

Police Aviation News

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Issue 294

October 2020



Kenya Police Air Wing Shock
NPAS: Dreaming of Drones
California Burning - Again
The EPiShuttle Industry

LAW ENFORCEMENT

BELGIUM

CHARLEROI: Late in August it was reported that “Belgium's aviation police chief” has been moved to an administrative department following an outrage. This event is not related to Belgium's State Police air unit., including the item here is to clarify that fact.

The person affected is Danny Elst, he headed up the police detail at Charleroi airport near Brussels two years ago. The so called outrage was a 2018 incident in which a Slovak traveller was killed. At the time of the incident, Elst was on duty. He would have been aware of the facts surrounding the police action, the death and allegations that images of a policewoman apparently performing a Nazi salute as colleagues restrained an injured inmate who later died.

He has stepped down from his post, but sources give different viewpoints on whether it is a permanent resignation or simply standing aside as the enquiry into the death of Slovakian Jozef Chovanec, reaches a conclusion. was arrested at Charleroi airport in 2018. Whilst in custody, the 38-year-old banged his head against the cell wall until he was bleeding. He was restrained and resuscitated but fell into coma and died.

[Deutsche Presse-Agentur GmbH]

Ed: Charleroi is a small airport mainly dealing with European flights.

GERMANY

BADEN-WURTTENBERG: Some months ago, PAN reported on NordRhein working up to the use of Bambi-buckets to undertake firefighting with its fleet of H145 helicopters.

Last month it was reported that the Baden-Württemberg police had also started to receive and train up on Bambi buckets. The primary purpose is to assist fire units on the ground fight forest fires. Two H145 helicopters will be given external load hooks to which the foldable external fire container can be attached. The first aircraft was modified in May 2020, and a second will be upgraded from October 2020 to carry the 910 litre Bambi Buckets.

KENYA

POLICE: A number of government air programmes, including the long-standing Kenya Police Air Wing [KPAW], are facing major changes in the future.

Plans are at an advanced stage to hand over the management of state-owned aircraft to the Kenya Air Force. President Uhuru Kenyatta is set to issue an Executive Order to effect the changes once the plans are completed.

With the changes, all planes owned by the police, Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), KenGen, Kenya Power, Ketraco and other State agencies will be managed by personnel from Kenya Air Force. This will transfer civilian operations to the military.

Kenya Air Force Commander Major General Francis Ogolla and Inspector General of Police Hilary Mutyambai met police pilots and engineers on September 22 at the National Police Service (NPS) air wing based at the Wilson Airport, Nairobi, to announce the plans.

Although there are no attributable government sources for the story it is said all of the aircraft will be “rebranded” and placed under the command of Kenya Air Force for accountability. Rebranded may indicate that the registrations will change from civil to military and the markings to the air force rather than the individual operator.

According to the unattributable sources the move is all about injecting military discipline into the operations. The Defence Forces and National Intelligence Service appear to have earned the trust of President Kenyatta where a whole range purchasing, and operational calamities surround the police service.

The air wing has 21 pilots and 39 trainee pilots in its 150 staff. Police work has in the past been affected by lack of aircraft, with many in its fleet grounded.

Ed: The KPAW has been operating for around 50 years, since the 1960s, and has flown at least 40 aircraft in that time. Ten significant accidents have been noted.

COVER: The emergence of the EPIshuttle is the face of COVID-19 for the airborne emergency services. The 'must have' accessory to enable the world to move around infectious patients. In this issue you will find two related stories of the new industry including a new DRF Luftrettung fastener ground plate developed under EASA STC.

Police Aviation News is published monthly by **POLICE AVIATION RESEARCH**,
7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK.
Contacts: **Cell:** +44 7778 296650 **Skype:** BrynElliott or +44 20 8144 1914
E-mail: editor@policeaviationnews.com and policeaviation@hotmail.com



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September 4, 2020. above the North Sea near the island of Texel two Leonardo helicopters joined up for a photo-shoot. Belgian Airforce Agusta A109 H35 and Dutch National Police AW139 PH-PXX. On this date the A109 was withdrawn from military service. Forty-six A109s were purchased by the Belgian military in 1988.

NEW ZEALAND

POLICE: Christchurch will not have a fulltime police Bell 429 helicopter in the immediate future, despite “extremely positive” feedback following a five-week trial earlier this year.

A letter from a police officer, Nick McHugh in Christchurch, published in the September Police News magazine, said during a recent visit by police Commissioner Andrew Coster, it was revealed the helicopter would not return to Canterbury fulltime. The writer believed every officer who had worked with the helicopter had found it beneficial in helping to prevent crime, catching offenders and increasing safety. This information was a small part in a letter focussed on many aspects of officer safety.

In response to the letter, a police spokeswoman confirmed Coster met with several staff “informally” while he was in Christchurch recently.

“In answer to one of the questions raised, he indicated that any consideration of extending Air Support would need to be made in context with existing priorities.” [Police News <https://www.policeasn.org.nz/>]

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POLAND

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POLICE: The Bell 407 GXi for the police is one of three machines that were contracted for in 2019, and has been outfitted by Bell’s plant in Prague, Czech Republic.

The helicopter has been fitted with a day and night optoelectronic Trakka TC-300, system operator's position, image recorder, moving digital map system, wireless image transmission to terrestrial receivers, and a remote-controlled Trakka A800 searchlight. The system enables detection, identification and tracking of vehicles, at the same time estimating and providing their speed, which, together with the transmission system, enables not only the recording of offenses, but also the intervention of ground patrols with verified data, enhancing the safety of first responders.

Digital avionics are led by Garmin’s G1000NCi Integrated Flight Deck, and power comes courtesy of a Rolls-Royce 250-C47E/4 engine featuring FADEC (full authority digital control).

The Bell 407 is based on the Bell 206, already operated by the Polish police for many years, with the most important features being a larger cabin, four-bladed rotor and new drive unit.

Ed: This was a hard fought contract for Bell, with difficult negotiations taking place throughout 2018 and even impinging on the focus of the PAVCon Europe that year. It was difficult for seller and buyer when the venue for the event that year was also the Bell agents base.



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The police may have been reporting the Elbit trial as 'theirs' but, as the SAR type markings clearly showed, this was very much a demonstration focussed on maritime and coastal patrolling. If the police cannot afford a fleet of new helicopters they will find this beast even more costly to acquire. [Elbit]

UNITED KINGDOM

NPAS: Three days after Elbit Systems UK announced they had been flying trials for the MCA the National Police Air Service (NPAS) announced that it has carried out "an initial evaluation of remotely piloted aircraft technology" in partnership with Elbit.

In doing so it was seeking to explore how this technology might be used to deliver public safety in support of the police forces of England and Wales in future.

The trial included a series of simulated typical police aviation scenarios currently fulfilled by the existing national fleet of helicopters and aeroplanes in support of the 43 police forces of England and Wales and British Transport Police.

A report on the trial's success is expected to follow.

Captain Ollie Dismore, director of flight operations at the National Police Air Service, said: "Meeting the diverse needs of the police forces of England and Wales requires both flexibility and versatility.

"With continuous advances in UAV capabilities, UK policing is rightly seeking to explore the viability of platforms such as these for possible future use in delivering police air support nationally.

"Currently serviced by our national mixed fleet of helicopters and aeroplanes, police forces require us to embrace innovation and make use of advancing technology, including seizing opportunities to reduce our carbon footprint. This will allow us to continue to make the best use of resources into the future and best ensure public safety.

"If this technology enables us to fulfil our national remit more efficiently and either as or more effectively than with our current assets, then it will be considered as part of a future national police air service fleet."

This is part of a wider test of Elbit technology organised by the Maritime and Coastguard Agency and announced by Elbit Systems UK three days before the NPAS announcement.

As predicted some months ago Elbit have been demonstrating the capabilities of the Hermes 900 to potential UK airborne emergency services users. Because of the current Migrant activity in the English Channel at the present time the prime focus remains Maritime Search & Rescue Flights for the Maritime and Coastguard Agency and the aim is to offer an ability to fly in unsegregated and uncontrolled airspace in full alignment with the UK Civil Aviation Authority

Ed: Notwithstanding the belated interest of NPAS in all things unmanned the current problem with Elbit Systems' Hermes 900 Unmanned Aerial System is that its theatre of operations is strictly limited. The operations flown in support of the MCA at the moment by the Tekever and Watchkeeper drones are strictly over water.

Uncontrolled airspace is overwater, or over pretty much deserted land. Not the sort of territory populated by criminals, other than sheep rustlers and perhaps (shortly) EU fishing boats from France and Spain! That restriction will set aside and unplanned and spontaneous missions so the crooks in Wakefield can feel safe for quite a while yet. Meanwhile, other people's drones appear to be working well over the English Channel.

The Elbit press release started a wholly useful discussion on the technology. The press picked up the prospect with great enthusiasm. For them this technology was going to happen, and police helicopters are to be consigned to history very soon. A Hermes is clearly going to be cheaper in terms of DOCs compared to the current helicopters if only because it has one engine. But in the UK one engine is deemed not to be enough when operating over people in a town or city.

What the Elbit (son of Watchkeeper) does not have is 'sense and avoid'.... just how long have we been promised that and waited for it? BAE used to have the Jetstream they were trialling sense and avoid in.... when did they announce complete success? They did not because it remains elusive.

It, an unmanned system with sense and avoid, will come in time but I bet your retirement will come a darn sight quicker.

Operating a light quad drone over a city is one thing but the Elbit is a big lump and no risk averse politician or Chief Constable is going to put a single engine flying brick over a city when the pilot has a field of view that is akin to a toilet tube. So, what happens when the engine fails? Any volunteers to land a ton of metal in a public park on a sunny day [and not kill someone] or better still try it at night guided by a GPS reference and that toilet tube view.

In the meantime, perhaps, the Elbit will work fine over the sea, the Scottish Highlands and Dartmoor but unfortunately there is little or no crime there to make such a massive investment worthwhile. After all Po-



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lice Scotland balked at the idea of buying into a far cheaper and more flexible manned fixed wing to cover the northern areas just a handful of years ago.

NPAS looked at other viable unmanned options a few years ago including the relatively inexpensive, silent 'eye in the sky', the Diamond DA42M Guardian multi-mission aircraft. It was to cost a lot less than a police helicopter, now quoted as £4.3M. You could probably buy ten DA42 Guardian's for the price of one Elbit Hermes 900 drone and get two engines on each of them!

☐ The press releases by NPAS and Elbit caught the imagination of the media, most have written up the story as if it's a done deal and due for introduction in a month or so and a site that rarely ventures into aeronautical stories - PoliticsHome - say that 'Plans by the National Police Air Service (NPAS) to use Israeli military-grade drones to replace helicopters and aeroplanes have raised concerns among privacy campaigners.' Then they contrast the mission profile of a DJI Mavic 2 with its 29-minute battery life and need to be in sight of the operator with the Hermes 900 that can fly for up to 36 hours at altitudes of 30,000 feet. Not quite the same mission profile or indeed a related threat to privacy! For Elbit I reckon they have got their name up in lights across a large swathe of the media for very little cost. As for NPAS, their role is not to fly over water or deserted islands, their role is to seek out and deter criminal activity where crime takes place. Busy centres of population. Just the place where a single engine unmanned craft is most unwelcome.

☐ After a bit of a nudge NPAS have again published the minutes of its National; Strategic Board Meetings and as a result the website now has the minutes relating to the last meeting in 2019 and the first in 2020. Subsequent meetings will of course be subject to the whims of COVID19 so we may yet see a fully recorded video meeting....

In truth the minutes are a great disappointment in that they reveal very little new. A reflection of the content is that only one short redaction was required in the 16 December minutes and none in those covering the 30 January.





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There is a continuing theme of worrying about keeping pilots and aircraft availability. The only brightness detected was that the shortage of pilots through the year meant that the salary bill was less than predicted and gave NPAS a surplus of unstated value.

Aircraft availability is the sum of the age of the fleet and the engineering effort that can be thrown at it. There is no detail, but it suggests that only North Weald has a good all-hours engineering support structure. Although NPAS dismantled the in-house engineering set up in place at Lippitts Hill the Metropolitan Police appear to have insisted in there being a suitable replacement. That provision clearly sets North Weald aside as unusual within NPAS. Hours for the four helicopters are down 25% though.

☐ The operational problems that emerged after the June 2017 Grenfell Tower fire in London continue to reverberate. The fire at the 24-storey tower in west London killed 72 people.

The claims the use of police helicopters at the Grenfell Tower fire made the flames worse and encouraged residents to head to the roof in the hope of rescue have been rejected by Independent Office for Police Conduct (IOPC) the police watchdog.



Its 80-page report says no helicopter came close enough to cause the alleged downdraft which might have fanned the flames. It also says there was no evidence that 999 call handlers suggested helicopters might be able to rescue residents. A series of six helicopters drawn from across NPAS are said to have been involved to provide eyes-on coverage through the night.

Police helicopters were almost continuously present close to the tower between 01:44 BST on the night of the fire and 16:05 BST the following afternoon. The report found that "desperation", led some residents, who were "completely trapped" to mistakenly believe they could be rescued by police helicopter. The helicopters sent by NPAS were not equipped for rescue, and rather were monitoring the scene for officers and other emergency responders on the ground.

The conclusion reads: "A small number of people in Grenfell Tower, who were already of the belief that they were completely trapped, out of desperation and being aware of helicopter presence, developed the mistaken belief that a helicopter rescue was a possibility. Films are likely to have influenced people's belief in what the helicopters can do." It recommended that emergency staff should be trained to explain to the public that police helicopters were not capable of rescuing them. The basic problem appears to lie with public confusion of the unreal capabilities of helicopters and crews as portrayed in movies with reality.

However, some areas of underperforming appear to have been highlighted and as a result NPAS has refreshed its training to include increased downlink awareness. A longer-term technical solution is to ensure that they are broadcasting via the National Emergency Services (NATES) which enables other emergency services to view the downlink. The intention is that NATES will become a default selection, to be funded by current underspends.

☐ NPAS are exploring the replacement of retractable antennas with fixed antennas but it is likely such a move would be linked to a wider fleet replacement programme rather than a retrofit. They continue to push for a fleet replacement programme, but the latest Business Case has pushed the price of any new aircraft up from £7.1M per unit to £7.7M and those figures are already ten months old.

☐ A telling point in the minutes was a comment by the West Yorkshire Chief Constable that if he found that there was spare money in the budget he would want to spend it on buying or renting additional helicopters to assist with operational delivery. It may have only been exasperation on his part, but it does stress the problems they continue to face.

☐ The ever-late troublesome Emergency Services Network (ESN) continues to take up committee times. The December minutes took on board reassuring words from the Emergency Services Network Project Director but since that time (ten months ago) the latest forecasts from ESN have been of more delays to the basic ground system without taking on board the more difficult aircraft system. With ever increasing costs being quoted for the delays the in-service date has slipped from 2023 to 2024 and seems to slip away by a year every nine months. [see later item this issue, page 23]



Finally, the January minutes announced that two board members who were Police and Crime Commissioners (Barry Coppinger of Cleveland and Anthony Stansfield of Thames Valley) were standing down at the 'next election' and would therefore not be continuing as members of the Strategic Board. Unfortunately, one of the lesser effects of COVID19 was the halting of the scheduled elections in May. The gentlemen stuck in post for another year had to rethink their plans. Barry Coppinger finally resigned his post in September and was replaced by his Deputy. Anthony Stansfield remains in post.

In mid-September Cubiq Recruitment were seeking to hire an aircraft mechanic with Vulcanair P68R experience. The favoured applicant would join a global leading aerospace company which is undoubtedly Gama the company that has the NPAS maintenance contract. Interestingly the duties of the applicant are to be at the South East Base (Client Site) and provide certification of own work alongside supervision and certification of unlicensed engineers' work.

Ed: it appears that a second site is being prepared to undertake maintenance of the NPAS P68R fleet. This may be North Weald, but several other options are possible.

While we still await the annual reports for the last two years, from an unofficial source comes details of how NPAS has been faring on the performance front.

"The downward spiral continues. Costs are up, Actioned Calls (where an aircraft arrives overhead a job) have gone down by nearly 4,000 from 20,990 to 17,135. Correspondingly, hours flown have reduced from 14,166 to 11,545. Prior to NPAS flying hours were around 24,000. That is a reduction of over 50%

"Total costs to Forces prior to NPAS was approximately £43M for 33 aircraft flying around 24,000 hours. Now it's £42M for 15 aircraft flying 11,545 hours.

"The author states that the police in the West Midlands [around Birmingham] seem to be the biggest loser, with their costs going from £1.8M in 2018-19 to £3.0M for 2019-20. Meanwhile, their number of Actioned Calls have plummeted from 1372 down to 585. Most Forces are paying less than before NPAS, but nearly half are paying more. The vast majority are paying more than last year with a reduction in the number of Actioned Calls."

Fuller data can be seen at <https://www.pprune.org/rotorheads/629081-npas-news-2020-a-2.html>

UNITED STATES

NATIONAL: Black Lives Matter continues to create more problems for the police in the USA than elsewhere on the globe. Legislative proposals to give citizens access to more police personnel records and curtail the use of tear gas and rubber bullets at protests were among those that failed to see the light of day but the fact that they were there in the first place points to a major problem for modern day police officers who are being targeted for more than just legal interference with their working lives.

After George Floyd was killed in Minnesota in May, protests shook California and the country, spurring the police reform proposals. The police unions sought to stall proposed legislation that planned for a strong citizen's oversight commission that included family of victims of police violence. So far, their defensive moves have been successful.

Lawmakers facing a massive budget deficit, wildfires, eviction cliffs, unemployment and the pandemic saw police reform less pressing. Not even protests around yet other police shooting of the unarmed Jacob Blake in Wisconsin brought the early momentum back.

ARIZONA: In Tucson the Pima County Sheriff's Department is spending more than \$7M to buy two new fixed wing aircraft and new surveillance gear to enhance the capabilities of the Sheriff's Department.

The department has a twin engine aircraft for prisoner extraditions and an AS350B3 helicopter N599SD mainly used for rescue missions, the majority of the airborne law enforcement and surveillance is with two single turbine engine Cessna 206H aircraft (Survey 1 and Survey 2). They cost much less to operate than the helicopter, but they're getting old and spending more time under repair than in the air.

Now Supervisors have elected to buy two new role equipped Cessna 208 Caravan planes with the latest fit in night vision surveillance equipment. The cost for the pair and their role fit is expected to be about \$7.5M.

The older planes, one is now 20 years old, will stay in the fleet, but transfer to Ajo where they will give the Sheriff's Department aviation capabilities in far western Pima County, but not need to fly as often as they do now.

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Pima County is located on the southern border of the USA has a total area of 9,189 square miles (23,800 km²) and a population just over one million that mainly live in and around Tucson where most of the aircraft are based.

CALIFORNIA: Bell has delivered N911AC its first production public safety configured Bell 505 Jet Ranger X to Alameda County Sheriff's Office Air Support Unit.



Alameda County is located in northern part of the San Francisco Bay in California and serves a population of some 1.5 million people in and around Oakland.

There are now more than 250 Bell 505's in service and they have now accrued over 50,000 fleet flight hours. This aircraft, fitted with high skids, is the first factory completed law enforcement model of the type and it offers customers a comprehensive role fit. The equipment includes a Wescam MX-10 Camera mounted on an Aeronautical Accessories' FWD Hardpoint, 17" Macro-Blue MB17W Display, AEM 300-

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INDIANA: In September 2020 the original Bell 206A N3399 was put up for auction. The 1968 Bell 206B JetRanger Helicopter with Allison 250-C20J engine. Turbine overhaul in 2017. Total time on airframe (TTAF) is 18,681.6 hours but that number is going to go up due to the helicopter still being flown until it is sold. Aircraft has two-tone paint scheme (White 817X Imron over Gray 6334X Imron) with gray interior. Landing and strobe lights converted to LEDs. Avionics include Garmin Transponder, Garmin GNS 430, Garmin GMA 340, King KY196A TSO, Hobbs meter, Chronometer LC-2H.



Also included are the helicopter landing cart, ground handling wheels, two Bose Series X headsets, dual controls, and helicopter battery maintenance charger.

This aircraft has been owned by the City of Indianapolis since new. All items are used and are being sold "AS IS-WHERE IS".

The sale does not include the role specific items including the FLIR Ultra 7500, Motorola XTL 5000 Police Radio, Spectrolab SX-16 and SLASS, BMS Transmitter system, Aerocomputer 5000 (and keyboards), Avalex monitors and mounts.

Currently we do not know whether this sale process is an long standing air unit being erased or preparations in hand for a new airframe.



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OHIO: Cutting the size of the Columbus police helicopter fleet has been proposed to the city council. If proceeded with the plan will reduce the police helicopter fleet to four. Some people have been outspoken about the cost of the MD500 equipped helicopter unit and the noise.

It is not just a noise issue there are claims that the poorer neighbourhoods are complaining about “being watched” and therefore felt intimidated by the helicopter presence.

Columbus Police have operated five helicopters since 2017, but six would be optimum with two on a flight schedule, two backups and two in maintenance.

AIR AMBULANCE CANADA

WINNIPEG: Shared Health is transitioning the management of LifeFlight to Shock Trauma Air Rescue Service (STARS) a move which will improve reliability within the service.

The announcement last month said the non-profit helicopter ambulance service would be taking over the operation and staffing of the fixed-wing adult transport teams starting on December 10.

In the past Shared Health have had to turn to STARS when faced with gaps in capability. Staff shortages and a lack of doctors to meet a 24/7 requirement for LifeFlight were resolved by STARS. They expect the move will bring stability to the service. Shared Health has had a contract with STARS to operate helicopter ambulance services south of the 53rd parallel since 2012 when they inked a 10-year contract with the organization. The deal expires in 2022 as does their management and staffing deal for LifeFlight. The shift will affect six nurses hired to staff the current service.

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The service was created in 1985 and also handles transfers of patients to other provinces, which will continue to be managed by the province alongside child and neonatal flights.

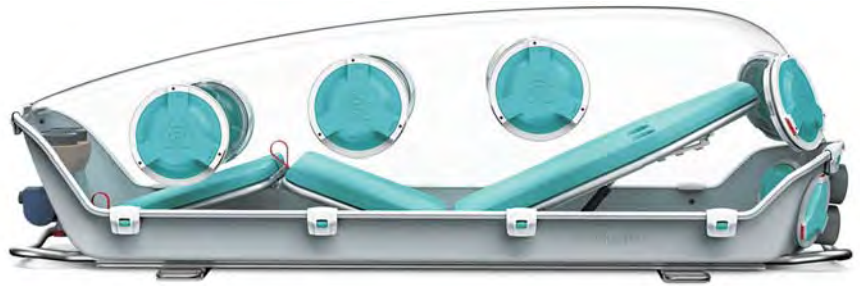
GREECE

EKAB: One company that has seen its business booming during the COVID-19 crisis has been Norway based EpiGuard. Headquartered in Oslo the main production facility is south of the city in Fredrikstad Municipality.

The latest major order for the EpiShuttle was announced in early September from the Greek Ambulance Service EKAB.

Generous donations made by companies and individuals have funded seven state-of-the-art isolation pods for COVID-19 patient transport in Greece.

With the EpiShuttles in place, the ambulance service can perform patient monitoring and full intensive care of infected patients during air, sea and land transport. In case of a local outbreak, patients may now receive fast and safe transportation, even from remote locations. Thus, the EpiShuttle contributes to keep both tourists and Greek citizens safe.



The EpiShuttle is completely airtight, and as a second barrier it has negative pressure with P3-filtration to prevent any contaminated air from escaping from the isolator. The EpiShuttle keeps the staff safe. Also, once the patient is loaded, medical staff do not have to wear full Personal Protective Equipment (PPE) during transport of highly infectious patients. This allows for longer shifts and reduces the risk of mistakes due to fatigue or reduced situational awareness, Andersen explains.

In addition to 174 Mobile Intensive Care Units EKAB has three Agusta A109 Power helicopters. It has been recently estimated that approximately 500,000 patients are transported by EKAB per year. Furthermore, 2000 to 2500 medical flights were conducted per year.

EpiGuard is a Norwegian company established in 2015 providing solutions for safe transportation of contagious patients. The company's medical background ranges from intensive care, infectious diseases, internal medicine and anaesthesiology, and transport medicine.

IRELAND

COMMUNITY AA: The Irish Community Air Ambulance charity has just celebrated its first year in the air, against the backdrop of ongoing fundraising challenges, and ongoing appeals for public support.

Their official start date was July 30th, 2019 and in the 52 weeks between then and now, the Irish Community Air Ambulance responded to 520 medical emergencies in rural and urban locations across Munster, Leinster and Connaught.

The most common call outs include cardiac arrest, road traffic collisions, fall from height, equestrian incidents, farming related injuries and strokes.

Based out of Rathcool in North Cork, the Irish Community Air Ambulance charity works in partnership with the National Ambulance Service. The medical personnel on the helicopter, advanced paramedics and emergency medical technicians, are staff of the National Ambulance Service. The charity covers the cost of the helicopter, fuel, maintenance, and all associated running costs.

UNITED KINGDOM

DORSET: It has been three years since the Royal Bournemouth Hospital opened a new larger, night lit helipad after the HELP Appeal donated the entire cost of £117,000.

Since September 2017, it has seen 103 landings, which have included seriously ill patients from across the south of England, who have been flown in by air ambulance and larger search and rescue (SAR) helicopters throughout the day and night.

The Bournemouth Hospital site will be going through significant changes over the next few years, as it becomes the major emergency hospital for Dorset. The helipad is a key part of the changes and is future proofed with its excellent location next to the new Emergency Department, critical care unit, and other facilities being built on site.

EAST ANGLIA: It is 20 years since, on 6 September 2000, a new charity was formed to help save lives across East Anglia. The East Anglian Air Ambulance (EAAA) originally operated just one day a week, on a Friday from Norwich Airport, with one paramedic, this was the start of an important lifeline for many local people.

Over the last two decades the much-expanded operation has flown almost 30,000 missions and helped almost 20,000 patients, all supported by public donations that bring in £13M each year. From that one day a week the operation is on the verge of offering a 24/7 service from next year.

EAAA has grown from the confines of a small Bol-kow 105 (G-BFYA) to operating two H145 helicopters across the region carrying a highly-skilled emergency medicine Doctor and a Critical Care Paramedic, always taking the A and E department to the patient, no matter what the type of medical emergency.



GREAT WEST: From mid-August the emergency services aircraft normally based at Almondsbury, Bristol have been based at Staverton Airport.

The police EC135 G-HEOI and the Great West Air Ambulance EC135 G-GWAC moved out of Almondsbury to allow remedial building works to take place.

Anna Perry the Chief Executive of the Great West Air Ambulance told PAN that the reason for the relocation is due to apron resurfacing works. The apron concrete has been problematic since the construction of the site, leading to cracks and flaking of the surface, made worse by bad weather. Fortunately, BAE, who were responsible for constructing the airbase, arranged for the resurfacing works to take place under our contractual agreement with them. We anticipate operating from Almondsbury once more in October.

Ed: The site was constructed under a contract by BAE in order to move the police and air ambulance helicopters from their previous base – a valuable building site – at Filton Airport. The site was subsequently sold to the air ambulance who therefore became the landlord for the police operation. GWAAC's Critical Care Team moved into their new home two years ago, after a successful capital appeal raised £1.3M needed to purchase the site and secure the future of the charity's operations. Clearly that arrangement has still allowed the repairs to be funded by BAE.

LONDON: In a joint engagement between the Civil Aviation Authority International (CAAi) and the HELP Appeal, St George's Hospital, Tooting, has been the first onshore rooftop helipad to have new lighting installed on its helipad. The new configuration will enable pilots to clearly see the helipad landing area from a greater distance when flying at night. 'Circle' and 'H' lighting has been used in the offshore sector and an onshore variant composing a yellow lit 'circle' and a green lit 'cross' is now specified for rooftop helipads by the CAAi.

It's been six years since the official launch of St George's Hospital helipad in May 2014 and during this period five air ambulance charities have flown hundreds of critically ill or injured patients to St George's with 1,445 helipad landings overall. The helipad was the first to open in south London, took 11 months to construct and HELP Appeal donated £1M to cover the cost of the helipad itself. In



2018, the HELP Appeal donated an additional £400,000 to install a deck integrated firefighting system.

GREAT WEST: In mid-August the air ambulance and police helicopters based at the recently built joint operating base near Bristol moved to Staverton temporarily.

PAN asked and Anna Perry the CEO of the charity replied that the reason for the relocation is due to apron resurfacing works. The apron concrete has been problematic since the construction of the site, leading to cracks and flaking of the surface, made worse by bad weather. Fortunately, BAE, who were responsible for constructing the airbase, arranged for the resurfacing works to take place under a contractual agreement with the GWAA. The units should return to operate there again in October. [www.gwaac.com]

YORKSHIRE: Helicopters are now able to fly critically ill and injured patients directly to Hull Royal Infirmary after its new £600,000 helipad was declared operational.

Hull University Teaching Hospitals NHS Trust has completed the major construction project so patients across East and North Yorkshire and parts of Lincolnshire can be flown into the hospital grounds, the Major Trauma Centre (MTC) for the area.

The helipad, behind Hull Royal Infirmary's £12M Emergency Department (ED), had been funded entirely



by the HELP Appeal, the only charity in the country dedicated to funding NHS hospital helipads.

The trust funded the demolition of the Haughton building among others and clearance of the site before main contractor Unico Construction began work on the 30 metres by 30 metres helipad constructed with 900 tonnes of concrete. Features include an access road for fire engines and service vehicles alongside a second pedestrian route where patients will be carried out of the air ambulance and taken into the Emergency Department.

Special double fences have been erected around the helipad as "baffles" to reduce noise pollution, provide security and the majority of the site has been turfed with pinned grass covered with mesh overlay to act as a "soakaway" to remove water from the helipad. Lights have been imported from Holland to be set into the concrete, now covered in specialist paint.

Lincs and Notts Air Ambulance use the Hull helipad most often, with Yorkshire Air Ambulance and Derbyshire, Leicester and Rutland Air Ambulance also flying casualties to the city. The Coastguard SAR helicopter, based at Humberside Airport, also lands in Hull with people winched off mountains or those injured on oil rigs or out at sea.

UNITED STATES

COLORADO: Guardian Flight announced the opening of its newest emergency air medical transport base in Alamosa, Colorado. The new helicopter base provides air medical transport services 24-hours a day, seven days a week to the communities of Alamosa County and the San Luis Valley.

The Airbus Helicopters H-125 helicopter operated at this base is medically configured with the latest avionics and safety features. Guardian Flight operates additional fixed-wing air medical bases throughout the state, with locations in Alamosa, Del Norte, and Denver. The proximity of these bases allows for additional air transport coverage in the region when an asset is already in service on another call.

Guardian Flight is a participating provider in the AirMedCare Network (AMCN), the largest air medical transport membership organisation with more than 320 air medical locations across 38 US states. Members flown for a life- or limb-threatening injury or illness by an AMCN participating provider have no out-of-pocket costs for the flight. Whatever the member’s insurance – or third-party insurance – pays is considered payment in full. Annual memberships start at \$65.

MISSISSIPPI: Officials with Air Evac Life team and Med-Trans Corp., part of the Global Medical Response (GMR) family of companies, announced they signed an agreement with Blue Cross Blue Shield in Mississippi and Advanced Health Systems, Inc. (Mississippi State and School Employees Life and Health Insurance Plans), on May 1, 2020.

The agreement will cover hundreds of thousands of Mississippians. GMR is the largest provider of emergent air medical services in Mississippi covering all 82 counties. Air Evac Life team has four air medical locations in Mississippi – Batesville, Corinth, Greenville and Natchez. Med-Trans operates UMMC AirCare for the University of Mississippi Medical Center, along with Mississippi AirRescue.

Nearly 1.6 million (53% of the population) Mississippi residents live in a rural area where access to a Level 1 or 2 trauma centre can be more than an hour away, and emergency air medical transports serve as a safety network where access to care is limited due to the closure of the state’s rural hospitals.

NEW JERSEY: The transportation of lifesaving organs faced unexpected obstacles during the early days of the pandemic. While the aviation medical transport segment continued its emergency flights the



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virus posed unique challenges for both organ procurement and transplantation. As reported in earlier editions of PAN, the Civil Air Patrol provided free medical logistics flights in the UK, the voluntary sector often taking up the challenge to support urgent medical needs.

The USA faced the same problems of course but were served by different masters. There is negativity to any idea of a charity air ambulance in the USA, but others will step in where needed. The Issues faced included an inability to rapid-test organs and tissue for the virus – they became a significant factor in the decline of transplants. Potential recipients would rightly be concerned that organs from the donor could be COVID19 infected. There was a severe shortage of ventilators across the world and this was worse in areas that were hot spots for the virus. The donor is on a ventilator while being harvested and the recipients of the heart, lungs, kidneys and liver each need ventilators.

One team of researchers in the United States reported a decline of recovered organs from more than 110 a day on March 6 to fewer than 60 per day on April 5. During the same timeframe, the number of transplanted kidneys dropped from nearly 55 a day to about 35 a day.

This fall in demand affected the need to call upon specialist organ and medical carriers including ParaFlight EMS and Aviation, and its network of aviation partners.

Sim Shain the CEO of ParaFlight continued to provide private flights at no cost during the most difficult periods of the pandemic. Thirty missions amounting to 75 flight hours, were undertaken transporting a range of medical loads, including two flights that transported over 7,000 plasma test tubes to the Mayo Clinic. The company transported medical equipment to other hospitals and healthcare facilities, including a midnight flight to pick up a specialized ventilator in Albany, NY, via helicopter and flew it to NYC for a patient. They also repatriated more than 100 people back to the USA in both private aircraft and airliners.

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Despite the downward spiral in numbers during the early period of the pandemic, by early June, transplants were almost back to pre-pandemic levels, thanks to the improved availability of testing which allowed doctors to confirm if both donor and recipient were COVID-negative.

ParaFlight EMS and Aviation take on challenging responsibilities leading corporate, medical, and charity flights and missions specializing in organ transplants. Some of the work relies on philanthropy in making use of medically outfitted private aircraft to maintain charitable services. <https://www.paraflight.aero>.

FIRE

UNITED STATES

CALIFORNIA: Already it appears that the 2020 wildfire season is going to be a fierce one that will take lives and destroy property at a prodigious rate.

The massive Creek Fire high in California's central Sierra, led to the calling in of the California National Guard and the use of their Chinook helicopters to evacuate people trapped before a rapidly advancing fire front.

The four crew members in a Chinook had already taken part in an airlift of campers from lakeside camping ground on one side of the Creek Fire over a weekend. The three flights to Mammoth Pool were harrowing, but successful, extracting more than 200 people along with a Black Hawk crew. That incident led to the declaration of a state of emergency.

Just days later 50 people were reported trapped at or near Lake Thomas A. Edison. The Creek Fire had exploded across a region choked with dead trees, the resultant heat creating its own weather system and ambushing locals and visitors alike. An air rescue was their only hope. The first two attempts to reach them by air from Fresno had failed. Both federal and state fire officials were sure that the risk of flying again at night was high.

Crowded interior of one of the Chinook rescue missions ©DeptForestry



Blowtorch conditions ©Dept Forestry

Night flying was assisted by the light of the burning landscape and a shower of airborne embers. Night vision goggles filled in the gaps, but visibility was no more than a quarter mile at times. On the third night they made it through and loaded the Chinook and made it back to Fresno with some very thankful passengers.

There are many worries about people's lives and living accommodation, but the fires are also taking their living.

The current largest fire in California is the August Complex. It is working its way toward the cannabis-growing enclave of Post Mountain-Trinity Pines, where many of the locals are refusing to evacuate.

Law enforcement officers went door to door warning of the danger a few days ago, but they could not force people to leave. For the growers it is their livelihood. Part of Northern California is thought to be the largest



A member of the Lassen Hotshot crew fighting the August Complex fire shields his face as he walks past a fire line on the northwest flank above Ruth Valley.
(Mike McMillan / U.S. Forest Service)

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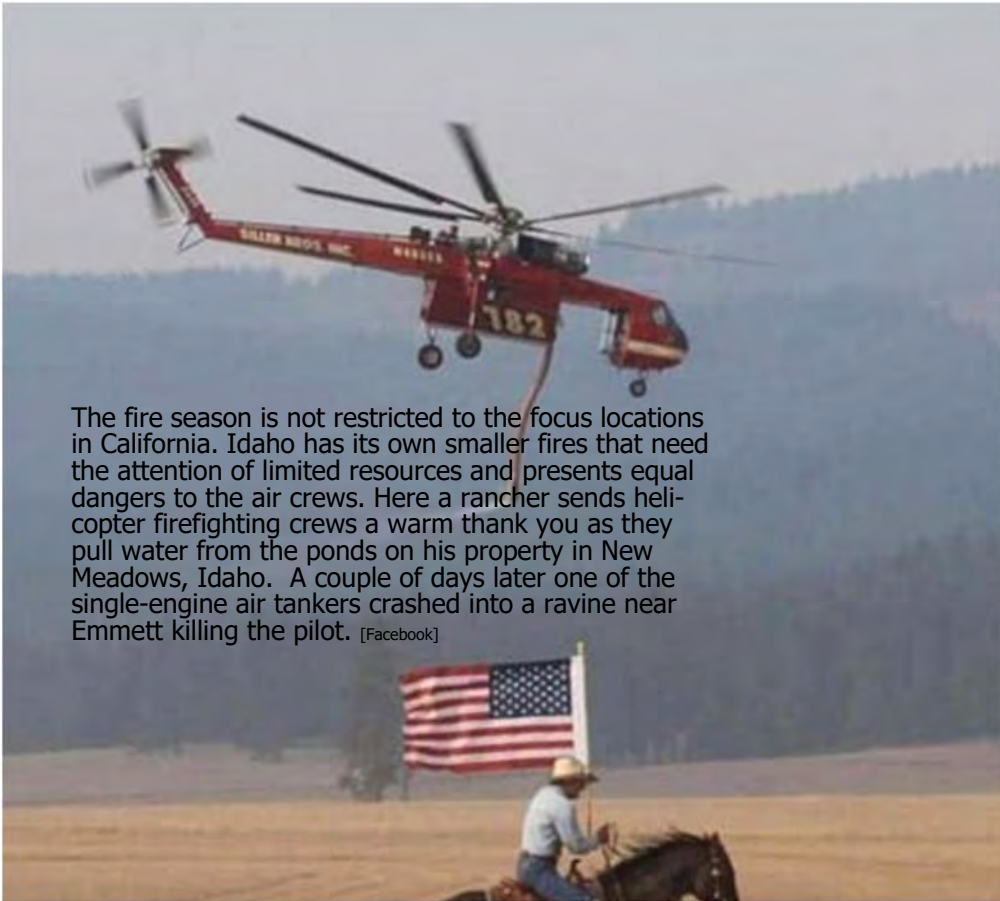
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The fire season is not restricted to the focus locations in California. Idaho has its own smaller fires that need the attention of limited resources and presents equal dangers to the air crews. Here a rancher sends helicopter firefighting crews a warm thank you as they pull water from the ponds on his property in New Meadows, Idaho. A couple of days later one of the single-engine air tankers crashed into a ravine near Emmett killing the pilot. [Facebook]

cannabis-producing region in the USA. Trinity Pines alone is home to up to 40 legal farms, with more than 10 times that number of illegal grows hidden off its dirt roads. Farms have crops worth \$500,000 or more, and the harvest is close. The legal crop alone may be worth \$20M and the gunfire in the area belies the turf wars that are taking place to protect such valuable assets. Many have life savings invested in the cannabis crop.

By late September the fire had grown to more than 860,000 acres and crept within a mile of Trinity Pines. More wind and heat are expected to fan the flames.

Fire officials have warned the community they will do everything they can to defend the crops but will not risk firefighters' lives to save residents who have refused to leave.

SEARCH & RESCUE

LEBANON

BEIRUT: Immediately after the recent blast in Beirut, Lebanon, Airbus provided satellite imagery to analyse the damage and helped government analysts, NGOs and first responders gain visibility into the catastrophe. The Airbus Foundation joined Association Les Amis Du Liban-Toulouse, Centre Hospitalier Universitaire de Toulouse, the Municipal Council of Toulouse, the German Red Cross/Bayer AG and Aviation sans Frontières, sent a fully-loaded Airbus A350 XWB aircraft from Toulouse, France, to Beirut with 90 cubic meter volume of humanitarian aid on board



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The cargo, which will provide much needed relief to those affected by the Beirut explosion, included medicine as well as visors and masks, school items, electrical products and IT-equipment. The goods are destined for the Saint George Hospital University Medical Center in Beirut, the local association Arc de Ciel and the Lebanese Red Cross.

UNITED KINGDOM

Elbit Systems UK recently successfully completed a series of flight demonstrations for the Maritime and Coastguard Agency (MCA). The demonstration was run by the MCA and were designed to test the capabilities of using a UAS to enhance SAR capabilities and the use of long-range unmanned capabilities in civilian airspace.



The Hermes 900 is large and requires a substantial piece of 'real estate' to operate from ©Elbit

Taking place off the West Coast of Wales over the first two weeks of September, operating as Coast Guard 26 (CG26) the Hermes 900 was able to fly advanced Beyond Line of Sight (BLOS) missions into unsegregated and uncontrolled airspace over the Bristol Channel, in full alignment with the UK Civil Aviation Authority (CAA). The success of these trials is a significant step forward in enhancing the capabilities of the MCA as they seek to improve the efficiency and effectiveness of its search and rescue operations while reducing the risk to MCA personnel in the field. Elbit Systems UK is closely collaborating with the UK Civil Aviation Authority, supported by additional UK companies, including Inzpire and Aviation Systems Group.

In the recent demonstration, the Hermes 900 equipped with search and rescue specific radar, an Automatic Identification System (AIS), EO/IR payload, an Emergency Position-Indicating Radio Beacon (EPIRB) and full satellite communications, was deployed on a range of missions that simulated shore-line rescues, water rescues in dangerous air space and long-distance ship rescues which crossed international air space lines.

With a wingspan of 15m, the 1.2 ton, Hermes 900 is already deployed with more than a dozen advanced customers around the globe providing search, rescue and reconnaissance capabilities. The Company offers extended life-saving capabilities with its recently launched Hermes 900 Maritime Patrol configuration with inflated life-rafts for detection, identification and saving the lives of survivors at sea.

Director of HM Coastguard Claire Hughes said: "We continue to do all we can to use existing technology as well as look to the future in our ongoing work of saving lives at sea. Remotely piloted aircraft continue to be a big part of that work both to potentially save lives in search and rescue and protect our beautiful coastlines from the worst effects of pollution." [Elbit]

Meanwhile, trials aside, G-TEKV the Tekever AR5 twin engine drone based out of Lydd on the south coast, seems to be doing rather well as it patrols up

and down the English Channel, inside its block of restricted airspace, for around 8 hours at a time. The Maritime & Coastguard Agency [MCA] is not promoting the operation, all news effectively reflects the sightings of many interested parties. Most flights start early in the morning and take in a constantly patrolled section of sea. In contrast the somewhat different trials of the Scheibel S-100 Camcopter, by the

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The Tekever AR5 is compact and has two engines that might suite urban patrols ©Tekever

MCA in North Wales, would seem to have gone rather quiet! Although it may be some time before drone flights become 'everyday common' the activity does show a willingness to assess systems in various price brackets.



They keep on coming ©PA

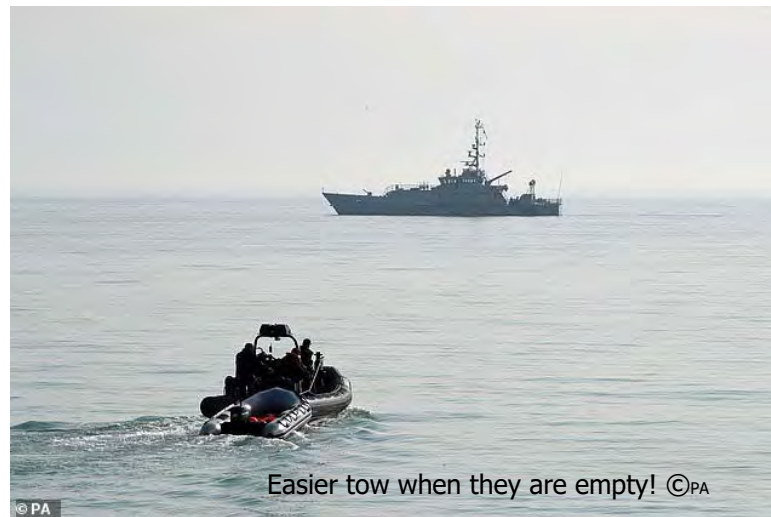
Meanwhile the fixed-wing, manned aircraft armed with EO turrets are able to undertake a far more flexible and wide-ranging patrol pattern, each though seeking out the apparently constant flow of vessels travelling from France to Britain. The multi-engine British aircraft assigned to the MCA maintain the search across the whole of the northern side of the English Channel out to 12 miles while single engine Cessna 172s of the French Police Aux Frontiers [Customs] venture out only a little way north of the Pas de Calais, over Le Manche (the French for the English Channel). Clearly the Coastguard King Air's and Piper Navajo's are a better

bet for venturing out over the sea. They have been good for 4 hours over the Channel after flying from and returning to Doncaster. There is no expectation that the NPAS Vulcanair P68R fleet will be involved.

There seems to be a disconnect over who is responsible for what is overseeing the Migrant traffic from France to Britain. Despite the fact that the Secretary of State for Transport, Grant Shapps is responsible for the Department for Transport and, therefore, the MCA with its fleet of helicopters and fixed-aircraft, it's the Home Office that's 'calling the shots' in the English Channel. Whether these departments have agreed this is unsure. A letter aimed at the MCA because they are clearly the people coordinating the flying took a month to be redirected to the Home Office, perhaps because they ultimately deal with the Migrants. Whether they will be able to answer an aeronautical question remains to be seen.

Meanwhile they keep coming. How many hundreds, possibly thousands, of migrants will have crossed the English Channel before someone addresses the letter remains to be seen! Perhaps the best defence yet is to bring in a consultant on divinity to pray for bad weather.

Time we were not here ©PA



Easier tow when they are empty! ©PA

While playing the squabble game there have been reports of the police in Kent complaining that people are arriving at the British beaches and declaring salvage on abandoned rubber boats and whisking them away to a better life – or the nearest auction – and yet there are numerous instances where the same said boats are shadowed to the beaches where there are no police waiting to receive them. As a result, the migrant mariners run off into the countryside and uncounted into a life in the black economy. Who knows how many are arriving unseen (except by the cameras of the media) and unwanted?

www.policeaviationnews.com
Emergency Services First

 A yellow police helicopter is shown in flight against a light background.

INDUSTRY

In the British Isles the **Emergency Services Network [ESN]** continues to take up a great deal of discussion time while progressing slowly towards a launch. When this system was proposed it all seemed so easy, it was promoted on the ideal that it based on existing technology (4G cell) and infrastructure and so could not possibly a difficult project to drive through. As we have learned constantly over the last few years the programme is expensive and slips constantly. There are long since abandoned police stations out there that cannot be sold off or demolished simply because they contain the equipment used to support or drive the current radio system Airwave. Industry does not seem too driven as they are in a winning position thanks to corporate changes since the deal was set up it is not simply a project run by EE, they now have a stake in the old system and the new. The slightly more complex question marks still to be resolved are whether the airborne system will integrate successfully with the ground. With Airwave it was a problem that was solved but that does not guarantee a repeat performance.



ESN was the subject of discussion in the **House of Lords** in late September. Lord Harris of Haringey was asking the Government what assessment they have made of the impact of the decision to ban Huawei equipment on the delivery of ESN.

Baroness Williams of Trafford Minister of State, Home Department replied that the removal of Huawei equipment from EE's network is being managed and monitored closely to ensure that any disruption to the build or operation of ESN is avoided. They do not anticipate any impact on programme schedules.

Lord Harris retorted that what was being presented as good news, hid what was an 'omnishambles from day one'. It was supposed to take four years; now it is 10. The UK is the only country in the world using this technology. He doubted there was any police, fire or ambulance chief who has confidence in the project. Last year the development figure was £3.1 billion over budget and would cost £9.3 billion, and now it has been delayed by another two years.

Baroness Williams accepted that this has been a very challenging programme. There are police chiefs who have confidence in it and are keen to take it forward. The final bill will be some £10.3 billion.

There is every plan in place to ensure minimal disruption. In terms of the Huawei equipment EE is already working to remove it by 2023, well in advance of the 2027 deadline that the Department for Digital, Culture, Media and Sport (DCMS) set out.

Former police chief Lord Paddick commented that the new ESN will operate on old 4G technology, and current estimates are that it will cost £33,000 per user. We learned from the King's Cross fire and the 7/7 terrorist attacks the importance of the network working on the London Underground but, to date, it does not even though a standard iPhone does.

Is the programme a 'Total shambles' well no, it seems the government line would prefer to stick to its word 'challenging'

COVER STORY

During the Covid-19 pandemic, DRF Luftrettung acquired special isolation stretchers to transport highly infectious patients. These stretchers, the Norwegian EpiShuttles, can now be fastened perfectly in the helicopter thanks to a special ground plate developed by the EASA Part 21 Design Organisation at DRF Luftrettung. The new solution offers simple handling and safety. It is referred to in the business as the Multifunction EMS Ground Plate and, with a load-bearing capacity of up to 300 kg, is currently unique in the market. The corresponding STC (Supplemental Type Certificate) was recently issued by the EASA, meaning that the product is now ready for series production and on offer to external customers.

DRF Luftrettung will use the new plate, which is mounted on the floor of the helicopter, in its ten helicopters equipped with EpiShuttles. It has just been installed for the first time in the 'Christoph 111' helicopter stationed at Karlsruhe/Baden-Baden airport, which is primarily earmarked for the transport of COVID-19 patients during the pandemic. Other DRF Luftrettung HEMS bases will follow. A major advantage is that the helicopter crews can fit the plate themselves in a very short time without the need for any tools and can fix the EpiShuttle onto it. For the future the plate is now being developed for use by other transport systems including incubators.



Ground Plate©DRF Luftrettung



Bell has teamed up in a collaboration agreement with **Elektroniksystem- und Logistik-GmbH (ESG)** to install their Mission Management System in a Bell 429 as a law enforcement demonstrator. This new demonstrator will be used to showcase the aircraft's capabilities to the police and military markets in Europe and across the globe.

For more than 50 years, ESG has been developing, integrating, and operating complex and security-related electronic and IT systems for the military, public authorities and companies. ESG is a leading international system and software company based in Munich, Germany. It provides development and service processes for software-intensive, complex, high-tech and security-related products.

"We are excited for this collaboration with Bell," said Daniel Högemann, Project Manager Mission & New Generation Helicopters, ESG. "By pairing our Mission Management System with the reliable Bell 429, we believe we can provide the best parapublic solution to the region."

Ed: In recent times they have won some important police equipment contracts in Germany. With some prestigious tenders currently on offer in the country Bell needed to get its most promising product fitted out with a system designed by a proven contract winning design team.

Last month **Summit Aviation**, a Greenwich AeroGroup company, announced that it has been awarded the Supplemental Type Certificate for the installation of Garmin's G500H TXi Flight Display System on MDHI 500N series aircraft.

The latest in electronic glass cockpit instrumentation, the G500H TXi brings increased levels of reliability, adaptability and affordability to helicopter operations. Available in both portrait and landscape options, the system provides bright, crisp touchscreen displays. It allows you to use familiar knobs and/or touch-screen inputs to quickly access the functions, screen views and other flight information the pilot wants to see most prominently.

Summit recently installed the G500H TXi display system on two of Maryland's Prince George's County Police Department's MD 520N Helicopters.

"We are excited to continue in our support of aviation law enforcement," said Director of Sales and Marketing for Summit Aviation John Gonsalves. "The Garmin G500H TXi Flight Display System is a game changer for the critical services our customers provide every day."

For mission readiness, the G500H TXi is equipped with a five-colour Helicopter Terrain Awareness and Warning System1 (HTAWS), WireAware wire-strike avoidance technology and Garmin HSVT 3-D synthetic vision. The system also features multiple video input options, night vision goggle compatibility and a graphical map overlay within the horizontal situation indicator (HSI) for most display formats.



Prince George County

Bell announced today its first ever Authorised Maintenance Centre (AMC) in Europe. The new AMC will provide maintenance for the Bell 505 and Bell 407 and is located near Warsaw in Konstancin-Jeziorna, Poland.

This new Polish AMC provides Bell operators a sense of security that they can have maintenance or work performed on their aircraft that has been vetted and approved by Bell. We are glad Aero Club will be providing local maintenance and support to customers. This additional facility supports the heavier maintenance services at Bell's Prague facility.

Aero Club is one of the largest general aviation maintenance stations in Poland. It started its operations in 2001 and was granted maintenance organization Part-145 in 2004. Aero Club offers professional level of



services and has long-standing experience in servicing various types of aircraft. The Aero Club is a sister company with the same ownership as JB Investments Sp. z o.o., a Bell Independent Representative (IR) in Poland since 2007.

Ed: This remote facility is where the 2018 PAvCon Europe police aviation conference was held.

The **Tokyo Metropolitan Government** recently announced the intention to evaluate the AW609 multirole commercial tiltrotor's unique capabilities to deliver transport to Ogasawara island in the future. The distinguished characteristics of the world's first commercial tiltrotor, combining turboprop-like performance (speed, range, altitude) and rotorcraft versatility (vertical take-off / landing and hovering) would deliver outstanding services to reach Ogasawara, approximately 1000 km from Tokyo. Missions would be performed in all weather conditions and with limited infrastructural impact thanks to its helicopter-like footprint.



The AW609 excels at providing fast point to point transportation at long ranges, whether it is connecting city centres or providing timely access to remote locations. Thanks to 275 knots speed, a 25,000 ft altitude and 1000 nm maximum range, users will benefit from the AW609's unique ability to fly above adverse weather in the comfort of a pressurised cabin while maintaining rotorcraft vertical take-off and landing / hovering versatility.

The first two production AW609s are currently being assembled in Philadelphia.

Tecnam has been developing special mission versions of the P2012 Traveller to meet the needs of the industry. The resultant airframe is the P2012 Sentinel SMP, a type designed to undertake short- and medium-range operations.

Compared to the original airframe the Sentinel SMP offers higher payloads, additional operator and observer stations and new capabilities, including approval for FIKI (Flight into Known Icing). Tecnam initiated a dedicated project with L3 HARRIS Wescam MX – series Electro Optical Sensors optimized integration. This will greatly improve the law-enforcement mission efficiency with a capability of accommodating (in addition to one Wescam MX-10, MX-15 or MX-20 turret) other mission sensors such as a SAR Radar, providing the P2012 SMP with the mission capabilities normally pertaining to CS/FAR 25 platforms at a fraction of their acquisition and operating costs.

The high cabin volume and payload will allow for excellent mission performance and plenty of space for sensors installation and operators console. A TECNAM Sentinel equipped with full mission equipment, at its maximum take-off weight of 3680 kg, will provide up to 9 hours' endurance for up to six 90kg-crew members, sensor operators and observers.

The P2012 twin-engine design guarantees an exhaust-free field of view to the sensors, granting increased accuracy and "noise-free" operations. Moreover, the hatches' position under the fuselage ensures a carbon-monoxide-free cabin that will enhance the safety of the crew members (one or two pilots and up to 5 mission operators). www.tecnam.com

Universal Avionics (UA) announces the expansion of its training offerings with the launch of the UA Academy, an online learning option designed to deliver on-demand course access to UA customers and Authorized Dealers / Integrators.

UA Academy students gain instant access to engaging courses for UA products with the ability to choose specific topics of interest. Across the world, pilots, technicians, and directors of maintenance flying and managing aircraft with UA equipment will benefit from UA Academy. Courses offer the utmost in flexibility, saving both time and money.

With courseware designed by UA aviation professionals specifically for pilots, technicians, and Authorized Dealers / Integrators, UA Academy proves to be a one-of-a-kind training platform within the industry. Courses currently available include SBAS-Flight Management System (FMS) Operations, Vertical Navigation VNAV Made Easy, InSight™ Display System Operations for Fixed Wing, FMS End User Maintenance, FMS Return to Service, and Data Link Fundamentals.

Airbus Helicopters will relocate the production line of its EC155B1 helicopter to the base of its Korean partner next year and cooperate in the commercialisation of personal air vehicles and drones, under an agreement between South Korean and EU aviation regulators.

The EC155 (Airbus Helicopters H155) is a medium-lift, twin-engine transport helicopter equipped with two turboshaft engines. Airbus will relocate its production line to the headquarters of Korea Aerospace Industries (KAI), the sole aircraft maker in South Korea, in the southern city of Sacheon.

KAI has developed Surion, a twin-engine transport utility helicopter, with technical help from Airbus Helicopters. Development was completed in 2012, but the Surion has exposed various defects. In October 2019, KAI and Airbus joined hands again for the global marketing of Surion.

Based in the UK West Country View It 360 have just finished a unique project with Babcock to produce a fully automated virtual show round of their Gloucester Helicopter complex, integrating the operations rooms, flight simulator & training facilities and two hangers to include a show helicopter.

This has all been built utilising Matterport allowing users to either explore themselves or have one fully audio guided tour of all 4 buildings; as if they were there in person. Built to be used in house and not for



public viewing, the Babcock platform can be embedded into a secure password protected page, showing the versatility of virtual tours and how they are helping businesses in the current world. Check out <https://viewit360.co.uk>

Air bp, the international aviation fuel products and services supplier, has delivered 210 tonnes of sustainable aviation fuel (SAF) to Swedish airport operator, Swedavia, at Stockholm Arlanda Airport (ESSA).



Swedavia and its partners SOS Alarm Sverige AB the publicly owned company that operates the emergency number 112 in Sweden, Systembolaget and the 2030 Secretariat procured the fuel through a joint tender, as part of an initiative to promote the large-scale production of SAF and its use as a way to reduce carbon emissions from air travel. The SAF delivered will result in a reduction in the carbon emissions generated by the business' corporate air travel.

The SAF supplied by Air bp has been produced by Neste, one of the world's leading producers of renewable fuels from wastes and residues.

Air bp has supplied SAF since 2010 and to date, has supplied more than 25 customers and 16 airports globally.

Curtiss-Wright Corporation has entered into an agreement to acquire the stock of Pacific Star Communications, Inc. (PacStar®) based in Portland, Oregon for \$400M in cash. PacStar, a private company, is a leading provider of tactical communications solutions for battlefield network management, including commercial off-the-shelf (COTS)-based rugged, small form factor communications systems, and its proprietary "IQ-Core® Software" integrated network communications management software.

The acquired business will operate within Curtiss-Wright's Defence segment and is expected to generate sales in excess of \$120 million in 2020. PacStar is expected to be accretive to Curtiss-Wright's adjusted

Original Oil Paintings by Clive Kidder

In support of the North Weald Airfield Museum Charity we have a limited number of original oil artworks on canvas [rolled] for sale at £100 each plus postage.

North Weald Airfield Museum

Ad Astra House, Hurricane Way, North Weald, CM16 6AA

www.nwamuseum.co.uk



Contact:

Secretary@nwamuseum.co.uk

diluted earnings per share in its first full year of ownership, excluding first year purchase accounting costs, and produce a strong free cash flow conversion rate well in excess of 100%.

Founded in 2000, PacStar's provides mission-critical applications, combining tactical networking equipment and software to enable enhanced battlefield situational awareness down to the individual warfighter. Their patented software and hardware technologies are core components of secure command, control and communications systems, particularly in remote or infrastructure-starved areas. PacStar's network management software, IQ-Core Software, provides a simpler, faster and more reliable solution for setting up and managing network communications, including secure wireless, satellite communications, and soldier-portable systems. PacStar has secured strong positions on critical U.S. Army programs, including Warfighter Information Network-Tactical (WIN-T) (now PM TN) and Transportable Tactical Command Communications (T2C2), and the U.S. Marine Corps' Networking-on-the-Move (NOTM) program.

At the end of this month, October 31, Germany's new **Berlin-Brandenburg International** airport is due to open. Its operator has decided to keep one terminal closed due to a dearth of passengers. Construction of the airport's Terminal 2 was recently completed, but it will remain shut until next summer when the long-delayed airport opens. The move should save half million euro (\$581,000) per month in operations costs. Terminal 2, which carried a price tag of €200 million, has a capacity of 6 million passengers per year. Altogether, the new airport, made up of three terminals named Terminal 1, 2 and 5, will have a total capacity of 40 million passengers annually.

Berlin-Brandenburg, located southeast of the German capital, has a long and troubled history. The project was launched in 1996 but years of financial issues hampered its construction, and the costs skyrocketed to more than €7 billion.

Design and building flaws as well as numerous management changes slowed completion, and just a few weeks before its planned commissioning in June 2012, a series of safety inspection failures prompted authorities to abruptly halt the airport's opening.

The first aircraft due to land at BER will be simultaneous arrivals of an EasyJet and a Lufthansa aircraft on parallel runways. The airport will carry the ICAO designation BER. A week after Berlin-Brandenburg International airport is opened, Tegel International airport, the German capital city's primary airport since 1948, will close down for good its future being a building site.

Ed: It was planned that a highlight of this year's PAVCon Europe in central Berlin would be for attendees to sample the delights of Tegel – a user friendly airport that will soon be no more.

GVH Aerospace's sea tray product has been selected by Leonardo for the AW101 Norwegian All Weather Search and Rescue Helicopter (NAWSARH). The sea tray will be used by the Norwegian Air Force for the helicopter's search and rescue and airborne ambulance role.

The **GVH Aerospace** sea tray product is a highly customisable and padded water proof barrier designed to contain and drain water from the aircraft cabin during over-water hoisting operations.

The product is used around the world for search and rescue operations and military use with clients including the Korean Coast Guard for the KCG-1, the Australian Defence Force's fleet of H135 helicopters, the French Navy and for this contract, the Norwegian Ministry of Justice and Public Security.

Its flexible design enables it to be installed and removed in flight and packed away for storage onboard, or be installed prior to flight and fitted around cabin equipment and seats.

The sea tray is installed and removed in minutes without the need for tools and can be adapted to different helicopter cabin configurations and operator requirements. Designed to withstand the rigours of search and rescue operations and military use, the GVH Aerospace sea tray is currently being used on helicopter types including Leonardo AW139, AS365, H135, AS332/H225 Super Puma, KCG-1, S-92, and S-76.



ACCIDENTS AND INCIDENTS

11 August Eurocopter EC120 N Baltimore Police. Forced landing by helicopter in Patterson Park after a warning light illuminated. [Baltimore Sun]

19 August 2020 Agusta A109E Power N95RZ. Air ambulance of Life Flight, Toledo Ohio USA. On a night approach to the airport helipad, used almost exclusively by Life Flight 2 base, the helicopter's tail rotor contacted a 3' tall flood light adjacent to the pad. Not knowing this had happened, the crew sensed a vibration just prior to touchdown. When the pilot attempted to ground taxi off the pad the vibration increased. The aircraft was shutdown on the helipad and that's when the damage was noticed. The ends of the tail rotor blades were damaged and there was shrapnel damage to the tail boom and one of the main rotor blades. The floodlight was knocked off it's post due to the strike. As a result of this incident, the Airport Board has agreed to remove the floodlights and replace all lighting with in-ground lighting within the Safety Area around the FATO of the helipad. [Concern]

31 August 2020 Beechcraft King Air C90B N92SB. Air ambulance of Cal-Ore Life Flight of Brookings, Oregon, USA. The aircraft struck a deer on the runway while landing at Rohnerville Airport (KFOT) near Fortuna, California to transport a patient. There were no injuries sustained by the crew. The aircraft was stopped in a position that the aircraft could not be taxied off of the runway using the remaining engine. The deer struck the left propeller as the aircraft was decelerating using reverse thrust. The runway was closed until the aircraft could be moved safely by towing. The aircraft propeller, engine and cowling sustained major damage. [Concern]

7 September 2020 Airbus Helicopters H145 (BK117C2) Air ambulance of Avera Careflight, Sioux Falls, South Dakota, USA. Aircraft transporting patient on IFR flight from outlying facility. Upon descent into VMC, aircraft contacted a bird. No evident damage so made a precautionary landing at an airport 6 miles prior to the receiving facility. Aircraft landed without incident. Following inspection, it was determined the aircraft contacted a duck at the upper NACA intake. No damage to the airframe was noted. [Concern]

12 September 2020 Eurocopter EC120 N Baltimore Police. Forced landing by helicopter in Patterson Park after a warning light came on.

16 September 2020 Sikorsky S-76 202 of the 505th Search and Rescue Group, Philippine Air Force (PAF) assigned to a medical evacuation crashed in bad weather killing four on board. The Sikorsky came down in a wooded area in Basilan province and was completely destroyed in the impact and fire. The casualties were the pilots Maj. Jessie Miller, First Lieutenant Mack-Ar Ferrer, and two crew members Staff Sergeant Miguel Banas; and Airman Second Class Benedicto Leal. The helicopter took off from Zamboanga City around 12:30 p.m., bound for Jolo, Sulu for a medical evacuation mission when it crashed in Barangay Upper Manggas in Lantawan town around an hour later. Just before the incident strong gusting winds and heavy rain were reported. [Media]

Ed: The mission was to transport to Zamboanga City personnel injured in a suicide bombing in Jolo on August 24. At least seven soldiers, a policeman, and six civilians were killed, while 75 were injured when twin explosions ripped through the town plaza of Jolo in the southern province of Sulu.

22 September 2020 Air Tractor AT-802A N836MM. Firefighting aerial tanker operated by Aero S.E.A.T. Inc., on an on-call contract with BLM Fire and Aviation at the National Interagency Fire Center in Boise. Aircraft crashed in a ravine at Emmett, Idaho fatally injuring the pilot, Ricky Fulton. The aircraft was working the Schill Fire. [ASN]

UNMANNED

Early last month Steadicopter, a leader in the Rotary Unmanned Aerial Systems (RUAS) industry, unveiled Black Eagle 25E and Black Eagle 50E - the newest models of its RUAV - now operated with electric motors, and designed for a wide range of law enforcement, maritime, civilian, and covert missions. Based on the company's Black Eagle platform, which has been proven to be operational for military needs, the new systems now enable high performance and operational flexibility for other security forces, as well as many civilian applications.

Converting Steadicopter's Black Eagle 50 system to an electric-powered engine has significantly reduced the weight of the air vehicle, enabling additional, much required, payload capacity for a variety of missions. Weighing only 18 kg as a platform, each model has the capacity to carry additional batteries for longer flights, heavier payloads and more. The Black Eagle 25E is designed for weights of up to 25 kg, making it suitable for tactical-urban missions, while meeting the strictest weight and category regulations. The Black

Eagle 50E, weighing up to 35 kg, enables the best-in-class flight envelope with a wide range of mission payloads, giving the user the highest level of mission versatility for covert operations.

With a zero-logistic footprint, the Black Eagle 25E and 50E are the perfect fit for the ever-important maritime domain. The small dimensions of the platform within the small-tactical unmanned aerial systems (STUAS) allow for efficient and safe operation. From a wide variety of OPVs to the busiest offshore platforms, the Black Eagle family of products offers a comprehensive solution for highly-demanding maritime applications, such as Infrastructure Security, Exclusive Economic Zone Enforcement, Anti-Piracy & Unauthorized Fishing, Search & Rescue, Offshore Cargo Supply and more. All Black Eagle systems are certified for use in the harshest maritime operating scenarios, according to the IP67 environmental standards. Powered by electric engines, these models are extremely cost effective, simple to operate, easy to maintain and, with no need for fuel storage, both environmentally friendly and safe. They have all the proven capabilities of the gasoline-powered Black Eagle 50, including vertical take-off and landing capability, a robotic observation system for civil, military and HLS missions, and day and night vision. Additionally, they are adaptive to high-altitude flights, thus enabling their deployment in many high-altitude operational scenarios.

Aeronautics Group - a leading provider of integrated turnkey solutions based on unmanned systems platforms, payloads and communications for defence, HLS and civil applications – has been awarded a special grant from the BIRD Foundation to promote a joint development project with American company, Pre-vision

Projects submitted to the BIRD Foundation are reviewed by evaluators appointed by the National Institute of Standards and Technology (NIST) of the U.S. Department of Commerce, and the Israel Innovation Authority.

The joint project will see the two companies develop a real-time persistent surveillance system (WAMI) with an automated interface to an electro-optical camera. Designed specifically for use with unmanned aerial vehicles, the system will automatically detect any change that occurs in the field, and alert the operator to the exact location of the target, handing over the target to the EO/IR payload to meet the mission objectives.

PEOPLE

A founder of one the longest serving public benefit flying organizations in the world died recently but the organization he helped create will continue to operate as he envisioned. **Stuart King**, who founded the Mission Aviation Fellowship [MAF] with Jack Hemmings on the wings of a single-engine aircraft and lots of prayers more than 70 years ago, died at the age of 98. The ex-RAF engineer was convinced that aircraft could be a vital link to remote areas of Africa and he and Hemmings flew a Miles Gemini through Libya, Egypt, Sudan, Kenya and the Congo on a six-month tour to test that hypothesis.

MAF now serves 1,400 remote locations in 26 countries in support of more than 2,000 humanitarian and missionary organizations. It's also a highly developed aviation organization with high standards for aircraft maintenance and pilot training and fiscal management. In this regard, King received an award from the Honourable Company of Air Pilots in 2019 to add to the long list of humanitarian tributes paid to him. ^[AvWeb] *MAF is a Christian organisation that provides aviation, communications, and learning technology services to more than 1,000 Christian and humanitarian agencies, as well as thousands of isolated missionaries and indigenous villagers in the world's most remote areas.*

MAF began with several World War II pilots who had a vision for how aviation could be used to spread the Christian faith. After the War, Jim Truxton of the U.S., Murray Kendon in the United Kingdom, and Edwin Hartwig of Australia, with the support of like-minded Christians, founded agencies in their respective countries.

The U.S. organisation was the first to take to the air, in 1946, under the name Christian Airmen's Missionary Fellowship (CAMF), later known as MAF.

In the U.K., MAF was initially organized as a wing of the Mildmay Movement (a Christian outreach organisation), though it later became independent. Operations started in 1948.

The Secretary of Public Security and Social Defence of Ceará (SSPDS) has announced a change in the leadership of the Integrated Coordination of Air Operations (Ciopaer). The Civil Police of the State of Ceará (PCCE) delegate, Aristóteles Tavares, has now left to take up a post as Colonel of the Military Police of Ceará (PMCE), and is now replaced by **Antonio Ronaldo Pires Rebouças**.

Rebouças has a degree in mathematics from the State University of Ceará (Uece), in addition to a Bachelor of Laws from the University of Cruzeiro do Sul (SP) and in Public Security from the General Facó Academy, Colonel Antonio Ronaldo Pires has been at PMCE since 1991. His aviation credentials include a CPL (H) and as a flight instructor.



Jill Williams, long associated with the London Air Ambulance, died on September 9th. Jill was a Registered Nurse who became a Nurse Manager responsible for A&E and HEMS and the first Nurse Clinical Director at The London Hospital [later becoming The Royal London Hospital]. She was a Trustee for London's Air Ambulance between 1997-2010 and more recently, the Chair of the board of directors and trustees at Lucy Air Ambulance for Children Charity [2014-2019]. Jill was part of the founding years of London's Air Ambulance, when even the notion of the very existence of an air ambulance in the capital was challenged at many levels. It was a time when London was only the second UK Air Ambulance and the first to be independent of an ambulance service and to carry a specially trained doctor. Jill helped secure sponsorship from Virgin and - along with the senior clinicians - helped establish the Doctor and Paramedic team, a model now followed by almost all Air Ambulance Services throughout the UK.

Jill was the UK Aeroplane and Helicopter Air Operator Certificate holder for London's Air Ambulance for many years. At the time that she started, our SA365N Dauphin helicopter was known as the "London Crusader". Jill was a major part of the crusade to keep London's Air Ambulance operating.



Late news in is that the Chief Superintendent in charge of NPAS, **Scott Bissett**, the NPAS Chief Operating Officer, and around 15 months in post is to be promoted to Assistant Chief Constable. Rumour has it that it was considered the post was undervalued in the earlier rank of Chief Superintendent.

MOVE ALONG THERE

A former London Metropolitan Police Bell 222 helicopter has resurfaced in the United States and is looking for refurbishment and return to flight.

In 1980 the police in London were obliged to give up their single engine helicopters and move to twin-engines. As a result, they ordered two Bell 222 helicopters from the Bell agents CSE and started flying Bolkow BO105 twins until both of the Bell's arrived in service from November 1980. These were to be the first aircraft owned by a UK police force.

Bell 222 c/n 47055 took up the marks G-METB in mid-February 1981 and remained with the police until it was sold and exported in December 1996 after being grounded at Lippitts Hill out of use for over two years. It served as an air ambulance in Portugal and then moved to Brazil as PP-MEH.

In November 1984 it had a serious accident at Hatfield and was shipped back to the USA and completely



The scene at the former BAE airfield in Hatfield in 1984 ©Waltham Abbey Police Historical Collection

rebuilt by Bell Helicopter.

In the past 40 years it has picked up quite a few scars from various role changes and part of the workload is to identify them on the airframe and make sure they pass muster with the certification authorities.

Ed: I am glad to report that there are still some Bell 222 observers and engineers out there and I have been able to direct their expertise across the Atlantic Ocean to answer at least some of the questions. Amazingly, some of the individuals are still in the business of police aviation.



Bell 222 over London ©Metropolitan Police

It was not that long ago that the Airborne Law Enforcement Association numbered among its members a representative of the Hong Kong Government Flying Services. Unfortunately, it appears that repeating that such a membership has been consigned to history.

The word now coming out of the former British Colony is that the Chinese Government on the mainland has reneged on its 'binding' agreement to keep Hong Kong as an area governed as a Special Administrative Region for fifty years beyond the July 1997 date that Britain ceded the former colony. Now Beijing holds the area in an iron grip based on fear. The protest cartoons drawn as the dark clouds of the future became evident as the new national security law are now illegal and appearing less often.

Wong Kei-kwan, better known as 'Zunzi', drew cartoons and made comment but these are now no longer acceptable. Everywhere China constricts the freedoms that had made Hong Kong special. Now education is a tool for controlling thought.



EVENTS

There are not many events to go to this year, but people did visit the international helicopter industry exhibition **HeliRussia 2020** in Moscow, Russia, in mid-September. The content was somewhat muted and primarily Russian but if you ignore the downside it was at least an event!

The Russian Federal Air Transport Agency (Rosaviatsia) has granted the Russian Helicopters holding approval to make a major change to the Ansat helicopter type certificate. This will enable operators to use full electronic documentation with the helicopters.

The approval for "conversion of operating documentation into an interactive electronic form" for the Ansat helicopter built by Kazan Helicopters, was granted by Rosaviatsia on September 11.

During the exhibition, the Federal Air Transport Agency also issued the holding company a type certificate for the Mi-171A2 helicopter, issued on September 3, 2020 by the South Korean Office of Civil Aviation (KOCA). The type certificate was the successful result of the working agreement between Rosaviatsia and KOCA concerning certification and airworthiness.

In addition, the Russian Federal Air Transport Agency approved a minimum equipment list for the design of the Mi-38 helicopter type. This document defines the list of equipment for the Mi-38, which are allowed to be inoperative while the helicopter can still be safely used. Operating a helicopter in accordance with the minimum equipment list will significantly help optimizing upkeep costs while maintaining a high level of flight safety.



I seem to have missed the first 19 editions of the show but times are hard and finding any event that operates other than via Zoom is an event in itself. There were fewer hands on elements to this year's **20th NATO Days** in Ostrava & Czech Air Force Days held on the 19 and 20 September. They were described as extraordinary. Unlike most similar events abroad, which did not take place this year due to the situation with coronavirus, NATO Days in Ostrava allowed spectators to experience the jubilee year of the event only through modern technology. The event happened but few people were admitted. This year's topics

were 75 years since the end of World War II, 15 years of JAS-39 Gripen aircraft in Czech Air Force and honouring members of the security forces and the Integrated Rescue System for their efforts during the spring coronavirus crisis.

As part of the second day of the event, a commemorative badge was handed over to seemingly large numbers of members of the Police of the Czech Republic, the Fire and Rescue Service of the Czech Republic, emergency medical services and hygienic stations. The handover was attended by such as the Minister of the Interior, the Minister of Foreign Affairs and the Governor of the Moravian-Silesian Region. Attendees were able to see the very real activities of the army, police and rescue services—but only on television and computer screens.

The NATO Days in Ostrava are usually attended by around 200,000 spectators but this year the organizers found a way to implement the action through the eyes of a camera posting a 5-hour marathon in video. At times it was a little like watching good bread going stale.

Bell announced the presence of two aircraft on static display for the public to experience; a Bell 429 operated by Slovak air rescue company, Air-Transport Europe, and a privately owned Bell 505 Jet Ranger X. Air-Transport Europe's Bell 429 was displayed in a medical configuration and is currently flown as part of the Slovak air rescue service. It operates three Bell 429s that were manufactured in 2016 and have each flown over 740 flight hours. There was no sign of them during the lengthy broadcast, perhaps I blinked.

FUTURE EVENT

23-25 March 2021 HAI Heli-Expo New Orleans, USA The New Orleans Ernest N. Morial Convention Center has achieved GBAC STAR™ accreditation through the Global BioRisk Advisory Council, a division of ISSA, the worldwide cleaning industry association, augmenting the Center's early initiatives to prepare for new standards driven by the pandemic. The program certifies that the facility is implementing the industry's highest standards of cleaning, disinfection, and infectious disease prevention for infectious agents such as COVID-19 and is the leading standard of prepared facilities. The program is backed by 10 industry organizations, including the International Association of Venue Managers (IAVM), International Facility Management Association (IFMA), International Association of Exhibitions and Events (IAEE), and the Go LIVE Together Coalition.

The industry's only outbreak prevention response and recovery accreditation, the GBAC STARTM Program helps organizations establish protocols and procedures, offers expert-led training, and assesses a facility's preparedness for biohazardous situations. The program ensures facilities use best practices to limit future outbreaks, empowers cleaning staff to do their jobs safely and effectively, and gives customers greater peace of mind.

The Convention Center had already instituted Post-Cleaning Verification (PCV) and incorporated the use of technology, among other protocols, with the guidance of an industrial hygienist in advance of seeking accreditation. As an example, regular environmental testing will be performed by sampling high-touch surfaces throughout the building using a Hygiene SystemSURE Plus Adenosine Triphosphate (ATP) that ensures optimal levels of cleanliness.

PAvCon FUTURE

June would have been the 2020 PAvCon Europe event in Berlin. Cancelled of course back in early March. Most of the paperwork has been completed and money returned to exhibitors where requested.

PAvCon continue to talk to the organisers of the 10-12 November 2020 European Rotors event scheduled to be held in Cologne, Germany with a view to inserting a 'mini PAvCon' conference feature into that event. This event may provide the first

opportunity for an international meeting place this year. The planned name is "PAvCon Europe Special-Conference" and it is expected that it will be a half day gathering on Day 1 of the European Rotors event. Meanwhile, in the face of news that infection rates are again on the rise in surrounding countries the organisers may find it is difficult to access across land borders! In this instance the 'no border' European Union may well let them down. It is less than two months away but with a bit of pre-planning in place it may work out. www.europeanrotors.eu



The National Business Aviation Association (NBAA) has cancelled its annual business aviation convention and exhibition (NBAA-BACE), due to take place in Orlando later this year, due to ongoing coronavirus concerns and travel restrictions. It was scheduled to take place in Orlando, Florida on October 6-8.



The 2021 NBAA Business Aviation Convention & Exhibition will take place from October 12-14 in Las Vegas, Nevada. That is something to look forward to. Perhaps COVID-19 will be over by then? Perhaps.