

Police Aviation



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Issue 248

October 2022



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AUSTRIA

FLYING POLICE: The Bundesministerium für Inneres (Austrian Federal Ministry of Interior) Fluggewaltzflotte includes a single engine AgustaBell AB206 Jet Ranger III (used until this year for training) Airbus Helicopters AS350B/B1, newer H125, and the twin engine EC135P2 / EC135P3 (H135). One of the more recent deliveries is their H135 OE-BXP which was delivered in 2019. The helicopter from the Vienna Air Base appeared at the Airpower 2022 show held at Zeltweg Air Base in Styria from September 2 – 3 as a static exhibit. [Ian Frain, Helian]

UNITED KINGDOM

DONCASTER: On Monday 26 September 2022, The Peel Group announced that, following a strategic review, it was to close Doncaster Sheffield Airport. Currently, the National Police Air Service operates four police aeroplanes from the Doncaster airfield.

In response to the announcement, Chief Operating Officer Chief Supt Vicki White said:

"We are disappointed by Peel's decision to close Doncaster Sheffield Airport. Naturally, it wasn't the decision we were hoping for."

"We operate four police aeroplanes from the Doncaster airfield, providing daily support to police officers on the ground and helping to keep the public safe. The aircraft have also provided important operational support to large events over the past 12 months."

"Since the potential closure was announced in July, we have been in conversation with the operators of the airport and had already started developing contingency plans."

"Our attention is focused on the implications of the closure, its impact on the crews directly affected and on our continued commitment to provide national police air support using both aeroplanes and helicopters."



Image Facebook DSA

COVER IMAGE: Allegiant Stadium, home of the Las Vegas, Nevada, Raiders NFL Football Team. Night time shot taken with a DJI Air 2 S quadcopter operating under an airspace waiver but still having to dodge the occasional tour helicopter!!! See article later in this edition on the Drone Event in the USA. [©Mark Colborn]



Police Aviation News is published monthly by **POLICE AVIATION RESEARCH**,
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NPAS operates four aeroplanes plus 19 helicopters from 15 bases across England and Wales. Only the Vulcanair P68R aeroplanes were based at Doncaster and are impacted by this decision. All helicopter operations are unaffected. [NPAS Statement]

Ed: The closure process is to commence at the end of October but is unlikely to be swift. The first area of closure is likely to the airline terminal side which will leave the airfield and its emergency services residents largely unaffected for some time. It is the timeline for halting the landing aid systems which most likely to be critical.

Meanwhile the fixed wing element, still short of resources including pilots, is flying two aircraft regularly although their field of operations suggests that they are restricted to flying central England – perhaps by a need to base their 24/7 AvGas fuel needs on Doncaster Sheffield Airport. There have been forays to the south but mainly in daylight – an isolated instance being a flight to Lydd on the south coast where they briefly latched into the UK Border Force [UKBF] effort against the Migrant arrivals problem. Lydd is a base for UKBF leased in unmanned Tekever aircraft and a Belgian Diamond DA62.

In terms of the long term hangarage of the NPAS airframes there is always the now near empty facility at North Weald but, besides being in the wrong place, that has no landing aids and therefore only offers daylight operation for fixed wing.

The £2M hangar at Doncaster is nominally re-useable but dismantling and relocating it will probably cost at least another £2M as most of the build is concrete and services.

The closure of Doncaster will arguably have a greater effect on 2Excel the operators of HM Coastguard fixed wing as well as specially configured Boeing 727 aircraft operated in oil slick dispersing.



NORTH WEALD: The local Epping Forest District newspaper, *The Guardian*, took a trip some five years down memory lane to where an agreement was set up between NPAS and the local council for the London helicopters to leave Lippitts Hill and go to a new facility at North Weald. The expectation for the council was that with a handful of helicopters and a fixed wing based at North Weald they would be bringing in around £111,000 each year.

It was said that NPAS approached Epping Forest District Council, which owns the airfield after it was given notice to leave Lippitts Hill at High Beach by March the following year.

The once independent Metropolitan Police ASU stationed its helicopters at Lippitts Hill since 1980, as far as the official story went NPAS wanted to move the unit as part of an £11M bid to cut costs.

The local councillors were all for the offer as the move would bring an additional 20,000 air movements a year to the airfield, with the police helicopters operating 24 hours a day, and assure the future of the airfield.

Ed: The recent story from Doncaster may well have a bearing on North Weald but moving the fixed wing to there is not a full solution. Originally Epping Forest were not fed the real story. It was NPAS that wanted out of Lippitts Hill, they wanted to cut the ties for political reasons and partly because they found the rent at Lippitts Hill too high. There was no compelling reason to leave and as a result the unit remained on site way beyond the claimed March date. Once there, plans to reverse the move and return to Lippitts Hill were quickly enacted. The 2017 NPAS plan was to spend £2M on a new facility and pay the minimum of £100,000 a year to the council for 25 years. They moved in the summer of 2019 but returned to Lippitts Hill in 2021. The plan did not have enough about it to keep it going and is now part of history.



2021-22

NPAS Base	Hours Flown	Last Year
Almondsbury	561.2	754.8
Barton	1205.6	919
Benson	560.4	933.6
Birmingham	739.8	681.2
Bournemouth	413.8	678.1
Carr Gate	1009.2	1141.7
Doncaster(FW)	763.7	989.7
Exeter	477.6	678.1
Hawarden	290.1	572.3
Hus Bosworth	471.3	761.1
Lippitts Hill	1162.5	
Newcastle	637.6	810.2
North Weald	1870.7	2087.2
Redhill	917.7	1314
St Athan	688.6	745.2
Unknown	47.7	85.8
Total Hours	11817.5	13152

Prior To NPAS

Approx 25000

PERFORMANCE: In the Rotorheads Forum column of the website www.pprune.org under NPAS NEWS 2022 Post #75 provides the latest statistic information on how the national police air service for England and Wales is performing.

It is a long, easily accessible, post based upon details provided under a Freedom of Information request, so I have no intention of repeating it verbatim. Its accuracy is tied to NPAS supplied figures so should be unquestioned. The person posting has requested and provided this information annually for some years.

As he, "Mighty Gem," comments the numbers provided show the slow decline in police air support over the years. He specifically requested that fixed wing be added this year, previously it had always been a rotary wing question. He notes that even with the inclusion of Fixed Wing Action Calls, flying hours are down on last year - with the total now less than half of what was being flown prior to NPAS.

The overall cost of Air Support is down by 4.4%, but there is the usual mix of some paying more than last year and some less. The way that NPAS charge Forces continues to be somewhat of an enigma. Going by the easy option of cost

per Actioned Call, we have at opposite ends of the scale, GMP at £1215 per call and Cambridge at a whopping £10,382 per call!

Naturally he tried to get the disparity explained but decided the answers received did not help at all. Check out the full text and tables in the post.

LONDON: There is little doubt that this years largest policing and security operation in London was that surrounding the death of Her Majesty Queen Elizabeth II. It was not just a gigantic funeral service, the days between her death and interment were crammed with events across the length and breadth of the British Isles.

Before the final funeral day on September 19 Metropolitan Police senior officers were claiming that the day was the “biggest single event in the forces history.” In terms of numbers of police officers assigned, the task was way beyond the staff levels of the largest police force in the land. The numbers assigned were greatly boosted by aid brought in from police forces across Britain. One thing is certain - those officers brought in to boost numbers can never be expected to be efficient when brought into wholly unfamiliar surroundings under an alien control system. Perhaps fortunately at least the radio communications system in Glasgow can be switched to London so everyone has the opportunity to receive good information. That was a blessing.



Image Facebook

It would appear that the group most challenged were the army, navy and air force. The last Royal funeral of Monarch, that of King George VI in 1952, the military forces were far larger than are available today.

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The army could draw upon well over half a million mainly conscripted men in 1950 where today all the services number less than 200,000 – a major consideration where putting on a good and safe show in the presence of a massive number of Heads of State. In the event it was ample and the difference (as Mr Putin may now be aware) is that a lot of conscripts are not quite as good as people who have a mission in life.

Unusually flying restrictions were imposed in central London and Windsor for the funeral. Between 6am and 8.59pm on September 19, no aircraft, including drones, were to fly below 2,500ft over the state funeral at Westminster Abbey and a committal service at St George's Chapel at Windsor Castle.

The ban included any small balloon, any kite weighing not more than two kilograms, any unmanned aircraft and any parachute including a parascending parachute or paramotor. Exceptions to the restricted flight plans included aircrafts flying from London City Airport, London Heathrow Airport, Royal Air Force Northolt and London Heliport. Some 180 commercial flights were directly affected, most were cancelled to ensure silence over the ceremony at the height of the day.

Flights under the control of the National Police Air Service, the Maritime and Coastguard Agency, the Helicopter Emergency Medical Services or the King's Helicopter Flight were able to go ahead but none was scheduled to be within earshot of Westminster and they did not intrude. The proliferation of silent operation CCTV in central areas was a great help.

From the intelligence emanating from NPAS in recent days it would appear that the level of effort required over the centre of London – ensuring that there is sufficient redundancy of effort in the face of ever growing maintenance issues – will have severely strained availability. It may be some time before we learn just how challenged they were but on the day everything went ahead seamlessly.

UNITES STATES

ALABAMA: Recently worked up is the air element of the Walker County Sheriff's Office, in Jasper, Alabama.

The Aviation Division was a vision of Sheriff Nick Smith during his first year in office. It became part of his Five Year Plan. In 2020 the Sheriff secured two Bell Kiowa helicopters, including an airworthy OH-58C from the military.

The helicopters acquired by the Sheriff's Office are former military aircraft. Because of the Federal 10-33 program they were able to acquire the helicopter and spare parts at no cost. The Sheriff's Office establishing the Law Enforcement Foundation, which is a non-profit being created to help fund the operation, and facilitate grant funding.

Fifty years old the airworthy machine is 70-15061, it migrated to the civil register as N298GR and the Sheriff's officers set to getting it a crew and police role equipment. The project advanced at a good pace and was brought to fruition in just two years thanks to the enthusiasm of Deputy Ray Capps and the aviation knowledge of Joey Sanders of Sanders Aviation. Sanders helped coordinate the training and many other details that the fledgeling crews were not familiar with.



In November 2020 five officers undertook a TFO course, in part using the AS350 operated by Jefferson County Sheriff's Alabama.

In January 2021 the Walker County Sheriff's Office Aviation Division air asset took its initial operational flight on an area search for a missing woman.

CALIFORNIA: Huntington Beach police commence the replacement of their aging air fleet next month. They take delivery of their first brand-new MD-530F helicopter, one of three ordered in a \$7.3M package last year.

They will take the place of the three older model aircraft made by the same manufacturer that the department bought about 20 years ago. The new helicopters have more powerful engines than the ones currently in HBPD's fleet.

The department's fleet has been made up of three MD-500 helicopters, one of which was still in service last month. Another was sold to a buyer in Australia earlier this year, the third was lost in a fatal accident off Newport Beach on February 19. [Daily Pilot]

VIRGINIA: The Virginia State Police provides law enforcement and emergency services to more than 8.5 million people throughout the state relying on six Bell aircraft. Recently, the Virginia State Police purchased a Bell 412 Epi to further support emergency medical missions, expanding their Helicopter Emergency Medical Services (HEMS) and search-and-rescue (SAR) operations. Since the mid-1980s, the Virginia State Police Aviation Division operates out of one law enforcement base in Lynchburg, and two Med-Flight base locations in Richmond, and Abingdon.

The State Police Aviation Division is Virginia's only law enforcement agency with hoist capabilities. The Bell 412 Epi will expand the Virginia State Police's emergency services fleet. With modern flight technology, pilots can use high-resolution maps and terrain data on four displays to easily navigate in challenging environments. This multi-mission ready aircraft has the capacity to seat up to 14 passengers, fitting all the crew and medical equipment needed for emergency missions. Operations are expected to commence shortly. [Helihub]

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AIR AMBULANCE

CANADA

QUEBEC: It has been proposed the government set up a national medical air transport programme and another step has been taken towards the establishment of a pre-hospital emergency and inter-hospital service accessible to all citizens of Quebec. For more than 20 years, several analysis documents have supported the implementation of a prehospital and interhospital emergency service in Quebec.

Despite the size of its territory, Quebec remains the only province that does not yet have a public helicopter medical transport program in Canada. At present, all that is missing is the infrastructure near the emergency room to optimize the helicopter medical transport service.

One of the existing operators, Airmedic, has been a key player in air medical services, particularly in the relief of certain sectors of the public health network. Having already carried out several thousand missions, they have the knowledge and the experience required to be a trusted collaborator for the future national programme, and will respond in order to make its expertise available to the entire population.

EUROPE

DRF: Initial professional helicopter pilot training at DRF Luftrettung has commenced: the DRF Luftrettung Academy is expanding its portfolio and thus completing the range of services offered by its flight school. The first seven trainee pilots were welcomed to the DRF Luftrettung Operation Centre on September 1st as part of a fly-in of the training machine, a Robinson R44 Raven II.

The trainee pilots, six men and one woman, will be trained as commercial helicopter pilots at DRF Luftrettung over the next two years. DRF Luftrettung officially added the brand-new R44 training helicopter to the training fleet at Karlsruhe/Baden-Baden Airport and presented it to the flight students.



Following professional helicopter pilot training, the air rescue organisation plans to offer prospective pilots further prospects at DRF Luftrettung or its subsidiaries. Suitable candidates could join DRF Luftrettung as co-pilots at selected HEMS bases in order to gain further experience under experienced pilots and become qualified for air rescue missions.

Throughout the entire training process, the students are guided and supported by DRF Luftrettung flight instructors with extensive experience. The trainee pilots will particularly benefit from their extensive expertise, including night flights, hoist rescues, take-offs and landings in densely built-up areas, as well as missions in impassable and alpine terrain.

Applications for the second training course, which will start next year, will now be possible. More information at [DRF](https://www.drfluftrettung.de)

IRELAND

HEMS: Northampton, UK-based Sloane Helicopters Limited are taking action against the Irish Health Service Executive decision to award a 24 month EMS helicopter contract to Malta-based Gulf Med Aviation Ltd. According to the Irish Times, Sloane claims the decision is inter alia flawed and unlawful, and in breach of EU directives and regulations.

One of the issues raised by the company is that Gulf Med scored substantially higher under certain criteria the assessment compared to Sloane despite the fact that Gulf Med has no experience in operating the services in Ireland and has no pilots based in Ireland despite there being a requirement to have the services operational within a period of three months from the date of the contract award.

It is also claimed that the HSE accepted “an abnormally low tender.” The bid is said to be 38% lower than that of Sloane. The HSE denies the claims and the action is being fully opposed. [Helihub]

Editor: Some you win some you lose, a few days later it was announced that Sloane had succeeded in retaining the contract for the HEMS operation in Northern Ireland.

The Irish Community Air Ambulance launched a fundraising campaign at the National Ploughing Championships (20-22 September) to provide its ground based Volunteer Emergency Medical Responders with advanced lifesaving equipment. The charity has set a target of raising €100,000 to purchase portable ventilators by targeting the 300,000 visitors expected at the event.

The organisation’s volunteer medics are often called to rural and isolated locations across Ireland which is why it has chosen the National Ploughing Championships as the location to launch the campaign. Visitors to the charity’s stand will be able to tap to donate and will be able to monitor the progress of the fundraiser on a big screen. The Irish Community Air Ambulance works in partnership with the National Ambulance Service and is tasked to treat serious and life threatening emergencies. The HEMS (Helicopter Medical Emergency Service) Air Ambulance is based in Rathcool, County Cork with its Volunteer Emergency Medical Responders on the ground in Dublin, Mayo, Donegal, and Wicklow. The ground fleet includes five Advanced and Critical Care Emergency Medical Responder vehicles staffed by Volunteer Doctors able to provide hospital-level interventions at the scene. [Helihub]

UNITED KINGDOM

MAGPAS: In mid-July, Magpas Air Ambulance and developers Lindum marked the start of construction of the long-awaited new home for the Cambridgeshire-based emergency medical charity, after the site of its current operations base at RAF Wyton was sold for development. The new building will be equipped to better support the charity’s growing 24/7 operations and will include a dedicated training centre, rest facilities for crew and clinicians and new community and patient hubs.

By co-locating the charity’s operations and support staff at the Alconbury Weald site, the new base will be more efficient; reducing charity overheads and improving environmental impact. Speaking of the occasion, Magpas Air Ambulance CEO Daryl Brown MBE explained, “We’re so excited to start to see this project, which has been years in the making, come into fruition. The first spade in the ground marks an important milestone in our 50 years of saving lives and will ensure we are able to continue doing so for many more.”

The charity expects to be able to move into its new home next summer. Magpas Air Ambulance is a charity that needs to raise £6M a year to continue its 24/7 operations.

Editor: The facility at the former RAF Wyton was originally the base of the police helicopter for Cambridgeshire with whom

Magpas originally co-operated in delivering medical services by air. That original arrangement was set aside by NPAS, in a similar manner to other police and air ambulance cooperation. Alconbury seen here in late 1997 was a former RAF and USAF base and earmarked for development as an airport. No more.



As has been found with several former RAF bases to airports, there are simply too many for the small if crowded island. Doncaster is a case in point and Alconbury shed the idea of being an air freight hub years ago.

NORTHERN IRELAND: Following a competitive tender exercise which commenced in October 2021, Air Ambulance NI has confirmed a 10-year partnership agreement with Sloane Helicopters Limited to provide two Leonardo AW109 helicopters, pilots and aircraft maintenance for Northern Ireland's Helicopter Emergency Medical Service (HEMS).

The new agreement commenced last month. The charity is introducing an AW109S Grand as its primary aircraft and a AW109E Power as its dedicated back-up aircraft, both of which will be operated from its air-base outside Lisburn.

This contract award further strengthens the AW109's position in the UK HEMS market with marking the fourth AW109 Air Ambulance contract for Sloane, in addition to Derbyshire Leicestershire Rutland Air Ambulance (DLRAA), Warwickshire Northamptonshire Air Ambulance (WNAA), and they currently support the Irish Community Air Ambulance (ICAA). Founded over 51 years ago by its Chairman, David George, Sloane Helicopters has been supplying HEMS Aviation services for over 23 years, and have had a maintenance facility base in Enniskillen since 2006. [Sloane]

UNITED STATES

OHIO: The National Aviation Hall of Fame (NAHF) has announced that its 2022 Spirit of Flight award was presented to Wings of Hope in conjunction with the 58th Annual Enshrinement Dinner & Ceremony on September 24, 2022.

The National Aviation Hall of Fame is a museum, learning and research centre that was founded in 1962 as an Ohio non-profit corporation.

Wings of Hope, a global humanitarian organisation that saves and changes lives through the power of aviation covering education outreach, global impact, and U.S. medical transport has already been twice-nominated for a Nobel Peace Prize.

Sixty years ago, Wings of Hope began its work by sending aircraft to Kenya to deliver vital medical care and supplies. Since then, they have continued to grow and increasingly assist people worldwide regardless of political standing, economic status, or religious affiliation, reliant upon on a core of volunteer pilots to carry out the group's mission.

FIRE PORTUGAL

AIR FORCE: Arista Aviation Services, an Alabama-based aircraft overhaul specialist, has been awarded a contract to provide six firefighting-capable Sikorsky UH-60 Black Hawks to the Portuguese Air Force (FAP). The company, which specialises in working with this type of helicopter, defeated rival bids from both Leonardo and Bell Helicopter to be awarded the contract.

The contract includes the delivery of six aircraft over the next three years, as well as the provision of five years of on-site maintenance and logistical support. Arista will also provide training for six pilots and 21 mechanics on behalf of the FAP. Approximately 81% of this acquisition is financed by community funds, through the Recovery and Resilience Plan (PRR). The aircraft will offer a significant increase in the FAP's aerial firefighting capabilities – according to the company, each Arista-modified Black Hawk will have the ability to transport 12 firefighters and 2,950 litres (over 750 US gallons) of water at a time.

Editor: Nothing is confirmed but there is a presumption that his operation may be set up at Ovar Air Base (AM1) where one Leonardo AW119 is based for search and rescue missions as a detachment from a squadron based at Beja (BA11). Ovar is supposed to change it's legal name to BA8 (Air Base 8) next year.

This photo was taken at Ovar of a Koala. Rui Miguel



SEARCH & RESCUE

FRANCE

NAVY SAR: The French Navy has taken delivery of the first of six H160s that will perform search and rescue (SAR) missions. The aircraft is part of the interim fleet that will be delivered by the partnership formed between Airbus Helicopters, Babcock, and Safran Helicopter Engines.

The delivery of the first H160 to a military customer is a major milestone for the H160 programme. This is the first public service version of the H160 to be delivered worldwide. Furthermore, the delivery takes place soon after two H160s entered into service this summer, in Brazil for the private and business aviation segment and in Japan for news gathering missions,

In 2020 the French Armement General Directorate (DGA) signed a contract with Airbus Helicopters, Babcock, and Safran for the delivery of four H160s in a search and rescue (SAR) configuration. In 2021, the DGA confirmed an option for two more H160s. The first H160 for the French Navy was delivered to Babcock by Airbus Helicopters in May 2022. It has since then been modified into a light military configuration by Babcock. The modular cabin was also adapted for SAR operations and a Safran Euroflir 410 electro optical system was integrated.

The H160 will gradually start operating from the Lanveoc-Poulmic naval air station (Brittany), Cherbourg airport (Normandy), and the naval air station in Hyères (Provence). The interim fleet of H160s will ensure critical search and rescue missions while awaiting the delivery of the H160M Guépard. Some 169 H160M Guépards are foreseen to replace five types of helicopters in service with the French armed forces. The French Navy's operational feedback with these H160s will benefit the design of the military version of the aircraft and its associated support system.

Babcock, in partnership with Airbus Helicopters and Safran Helicopters Engines, will ensure the highest level of availability for the French Navy and the continuity of SAR operations on the Atlantic and the Mediterranean coasts. Built by Airbus Helicopters, the H160 is certified for the use of night vision goggles, which are necessary for winching operations at night.



ITALY

NATIONAL: The new, not yet in post, right wing government in Italy appears to be baring its fangs when it comes to the matter of migrants.

Giorgia Meloni is set to become Italy's first female prime minister and its first far-right leader since Mussolini after her Brothers of Italy party emerged the largest from the country's election.

If confirmed in post she has vowed to stop the tens of thousands of migrants who arrive on Italy's shores each year, a position she shares with Matteo Salvini, an Italian politician who served as Deputy Prime Minister of Italy and Minister of the Interior from 1 June 2018 to 5 September 2019. Salvini is currently on trial for blocking charity rescue ships when he was interior minister in an earlier administration.

NORWAY

NORTH SEA: Bristow Group Inc. the world's leading global provider of innovative and sustainable vertical flight solutions, has announced an award from Equinor to provide search and rescue services offshore at the Johan Sverdrup and Statfjord B platforms, located in the Norwegian North Sea off the west coast of Norway.

A critical part of the emergency preparedness on the southern Norwegian continental shelf, the contract has a duration of four years and includes three single year extension options. Three advanced search and rescue configured S-92 helicopters will provide the search and rescue service. Two helicopters will be based on Equinor's platforms with a backup S-92 based onshore.

Bristow has been an Equinor aviation partner for more than 25 years supporting the Norwegian Continental shelf both for crew change service and search and rescue services. In addition to Norwegian operations, Bristow also provides helicopter services to Equinor in Brazil and the U.S.

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UNITED KINGDOM ENGLISH CHANNEL UPDATE

Introduction

Earlier this year, the February edition of Police Aviation News reported that on January 4, the migrants located in the camps in northern France had resumed their crossing of the English Channel in small boats, determined to enter the UK without permission after setting sail from one of the numerous isolated beaches between Calais and Boulogne-sur-Mer. The first arrivals of 2022 numbered 60 and, as the good weather continued, the numbers gradually increased to an unprecedented 1,400 in the middle of winter. By early March the total number had increased to 2,121.



One of the migrant camps in northern France, at Grande-Synthe, near Dunkirk.

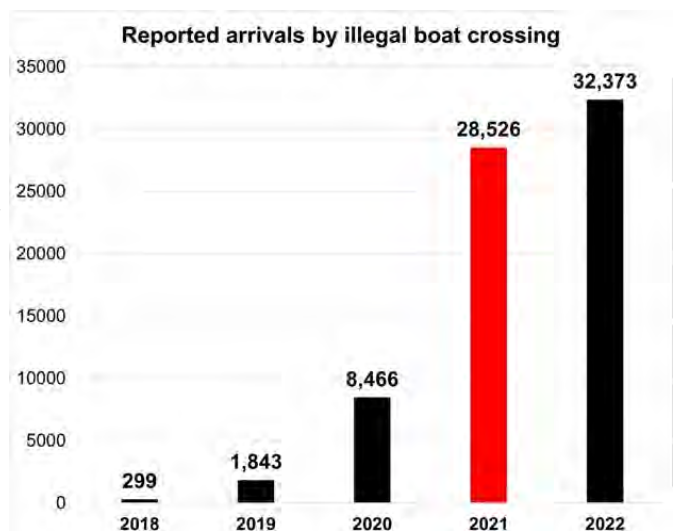
Mixed Messages

The British government then announced a new strategy, 'Operation Isotrope', with the Royal Navy given command of all operations in the English Channel, to counter the anticipated surge of migrants arriving from France in 2022 in small boats. In parallel the UK Border Force chartered an additional three large passenger carrying, crew transfer vessels (CTVs) to join BF Hurricane and BF Typhoon. The new CTVs are Defender, Ranger and Volunteer. This was definitely a case of mixed messages! The new modus operandi is for the Border Force to transfer the migrants from their grossly overladed inflatable boats mid-Channel leaving the now empty inflatable to towed to Dover by the Royal Navy.



One of the 5 passenger carrying, crew transfer vessels, BF Typhoon, chartered by the UK Border Force to 'rescue' migrants from the English Channel.

Those who believed that the Royal Navy would make a significant difference, that the numbers of migrants crossing the English Channel, the world's busiest shipping lane, would be reduced, will have been disappointed. Despite deploying a River-class offshore patrol boat and up to 6 Archer-class fast patrol boats the number of migrants, has increased, day by day, week by week, month by month. By mid-September the total for 2022 had exceeded the record total of 28,526 in the whole of the previous year. At the time of writing, in late September, the annual total has rocketed past 32,373. A new annual record and with a further 3 months to go!



Migration Watch UK



HMS Biter, one of several Archer-class fast patrol vessels deployed to the English Channel to counter crossings by migrants from Belgium and France.

Air Patrols

In the air, it would seem that the, once a day, patrols along the coast of Belgium and France by the European Border and Coast Guard Agency (Frontex), patrols which followed the loss of 27 migrants who perished at sea, near Calais, in November 2021, have now ceased. These patrols were flown by a variety of aircraft types, maritime patrol aircraft from Denmark, from the Netherlands and from Spain, all operating from Lille in northern France. Nevertheless, regular patrols with the Tekever AR5 drone, operating from Lydd and a Diamond DA62 MPP, based at Ostend, but also using Lydd, in Kent, as a forward operating base, continue.

New People, New Ideas

The big event, one which could make a difference, is a significant change in British politics with a new Prime Minister, the Rt Hon Lizz Truss MP and a new Home Secretary (Minister for the Interior), the Rt Hon Suella Braverman MP. Both have expressed a determination to solve the problem of uncontrolled Immigration, to secure the UK's borders, with a policy that includes deportation for failed applicants and greater cooperation with French, including joint Anglo-French patrols of the beaches frequented by migrants and the people traffickers, many of whom now come from Albania, a potential member of the European Union!

We should remind ourselves, and the French president, Emmanuel Macron, that operating a fare paying, passenger carrying boat which is unseaworthy, described by the National Crime Agency as a 'death trap', a boat which is under the command of a person who is unqualified for the role is a criminal offence. Escorting these vessels into the middle of the world's busiest shipping lane is both irresponsible and, most probably, also a criminal offence. The offence of aiding an abetting a criminal gang, people traffickers to flout the law and put the lives of others at risk. In the longer term, when the cross-Channel route with small boats is closed for ever, there will no longer be a reason for migrants to set up their camps close to Calais and Dunkirk. A change that will be welcomed by the citizens of northern France!



The Rt Hon Suella Braverman MP - British Home Secretary

Conclusion

To be successful the proposed joint Anglo-French patrols of the beaches of northern France must include persistent air patrols with light aircraft, 'spotter planes' re-visiting the same beaches every few minutes. These air patrols would operate in good weather, the same good weather that favours the migrants, within an overall policy of 'deter and detect' with the aircraft in sight of the migrants and the crew of the aircraft reporting any sightings to land and sea patrols. This policy of 'persistent' air patrols within a policy of 'deter and detect' was recommended by the author to the British Government Home Affairs Committee in November 2020 and again, in January 2022, to the Defence Committee. However, to date, the use of light aircraft, 'spotter planes' has been restricted to occasional flights by the French Police Aux Frontières using a Cessna 172/182 based at Lille and operating between Calais and Fort-Mahon-Plage.

To provide sufficient aircraft it may be necessary to also involve the 'voluntary sector' with volunteers flying their own aircraft, as they do in the USA with the US Coast Guard, providing regular units with the welcome addition of a 'force multiplier'. Fortunately, the target, migrants carrying a very large inflatable boat on an empty beach, is easily spotted and reported from the air!



The target, migrants carrying a very large inflatable boat on an empty beach is easily spotted from the air.

The author, Squadron Leader Tony Cowan MBE is a former RAF maritime patrol pilot and aircraft commander. Also a former member of the North East Air Support Unit, a premier regional police air support unit which preceded the UK's National Police Air Service.

INDUSTRY

Belatedly **Sloane Helicopters** issued a press release on their supply of a Leonardo AW169 to the Children's Air Ambulance in late August. This has been covered in PAN previously.

Sloane Helicopters, the U.K.'s longest established and privately-owned helicopter company, is expanding its operations through the recent acquisition of the Children's Air Ambulance (TCAA) contract. Sloane will be supplying the charity with two EMS AW169 helicopters later this year, together with pilots and aircraft maintenance. Having commenced operations in March 2022, the service is currently operating with an EMS AW109SP GrandNew in the interim period prior to introducing the AW169s later this year.

Austrian-based global aircraft manufacturer **Diamond Aircraft** is reporting full order books for the next two years and further high demand for its private, training and special mission aircraft. Work is also underway to bring new products to market, including an all-electric training aircraft. The development and production site in Wiener Neustadt (Austria) is therefore being further expanded and the company has more than 60 vacant positions to fill.

Diamond Aircraft is already one of the largest and most innovative employers in the city of Wiener Neustadt, a new job campaign will create 60 additional workplaces.

When an enquiry came in as to whether there was a contract for 14 **Bell 429s** pending it was initially assumed that it was for the National Police Air Service. The enquiry stemmed from an enquiry on pricing parts for this hypothetical order. The numbers appeared far too high for the known NPAS requirement of seven helicopters for the main fleet and three for London. As a result other options were investigated, including perhaps the police in Turkey who have operated the 429 for around ten years and might be looking at a new fleet.

Ultimately it seems likely that the 14 Bell 429s are just one small part of the bidding process for the complex proposals for the new NPAS fleet. There will be similar blocks of H135, H145 and AW169 featuring in the proposals – not all of which have surfaced or will be acceptable.

MD Helicopters, LLC (MDH) has announced new ownership and leadership. An investment consortium led by MBIA Insurance Corp., Bardin Hill, and MB Global Partners has acquired the company and established new leadership.

Brad Pedersen will lead the team as MD Helicopters' President and CEO. Brad brings over 35 years of aerospace experience delivering accelerated growth and financial performance in leadership positions at Boeing Rotorcraft, Sikorsky Aircraft, Breeze-Eastern, and other aerospace and defense companies.

Pedersen started his career at Hughes Helicopters and has almost 20 years of Engineering and Leadership experience with the MD Helicopter product lines. Brad has also led the turnaround of several private and publicly owned companies making him the ideal choice to lead MD.

Pedersen will be supported by a highly experienced Board of Directors comprised of aerospace & defense executives and significant financial expertise:

Edward Dolanski, Chairman of the Board: Fortune 50 business executive with 30+ years of experience leading organizations through performance turnarounds and into sustained growth. Dolanski's experience includes President, Boeing Government Services, President & CEO Aviall (a Boeing company), and Vice President, Raytheon Aircraft Company (Hawker Beechcraft Customer Support / Aftermarket).

GEN (ret.) Gustavo Perna, Board Member (chair, governance & compliance committee): served as Chief Operating Officer for Operation Warp Speed, in which he co-led the partnership of government, academia, and industry to successfully accelerate the development, manufacturing, and distribution of COVID-19 vaccines and therapeutics for the Nation. As Commander of U.S. Army Materiel Command (AMC), one of the Army's largest commands with over 190,000 military, civilian and contractor employees, he was responsible for installations, logistics, sustainment, and materiel readiness around the world.

Paul "Flip" Huffard, Board Member (chair, audit committee): 30+ year restructuring veteran with extensive financial management experience including as Senior Managing Director at Blackstone's Restructuring and Reorganization Group.

Anthony McKiernan, Board Member: Chairman and Chief Financial Officer of MBIA Insurance Corp.

Daniel Avitabile, Board Member: President and Chief Risk Officer of MBIA Corp.

John Greene, Board Member: Partner and Portfolio Manager at Bardin Hill Investment Partners

MD continues to struggle with keeping law enforcement customers. The Hamilton County Sheriff in Ohio announced that they are selling off their two MD's (a 500 N510HC and a 520N N520HC) and buying some more drones. Their one pilot is taking another job next month, and the helicopters are expected to be sold off shortly after that. The disposal means the number of MD 520N's in service drops again. The remaining depts. with 520N's will be Prince George's County, Louisville, Glendale/Burbank. Huntington Beach will be taking delivery of their first MD530F in November, so they'll be done with their two 520Ns too.

[Jon Goldin]

French helicopter operator HeliDax and **Airbus Helicopters** have signed the first-ever HCare Classics support contract to optimise the availability of HeliDax's Airbus Helicopters H120 (EC120) fleet. HCare Classics is Airbus' new support package entirely dedicated to meeting the support needs of the company's out-of-production legacy helicopters.

An EC120 operator since 2008, HeliDax relies on its fleet of 36 airframes to provide basic and advanced training to the French and Belgian armed forces and the French Gendarmerie. Since the beginning of this partnership with the French government 14 years ago, HeliDax has maintained an availability level of 100% and has accumulated 246,000 hours of flight time, training multiple generations of helicopter pilots. This translates to as many as 22,000 flight hours per year.

HeliDax's fleet is the largest in-service H120 fleet in the world today. With eight years remaining in the pilot training programme contract, HeliDax selected HCare Classics to benefit from the OEM's guaranteed support performance.

In the 30 years since Aerospatiale and Messerschmitt-Bölkow-Blohm merged to form Eurocopter in 1992 the main UK site for sales has been that originally operated as McAlpine Helicopters currently at Oxford Airport, Kidlington, Oxford. Eurocopter was renamed **Airbus Helicopters** in 2014 and Airbus increased their ownership holding and took over the name from the McAlpine family but retained the same facilities. Only recently has work started on building a new facility on the north side of Oxford Airport. Thus far the contractors have been working on the earthworks. Beyond the site is the current Airbus facility. Over the last three decades 10,616 helicopters have been built by Eurocopter/Airbus an average of 353 per year at plants across the world.



An over the fence look at the works at Oxford Kidlington ©PAR

In mid September **Airbus Helicopters**, Oxford were hosting presentations on a new electric tail rotor configuration envisaged to replace the current Fenestron designs with a lighter and more reliable modern system.

AeroBrigham LLC, based in Decatur, Texas, has completed a new Bell 505 helicopter accessory fitting designed to improve safety. Developed as an attachment point for utility operations such as personal restraint harnesses during doors-off flight operations, the assembly is now FAA-approved as a Supplemental Type Certificate (STC) component. Each machined aluminium assembly can be easily attached to existing Bell 505 rear seat hard points and allows for two rings supporting a total of 600 pounds (300 pounds per side). Safety can be enhanced with harness systems. The fitting can be used in any of the three aft seat positions and can be installed and removed without tools or log entries. Flight testing of the device proved that safety can certainly be enhanced for rear seat passengers wearing restraint harness systems when operating with doors off in the Bell 505.



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Southeast Aerospace, Inc. (SEA), a leading Aerospace Solutions company, receives Federal Aviation Administration (FAA) Supplemental Type Certification (STC) number SR04546AT for the installation of their SEA special mission operator station in the Bell 407 helicopter.

Southeast Aerospace designed and manufactured the operator station as an ideal mounting solution for housing mission equipment in the Bell 407 helicopter to support Airborne Law Enforcement (ALE) missions. Obtaining STC certification for the operator station provides a seamless path to meeting the regulatory and safety requirements of an FAA-approved installation in the Bell 407, mitigating additional costs or requirements for both the customer and installation facility.

The operator station was designed to support the Tactical Flight Officer's (TFO) mission as a primary focus. Dual monitors provide an extended viewing area for mission sensor and mapping data, and the operator station cabinet offers ample space for housing a fully integrated mission suite of their choosing. The operator station cabinet provides mounting provisions for electrical equipment such as video monitors, communication control panels, and recording equipment to be installed by the end-user. The mission panel includes provisions for DZUS mounted equipment as well as a dedicated panel for circuit breakers, switches, and maintenance ports. In addition, it is equipped with a fold-down keyboard tray, installed on the left side of the operator station, which can be securely folded up and stowed with a quarter-turn latch for taxi, takeoff, and landing operations.

The standard configuration provides provisions for two Macro-Blue MB15W 15" tactical displays. The two identical monitor frames are independently adjustable. In addition, each monitor pivots at the center of the assembly allowing the monitors to be independently rotated towards the operator, up to a maximum of 20°. Once adjusted, the monitor can be locked in any position within the range of motion. The monitor mount assembly also features a tilting function controlled through a knob below the monitors, giving the monitor mount assembly a tilt of up to 25° to customize the TFO's viewing angle.

The SEA operator station replaces the left-side aft-facing passenger seat in the Bell 407, maintaining three aft cabin passenger seats.

No changes to the rotorcraft interior are required as the operator assembly poses no interference with the existing interior design. Permanent modifications are negligible during this installation so the aircraft can be returned to its original configuration if desired.

Canadian avionics manufacturer, **Anodyne Electronics Manufacturing Corp.** (AEM) has increased production capacity by moving operations to a newly constructed 35,000 square foot (3,251m²) facility in Kelowna, British Columbia.

The brand-new purpose-built facility, which was announced in 2020, has been designed for increased operational efficiency. This move is the culmination of significant planning which resulted in an unprecedented opportunity for AEM to evaluate and innovate on internal processes and make improvements. The layout of the production area has been designed for the efficient flow of product during manufacturing and increased collaboration between AEM employees.

The new facility adds 10,000 sq. ft. (929m²) from the previous building that AEM occupied and includes new features such as a brand new Muratec Sheet Metal Press, additional MIL-DTL-7788 standard light patterning stations for illuminated panel manufacturing, paint booths, and Alodine line.

Having only been in the new facility for a few months, the AEM team is continuing to see improvements and further opportunities for innovation.

Known best for industry-leading loudspeaker systems, in 2021 AEM acquired the EAGLE Audio line of products including the flagship P139-HD Digital Audio System and custom P122 and P132 avionics consoles for the AS350/H125 aircraft. As well as dimmer power supplies, audio mixers and power converters. The acquired product line has been added to the existing AEM lineup of loudspeaker systems, caution warning panels, illuminated panels and audio accessories, which are manufactured in the Kelowna facility.

China's second **AG600M** amphibious aircraft completed its first flight at Zhuhai City, in south China's Guangdong Province on September 10. AVIC's AG600 is one of the world's largest amphibious flying boats with a 53.5 t of maximum take-off weight. Further variants could be used for maritime surveillance, resource detection, passenger and cargo transport.

Camero-Tech - an SK Group member founded by Mr. Samy Katsav, a world leader and pioneer in developing, producing, and marketing pulsed-based UWB micro-power radar 'Through Wall Imaging' systems – has received a purchase order for the Xaver™ Long Range radar system – Xaver™ LR40, which enables the detection of live objects behind walls, at distances of more than 50 metres. The Xaver™ LR40 will provide the special forces with a breakthrough operational advantage in hostile environments and continuous surveillance missions.

Special forces and law enforcement teams conducting urban and rural operations require reliable information regarding hidden live objects to determine the most suitable approach to ensure successful life-saving missions. Penetrating through walls from a remote location, the Xaver™ LR40 creates an unprecedented real-time situational awareness picture of the presence of people beyond the wall, , their exact distance, the number of people, and direction of movement. The system is also highly sensitive for detecting unseen micro-movements of static live objects. Being able to achieve this performance and high sensitivity, the Xaver™ LR40 is a game changer in various operational scenarios.

The system can be operated by a single operator, and it is ready for use with a push of a button.

For more information on Camero, visit: <http://www.camero-tech.com/>

At **Multiflight**, Leeds Bradford Airport, Yorkshire, on August 9 two former air ambulances were noted in storage. The pair are Aerospatiale SA365N2 G-NHAA, formerly operating with the Great North Air Ambulance and still owned by them and MD Helicopters MD900 G-HDBV used as a back up airframe for other MD900s in service with Yorkshire Air Ambulance.

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Both moved on from Leeds Bradford in mid-September. Social media sources for the Great North Air Ambulance showed that the Dauphin was accepted as their new crew training module, although there is some dispute over the date. It was said to be September 8 but other sources state that both airframes (G-NHAA and G-HDBV) left by road on September 13. Unusually in the major United Kingdom HEMS, Great North continues to prefer to operate used airframes. The current Great North Dauphin based at Urry Nook in September is a 2015 AS365N3 G-NHAD.

Meanwhile the first of two replacement Airbus Helicopter H145 five blade, for Yorkshire Air Ambulance, G-YAAA c/n 21147, was registered with the CAA in mid-September and is probably due to be at Oxford shortly to commence role completion. [David Thompson/Helihub]



©David Thompson

Curtiss-Wright's Defence Solutions Division has introduced to the market a 25-hour flight data recorder (FDR) and cockpit voice recorder (CVR) designed for use on military fixed-wing and rotor aircrafts. The latest additions, are the extremely rugged Fortress FDR-25 and Fortress CVR-25. They are designed in accordance with RTCA/DO-178C and RTCA/DO-254 (DAL D) standards and meet or exceed all current FAA and EUROCAE ED-112A standard requirements. These recorders provide aircraft system integrators with a cost-efficient solution that use advanced technologies developed for compact commercial and military platforms. For many applications, these recorders provide form and fit replacements that require no change to the airframe. They are ideal for use on new aircraft, or for upgrading older platforms requiring flight data recorders that satisfy commercial regulatory compliance.

Fortress CVR-25 provides 4 channels of cockpit voice recording and 1 channel of CPDLC datalink recording, each for 25 hours minimum capacity supporting EUROCAE class 6 CVR requirements. The CVR's audio recording performance exceeds ED-112A requirements, with each channel providing area microphone performance and quality of 150 Hz to 6 kHz bandwidth to deliver superior recording clarity. The advanced cockpit voice recorder provides an integrated web-based interface running across a gigabit physical Ethernet interface to enable rapid data access and recovery.

Fortress FDR-25 supports parametric flight data recording for 25 hours minimum with data recording capacity up to 3,500 hours of data before the oldest data is overwritten, with a maximum data rate of 4,096 words per second. It also supports real-time data streaming for the swift and remote retrieval of flight data from the aircraft for storage or analysis.

Both flight recorders also include a 90-day underwater locator beacon that provides improved battery safety features, including a new non-restricted Class-9 lithium battery and containment of thermal runaway, which reduces the need for special handling, storage, and shipping. www.curtisswrightds.com

It is reported that Russia plans to hand over a helicopter and fire trucks to the Ministry of Emergency Situations of Kyrgyzstan. Kyrgyzstan or the Kyrgyz Republic, is a mountainous landlocked country in Central Asia.

The report based on an interview with President Sadyr Japarov a Kyrgyz politician who has served as the *president* of Kyrgyzstan since January 2021, in an interview with Kabar news agency. The report suggests that the helicopter involved is a Airbus Helicopter AS350/H125 EX88010 but this is not confirmed.

Hensoldt's latest airborne radar, the PrecISR1000 multi-mission surveillance radar, confirmed its all-weather surveillance capabilities in a life-or-death rescue operation.

During a transatlantic sailing race, a ten-meter racing yacht had lost power due to strong winds and heavy seas. Unable to steer the vessel or lower the sail, the sailor was drifting in the Atlantic Ocean without communications or a working emergency beacon to give his location. A full sensor equipped fixed wing SAR aircraft on duty was unable to find the missing yacht in the 40,000 square mile search area. With the search area increasing by the hour, the official authorities reached out to industry for help.



Being in the region for trials and measurements, the Hensoldt PrecISR1000 radar onboard a twin-engine fixed-wing ISR aircraft detected the missing yacht at a range of 66 km on its first pass through that sector of the search area, using its outstanding maritime modes, whilst flying at 5,000 ft in thick cloud.

There were several other boats detected in the search sector, but these were immediately discounted by correlation with the onboard maritime Automatic Identification System (AIS), allowing the operator onboard to direct SAR aircraft straight to the missing yacht and to descend below the cloud to get a visual confirmation and precise location for the rescue services. A lifeboat reached the vessel about 3 hours after initial radar detection and found the sailor onboard.

PrecISR translates latest achievements in active array and digital receiver technology into a scalable high-performance sensor which can be installed aboard helicopters, UAVs and fixed-wing mission aircraft. Due to its software-defined radar modes and electronic beam steering, PrecISR can fulfill different tasks virtually at the same time. It is able to detect, track and classify thousands of objects and thus literally find the 'needle in a haystack'. Because of its compact design and the fact that all parts are located outside of the airframe, the airborne platform integration of PrecISR is simplified significantly compared to other radars. Its superior precision and target accuracy make it the sensor of choice for surveillance of large sea and coastal areas against piracy, trafficking or illicit intrusion. (Hensoldt)

We are growing familiar with allegations that **Russian equipment** is not all it is hyped up to be as a result of the war in Ukraine. We also know that in the right circumstances and in the hands of skilful pilots, operators and maintainers Russian rotary craft are a force to be reckoned with. The sanctions now in place against Russia are leading to countries like Poland moving to western products, so the Mil and Kamov product may disappear from view unless there is a Ukraine alternative.

In the same vein, the military in Pakistan have gone public in its criticism of the quality of Chinese Z-9 helicopters. It is mainly about maintenance support, but may impinge on build quality as well. Many of the rotary wing products are just "Chinese copies" of European products (the Z-9 is a Dauphin) so, if they were slavishly engineered in cooperation with the original manufacturer the clone should be as good as the original.

As Ukraine has shown us it may simply be a case of how good the human input is.

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"The electro-optical turret is the key element in police routine operations such as searches for people and vehicle, vehicle pursuit and also for security operations, evidence gathering, surveillance" says Hervé Rivallan, former TFO (Tactical Flight Officer) at CAE Aviation, now System Engineer at Safran.

Euroflir™ 410 is well suited for Police missions at long range distance, in very poor visibility, since it offers multi-spectrum capabilities, with highly stabilised sensors, with advanced embedded software including moving target indicators, enhanced resolution & fusion, and target tracking allowing tracking of moving vehicles (even behind obstacles)."

Euroflir™ 410 has a EASA STC on EC135 from Nova Systems, and is also mounted onto Bell police helicopters and many other fixed-wing and rotorcraft.

The law enforcement and SAR teams have to be ready on the go and require a high level of availability of their assets. "In order to meet the demand from the customers, Safran offers a state-of-the art and customisable level of service, through PBH (Pay by Hour) solutions" says Philippe Rivière, SVP Customer Support at Safran Electronics & Defense.

Safran is a key employer in the UK with over 3000 people on 10 different sites across the country.

Come and visit Safran booth at European Rotors from 8th to 11th November.



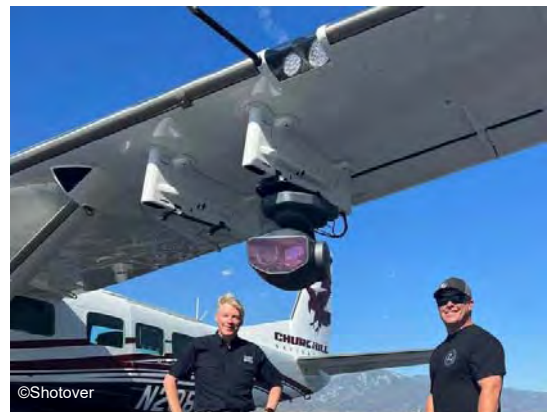
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The latest Hangar Z Podcast includes a chat with Tom Churchill and a demonstration of the new Shotover Systems M2 multi sensor camera system. The interviewer reckons the system is a gamechanger.



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ACCIDENTS AND INCIDENTS

30 August 2022 Pilatus PC-6/B2-H4 Turbo Porter ZS-NIT. South African Police Service. Aircraft departing Rand Airport, Germiston, Gauteng, South Africa crashed suffering substantial damage and killing five of the six persons on board. The pilot, Captain Casper Swanepoel, survived the initial crash but was taken to hospital with life threatening injuries. Warrant Officer Willem Erasmus a member of the SAPS air wing died alongside four technicians employed to maintain the aircraft.

30 August 2022 MD369E N1576F City of Houston Police Department, Houston, Texas Rotorcraft practicing auto-rotations, lost control resulting in the main rotor blades cutting off tail boom.

1 September 2022 Bell 429 C-GCOS Canadian Coast Guard. Helicopter approaching airport at Puvirnituk, a small Inuit community in Nunavut on the east bank of Hudson Bay, Quebec, Canada, crashed close to a lattice tower. The airframe was separated in two main parts with the remains of the cockpit lying on its left side, the main rotor blade seemingly completely destroyed and the tail boom lying completely detached, some meters away. The sole occupant, the pilot was not severely injured. Several witnesses claim that the Bell had deployed a cargo hook that had snagged on the tower. [Media]



1 September 2022 Bell 412 EC-MEJ operated by HeliBravo – Aviação Lda on a firefighting tasking at Paranhos. Amares, Braga, Portugal for the Autoridade Nacional de Emergência e Proteção Civil reportedly snagged its bucket with a power line and lost control. The sole occupant pilot was seriously injured when it crashed. The flight originated from the operators base at Arcos de Valdevez heliport 10nm north of the fire carrying the pilot plus a team of eight firefighters from *Unidade de Emergência de Proteção e Socorro (UEPS/GNR)*, the firefighting equipment and a bambi-bucket. After dropping-off the intervention team, the pilot, in contact with another helicopter working in the same area, flew looking for a nearby water collection spot for the first load of water and drop over the fire area. the helicopter made eight drops of water on the front of the fire west of a 150kV power transmission line that crossed the site. With the progression of the fire to the east, the pilot made two drops to the east of that line. On the eleventh approach to the front of fire, the pilot made a direct approach from the loading point, located at *Homem River* to the north of the fire, followed by a right-hand turn establishing the trajectory for the third and last drop of the day to the east of the power line. It appears he misjudged the position of the high voltage line in front of him, released the water while trying to maneuver to avoid the collision. He ended up colliding with the two lower cables of the power line, initially with the main rotor and then with the tail rotor that separated from the aircraft becoming intertwined in one of the cables of the high voltage power line. The accident occurred in a remote area and it took rescuers two hours to reach the site on foot. The pilot, who had to be extricated from the wreckage, suffered injuries to the pelvic area and legs. [Lusa NA/ASN]

7 September 2022 Bell 205A-1 N66HJ Fire helicopter operated by Kachina Aviation operating out of the Kelso-Longview Airport for the Washington State Department of Natural Resources crashed into the north end of Lake Merrill, near Cougar, Cowlitz County while taking on water to put out the Kalama Fire. The sole occupant, the pilot, was not injured [WSDNR/KPTV]

10 September 2022 Bell 206L1 LongRanger N242BH Firefighting helicopter owned by B3 Consultants and operating for Cal Fire assigned to the 28,000 acre Fairview fire near Hemet crashed in a residential enclosure very close to Banning airport, Riverside County, southern California. Three people aboard the helicopter were hurt. The airframe ended up on its left side largely intact with severe damage to the landing skids and main rotor. There was no fire and the Bell came down on grass. [CalFire]

15 September 2022 Airbus Helicopters MH-60 Dauphin U S Coast Guard. A rescue helicopter responded to a distress signal from a vessel off Venice, approximately 75 miles south of Southwest Pass, Louisiana, USA. They found a 40-foot sailing vessel with a man and two dogs aboard and approached it. The man allegedly then began firing at the helicopter, the aircrew heard objects striking the aircraft and immediately departed the scene due to aircraft and crew safety concerns. Upon returning to Air Station New Orleans, the aircrew observed impacts to the helicopter rotors consistent with projectiles from a firearm.

The Coast Guard then dispatched a fixed-wing aircraft, a cutter with Coast Guard Investigative Service (CGIS) and Federal Bureau of Investigation agents aboard, and a 45-foot Response Boat- Medium (RB-M) boat crew to track the vessel's movement. The following day a man was arrested.

21 September 2022 Kamov Ka-32S RA-31591 Firefighting helicopter operated by Avialift Vladivostok. Making its way from Kastamonu to Marmaris to combat a wildfire, crashed at Çardak district, Denizli province killing two Russian crew members among the 7 on board. Airframe ended up on its side but there was no fire.

SAFETY

The "Vuichard Recovery Aviation Safety Foundation" has just released a new safety video on "How to avoid a Vortex Ring State in helicopter operations". In this educational video in Part I of III, Pilots will learn the 3 perquisites to build up a Vortex Ring State. It presents the aerodynamic background of the build up and the typical signs of a Vortex ring State. Special emphasis will be laid on the different Vortex Ring State sectors in relation to the rotor disk load. The video is packed with incredible animations and exciting new footage. This video is only available in the members section on the VRASF.org Foundation website. You can register for free as a member and be the first to see this stunning video. For more information about the Vuichard Safety Techniques please visit the website of the Vuichard Recovery Aviation Safety Foundation: www.vrasf.org or contact us by E-Mail: info@vrasf.org Link to video:

<https://vrasf.cdn.spotlightr.com/watch/MTI5NDI1Mw==> [62374753]

UNMANNED

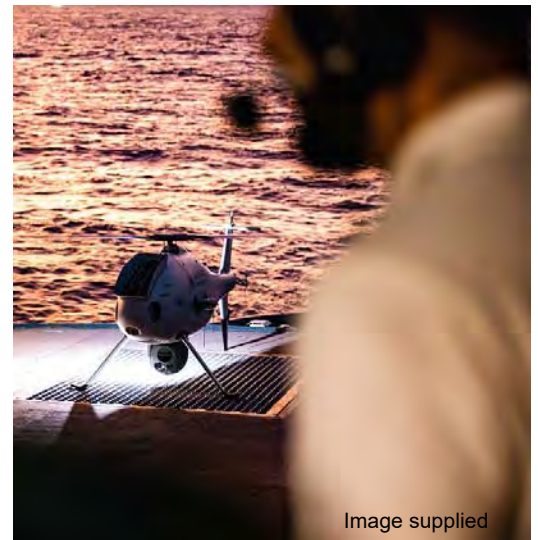
Schiebel is supporting global environment and wildlife protection activities through a partnership with Earthrace Conservation, a nonprofit organisation, providing its Camcopter® S-100 Unmanned Air System (UAS) for maritime deployment. Deployed onboard the Earthrace vessel M/Y MODOC, a Camcopter® S-100 system is currently supporting the NGO operations in South America. The main tasks involve finding and monitoring illegal fishing, identifying wildlife smuggling, hunting poachers, locating illegal gold miners, as well as rescuing illegally held animals.

In one of its recent operations of global interest, this July, the ship monitored a Chinese squid fleet in international waters west of the Galapagos Islands. The ships have been accused of various illegal activities in recent years, including:

- fishing illegally in Ecuadorian and Argentinian waters;
- spoofing of Automatic Identification System (AIS) by transmitting fake GPS data; and
- human rights violations.

The S-100 has proved to be a key asset to the Earthrace team, conducting regular flights that have allowed close monitoring and assessment of the fleet and its activities outside the Ecuadorian Exclusive Economic Zone (EEZ). Earthrace founder Captain Pete Bethune said: "The Chinese squid fleet is one of the largest on the planet, with an estimated 500 vessels. The S-100 significantly broadens the MODOC's area of operation and allows us to keep a close watch on the fleet. The fact that they are being observed has already led to a reduction in illegal activities."

The S-100 is equipped with a Trakka TC-300 Electro-Optical / Infra-Red (EO/IR) camera gimbal and an AIS receiver.



Teledyne FLIR, part of Teledyne Technologies Incorporated, launched SIRAS™, a professional drone that includes a quick-connect dual radiometric thermal and visible camera payload. Engineered for data security, performance, and affordability, SIRAS is optimised for industrial and utility inspection, public safety, firefighting, and search and rescue missions at a base cost of \$9,695.

SIRAS is the only enterprise drone to currently incorporate the patented MSX® technology, which overlays the edge detail from the visible camera on the thermal image to provide critical information in real time. The IP-54-rated aircraft features a 31-minute flight time, radar-based front collision avoidance, and backpack portability, so professional UAV pilots can fly safely when and where the mission demands. The included Vue® TV128 payload features a quick-connect gimbal, which provides imagery compatible with FLIR Thermal Studio™ and leading third-party photogrammetry applications. The 16MP visible camera can zoom 128x to pinpoint details. The integrated 640×512 pixel, radiometric Boson® provides thermal imagery, 5x digital zoom, and temperature-measurement of every pixel in the scene. To improve data security, SIRAS stores imagery on an onboard SD card and does not include cloud connection capability.



Most images in this feature by Mark Colborn

COLBORN IN VEGAS

I have deliberately left this in its original US spelling, terminology and grammar. It is a report on a US event that has international interest but it clearly refers to FAA rather than the CAA and EASA.

For All Things Drones: The Commercial UAV EXPO Americas 2022, Caesars Expo, Las Vegas, Nevada, September 6 thru 8, 2022

by Mark Colborn – PAN Correspondent in America

Bigger and better! These two words best describe this year's Commercial UAV Expo Americas held at the Caesars Forum in Las Vegas, Nevada. The Expo is aimed mostly at the drone inspection, mapping, and delivery segments, but public safety also constitutes a major chunk of the commercial UAV market. Therefore, DroneResponders returned this year to host seven hours of Town Halls, panel discussions, and informative seminars for public safety attendees. According to show organizers Diversified Communications, this conference attracted 232 exhibitors and more than 4,100 registrants from 60 countries and 48 states. Event staff were ecstatic, realizing a 74% increase of verified registrants over last year's event. They also sold out all the exhibit floor space.

Las Vegas, and every building in the city is massive, and to the human eye, judging distances becomes deceptively difficult. It is easy to mistake how long it will take to arrive at your destination. Once you set off on foot up or down The Strip in the oppressive September 45°C heat, this fact becomes painfully apparent. Last year, I made the mistake of not staying in the host hotel. I spent a small fortune on Ubers after trying to ride the bus the first day. After getting held on the bus twice while Las Vegas's finest were summoned to remove, and arrest, individuals for carrying weapons, Uber became the safer transportation option!

This year's event was held at the Caesars Forum, which is not co-located with Caesars Palace, but on the opposite side of the strip. The Forum does not have a "host" hotel per-se, but Harrah's and The LINQ (both also part of Caesars Entertainment Group and thus members of the Caesars Reward program) are the two closest and connected hotels. I smartly looked at a map before booking my reservation and stayed at Harrah's. I still had about a ¼ mile walk to the Expo exhibit floor. Several friends overlooked this small issue and booked Caesars Palace, which has 6 hotel towers, and were lodged either in the Augustus or Octavius Towers on the south end of the sprawling complex. This required them to walk over a mile just to get from their room to the Expo floor! Regardless of where you stay, my advice to anyone visiting Vegas – grab a new pair of Dr. Scholl's cushion insoles for your shoes before leaving home!

Overview and Highlights

There was a plethora of new exhibitors in attendance, along with many familiar returns. And again, show organizers put together a great program full of panel discussions and informative seminars focusing on construction, energy and utilities, AAM/UAM, and infrastructure. DroneResponders hosted four hours' worth of Town Halls, seminars, and panel discussions on Wednesday and three hours on Thursday. Matternet was the talk of the show this year with the announcement that the FAA granted a type certification to their M2 drone delivery system, the first of its type. At the keynote, FAA's Acting Associate Administrator for Aviation Safety underscored the significance of the Matternet type certificate achievement with Lisa Ellman, Executive Director of the Commercial Drone Alliance. On hand also for the keynote was Skydio CEO Adam Bry pointing out the reliability of drones and their inherent ROI value for the industry. On Thursday morning, Jay Merkel, Executive Director of the Federal Aviation Administration's Uncrewed Air-

craft Systems (UAS) Integration Office, lead a panel discussion entitled “Defining the Future of Drone Delivery: How Can We Enable Leadership, Collaboration, and a Collective Vision?” This discussion was thought-provoking and informative.

By far, the best part of any Expo like this is clearly the networking opportunities and connecting with other passionate drone enthusiasts like YouTube influencers Ken Dono (“OriginalDoBo” with 61K subscribers and 1000 videos), Billy Kyle (as himself with 123K subscribers and 663 videos), and James Standon (“B4U GO” with 7K subscribers and 195 videos). Also, it’s Vegas, so the after-parties and dinners end up being events that are worthy of sharing on social media. The most enjoyable aspect for me is simply catching up with friends, both old and new, who also share an excitement of drones and have an optimistic outlook on the future of the drone industry.

Tuesday Morning, Day 1:

The Expo kicked off at 6:45am Tuesday with the boarding of buses for the trip to the Henderson Equestrian Park to attend the live outdoor drone flying demos. Organized again by Sundance Media Group and emceed by Douglas Spotted Eagle, the event this year was better planned, ran smoothly, and luckily was devoid of equipment failures. Volatus Aerospace set up an air-conditioned tent in the vendor section and Sundance Media also put up several shelters and a misting tent near the bleachers. They also brought multiple pallets of water and provided snacks. There was increased turnout this year (300+), but we never ran out of bottled water.

Systems and solutions were the underlying theme behind this year’s outdoor demo, not just hardware. Ascent AeroSystems, Autel Robotics, Commaris, Frontier Precision, Skydio, Skyfront, Volatus Aerospace, and Wingtra all demonstrated what their products can do in real world operating conditions.

The first aerial flight was conducted by Frontier Precision Unmanned with a demonstration of the capabilities of the Free Fly Alta X equipped with a YellowScan Voyager LIDAR unit. The Alta X is a large quad with foldable arms (folds into a square) and has, according to company literature, an active blade design (similar to a helicopter rotor system) that reduces vibration to 1/5th of normal level. And just like in a helicopter, anything that can be done to reduce vibration reduces fatigue on components, extends motor bearing life, and allows cleaner data collection during photo/video and LIDAR missions. The company also boasts a 50-minute flight time with their Alta X (depending on payload).



Next to launch was Commaris with their flagship UAV, the SEEKER fixed wing VTOL drone equipped with a Centum Research and Technology Lifeseecker Mini S-10 sensor that locates and isolates cell phone signals on the ground. The technology can be useful for search and rescue operations because it can scan large, isolated

areas for the cell signal of a lost person, or conversely an urban area to locate a specific cell phone number.

Skyfront launched their Perimeter 8+ hybrid drone equipped with an Aevox Aerospace LIDAR unit. The Perimeter 8+ boasts a 22 lb./10 kg payload capacity with one-hour of endurance and with no payload can stay airborne for over 6 hours. The drone sports a G2K proprietary hybrid gasoline-electric propulsion system. Troy Mestler, CEO of Skyfront was quick to point out that the bird can be flown without re-chargeable batteries. He stressed the difficulties of shipping or traveling, especially on an airliner, with a drone when you have to lug large and bulky (and definitely heavy) Lithium Polymer batteries. Since the drone’s engine will con-



vert regular unleaded gasoline into electricity (and gas is available just about anywhere), this conceivably is a major selling point. Another selling point is the machine has 8 motors and rotors. Unlike a quad design that will crack up if a motor fails in flight, having eight provides nice redundancy and can prevent a catastrophe if one or even two quit or fail for some reason.

Jon McBride from Autel Robotics took the microphone next and introduced Autel's tilt-rotored VTOL Dragonfish platform. Jon is Autel's Director of Training and is also known as The Drone Jesus. Yes, he has fabulous hair, and I'm jealous, but he's not affectionately called Jesus strictly because he looks like Jesus, it's because – and I'm being serious – he literally knows everything there is to know about drones and is a natural born instructor. Maxwell Lee, the General Manager and Owner of Autel Robotics, sporting a classic cattleman's white straw cowboy hat, t-shirt, chino shorts and low top sneakers, piloted the craft while Jon described the AI tracking capabilities, flight time, and the wide variety of modular payload options available for the Dragonfish platform. It's the machine every law enforcement agency in America wants right now and is searching for funding to purchase.

Next up was Volatus Aerospace to demonstrate their remote piloting software. Volatus's aviation division, according to their website, provides commercial aircraft management and charter services, and long-range pipeline patrol and inspection with the integration of AI and autonomous solutions. For public safety, they offer program management (starting or expanding a drone program), training, hardware and software, and support. They specialize in providing Drone as First Responder (DFR) Beyond Visual Line-Of-Sight (BVLOS) FAA waiver programs. To show attendees how DFR can enhance operations, Volatus demonstrated how a pilot in Canada can remotely operate a DJI Enterprise drone in Las Vegas using their autonomous flight control solution.

Wingtra, an exhibitor out of Zurich, Switzerland demonstrated the agility of their WingtraOne winged VTOL electric drone. This drone, designed to operate out of tight spots, is mainly marketed to mapping customers for large-scale surveys. The flying wing-designed drone is really something to watch in flight, but especially on takeoffs and landings.



Skydio demonstrated their new autonomous scanning and data processing software that enables Skydio operators to create a 3D scan – or digital twin – of an area on the ground, like the interior of a production facility or plant, or a traffic accident or crime scene. The company states their autonomous software can perform a scan on a large traffic accident scene (which normally takes four hours), in less than 45 minutes. They demonstrated this at the demo by allowing a Skydio X2 to autonomously create a digital twin of a mock accident scene. In other news since the show, on September 15th Aloft and Skydio announced a partnership on data integration for Enterprise customers. Aloft Air Control for Enterprise and Skydio Cloud will bring customers a connected and secure data stream of flight logs, telemetry, asset tracking, reporting and more. Aloft and Skydio share many of the same customers, so combining services was the solution many customers asked for – especially in the utility industry. Aloft began as Kittyhawk, providing an excellent free Low Altitude Authorization and Notification Capability (LAANC) cell phone App solution for Part 107 Remote Pilots and recreational drone flyers, but later changed its name to prevent increased confusion with a company with the same name in another state building an autonomous, affordable, ubiquitous, and eco-conscious air taxi platform! Aloft, under contract from the FAA, also provides the free App service called B4UFLY. B4UFLY can be used anywhere in the USA to determine if it is safe to fly, and if a LAANC authorization is needed. Of note: on September 22nd, Kittyhawk Corporation, founded by Sebastian Thrun and backed by Google co-founder Larry Page, shuttered operations. On the Kittyhawk Twitter page, they simply announced, “We have made the decision to wind down Kittyhawk. We’re still working on the details of what’s next.”

Ascent AeroSystems demonstrated their DIU (Defense Innovation Unit) Blue UAS compliant direct drive 2X brushless motored and co-axial rotored, 13 ½ pound (6.1kg) modular drone to attendees called the Spirit. The Spirit is another interesting design to watch take off, fly through the air, and land. But the big showstopper was the company's new smaller and silent NX30, which has the capability to take off and land from the operator's hand rather than on the ground. The company said the NX30 will be ideal for public safety and the inspection industry. Both drones incorporate a modular design with multiple sections that can be customized with different payloads; for instance, a camera or Lidar scanner. Payloads and batteries can be mounted or stacked on either the top or bottom quick-attach fittings. Each module locks and unlocks with a simple twist, and according to company literature, a generous CG envelope accommodates a wide range of configurations. The drones are also all weather-resistant and remarkably quiet.

Tuesday Afternoon, Day 1; 2:00 to 5:30pm

Following a long and exhilarating cold shower after a morning in the blistering desert sun, two more bottles of Aquafina, and a delicious order of fish and chips and truffle fries from Gordon Ramsay's Fish and Chips in the alley between Harrah's and the Flamingo, it was time to head to the Expo Hall classrooms for the Exhibitor Showcases. Attendees had several different tracks to choose from:

- hardware, sensors, and cameras,
- software, data, and visualization, and
- hardware, services, and operational tools.

Each exhibitor had ten minutes to present their products and services. At the end of the session, all speakers were called back to stage for questions. This was a great format for exhibitors to introduce their products to a wide audience before the exhibit hall opened. Each room was packed to capacity.

Exhibit Hall Opening and Happy Hour(s) 5:30 to 7pm

The first thing I noticed entering the exhibit hall Tuesday afternoon – besides the open bar – is just how much the industry has changed or advanced in the past year. At issue for me is keeping up with all the name changes, acquisitions, and mergers that have occurred since last year. Also, it is difficult separating and keeping up with companies that have similar names, for instance; Measur and Measure, and Volatus, Volarious, and Votix, just to name a few. Measur, an exhibitor from Canada offers drone detection, strategy and development, and security services. Measure, out of Washington DC offers infrastructure and transportation, construction, hardware, surveying and mapping. Volatus Aerospace Corp. provides drone solutions for public safety, surveying and mapping, training and safety. Volarious (a Singapore company) provides custom-powered tether reel systems called the V-Line for drones, and Votix (Miami, Florida) provides drone software for managing, streaming and flying drones. More confusing is the host of companies and organizations in attendance with the word "Sky" (6) and "Drone" (16) in their title! James Standon told me he was amazed at the enthusiasm in the EXPO hall, and he was impressed that everyone he visited with had some type of solution. With a total of 232 exhibitors, it was difficult to talk with all of them – although I know several individuals that tried!

Wednesday, Day 2 - DRONERESPONDERS Programming

Vegas is known for its diverse night life that never sleeps. Realizing this, Diversified Communications waited until 10am to open the exhibit hall and DroneResponders waited until 11am to kick off their programming. And first up on the agenda was a Town Hall Meeting on the current state of public safety drone programs. DJ Smith from the Virginia Department of State Police, Dustin Bruzee from the Chula Vista, California, Police Department, Matt Slawson from Torrance, California, Police Department, Scott Mlakar, Lake County Public Safety, and Captain Ted Kalnas from the Los Angeles City Fire Department sat on the panel. Each panelist gave a quick description of their respective programs and talked about some of their challenges. Chief Kalnas remarked that his department learned from LAPD's experience with the American Civil Liberties Union, who shut down the LAPD drone program essentially before they could even get it off the ground. He said the biggest ongoing challenge he experiences is convincing command staff that drones are useful. He also said it is challenging working with state and federal fire agencies who also don't realize the benefits of using drones on large wildfires. And if they are allowed to use drones on wildfires, there is a constant problem educating fire commanders that are used to orchestrating crewed aircraft resources that drones are only allowed to operate up to 400' AGL and generally only on the perimeter of the fire. The tendency, he said, is for fire managers to simply shut down all crewed airside operations when drones are utilized. They don't understand, he commented, that both can be utilized at the same time safely—and with proper coordination.

A discussion then ensued regarding grants and funding. TJ Smith said his agency reached out to their Department of Transportation, and with the assistance of their funding resources, purchased the equipment they needed to start their drone program. He also remarked that law enforcement has been slower to get involved in the drone business because of "surveillance concerns." Chula Vista in 2017 used asset forfeiture funds to purchase their initial equipment, after which the Police Foundation provided funds. Transparency is the key to Chula Vista's program, according to Bruzee, and why it has been so successful. They push out flight data information to the public and vigorously employ social media to promote their Drones as First Responder (DFR) program, i.e. #DronesForGood on Twitter. Chula Vista's DFR program provides air support, assists with investigations, decreases response times and provides real-time information to responding officers before they arrive on scene. Sending out a drone first to assess a call for service often eliminates the need to dispatch patrol units, freeing up officers for other calls or duties. The program has over 10,000 responses since its inception, and the citizens of Chula Vista are very pleased with, and supportive of the program.

Each panelist was asked which type of equipment they operate, and the predominant answer was DJI products. LAFD is leaning toward Parrot and also considering BRINC.

The discussion turned to training and everyone agreed that no set training program will work for all agencies; rather, such training should be tailored to fit the agency's specific needs. All agreed that recurrent training is a major requirement and needs to be defined in departmental SOP's and MOP's. TJ Smith said that his agency uses the NIST BPERP course to test proficiency, and Chief Kalnas commented that LAFD modeled their UAS program after their crewed aircraft program. The LAFD program, he said, requires prospective pilot candidates to have an FAA Remote Pilot Certificate, as well as coming to the unit with at least ten hours in their drone logbooks.

The mention of logbooks prompted a question about what should be included in policy and procedure manuals. Panelists agreed that safety protocols should be put in writing and used during every flight. Captain Kalnas sagely stated that everything is incident-driven, so it is hard to define procedures for every contingency.

The discussion then turned to the subject of Counter UAS (CUAS) technology and the pending federal legislation that could change the landscape on this issue in the United States. TJ Smith remarked that we in American law enforcement are at risk of creating bad case law because we are still working with 1980's era aerial search and seizure case law precedents. He also reminded the group that it is illegal for local and state law enforcement agencies to knock a drone out of the sky or take control of one, and that police officers and their agencies need to educate themselves on the legality of the technology – before purchasing any CUAS equipment. Chief Kalnas remarked that fire departments are not being included in the CUAS conversation, and this is not good.



2nd Session – DroneResponders Programming

The second Town Hall Meeting kicked off at 2pm with a panel discussion about the Future of Public Safety. Moderated by Christopher Todd, AIRT/DroneResponders, the panelists included Brandon Dean Morris, SERTC, Brandon Karr, Pearland, Texas, Police Department, Katie Theilmeyer, Woodlawn, Texas, Fire Department, Matt Rowland, Fort Wayne, Indiana, Air Support Unit, Rich Gatanis, Southern Manatee, Florida, Fire & Rescue District.



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Uncrewed Aerial Systems and Urban Air Mobility (Session 2 of 3)

The recent significant growth in Uncrewed Aerial Systems will create a big impact on the available safe airspace. This highlights the need to harmonize the Unmanned Aircraft "Traffic System" Management (UTM), between an ecosystem for uncontrolled operations and controlled airspace.

How will we develop the safe and efficient aviation transportation system for UAVs and UAM?

How has Urban Air Mobility (UAM) become Advanced Air Mobility (AAM)?

Christopher immediately raised the temperature in the room by asking panelist what they thought of the Defense Innovation Unit (DIA) Blue UAS list. The Blue UAS list was created by the DIA, a United States Department of Defense (DOD) organization founded to help the U.S. military make faster use of emerging commercial technologies. It was launched in 2015 and is staffed by both civilian and active duty/reserve military personnel, which is based in Mountain View, California, the heart of Silicon Valley. The list was created because military and federal law enforcement agencies had security concerns about data from drones being sent to or intercepted by government services in China. DOD users and federal law enforcement agencies have been forced to purchase only drones on the Blue List and have been required to shelve any Chinese made drones or other drones not on that list. The list was never created to limit what drones state and local law enforcement agencies could purchase, but because of the recent paranoia over security, one state legislature (Florida) has already required the use of drones on the list and other state legislatures are seeking to limit state and local public safety purchases to the approved Blue List. And, as near as I can tell from the DIA's website, only 13 "American Made" drones are currently on this list.

Panelist don't buy the argument that agencies are resistant to purchasing approved Blue UAS listed drones because they have become used to using Chinese drones like DJI and Autel. In fact, many of the panelists wanted to purchase "American Made" drones but all agreed that the technology, sensor capabilities, as well as the price of blue listed drones, isn't competitive yet with the favorites, DJI and Autel. Brandon Morris cites a DroneResponders survey that showed most US made drones are five times the cost of a comparable DJI drone, and that 97% of respondents to the survey said they wanted to fly Blue UAS, but that the drones on the list are not yet competitive in both price and performance. A buy-back option was discussed, but everyone agreed that this idea is not an option because most agencies have too much money invested in their current inventories and there is no way legislators will allocate enough money to do a direct swap.

To get added to the DIA Blue UAS list requires a solicitation, and the rules for doing so are unclear and confusing to panelists. Also, there is confusion on exactly what parts of the drone can and can't be manufactured in China. There is also confusion about how much of the drone has to be made or assembled in America. Until these rules are clearly set, the panel unanimously agreed that we, as state and local LE officials, need to do everything we can to dial down the hype and paranoia. They agreed we need to approach and educate our legislators, and especially educate the media, who are quick to make hay on the issue.

The panel then spent approximately fifteen minutes discussing Remote Identification (RID), and what it will mean for public safety. Most panelists agreed that even though manufacturers are required to install RID into all drones sold after September 16th (the FAA has delayed enforcement of compliance with the rule until December 16th), it is too early to tell just how much the rule will affect daily operations. Agencies with legacy drones that can't be updated with a software fix will need to affix a self-contained RID beacon to their machine(s) by September 16, 2023.

Pitch the Press

The third DroneResponders session was entitled "Working with the FAA for Public Safety Drone Operations." Unfortunately, I chose to attend the "Pitch the Press" presentation at the same time inside the exhibit hall. Pitch the Press gave 16 exhibitors the opportunity, in two minutes with only one slide, to pitch their products and services to a panel of four journalists. After each presentation, a journalist on the panel was supposed to ask each presenter one question. Sadly, the questions fielded by panel members were bland and unimaginative. Although there were some excellent presenters this year, the journalists on the panel could have benefited from a couple cans of Jolt Cola or Red Bull before getting started to liven things up!



Thursday, Day 3 – DroneResponders Programming

This correspondent started off the DroneResponders morning Law Enforcement Drone Use Case Series with a *riveting presentation* on how the Dallas Police Department Air Support Unit, and specifically the UAS Squad, is supporting public safety by providing a safe and effective observation platform on law enforcement, fire, and other public safety incidents. Dallas PD's General Orders for UAS also states; "The UAS Squad will provide de-escalation tactics, transparency, and increased officer and citizen safety during dynamic situations. Missions will be accomplished efficiently while respecting the law and privacy of the citizens being served." I was a Senior Corporal acting as a Tactical Flight Observer/Pilot/Flight Instructor for 30-years in the Helicopter Squad until retiring in 2020. I stayed on as a sworn, unpaid reserve officer to help launch the UAS Squad. Dallas PD's UAS program officially started on July 1, 2021, but the planning leading up to the launch was a year-long process. Dallas has five full-time Part 107 certificated Remote Pilots who have become experts on clearing building interiors. Using DJI Mini-2s with propellor guards, the Squad regularly works with SWAT, Narcotics, and Fugitive units to secure buildings before officers ever set foot inside. This eliminates surprises and is much safer for entry teams as they know what to expect going inside. The department also has a written procedure, for officer safety, that requires these units to utilize drones in this manner.

The department currently has three DJI Enterprise Advanced, two Mavic Enterprise Duals, one Matrice 300 with an H20T dual sensor, 12 DJI Mini-2s, and 2 DJI FPV drones. On the wish list is a Autel Dragonfish and a DJI M30 with a H20N camera with 8X optical zoom and starlight night vision.

The main reason I volunteered to speak at this year's conference is to share my experiences switching from a crewed aircraft program to an uncrewed aircraft program. To be blunt, starting a drone program in a department that already has a helicopter program (especially one that has been in operation for 52 years) has not been easy. For the past 40+ years, an FAA Private Helicopter Pilot's License has been the minimum requirement to apply for a position in the helicopter squad. Most of our pilot applicants don't have the benefit of a trained military helicopter background like I did, so they must obtain the rating at their own expense. It's the only job on the department where an applicant is required to pay for their own training. So therefore our pilots were a little apprehensive at the start that drones could someday take their jobs away, thus forcing them to forfeit the expense of all the training they underwent to receive an assignment to the unit. This is an understandable concern. However, a University of North Dakota study found that drones are only capable of performing about 30% of the missions that crewed aircraft can do. The UAS Squad has to drive from the hangar at Executive Airport in South Dallas to call locations in the city, find a place to safely fly, set up, then launch. The process is time-consuming and mirrors similar response issues facing the K-9 squad. The helicopter, conversely, can be anywhere in the city limits of Dallas in less than ten minutes and immediately go to work for officers on the ground. The idea behind the UAS Squad has never been to replace the helicopter squad, but simply act as an augmentation to their service. For instance, the helicopter can launch and search for a perp or missing person until the UAS Squad can get to the scene and take over. This ostensibly will free up the helicopter to return to base (keep the flight hours on the bird down to a manageable level for maintenance) or respond to another call for service somewhere else in the city. Other areas that we have extensively used our drones – so far – is for observation of properties for planning, prior to the execution of a search warrant by our special services units, and for planned protests in the downtown Dallas area. During protests, we live-stream our video to anyone in the command staff that wants to see it using the IGAN streaming service from Cyatta Corporation. We do not record video during protest events, so as to protect the privacy of the participants; and we observe only to identify potential problems and keep the peace.



I also spoke of the media, and how to use the media to your advantage to promote your drone program. I moonlighted for several years as a news helicopter pilot. Best extra job I ever had, and I learned a lot about the news business from my photographers in the backseat. Most cops are not fans of the media, but I learned that local news station reporters and their videographers are regular people just like us. They keep crummy hours, venture into the same crummy areas that we have to work, and risk their lives on a regular basis to bring us the news. Don't be afraid to engage or befriend them. Get them on your side. Invite them to your police dinners and annual balls and banquets. They can be great advocates for your drone program when something goes wrong, or at budget crunch time. And during pressers, throw your media folks a bone to spice up the report for TV. There is nothing worse than listening to a department administrator drone on in a monotone voice about whatever the press conference was originally scheduled for; it makes for boring news. When we introduced our UAS Squad program at the Jack Evans Police Headquarters building, we had seven news stations that set up cameras. The event was painfully dull until one of our pilots launched a DJI Mini 2 to demonstrate how stable it is indoors. I walked up and pushed on the drone to show how the drone will always try to fly back to its original hovering position if moved by an object, person, or the wind. The reporters loved it because it was interesting and different, and each station ran with the footage.

Boulder, Colorado, PD UAS Squad followed my presentation in the morning session. Started in 2017, Boulder has 10 part-time UAS pilots and in 2021 flew 64 missions. This year they are already surpassing 70 missions. The department has two DJI Matrice 600's, one Matrice 300, two Enterprise Zooms, one Enterprise Dual, two LOKI drones, four DJI Mini-2s, and two FPVs. They utilize a marked box truck as a response vehicle and use DroneSense to stream their video to command staff. Unit members showed video they recorded from the Marshall Fire that burned a large subdivision of family homes and over 6000 acres of land. They learned two valuable lessons from that incident, which included being prepared for technical issues and getting locked out of flying because of a temporary flight restriction put in place by a federal agency. Their command staff wanted video of all the damage caused by the fire, so they divided into teams. It still took them a week to complete the project. Boulder keeps the Mavic Enterprises in their patrol vehicles so they are ready to deploy. And in a recent short pursuit of a suspected bank robber, they landed the drone on the hood of the stolen car the perp had been driving and subsequently abandoned. Instead of using a team of officers to approach and clear the car, which is risky to the officers, they were able to make sure with the drone that no other individuals were still inside.

Next up, Matt Olson and Scott Kleinfeldt from the Madison, Wisconsin, Police Department shared some of their experiences using drones in a cold-weather environment. They also showed several videos of their drones in action. It is always informative to see how other programs operate – picking up tips that we can use in our programs back home.

Unfortunately, I had to head for the airport about the time the DroneResponders Fire Rescue Drone Use Case Series got underway, so I can't report on that segment.

Interesting Exhibitors That Caught My Eye on the EXPO Hall Floor

One of my first stops stepping onto the EXPO floor – after grabbing a glass of Pinot Grigio at the open bar – was the Teledyne/FLIR booth. I was eager to see their new drone, which they debuted Tuesday at the show, called the SIRAS. (see page 24 for the company press announcement). Made in Taiwan and finished in the U.S., the drone sports a 16-megapixel daylight camera with 128x zoom and a 640x512 pixel 5x digital zoom radiometric Boson(R) thermal camera for night ops. A major target will be public safety operators. My first question is always, "How much?" The response was "ninety-six nine." Now realize my experience with FLIR over the past thirty years has been limited to their big gyro-stabilized and insanely expensive daylight and thermal imaging cameras for police helicopters. Therefore, my immediate response was "Wow, that's way too high," believing that what they meant was ninety six thousand, nine hundred! The SIRAS will actually only retail for nine thousand, six hundred and ninety five dollars (\$9,695.00), a fairly competitive price in reality. Everyone at the booth had a good laugh over my confusion!





Sony Airpeak displayed their beefy quad that claims to be the world's smallest drone that can be equipped with a full-sized mirrorless interchangeable lens Sony Alpha camera. The drone also includes Sony-developed stereo cameras and vision sensing processor with an algorithm for real time 3-D spatial awareness. The company claims the drone will achieve stable flight in enclosed spaces or when out of range of GNSS, and has an obstacle-braking function as well. The drone lists for \$8,999.99 with installed gimbal, camera, and lens sold separately.



Hansadrone, a German startup, is "The final 50 feet of drone delivery" company. How do you deliver packages to a high-rise apartment building in the middle of the city packed with other high-rise apartment buildings?

Hansadrone has the answer; an AI solution that autonomously defines a safe approach corridor from the drone's cruising altitude, directly to a hover in front of the customer, whether it be a door, window, or balcony. The company, according to exhibitor Olaf Weber, will offer two drones for delivery, depending on product weight. The Pelican 80 and Pelican 100 will incorporate for guidance an ultrasonic distance sensor as well as a LED light that will be recognized by the customer's smartphone. The shrouded rotored drone will hover in front of the customer while the customer opens a door on the front and takes their package.



Dronetag s.r.o, a Czech Republic company displayed their array of Remote Identification Beacons that are EU and US compliant. The company brochure states, "Remote identification is a system that allows drones to be digitally visible to other airspace participants. It will be mandatory for all operators in the US from September 2023 and for all EU flights in the Specific category from January 2024. The Dronetag Beacon is a 16-gram stand-alone RID beacon with an 8-16 hour battery life. All the modules and antennas are already built in (GNSS and Bluetooth) and will have MAVlink and DJI A3 support. The Dronetag is not only in compliance with EN 4709-02 and ASTM F3411 standards, but can also track your flight and manage your fleet with the use of Dronetag's mobile App. The Dronetag Mini is slightly larger (32 grams) but also includes a multiband LTE module with chip SIM included for extra connectivity. Dronetag, along with four other drone service companies (AirPixel, Laz, UpVision, and Workswell) were being promoted by CzechInvest, an investment and business development agency of the Czech Republic.

A2Z Drone Delivery, Inc., a Los Angeles, California-based company and developer of commercial drone delivery solutions, announced the launch of its second-generation Rapid Delivery System (RDS). An automated delivery winch eliminates the need for specialty cargo boxes and is capable of delivering any payload up to 10kg/22 lbs, making it, according to a company press release, the highest payload capacity delivery winch on the market. The company had a model set up in their booth that demonstrated the delivery of multiple pizza boxes. It was a real eye-catcher.

Whirly Vision is a membership cooperative program. According to a company brochure, Whirly Vision is designed for independent commercial drone entrepreneurs who have not yet established a formal business plan or a strong connection to their community and are ready to focus their efforts on developing a sustainable commercial drone business. Whirly Vision claims it is not a commercial drone company, directory, franchisor, or multi-level marketing program, but it does combine each of these four business disciplines. The brochure further describes the strategy, "In addition to the Member's personal production income, the Whirly Vision Membership Cooperative Program also assists its members in establishing a substantial passive income stream through the Recruiting, Referral, Content Creation, and Whirlymall.com

ecommerce Program Incentives, which contribute significantly towards the value and marketability of their exclusive Territory License; their exit strategy.” The company claims there is no other commercial drone business opportunity like it on the planet. I’ve always been leery of multi-level marketing programs, so this might be a company worth watching, if for no other reason than to see if the idea manages to get airborne.

Draganfly Inc. (Saskatoon, Canada), in the drone manufacturing business now for 24 years, is back with an eye-catching heavy lift drone. Simply called the Heavy Lift Drone, the company claims it will fly for 55 minutes with a 30.4kg/67 lbs. payload for a range of 30km. Their web site shows the bird fitted with a large underslung cargo delivery container.

DJI2S



ACSL Ltd. (Tokyo, Japan) showcased its aerial photography drone called the SOTEN and the Fi4 Inspection Drone for confined spaces. According to their website, SOTEN translates to “Sky in Spring” in Japanese and represents the image of flying freely in the sky, a space with infinite possibilities. The battleship grey color and its distinctive similarity to the DJI Mavic series of drones is what caught my eye. Equipped with a 20-megapixel camera, 4K 30fps video recording capability in either MOV or H.264 format, the drone features wide scalability, including closed network LTE communications and offline-capable maps for extra data security. The tether equipped Fi4 is specially designed to inspect narrow spaces 400mm (1.3’) or larger, such as sewage pipes. This small square drone with four rotors will soar through sewer pipes at 3 meters per second (or 10 feet per second) with a maximum flight time of 4-minutes.

Two Companies on the Rise and Worth Watching

Skyebrowse is the fastest 3-D modeling tool available to document, in centimeter accuracy with a drone, vehicular accidents, crime scenes, pre-plan critical infrastructure, plan active shooter mitigation, and much more with a one-button press. Launched in January 2020, a team of four at Skyebrowse developed three pieces of cutting-edge technologies that competitors have not been able to replicate. They include: 1) One tap 3-D modeling with the world’s fastest processing time, 2) The best nighttime 3-D modeling AI, and 3) real-time thermal reality capture. With Skyebrowse’s Hyper modeling, public safety agencies can generate true-to-life 3-D models in as little as two minutes. And Skyebrowse utilizes a CJIS compliant Cloud to alleviate evidentiary chain of custody and security issues. In February 2022, CEO and Co-Founder Bobby Ouyang and CTO Peter Jin raised a \$2.3 million seed round and instead of spending that cash on PR, they hired PhDs and extremely talented engineers (one in Poland in fact) to build life-saving tech for first responders. The company now employs 24 people, half of which are engineers. Skyebrowse is doing great things for public safety and is definitely a company to watch in the future.

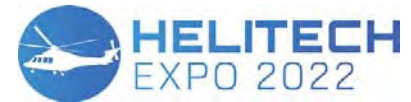
CYTТА Corporation IGAN, is an Integrated Global Area Network for mission critical communications composed of multiple streams of voice and video delivered in real-time, and viewable by multiple parties over one unified secure communication system and interactive geo-mapping system. The network is secure FIPS 140-2 and CJIS compliant. The new and improved IGAN 2.0 product allows real-time shared situational awareness, integrated 2-way and voice comms, livestream-encrypted video and audio and it’s easy to use and launch rapidly. It will take virtually any video source; for instance, a video feed directly from a DJI Smart Controller via a HDMI cable to a web connected laptop computer, or any 2-way radio. According to company literature, IGAN is designed to work as a common integrated interface for daily operations, or it can scale up to support hundreds of participants from separate organizations during an emergency. The Dallas Police Department, Chino Police Department, and the North Texas Public Safety Unmanned Response Team (NTXPSURT) are among the many users of IGAN. This is another company to watch in the future (“CYCA” ticker on the NYSE). www.expouav.com

Ed: When Mark told me he was growing a 1,500 word first draft I must say I was not expecting the article that subsequently arrived.

Mark Colborn is a Retired Reserve Senior Corporal with the Dallas Police Department Air Support Unit – UAS Squad. Mark served in the Helicopter Squad for 30-years, starting as a Tactical Flight Observer and progressing to Pilot and Instructor Pilot. He is also a retired CWO4 and UH-60L Blackhawk Standardisation Instructor Pilot for the Texas Army National Guard. A 40+ year aviator with over 13,000 hours. Mark is currently a member of the FAA’s Advance Aviation Advisory Committee (formerly the Drone Advisory Committee) and the United States Helicopter Safety Team’s Safety Analysis Team.

CAN HELITECH SURVIVE?

7-8 September 2022 ExCel, Docklands, London



The latest iteration of what was once a really great European helicopter showcase took place in London early in September. It started to go awry when the event pulled out of Duxford and moved to the ExCel Centre in London Docklands. A split with its European partners, now organising the successful European Rotors, only worsened the situation. It is unfortunate that it continues in a death spiral that can only lead to it ending. Helitech Expo 2022 was presented in cooperation with Drone X a successful crowd pulling showcase of unmanned technology – but not the helicopter show it once was.

The twin event was officially opened by Air Ambulance UK CEO Simmy Akhtar. The charity was the partner for what was always held to be the UK's leading business event for the rotorcraft industry. They were present to raise awareness of the lifesaving difference that air ambulance charities make across the U.K. Unfortunately it was to a dwindling presence.

Last year, despite many shortcomings there was something of a forlorn hope that the organisers could turn the negative situation surrounding the Helitech show around. There were positive signs that might be built upon by the organisers if they were astute. Although aviation industry exhibitors were shunning the show they were attending in significant numbers to network with each other and take in the relatively few full size aviation exhibitors. Last year the number of aviation exhibitors matched the number promoting drones. Whilst not a positive ratio it was marginally acceptable. The negative was that income was down for the organisers but there was a welcome buzz to the hall and was something that could be built upon by a skilful events team. If significant numbers lower levels of industry could continue to be attracted there was a basis upon which the organisers might build to again attract the all important manufacturers back to the show.

At the centre of this revitalisation plan was marketing the real event, not some dream that no-one recognised.

Unbelievably the organisers, Fortem International, were telling the would be exhibitors and visitors that there were to be 300 exhibitors and listing the names of people who were to speak although the individuals were unaware of their part in proceedings. Many were individuals who had spoken at the 2021 event, it was weeks before the list was cut down to a realistic size. The lie about the 300 exhibitors never went away.

On social media there are normally people making plans to meet at ExCel, complaining that they could not land their personal helicopter on the external car park and that the number of hardware exhibits was expected to be down on last year. This year there was none of that. If nothing else the car park had been dug up, but there was no-one to notice even that fact. The event was even dying on the web; it seemed no one cared about visiting the once popular event any more.

So what did Helitech Expo offer the visitor this year?

There was a helicopter. But it is unlikely many will have worked out why an elderly former 1988 Royal Navy Westland Lynx HAS3 ZF562 353 was sat in the middle of the hall hemmed in by other booths. The owners are Hayward and Green Defence Ltd.

There was a civil rotorcraft, a Gyrocopter by Cavalon but it was not a crowdpuller in any way. All a million miles away from the Helitech of old.

Like last year there were plenty of opportunities to network with visitors but, no matter how valuable the conversations, the numbers were significantly down.

Aside from the issue with speakers who did not know they had a role in the grand plan, there were some good Keynote Speakers who knew their stuff though most were talking on drone subjects in the multiple theatres assigned to the subject.

On Day 1 the Keynote Theatre included David Stepanek of Bristow Helicopters [right] giving an overview of where the company was with new e-technology. They are working with several companies each with differing designs and solutions to manned and unmanned eco-solutions for the future. Although these designs are unlikely to bear fruit before 2030 at the earliest, Bristow is in there as a potential operator of one or all of them for various roles.

Later on the same day it was the turn of Paul Watts from NPAS. In fairness the content of this presentation was little changed from last, the organisation remains in a state of limbo, there was perhaps an acknowledgement that there is a shortage of aircraft and that the adoption of the fixed wing has 'issues' - they were easily missed details.

The outline tenders are in for the new fleet, in the meantime a great deal of paperwork needs to be written by the bidders with only one ultimate



They were there but will they return? © PAR



winner. The next stage in the process is due in November. There is no expectation that anything interesting will actually happen for another couple of years so in the meanwhile the chronic shortage of aircraft and capability will continue. Ominously last year the NPAS presentation was to a packed audience, this year was significantly less full.

Ed: I fear the chance was allowed to slip away. The organisers have been told often enough by the industry, but the advice has fallen on deaf ears. The lack of visible professionalism extended to the two areas the organisers assigned to themselves on the south side of the hall. The desk areas were untidy and unwelcoming, just a messy work area.



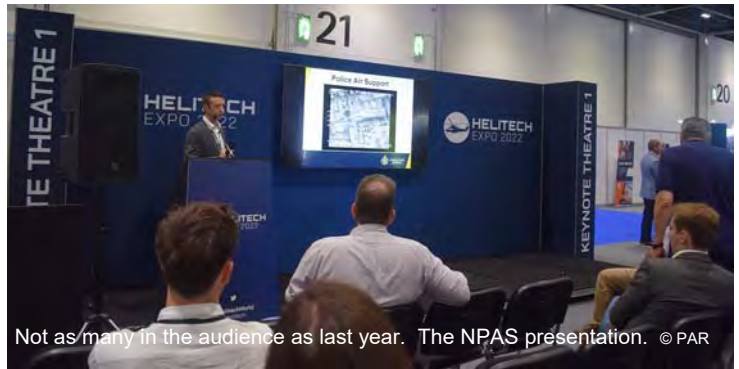
The second area, apparently that dedicated to future years of this event, was simply abandoned, a pair of black high heels discarded under the desk raising more questions than it answered.

Do not get me wrong, I have run an aviation event for a decade, I know the organisers always had a hill to climb to turn this event around. But if they were the professionals they claimed to be there should have been plentiful evidence of their resolve and capability by now. I gained the impression that they do not know the subject matter and made few if any attempts to interact with the movers and shakers in the industry.

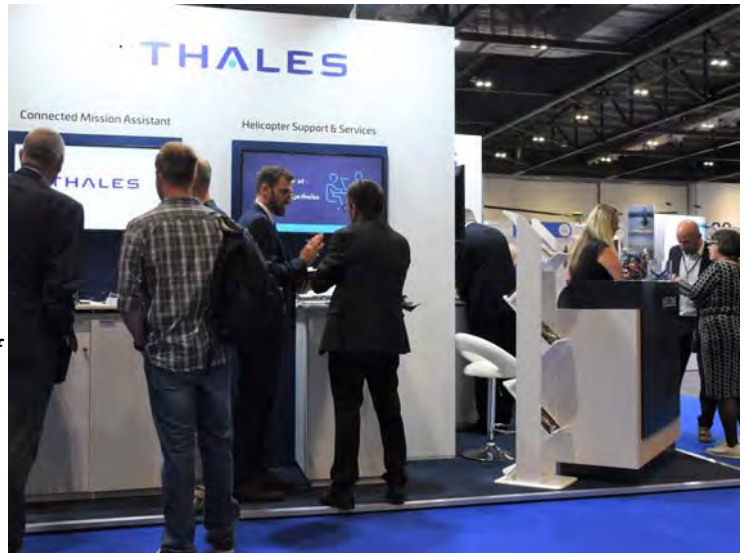
It appears that Helitech the brand and the content has been discarded without a care, just like those shoes. The danger is that the attitude of the organisers will also drag the Drone X event down with it.

Drone X will probably survive, I suspect therein the organisers heart really lies in that technology and perhaps the two do not mix well. In among the many exhibits were the many trials and projects delivering letters, packets, samples and drugs for the post office and health service – but all for some time way in the future.

Today drones are filling gaps in communications in countries where there are no reliable roads and ferries – particularly in Africa – but that might be expected. Where there is good infrastructure and health support the perceived need becomes increasingly fuzzy.



Not as many in the audience as last year. The NPAS presentation. © PAR



Helitech did attract some aviation exhibitors from the USA © PAR



NHS future—perhaps © PAR

www.PoliceAviationNews.com
A wealth of on-line resources



EMERGENCY SERVICES SHOW

September 21-22 National Exhibition Centre, Birmingham

The event demonstrated that even with unplanned difficulties it is possible to both hold an event together and to improve them.

It still struggles with aviation and police market content but this year pulled in some important threads that can in future bear fruit. The ESS is a show where you can usually get a face to face with some interesting people and sometimes to put them on the spot. It appears that this is becoming known for several of the usual targets were absent from both the exhibits and presentations. Hopefully it is just a temporary absence for the event is richer for their presence.

There were some apparent but illusory bright spots in aviation including the presence of Airbus and Babcock stands. As it turned out the Airbus presence was a German subsidiary promoting radio systems and Babcock had a range of products including aviation completions – but had no-one representing the aviation sector in the building.

Vislink were present but, hard on the heels of their tv work relating to the funeral of Queen Elizabeth they were mainly presenting ground based systems.

Missing from the floor on Day 2 were the drones of the West Midlands Police – in recent years they were high profile attendees and interacted with the fire brigades in including flight demonstrations.

The employment of Lord Bernard Hogan Howe as the ‘well-known name’ to hang some potentially useful presentations on worked reasonably well. His late afternoon day two discussion was well presented and his enthusiasm for the job shone through. It was clear that he acknowledged that the gap between Chief Officers of Police and the officers operating response on the streets was way too wide. While I might have been manageable in small forces including Merseyside and South Yorkshire, he found it particularly difficult when trying to interact between himself as Commissioner in London and anyone in lower ranks in the 30,000 strong Metropolitan Police.

Unfortunately not all the expected speakers turned up, including Matt Parr of HMICFRS – he was the one who wrote that damning report on NPAS – there were at least three of us waiting to interact but we were disappointed.

One of the major discussions was about moving the ground vehicle fleet towards electric and other green innovations. The conventional vehicle fleet is changed on a regular basis so there is an ongoing budget, albeit that electric road vehicles cost considerably more. Another aspect to bear in mind is that it is not currently possible for e-vehicles to replace the conventional high speed fleet on a one for one basis. Cost is one aspect but electric vehicles simply are not up to attaining speeds in the region of 155mph that are expected of cutting edge pursuit cars.

A panel of four (Lianne Deeming the CEO of Blue Light Commercial, Jo Osborne a commercial Director also from Blue Light Commercial and responsible for vehicle fleets and aviation, Joy Allen the Durham Police and Crime Commissioner, and Terry Woods a senior Manchester officer) presented the case for an electric future but reluctantly agreed that there was simply no budget for the ongoing police aviation helicopter replacement programme. There seems to be a belief in miracles Money will be found, but there were no suggestions about the identity of which money tree it was to fall from. At that time they were unaware of the closure of Doncaster—just another bill to be paid from an empty cash box.

It appears that undue expectation is being placed with the wholly unclear technology that is BVLOS long before it has proven any capability at all and also before it has been costed.

There was also something of a disagreement between Terry Woods the Greater Manchester ACC and PAN regular fixed wing advocate Tony Cowan over the real worth of the current generation drones. The ACC finds them great for his needs at sporting and special events. One wonders whether the success they score with him also relies upon the additional input from the plentiful and relatively cheap urban CCTV network and the presence of plentiful officers on the ground. There are very few CCTV arrays in the rolling hills and farmland where air support can tip the balance in a pursuit.



ESS Presence was not what it seemed for two major players © PAR





Quite a bit of interest in drone technology and companies hell-bent on selling the accessories for it.

In this instance the company Venari, was promoting a very expensive Ford truck wholly dedicated to drone support as Rapid Response Drone Vehicle.

It comes with a weather station, temperature controlled battery charging area, air suspension, on-board welfare facilities (not really sure whether that is a WC or a kettle), lithium powered inverter and a generator. Oh and it comes with a drone! Someone will buy it.

Clearly the supposed low cost solution offered by drones completely goes out the window for some. This after all is the modern day version of a box/milk crate to stand on and look over the perimeter fence. © PAR

Nothing has changed in the forthcoming aviation purchase. Where is the money and who knows what they are buying? There are regular reports of industry being asked puerile questions on technical subjects that should be first hand knowledge for police aviation professionals. These are clearly being fielded by people with little knowledge of the subject.

Points of contact (exhibitors) missing from the show included the Home Office, even though they are a high profile part of both police aviation and the ongoing English Channel migrant crises. There was no perceptible point of contact across the show – a situation that also affected the Border Force.

Also missing were the Emergency Services Network (ESN) presumably this would be replacement for the nationwide Airwave communications system are working from home and too embarrassed to attend an event where people might ask where it is. Due in service 2017 latest prediction 2028.

There are usually lots of volunteer services in the hall but many were absent. The Civil Air Patrol, a regular attendee at pre-covid editions of the ESS, members of the Civil Air Patrol promoting volunteer aircraft provision and operating drones with and for such as the Police Service of Northern Ireland. In fairness the numbers may still be depressed due to lingering worries related to Covid.

This year was quieter than some but barring the missing elements it still delivered and entry remains free and even the car park and shuttle buses are free. Organised by Broden Media Ltd., Robert Denholm House, Bletchingley Road, Nutfield, Surrey, RH1 4HW <https://www.emergencyuk.com/>



EUROPE

Next month European Rotors, returns to Cologne, Germany on November 8-10. It is fair to say that the organisers are motivated and informed and therefore succeeding in their intentions to produce a great show. For a start they are working with the media to get their story out to the public and make sure it is accurate. To that end they are working with Parapex Media to push the project in a variety of rotary wing publications.

The event is run jointly by EASA and EHA European Helicopter Association, initially bringing together the EASA Rotorcraft/VTOL Symposium and an exhibition led by the major helicopter OEMs. To this has been added activity streams for both training and career progression, an in-hall conference running on three stages. After a glitch brought on by Covid in 2020, the event started last year and 2022 is the second run for the event. It is already the second largest helicopter event in the world (to the long-running Heli-Expo) In short, this event is applicable to experienced people in the industry right down to new entrants such as students, private and commercial pilots, corporate operators, MROs.

Last year the event attracted 160 exhibitors and an initial hope or expectation was that they may increase



that number to 180 this year. In the event they were further tempted to up the number to 200. They are confident they will make the higher number.

The venue is the same as last year but more of the building is being brought into use to meet this year's expanded needs. The Konrad Adenauer conference facility, part of the main facility, was only partly used last year, but it is slated to see greater use in November. The main floor of the show will have three presentation theatres but a number of smaller meeting rooms will be available to call upon if there is a perceived need for 'behind closed doors' meetings for any group. This is something the police often call for at events but rarely take up if it is presented. The availability of this space is being planned into the event so the organisers at least have a solution for an as yet unrequested need.

There are paid training courses and these will be operated on the Monday so that attendees can take in the exhibition and free conference at the end. Their training fees will include 'free' access to the event. In this manner it is hoped that it will deconflict the training and event problems experienced in 2021.

There has been a significant growth in training, presentations and conferences. Last year it was found that persons attending training classes were unable to find time to attend the exhibition so this year there is a will to place the training on days other than when the main event is being run. The HEMS industry sector has grown from a day to a day and a half and the running of their events is largely their responsibility as they naturally know the subject better than the European Rotors organisers.

The police conference presentations are mainly confined to the Wednesday (9/11) and have attracted a number of agencies across Europe including Austria, Belgium and North Rhine Westphalia. Although there is no sign yet of an interest from the Bundespolizei just down the road in Hangelar this subject matter is still a matter of negotiation and talks are taking place with other police air units and ASOG relating to participation. Sometimes these things blossom, almost unexpectedly, at the last moment.

At the present the various courses being run do not attract official recognition (such as CPD points) but the event organisers are looking towards getting something of the kind introduced in the future. Initially attendance certificates may be part of the route.

As for airframes it is a little more complex, as of mid September there is an expectation of perhaps 15-20 larger airframes plus a number of smaller drones. This is a vertical lift event but, unlike full size helicopters, there are no special static area measures to be put in place for the smaller craft. How many drones will actually appear on the day remains one of the unanswered questions with around 40 days to go.



European Rotors 2021—some interesting projects on display—though not necessarily something you would want to fly in or on! © PAR



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UPCOMING

6-8 October 2022 NIST sUAS Standard Test Methods Proctor Training Course -**Basic. Fort Wayne Indiana Held at Fort Wayne Police Training Center**, 7602 Patriot Crossing, Fort Wayne, IN 46816 24 hours of classroom and hands-on flight instruction covering the National Institute of Standards and Technology sUAS Standard Test Methods. The NIST sUAS Test Methods include four different “test lanes”: Basic Proficiency Evaluation for Remote Pilots (BPERP-Part 107 qualification); Open Test Lane; Obstructed Test Lane; and Confined Test Lane. These test methods can be used to evaluate sUAS capabilities and sensor systems, or remote pilot proficiency for credentialing. This course will cover BPERP and open lanes. The tests are easy to conduct alone or in groups, and inexpensive enough to set up multiple concurrent lanes. They are quick to perform, typically less than 30 minutes to conduct all the tests in a given lane, so they can support flying practice for remote pilots at the beginning of every training session. Register on-line at www.publicsafetyaviation.org

7-9 October 2022 NIST sUAS Standard Test Methods Proctor Training Course – Advanced. Creve Coeur, Missouri, USA **Missouri Baptist University**, 1 College Park Drive, Creve Coeur, MO 63141. 24 hours of classroom and hands-on flight instruction covering advanced aspects of the National Institute of Standards and Technology sUAS Standard Test Methods. The course will address constructing and managing the NIST obstructed test lanes, night operations, beyond visual line of sight (BVLOS) operations and embedding apparatus within scenarios. These test methods can be used to evaluate sUAS capabilities and sensor systems, or remote pilot proficiency for credentials. Register on-line at www.publicsafetyaviation.org

27-29 October 2022 NIST sUAS Standard Test Methods Proctor Training Course – Advanced. Niceville, Florida, USA Register on-line at www.publicsafetyaviation.org

16-18 November 2022 NIST sUAS Standard Test Methods Proctor Training Course – Basic. Savannah, Georgia, USA Register on-line at www.publicsafetyaviation.org

9-11 December 2022 NIST sUAS Standard Test Methods Proctor Training Course – Advanced. Grand Forks, South Dakota, USA. **University of North Dakota, John D. Odegard School of Aerospace Sciences**, Robin Hall, 4251 University Avenue, Grand Forks, ND 58202-9036. Register on-line at www.publicsafetyaviation.org

