# Police Aviation News

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# FVE LIVE BLADES H145 IN OXFORD DEMO



HAWCS RENEWAL STARTS
POLISH TRIO LAUNCHED
LONDON - HOURS SLUMP
ADAC - 50 YEARS

#### **EDITORIAL**

Six months ago the world was faced by a pandemic that many considered would be "over by Christmas" and, not for the first time, history is still being written to prove that the belief would be wild of the mark. Many still hold out a potentially unrealistic expectation that it will all be over in a further six months. Time will tell but planning for the future beyond the pandemic must continue in a positive frame of mind. It is all too easy to let our futures slip away.

Bryn Elliott

# LAW ENFORCEMENT



#### CANADA

**ALBERTA:** Calgary Police Service have received an Airbus Helicopters H125 C-FIVO, the first of two new H125 helicopters, which will replace the current Helicopter Air Watch for Community Safety (HAWCS) fleet of EC120 helicopters patrolling the skies above the city. The new machine was unveiled at an event on October 6.

The current EC120 helicopters have been in use for more than 15 years and were scheduled for replacement twice, once in 2013 and again in 2016. In the event the systems were improved but replacement was set aside. The airframes have now accrued some 18,000 hours each.

In 2018, the service recognized that the EC120 was now out of production and that brought to the fore rising maintenance costs and technological limitations. The immediate cost of the replacement was lowered by the re-use of recently updated role equipment. The FLIR sensor is the same as used on the EC120 as

COVER IMAGE: Last month Airbus Helicopters at Oxford were displaying an example of the H145 with the new five blade main rotor. The helicopter, D-HADW c/n 20002, arrived from Germany via Southend on October 17.

The airframe was not role equipped, the primary function being to demonstrate in flight the marked difference in resonance and ride quality between the familiar four blade model and the new head. Sources are reporting the revised model as being the MBB-BK 117 D-3 but this is incorrect. It remains the D-2. Image Airbus Helicopters, Oxford

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is the searchlight. The unit replaced the Spectrolab searchlight on the EC120 with one sourced from Luminator and that now carries over to the new type.

The new updated machines are expected to be in service for the next 15 to 20 years, and cost \$5.5M each. The first airframe was completed by Eagle Copters Ltd. based in Calgary. The Airbus H125, offers increased fuel capacity and range and will allow greater operational flexibility - the unit to be able to respond to many more calls for service before needing to land and refuel.

In 2019, HAWCS responded to 4,121 calls for service, which resulted in the arrest of 761 suspects and 2,366 charges laid.

Ed: After the tragic death of Constable Rick Sonnenberg in October 1993, he was run down by a fleeing car, the Rick Sonnenberg Memorial Society was formed and through enormous community support, the Calgary Police Service (CPS) purchased its first helicopter. On July 18, 1995 the CPS HAWC helicopter, an MD520N, went airborne on its inaugural operational flight making Calgary the first municipal police agency in Canada to have a full-time patrol helicopter programme. In 2005 the operation acquired its first of two EC120s that will shortly leave service and be sold.



#### **GERMANY**

**HESSEN:** At the end of September a six million Euro contract for a twin engine police aircraft was awarded to Atlas Air Service AG, in Ganderkesee, Niedersachsen. The tender was for a police aircraft with two propeller turbine engines and capable of flights in known icing conditions, at least 9 seats for passengers and a range of at least 2,700 km. Length: max. 13.50 metres, span: max. 18 metres, height: max. 5 metres. Luggage space: at least 1.5 cubic metres and 200 kg payload. [TED]

Ed: The type is not specified but the specification meets that of a Beechcraft B200 King Air and presumably it is slated to replace the fixed wing Vulcanair P68 this police force acquired in 2012.

#### **POLAND**

**POLICE:** Further to the report last month of the delivery of the first Bell 407 to the National Police [PNP] in Poland, Bell helicopter has now completed the delivery of all three Bell 407 GXis. Detail of the Trakka role equipment was included in last months report.



The aircraft have fleet numbers of 104, 105 and 106 and at the time of the handover 104 carried the marks SN-80XP, with 106 carrying both Czech and Polish registration marks OK-JEL/SN-82XP. It is presumed that 105 is SN-81XP. The PNP has been a long-standing Bell customer for about 20 years having operated both the 206 and the 412. [Bell/PAR]

#### **SLOVAKIA**

**INTERIOR MINISTRY:** A contract worth €480,000 has been awarded to Tecniserve sro., Bratislava to supply of three new, unused light aircraft of one type, technical documentation, training of the contracting authority's staff. Staff training will be carried out on airplanes delivered as part of the contract after their takeover by the contracting authority in the Slovak Republic.

The aircraft are to meet the requirement for registration in the register of civil aircraft according to EASA standards or equivalent in the LSA or VLA category, or equivalent. The light aircraft must meet the certification requirements for single-pilot VFR day and night flights. Three tenders were received but the winning party has no known allegiance to a specific aircraft manufacturer.

The purchase will be financed from EC funds. [TED]

Ed: No type is specified and different parts of the tender document confusingly mention single- engine and dual-engine light aircraft. The police in Slovakia currently operate a pair of Bell 429 helicopters.

#### TURKEY

**GENDARMERIE:** Turkey has two main arms of its police aviation, the civil police and the military police. At the end of September Amnesty International sent a letter to the authorities in Turkey regarding the allegations that Osman Şiban and Servet Turgut were subjected to torture or other ill-treatment after being detained by gendarmes on 11 September 2020 in Çatak, a district in the eastern province of Van. Part of the allegation is that both men were pushed out of a helicopter in flight.

Amnesty International has asked that the allegations relating to Osman Şiban and Servet Turgut be independently, impartially investigated'

Medical reports for the two men seen by Amnesty International indicate that they were taken into hospital following a 'fall from a height' at around 9.30pm on 11 September. Both men sustained severe injuries: Osman Şiban's medical report refers to possible neck injury, bruising to elbows and knees and severe bruising of both eyes as well as appearing confused and displaying poor orientation. He was also suffering from partial memory loss and had told his family that they had been beaten by the gendarmes. Servet Turgut's medical report refers to bruising of both eyes and ears; abrasion of the hands and the chest cavity following a 'fall'.

"Osman Şiban was released from hospital on 20 September. According to his lawyer, in the morning of 22 September, dozens of gendarmes arrived at his home to take him to a military hospital, where he was tested for COVID-19 and received a medical report stating that he is not fit to provide an official statement to the authorities.

"On 23 September, he was taken to his family in his residence in Mersin, southeastern Turkey. The lawyer confirmed with Amnesty International that there was no official detention order for Osman Şiban but that both he and Servet Turgut are subject to a criminal investigation and that another criminal investigation into the allegations of torture and ill-treatment was opened by the Van Chief Prosecutor's Office.

"Both investigations are subject to a secrecy order, meaning the lawyers are unable to access the files relating to their clients.

The Turkish authorities have issued a different scenario, stating that Servet Turgut was in the vicinity of a military operation 'acting suspiciously', he fell and injured himself on rocks while running away, having not complied with a 'stop' order, and was caught despite resisting arrest and detained. *Osman Şiban*], was detained for aiding and abetting the members of the terrorist organization. (AÖ/SD)



The Van Governor's Office imposed a media blackout on October 1 concerning news on Turgut and Şiban. Four journalists who reported on the incident were arrested October 9<sup>th</sup>. Adnan Bilen and Cemil Uğur from the Mesopotamia News Agency and Şehriban Abi and Nazan Sala from Jinnews were arrested in the eastern city of Van. They were accused of membership in a terrorist organization.

The journalists had revealed documents that confirmed the claims of torture and the two men having been thrown from a helicopter. The documents included a hospital report stating the reason for the villagers' initial hospitalization as trauma consistent with a fall from a height. The mainstream Turkish media outlets did not report on the incident or the allegations.

Ed: Turkey is clearly attracting attention for all the wrong reasons. According to the Stockholm Centre for Freedom's "Jailed and Wanted Journalists in Turkey" database, 176 journalists are currently behind bars in Turkey, while 167 are wanted and are either in exile or remain at large. Turkey may have outed the Saudi Arabian State murder of Jamal Khashoggi but they appear to have similar issues with their own media.

In another move Bombardier Recreational Products has suspended the delivery of ROTAX aircraft engines to "countries with unclear usage" in the wake of reports that some of those engines are being used on Turkish combat drones deployed by Azerbaijan in fighting against Armenian forces in Nagorno-Karabakh. The engines are produced in Austria exclusively for civilian purposes and are certified for civilian use only. Canada suspended most exports of defence technology to Turkey in October of 2019 following the Turkish invasion of northwestern Syria, but having the engines produced in Austria means that local export regulations prevail.

The Bayraktar TB2 drones using the engines also use optical sensors and target designation systems produced by L3 Harris Wescam. Defence officials in Armenia displayed what they claimed are parts of a TB2 drone and its Canadian-made optical and target acquisition systems, as well as its Rotax engine. There is some mystery surrounding how the Wescam products made it into the TB2 one year after the Canadian government banned sales but it may be pre-delivered equipment.



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#### UNITED KINGDOM



**LONDON:** London no longer operates its own independent helicopters, but the capital does pay a significant part of the NPAS budget and that brings with it a level of pressure others cannot. Importantly those NPAS helicopters serving the Greater London area still grab the interest of local politicians – especially if someone gets woken in the night by a helicopter [any helicopter] while going about its law enforcement business. Nominally London has three helicopters based at North Weald but it also has call upon helicopters based at Redhill to the south, Oxford to the west and co-located at North Weald [the former Essex aircraft] and indeed any and all NPAS craft if things turn particularly nasty.

In this case the politician with a gripe was a Member of the London Assembly called Andrew Boff. He is clearly a person disturbed by an apparent increase of police helicopter operations, or perhaps he has an influential neighbour who is so afflicted. He wanted to know why helicopters were launched. And the Office of the Mayor Sadiq Khan were ready with the answers....

"The decision to request air support is based on a number of factors. Chief amongst these is the threat, risk and harm that is assessed to exist at the time..."

In answer to the claim of added noise it was also pointed out that the Metropolitan Police has not recorded an increase in the use of police helicopters. In fact, in 2019, the last full year for which records are held, there were fewer calls for air support than in 2018. The number of calls attended by a helicopter has dropped off drastically since 2015 from well over 8,000 per year to closer to 3,000 a year now.

There has been an increase in the volume of protests that have been held over 2019 and during 2020. The helicopter is often used to monitor protests as its live downlink assists the command team in seeing where groups of people are, where they may be moving to, what strategic routes (if any) are blocked and in providing a view of any problem elements within the crowd. With an increase in protest, it is possible that it may seem as though the helicopter is around in central London more often, but it is certainly not the case that overall, the helicopters are being used more than usual. [Hansard]

Ed: Ah 'threat, risk and harm' words straight out of the NPAS bible of gobbledegook. Maybe they wrote the reply. How is it that the number of calls attended by a helicopter has dropped off drastically since 2015 from well over 8,000 per year to closer to 3,000 a year now. Has crime been eradicated in London in the last five years? In the last year there has been a relatively small fall but this service still costs London a whopping £7.6M and is a major part of the NPAS budget.

Just grabbing one document from nearly forty years ago when the Metropolis had three Bell 222 helicopters mainly operating in daylight the numbers they were quoting for their less than 24/7/365 service were 5,402 emergency calls, 2,040 hours flown, 452 robberies, 792 traffic situations and 2,638 searches for suspects.



That is why the world has historians – so modern day blimps cannot bury historical facts to suit their own twisted woke ideas of 'service'.



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Covid-19 has brought with it the cancellation of scheduled elections. Last May the expected elections for the Police and Crime Commissioners (PCC) were put off for a year and, as mentioned last month, affected the plans of at least two PCCs directly involved with the management of NPAS.

In May 2021 local *elections* in the United Kingdom are expected to be held in English local councils and for thirteen directly *elected mayors* in England. It is expected to include West Yorkshire, which includes Wakefield and might see the abolition of the post of PCC as the West Yorkshire Police will, most probably, answer directly to the elected Mayor. The same as Great Manchester Police answers directly to the elected Mayor, Andy Burnham. It would appear that West Yorkshire Police PCC Mark Burns-Williamson OBE who is the Chair for the NPAS Strategic Board will be standing down.

Ed: The question raised is will NPAS also answer to the elected Mayor of West Yorkshire, or will common sense prevail and will police air support return to regional/territorial operational control and administration? Or will the coronavirus again interfere in plans.

In the past mention was made about how the 'fleet' of P68R fixed wings were to refuel when away from the home base at NPAS Doncaster. We already see that NPAS North Weald works for them in daylight and now, thanks to the joys of social media, it appears adequate arrangements are in place for refuelling at NPAS St. Athan in Wales.





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#### **UNITED STATES**

**CALIFORNIA:** Third airframe to wear the marks and the second AStar, an H125 N30NT was recently completed by Hangar One Avionics and delivered to Ontario Police Department. It had been delivered as N625AH.

The Ontario Police Air Support Unit started in 1989, operating MD helicopters and moved to two role equipped Eurocopter AS 350B2. The unit has now updated it fleet to the H125/AS350B3 model. The example in service is a 2017 model c/n 8466 registered N60NT.

**MARYLAND:** Plans to close a Maryland State Police helicopter base have been withdrawn. The planned closure of one of the seven bases the multi-role police and EMS helicopters operate from related to financial pressures brought about by the pandemic.

Officials had hired an outside consultant to examine which base to close. It was the considered opinion of that consultant that a closure would be detrimental to the current ability of the AW139s to maintain "an outstanding response rate" in getting to the scene of an incident within 25 minutes on average. [Salisbury]

# **AIR AMBULANCE**

#### **LUXEMBOURG**

**EUROPEAN AIR AMBULANCE:** New streamlined procedures have been introduced by European Air Ambulance (EAA) to deal with the transportation of patients with Covid-19. Using experience gained during the summer pandemic peak when, at the request of the Luxembourg government EAA transported Covid-19 patients between hospitals in France where health services were overstretched, they are now able to roll the service out on a wider international basis.

EAA has developed the protocols to ensure the safety of patients confirmed or suspected to have the virus, and the medical and flight crews treating and transporting them. The control centre will activate different protocols depending on whether the patient has a confirmed positive or negative diagnosis and depending on their general condition, with additional procedures for those whose Covid-19 status is unknown.

In some cases, the use of an IsoPod or Infectious Disease Unit (IDU) may be required. EAA's IDU is a ground-breaking tent-like module originally designed for the safe transport of Ebola patients, but which use has been adapted for Covid-19. It gives the patient space to move around, and allows for non-intensive treatment while still being completely isolated from the surroundings. An IsoPod is a smaller individual barrier-type unit, suited to patients not needing treatment, but which protects the medical team from infection. Due to restricted size inside, the IsoPod is not suitable for obese patients or patients who suffer from anxiety or claustrophobia. https://www.air-ambulance.com

#### **GERMANY**

**ADAC:** This year marks 50 years since the first German Motor Club ADAC air ambulance was set up. The first helicopter, an MBB BO105A D-HILF, was installed in Munich as "Christoph 1" in November 1970 and in November 1981 established as ADAC Luftrettung GmbH an organisation that spread across Germany. The service built up to operate 55 ambulance and intensive care helicopters and a small fixed wing fleet. ADAC itself was setup as a motor club in 1903.

NOMINATION: The air ambulance division of the FAI Aviation Group, based in Nuremberg, Germany s has been operating at capacity to meet the high number of requests for repatriation and medevac flights. Since March FAI has performed almost 70 flights of covid-19 patients in 47 countries with the single patient isolation and transport system EpiShuttle.

FAI is one of the world's leading global provider of aviation services, logging far above 10 000 hours per year flying air ambulance missions. In the month of April FAI did nearly 800 hours of flying on mostly medevac missions. So far FAI has transported patients with the Norwegian produced EpiShuttle in 47 countries, including difficult destinations as Iraq, China and South Sudan.

To date, FAI has been to 69 airports all over the world with the EpiShuttle. Airflow inside a helicopter or a fixed wing aircraft can easily cause virus to flow from the patient to the pilots. Operating an aircraft wearing personal protection accessories may not be an option, and transport of contagious patients can put an entire crew on the ground.

The impact of the pandemic on the aviation sector is enormous and the industry has been through massive changes the last few months. FAI is now nominated as the Air Ambulance Company of the Year category in this year's International Travel & Health Insurance Journal's (ITIJ) Industry Awards.



#### **HAITI**

**AIR AMBULANCE:** PAC International has recently completed and delivered an upgraded Bell 407 to Haiti Air Ambulance, a leading provider of emergency medical helicopter services in Haiti, the independent Caribbean state.

Modifications provided by PAC include a Spectrum Aeromed patient stretcher and base assembly with Lifeport pilot barrier and medical floor, Propaq, Revel Vent, and Bodyguard 121 IV pump mounts, 110 VAC shore power, overhead medical equipment track mounts, patient oxygen system, baggage compartment storage cabinet, NAT - dual AA95 Audio / ICS system, Garmin GTN650 & radio upgrades, TIL - TFM500 / RC500 FM communication system, Honeywell Sky Connect Tracker System, Artex ELT, DART emergency float system, coin mat crew flooring, various storage pouches, complete recovering of all interior seats, and full exterior paint

Haiti Air Ambulance (HAA/Ayiti Air Anbilans) provides emergency medical helicopter services throughout Haiti. HAA is the country's only service flying critically ill or injured patients to emergency medical care providers.



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PAC International, officially known as Paradigm Aerospace Corporation, is a subsidiary of Metro Aviation, Inc. PAC began operating in 1976 as Western Pennsylvania Helicopter Services, mostly servicing private operators of Bell helicopters in the region. Since then PAC has completed over 1,600 upgrades and new completions to a variety of Bell and Airbus helicopter models. [PAC]

#### **NORWAY**

Airbus Helicopters has delivered the first of its new five-bladed H145s, with the Norwegian Air Ambulance receiving the aircraft at the end of September at the manufacturer's facility in Donauwörth, Germany.

In addition to an extra main rotor blade, the new version of the aircraft adds a bearingless main rotor system with a fully composite flex-beam and main rotor blades. It also dispenses with the main rotor head entirely. The net result is an increase of 330 pounds (150 kilograms) in useful load over the four-bladed H145.

The type includes upgraded avionics in the form of Airbus's Wireless Airborne Communication System, which allows navigation and mission database information to be imported from a tablet, and has the capability for cockpit Wi-Fi. The variant is offered as a new aircraft off the production line, or through a retrofit kit for existing operators of the four-bladed H145.

The Norwegian Air Ambulance Foundation, founded by Norwegian doctor Jens Moe in 1978, is the mother company and owner of the Norwegian Air Ambulance. It brought HEMS to Norway by opening a first base near Oslo, using a BO105 helicopter rented from Germany. Today, Norwegian Air Ambulance operates all 13 HEMS bases in Norway and all four bases in Denmark using a fleet of H135s and H145s.



The new H145 is not in service yet. When it left Donauwörth it flew to Norway, where the Norwegian Air Ambulance will install an Aerolite interior to equip it to fly HEMS missions.

At the end of October Luftambulansetjenesten HF, the government owned limited company organising the Norwegian Air Ambulance Service, is expected to announce a public tender competition. The tender is for a complete operation utilising the ambulance helicopter base in Kirkenes, a small town in far north-eastern Norway, close to the Finnish and Russian borders. The timescale of the tender was set up in the summer and may slip due to feedback.

As proposed this includes the procurement and operation of the ambulance helicopter and doctor vehicle, staffing, maintenance, stand-by, equipment, training etc. Luftambulansetjenesten HF will provide the base facilities. The operation will offer a 15 minute standby around the clock, 365 days a year. The contract duration is tentatively planned to be from the 1 May 2021 until the 31 May 2023 with an option for a one year extension. Luftambulansetjenesten HF has been inviting potential suppliers to provide input when formulating the specific requirements, and timescales of the tender.

The RFI proposal used a preliminary draft document, the content of which was not binding on any party, and was expected to change before publication of the tender. The purpose of the RFI was to gain an overview of the market's opportunities to deliver offers and whether the timeline is realistic. The deadlines for a commencement were set at 1 May 2021, but that may alter in light of the feedback. The deadline for industry input was late August 2020.

#### SOUTH AFRICA

**EASTERN CAPE:** Controversy has arisen after the Eastern Cape health department awarded a three-year helicopter air ambulance contract for emergency medical response and patient evacuation to a small KwaZulu-Natal flight services operator, Black Eagle Aviation in a joint venture with Leli Investments.

The contract took effect on October 1, with the aircraft arriving in East London on the same day and being immediately declared mission ready.

The controversy surrounds whether the aircraft meet all of the tender specifications — including a requirement for a hoist being fitted to the East London-based aircraft to facilitate offshore rescue missions. It is claimed that the aircraft does not have a hoist fitted.

Black Eagle Aviation has its headquarters in Grand Central Airport, Midrand, Johannesburg, and operates a mixed fleet of Eurocopter AS350B3, Beechcraft 1900D, Cessna 208B Grand Caravan, Beechcraft King Air 200 and 90 Pilatus PC12NG. Despite the website claims industry sources claim that Black Eagle Aviation does not own one helicopter and is not capable of operating the service. Nonetheless on the due date three AS350 helicopters arrived at the operating base in East London.

Black Eagle was awarded a similar contract in KwaZulu-Natal. It was overturned after an appeal by AMS, with the appeal panel finding discrepancies in tender submissions.

The existing service provider National Airways Corporation's (NAC) based in Lanseria Airport, Johannesburg, was operating until the eight-year contract lapsed on September 30. The tender has been outstanding since June 2018. The two major air rescue service providers in South Africa — NAC and non-profit organisation SA Red Cross Air Mercy Services (AMS) — were sidelined in favour of the consortium.

The EMS contracts the helicopter ambulance service from the private sector over a three-year term, with the service provider stationing one helicopter at each of the EMS bases in East London, Port Elizabeth and Mthatha. [DispatchLIVE]

#### UNITED KINGDOM

**NATIONAL:** Regular readers will recall the activities of the UK Civil Air Patrol (CAP) volunteers and Blood Bikes in moving samples and equipment around between hospitals and other facilities. That is a national resource but clearly not under the direct control of the user (NHS).

Also recently reported on was the intention to fly a drone from the mainland to the Isle of Wight carrying equipment. That project was duplicated by both fast boats, vehicles using the ferry service and even the CAP/Blood Bike team.

A new development is using an NHS drone used to carry Covid-19 samples, test kits and protective equipment between hospitals – exactly the same load as the other schemes. The trial is being run in Essex and aims to establish a network of secure air corridors for drones to navigate via GPS between Broomfield Hospital [Chelmsford], Basildon Hospital and the Pathology First Laboratory in Basildon. The project is being funded through a share of a £1.3M grant from the UK Space Agency.



The drones can carry a maximum weight of 2kg (4lbs) and fly about 60 miles (96km). They will fly at 300ft (90m) above ground level and are designed to withstand harsh weather. The project, founded by healthcare drone start-up Apian, is supported by Anglia Ruskin University.

Apian, part of the NHS Clinical Entrepreneur Programme, aims to establish a network of secure air corridors for electric drones and will avoid courier call-out waiting times, free-up NHS staff, reduce unnecessary physical contact and minimise the risk of secondary transmission of the virus.

Ed: This Essex based project is in its very early stages and currently labour intensive and unproven. The current position is about promotion of the principles involved rather than providing a viable service. The current payload capability of 2kg is potentially viable for transporting samples but farcical for moving such as PPE around. Once a fully automatic system is developed to meet the requirements of the CAA and others the situation will change. The distance between Chelmsford to Basildon 17 miles or 28 km by road, a 24 minute journey, but in terms of air miles it is just 11 miles (18 km).

What the economics of setting up such a service are I will leave to the reader to decide. How many times a day would Broomfield want to send samples to Basildon? How many people would need to be assigned to maintaining a service that might currently keep one man and a van busy?

**CORNWALL:** The air ambulance based at Cornwall Airport Newquay [the former RAF St. Mawgan] has complained to the airport management about aircraft of others flying over their helipad and causing delays in despatching the air ambulance.

The problem was raised by the charity at a meeting of the Cornwall Airport Newquay Consultative Forum in late September. The complaint stated that flights around the airport being carried out by Cobham Helicopter Services which has a helicopter academy based at the airport were the main problem. There have been a number of occasions when Cobham training aircraft, carrying underslung loads, are being routed or taking a flight path directly over the helipad including when they wanted to start up to answer an emergency call.

After investigating the complaint Cornwall Airport Newquay subsequently refuted the claims that the air ambulance had been delayed in responding to emergency calls by aircraft flying over its helipad.

**ESSEX & HERTS:** The new building was eternally complete by October 10. North Weald was host of up to three HEMS at one go early in the month. At the start of October they had both the former Cornwall AA MD900 G-CNWL and another 900 G-EHEM replacing the AW169 G-HHEM for maintenance. The additional helicopter is normally based at Earls Colne Airfield near Colchester. It was moved to North Weald while it's base was upgraded.



**GREAT NORTH:** The future came to Cumbria in late September when the air ambulance charity teamed up with Gravity Industries Ltd., a British company to promote a personal jet flying suit.

The focus of the demonstration was to promote it for the use of doctors and paramedics trying to access patients in remote and difficult locations but all the action was undertaken by the inventor/manufacturer.

The promotion was to enable a "flying" medic to reach a casualty quickly and the principle was that it was being tested by the Great North Air Ambulance Service. As a promotional device for both it worked well and grabbed headlines across the world. Whether the news media had sensibly considered the implications and feasibility in the role is perhaps another matter.

Andy Mawson, director of operations at GNAAS, came up with the idea and described seeing it as "awesome". Using the equipment meant a paramedic could "fly" to a fell top in 90 seconds rather than taking 30 minutes on foot. He could see the need relating to dozens of patients every month in the mountainous northern lake district.

In one test simulation, a paramedic in a jet suit - which, in this case, was test pilot and Gravity Industries founder Richard Browning - was sent up a mountain to a "patient" who had fallen from cliffs and sustained a serious injury.

Ed: Another project for the future perhaps. Browning launched Gravity Industries in early 2017 and has since promoted his flying suit more than 100 times in public displays in more than 30 countries. The special suit consists of bringing together five small 2kg jet engines fitted to the back and arms and producing 1,050 horsepower to easily lift a man up to an altitude of 3,658 metres, (more than enough for flights in the Lake District with its highest peak of 978 metres in flights of up to eight minutes.



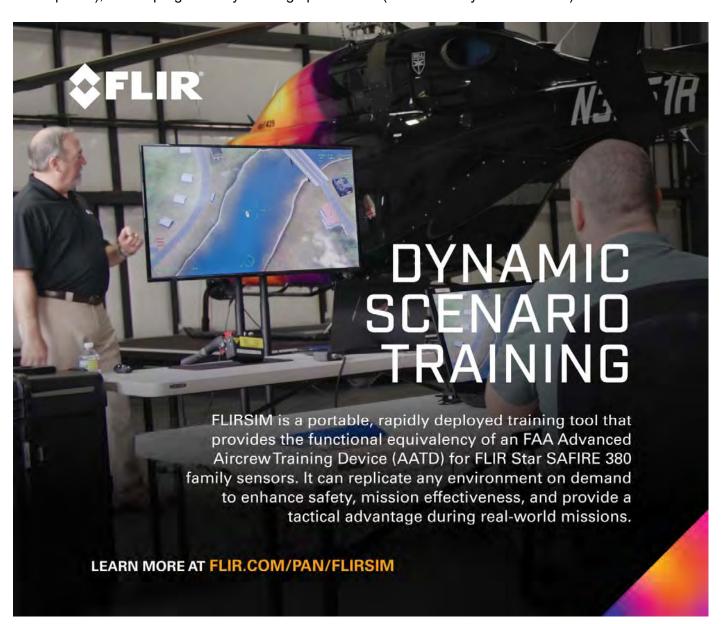
The cost of the kit is currently given as \$440,000 for each personal equipment fit suit. The more immediate problems include finding and training the wearer to an acceptable standard – presumably at least a Private Pilots Licence – as well as retaining a pretty full day keeping up to date with being a skilled doctor or paramedic. The other detail of getting the wearer to the patient with added medical kit attached and without injuring the said patient with the hot jet efflux of six engines can be left to others to sort out. By the time the wearer has safely removed the scalding hot gear the rest of the team may already be half way up the hill with their stretcher!

Gravity went on to promote and demonstrate the equipment to the Royal Navy – demonstrating the delivery of personnel from ship-to-ship or shore. Certainly James Bond stuff but clearly not the "Silent Service."

#### **UNITED STATES**

**NATIONAL:** Air Methods Corporation – the largest civil operator of Airbus helicopters worldwide with more than 450 aircraft in operation – has signed a \$24M, five-year HCare Smart support contract with Airbus Helicopters, Inc. to cover its fleet of 31 EC145 helicopters. For Air Methods this is seen as what they hope to be multiple HCare contracts, which allow them to partner with Airbus to drive safety, reliability, and cost targets for customers. This is Air Methods' first HCare contract with Airbus, and discussions are underway to extend similar support coverage to other aircraft models in the Air Methods fleet, which also includes the H125, H130, H135 and H145. Air Methods has a fleet of owned, leased, or maintained aircraft with more than 450 aircraft.

HCare is Airbus Helicopters' comprehensive services offering, delivering tailor-made and competitive solutions to customers. It spans five domains: material management, helicopter maintenance, technical support, training and flight operations, and connected services, with experts available on-call 24/7. The HCare material management service starts out with Easy (on-request catalogue services) and Smart (four by-the-hour options), before progressively building up to Infinite (full availability commitments).





**EASTERN:** Mission Health's Mountain Area Medical Airlift (MAMA) recently visited Metro Aviation to take delivery of their new Airbus EC145e, the lightweight twin-engine helicopter that has become increasingly sought after throughout the air medical industry.

MAMA operates 24 hours per day, providing air medical services to western North Carolina, eastern Tennessee, northeast Georgia, and northern South Carolina. MAMA performs nearly 90 flights per month, covering 10,000 square miles in 2-3 flights per day. MAMA's new aircraft replaces an ageing EC135 and is the first EC145 variant in their fleet. With this new purchase, the operation gains a dedicated, branded backup aircraft and a 32% increase in cabin space.

The EC145e is IFR-equipped and includes Metro Aviation's medical interior with integrated medical floor, 10 litre liquid oxygen system, and custom medical walls for mounting equipment. [Metro]

**FLORIDA:** It is not uncommon for any aircraft operator to face a period of downtime due to maintenance issues but generally most operators try and avoid the cause and effect being made too public. If they can afford to most will have two or more in service to reduce downtime affecting the operation.

In early October the Palm Beach County Health Care District in Florida was unable to stem the story about both of their Trauma Hawk aeromedical aircraft being out of service at the same time.

One of its two Sikorsky S-76 C+ helicopters, Trauma Hawk 1, was unavailable for about two weeks as it received its mandated FAA inspection. Unfortunately the standby aircraft was unavailable due to an incident in August. The S-76 was damaged in an incident on August 25 at the Aeromedical Hangar at Palm Beach International Airport. The aircraft was parked at the hangar that afternoon following a maintenance flight when an issue arose with its landing gear. While at a complete stop, with the engine off and the rotors coasting to a stop, the right landing gear failed, causing the helicopter to tilt. It remains out of service for an extended period, pending repair.

The Sikorsky helicopters have been in use by the Health Care District since 1999. Each year, the aircraft transport hundreds in need of critical care. The downtime is usually covered coordinates with other counties for air ambulance services – these are usually from either Martin County or Broward County.

The Health Care District plans to replace the two Sikorsky's with Leonardo AW169 from 2022. It signed a \$22.7M contract with Leonardo earlier this year. [PBP]



In Naples, Florida the Collier County's Emergency Medical Services team taken delivery of an Airbus Helicopters H135 T3H for Metro Aviation.

Metro's completion centre, located in Shreveport, Louisiana, outfitted the helicopter with a standard medical interior featuring a customized Mermaid Manufacturing Medi-Kool cabinet, Dual Pilot/Single Pilot IFR systems and a three-color polyurethane paint job. This helicopter updates the current fleet of one 20-year-old aircraft with various safety features like Outerlink's best-in-class aviation software.

**TEXAS:** HALO-Flight an air ambulance provider for South Texas for over 30 years has acquired a Bell 407GXi, the first Federal Aviation Administration (FAA)-approved single engine, single pilot instrument flight rules (IFR) air medical helicopter. The order was announced at the 2020 Heli-Expo

Bell's IFR-certified platform comes with more than six million proven global flight hours, enabling HALO-Flight to navigate all-weather operations and complete critical missions despite low cloud ceilings in many incidents.

The aircraft features the Garmin G1000H NXi avionics system for enhanced pilot awareness, three axis autopilot, redundant electrical system, and enhanced FADEC engine control. Wireless connectivity allows our pilots to quickly sync flight plans from portable EFB devices to decrease launch times.

# **FIRE**

#### **CHINA**

**SHENYANG:** Perhaps the only aviation event to avoid virtuality this last month was 9<sup>th</sup> Shenyang Faku International Flight Conference, which opened on the 17<sup>th</sup> October. It included comprehensive exercises of aviation fire emergency rescue.

The air exhibits included helicopters and an unidentified unmanned helicopter with a payload of 15kg, a maximum speed of 150kmh and capable of operating in Force 7 winds in maritime environments. This product has been put into use in many cities in China according to Shandong Ruitai Zhengqian Intelligent equipment Co., Ltd.



#### **SOUTH KOREA**

**ULSAN:** On October 8 hundreds of hundreds of people had to be evacuated after a massive blaze erupted in a high-rise tower in the southern South Korea city of Ulsan. Footage showed flames engulfing the 33-storey Samhwan Art Nouveau commercial and residential tower. The tower had more than 120 residential apartments and dozens of commercial premises.

It reportedly started about 11pm (local time) and was spread by high winds. Hundreds of people were evacuated, including some by helicopter from the roof. Dozens were suffering the effects of smoke inhalation, and at least 77 people were taken to hospital.

An "exterior material", possibly insulation, attached to the outside of the building helped the fire to spread quickly. The fire broke out between the building's eighth and twelth floors. Falling debris also ignited a blaze at a nearby supermarket, but it was quickly extinguished.

The next day, firefighters were searching for anyone who might still be inside.

Ed: There have been no subsequent reports of deaths, thereby suggesting that quick evacuation, the external insulation nature of the fire and the integrity of the windows allowed a safe departure from the fire area.





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Matt Tarczynski 717.557.5602

#### UNITED STATES

**CALIFORNIA:** The Santa Barbara County Sheriff-Fire Air Support Unit (ASU) has taken delivery of Copter 964, a public safety role equipped 2004 Sikorsky HH-60L "Firehawk" helicopter. The Firehawk has been in Alabama undergoing a retrofit since being purchased in 2019. It now has upgraded avionics and a new rescue hoist as part of extensive configuration changes designed to improve its fire-fighting and rescue roles.

The Firehawk joins an existing fleet of Bell Huey aircraft stationed at the Santa Ynez regional general aviation airport located on the west coast. The Firehawk significantly increases lift capacity which ensures that more water can be delivered faster and more accurately on fires. The Firehawk can deliver approximately 1,000 gallons of water in one drop, compared to 300 gallons for the Huey.



The Blackhawk helicopter still has to be converted to take the fixed belly tank to carry and disperse water for firefighting purposes. The fixed tank requires modifying the landing gear of the Blackhawk to increase the ground clearance to accommodate a 1,000-gallon tank. The additional work will mean that the Firehawk will not reach its final configuration until next autumn.

As the strongest winds of the 2020 fire season were hitting parts of San Francisco's East Bay, Contra Costa County's Fire Protection

District unveiled its new firefighting helicopter last month at the REACH Air Base at the Buchanan Field Airport in Concord, California.

Con Air 1, an Airbus H-145e utility helicopter N390FD, is equipped with a 144-gallon bucket the agency is using to battle wildfires. The district is sharing the rotary-wing aircraft with REACH Air Medical Services, which will use it to provide air transport services in emergencies and patient transfers between hospitals at no extra cost to taxpayers. The helicopter is paid for and the crew is funded by REACH in what a spokesperson said may be a one-of-a-kind public-private partnership in the U.S. The colour scheme is a variation of the standard REACH maroon with black upperworks.

Although it has already been used to fight fires its primary purpose remains that of air ambulance and it therefore continues to wear the REACH livery. The district began using the aircraft for rescues in March, with in excess of 120 patients carried. Operations are confined to door loading patients until next year when it is expected that the aircraft with start hoist rescues. [East Bay Times/PAN]







**FLORIDA:** Miami-Dade Fire Rescue [MDFR] ordered four Leonardo AW139s in December 2019 for fire suppression, emergency medical services, and search and rescue.

On October 13 Leonardo announce that MDFR had taken delivery of its first AW139 helicopter at a small ceremony at Miami Executive Airport (TMB) in Miami-Dade County, Florida. Officials from the County, including Mayor Carlos A. Giménez, a former fire fighter, spoke at the event.

"As a former firefighter, I've been very impressed with this world-class search-and-rescue helicopter," Mayor Giménez said. "Replacing antiquated helicopters, the AW139 is a vital addition to Miami-Dade Fire Rescue's fleet. They will provide a heightened level of safety and security for our Fire Rescue workers and those whose lives they work to save.

Each helicopter features a cargo hook, rescue hoist and Bambi bucket. The remaining three aircraft are expected to be delivered by the end of 2020.

Due to the impressive scope of its rescue operations, MDFR frequently provides mutual aid support to neighbouring counties including Monroe, Collier, Broward and Lee. Miami-Dade is the most populous county in Florida with over 2.7 million people and more than 2,000 square miles (larger than the states of Rhode Island and Delaware). From the coral reefs to the Everglades the unique subtropical environment of South Florida makes this area unlike any other in the United States.



# **SEARCH & RESCUE**

#### **AUSTRALIA**

**SOUTH AUSTRALIA:** Babcock Australia's rotary wing contract with the Government of South Australia has been extended until October 2022, confirming increased and continuing service to the region.

Babcock will continue to deliver emergency medical services (EMS), search and rescue (SAR) and airborne law enforcement services for the South Australian State Helicopter Rescue Service (SRHS), on behalf of the South Australian Government.

The contract extension includes an additional Bell 412 helicopter to operate from Adelaide Airport, replacing an EC130 aircraft and operating alongside two existing Bell 412s.

#### **CANADA**

**BRITISH COLUMBIA:** A little over seventy years ago, on September 23, 1950, a helicopter was used to rescue a lookout man on Azure Mountain in Wells Gray Park, British Columbia. This event was possibly the first mountain rescue by helicopter in Canada. It made news across Canada, but was soon forgotten and lost to history, until The Forest History Association of BC recently published an in-depth story about this interesting event.

In September of 1950, Albert David Flowers (who had served in the First and Second World Wars) was working at a remote Forestry lookout on the top of Azure Mountain in Wells Gray Park where his job was to send out daily fire and weather reports. Albert's son Gerald, who had just turned 15, was the only other person with him. The two were living in a large tent and were busy building a small cabin of which they had the walls up and openings cut out. Unexpectedly, Albert was hit in the leg by a falling rock while clearing a trail. When the leg got progressively worse they realized he needed medical treatment and radioed for help.

A helicopter from Okanagan Air Services was then called away from a job moving equipment and personnel up to what is now called the Lucky Four Mine south of Hope, B.C., to pick up the injured Albert and quickly transport him to medical attention in Kamloops.

The helicopter was an open cockpit Bell 47B-3 (CF-FZX) which had been lightened so it could reach high elevations. Its pilot was D.K. 'Deke' Orr, who had been trained by the famous pilot Carl Agar (winner of the Trans-Canada (McKee) Trophy in 1950). Deke had to fly his helicopter to a 6,200 ft. elevation, and then bring the helicopter down on the virtual top of the mountain in strong winds.

When the helicopter arrived Gerald had to cut down a number of small trees to clear enough of an area so the helicopter could land safely. Albert was then loaded into the helicopter and they departed. Gerald took several photographs as they prepared to leave and also when Deke lifted off to fly Albert to the Kamloops Hospital for treatment.

Since the helicopter only had two seats and no space for another person, Gerald walked down the mountain, took a short boat ride and then walked out of Wells Gray Park, a distance of about 40-45 km in two days. He took a gun to fend off black bears, etc., but tells he soon found out that the ammunition he brought turned out to be duds!

Gerald Flowers would later write this story down, and he also added a number of the photographs that he had taken and saved for seven decades. The story is now included in a 26 page PDF document Canada's First Mountain Helicopter Rescue—1950, by Gerald and Ken Flowers (2020) and is downloadable at: <a href="https://www.fhabc.org">www.fhabc.org</a>. [The Forest History Association of BC]

#### **EUROPE**

**MEDITERRANEAN:** The European Border and Coast Guard Agency (Frontex) awarded a contract to Airbus Defence and Space Airborne Solutions (ADAS), a 100% subsidiary of Airbus Defence and Space and market leader in RPAS services, and its long-term partner Israel Aerospace Industries (IAI) to operate a Medium Altitude Long Endurance (MALE) RPAS for Maritime Aerial Surveillance services.

The service will be delivered in Greece, and/or Italy and/or Malta within a Framework Contract. The service include the provision of a RPAS platform, payload, communication equipment and capacity, mission storage and all necessary experts managing the system and providing operational support. Under the con-

tract, Airbus and IAI will provide the service for pre-planned assignments as well as for ad-hoc calls.

The maritime Heron RPAS from IAI serves a range of customers worldwide and is a part of the well-known "Heron family" which accumulates over 450,000 flight hours, day and night missions under all weather conditions. The system is capable of flying more than 24 hours in full operational configuration and creates a comprehensive, real time, naval picture in geographical areas for potential surveillance interests, e.g. in the context of coordinated European monitoring activities.

The RPAS will be fitted with versatile dedicated payloads (e.g. electro-optical for day and infrared for night purposes, maritime patrol radar made by IAI and automatic identification system), relevant communication equipment, and corresponding ground mission control and support. The surveillance platform Heron uses a direct link when flying within Line of Sight (LOS), changing seamlessly to a satellite link when flying Beyond Line of Sight (BLOS) to transmit real time information or when needed to fly in low altitude over sea. This information is being transmitted to Frontex command and control centre as well as to centres of the respective Coast Guards.

In addition Frontex is planning to launch a pilot project for maritime surveillance by aerostat later this year. Earlier tests carried out in Greece in cooperation with the Hellenic Coast Guard proved that aerostats can be successfully used to support EU Member States in maritime border surveillance for law enforcement purposes. The aim of the pilot will be to assess the capacity and cost efficiency of aerostat platforms for maritime surveillance, as well as to modify and optimise the equipment used based on the lessons learnt from last year's tests. The activity will also help define optimal platform dimensions, payload and capacities for maritime surveillance.

#### **FINLAND**

**BORDER GUARD:** Since the summer the Finnish Border Guard have been making initial moves to procure multirole aircraft by 2025 to replace two Dornier 228-212 surveillance aircraft that have been in service since 1995. The planned life span of the new aircraft is at least 30 years. The closing date for these initial approaches was the end of September [TED]

#### **JAPAN**

**COAST GUARD:** General Atomics Aeronautical Systems, Inc. concluded tests of their MQ-9B Sea Guardian variant of the Predator unmanned system off the coast of California in September. These were seen as latest step towards a worldwide export drive.

Within days it was reported that amid heightened tensions over Chinese incursions into Japan's territorial waters off Senkaku islands in the East China Sea, Japan Coast Guard began test flights of an unmanned



aerial vehicle SeaGuardian to learn whether it can be utilised to carry out the coast guard's key duties, including search and rescue and maritime surveillance.

The flights late last month were conducted off the coast of Sanriku in northeastern Japan, as well as along the coasts of the Sea of Japan. The tests will involve the use of the 12-metre-long, 24-metre-span UAV being based at the Maritime Self-Defence Force's Hachinohe base in Aomori Prefecture in northern Japan and will either engage in pre-programmed flights or be remotely piloted from a ground control station.

The coast guard is hoping to enhance its capabilities with the UAV to work with a current fleet of 33 aircraft and 52 helicopters. The validation flights are scheduled to take place until November 10 at a reported cost of over \$8.5M.

#### NETHERLANDS

**COAST GUARD:** The Netherlands Coast Guard currently operates examples of the Dornier 228 from the old airport side of Schiphol Airport. The aircraft are based at the hangar facility of Jet Support, a venue that was very nearly the base of the 2019 PAvCon Police Aviation Conference.

It has now been announced that two new aircraft based on the DHC-8 are to be acquired and brought into service. The two aircraft are being missionized by JetSupport and PAL Aerospace, will provide multi-role capabilities including search & rescue, law enforcement, pollution monitoring, maritime traffic research, and surveillance to the North Sea. The contract covers an initial ten-year period with an option to extend for two additional one-year terms

The next generation of C4ISR multi-role Maritime Surveillance Aircraft is powered by AIMS-ISR. With a single Moving Maps platform supporting EO/IR, radar, ViDAR, SLAR, IR/UV Line Scanner, SIGINT, and more – capabilities are extended far beyond the status quo while providing systems integrators flexibility and efficiency.



CarteNav has announce that their contribution to the project is their AIMS-ISR mission system. Carl Daniels. COO of CarteNav stated that

"In addition to the multi-role ISR capabilities we are known for delivering, we are particularly excited to implement new sensor technologies that expand our portfolio of environmental and maritime monitoring solutions."

CarteNav plans to develop new Side Looking Airborne Radar (SLAR) and IR/UV Line Scanner Moving Maps capabilities – providing multi-role air reconnaissance capabilities in the North Sea. The new SLAR and Line Scanning features will be fully integrated alongside a multi-sensor suite within the AIMS-ISR mission system – supporting accurate situational monitoring of the North Sea. A primary feature will be the ability to identify and track pollution events such as oil spills. <a href="https://www.jetsupport.nl/">https://www.jetsupport.nl/</a>

#### **PHILLIPPINE**

**COAST GUARD:** The parapublic operator recently took delivery of its second Airbus Helicopters H145. They now have CGH-1451 and CGH-1452 on strength.

The aircraft are role equipped with hoist and sensors. The first aircraft has already embarked on numerous humanitarian missions – many related to COVID-19 support and supply operations the since March of this year. [AH-Facebook]



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#### **TRINIDAD & TOBAGO**

**AIR GUARD:** In the Trinidad & Tobago Government grounded their fleet of four AW139 helicopters on budgetary grounds and cancelled their support contract. At the time it was stated that they could not afford the support contract they had with Cobham. On their part Cobham Aero Systems stated that they continued to negotiate the restructuring of the deal relating to the three operational helicopters and a fourth example in deep store. Cobham, believed they would get the operation back on track but it would take some time.

Ten days ago, after three years grounded, the Minister of National Security, Stuart Young, announced that one helicopter is planned to return to use for the Air Guard.



The return to service is expected to take some times as most of the staffing related to the assets was let go. The new announcement includes a plan to recruit some of those back on board, but obviously that will delay operations. [Helihub/PAR]

#### UNITED KINGDOM

**UK COAST GUARD:** Bristow Helicopters Limited have received a contract extension until the last day of 2026 to provide search and rescue services for the Maritime and Coastguard Agency (MCA). The extension of the current contract allows Bristow to cost-effectively introduce new capabilities into the existing helicopter fleet and to explore technologies which may be of benefit in future contracts. Bristow will continue to provide support to HM Coastguard with a modern fleet of eleven Leonardo AW189 and ten Sikorsky S-92 SAR equipped aircraft at ten strategic locations around the UK. The contract employs 360 people.

The extended contract will facilitate the procurement process for the next contract, known as the UK SAR2G programme.

## **INDUSTRY**

The third prototype of the **Cessna** Sky Courier has flown in the United States. This is the last of the aircraft designated for Textron Aviation's flight-test programme of the high-wing twin-turboprop. Designated as P2, the airplane joins the first prototype SkyCourier in a passenger configuration while P1, which first flew in August, is in a cargo configuration.

The first flight lasted 90 minutes and reached a speed of 210 kts and an altitude of 15,000 feet. P2 will primarily be used for avionics, flammable fluids, and cold and hot weather testing in the climatic chamber at Eglin Air Force Base in Florida.

The type is likely to feature in many future surveillance aircraft offerings.

Last month **Honeywell** announced new features to its portfolio of search and rescue software solutions that help countries and emergency response organisations perform rescue operations and track and locate important assets, such as a downed plane or a missing ship.

Honeywell Global Tracking (HGT) has more than 35 years of experience delivering end-to-end SAR and high-value asset tracking solutions, including satellite ground stations, mission control centres (MCCs), rescue coordination centres (RCCs), satellite modems and airtime solutions.

From combining lower Earth orbit (LEO) and geostationary Earth orbit (GEO) ground station processing to creating a Middle Earth Orbit Search and Rescue (MEOSAR) ground station network, Honeywell has solutions that improve beacon detections and location accuracy.

This year HGT customers can benefit from following software solutions:

Network Location Processor NLP600 1.0 is a next generation network location processor that uses the COSPAS SARSAT network. It is the cloud enabled solution in compliance with latest cyber security and data privacy requirements. It features a web-based GUI application with advanced GIS that is accessible by MCC and RCC operators. Advantages over standalone MEOLUT ground station include widening the coverage area, improving beacons detections probability and location accuracy at the edge of coverage areas, eliminating the gaps between multiple ground stations, eliminating system anomalies, improving slow and fast-moving beacon detections and localization.

RCC Software – SARMaster 600 1.4 is an advanced SAR incident management system that integrates multiple online and local data sources such as mapping, weather, incident information, SAR resources, ship and aircraft registries, all in a single control centre view. The web-based application, which can be hosted securely at the customer data centre or on the Honeywell managed cloud, requires no special soft-

ware on the user's workstation.

MEOSAR Digital Beam Former (DBF) Antenna – MEOLUT 3.0 for L-Band Satellites. The new smart antenna offers full remote control, monitoring capabilities and dual polarisation. MEOLUT performance exceeds COSPAS-SARSAT specifications and the capability of tracking low elevation satellites.

The GMPT–401 Personal Tracker is an integrated, cost-effective, portable satellite device that uses global lridium satellites for tracking, monitoring, and communicating with personnel in remote locations. With an interactive SOS feature, users will know that their panic button activation has been received.

Regular readers of the national press and PAN may have noticed that the **Cobham Group** was bought out by the US private equity group Advent. There was pressure at the time of the sale to stop what was seen as little more than a means to make money out of the £4billion group. It still went through in January this year.

Recent newspaper stories have alleged that the race to break up the group and make money started very quickly. Already Cobham has offloaded its 13% stake in Air Tanker – the provider of air transport and air-to-air refuelling to the RAF. Cobham was originally founded by Sir Alan Cobham as Flight Refuelling Limited (FRL) in 1934. Reducing its links to this market is therefore a significant departure.

More related to this emergency services market it is also said that there are moves to offload Cobham Aerospace Connectivity its antennae manufacturing sector for around £770M. [Mail]

**Milestone Aviation** and Airbus Helicopters have agreed to include six H160s in Milestone's orderbook. The helicopters will be destined for a range of missions including offshore transportation and emergency medical services, the first of which is set to deliver in 2023.

**Safran Helicopter Engines** and the Spanish aero-engine company ITP Aero have signed a Memorandum of Agreement (MoA) to cooperate on Ardiden 3TP, a turboprop engine suitable for European military applications – specifically the unmanned, training and transport sectors. The Spanish aero engine specialist strengthen the European team with Safran Helicopter Engines, and ZF Aviation Technology in Germany.

Ardiden 3TP is a 100% European solution based on Safran's Ardiden 3 core engine and featuring technologies developed through its Tech TP technological demonstrator, which ran for the first time in June 2019.

The Ardiden 3TP will be optimized for operation at medium and high altitudes, up to 45,000 feet, and be easy to operate -- thanks to a unique throttle and Full Authority Digital Engine and Propeller Control (FADEPC) controlling power and propeller pitch. MT-Propeller will contribute to the propeller.

It is based on Tech TP, a Clean Sky 2 research and innovation programme validating the technologies necessary to develop a new-generation turboprop.

Since June 2019, tests have progressed at a steady pace. Featuring a compact and lightweight architecture, Tech TP offers 15 per cent lower fuel consumption and CO2 emissions (over current engines). It is one of the first Clean Sky 2 demonstrators to enter its test phase. More than 20 partners from eight European countries are contributing to the project.



The Ardiden 3 is a new-generation core engine in the 1,700 to 2,000shp power range. Two EASA-certified models, the Ardiden 3C and 3G, have completed over 10,000 hours of tests, confirming high levels of design maturity and competitive operating and maintenance costs. In addition, more than 250 Ardiden 1 engines have flown over 200,000 hours. The Ardiden 3 features a remarkably compact modular architecture, a best-in-class power-to-weight ratio and a low cost-of-ownership. 2

In order to cut costs, pilotless passenger aircraft will take to the skies within a decade under plans drawn up by British manufacturer **Britten-Norman**, based on the Isle of Wight. The company plan to introduce single-pilot planes with an "autonomous co-pilot" by 2025. It said that the shift to fully pilotless aircraft could be achieved by the end of the decade.

Britten-Norman, the sole independent commercial aircraft manufacturer in the UK, has signed a deal with Blue Bear, a British autonomous flight specialist, to develop the technology.

The two companies will work to automate Britten-Norman's Islander, a twin-engine utility aircraft which is used for passenger flights, cargo and search-and-rescue operations.

The plane, which can carry up to nine passengers, and has a short take-off and landing capability, operates on commercial routes between Scottish islands.

Passenger jets have been flying on autopilot for around 50 years and large drones piloted from the ground are common in the military. However, pilotless passenger planes are not permitted. The technology would ultimately have to be approved by regulators.

Britten-Norman already produces aircraft that are certified for single pilot flights but some operators elect to, or must, operate with a second safety pilot. The company said that the ultimate goal was optional full automation which "should be realised within this decade". [The Times]

Textron Aviation has achieved Type Certification by the Federal Aviation Administration (FAA) for its newest flagship twin turboprop **Beechcraft** King Air 360/360ER aircraft, paving the way for customer deliveries to commence in the coming weeks. Announced in August 2020, the Beechcraft King Air 360 demonstrates the company's commitment to ongoing product development, bringing the latest innovations to the legendary aircraft and providing added value for customers.

Certification tests of the **Bell** 525 Relentless "are finishing" says Bell, but the date when the supermedium, twin-engine helicopter will cross the finish line remains undisclosed.

The company has built five aircraft for its flight test programme and another four aircraft are in production. Test aircraft have accumulated about 1,600h of flight time, about 100h more of flight time since December 2019.

Bell declines to say when the aircraft will finish its evaluation and enter service. It still has to complete the FAA certification process. Bell originally aimed to introduce the helicopter into service in 2015 or 2016.

[Flight]

This year **Bell** has been trying to celebrate its 85<sup>th</sup> anniversary, the circumstances have not been too supportive of a party as all of the potential venues somehow got closed on them. It seems unlikely that there will be any events at which they can celebrate this year but they no-doubt hold out hopes for the HAI Heli-Expo in the spring. They may be lucky but I am not a gambling man.

The actual birth date of Bell, in its original form of a manufacturer of fixed wing military aircraft, was July 1935. Today Bell is mainly about rotary wing craft but its fixed wing past is equally interesting.



Founded by Larry Bell in 1935, the company has been at the fore-front of mobility, constantly finding ways to create innovative solutions. The recent press release from Bell ignores the companies first few aircraft but I shall not. The innovative 1939 Airacobra fighter may not have been the most exciting fighter in its time but it had its proponents in the war, as was the case with the similar Kingcobra, that was much appreciated by the Russian's. One of the first jet fighter designs was from Bell and that too was innovative also even if it only served in small numbers. Even fewer examples of the innovative Bell X-1 were built. That was the craft that propelled Chuck Yeager through the sound barrier and so earned Bell many accolades.

Bell were moving their business model over to rotary wing craft even before the X-1 and other X planes came on the scene and they pretty much gave up with fixed wings until the tilt rotor and wing types (the 609 and V-22) passed through their design office.

Bell currently has a suite of next-generation products in development including the Nexus air taxi concept which aims to revolutionize the urban commute. Another product in development is the Autonomous Pod Transport (APT), which can go further and faster while carrying payloads at increased ranges and speeds unlike any other unmanned aerial vehicle (UAV) in the market today.

Catch up report for Spain. In November 2019 a maintenance tender announcement was posted at the DOUE for maintenance of aircraft in the fleet of the **National Police Corps**. Issued by the Economic and Technical Division (National Police Corps) in Madrid it was to cover repair and maintenance services and associated services related to police operated aircraft and other equipment for 2020-21. The tender covered the maintenance of a Beechcraft B200 King Air with registration EC-GBB in police markings and an unmarked Cessna Citation II aircraft with registration EC-IAX. It was let to ATS Aviation SL based at Hangar 1- Cuatro Vientos Airport in May 2020.

**West Yorkshire Police** [WYP] has issued a prior information notice (PIN) to assess current market conditions for the delivery of electrical power and data services to support WYP, South Yorkshire Police, and other parties within the Yorkshire and Humber region. The exercise will also address any potential impacts of Covid-19 on future procurement options.

WYP has 79 buildings across the region of varying size, age and complexity. The estate accommodates many functions ranging from office accommodation, custody suites, garaging, control rooms, IT data centres, covert premises, through to helicopter bases and storage requirements. South Yorkshire Police currently has 60 buildings across its region.

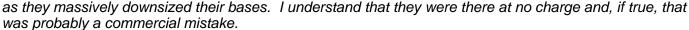
WYP are directing interested potential suppliers to this market engagement opportunity to register on the Bluelight e-tendering portal.



The designer and manufacturer of the **TLC Helilift** helicopter mover, T.L.C. Handling Ltd., based near Doncaster, South Yorkshire has wound up their business. At their remote factory in Westend Road, Epworth, the prime mover behind the enterprise Tony Hancock designed, manufactured & distributed a unique type of helicopter ground handling equipment that was widely lauded within the industry. At a General Meeting of the Members of the Company, held in Sheffield on September 10 it was resolved that TLC would be wound up voluntarily with named staff members of Abbey Taylor Limited, be appointed Joint Liquidators of the Company. They can be contacted on telephone: +44 114 331 0000, or by Email at info@abbeytaylor.co.uk.

Ed: TLC have been struggling for a long time. The product has been available for two decades now and was set at a keen price point that competitors did not care to match. Unfortunately the machines only catered for skid equipped machines – the design for wheeled helicopters and fixed wing just never made it to market. In the 1990s skids were in but increasingly wheeled helicopters have grabbed a significant hold on the market. All of the skid equipped emergency services helicopter operators and MROs in the UK have their robust and long living Heli-Lifts - and probably a spare in store.

Even TLC had its own cache of spare Heli-Lifts, they were ones that NPAS had no further call for



MTU Aero Engines is stepping up efforts to support the adoption of hydrogen as a carbonfree fuel for air transport, with the start of engineering work for its joint project with the DLR German Aerospace Centre to convert a Dornier 228 regional airliner. The partners expect to be ready to start ground testing subsystems during the second quarter of 2021 as they prepare for the first flight of the technology demonstrator in 2026

The 19-seat aircraft, which has already been procured, will have one of its two Honeywell TPE331 turboprop engines replaced by a 500-kW electric propeller motor, powered by electricity produced by hydrogen fuel cells. Under a part-



nership announced in early August, MTU will provide the propulsion system while DLR—the government-backed Deutsches Zentrum fur Luft und Raumfahrt agency—will be responsible for systems integration and certification. The partners will use the project, which has funding from the Bavarian state government, to validate MTU's powertrain architecture.

At the same time, MTU said it also views direct combustion of liquid hydrogen in gas turbine engines as a potentially faster means of adopting the alternative fuel. According to Dr. Stefan Weber, senior v-p of technology and engineering advanced programs, the required changes to the combustion chambers of engines could be made within "a few years" to allow for relatively easy modification of existing aircraft. Ed: Currently Airbus are backing the development of hydrogen as a future airliner fuel. Boeing are said to be set against that option

Last month electric propulsion systems developer **Ampaire Inc** achieved its longest flight with the Cessna 337 Skymaster that it has converted to hybrid-electric power. On Thursday, the six-seat, Electric EEL aircraft took off from the Los Angeles-area Camarillo Airport and made a 341-mile flight to Hayward Executive Airport on the north side of San Francisco Bay in 2 hours and 35 minutes. Ampaire, claims this was the longest flight to date for what it defines as a "commercially relevant" aircraft using electric propulsion. The Electric EEL is powered by a 310-hp Continental IO-550 engine installed in the tail of the aircraft and a 130-kW electric motor in the nose. According to Ampaire, the piston engine powered all taxiing, and then a combination of it and the electric motor were used for take-off and climb. The cruise phase was mainly powered by the piston, while the motor was put in low power mode, before being switched to idle during descent and landing. The flight averaged 135 mph as it traversed California's Central Valley at an altitude of 8,500 feet.

This project is working up to the production of the next trials aircraft - a four electric motor 1 MW variant of the Twin Otter turboprop.

An amended Supplemental Type Certificate (STC) has been approved for the **Astronics Corporation** Max-Viz 2300 Enhanced Vision System (EVS). Offered by wholly-owned subsidiary Astronics PECO and obtained in cooperation with AVIO dg in Calgary Canada, the STC covers multiple Bell helicopter models, including 212, 412 and Bell 412EPI aircraft.

With the U.S. Federal Aviation Administration (FAA) and Transport Canada Civil Aviation (TCCA) approvals, images produced by the Max-Viz 2300 can now be presented on MFDs (Multi Function Displays), PFDs (Primary Function Displays), or on standalone displays depending on aircraft configurations. The amendment upgrades the wiring package to include VIVISUN® Switches for more effective mission utilization with NVGs (Night Vision Goggles) in search & rescue, emergency medical services, aerial firefighting, and military applications.

A recent ruling from the FAA permitting properly equipped aircraft to fly certain Instrument Flight Rule (IFR) approaches to landing, in lieu of natural vision, is expected to drive additional acceptance of EVS technology. Of the over 3,500 installed Astronics Max-Viz EVS systems, approximately 60% are on fixedwing GA aircraft and 40% on helicopters. <a href="https://www.astronics.com/max-viz">www.astronics.com/max-viz</a>.

RUAG MRO International has now completed the integration of an avionics upgrade for the German Air Force Dornier 228 aircraft used on maritime pollution control. The upgrade includes ADS-B Out kit modifications and approvals and was undertaken at its customer support, engineering and production facilities at Oberpfaffenhofen. The first aircraft was completed last year and the second in August this year. Specific OEM support featured configuration settings, final function tests, verification and supplemental military type certification as required by German Military Aviation Authority (LufABw).

The specialist team at German Naval Air Wing 3 implemented the integration on both multirole aircraft during scheduled maintenance events. Aircraft 57+04 was successfully upgraded in December 2019, with aircraft 57+05 following in August 2020.



Both Dornier 228 aircraft serve the German Navy on behalf of the Ministry of Transport and Digital Infrastructure to monitor the North and Baltic Seas with regards to marine pollution. Operational flexibility is essential as the multirole platforms operate across national borders and coastal waters in support of surveillance missions, maritime emergencies and search and rescue (SAR) operations. The aircraft are based at German Naval Air Wing 3, Nordholz, Germany.

RUAG acquired the 228 in 2002 when it took over the construction and maintenance divisions from the then German aircraft manufacturer Fairchild Dornier. This also included all rights for the production of the



Do228. In 2007, further development of the Do228 NG (new generation) began. Around 130 Do228 aircraft are in operation worldwide.

Less than a week later RUAG announced that it was no longer producing the DO228. RUAG International is selling part of its business, including maintenance, repair & operation for business aircraft and military helicopters, as well as the production of the Dornier 228 at the Oberpfaffenhofen location in Bavaria, to **General Atomics Europe GmbH.** Both companies signed a corresponding agreement on 30 September 2020. The new owner will take over all 450 employees. The takeover is still subject to approval by the responsible authorities. The transfer of ownership (contractual closing) is expected to be completed this year. The parties have agreed not to disclose the contractual terms.

For RUAG the sale of parts of the company is taking place in accordance with the unbundling concept approved by the Swiss Federal Council on 15 March 2019. The business activities affected by the sale were all brought together in the MRO International division, whose parts of the company are all to be divested in the future. The two locations specialising in business jets at Geneva-Cointrin and Lugano-Agno airports were sold in July 2019 to Dassault Aviation.

At the Oberpfaffenhofen location, RUAG International continues to employ 800 people for aircraft structure construction (RUAG Aerostructures) – this company segment is not affected by the sale.

**Thales** are offering their FlytX, a turnkey and customizable solution for civil, military and para-public helicopter modernisation to the market. The retrofit combines piloting and mission information in front of tactical airborne operators. It upgrades helicopter flight decks with an innovative touchscreen display solution and connects with existing sensors. The target market includes Airbus Helicopters AS550 / AS355 / H125 / H125M / EC135 / EC145 / AS532, Bell 412EP / B412SP and the Mil Mi-8/Mi-17. <a href="https://www.thalesgroup.com/en/markets/aerospace/flight-deck-avionics-equipment-functions/flytx-flight-deck-retrofit-mission">https://www.thalesgroup.com/en/markets/aerospace/flight-deck-avionics-equipment-functions/flytx-flight-deck-retrofit-mission</a>

**Boeing** is in trouble and has been for a while. Those troubles may have got worse thanks to COVID-19 but they predate it by a large margin. Remember the 737MAX? Well that is looking like it is just coming out of bad times. Many ascribe those bad times to the management losing connectivity with the engineers. That has a date, the Boeing management vacated Seattle, Washington State, for Chicago, Illinois in 2001. At that point "a quick word in the ear" of anyone with influence took all day. Management and the engineers were effectively divorced into a "them and us" culture. Arguably the 737MAX was just one of many examples.

Now AvWeb, quoting the Seattle Times, are saying that Boeing is considering selling its sprawling Commercial Airplanes headquarters near Seattle to trim costs amid the pandemic revelation that most of its office-bound employees can work from home. The company has confirmed that the company is looking at not having a brick and mortar head office at all and embracing the mobility that comes with going to work by flipping up a screen. Boeing Commercial Airplanes CEO Stan Deal said he wants his people to be "moving around, not planting a flag. Being able to move from site to site freely without being anchored down anywhere."

It is over 100 years since Boeing was set up in the region so the news is unpopular locally. Boeing is moving already 787 Dreamliner manufacturing to its plant in South Carolina. The Boeing facility is located in suburban Renton and covers 30 acres. More than 1,000 people work there. [AWWeb]

The Black Lives Matter disturbances in the summer still trouble the **Air National Guard**. California Governor Gavin Newsom's office says it didn't know about or authorise the use of a twin engine Metroliner based RC-26B reconnaissance aircraft and a Lakota helicopter to monitor the quiet neighbourhood where the Air National Guard's state commander lives while widespread rioting gripped the rest of the state in the wake of the death of George Floyd. Upmarket El Dorado Hills, Sacramento was the scene of a few small and peaceful protests while rioting swept Los Angeles, Oakland and Long Beach.

No-one can recall how the aircraft were ordered to El Dorado Hills, including the state commander Maj. General David S. Baldwin, whose name appeared on the orders. There has been concern that the military was using its assets to inappropriately gather intelligence on citizens exercising their First Amendment rights. The El Dorado Hills aircraft were requested by the local sheriff's office and arguably should not have been approved by the Guard. It was an operational decision made without the approval of the governor. As for Baldwin he was busy and signing off all sorts of documents at the time. [LATimes]

**Astronics Corporation** has announced that the Unites States and Canada approved Astronics' Max-Viz 1400 and 1200 Enhanced Vision Systems (EVS) for Airbus Helicopter's AS350 Écureuil/Squirrel/AStar. In cooperation with AVIO dg in Calgary, Canada, Astronics obtained the Supplemental Type Certificates for its Max-Viz 1400 and 1200 EVS from the U.S. FAA and the Transport Canada Civil Aviation (TCCA) for approved models which are the AS350B, AS350B1, AS350B2, AS350B3, AS350BA, and AS350BD. Astronics' Max-Viz 1200 and 1400 systems are lightweight, solid-state, low power, and feature an uncooled thermal camera. The sensor image displays on any cockpit equipment that accepts NTSC or PAL/

Analog RS-170 video signals, including MFDs (Multi-Function Displays), PFDs (Primary Flight Displays) or on standalone displays depending on aircraft configurations.

Astronics' Max-Viz EVS provides improved safety through enhanced vision, enabling pilots to see more precisely in adverse weather conditions, such as haze, smoke, smog, and light fog, even on the darkest night. In addition, pilots can detect and avoid clouds for a smoother ride. While landing, pilots using the Max-Viz EVS can identify the runway and view the terrain clearly to avoid wildlife and unlit obstructions. The FAA permits properly equipped aircraft to fly certain Instrument Flight Rule (IFR) approaches to landing, in lieu of natural vision. Of the over 3,500 installed Astronics Max-Vis EVS systems, approximately 60 percent are on fixed-wing general aviation aircraft and 40 percent are operating on rotor wing aircraft.

**Leonardo** have confirmed to Helihub that the FIPS (Full Ice Protection System) clearance for the AW169 has been delayed by COVID19.

The original order from Rega (Swiss Air Rescue) was announced in December 2015, and consists of three AW169 helicopters. The organisation provides emergency medical service and search and rescue missions (EMS/SAR) all over Switzerland, from the lowlands to the high mountains of the Alps.

Delivery was originally targeted as 2020, enabling Rega to put them in service in 2021. However, the Coronavirus pandemic caused Leonardo to prematurely curtail the first series of test flights in North America in February 2020. Due to the nature of the work, these flights cannot be resumed until the coming winter, which means that the additional test flights, certification and thus also the delivery of the first helicopter, will also be delayed. Once cleared, AW169 will be the lightest helicopter ever built with FIPS for operations in known icing conditions.

At best, EASA certification will be confirmed in 2021, and once there is a definite timeline towards that being in place, it is unlikely that the three orders will be given slots on the Vergiate production line. HeliHub.com does not expect the first AW169 to enter service with Rega before at least 2022. FIPS was a problem to Leonardo with the AW189 program. Having committed to Bristow Helicopters that the aircraft would have FIPS clearance for the UK coastguard contract, the operator took additional S92s (later converted for offshore use) and Leonardo supplied stand-in AW139 aircraft. [Helihub]

**Wildlife Crime** generates up to US\$23bn annually, the 4<sup>th</sup> most lucrative illegal trade after narcotics, human trafficking, and counterfeiting. The varied responses by governments to the threat of COVID-19 have caused disruption to all of this illegal traffic, the lockdowns, travel restrictions and downsizing of aircraft movements have impacted wildlife poaching and trafficking supply chains. On the negative side some areas have reported an increase in wildlife poaching due to reduced law enforcement patrols and losses of rural jobs during lockdowns.

For traffickers, the massive reduction in commercial passenger flights have reduced the number of opportunities to smuggle any contraband in personal baggage and quickly pushed the area of opportunity into air cargo and maritime shipments. Due to the large volumes of goods involved, coupled with a relatively minimal risk of detection and arrest, seaports are key transit gateways for illegal products. According to the Elephant Trade Information System, up to 72% of ivory is trafficked by sea, targeting maritime transit points and strengthening law enforcement co-ordination and cooperation with the private sector can disrupt trafficking networks and decrease profits and incentives for traffickers.

Mombasa port in Kenya, and Dar es Salaam and Zanzibar ports in Tanzania, are key points in Eastern Africa for maritime trade with the rest of the world. The port of Mombasa is known as the main gateway from East and Central Africa to Asia. These ports are also key exit points for the trafficking of African wild-life. It is estimated that on average only about 20% of trafficked ivory from Africa is actually caught and seized when shipped through ports.

Airbus Helicopters and **HTM-Helicopters** have signed a contract for the purchase of two additional H145 helicopters. HTM will be the first operator to use the new five-bladed H145 in the Offshore Wind segment. The delivery of the first helicopter, a four-bladed H145, is scheduled for the fourth quarter this year, while the second aircraft, a five-bladed H145 will be delivered mid next year. The four-bladed H145 will also later be upgraded with the new five-bladed rotor system by HTM's maintenance organization.

The two new aircraft will be operated from HTM's bases at Norden-Norddeich, Emden, Borkum and Helgoland. For their missions, which include passenger transport to and from wind farms and hoisting technicians to the wind-turbines, the two helicopters will be equipped with a powerful hoist, floatation equipment, and a cargo hook.

Bell Textron Inc., will be adding **Intercopter GmbH** to its Authorized Maintenance Center (AMC) network. Intercopter is located near Munich, Germany.

"Growing our German footprint has been one of our top European priorities and having Intercopter in our network is another important step in executing this strategy," said Duncan Van De Velde, managing director, Europe and Russia. "This new AMC provides German customers a sense of security that the maintenance performed on their aircraft has been vetted by Bell."

Intercopter GmbH was founded in 2003 and is an EASA-approved Part 145 maintenance organization.

The company has long-standing experience in maintaining rotary and fixed wing aircraft. As a Bell AMC, Intercopter will provide service for the Bell 206 and Bell 407 series. Other Bell products will be added as required by the market.

Bell provides local support to customers in more than 50 countries in Europe, Russia, the Middle East and Africa through its AMC. Ed: Intercopter GmbH / HTM GmbH, Germany are part of the HTM Group. The founder and owner Hans Ostler sold the majority of



his holdings to heristo AG in May 2019. In the spring of this year heristo took over the remaining shares and became the exclusive shareholder of the HTM Group. The Managers of the HTM Group are now: Rolf Berger – Bernd Brucherseifer – Christian Schöpsdau based in Taufkirchen bei München, Germany.

**Onboard Systems** based on Vancouver, Washington State USA are looking for striking digital images of helicopters performing external load work operations to put on the front cover of their 2021 catalogue. To that end they have launched their annual competition for suitable submissions. All images must be submitted through their online photo submission form at www.onboardsystems.com. Photos must be a minimum of 3 million pixels (3MB each). Contest entries must be submitted by 11:59 p.m. Pacific Time on November 20, 2020

The prize for the winning entry is a 12.9 inch Apple iPad Pro and as many copies of the catalogue as you can carry! *Below covers of recent years.* 







# **ACCIDENTS AND INCIDENTS**

4 July 2020 Airbus Helicopter EC145/BK117 C2 N263MH owned by MetroHealth System, was substantially damaged when it was involved in an accident at Wayne County Airport, Wooster, Ohio. The two commercial pilots, a flight physician, and a flight nurse sustained no injuries. Airport surveillance video shows that after lifting off from a portable dolly, the helicopter turned right and briefly hovered. As the helicopter began to take off following the hover, it traversed a grassy area adjacent to the ramp about 10 ft above ground level, where a silt construction fence was obscured by tall grass. As the helicopter overflew the fence, it became unsecured, blowing up and into the helicopter's main and tail rotor system. The crew performed a forced landing. The debris impact and forced landing resulted in substantial damage to the fuselage, tail boom, and tail rotor blades of the helicopter. At the time of the accident, there were no notices to airmen (NOTAMS) for the construction fence and the presence of the fence was not contained within any publications or notices available to pilots.

**8 October 2020 Eurocopter AS30B2 PR-MJZ.** "01" Fire fighting. Forca Nacional (Brazilian National Force). Helicopter deployed to help control the fires in the Pantanal crashed in the Porto Jofre region, in Poconé (MT). Porto Jofre is a settlement in southern Brazil, located on the Cuiabá River in western Mato Grosso state. The information was confirmed by the Mato Grosso Integrated Air Operations Center (CIOPAER). Three crew members were injured and the airframe destroyed. Although there was no significant fire the fuselage ended up on its port side with the tail boom detached and landing skids destroyed. One of the crew members suffered a compound fracture in the leg. [Media ASN]

# **SAFETY**

It is not an incident that presents itself as being airborne emergency services related but it does have synergy. Many times when boarding a part filled airliner the cabin crew will shuffle the passenger seat locations to spread the load for weight distribution purposes just for take-off. But what might happen if they are distracted by circumstances?

It was the incorrect distribution of passengers after a change of aircraft type led an Airbus A321 to take off outside of its centre-of-gravity envelope. The aircraft's crew experienced difficulties during 16 January departure from London Luton when, at the point of rotation, the A321 did not respond to normal side-stick input.

It finally became airborne after the first officer applied almost full aft side-stick and the captain selected full take-off thrust.

A 180-seat Airbus A320 had originally been scheduled to operate the flight, but when the larger 230-seat A321 was substituted the passenger distribution was not revised – as a result all of the 157 passengers were seated in three forward cabins and none in the aft.

An updated, correctly-calculated load sheet for the A321, with the required passenger distribution across all four cabins was produced but the passenger services department, unaware of the aircraft change, did not revise the seat allocation and boarding. The load and trim sheet, which gave the false impression that the aircraft was within centre-of-gravity limits, was passed to the pilots.

During the flight the crew was informed that there were no passengers in the aft cabin, which did not match the distribution on the load sheet. The crew believed the delayed rotation had been caused by an incorrect horizontal stabiliser setting. Subsequently the captain recalculated the load and trim sheet using the original passenger seating allocation for the A320, transposed to the A321. This confirmed that the front-heavy passenger loading placed the aircraft outside of its permitted centre-of-gravity envelope. [Flight/David Kaminski-Morrow/PAR]

### **UNMANNED**

Lots of mentions of the **Tekever AR-5** operating over the English Channel; but now news that this highly capable twin-engine type is to undertake the maritime reconnaissance role over other European waters.



European Maritime Safety [EMSA] is working with the French Customs and Navy to test the use of Remotely Piloted Aircraft Systems (RPAS) in enhancing the maritime awareness picture in the French Mediterranean Sea. EMSA is setting up a multipurpose maritime surveillance operation, having the Navy (Marine Nationale) and customs (Douanes) as the strategic and tactical leaders of the operation.

Missions started in late September and are scheduled to run for three months and provide general maritime surveillance over waters under French sovereignty and jurisdiction in the Mediterranean Sea, including support of coast-quard functions, fisheries control and law enforcement.

Marine Nationale and Douanes will command and monitor the missions remotely from Toulon and Marseille respectively and the RPAS will be operated from the French Air Force Base (BA125) of Istres. The contractor is the consortium REACT (with partners CLS and TEKEVER). The asset has a payload comprising a maritime radar, electro-optical and infra-red cameras, AIS receiver and EPIRB antenna. It is ready to fly under SATCOM and can perform night and day operations.

EMSA are also the lead agency in the operation of a different unmanned asset over La Manche [the English Channel].

Schiebel, and partners Nordic Unmanned and the NORCE Research Institute AS, is operating the **Camcopter® S-100** to monitor ship emissions for French Maritime Authorities.

The service providers for this French deployment cover ship sulphur emission monitoring in one of the world's busiest shipping lanes in the strait of Pas-de-Calais. The operation started on 23 September and will run for three months.

The S-100 specifically measures the ships' sulphur emissions to check compliance with the EU rules governing the sulphur content of marine fuels. Measurements are transmitted in real time through the EMSA RPAS Data Centre to the relevant authorities.



Currently, the S-100 is also operational in Denmark for emission monitoring purposes, as well as in Finland supporting coast guard functions.

In addition to the EMSA contract, the S-100 is being operated by the French Navy to conduct maritime surveillance.

The S-100 has a flight endurance of more than six hours and operates day and night. It is equipped with

an Explicit mini sniffer sensor system, an Electro-Optical / Infra-Red (EO/IR) camera gimbal and an Automatic Identification System (AIS) receiver.

University of Maryland (UMD) unmanned aviation pioneers have won a high-profile award from the Association for Unmanned Vehicles Systems International (AUVSI) for a historic April 2019 flight that resulted in the first-ever delivery of a viable organ for transplant.

AUVSI announced the winners of its annual XCELLENCE Awards on September 30, naming the UMD Unmanned Aircraft Systems (UAS) Test Site, which carried out the organ flight in collaboration with the University of Maryland School of Medicine (UMSOM) and the University of Maryland Medical Center (UMMC), as a winner in the Humanitarian and Public Safety category.

The idea of such a flight was conceived by Dr. Joseph R. Scalea, associate professor of surgery at UM-SOM and a transplant surgeon at UMMC, and subsequently became a reality through collaboration between the UMD UAS Test Site, UMSOM, UMMC, UMD's department of aerospace engineering, and a donor organization, the Living Legacy Foundation.

Conducted after months of research and testing, the successful flight represented a breakthrough that could jumpstart efforts to bring about safer, more reliable organ delivery through the use of UAS, as companies develop the approach further. Earlier this month, Baltimore-based MissionGO announced it had flown an organ via UAS for a distance surpassing the 2.8 miles achieved by UMD and UMMC in the earlier flight.

**Elistair**, the tethered drone manufacturer has announced the opening of their first North American office in Boston, Massachusetts, USA. This is a move that will allow the company to support its rapid growth in the US and Canadian markets and offer local support to customers and partners. Created in 2014 in France, the company sustained continuous growth and has rapidly positioned itself as the leading manufacturer of tether stations and tethered drones with more than 600 systems deployed in 65 countries.

The company's patented tethered drone systems are capable of flying for extended periods of time and have notably been deployed at major events such as the US Democrat party Primaries in 2020, The Superbowl final in 2019, The Champions League final in 2019 and the Ryder Cup and Paris Peace Forum in 2018.

#### IN MEMORIUM

officials eventually recovered from their injuries.

On October 9, the Los Angeles County Sheriff's Department [LASD] lost a member that helped make history. **Deputy Julie Cabe**, arguably the first full-time female law enforcement officer in the USA to be assigned as a pilot, lost her battle with cancer.

Deputy Cabe graduated from LASD in 1968. As she progressed her career she took an interest in the Aero Bureau and pursued her own training as a pilot. In 1981 she joined the unit as a pilot, serving LASD for 20 years and retired in 1989.



1981 she joined the unit as a pilot, serving LASD for 20 years and retired in 1989. **Major General Jose Maria Victor 'Jovic' Ramos**, a top Philippine National Police (PNP) official who has been in a coma since a helicopter crash in Laguna in March, died on October 20. He was 55 years old. Ramos was with then police chief General Archie Gamboa and other top police officials in Laguna in a Bell 429 helicopter that became entangled in wires at take off and crashed. Ramos is the only fatality, as other

#### **PEOPLE**

**Marco Viola**, currently in charge to lead Kopter integration, will look after the overall governance of activities at Kopter on behalf of Leonardo Helicopters.

This step is taken as an interim solution as Kopter's CEO Andreas Lowenstein has decided to step down from his current role and to pursue further opportunities outside Leonardo. His successor is under evaluation.

Aviation Specialties Unlimited, (ASU) announced that **Joe Estrera**, PhD., will be the new president of ASU and **Hannah Gordon** will be promoted as the new chief operating officer upon the retirement of ASU President Jim Winkle at the end of the year. Estrera previously served as the vice president and chief technology officer. Gordon previously served as vice president of administration and sales.

Twenty-one years ago Gordon was the first employee hired at ASU by ASU founder Mike Atwood. Estrera was brought in as part of Winkel's leadership team to develop new products.

Hannah has done just about every job within ASU, she has the experience and expertise to assist and supervise every department, has been a driving force in modernising the company systems. Estrera will lead new product development and new business development..

Despite the Great Scottish Run – in which he was due to take part – being cancelled, **Dave Young** the chief pilot with the Police Scotland helicopter based at Glasgow donned his familiar fundraising guise as cartoon ogre Shrek and ran the equivalent 10k distance round the perimeter of SCAA's Perth Airport base instead.

Dave from Greenock, has been taking part in the Great Scottish Run for 10 years, raising over £10,000 for Cancer Research. This year, however, he opted to raise funds for SCAA having flown numerous stand-in shifts on both of the charity's helicopters.

"I've seen for myself just what a brilliant charity this is," he said. "I was scheduled to fly for SCAA on the day of the run so decided to take to my heels at Perth instead and see if I could put something in their charity coffers."

The green giant's gesture quickly exceeded his original £500 target for the charity-funded air ambulance through his dedicated Just Giving page. SCAA's Helimed 76 crew was there to wave Dave off and one hour, 29 minutes and 13km later, they welcomed an exhausted Shrek back to the fold as they returned from an emergency call out.



The British Helicopter Association (BHA) has announced that **Captain Rick Newson** CAA is the recipient of the Eric Brown Award for 2020. The Award is made annually by the BHA to an individual considered to have made the greatest and most significant contribution towards the helicopter industry in the past year. Captain Rick Newson, the Flight Operations Manager (Helicopters) at the UK CAA, has supported the industry, along with his team of inspectors, during the pandemic so that the burden on industry has been minimised and flying operations can continue with the necessary precautions and safety measures. His leadership and foresight ensured that the CAA Helicopter Department remained proactive in an extremely challenging and fast-moving situation providing regular support forums, exemptions, and coordinated collaboration necessary to allow the industry to function safely. He championed the Helicopter Aid to Civil Authorities (HACA) scheme with Government Departments and was always available, day and night, to provide advice and guidance when it was needed. Throughout his time with the Authority, he has been a great supporter of the helicopter industry and dedicated his time to working with all stakeholders in raising helicopter safety standards.



He has been with the CAA since February 2002 and prior to that he worked with Specialist Air Service [PAS/MAS], Sloane Helicopters in training roles as well as Chief Pilot with air ambulances and the Thames Valley Police ASU and Chiltern ASU in the late 1990s.

This year saw a record number of nominees for the Award. Charlotte Pedersen (Luxaviation) and Gemma Walker (Helispeed) for championing women in aviation and actively promoting the helicopter industry as a demanding but rewarding career choice for the younger generation. Captain Steve Hogarth (ex-Bristow) and Dave Price (Babcock) were nominated for their lifetime of work within the helicopter sector. The final nomination went to the BHA HACA team for their work in setting up the scheme to support the UK Government. Our warmest congratulations to all the nominees and our Award winner, Captain Rick Newson.

The CEO of Leonardo, **Alessandro Profumo**, has been found guilty by an Italian court for committing fraud in 2015 when he was at a major Italian bank. Leonardo has stated that he will retain his current position in the group.

Profumo was given a six-year jail sentence last month for fraud related to when he was CEO of Banca Monte dei Paschi di Siena, a position he held before he was appointed to run the Italian defence company Leonardo in 2017. In addition to the prison term, he was handed a €2.5M (\$2.9M) fine and prohibited from managing a company for two years.

Italian jail sentences only become effective after cases are heard by an appeals court and then by Italy's Supreme Court — a process that often takes years. [DN/H]

Ed: It is apparently tough at the top in Leonardo, this is the fourth CEO to face the courts in recent years. Profumo's predecessor, Mauro Moretti, was given a seven-year sentence over a fatal rail crash while he was head of the Italian railway in 2009. He is still awaiting his Supreme Court hearing.

Giuseppe Orsi, who ran Finmeccanica from 2011 to 2013 was involved in the bribes for helicopters enquiry surrounding the Indian Air Force buy of 12 AW101. He was acquitted but had already stood down. In 2011, Pierfrancesco Guarguaglini resigned his post as chairman of Finmeccanica during another corruption probe that was subsequently dropped.

While the company say they have no issues with the position some of the customer base see the subject differently. It is reported in the Daily Telegraph that the UK Defence Secretary faces questions over the role of Leonardo in British military contracts..

#### **MOVE ALONG THERE**

A Belgian drug dealer who hijacked a helicopter at gunpoint in an attempt to break his wife out of jail has been caught after using his real name to book the aircraft.

Mike Gielen, 24, married Kristal Appelt, 27, last year at a mixed-sex prison in Hasselt. She is awaiting trial for the murder of her then boyfriend.

Gielen and two accomplices, aged 18 and 22, booked the flight from Duerne, near Antwerp, under the pretence that they were a TV crew who needed pictures for a programme.

The helicopter eventually located the correct prison and started circling it – a manoeuvre that resulted in the hijacker Gielen vomiting out of the window several times.

The pilot was eventually able to convince the men that it was impossible to land the helicopter in the tiny prison grounds and they flew to a car park in Hélécine, around 30 miles east of Brussels, where Gielen's father was waiting with a getaway car.

Investigators had no difficulty tracking the gang down because Gielen and his two accomplices had filled out forms before their flight using their real names. True professionals.

They face charges of kidnapping, conspiracy to attempt a jailbreak, theft and gang violence.

Criminals, aren't they the worst? As we know lots of people are trying to get into Britain in small boats and they get a slap on the wrist from the authorities a free hotel room and food before probably release into the community for life. It seems it is not really bad to walk to France, pay lots of money to acquire a small boat to get over the English Channel even if the authorities are spending millions on trying to stop them. A new twist on the desire to get into Britain was played out a little further west off Southampton late in October. Seven Nigerian stowaways decided to get a bigger boat to make the journey directly and without the long trek over Europe and the payment to the boat provider. They boarded a tanker, the Nave Andromeda, in Lagos for a lengthy passage to the UK that took weeks. Hiding themselves from the crew that length of time was probably difficult—and the catering was also awkward. For some unfathomable reason they got close to port and when they emerged they threatened the crew. Well the crew said they were threatened there is a later story that they emerged in France and the French did not want them. The captain said he was being hijacked when close to the south coast of England and as a result the seven were given a special super expensive welcome to Britain in being greeted by around sixteen members of the Special Boat Service, some fast boats and several helicopters rather than the usual air assets and a genial police officer or two.

They too will undoubtably get special accommodation and support - in prison. The maximum sentence is life. They may not be alone when the real story emerges.

In California aerial firefighters doing water drops over the Creek Fire had a surprise visitor enter their helicopter cockpit.

Dan Alpiner a pilot with Sky Aviation, an aircraft charter company based in Wyoming that has aircraft and crew members taking on the wildfire burning in Fresno and Madera counties reported that while flying over the fire an owl had flown through the open window of his helicopter and perched inside. It's unusual to have an owl enter an aircraft at any time but previously unheard of to have it enter while in-flight.

The bird stayed inside the cabin for several water drops and then flew safely out.

Story and image Dan Alpiner

The Americans do things in ways that the rest of the world rarely even considers. Police air support units regularly fly by strategic bridges and structures checking for planted explosives even though there is little or no evidence that even if they were there they would see a kilo of Semtex or even a pile of gunpowder in barrels taped to the structure while routinely flying past.

Well as we probably all know, later this month there is to be a US Presidential election to decide whether it is a few more years of Trump or a new adventure with Biden. So, the security services are at full stretch not only looking for barrels of awkwardly placed gunpowder but also seeking out invisible radiation!

Late in October in the Washington DC area helicopters started flying at low altitudes above the city. The helicopters are part of a Nuclear Emergency Support Team (NEST) fleet of the U.S. Department of Energy's National Nuclear Security Administration (NNSA) that measure naturally occurring background radiation to help ensure public safety.

So is someone in a high place of responsibility is worried that, only during the next three months, background radiation that everyone lives with daily is going to seriously injure the President? Well it seems not, it is more a case that knowing the day-to-day background radiation will enable any new radiation source to be more easily detected if someone turns up with a hot radiation emitting device [and by chance a helicopter overflies and notes the increase]. Inauguration Day is on January 20, by which time the testing will be completed and we can hopefully breath easily once again.









Not that the English do it all that much better. Last month, to coincide with *World Menopause Day*, Leicester Police took time from their busy schedule and released a message of support "for all people approaching currently going through and beyond the menopause."

Even if you discount them not using the term women - even though most agree it is only that gender who suffer from the affliction - it is very strange for them to be expressing interest in that subject rather than their runaway crime figures!

Fear not, I am assured that they did not highlight or mark *Trafalgar Day* and Lord Nelson the following day! Even though he was an important figure in English history and the personification of stoic behavior. He was perhaps a perfect example of a heroic *less able* mariner diligently going to work each day despite being afflicted with only one eye and one arm.

Every day seems to be a day for celebrating or ignoring something. I see from Twitter that the UK NPAS were supporting another new-born event called *International Control Room Week* late last month. It was all in a good cause of course – donations were made to *Mind* the mental health charity every time the hash tag #*UnsungHeroes* was used - which is very positive I guess but I perhaps the unsung front line flying staff should have been receiving greater mental and actual support by reinstating the apparently stalled recruitment programme.











#### **WALLOWING IN THE PAST**

Over the years I have collected many unique items of world police aviation history including many promotional leaflets and instructional VHS and digital video formats dating back to UK police aviation at its height in the mid and late 1990s. Time moves on and formats are in need for a change [and who still has VHS still plumbed into their system these days]. It is time for a cull – or is it? I am loath to delete the stirring words of the police aviators in units both north and south who were so sure of their calling and its ability to save police lives. They seem so hollow now. Can I really despatch to the bin the front line operators of the Aerospatiale AS355F2 *India 99* out of Audenshaw [Greater Manchester] who promised their colleagues they would be with them to provide support in two minutes – six minutes to the furthest reaches of Manchester – when what we have today are hollow promises that often struggle to put an aircraft in the air in twenty minutes.

In the same time span a consortium of police in Cambridge, Essex and Suffolk promised an aircraft on scene in 20 minutes across the three counties. There, as in Manchester, contact between the officer and the aircraft was direct.

Sadly the clearly recorded promise to the police audience that "no-one can stop you contacting air support direct" is now a thing of the past and fewer and fewer officers on the ground have any expectation that air support will ensure their safety in quick order – if at all.

Roll on *International Control Room Week* and all its modern clones! However I suspect that the isolated police officer on the ground would still prefer to rely on the promises that air support uttered 25 years ago.



# **EVENTS**PAvCon EUROPE

It was frankly no surprise that the organisers of the 10-12 November 2020 *European Rotors* event scheduled to be held in Cologne, Germany was obliged to call off – well 'delay' if you will – their inaugural 2020 event.

We had hopes of inserting a 'mini PAvCon' conference feature into that event but it simply became too problematical to get to the venue. The planned "PAvCon Europe Special-Conference" is a project on ice just in case we need to create another to meet future needs.

The postponed European Rotors will now be moved to November 16 to 18, 2021.

For the time being **PAvCon Europe** continues to investigate running an event in 2021 – the main target being Rome, a location never visited before – but will have a flexible package plan available to use a previously used location that might be set up at short notice. Everything relies upon the progress of COVID-19 and we accept that may well mean doing nothing until Austria 2022.

It is unlikely that any aviation event will survive to run other than virtually in 2020, but already there are signs of worried organisers retreating before the onslaught of Covid into 2021.

Over in Singapore they were due to hold their admittedly small helicopter and unmanned event in the first quarter of 2021. Dates were issued for the event to take place at the Changhi Expo in February. In recent days I see that those dates have disappeared and have been replaced by dates in July 2021. The official announcement is that the organiser of Singapore's biennial **Rotorcraft Asia and Unmanned Systems Asia** (RCA-UMSA) event have postponed the show three months to 27-29 July 2021. The show, colocated at Changi Exhibition Centre with the **Imdex** naval show, had originally been planned for 30 March to 1 April 2021.

Considered opinion is the Singapore itself is unlikely to open its borders before the Chinese New Year in 2021. That is February 12 and clearly far too close to be setting up an event a month later.

Despite good reports on the progress of the pandemic in China itself, November 2020's **Airshow China** in Zhuhai has been cancelled. I presume it has no international audience able to attend.

Meanwhile **APSA – the Airborne Public Safety Association** - is offering its webinar series to members at no charge [other than membership]. You will have missed Human Factors - Real Life Applications to Safety by Bryan Smith, the APSA Safety Manager; and Chief Pilot with Pinellas CSO in Florida and Aerial Firefighting Tactics by Mike Sagely of LA County Fire so time to set yourself up for the next three this month! All are sponsored by Bell: -

**Friday November 6th Nutritional Supplements, Sports and Energy Drinks** presented by Dudley Crosson, PhD Aeromedical Liaison; Delta P, Inc.

Friday November 13th Technical Hoisting presented by Bob Cockell, Air Rescue Systems, Inc.

**Friday November 20th Aviation Accident Trends** presented by Mark Colborn, Dallas (TX) Police Department. All the webinars are scheduled for 1300 hours EDT so, if nothing else, that is 6pm or 7pm in Europe and a great reason to miss washing up the dishes.

Each webinar requires a separate registration. To see the most up-to-date schedule and to register for any or all of these webinars, go to <a href="http://publicsafetyaviation.org/apsa-webinar-series">http://publicsafetyaviation.org/apsa-webinar-series</a>



With the Singapore rotorcraft show in retreat from a show in March-April it raises questions about the viability of the great annual helicopter show the 22-25 March 2021 **HAI Heli-Expo** in New Orleans. The New Orleans Ernest N. Morial Convention Center is the scheduled venue and the planning and booking processes are all in hand but there is no vaccine in view and it seems unlikely that a true international show can go ahead without it. Any event without a viable audience is going to struggle.





#### THE DOVER PATROL

In December 2018 the former British Home Secretary, Sajid Javid declared a 'major incident' following a significant rise in the number of migrants entering the UK, from France, by crossing the English Channel in small, often overloaded, inflatable boats powered by an outboard engine. The official figure for the number of migrants who made the crossing in 2018 is 299, although others believe that the true total may have been in excess of 500. This new route for entering the UK illegally, by crossing the English Channel in a small boat, is, most probably, the result of enhanced security at the Channel ports of Calais and Dunkirk where migrants would secrete themselves in lorries boarding ferries bound for the UK, or board those lorries driving onto the trains passing through the Channel Tunnel.

Despite the best efforts of the UK Border Force, supported by Her Majesty's Coast-guard and the Royal National Lifeboat Institution, in 2019 the number of migrants arriving in the UK in small boats increased to 1,835. The new Home Secretary, Ms Priti Patel, who was appointed in July 2019, has, on many occasions, expressed a determination to stop migrants risking their lives and the lives of their children by making the very dangerous cross-Channel route unviable. In August 2020 she appointed Mr Dan O'Mahoney, a career civil servant and former Royal Marine, to the new position of Clandestine Channel Threat Commander to coordinate the UK response in cooperation with the French authorities.



Nevertheless, throughout 2020 the numbers of migrants crossing the English Channel have increased month on month, apart from a small dip in June. The September total of 1,963 migrants exceeded the total for the whole of 2019 and the annual total of almost 7,500, in late October 2020, is over four times the total for the previous year! Moreover, the total so far in October, 462 exceeds the official total for the whole of 2018. Several migrants are known to have lost their lives. Most recently, on the 27 October 2020 a migrant boat capsized near Dunkirk with the loss of 4 lives, a man, a woman and 2 children aged 5 and 8 years; a further 18 migrants were rescued.

#### THE UNITED KINGDOM'S MAIN LINE OF DEFENCE

At sea the main line of defence, to protect the UK against illegal immigration and illegal imports, is the Border Force. In the English Channel there are two cutters, HMC Seeker and HMC Vigilant based at Dover, together three smaller coastal patrol vessels. These Border Force vessels are supported by the lifeboats of the Royal National Lifeboat Institution, in particular the lifeboats based at Dover and at Ramsgate. Coordination, for what has become, most probably, the UK's longest running search and rescue operation, is provided by HM Coastguard at the Dover Operations Centre and the joint Anglo-French Intelligence Centre at Calais.



#### **AIR SUPPORT**

Although the distance between France and the UK Is not much more than 21 miles, between Calais and Dover, the sea area in a box with Dungeness, Ramsgate, Dunkirk and Boulogne-sur-Mer at each corner is some 1,700 square miles, a very large area when searching for a small boat, particularly at night and in poor visibility. Air support with the proverbial 'eye in the sky' provides the crew of a surface vessel with an enormous advantage. In this respect the UK government is to be applauded for the number and range of aircraft that have been tasked to provide the Border Force, together the lifeboats of the RNLI, with air support. The aircraft, to patrol the English Channel when the weather favours a crossing in a small boat, often large numbers of boats, are provided by the Ministry of Defence and HM Coastquard.

Those aircraft provided by the MoD include the Boeing P-8 Poseidon maritime patrol aircraft, the Airbus A400M Atlas transport aircraft and the Beechcraft Shadow R1 surveillance aircraft, all flown by the RAF, together with the Thales Watchkeeper unmanned aerial vehicle (drone) which is flown by the British Army. Of these four, quite different aircraft the P-8 Poseidon is, without doubt, the most capable, but with a quoted operating cost of £35,000 per flying

hour it can be likened to using a hammer to crack a walnut and, moreover, it's a very expensive hammer! The deployment of a very large transport aircraft, the Airbus A400M Atlas, to carry a pair of binoculars to conduct a visual search of the Channel for boats carrying migrants simply beggars belief!

Of the three manned aircraft, the Shadow R1 with its X-band surveillance radar and Wescam MX-15 electro-optical camera turret is probably the most suitable for the role, although it's still a hammer being used to crack a walnut, albeit a somewhat less expensive hammer than the Boeing P-8 Poseidon sub-hunter.

In addition to those aircraft that may be seconded by the Ministry of Defence to the Home Office, to provide 'Military Assistance to the Civilian Authority', to support the Border Force with aerial surveillance, HM Coastguard also has a





small fleet of fixed-wing aircraft for search and rescue duties based centrally at Doncaster. These aircraft, two Beechcraft King Air's and a Piper Navajo which, like the RAF Shadow R1 have radar and an electro-optical camera turret, fly regular patrols of the English Channel.

In addition to the use of manned aircraft to direct surface vessels to those migrants who have willingly placed themselves in danger and now need 'rescuing' the ongoing operation in the English Channel has proved to be an excellent opportunity to test the utility of two fixed-wing unmanned aerial vehicles, commonly called drones. On the UK side of the median line, half-way between England and France, the Border Force is supported by the Royal Artillery with a Thales Watchkeeper and a civil contractor also provides support with a Tekever AR5 drone, registration G-TEKV. Both aircraft are flown from Lydd from where the latter drone, the AR5 makes regular patrols of up to 6 hours, spotting small boats containing migrants and reporting their positions to a control room located at Lydd.

A typical day will see the RAF Shadow R1 arriving on task, over the Channel at around 01:00 hrs to fly a barrier patrol for some 4 hours. This aircraft will be relieved by one of the Coastguard aircraft, to continue the patrol, before being relieved by the Tekever AR5 drone. In the meantime up to four UK Border Force cutters and patrol boats will be at sea, together with three RNLI lifeboats.

#### **COMMAND AND CONTROL**

All multi-agency operations require command and control (C2) and the ongoing operation in the English Channel is no exception. However, for two years, since 2018, the principal control has been the weather; migrants cross the Channel when an anticyclone (high pressure) system is in charge of the weather with light winds and calm seas. Command comes from the criminal gangs who arrange the sailings with, according to a recent ITV investigation, payment made to an intermediary in London. The payment of thousands of pounds is held in an account in the UK until the journey has been completed, giving the whole operation an impression of legitimacy.



After two years of illegal immigration with numbers increasing, year on year, the current UK strategy with ships at sea and aircraft in the air, all on the UK side of the median line, has proved to be futile! On one day in September, 394 migrants in 26 boats completed a successful crossing after being 'rescued' by the Border Force. Moreover, although there have been many reports of the French being complicit, permitting the migrants to leave the beaches of northern France, between Dunkirk and Boulogne-sur-Mer, this isn't always true. In one weekend in October there was a report of 550 migrants being detained by the French whilst a further 220 were 'rescued' by the UK Border Force and the RNLI on the same day.

#### A NEW STRATEGY

The significant increase in the number of migrants entering the UK across the English Channel brings into question the current UK strategy of 'rescuing' the migrants at sea. If this highly dangerous route is to be closed down, then a new strategy will be required in 2021, after the anticipated winter weather respite. Moreover, many will agree that the answer lies on the beaches of northern France and not in the middle of one of the world's busiest shipping lanes. One piece of sound advice is, 'Don't reinvent the wheel. Better to 'steal' someone else's wheel and paint it in your own colours'! In this case, part of the answer, that part that involves the provision of air support, may be found on the other side of the Atlantic, in the USA.



Formed in 1941, to mobilise the nation's civilian aviation resources, the US Civil Air Patrol, now an auxiliary of the US Air Force, has a fleet of 550 light aircraft, mostly Cessna 172's and 182's, flown by volunteers. These aircraft, together with their volunteer crews, account for some 80% of all overland search and rescue missions on behalf of the USAF, as well as responding to major incidents in support of the Federal Emergency Management Agency (FEMA). A complimentary organisation, also in the

USA, is the US Coast Guard Auxiliary (Air) which recruits volunteers, those with their own light aircraft, to fly Coast Guard and Homeland Security missions, on the coast and offshore between Florida and Cuba.

Compared to the deployment, by the 'high tech' aircraft such as the P-8 Poseidon and Shadow R1, together with those aircraft belonging to HM Coastguard, the alternative, a 'low tech' light observation aircraft will require some lateral thinking by the Clandestine Channel Threat Commander and his colleagues! Nevertheless, with the cooperation of the French Police Aux Frontieres, who already fly occasional coastal patrols with a Cessna 172 Skyhawk, a joint operation to patrol of the beaches of northern France, between Dunkirk and Boulogne-sur-Mere, should prove to be just as effective as those similar patrols that take place in the USA. Patrols that are flown by the volunteers of the US Civil Air Patrol and the US Coast Guard Auxiliary (Air).

The strategy would be one of 'deter and detect' with overt aerial patrols. These patrols would deter those migrants who are gathering on secluded beaches whilst, at the same time, detecting those who are seen to be deploying inflatable boats. The light observation aircraft, flown by volunteers, would patrol during daylight hours, most probably using the same binoculars carried by the A400M Atlas transport aircraft (!), with drones, for example the Tekever AR5 with its thermal imager, continuing the patrol at night. This combination of a light observation aircraft, together with drone for night operations would be extremely cost effective compared to the current multi-million pound strategy which is known to have failed. Moreover, the airborne response would be proportional to the threat and 'persistent' patrolling would remain within budget.

If the proposed joint Anglo-French operation, with volunteers flying light aircraft, proves to be a success then the UK government may decided to form its own HM Coastguard Auxiliary (Air), to join the 3,500 volunteers of the Coastguard Rescue Service, to patrol the UK's 11,000 miles of coastline. A proposal that should that be debated, and soon, many will agree.

#### James A Cowan MBE BA CF FRIN

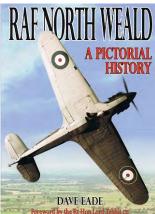
Note: The author is a former RAF Nimrod pilot who, with Crew 7, No 201 Squadron, flew the longest operational maritime patrol sortie of over 19 hours during the Falklands conflict. He was also the leader of RAF 'Exercise Northern Venture' which completed a circumnavigation of the Northern Hemisphere with two DHC1 Chipmunk light training aircraft, flying across Europe, Russia, North America and the North Atlantic, before returning to the UK. After retiring from the RAF he was employed as a police pilot with the North East Air Support Unit and also as an air ambulance pilot with the Scottish Air Ambulance Service, flying the ubiquitous BN Islander transport aircraft. Before joining the RAF he was a member of the crew of the RNLI inshore lifeboat at Hartlepool and, more recently, continued volunteering as the former chairman of the UK Civil Air Patrol which encourages the owners of private aircraft to support the emergency services, including the NHS, together with their local communities, with simple search missions, air transport and air to ground photography.



#### LATE STORY

Russian Helicopters has launched a test programme to assess operations of the Mi-8/171 family of helicopters in Indonesia.

The company has already dispatched rotorcraft to the Indonesian section of the of the island of Borneo, where they have been used in firefighting operations. Deployed assets include a pair of the new Mi-8AMT variant.



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