International Convention and Exhibition Centre (NICEC) Organised by the Guangzhou and Shanghai Bayern Messe Co. Ltd., info@bayernmesse.com

After losing out for one year registration for arguably the most important aerospace and defence event in the UK over four years, **Farnborough International Airshow 2022**, is now open.

Taking place **18-22 July 2022**, the event will see global aerospace and aviation leaders return to Hampshire, United Kingdom, for five days of unrivalled opportunities to discover the latest pioneering technology and engineering, announce historic partnerships, build connections and work towards the cumulative sustainable aerospace vision as an industry.

New for 2022, the Aerospace Global Forum will revolutionise how the industry will share knowledge and tackle global challenges. Bolstering Farnborough International Airshow's position as the pinnacle aerospace event, the Aerospace Global Forum will see pioneers and innovators from across the worldwide technology, sustainability, engineering, space, and defence spheres convene and immerse themselves in driving accelerated material change through an aerospace lens.

Gareth Rogers, CEO of Farnborough International, said: "With the entire world now focusing on the critical health and sustainability of the planet, we are at the most important junction in the history of aerospace. Without face-to-face opportunities to discuss the opportunities and challenges for the future of aerospace over the last two years.

The event will attract Airbus, Boeing, Boom Supersonic, Lockheed Martin, Rolls-Royce and GE Aviation, exhibiting their latest aircraft, innovations and technology at the show.

For more information on attending or exhibiting, visit the Farnborough International Airshow website <a href="https://www.farnboroughairshow.com/fia2022/">https://www.farnboroughairshow.com/fia2022/</a>

**Farnborough 2018** The Cobham Cool were a 'three man' mime act that appeared on the Cobham stand in all their glory. Between times they were to be found nearby entertaining and intriguing the passing crowds. Like many of those they sought to entertain they wore suits and ties. 2018 was no time for suits and ties, let alone heavy blue make-up! Cobham? Who were they?





# **UPCOMING EVENTS**



**15-18 February 2022 Singapore Air Show.** Regular readers may recall that the last event at Changi Exhibition Centre was decimated by the early onset of Covid. PAN reported from a very quiet and undervisited event. Most major manufacturers booths were there but either wholly unmanned (Leonardo) or making use of local resources (Airbus and Bell). There were few aircraft there.

The plan is to run this years show but as I write in mid-January the Covid related medical requirements for foreign attendees remain so onerous that there must be doubt that anything near a normal show will be elusive.

In normal times the biennial Singapore Airshow is Asia's largest and most influential international aerospace and defence exhibition. Singapore Airshow 2022 will be organised as an in-person event on a byinvite basis, primarily for trade with no public day programmes. All attendees will be required to adhere to travel requirements and safe management measures stipulated by Singapore's authorities. Key participating exhibitors will include Airbus, Bell, Boeing, Collins Aerospace, Commercial Aircraft Corporation of China, Gulfstream, Honeywell, Israel Aerospace Industries, Leonardo, Lockheed Martin, Rolls-Royce, ST Engineering and Textron Aviation.

Singapore Airshow is organised by Experia with the support of Republic of Singapore Air Force (RSAF), Civil Aviation Authority of Singapore (CAAS), Changi Airport Group (CAG), Defence Science & Technology Agency (DSTA), Economic Development Board Singapore (EDB), International Air Transport Association (IATA), Ministry of Transport (MOT) and the Singapore Exhibition & Convention Bureau (SECB). Experia, specialist trade event organiser and manager has named Shephard Media, the specialist defence marketing and business information provider, as Corporate Intelligence Partner for its entire aerospace and defence portfolio. This landmark partnership is the first-of-its kind for both parties on a corporate and portfolio-level.

Under this partnership, Shephard Media will provide their expertise in editorial content and defence industry insights for Singapore Airshow, IMDEX Asia and Rotorcraft Asia and Unmanned Systems Asia from 2022 through 2025. Industry watchers can also look forward to jointly produced thought leadership and market intelligence content.

While that is a promising development for both parties and ensures that the maximum exposure and onsite support of the events will be attained, it does not get around the current problem of meaningful attendances at the February Air Show.

Another event in Singapore looks to have a better chance of normalcy and that is Milipol Asia Pacific, the regions flagship security show which receives the ongoing official support of the Ministry of Home Affairs, Singapore and Ministry of Interior, France.

Milipol Asia Pacific will again be held at Sands Expo & Convention Centre (Marina Bay Sands) from 18-20 May and is the Asia Pacific's largest "must-attend" 3-day Exhibition and Conference covering all aspects of Counter Terrorism, Internal State Security, Law Enforcement, and Public Safety with an expectation of over 350 International exhibitors and 10,000+ Security industry professionals from the Public and Private Sector at the in-person Security event. Visitors can expect National Pavilions from Singapore, China, Czech Republic, France, Germany, Israel, Italy, Japan, Korea, Russia, Turkey, UK, USA and more to meet Senior Government VIP officials from the Asia Pacific region and beyond to share information, network and forge stronger ties and new partnerships. <a href="https://www.milipolasiapacific.com">www.milipolasiapacific.com</a>

**15-17 March 2021 Home Office Security & Policing**, the official Government global security event, will return as a live event for its 40th anniversary. Farnborough International Exhibition and Conference Centre

