# Police Aviation News

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**Issue 327** 

**July 2023** 



EO/IR Sensor Hand-out
Stop-the-boats Update
PAvCon Round Up



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# LAW ENFORCEMENT

# **FRANCE**

**ARDECHE:** The pilot of an unidentified privately owned aircraft scattered packages of drugs over the Ardèche region in western France while being harassed by an air force Rafale fighter jet on June 24, 2023.

The authorities noted the light passenger aircraft flying south from Germany but when it entered restricted airspace near the Fessenheim nuclear power plant in Alsace, north-east France, they repeatedly called up the pilot to change the aircrafts course, to no avail.

The French Air Force dispatched a Dassault Rafale fighter jet from Saint-Dizier Air Base to intercept and escort the flight. After the intercept, the pilot was seen to be dropping several packages from the aircraft. He then landed at Aubenas Aerodrome, Lanas, left the aircraft while threatening the airfield staff before fleeing the scene on foot, abandoning the aircraft.



The local police, Gendarmerie Nationale and CIGN launched a search operation to find the fugitive. In the evening, the fugitive, identified as a Polish national with a history of narcotics smuggling, was apprehended in Orange, 60 km southeast of the aerodrome. Authorities later discovered several packages containing methamphetamine in Mars and Lachapelle-sous-Chanéac, areas within the Ardèche mountain region. [France bleu/Aerotime] Rafale image By Tim Felce (Airwolfhound) - Rafale - RIAT 2009, CC BY-SA 2.0, https://commons.wikimedia.org/w/index.php?curid=27816011

## **SERBIA**

**INTERIOR MINISTRY:** A part of the former Yugoslavia, Serbia has been acquiring modern aircraft from Airbus Helicopters for its police in recent years. An order for the H145M was placed in 2018 and this was followed by a smaller order for H215 in 2019. These aircraft are now in service with the Policija Air Support Unit (Police Helicopter Wing) based at Beograd/Nikola Tesla.

The legacy fleet is mainly a mix of Bell and Aerospatiale airframes (206B/206L/AB212 and SA341 Gazelle helicopters) and several of each of these types remain in service. A Sikorsky S-76B is used for VIP flights. The recent arrivals from Airbus are said to have prompted the intention of purchasing additional H145M and H215 to allow the Agusta-Bell 212s to be retired. Despite the ongoing war embargo for Russian equipment Serbia is looking to acquire Kamov KA-32 helicopters for firefighting purposes.

# **SPAIN**

**POLICIA NACIONAL:** The Spanish National Police in close cooperation with Europol and law enforcement from five other countries, have seized the first ever half-submersible vessel built on European territory in Malaga on the Mediterranean coast. Similar vessels captured in the past have always been of Latin American manufacture.

The seizure was made in the framework of Operation FERRO, a high-level law enforcement operation against an organised crime group involved in large-scale drugs trafficking.

Over the last 3 years, over 300 police officers carried out this operation in Spain, supported by the Policía Nacional de Colombia, the Dutch National Police, the Portuguese Judicial Police, the U.K. National Crime Agency and the U.S. Customs and Border Protection, with international activity coordinated by Europol.

The activities undertaken in Operation FERRO included nearly 50 house searches in Spanish cities, these led to 52 individuals being arrested; two boats seized: the semi-submersible and one speedboat worth over €300 000 in the province of Murcia. Over 3 tonnes of cocaine were seized, alongside 700kg of hashish and over €100 000 in cash.

COVER IMAGE: In late May one of the four Vulcanair P68R aircraft (G-POLW) was captured by the camera lens as it overflew Greater Manchester. The images subsequently appeared on the NPAS North East Region Twitter feed.. To date we do not have the full identity of the photographer but they originated from the Think Planes Twitter feed .



# Police Aviation News is published monthly by POLICE AVIATION RESEARCH,

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# UNITED KINGDOM

**PSNI:** The Police Service of Northern Ireland's (PSNI's) is facing a £107M budget shortfall that is likely to result in one of its three helicopters being grounded in a cost-saving measure.

The news was imparted to the Policing Board by the Chief Constable Simon Byrne at a recent meeting. Other measures being considered include a pause in recruitment, a reduction in overtime and reviewing the opening hours of police stations.

A 90-day review of proposed cutbacks is under way within the PSNI.

Meanwhile the Department of Justice has approved a three-year contract extension for Mr Byrne. He will remain as chief constable until 2027. [BBC]

**SOUTH YORKSHIRE:** The local authority for the now closed Doncaster Sheffield Airport, Doncaster Council, has secured a £3.1M financial package to help them prepare a Compulsory Purchase Order for the airport and former home of both the NPAS fixed wing and the 2Excel flying operation.

NPAS moved out upon closure but 2Excel moved its flight operations to Teesside and Humberside airports but retained office and engineering space.

The money is coming from the South Yorkshire Mayoral Combined Authority (SYMCA) to help with the "complex" situation which might lead to the purchase of the airport.

The council has criticised ill-informed speculation being spread about the stripping of the airport buildings. What has happened is that property owned by former tenants and fittings installed under lease agreements are being dismantled and removed.

Background negotiations include talks with the Civil Aviation Authority about retaining the airspace for a reopened airport and Peel on a potential lease of the airport. Peel, the instigators of the closure, continue to be unwilling sellers. [Examiner]



# **UNITED STATES**

With the APSA Annual event coming up in a matter of weeks in Orlando, Florida, law enforcement is the flavour of the month. We have already seen the Rotorhub publication, that came out in April May mainly aimed at a PAvCon audience www.rotorhub.com but others are hitting the airwaves.

Out now and usually you can find a way to access and download the digital version are a couple of Law Enforcement specific editions of regular magazines built around the event.

The latest edition of Valor the Vertical Magazine ALE spin off runs to 80 pages. Lots of adverts but plenty of meat within the covers too – it is mainly an article publication but there is occasionally a slice of news to be found. <a href="https://www.verticalmag.com">www.verticalmag.com</a>

Hailing from the UK side of the big pond is the Air Med & Rescue Aerial Policing Edition. Again, mainly based on articles but with some useful news content that slipped by other publications. The revelation in their new July edition that France now permits the use of police drones, and has only done so since April, is important stuff. <a href="https://www.airmedandrescue.com/magazine">www.airmedandrescue.com/magazine</a> Missed that one, thank you Air Med!

SOUTH CAROLINA: Dillon County Sheriff's Office based in Dillon SC have been using a leased or

loaned an MD500E helicopter to undertake searches for drugs. Deputies found about 15 marijuana plants growing in the Bingham area of the county, according to Dillon County Sheriff Douglas Pernell. They used the unidentified blue helicopter to fly over the area to help ground crews search for the plants. Pernell said they didn't find a lot of plants, but they plan to do more searches in the coming months.

Not a popular use of resources it seems, and one online comment was Helicopters used for 15 plants?! Way to utilize taxpayer funds for such a huge bust whereas 50% of the rest of the country can grow 15 legally in their backyard. [WPDe] In a similar operation in March 2023, they were using

a State Law Enforcement Division (SLED) helicopter to aid in the operation.



**TENNESSEE:** Until financial niceties intervened it was planned that two officers from the Knox County Sheriff's aviation unit based in Knoxville were to attend and take an active part in last month's PAvCon Europe in Bilbao. As an aside to taking part in the instruction and networking event there were plans to set up a photoshoot as a 'thank you' for the Netherlands Federal Police donating one of its surplus FLIR Safire EO/IR turrets to them. This was one of a number of sensor turrets made redundant by the upgrade of the EC135 helicopter fleet undertaken at Babcock, Staverton, Gloucestershire.

Another recipient of this largesse is the Basque Police Air Unit in Bilbao. With the ongoing delay in the announcement of the fleet modernisation programme the donated turret remains with Babcock. There is no big secret about the Basque solution it simply has not yet been signed off. One Airbus Helicopters EC135T3 is to be purchased and a Leonardo AW169 leased. The current in-service fleet is a pair of very early EC135T1 helicopters with a basic specification and an out of service AS350, the new sensor will be for the new airframes.

Two weeks after PAvCon Europe, Tactical Flying Inc based in Murrieta, California announced that it was acting as agency for three fully working surplus FLIR Star Safire EO/IR turrets to be delivered on the basis of a donation. Within days they reported that no less than thirty agencies had requested they could have access to them. The receiving agency is responsible for shipping costs.

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# **AIR AMBULANCE**

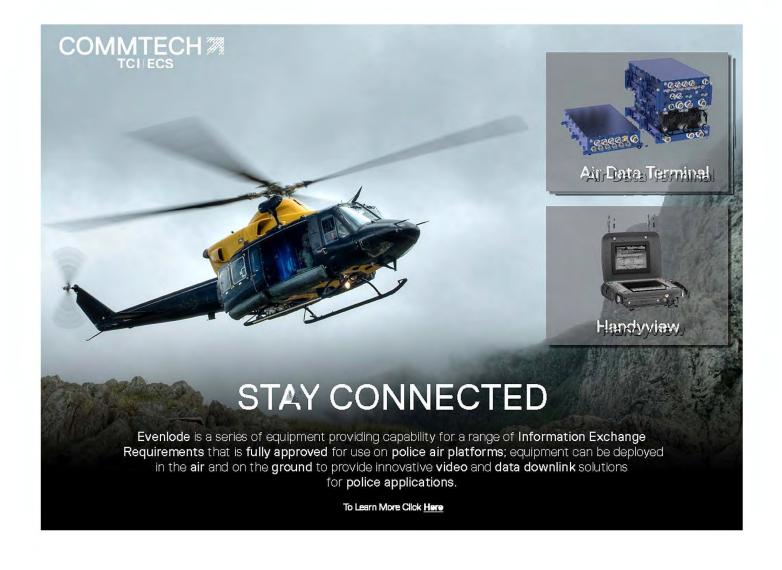
# **UNITED KINGDOM**

### **ESSEX & HERTS:**

With over 400 delegates attending, the Essex & Herts Air Ambulance (EHAAT) annual Aeromedical Conference provided a unique platform for all those working in emergency services, to come together, share knowledge, and work towards enhancing best practice in the pre-hospital care environment.



Taking place at Ford Dunton Technical Centre in Laindon, Essex, and sponsored by Ford, Leonardo Helicopters and Philips, this year's conference was themed 'Extrication,' and focused on the collaborative efforts of multiple agencies to rescue and extract patients trapped in vehicles involved in road traffic collisions. Chaired by EHAAT trustee Dr Ramzi Freij, the free-to-attend event featured fascinating presentations and case studies, shedding light on the latest advancements and challenges in extrication techniques.





**MIDLANDS:** This month should see the 32-years old charity occupy its new airbase and charity head-quarters located a short distance from the current base on RAF Cosford.

The new build complex is a vital development to support patient care across the whole of the region. The facility is located in a strategic position on the Shropshire / Staffordshire border with close proximity to the West Midlands. It features improved office space and meeting rooms, welcoming visitor areas, and state-of-the-art clinical training facilities which are fundamental to delivering the advanced training programmes required for clinicians.

A feasibility study into the possibility of building a combined airbase and charity headquarters was undertaken four years ago, when the charity acknowledged a number of challenges its essential serviced faced.



Initial ground works started on the Neachley Lane site in March 2021, with the project being completed at the end of June this year. Clearly the move into the building will take some time before an official launch takes place.

Meanwhile the Tatenhill Airbase will be holding a fundraising Open Day and Burton-Upon-Trent, Stafford-shire on Sunday July 2. [10:00 AM - 4:00 PM]

The annual family-friendly event returns with fun activities for everyone. The day provides activities including demonstrations of the lifesaving treatment by crews, merchandise stalls, refreshments and a raffle. Other local emergency services including Staffordshire Police, Staffordshire Fire and Rescue Service and West Midlands Ambulance Service will also be attending to give a behind-the-scenes look at some of their vehicles and operations.



**YORKSHIRE:** Yorkshire Air Ambulance, the renowned emergency response charity, made waves on social media last month with a remarkable sight in the skies above Wakefield and York.

Traditionally operating two helicopters, Yorkshire Air Ambulance recently took delivery of their two new state-of-the-art H145 D3 helicopters G-YORX and G-YAAA. They will replace current models G-YOAA and G-YAAC, which are currently in the process of being sold to an undisclosed buyer. During a fleeting cross over period of the arrival of the new helicopters and departure of G-YOAA, which leaves Yorkshire first, a unique, but brief opportunity presented for the team of pilots to capture the rare occasion where all four were in Yorkshire.



The crew took the four helicopters on a brief flight, incorporating some training & familiarisation for the Pilots & Technical Crew Members (TCM's), treating onlookers to a unique and rare display.

The flight drew widespread attention from residents in Wakefield, Pontefract, York, and surrounding areas, who spotted the four helicopters flying in formation across, what were picture perfect clear blue skies. Captivated by this awe-inspiring display, members of the community captured the moment and flooded Yorkshire Air Ambulance's Facebook post about the flight with over 3,000 likes, 400 comments, and 500 shares, emphasising the profound impact this had on those fortunate enough to witness it.

The 4-helicopter flypast over the York area was accompanied by the GB Helicopters Eurocopter AS355NP Ecureuil II G-DCAM acting as the camera-ship. [ABN] Editor: It also gave the BBC an opportunity to play 'catch up' in their coverage of the arrival of the new improved H145 helicopters. If you recall, a couple of months ago the BBC were too busy to turn out for the press launch event of new aircraft (featured on the cover of PAN two months ago) due to urgent staff training!

# UNITED STATES

**FLORIDA:** Walton County Fire Rescue EMS in partnership with Air Methods presents Walton Air Rescue, the newest medical transport helicopter in northern Florida.

Announced earlier this year, Walton Air Rescue has already begun providing public/private financed lifesaving medical transport for those in Walton County and beyond. Already operating the official launch was on June 28.

The Walton County airframe is a blue and white 2015 Bell 407GXP c/n 54587 N372AM that has been flying HEMS for various southern states since delivery to Air Methods. [WCFR]









**VIRGINIA:** Metro Aviation is welcoming its newest operations customer while also announcing the delivery of a new aircraft. UVA Health's Pegasus program is upgrading its critical care fleet with an Airbus EC145e. The new aircraft will replace the program's AW109, which will be the first aircraft Metro has completed for UVA Health.

Switching airframes is a significant undertaking for any program, but the team has put their faith in Metro Aviation and the Airbus EC145e as they look to the future.

The new EC145e is equipped with Metro's standard medical interior, including the Stryker Performance Manual Load that will allow the medical crew to load the Stryker litter into a ground ambulance equipped with the Powered Stryker System. The aircraft also includes best-in-class and industry-leading Outerlink Global Solutions' IRIS combined voice, video, and flight data recorder - a Metro must-have. The video function and data monitoring are crucial for pilot training. The flight following, push-to-talk radio, and live alerts and warnings allow the operational control centre to verify conditions in real-time.

The Pegasus program is a long-standing community member, providing medical care and transport for nearly 40 years. UVA Pegasus operates primarily within a 120-nautical-mile radius of Charlottesville, Virginia, and is committed to providing prompt and safe medical transport service to critically ill or injured patients.

# **FIRE**

# INTERNATIONAL

DART Aerospace has announced that it has received an FAA STC amendment, for the H145 Fire Attack™ System (FAS). This amendment now includes installation on D-2 and D-3 helicopter models as well as the previously approved C-2 model.

The DART Aerospace H145 Fire Attack™ System, specifications are: Capacity: 260 GAL (985 L); System weight: 566 LB (257 KG); Foam Capacity: 14 GAL (53 L); Hover Refill Rate: 450 GPM (1703 LPM); V<sub>NE</sub> (Hover Pump Installed): 125 KIAS; V<sub>NE</sub> (Hover Pump Removed): 125 KIAS



The H145 FAS is an aerial firefighting system designed to mount to the underside of the Airbus H145. The system features a foam system which can convert a payload of water into fire retardant foam (surfactant, Class A) as needed during a mission, two hydraulically actuated drop doors, and a hover refill system which allows the crew to refill the water tank while hovering over an open water source. The FAS is certified for Day/Night VFR and can be installed and removed in less than 30 minutes.

# **GREECE**

The Greek authorities have awarded a contract for the heavy maintenance of their CL-215 and CL-415 firefighters to Sabena Technics at Nimes in France. Sabena have been supporting the Canadair firefighting type for 20 years and undertake work for the French Securite Civile Canadair fleet as well as major airlines and the French Air Force. [David Wise]

# **PORTUGAL**

The University of Coimbra's Field Tech Lab are working on a new nozzle system suited for firefighting from drones. Jacinto, a Portuguese fire truck company partnered with two other companies and the University of Coimbra on the project designed to reduce the risk to r firefighters.

As it is drone mounted the system requires that the fire dousing activity is focussed and over in a short period, demonstrations take only minutes. The prototype took almost four years to develop with many lessons learned. The first hose the team tried burned up. The nozzle had to be tweaked to create pressure strong enough to effectively douse the fire. But the strong pressure burst the PVC nozzle, so the team went with heavier but more durable stainless steel instead. And after several tests, they figured out that two symmetrical jet streams, one on either side of the nozzle, were needed to keep the craft steady and balanced while it hovered up to 50m (164ft) above the flames.



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In trials a large drone hovers about 15m (49ft) above the seat of a fire with a fire-proof hose dangling from its belly. The jets on either side of the hose pummel the flames with water – in a process that is expected to last about two-and-a-half minutes. The current prototype can only stay aloft for 17 to 24 minutes and is seen to need a further €50,000 (£43,000/\$53,000) cash injection before it can be ready for widespread use

The 21kg (46lb) drone, called Sap (for "ported nozzle system" in Portuguese) is one of the newest tools in the battle to beat back extreme wildfires. The drone is lightweight, easy to operate and nimble at low altitudes. With a span of 2.14m (7ft) and made primarily of carbon fibre, can swoop into places that are too dangerous or too difficult for firefighters to enter.

The recent tests were undertaken against a background of significant wildfires already being reported this season in Canada and Chile. They have led to the evacuation of thousands of people.

Erik Litzenberg, senior wildfire policy advisor at the International Association of Fire Chiefs based in Virginia, US, says that, from a wildland perspective, he believes the drone has limited applicability. He cautions that as the fire hose and water are quite heavy, the amount of water that could be delivered through this design would be limited. It takes quite a bit of water to extinguish a wildland fire in all but the very early phases.



The design probably needs to be relatively near a water source, which would also limit its use in wildland fires that are hard to access. However, he states that its use in fires that are 'too dangerous to approach' – such as those involving chemicals or explosives – would be more useful.

# **UNITED STATES**

**CALIFORNIA:** The Marin County Fire Department will have its own helicopter to fight wildfires this season. There have been several significant fires in Marin County in the past 20 years.

The department has reached a deal with Pacific Gas & Electric Co. as part of a new trial program. PG&E will lend one of its UH-60 Black Hawk helicopters to the department to use in fighting wildfires from July 1 to October 31, the peak fire season.

The helicopter is equipped with a water tank and will be stationed in the North Bay. The fire department will control its use in fires, while PG&E's contractor, PJ Helicopters, will handle operations and maintenance.

PG&E will pay for all costs related to maintenance. When the helicopter is in flight and fighting a fire, it will cost the county \$9,500 per hour. According to Groneman, PG&E will cover the helicopter costs for the first two hours of a fire and up to 40 total hours for the season. For fires that occur on state or federal land, the county will seek reimbursement.

While the Marin County Fire Department has access to aircraft through different partnerships and contracts with state and federal agencies, this will be the only one under its direct control. Aerial support is sent to vegetation and most mid- and high-level fires.



# **SEARCH & RESCUE**

# **IRELAND**

**DUBLIN:** At the end of May the Irish government announced that it has accepted a recommendation from the Minister of Transport Eamon Ryan and Minister of State Jack Chambers to offer the next Irish Coast Guard (IRCG) search & rescue aviation (SAR) contract to Bristow Ireland Limited. The current contractor, CHC, are to appeal the decision in the courts.

The contract will provide for the day and night-time operation of four helicopter bases in Sligo, Shannon, Waterford and Dublin. In addition to the helicopter service, the new Coast Guard aviation service will, for the first time, also include a fixed wing aircraft element.

Other contrasts to the existing contract include allowing the Coast Guard to meet its obligations as prescribed in the national search and rescue, SAR, plan and the national oil and hazardous noxious substances, HNS, contingency plan as well as its capacity to support other State agencies, in particular inland search and rescue support to An Garda Síochána and provision of air ambulance services to the HSE, including day and night support to the island communities.

Subject to contract, the new IRCG aviation service contract will cost approximately €670M (excluding VAT) and will run for 10 years in the case of the helicopter service and five years in the case of fixed wing element of the service, with options to extend both services out to 13 years. The contract makes provision for the Air Corps to provide the fixed wing element of the service after five years.

The preferred bidder was selected following a comprehensive procurement project undertaken by the Department of Transport that included an initial market engagement process, a prequalifying process, an initial Request for Tender, a negotiation process, and final evaluation of a Best and Final Offer Tender from the shortlisted bidders.

Over the coming weeks the Department of Transport will be working with the preferred bidder to finalise contracts and further information will be provided in due course.

In the Spring of this year a €200,000-euro consultancy contract was awarded by the Department of Transport to Bureau Veritas Exploitation, of Puteaux, France to provide aviation Consultancy in relation to the provision of Irish Coast Guard Aviation Services.

In concert with the announcement by the Irish Government Bristow Ireland Ltd., made a similar announcement that was carried as a late news item in last month's PAN.

Meanwhile the Irish Air Corps has just taken delivery of its first Airbus 295 configured for maritime patrol work, this type is perhaps seen as the equipment the IAC will use when it takes on the fixed wing element of the proposed new SAR contract in a few years time.

# **UNITED KINGDOM**

Mystery still surrounds the real situation pertaining to the migrant traffic across the English Channel. The British Government gives figures for the arrivals on UK shores but still holds back on any balance on the situation in France. Taking on board the freely given information we would all be assuming that despite the hundreds of millions of British pounds being pumped into the French emergency services efforts – including National Police and Gendarmerie aviation efforts - the French are sat on their hands doing nothing.

This is wide of the mark. Even without a few stories leaking into the British media of heightened tension between the migrants and French security forces there is a great deal of back information being suppressed.

One charity, Utopia 56, claims that a group of around 50 migrants say they were tear-gassed by French security forces after failing to cross the channel. Their attackers were said to be French gendarmes and video footage of the incident emerged.

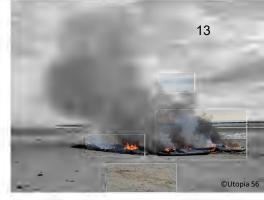
In a separate incident the same morning, French media have also reported that 38 migrants were arrested after a failed crossing from Oye-Plage, with three gendarmes injured after their buggy overturned after stones were thrown by some migrants.

July 2023

French officials in Calais said gendarmes were "violently attacked with stones and iron bars".

Utopia56 said this group had also been teargassed before launching the boat, which was badly damaged by heavy waves.

The charity shared images of empty tear gas cannister littering a beach near Calais as well as a burning boat (Photo: Utopia56/Twitter)



As briefly mentioned last month PAL Aerospace has deployed one of its aircraft to patrol the English Channel on behalf of the UK Home Office, to deliver airborne Intelligence, Surveillance and Reconnaissance (ISR) support for the UK Home Office's Small Boats Operation Command.

Equipped with advanced imaging and radar systems, the PAL Aerospace Dash 8 aircraft is tasked with surveillance of maritime activity in support of the UK's ongoing fight against illegal migration and small boat crossings of the English Channel. The aircraft will be deployed for an initial period of eighteen months.



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# **Stop The Boats**

At the beginning of the year the British Prime Minister, The Rt Hon Rishi Sunak MP, made his much-quoted pledge to, "Stop the boats". Now some 6 months later, half-way through 2023, it's a good time to fact check the Prime Minister's pledge. After a spell of bad weather in the English Channel, Mr Sunak visited the Port of Dover on the 5 June, where he held a press conference. The number of migrants crossing the Channel in the first 5 months of 2023, compared to the same period in 2022, had fallen by 20%, from 9,575 in 2022 to 7,610 in 2023.

The Port of Dover is where migrants are routinely landed after being 'rescued' mid-Channel by vessels belonging to the UK Border Force and the lifeboats of the Royal National Lifeboat Institution. The routine is for the migrants, those who set out from a beach in northern France, to use their smart 'phones to confirm that they have crossed the half-way line, the median line. They then dial the UK emergency number, 999, ask for the Coastguard and declare that they are in distress!

Whilst at Dover, Mr Sunak was pleased to inform the press that the numbers, migrants crossing the Channel, were down by a significant margin, 20% fewer than at the same point in the previous year. Then the weather improved, summer had arrived! At the time of writing, the number of migrants entering the UK illegally in the first 25 days of June was 3,669 vice 3,139 in the whole of June 2022, a 15% increase! The UK Home Office (Department of the Interior) is now forecasting that up to 65,000 migrants will enter the UK illegally in 2023 after crossing the English Channel from France to the UK; in 2022 the total was 45,755.

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See. Save. Protect.

On the 15 June 2023 the British Home Secretary, Suella Braverman met her French counterpart, Gerald Darmanin in London to discuss illegal migration.



On the 15 June the British Home Secretary, The Rt Hon Suella Braverman KC MP (left) met her counterpart, the French Minister of the Interior, Gerald Darmanin at the London HQ of the National Crime Agency to discuss state security, counter terrorism and illegal migration. The discussions included the progress that had been made to tackle illegal migration across the English Channel, to 'stop the boats', following financial support, from the British government, of £478million over 3 years to improve border security on the beaches of northern France. The Anglo-French agreement includes a battalion of gendarmes (800 officers), a new joint coordination centre at Lille and a new detention centre at Calais. The Home Secretary was pleased to announce that in the first 5 months of 2023 the French security forces had stopped more migrants from crossing the Channel than the number who succeeded; 7,610 migrants had entered the UK by this illegal route. If the French had stopped 8,000, was these 8,000 individuals, or 1,000 migrants who had attempted to make the crossing 8 times? A better indication of the success of the French security forces would be how many boats have been destroyed, although, to date, this figure has never been released.

The new Anglo-French initiative, funded by the UK government, includes a battalion of gendarmes (800 officers) to patrol the beaches of northern France.



Another Home Office initiative, in addition to financial support for French security, is a new aircraft to join the fleet of aircraft that includes the Coastguard Beechcraft King Air, the Diamond DA62 MPP and the Tekever AR5 drone, to patrol the English side of the median line, the line that divides the English Channel into two halves, English and French. According to the press, this new aircraft will patrol the Channel non-stop to boost the Home Office capability to, "Prosecute people smugglers by capturing live footage of voyages that could be used in evidence in legal cases." The new aircraft is the de Havilland Dash 8 maritime patrol aircraft on charter from the Canadian company PAL Aerospace and based at Lydd Airport in Kent.

Patrolling the Channel non-stop with just one aircraft is, of course, a nonsense. If live footage of people smugglers is critical evidence, then why not photograph them from the French patrol boats, from the UK Border Force vessels and from the lifeboats of the Royal National Lifeboat Institution? How many times will it take for the UK Home Office to pay attention, to wake up and 'smell the coffee'! The only way to 'stop the boats' is to patrol the beaches of northern France, with 'spotter planes' to locate the migrants, together with their large inflatable boats, and then direct the land-based security patrols., the battalion of 800 gendarmes. This tactic, using 'spotter planes', worked in WW2, to direct artillery fire, it worked again, in the late 1950's, to locate and destroy the camps of EOKA terrorists hiding in the forests of the Troodos Mountains, in Cyprus, and it would work again, today, on the beaches of northern France.

To date, since a former Home Secretary, Sajid Javid MP, declared a major incident in 2018, none of the patrol aircraft, large or small, military or civil, those patrolling the English side of the Channel median line, has stopped one migrant from crossing the English Channel to enter the UK without permission.

Moreover, and most importantly, what is the historic cost and what is the current cost, to the public purse, for what is a pointless exercise? Patrolling the Channel from the air when there is a chain of masts with surveillance cameras, along the south coast of Kent and facing France, is surely another nugatory exercise?

### Tony Cowan MBE

Note: The author, together with Crew 7, No 201 Squadron, is credited with the longest operational patrol by any aircraft, 19 hours and 5 minutes in a Nimrod maritime patrol aircraft, during the Falkland's conflict. He is also a former police and air ambulance pilot.

# INDUSTRY



2Excel Aviation, the innovative aviation and aerospace services company, and provider of a range of services for special missions including search and rescue, has added Smith Myers life-saving ARTEMIS system to its airborne capabilities.

Biggleswade-based Smith Myers has delivered the first of the ARTEMIS systems to 2Excel, to be deployed on aircraft based in Humberside. The announcement was made at the Multi-Mission Expo and Conference, Sywell, UK 2023.

"This latest contract underlines the fantastic relationship we enjoy with 2Excel. ARTEMIS systems will be integrated with mission systems on 2Excel aircraft and support and extend existing capabilities," said Andrew Munro, Managing Director of Smith Myers.

ARTEMIS turns any mobile phone into a rescue beacon, only requiring two antennas to generate a latitude/longitude fix at up to 19 nautical miles (35km), offering a radical and effective alternative to traditional airborne sensors:

Texting and calls in no service areas.

Possible automatic cueing of EO/IR (Electro -Optical/Infra-Red)

Deployment as a stand-alone with embedded mapping or integrate with leading mission system providers. making missions in low light/ IMC (Instrument Meteorological Conditions) safer and increasing the odds for a positive outcome. It is available in several configurations for manned/unmanned platforms

#### **Showtime**

Last month was a busy month with the most active exhibitors rushing from events like PAvCon Europe in Spain to the Multi-Mission Expo ISR event at Sywell in the UK from 8 - 10 June and then off to the mighty Paris Air Show, 19-25 June in Le Bourget (France), a crippling schedule. Paris was awash with aircraft orders – almost everything airliners in massive numbers – but nothing clearly in the emergency services sector.

## Diamond again

Diamond shunned supporting PAvCon this year for the simple reason that there was no way to get an aircraft to the venue but give them a runway and an ample audience and they will be present more often. Diamond Aircraft presented a new airborne environmental surveillance version of the DA62 MPP an affordable, flexible solution for all kinds of environmental surveillance at both the Sywell and Paris events, the new solution, designated DA62 Vanguard made its debut working with Overwatch Imaging and Trakka Systems, a multi mission sensor mix: It was fitted with the Al-driven WAMI (wide-area, multi-domain mapping and ISR) sensor TK-8 from Overwatch Imaging and the EO/IR (electro-optical, infrared) camera TC300 from Trakka Systems.



The DA62 MPP VANGUARD's unique configuration is targeted at customers who have a requirement for affordable airborne environmental surveillance solution with low operating costs that can be flexibly used for various missions. Perfectly suited for applications such as automated fire mapping, vegetation analyses, flood mapping, wildlife monitoring, oil spill mapping, 3D modelling and many other missions, like border security or search and rescue. With the TK-8 five spectral bands (RGB, NIR, SWIR, LWIR and MWIR), this new Diamond Aircraft special mission solution can detect anomalies, interpret them through its Al control, and deliver the results to the operator in the aircraft or to the decision makers on the ground – all in real time.

Thus, in acutely dangerous situations involving forest fires, fire sources and fire histories can be analysed and fed into



GIS systems to provide critical information to prevent worse. It can also be used to monitor forest health for proactive prevention or as a coordinator aircraft with wildfire intelligence capabilities. Advanced software means that not only wildfire missions can be flown, also Change Detection and Search and Rescue Missions make the Vanguard a versatile civil-protection aircraft.

#### Certified

Airbus Helicopters has received certification from the Federal Aviation Administration (FAA) for the H160 helicopter, marking a significant milestone in the aircraft's development and positioning it for entry into the U.S. market.

#### Merger

Air Maestro and Spidertracks are merging. Air Maestro is a leading provider of critical safety management systems, flight operations, and training solutions, has been supporting aviation operators since 2005. Spidertracks empowers the aviation industry with real-time aircraft management and proactive safety decisions.

This decision marks a significant milestone in the journey of these two businesses, uniting their already complimentary efforts towards a common goal and addressing critical, unserved needs in the global aviation industry. The merger amplifies the strengths of the two businesses, creating a unified front in enhancing safety and operational efficiency in the aviation industry. The merged businesses will deliver a unified software platform that leverages the strengths of each company's offerings and expands the suite of services available to customers, while allowing for a rapidly accelerated, shared product roadmap that will deliver unparalleled value to the market.

As part of the merger, Aleks Banas, CEO of Air Maestro, will take over the CEO role of the combined business, with Steve Whitaker, Spidertracks' CPO and COO, transitioning to COO.

#### Farewell!

An era comes to an end. Airborne Technologies in Austria have handed over their long-time P68R demonstrator to the new owner Air Attack Technologies.

Purchased for a trial period of UK National Police Air Service (NPAS), it served for almost 10 years as an Airborne Technologies test platform for various systems and ISR sensors and now clears space for a new demonstrator aircraft.



#### **Britten Norman at 60**

UK aircraft manufacturer Britten-Norman has announced plans to repatriate aircraft production to its historic home in Bembridge on the Isle of Wight.

This marks a major change for the company, which has been manufacturing its aircraft in Eastern Europe since the late 1960s at a very low rate.

The firm will now invest in new jigs and tooling to create two additional production lines, modernise pro-

duction, and decarbonise the site with new sustainable energy initiatives and at the same time boost production numbers of this now 60 years old design. It first flew in mid-June 1965.

Britten Norman say this investment is in preparation for increased interest in the Islander following the planned launch of an OEM zero-emission variant in 2026 and wider interest that has resulted from the recent introduction of finance and leasing options for the resurgent sub-regional aircraft market. Britten-Norman is to recruit more staff to undertake the building in-house. The focus will include aircraft fitters and technicians, production engineering, and supply chain roles. The expansion will also create new traineeship and apprenticeship opportunities on the Isle of Wight and in South Hampshire.



Britten-Norman will retain its 34,000sq ft stronghold at Solent Airport Daedalus, home of the final assembly line for the Islander. The site also provides OEM aircraft refurbishment, EASA Part 145 MRO services, international field servicing, and specialist avionics and mission systems integration. As a Garminapproved dealer, the company offers services to the wider general aviation community.

#### **Power-Off**

Many are questioning whether the automobile industry is yet ready for embracing an all-electric future. Now after three years of intensive studies covering the entire lifecycle of an all-electric aircraft, Tecnam has concluded that the time for P-Volt is not yet ripe, although research activities will continue to explore new emerging technologies.

Since the beginning of the P-Volt development, Tecnam's focus has been to provide operators with the ability to fly an all-electric passenger aircraft profitably, efficiently and sustainably in terms of operating costs, emissions, performance, turnaround and time to market. At present, Tecnam believes that these can only be achieved by extremely aggressive speculation on uncertain technology developments. Tecnam has a deep understanding of electric flight, gained from previous projects such as the H3ps hybrid aircraft based on the P2010 four-seater, and having looked closely at the state of the art in energy storage and realistic 5-year developments, excluding technological revolutions that no one can speculate on. One of the conclusions was that an aircraft with a battery pack at the end of its life would not be the best product for the market, but certainly the worst in terms of Net Present Value (NPV).

Taking into account the most optimistic projections of charge cycles and the possible limitation of the maximum charge level per cycle, the real storage capacity would fall below an acceptable level and oblige operators to replace the entire storage unit. The result would be uneconomic.

#### **New Ventures**

We hear little from any of the Israeli EO/IR manufacturer these days, their attempts at market penetration into law enforcement have been patchy and lack lustre and the impact has therefore been minimal. Now Controp Precision Technologies, a Global EO\ IE Defence Company with most business at home in Israel has Signed a Joint Venture Agreement with India-based Company, Paras Defence and Space Technologies.

They have announced the signing of an agreement to establish a new company in India to focus on manufacturing innovative, EO/IR advanced multi-domain solutions for various defence applications and in accordance with the Indian government.

The JV is part of Controp's ongoing business strategy to expand its presence in various global markets through localisation. Controp is participating in various high-volume tenders in the Indian Defence Market, mainly in the EO/IR field. The tenders are part of the new "Make in India" policy of the Indian government

and the new JV will be the vehicle to implement the projects through a local manufacturing by an advanced Transfer of Technology process.

The JV enables local manufacturing of electro-optic systems benefiting PARAS's large customer access and strong presence in India's DEFENSE market.

FlySight has announced a dynamic new partnership with Hensoldt Avionics, marking an exciting development in the aviation industry. The agreement has been officially signed, and technical teams have wasted no time in joining forces to bring the remarkable OPENSIGHT capabilities to various Hensoldt platforms. This collaboration introduces the revolutionary CaviMission computer, unlocking unprecedented opportunities for system integrators and end-users alike. Leveraging the renowned reliability of EURONAV and harnessing the cutting-edge capabilities of the OPENSIGHT software suite, this innovative solution will empower airborne operators to optimize their onboard sensors like never before. <a href="https://www.flysight.it">www.flysight.it</a>

### **Hydrogen Project**

Airbus UpNext has launched a new demonstrator programme to explore on the ground and in flight, a new architecture for the generation of non-propulsive energy through the use of hydrogen fuel cells. On conventional airliners, the APU (Auxiliary Power Unit), a small additional engine that runs on traditional jet fuel, provides together with the engines the energy required to power a number of non-propulsive aircraft functions, such as air conditioning, onboard lighting and electric power for avionics. With this new technology demonstrator, led from its facilities in Spain, Airbus UpNext will replace the actual APU of an A330 with a hydrogen fuel cell system that will generate electricity. Known as HyPower, the hydrogen fuel cell demonstrator also aims to reduce the emissions of CO2, nitrogen oxides (NOx) and noise levels associated with a traditional APU.

New design features and integration techniques will also contribute to maturing the safety and operations of future hydrogen-powered aircraft and will demonstrate the stable operation of a fuel cell in-flight, including its restart.

Airbus wants to demonstrate the operability and integration of the system, including refuelling the aircraft with hydrogen in realistic conditions, climbing to 25,000 ft and flying for one hour with 10kg of gaseous hydrogen on board. The flight test campaign will utilise a modified Airbus A330 and a ground test bed of the system. Airbus UpNext will procure a production unit for renewable hydrogen to fulfil the entire need for the test campaign.

#### Firefighting 169

Mitsui Bussan Aerospace (MBA), the authorised distributor for the Leonardo AW139, AW169 and AW189 helicopter models in Japan, announced with Leonardo new orders for two AW169 light intermediate twin helicopters at the 54th International Paris Air Show. One aircraft will be delivered to a local firefighting governmental organisation, while the other has been secured for upcoming opportunities in the country. These latest contracts confirm the growing success of the AW169 in Japan, bringing the total number of units operating in the country to eight.

The firefighting AW169 is the second AW169 in Japan for firefighting roles and disaster relief missions, confirming this market segment's appreciation for the most modern helicopter in its weight class. The aircraft is expected to be delivered in mid-2024 to Japan where it will undergo local customisation and final hand over to the customer in 2025. Its versatile and multirole configuration includes a range of dedicated equipment such as the Leonardo's obstacle proximity LIDAR system - OLPS, Forward Looking Infrared - FLIR, search light, weather radar, rescue hoist, Bambi Bucket for firefighting among others.

#### **Grefell Fire**

The Government in the United Kingdom has published an interim progress report on the June 2017, high-rise *fire* in the 24-storey Grenfell tower block of flats in North Kensington, West London.

The document provides an update on the progress that has been made to implement the recommendations from the Grenfell Tower Inquiry Phase 1 report. It includes updates from the relevant government departments and assurances received from relevant public authorities - including the London Fire Brigade (LFB), National Fire Chiefs Council (NFCC), and other emergency services - on their progress to address and implement recommendations directed to them.

The National Police Air Service (NPAS) mandated all operational crews complete refresher training in the use of Airborne data link equipment, writing to all 43 Home Office police forces (across England and Wales). Software upgrades to enable the Airborne data link system to automatically default to the National Emergency Services user encryption have now been completed for all operational NPAS aircraft.



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# **ACCIDENTS AND INCIDENTS**

**18 June 2023 Air Tractor AT802AF Fire Boss EC-JTZ.** Firefighting aircraft landing at Ibiza Airport, Spain made a wheeled landing gear up landing on the floats. The pilot was not injured aircraft only minor damage.

**21 June 2023 Air Tractor AT-802F** Firefighting airframe operated by Kishugu Aviation departed from Nelspruit Airport to work on a fire and was returning from that firefighting operation at the Sappi plantation in Nooitgedacht, when it crashed near Ngodwana, Mpumalanga, South Africa, being destroyed by the postimpact fire The pilot, Justin van As, died in the crash.

# **UNMANNED**

The French police are now able to use drones for aerial surveillance purposes following the publication of two decrees in April of this year. The information come from an article in the July edition of Air Med and Rescue.

The decrees will enable police to use aircraft mounted camera footage to support a range of operations including public safety, trafficking of arms, narcotics or human beings, public gatherings and terrorism. It would appear that the decrees are not a wholehearted endorsement of camera surveillance and they have more than a hint of reticence exhibited by many US states about them.

There are limits on the number of aircraft mounted cameras that can be used at one time I various local areas. The limits appear generous at 40, 70 or 100 cameras at any one time but no doubt the operating police fliers will have their own take on that. The areas able to utilise the higher number (100) include the Pas-de-Calais and Alpes-Maritimes the current hot spots prone to significant levels of migration in and out of France from Italy and the United Kingdom. Paris, where levels of public unrest continue to spiral is another high use area.

Although mention has been made of the British Government several times in the past that they were paying for the French police to operate drones over the beaches to monitor migrants it is clear that such a concept has only just become legal. Camera use over the approaches to the beaches will have been restricted to manned aircraft, and this may also explain the continuance of some of the





basic Police National light aircraft surveillance flights in Cessna singles. From time to time, it has been noted that France was sending drones out to sea over the migrant routes, now it is clear that these flights were firmly associated with Schiebel providing ship sulphur emission monitoring on vessels using the shipping lanes for EMSA and not police or customs related.

That suggests that the level of EO/IR operator expertise in France has been muted for years and that all hopes of ramping up an acceptable level of training in time for the 2024 Olympics rest with drawing on the expertise of surrounding nations in Europe. Dare I say it PAvCon Europe.

The European Maritime Safety Agency (EMSA) contracted Schiebel to support operations with its Camcopter® S-100 for emission monitoring and maritime surveillance purposes in northern France on behalf of the General Directorate of Maritime Affairs, Fishery and Aquaculture (DGAMPA).

Stationed at CROSS Gris-Nez, the Camcopter® S-100 currently supports in emission monitoring and maritime safety, including environmental protection and response, fisheries inspection, Search and Rescue (SAR) as well as control of all relevant vessels passing through the Channel. CROSS Gris-Nez is the Regional Centre for Surveillance and Rescue at Sea and is responsible for the duties of the Maritime Rescue Coordination Centre (MRCC) on the French side of the English Channel.

The S-100 executes these tasks equipped with a Trakka TC-300 EO/IR sensor, an Explicit Mini Sniffer for emission monitoring, a Becker Avionics BD406 Emergency Beacon Locator, an Automatic Identification System (AIS) receiver and a Mode-S Transponder ADSB out.

Also working under its contract to the European Maritime Safety Agency (EMSA), Schiebel continues to provide ship emission monitoring for the German Federal Police and Federal Maritime and Hydrographic Agency using the proven Camcopter® S-100 Unmanned Air System (UAS). Embarked on board the patrol vessel "Bamberg", the S-100 is being employed, day and night, to monitor commercial



ship emissions within the German Exclusive Economic Zone (EEZ) in the North Sea. In addition, the UAS will support a variety of other maritime surveillance tasks, such as vessel traffic monitoring, maritime law

enforcement patrols in German territorial waters, environmental protection and when called upon, supporting Search and Rescue (SAR) missions.

In its primary task of measuring ships' sulphur emissions in the busy shipping lanes, the S-100 is able to check compliance with the EU rules governing the sulphur content of marine fuels, in real time. Measurements are transmitted whilst airborne through to the EMSA RPAS Data Centre and then on to the relevant authorities.

In the United States Valmont Industries Inc., completed an industry-first, unmanned 77-mile beyond visual line of sight (BVLOS) drone operation, enabled by T-Mobile 5G.

Traditional methods for infrastructure monitoring typically require extensive manpower, manned aircraft operations or ground-based inspections, which involve significant safety risks, more time and more mon-

Thanks to the Federal Aviation Administration (FAA) granting more waivers for BVLOS drone operations knowledge and expertise is growing. As one of the first companies in the U.S. to receive said waiver, Valmont sees itself as ahead of the game.

In under three hours, Valmont accomplished a non-stop 77-mile drone mission from Childress to Aspermont, Texas inspecting vital infrastructure like power lines, railroads, bridges and more. The drone used was a Harris Aerial H6E drone equipped with a T-Mobile 5G connected Sony A7RM5 camera. Significantly faster and more fuel efficient, this task was three times faster than conventional methods, while using less than two gallons of fuel.

The methodology pushes average distance of UAS inspections from less than 20 miles per day to more than 60. Even though the route was very rural, T-Mobile 5G provided live data transfer throughout the three-hour flight.

# **SHOW REPORT USA**

# **7<sup>th</sup> Annual 2023 Energy Drone + Robotics Summit** The Woodlands, Texas, June 12 – 14, 2023

By Mark Colborn



Beyond Visual Line-of-Sight (BVLOS) flight for uncrewed aerial vehicles, drones-in-a-box or dock, and quadruped robots for emergency response, rescue and inspection were the big buzz items this year at the 7<sup>th</sup> Annual Energy Drone + Robotics Summit in The Woodlands (a suburb in north Houston).

This year's Summit attracted just over 1300 attendees and 90 exhibitors. As with most conferences, there was a nice mix of new entrants amongst veteran exhibitors. Autel Robotics introduces prototypes of the Titan (a cargo solution) and the Alpha, an enterprise solution to compete against DJI's M30. Luftronix, a Ukrainian company, introduces their confined space inspection drone. Also at the show is a Zurich based company that impressed this correspondent last year during a venture capital presentation I helped facili-



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tate in Fort Worth with their Non-Destructive Testing (NDT) drone for inspecting tanks, pressure vessels, power line pylons, and wind turbines. The company is called Voliro. This is a company to watch.

Show organizers offered reduced-rate table space to about a half-dozen startups, all with impressive offerings. A company named Wingxpand is offering a fixed wing inspection drone that easily reduces in size to



fit in a backpack for easy transport. Tundra Drones from Kautokeino, Norway is offering a nifty and powerful spotlight system for the DJI Mavic 3 series (and eventually the Mavic 2 Enterprise series) of drones. The cool feature is the light is slaved in tilt to the camera, so it lights up the objects on the ground you want to observe. The Tundra Drones' brochure claims they have "the ultimate drone lighting solution for public safety." Their 10,000-lumen camera tracking light provides illumination from up to 160 feet altitude with an FOV of 84 degrees. The light provides illumination in every angle and field of view, including 90 degrees down. The easily attachable kit also comes with green anti-collision lights (strobes) with a flash frequency of 60 times per minute and are visible for three miles.

Back again this year is the Japanese drone manufacturer ACSL with the SOTEN, a quadcopter with an interchangeable payload system. The SOTEN looks similar to some of its Chinese competitors; however, it is all designed and manufactured in Japan. This drone appeared at Commercial UAV Expo in Vegas last year, and AUVSI Exponential in Denver back in May, but this is the first show I have attended where attendees were treated to an actual flight demonstration. The Japanese built a solid and competitive platform with an interchangeable payload. For public safety agencies looking for an alternative to Chinese made drones, this company will be one to keep an eye on.



Everyone, including members of the United States Congress, believe the FAA is moving slowly on BVLOS regulations. America is behind the rest of the world when it comes to developing and enacting BVLOS rules. Granted, America's airspace is complicated and crowded, but the energy industry especially wants waiverless BVLOS, and they want it now. Energy and industrial companies that use drones to inspect or secure large petrochemical plants or high voltage power producing stations, or to inspect railroad tracks, windmill generators, and transmission and distribution lines are already operating under waivers issued by the FAA. However, gaining a BVLOS waiver can be an expensive, cumbersome, and time-consuming process.

In retired Air Force Colonel Dawn Zoldi's P3 LawTech Connect Seminar on the first afternoon of the Summit, the main topic was BVLOS. On June 15<sup>th</sup>, a day after the last day of the Summit, the U.S. House Transportation and Infrastructure Committee unanimously approved the 118th House of Representatives version of the 2023 Federal Aviation Administration (FAA) Reauthorization Bill. The bill will now advance to the full House. A copy of the bill had hit the press earlier in the month, so everyone has had a chance to review the language. The section of the bill that deals with Aerospace Innovation, specifically Uncrewed Aircraft Systems (UAS) and Advance Air Mobility (AAM or electric taxis), starts at 600. Section 609 will require the FAA Administrator to issue a BVLOS Notice of Proposed Rulemaking (NPRM) within four months of enactment of the final bill. The Bill also requires the Administrator to issue a final BVLOS rule

within 16 months after enactment of the final bill. The U.S. Senate version of the bill gives the FAA six months to issue a NPRM and two years to issue a final rule. Most of the panellists featured in the "Energy Operations Go Beyond Visual Line-of-Sight" segment of LawTech Connect, including Mary-Caitlin Ray – an attorney with Crowell Moring – all agreed the House's timeline is too optimistic. Panellist Edwin Sanchez – Votix - is cautious about the FAA moving fast and believes it will be a minimum of two years. Panellists Don Berchoff – TruWeather Solutions - states that it is going to take longer, because it always takes longer! This correspondent believes we will not see a final rule until Christmas 2028, and that estimate is based on how long it took the FAA to draft, receive and review comments, and issue a final rule on Remote Identification for small drones. Plus, the FAA is currently disorganized and stagnant because it has been without an administrator for nearly a year-and-a-half. Also, the Senate version of the FAA Reauthorization Act calls for the creation of the Office of Advanced Aviation Technology and Innovation to ostensibly "examine the potential impact of advanced aviation technologies on the national airspace system, and methods to safely integrate into the national airspace system." And to add further disfunction to an already disorganized agency, 90 days after enactment of the bill, the Senate wants this new Office to integrate all the functions, duties, and responsibilities currently being performed by the UAS Integration Office. Lots of changes will soon be forced on the FAA, and whoever takes over as the new administrator will have a huge task ahead of them.

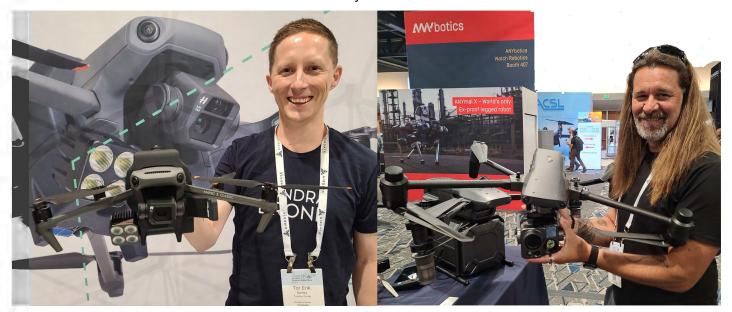
The House FAA Reauthorization Bill in section 604 calls for the revision of the rules to allow public safety to deploy tethered drones up to 150' in all kinds of airspace with no restrictions. Manufacturers apparently feel that those of us in public safety need tethered drones badly enough that Congress included this item as a first demand in their House Bill. In the three years our agency (Dallas PD Air Support Unit – UAS Squad) has operated drones, we found the last thing we need is a tethered drone. Most response requests, such as monitoring protests, are too fluid, and a tethered drone would be useless. For instance, most protests turn into marches, with protesters blocking surface streets, highways, or bridges and overpasses. Given an option, the answer is a drone-in-a-box, or dock solution that would allow autonomous deployments of the drone to act as a first responder.



The energy industry wants the same capability. Nearly 70 to 90 percent of the U.S. critical infrastructure is owned by private companies. A lot of infrastructure must be inspected on a regular basis. Companies also need to provide security for these facilities, and many are adopting a zero-tolerance policy for fugitive emissions, such as methane. Purchased drones or ground robots put to work monitoring or inspecting these facilities pay for themselves quickly; in some case after one or two inspections. In an age where labor costs are skyrocketing (if they can even find the labor), energy companies are realizing a huge return-on-investment after switching to drones and robots. And by allowing drones and robots to perform these dull, dirty, and dangerous jobs, they are improving employee safety and saving lives. For instance, when a transmission and distribution company receive a report of a downed power line or needs to check if a cut-off switch at a transfer station is open or closed, using a drone can decrease employee drive time and exposure to danger. For inspections, Al systems can reduce planning time and employees can spend more time performing their assigned tasks. As an example, Boston Dynamics recently announced they have deployed more than 1,000 Spot quadruped robots in 35-plus countries. This summit included the widest array of robots (ground and submersible) this correspondent has ever seen at any show to date. The array of payloads that can be attached to these devices makes them very versatile, mission ready, and flexible.

Numerous manufacturers and distributors displayed their versions of the increasingly popular drone in-a-box, or dock solutions at the summit. A rain resistant drone housed in an all-weather enclosure that is capable of remotely launching and flying to a 911 call to check for activity, then returning to the dock or nest automatically can save public safety agencies huge amounts of money and personnel costs every year. If a remote-controlled drone can clear a 911 call, ground officers do not have to drive to the location. This frees them for other calls or higher priority type responses. Energy companies also want them, not only for inspection and security, but for emergency response. It's much safer to send an autonomous robot into an unknown situation than actual human beings.

During the "Natural Disasters and Critical Infrastructure Roundtable" held on Day Two, panellists dis-



Tundra Drones from Kautokeino, Norway are offering add-on lights for DJI drone OMARK COIDTN

The Autel Titan, a cargo drone, in the hands of Jon McBrid ©Mark Colbrn

cussed their experiences responding to natural disasters, specifically hurricanes. Tim Hadaway with Southern Company Aero Services said their SOP requires a drone response in the spin-up to a hurricane, to be used for damage assessment. He said most of their drone pilots are previous linepersons and know what kind of damage needs to be reported and what doesn't. Hadaway said they concentrate on downed power poles and try to take just one photo of the damaged area and pass that along to the repair crew assessment team. Southern Company's drone training program consists of 40 hours of training. Panellists Matt Harvey, with Florida Power and Light (FPL), advised that within two weeks after Hurricane Harvey, their company had over 50,000 images to sort through. Damage assessment pilots would upload their photos via Starlink satellite at the end of the day. Harvey said FPL has an internal proprietary system for sorting and storing damage assessment photos and in many cases after a storm, the company will bring in a hundred people to analyse the data. Panellists Cory Hitchcock with Skydio stated that during his first hurricane response, which was Harvey, the FAA had enacted a temporary flight restriction over the damaged areas. The first morning on scene they could not fly because it took them 4 to 5 hours to get permission. During his last storm response, he complimented the improved FAA's Special Government Interest (SGI) Certificate of Waiver or Authorization (COA) process and related that they were up and flying within an hour after arriving on scene. Hitchcock, a former power company worker, and whose company manufactures a drone dock system, would like to see one of these systems at every power-switching station to provide immediate damage assessments after storms. The reason, he stresses, is because the biggest problem linepersons face after a storm is getting to the areas that are damaged.

Country-of-origin bans were another hot topic at this year's summit. Numerous bills in both the federal and state systems have been introduced this year to either stop the use of, or sale, of Chinese or hostile nation -state made drones. A current Senate bill calls on the Federal Communications Commission to put DJI on the "FCC Covered List." The "List" includes equipment or services that pose an unacceptable risk to the national security of the U.S. Being placed on the list would essentially prohibit DJI products from operating on public unlicensed radio frequencies assigned for Wi-Fi and video. The drones would still work fine, but the Feds could arrest the operator. The most common argument we hear for a country-of-origin ban is the claim that drones from "hostile nation-states" present an inherent National Security risk. The Cyber Infrastructure Security Agency (CISA) under the Department of Homeland Security (DHS), issued an industry alert (date unknown) entitled "Chinese Manufactured Unmanned Aircraft Systems" where they state the following: "Be cautious when purchasing UAS technology from Chinese manufacturers as they can contain components that can compromise your data and share your information on a server accessed beyond the company itself." However, they fail anywhere in the bulletin to explain how they know this or offer any proof as to how it is happening. But they do at least offer this advice when it comes to your UAS's interaction with infrastructure and networks: "There are proactive steps that can be taken to deactivate vulnerable features of UAS." They suggest disconnecting the drone from the Internet and taking precautionary steps before installing software or hardware updates, but beyond those basic steps they offer no further information other than a link to their web site. The problem is, the CISA website contains information so basic to UAS operators as to be totally and completely useless. In this correspondent's opinion, the jury is still out on whether drones made in China are currently an actual security risk, especially if an agency uses a third-party US-developed controller software program, like DroneDeploy or Axon. Also, many U.S. drone

companies use open-source flight controllers that are available everywhere. Just how secure are these systems, and are they susceptible to software update hacks?

Perhaps the real security issue revolves around Chinese-made cell phones connected to the drone, and not the drone itself. Consider everything you have read about this issue. In any of the endless parade of articles or bulletins attempting to explain the impending cyber-doom, has the author shared any details or evidentiary cases that describe actual breaches, or do they reference actual hacking cases? No, because apparently most of us in the industry do not have the necessary security clearances (I am told this often), or at least high enough ones, and therefore cannot be briefed. We, as operators, either commercial or public safety, are being asked to simply trust the intelligence experts, and heed their warnings. They tell us our telemetry information and video are being stolen every day, and therefore should be terrified that someone in China in the Ministry of State Security in Beijing is spying on our last flight. I am sorry, but this paranoia is ridiculous, and personally, I believe what they are telling us is simply not good enough. As police officers, we operate on facts...we want to see the evidence, period.

The entire country of origin ban, in this correspondent's opinion, is a political ruse, created by the nascent American drone industry, which has been caught in a game of catch-up with products coming out of China. They are failing miserably, and instead of spending money on research and development, or concentrating on acquiring or signing business contracts with superior optics manufacturers (DJI purchased Hasselblad in 2019), they have solicited politicians to change the rules to give them special protection. Apparently, limiting the competition is the only way they can compete. Most American companies are trapped in a 5-year production cycle, and re-tooling to keep up with emerging technology is expensive. Most police agencies are all for buying American, but we also want the best drone for the assigned task.

A sore point of contention is that American manufacturers cannot compete with Chinese made drones when it comes to reliability, dependability, and sensor capability. For instance, one American manufacturer of drones still utilizes a 320 x 256p resolution digitally enhanced thermal camera on their premier public safety drone. This camera is essentially useless for serious search and rescue, and many agree a 640 x 520p is the absolute minimum sensor needed for the job. This correspondent talked with several optics manufacturers at the summit that have continuously approached this drone manufacturer attempting to sign a deal for a 640 x 520 resolution thermal camera. Negotiations have gone nowhere. In fact, one distributor has continuously offered its new 1280 x 1024p SVGA Uncooled 10-micron Focal Plan Array camera to numerous quote "American Made" companies, but to no avail. This camera only weighs 70 to 120 grams, depending on lens configuration, and the resolution is incredible. The CEO of the company advised me that this camera can be digitally enhanced or zoomed 4X, and still have the same resolution as a 640 x 520p thermal camera. Granted, the camera is expensive, but I believe public safety agencies can justify the extra costs to their respective agencies during the requisition process. Plus, the sensor is produced in Dallas, Texas.

The main question remains – when will American manufacturers realize that we in public safety are in the observation business and want the best optics on the market. We want to determine what it is we are looking at while looking for something or someone! We also, in many cases, want to fly at an altitude where we are not going to be seen or heard, or run into something, like power lines or unlit towers. Noone wants to purchase substandard equipment, but that is exactly what was forced upon public safety agencies in the state of Florida earlier this year. Some suggest that instead of an outright ban like Florida on Chinese drones, the government needs to facilitate a buy-back or replacement program to help agencies make the switch to either "American Made," "Blue," or, as the Association of Un-



crewed Vehicle Systems International (AUVSI) has suggested, "Green" listed drones. In addition to a buy-back, there should be a phase-out provision that allows public safety agencies to replace their drones at the end of their natural service lives or following a mishap.

There is hope on the horizon. Some American companies have begun to wake up and realize they need to get their acts together. At least two American manufacturers on the "Blue List" are now offering a comparable high resolution thermal camera that competes with the ones that have been available on Chinese drones for at least five years.

This was the biggest and best Energy Drone + Robotics Summit yet. Special thanks to Sean Guerre, Julian Dupont, LaDonna Pettit, Megan Horn, Sylvia Ibarra, and the rest of the team at Stone Fort Group and Innovate Energy for hosting this amazing conference. [MC former Dallas PD h/c pilot]

Thank you Mark. As with previous years Mark Colborn is expected to cover the Commercial UAV Expo at Caesars Forum, Las Vegas, September 5-7 2023for PAN with a full and incisive report.

# **PEOPLE**

Last month it was announced that three members of the South Australia Police are recipients of the Australian Police Medal. Chief Superintendent Graham Goodwin CSC, Superintendent David Scutchings and Senior Sergeant Kelly-Anne Taylor have all been included in the King's Birthday Honours List for their contribution to policing. The Australian Police Medal (APM) recognises distinguished service to members of police services.

Of the three **Superintendent David Scutchings** (right) is the one with aviation connections. He joined South Australia Police (SAPOL) in 1994, initially serving in Elizabeth and Salisbury Patrols and then as a Detective with Elizabeth Criminal Investigation Branch. In 2005 he joined STAR Group Operations Section and shortly afterwards began his police aviation journey as a Tactical Flight Officer. Since then, he has worked tirelessly to improve SAPOL's aviation capability and is widely recognised as a subject matter expert in police aviation. He has led several upgrades to both the State Rescue Helicopter Service fleet and revitalisation of SAPOL's fixed wing aviation capability. His exemplary work on Project Sauron resulted in the operationalisation of SAPOL's inaugural airborne law enforcement aeroplane, 'The Caravan', revolutionising the way that SAPOL conducts operations.



He played an integral role in the SAPOL/SA Ambulance Service aviation procurement and provides high level advice to senior management and government agencies regarding the strategic direction of airborne policing operations in South Australia.

Marking the same Kings Birthday Honours the Australian Federal Police honoured five members, one of whom has an aviation connection.

**Sergeant Keith Taylor** has served in the AFP for 35 years and is the team leader of crime scenes in the AFP's Western Command in Western Australia, a position he has held since 1998.

He has led the forensic response and operational delivery in high-profile investigations covering counter terrorism, disaster victim identification operations, drug operations and international responses. He was involved in the law enforcement response to the Bali nine case in 2005, the downing of MH17 in Ukraine in 2014, missing flight MH370 and Operation Ironside.

Sergeant Taylor has dedicated the majority of his career to forensics, where he has provided mentoring and leadership, and directly contributed to successful frontline policing outcomes.

It has been announced via social media that the British Helicopter Association based at Fairoaks Airport, Surrey that the former NPAS Aviation Lead **Ollie Dismore** is now the Chair at British Helicopter Association Emergency Services Committee.

**SPX Technologies** is informing customers that due to the acquisition of Enterprise Control Systems Ltd by SPX in 2021, they have made some company-wide changes to their email addresses, and should now be contacted at: (forename.surname)@spx.com instead of (forename.surname)@enterprisecontrol.co.uk. Please update your records accordingly. If you have recently emailed us on our old

@enterprisecontrol.co.uk emails - they have been forwarded to the new address so the email is not lost! To keep up to date with the release of exciting new products and capabilities, please follow SPX/ECS on LinkedIn Enterprise Control Systems Ltd: LinkedIn



In a significant step forward in delivering its vision, to create a world-leading community through which prehospital care is developed to achieve the best possible outcomes for all patients, Essex & Herts Air Ambulance Trust (EHAAT) has made four key appointments to its Centre for Excellence. The Centre for Excellence is underpinned by four pillars: Research and Scholarship, Innovation, Education and Training, and Community, which support three overarching clinical domains of cardiac arrest, head injury and patient experience and outcomes. Together these create a framework where working collaboratively, the highest possible standards of pre-hospital clinical care can be reached.

Advanced Paramedic Practitioner, **Lisa Burrell**, has joined the Centre for Excellence team as Education and Training Lead. A busy mother of three, she brings a wealth of experience to the new role, and also runs a MSc in Advanced Clinical Practice at St George's, University of London. Lisa's role in the Centre for Excellence will be primarily focused on embracing the training needs and professional development of EHAAT's clinical teams, and the wider medical community. Working alongside colleagues, she will also be responsible for creating a strategy which focuses on sharing best practice, to ensure prehospital care is developed to make a real difference to patients and their families.

Consultant Neurosurgeon, **Professor Chris Uff**, has been appointed as the Centre for Excellence Academic Lead for Head Injury. Keen triathlete and violin maker, Professor Uff is head of neuro trauma and neurovascular surgery at The Royal London Hospital and Major Trauma Centre in East London. His role will see him working with the clinical teams at EHAAT, and linking up with other partner organisations, to understand more about head injury and what new and innovative treatment options are available to reduce the lasting effects of what can be a catastrophic injury.

**Adam Carr**, who has been with EHAAT since 2013 as a Critical Care Paramedic and more recently Head of Patient & Family Liaison, has been promoted into the new role of Community Lead (Clinical) at the Centre for Excellence. In this new role, Adam will deliver and oversee a co-ordinated community training programme covering CPR and defibrillators, so that the public are better able to make life-saving interventions in the crucial minutes following an incident.

**Dr Sarah McLachlan** has been appointed as Centre for Excellence Research Lead. Having worked with EHAAT for the last five years, she is also a Senior Research Fellow in Health Sciences Research at Anglia Ruskin University. Sarah's new role at EHAAT will be focused on building and leading a team to deliver the charity's research and scholarship strategy. She will also lead on research collaborations with other organisations, as well as patients and members of the public.

# **MOVE ALONG THERE**

A flight to the Isle of Wight by the National Police Air Service helicopter remains shrouded in mystery amid claims the helicopter landed in the back garden of a crew member's friend's house – and stayed there for over half an hour.

At around 21:10 on Tuesday 23rd May, the NPAS helicopter G-POLH from Redhill, Surrey headed straight for Newport on the Isle of Wight following the completion of a missing person tasking on the outskirts of Southampton.

An on-call reporter for the "Island Echo" set off to the area of Downend on the assumption that an incident of public interest was occurring, but it soon became clear things were not as expected.

The helicopter circled just twice before quickly landing in the grounds of a private property off Burnt House Lane – only the 3<sup>rd</sup> time that "Island Echo" has noted a police helicopter landing on the Isle of Wight in more than 12 years, indicating the rather unusual nature of the situation. The other incidents were a negotiator transfer and a plane crash. On this occasion nothing was happening.

Additional enquiries revealed there was 'nothing to worry about', whilst suggesting one of the individuals on board the helicopter was known to the property owners.



Rather than leaving the matter alone the "Island Echo" pursued the reasons behind the 'police vehicle stops at address' scenario with the National Police Air Service with the matter being addressed several times. Initially NPAS set the matter aside as a training flight. The pilot undertaking an ad-hoc landing as part of a currency requirement. They added that the landing was completed with the permission of the landowner, suggesting some element of pre-planning.

The aircraft was on the ground for around 30 minutes before setting off on a task to support Surrey Police in locating a man sighted with a knife at Sandhurst.

The media continued to question the reason for the landing, the fact that the stay included engine shut down and the crew being on the ground for half an hour. The answers did not satisfy the questioners. Was this just a 'jolly'? Unfortunately, it did not just go away and other media gleefully joined in the questioning.

Editor: As the Headline states ....'move along please' ...this is a non-event. Would the media be querying a police road car stopping on or by road as a matter of course? No-one queries every single police car pulled over – maybe they are all parked outside a relative's house from where the crew can check on Aunty Mabel and perhaps take tea with her?

This story is being pumped up simply because the police patrol vehicle is an expensive to run helicopter. It is doubtless uneconomic to send a helicopter to meet the public at an emergency services day but it still happens – mostly without comment. I fail to see the difference, Lord knows there is little enough pubic relations activity going on these days..

Another NPAS helicopter is embroiled in a row over the failure of police to find a crashed car in woodland in Wales. It seems that everything has to have a simplistic answer these days and a police officer has been served with a misconduct notice relating to the search for a group of young people who were found days after a fatal crash.

The police watchdog said it concerns the review of missing persons' logs and if the group's ages affected police decision making.

In March this year a carload of adult young people aged 20-32 crashed off the road in Cardiff and as a result three received fatal injuries but two survived trapped and injured.

They were eventually found masked in roadside woodland 46 hours after the crash.

As part of the investigation the Independent Office for Police Conduct (IOPC) is gathering statements from officers who attended the crash scene, control room staff and those who carried out the risk assessments. It will also be speaking to the National Police Air Service about the involvement of a police helicopter during the search.

The missing person policies of Gwent Police and South Wales Police, as well as the relevant national police guidance, will also be reviewed.

The notice that has been served on the Gwent Police officer means they will be investigated, but does not necessarily mean they will face disciplinary proceedings.

Ed: There seems to be a growing assumption that the police are responsible for now finding things and this come across as overriding the responsibility of the 'victims' to look after themselves in the first place.

Which brings us to the story of the .four indigenous children that went missing after their plane crashed in the Colombian jungle on May 1, a massive search operation was launched to track them down. Forty days after the crash, a search team finally spotted the children, aged 13, nine, five and one, after hearing one of them crying. All four were exhausted, malnourished and dehydrated but alive. What preceded the good news that the whole nation had been waiting for was an arduous search. The children were travelling together with their mother, 33-year-old Magdalena Mucutuy, in a Cessna 206 light aircraft from their home near Araracuara, in the south of Colombia, to San José del Guaviare,. The Avianline Charter plane was flown by Hernando Murcia, 55. Also on board was a local indigenous leader, Hermán Mendoza.

The Cessna disappeared from the radar at around 07:30 local time shortly after Murcia had reported engine problems.

It took two weeks to find the wreckage of the Cessna, which had crashed nose first into the jungle. Inside the wreck was the body of the pilot, Hernando Murcia.

The bodies of Hermán Mendoza and Magdalena Mucutuy were located some hours later near the wreckage, but the children were nowhere to be seen.

It was however clear that the children had survived the initial crash and had eventually moved on, travelling on foot. More than 100 soldiers combed the jungle trying to find them.

After 40 agonising days, four indigenous volunteers finally spotted 13-year-old Lesly, Soleiny, 9, five-year-old Tien Noriel and one-year-old Cristin Neriman in a little clearing.

The youngsters were airlifted to the Colombian capital, Bogotá, where they received treatment in a military hospital.

# **EVENT REPORT – PAvCon Europe 2023**

This year PAvCon was hosted by the Basque National Police Force, Ertzaintza at their helicopter base near Durango, just 30 minutes from the airport at Bilbao

Following the usual, successful format the two-day event was part conference and part exhibition with training inputs from a number of European police aviation units, including the French Gendarmerie, the Netherlands Police Air Support Unit, Belgium, Sweden and Hungary. Those attending amounted to 180 but they were drawn from those with the greatest interest and knowledge of airborne law enforcement aviation — a focussed group allowing for Networking at its best.



This has always been about table tops so no surprise that large scale exhibits were scarce but, as most agreed, those present knew what an aircraft was and where the equipment on display should fit. For the record there were two Ertzaintza Eurocopter EC135T1s from the hosts and a now out of service AS350 minus its main rotor blades alongside the recently refurbished EC135 of the *Policia de la Generalitat de Catalunya* (Mossos) normally operating from Barcelona. In addition, there was a mock-up of the Airbus Helicopters H160 helicopter, another of the Skeldar fixed wing drone and some local Ertzaintza drones demonstrating some of their capabilities within the restrictions imposed by the base and event.

From industry there were both large and small aerospace companies, importantly the numbers include the coveted major manufacturers - Airbus, Bell and Leonardo. Despite the event being relatively small all three majors are fully behind the event both in belief in concept and financially and supportive for its future. See also the report on the PAvCon Europe website.

A perfect gathering of PAvCon Europe would result in fair representation of every European nation but that is rarely achieved, this year Germany was underrepresented but that is an ebb and flow matter. The only European nation to consistently fail to take part in recent years has been Italy. PAvCon and Leonardo have tried but failed for well over a decade.

Where next? Is the usual refrain and we simply do not yet know. Regular readers will be aware that for the last few years the event needed to pass to new hands that understood and were keen on the format of PAvCon events. A rejig was attempted in 2018 (Poland) but that failed, and a new set of options are being worked on. Now it is clear that the principal (Admin/President) can no longer operate the event effectively mainly through age a new way is being investigated. <a href="https://www.pavconeurope.eu">www.pavconeurope.eu</a>

# **UPCOMING**

17-22 July 2023 APSCON The 52nd ALEA Annual Conference & Exposition. Orlando, FL.





2-3 August 2023 Aerial Fire Fighting – Asia Pacific Conference and Exhibition, New South Wales Fire Service Training Academy, Dubbo, Regional Airport, New South Wales, Australia Organised by Tangent Link. Chilterns House Business Centre, Eton Place, 64 High Street, Burnham, SL1 7JT UK. t: +44 (0) 1628 660 400 www.tangentlink.com

5-7 September, 2023, at Caesars Forum, Las Vegas USA. Connect, learn, and drive the industry forward at this years Commercial UAV Expo in Las Vegas.

This live event defines and showcases the global commercial drone industry, with a tie-in into the world of advanced air mobility. In 2022, the show smashed all previous records and registered more than 4,100 attendees from 60 nations and all 50 states, while hosting 232 exhibitors (up 60%). It draws the power buyers and global influencers and sets the pace for the industry. 4,000+ delegates from 6 continents will attend in 2023. "Vertical Focus - Global Reach" www.expouav.com Email: in-

fo@expouav.com

Includes Outdoor Flying Demos, Exhibitor Showcases, Workshops, Welcome Reception on Exhibit Hall Floor, Keynotes, Networking Happy Hour, Exhibit Hall Theater Presentations & Exhibits

Travel Info: <a href="https://www.expouav.com/travel/">https://www.expouav.com/travel/</a>

Press Reg: https://www.expouav.com/press-registration/

19-20 September 2023 The Emergency Services Show at the NEC Birmingham. Registration for The Emergency Services Show 2023 is now open!

Taking place from 19-20 September 2023 at the NEC Birmingham, The Emergency Services Show 2023 is the most impressive edition yet the UK's leading annual exhibition for the blue light sector. Featuring cutting-edge products and solutions from top suppliers, engaging CPD-accredited content, and ample opportunities for networking, this once-a-year opportunity is not to be missed!

Increased aviation content this year. Already they have drone companies including Avy showing, the Air Ambulances UK, Airbox Systems, Blue Light Commercial, Bristow Helicopters,

9-10 October 2023 The 7th OFSEC - Oman Fire, Safety and Security Event to be held at the Oman Convention and Exhibition Centre, Muscat - Sultanate of Oman. The event is designed to meet the needs of the local, regional and international markets by linking practitioners, suppliers, distributors and manufacturers from the fire, safety, HSE and security industry, with key decision makers from the government and private sectors, making it a definitive networking platform, where new projects and partnerships are initiated, and visionary objectives are implemented. This event also aims to create synergy and strengthen the collaboration between the authorities and the industries.

The 2-day Expo will attract participation from a large number of exhibitors and representation from over 20 countries, with product and service launches, to the trade visitors and potential buyers from the region and beyond.

For more information on Sponsorship and Exhibiting Enquiries, please contact the Project Director Navneeth K. Mobile: +968 9123 7892 Email: <a href="mailto:nk@muscat-expo.com">nk@muscat-expo.com</a> Muscat Expo LLC | P O Box 1406 PC 133 | Al Khuwair, Sultanate of Oman