KING AIR SUPREME

Textron twin ticks all the boxes

ANSAT SALE INTO LAW ENFORCEMENT
MORE COVID OPERATIONS
A BREACH OF THE CONVENTION?
SEA KING AT 50
MORE PAIN FOR CONVENTIONS
**LAW ENFORCEMENT**

**BOSNIA & HERZEGOVINA**

**SRPSKA:** The government of Republika Srpska – a region of Bosnia and Herzegovina – have confirmed an order for three Kazan Ansat helicopters for police use.

The three helicopters are to be based at Banja Luka and Sarajevo and are expected to be operated by the government owned Helicopter Service of RS, which currently flies three Gazelles, a Bell 206 JetRanger and a Leonardo AW119. Delivery of the aircraft is scheduled for September 2020, May 2021 and January 2022 (Helihub/RIA Novosti)

**BOTWANA:** The delivery of the three Botswana Police Service Enstrom 480B helicopters has been delayed by two months due to the coronavirus pandemic.

Safomar Aviation, Enstrom’s local dealer, in December 2019 announced the order, which was signed at Heli Expo 2020 in January. Delivery was originally scheduled for the second quarter of this year. The turbine helicopters are now expected to arrive around August. [Gazette]

**CAYMAN ISLANDS**

**RCIPS:** The Royal Cayman Islands Police Service Air Operations Unit are looking for an Airbus Helicopters H145/BK117 D2 pilot on short term contract from July through to end October to cover the hurricane season. The contract can potentially be split between two six week attachments. Basic requirement is 2,000 hours total with 50 hours on type. Any interest e-mail Stephen.Fitzgerald@rcips.ky to discuss. This appeared on Facebook in June and has been recirculated on that platform. There is likely to be an advert for a permanent job starting in December coming out down the line. [SF]

After being employed on COVID-19 patrols intensively the two Airbus Helicopter H145 helicopters operated by the RCIP were withdrawn to the Airbus Helicopters facility in Columbus, Mississippi, USA for engineering work. For two weeks the Royal Navy operated Tailored Air Group (TAG) crew aboard the Royal Fleet Auxiliary Argus provided cover over Cayman, assisting with aerial support and border patrols in their place.

A small police crew was dispatched with the helicopters and they will have to be isolated on arrival to prevent any potential spread of COVID-19. There’s no exceptions; it’s the same as any other residents returning to the island. They will be isolating for 14 days. We knew that when they went, and the crew knew that when they left. The unit was careful just to send the minimum crew for that reason. The Air Ops unit, he said, has two crews to take the aircraft off the hands of the arriving personnel to completely sanitise the aircraft. In 14 days, the unit will be back to the three flight crews.

He said the plan was not to have both helicopters off island at the same time but the newer H145 had to be sent off for modification to its equipment and the other needed was due for scheduled maintenance. With all the flying the unit has undertaken in the last three months, the hours increased to a point where the helicopter needed to depart earlier than expected.

One of Cayman’s two police helicopters, X-Ray One the newer of the two airframes, returned to the islands in late June. The second helicopter is expected to return in the coming weeks, though no formal date has been set.

“We’re expecting the second one back on island, hopefully, by the end of July,” Fitzgerald said. “We are working hard to achieve that. Airbus has completed all the maintenance and fit-out they need to do. We started air testing in Mississippi.”

Both RCIPS helicopters should be back in action on island by August in time for the hurricane season and will be better equipped. The timing of the loss of the original EC135 has meant that neither of the newer airframes has had an opportunity to be fully role equipped.

**COVER:** Airborne Law Enforcement Aviation is not all about helicopters, or the police, as perfectly illustrated by the recent purchase of additional Beech King Air variants by the U.S. Customs and Border Protection (CBP) in the United States. Certainly just the sort of thing the United Kingdom could do with to watch over its borders for uninvited migrants sailing to ‘freedom’ in Britain. They keep on coming so it must truly be the land of milk, honey and COVID!
The returning H145 has reportedly been role equipped but the exact fit remains unknown. The return of the police aircraft allows the RFA Argus and its helicopters to depart for the Turks and Caicos Islands where it will provide support to the police service there. Argus will remain in the Caribbean region for hurricane season on standby should any storms hit and relief assistance be required.

Ed: From the start most of the major maintenance to the RCIP helicopters has required a long transit across Cuba to Florida and then onward to the Airbus plant – some 1,400 miles each way – but the system has worked.

JAPAN

NATIONAL POLICE AGENCY: Japan’s police agency (NPA) has ordered one new H225 and four H135 helicopters as part of its ongoing fleet modernisation programme that draws on the products of most major manufacturers.

From the Airbus Helicopters production the NPA currently operate twelve H135, four H155 and six AS365 helicopters, with one H215 and two H225 already on order, NPA deploys its growing fleet for missions including law enforcement, personnel and VIP transport, goods transportation, disaster relief, as well as wide area support. The five new helicopters will take NPA’s Airbus fleet to 30.
KENYA

POLICE: Earlier this year, in February, Kenya Police air support was under investigation by the National Assembly Public Accounts Committee for manner and cost of purchase of three new helicopters, which were delivered about 25% over budget.

Some sections of the media are expressing disquiet at the number police air crashes in Kenya. Yet another expensive rotorcraft was trashed in early June. Of all the air crashes in the country, Kenya Police helicopters are seen to have had the highest rate.

To illustrate the apparent problem, the media have listed the three more recent accidents. On September 8, 2016, an AgustaWestland AW139, police helicopter crashed in Nairobi's Mathare Estate, injuring three officers on board. On August 15, 2018, Kenya Police MI-17 helicopter crashed in Boni forest, just five months after being taken on charge. A year later, on November 2, 2019, another MI-17 crashed at Wilson Airport. Fortunately no one was injured in the accident.

Ed: As if that was the sum of the story. PAN is aware of seven other accidents and they may well not be the only losses. Back in the mists of time – December 1968 – a Kenya Police Douglas DC-3 crashed near Nairobi Airport. The fatal accident involved severe overloading. Over 20 years ago, in July 1996 a Bell 212 was destroyed by fire after crashing soon after take off from a site in Marsabit Province 260 miles [420km] from Nairobi. That accident caused 9 fatalities. No mechanical fault was found, it was believed caused by bad weather, neither the aircraft or the pilot was certified for flying in IMC. A Mil Mi-17 was lost in May 2009 and just four months later, in September that year, a Cessna 404 fixed wing twin crashed and exploded shortly after taking off from Wilson Airport, Nairobi. The student pilot was killed and instructor suffered severe burn injury.

After only a few months operating it the police lost an Airbus Helicopters AS350B3e in a June 6/2012 fatal accident. The following year a Bell 407 was damaged in an accident. Another Bell, this time a 206L4 LongRanger was damaged in August 2016.

PHILIPPINES

NATIONAL: In late June the Philippine National Police (PNP) held a joint graduation and commencement ceremony for its pilot training programme at the air unit hangar.

The graduates of the latest course were announced and a new student course commenced at the PNP-SAF Air Unit Hangar, General Aviation Area, Domestic Airport in Pasay City, Manila. Eleven individuals, three females and eight males, successfully graduated from the Basic Helicopter Pilot Training (BHPT) for Special Action Force (SAF), which is a 228-hour course that was divided into four modules. The course started in December 2019.

The graduates were congratulated for their achievement by a suitably masked General Archie Francisco F Gamboa, the Chief, PNP. They will be issued Private Pilot License (Helicopter) and will be qualified to become co-pilots and soon pilots-in-command to operate the PNP air assets and eight of them will also be trained for their transition to the Airbus H125.

Fourteen more personnel, including one female, have signed up to be student-pilots and will undertake Course 2020 the next training programme. [text and photos SAF]

Ed: The PNP clearly take seriously protective mask wearing and it is a universal requirement. So far the PNP have lost seven of their 205,000 officers to COVID-19.
UNITED KINGDOM

NATIONAL: In Parliament on June 10 Tim Farron (Liberal Democrat) asked the Home Office what the timescale is for the Emergency Services Network (ESN), this question also related to improvements in the local cell phone service in the remote areas of the Lake District [NW England]. The reply given was that the Extended Area Service (EAS), the civil phone network improvements that are a legacy of the ESN roll-out are a critical part of the ESN and will ensure that there is ESN coverage in the most rural and remote parts of Great Britain.

The EAS programme consists of 292 masts and delivery is well under way. The Home Office is focusing efforts on getting the infrastructure builds completed as quickly as possible. The EAS sites are expected to be activated for ESN purposes closer to the time at which they are required, given that significant operational costs are incurred once the sites are live.

*Ed: It is noteworthy that the ESN should already be in national operation but is still being referred to as ‘well under way.’ The latest rumour of operational timescale by ESN suggests another four years before it is in service. The aircraft element is another matter that remains largely unresolved.*

NPAS: Hard on the heels of the ever problematic radio system is another closely associated, but potentially poisoned chalice, in the NPAS jobs column. The offering from the West Yorkshire Police employment team is the NPAS-Project-Manager-Aviation-Police, a full time 37 hour week working from home with
national travel. Assigned to work upon various projects for NPAS to delivery safety from the air on a na-
tional basis.

The Project Manager ensures projects are completed to agreed timescales, meet quality expectations and
within budget.

The successful candidate will not be plucked from the ether – he or she will have a proven experience of
managing projects and have a full understanding of the EASA Part 21, Pt 145, Part M, quality and compli-
ance regulations. In addition there is a need for an ability to interpret technical/aviation/aircraft design
specifications converting such information into tender documentation and other solutions and overseeing
implementation. A working knowledge of the structure and strategies of a police environment is required.

Quite something, quite a rare somebody but sorry the application process closed on the 23rd June even if
you ever thought it’s really you.

Last month I touched on the matter of the fixed wing aircraft not being allowed to use the grass runway at
Redhill and suggested that, with the undulations at grass field, it was more to do with the potential to dam-
age sensors than anything else.
This does however raise the question about how NPAS are getting their aircraft refuelled at night. Cur-
rently flight operations are late afternoon and evening so it is less of a problem but in time we are assured
that the P68R fleet will offer 24/7 availability.

It currently appears that the aircraft can only operate and refuel from the main base at Doncaster. The oth-
er options simply close on them. While helicopters, police and air ambulance, can operate 24/7 at North
Weald, fixed-wing are limited to the published airfield day/VFR opening times which tend to shut at
1900hrs. In recent weeks the aircraft has undertaken a short sortie to North Weald and launched late af-
fternoon to operate the longer evening flight.

So if existing NPAS bases at North Weald and Redhill are not available in the evenings where else is
there? NPAS Hurn and Oxford might be considered options but they close to fixed wing too. Historically
police fixed wing aircraft used Newcastle and Teesside in the North East but that still does not resolve the
fuelling in the southern region.

Clearly there was some mind reading going on as early last month G-POLV was at North Weald in the
late afternoon and refuelled there before setting of on patrol for the evening at 1745hrs and affording a
clear view of the aerials that will not sit well with an undulating grass runway. ©North Weald Airfield

Thanks to COVID the main 24/7 airports are now quieter but that is already changing and will soon
change putting the light police aircraft in danger from the vortex created by big aircraft. Certainly both the
Belgian and Dutch police have tragically demonstrated that light fixed wings do not sit well with big stuff at
Schiphol and Brussels.

The latest edition of the NPAS Annual Report is apparently written but delayed by the COVID-19 situation.
I guess the same lame excuse is being applied to the long overdue Strategic Board Minutes for December
2019. It remains to be seen whether the March and June meetings resorted to an e-meeting or simply
cancellation.

#
UNITED STATES

FEDERAL: Textron Inc. was awarded a contract for two additional Beechcraft King Air 350CER turbo-prop aircraft for the U.S. Customs and Border Protection (CBP) Air and Marine Operations (AMO). After mission modifications by Sierra Nevada Corporation, these two Multi-role Enforcement Aircraft (MEA) aircraft will join a fleet of 23 other King Air 350 aircraft used to safeguard the United States homeland as part of the coordinated application of CBP’s aviation and maritime law enforcement resources.

The aircraft can fly six-hour missions and can deploy to hot spots where multi-sensor patrols assist both ground and marine agents to detect, interdict and prevent acts of terrorism as well as the unlawful movement of people, illegal drugs and other contraband toward or across the borders of the United States.

They are equipped with a sophisticated array of active and passive sensors, technical collection equipment and satellite communications capabilities that can be deployed for ground interdiction operations, air-to-air intercept operations and medium-range maritime patrols. The aircraft is operated by a crew of four, including two sensor operators who employ the mission equipment and coordinate the information flow to the ground.

The Beechcraft King Air 350CER aircraft is an extended range version of the King Air 350i twin-engine turboprop aircraft configured with an optional cargo door, resulting in enhanced mission flexibility. Two Pratt & Whitney Canada PT6A-60A or optional factory installed PT6A-67A turboprop engines with Hartzell four blade propellers power the King Air 350CER aircraft, and a fully integrated Collins Aerospace Pro Line Fusion digital avionics suite provides pilot(s) with state-of-the-art touchscreen controls.

Air support was in the headlines for much of last month in the wake of the death of George Floyd in Minneapolis May 25. Understandably police and government agencies were drawing upon a range of air assets to provide intelligence and command and control of often difficult conditions on the street of many US communities.

The Air Force’s Office of Inspector General was tasked with investigating whether Air National Guard units were improperly used to monitor Black Lives Matter protests in Washington and Minneapolis. The investigation comes after politicians expressed concern to the Pentagon about the flights, which were captured by flight tracking websites, and their potential to violate the civil liberties of the mostly law-abiding protesters.

Following discussions with the secretary of defense, the Air Force investigated the use of Air National Guard RC-26 surveillance aircraft to support civil authorities during recent protest activity in U.S. cities. The RC-26 is a highly modified Metroliner with a sensor pod that is normally used to support the Department of Homeland Security, Coast Guard and Customs and Border Protection for drug enforcement, and other interdictions.

The flight tracking sites tracked the RC-26 over Washington and a Cessna Citation with equipment for gathering cell phone data over Minneapolis. The Pentagon has told Congress that it does not spy on U.S. citizens on U.S. soil and Joseph D. Kernan, the undersecretary of defense for intelligence and security, told the House Intelligence Committee there were no orders from the White House to conduct such flights.

Elsewhere the media were busy asking about other air operations by conventional air support resources.

#
Footage obtained by the Arkansas Democrat-Gazette from an Arkansas State Police helicopter shows chaotic scenes when police clashed with demonstrators on the first night of protests in Little Rock following the death of George Floyd.

Arkansas State Police used the helicopter to watch demonstrations in Little Rock and Conway between May 30 and 31. According to the paper, the helicopter was monitoring crowds for people who might be carrying large items or objects that could serve as a detonating device, as well as for people who might be breaking into buildings or leaving a building that had been set on fire. (Ed: That sounds pretty ordinary activity but whoever thought there was a need for ten words to describe 'looters' needs sacking!)

And then there were the multiple images that emerged of a Blackhawk and a Lakota apparently flying very low over crowds. The low height resulted in all sorts of dust and rubbish being kicked up by the rotor downwash to hopefully 'sting' the crowds enough for them to disperse. It is said that similar tactics are used by the US military to disperse crowds in such as Afghanistan. Where that went wrong was that the recipients were US citizens and the military are nominally not supposed to do that sort of thing to their own nationals.
Of greater gravity in the wider world was that the Lakota was carrying International Red Cross markings. It is ‘only a paint job’ but it is alleged that such behaviour breaches the Geneva Convention. Well the hierarchy are looking into that and naturally the crews involved (who were unlikely to be doing anything with orders from above) have been relieved of duty. See page 16.

Protests took place in hundreds of cities across the USA and many other countries in response to the death of Floyd in late May. At many of the US demonstrations, armed police relied upon the use of non-lethal weapons including night sticks, tear gas canisters and rubber bullets to disperse crowds amid reports of fires and looting.

The use of aircraft to watch protests was not limited to Arkansas. The New York Times reported earlier this month that the Department of Homeland Security deployed helicopters, planes and drones over cities like Minneapolis, Detroit and Buffalo, N.Y., to watch and film Floyd-related protests from the air.

WASHINGTON: The Spokane County Sheriff’s Office has asked for federal COVID aid funding for a helicopter thermal scanner, which could help with monitoring social distancing, responding to protests and reducing manpower for policing the county.

The Sheriff’s Office has asked for $300,000 to upgrade its existing TI equipment. Spokane County has experience of TI for at least a decade, thanks to its purchase of used cameras which sheriff deputies use for search and rescue, tracking suspects and most recently, monitoring protests.
AFRICA
CONGO: Some parts of the world are fighting a medical war on more than one front. In Congo they have yet to conquer last years Ebola outbreak, only to be faced with COVID-19.

The Airbus Foundation together with the French Red Cross (FRC) and the International Federation of Red Cross and Red Crescent Societies (IFRC) have flown a medical team and 14 tonnes of humanitarian aid to the Republic of the Congo, using an Airbus A330neo test aircraft.

The cargo will help in the fight against both the COVID-19 pandemic and the Ebola crisis in the Republic of the Congo and the DRC. The A330neo departed from Vatry, France, on June 19 and landed at Brazzaville airport, Republic of the Congo, the same day with personnel from the IFRC and FRC on board to support logistics on arrival. Also on board was personal protective equipment needed to create an administrative base for a treatment zone for FRC.

AUSTRALIA
NEW SOUTH WALES: The Westpac Rescue Helicopter will now be able to land at the Liverpool Plains Emergency Services Precinct to better service Quirindi Hospital. Trials and training were recently completed. The local council was able to obtain funding through the Federal Government’s Drought Communities Programme towards this project which was also supported by the Rural Fire Service and NSW Government. The emergency services precinct can now be utilised for this critical community service. [NDL]
BELARUS
EMERGENCIES MINISTRY: A new Airbus Helicopters AS350 helicopter of the Ministry of Emergencies took off from Grodno, carrying a victim of a building collapse at a power substation, and landed in Minsk at the Republican Burn Centre. The employee was urgently taken to a specialised facility today. Such transports were previously carried out by land transport.

The report states that 255 flights were made to rescue 90 people in need of organ transplants over the past 3 years.

CANADA
ALBERTA: The last edition of PAN mentioned the dire state of the funding for the air ambulance operated as HALO. Officialdom was refusing to provide more finance which placed HALO firmly into more public fundraising. A special single-day fundraising goal of $100,000 was set but was thought too ambitious. In the event the target was more than tripled. Western Tractor, McCain Foods, and JEB Transport teamed up for an innovative event offering free bags of French fries in exchange for donations to the medical rescue service. Well it seems that French fries are popular in the region.

At four Western Tractor locations in Medicine Hat, Burdett, Taber, and Lethbridge, vehicles were lined up out of the parking lot before the giveaways even started. At least 10 different people, groups, or companies each contributed over $10,000. A group of 27 Hutterite colonies in the area got together and donated more than $60,000. By the end of the afternoon, he estimates that anywhere between 2,500 to 3,000 vehicles came by to support HALO.

In the wake of that whole hearted support HALO were able to confirm an immediate extension of full medevac operations after the Health Minister instructed to Alberta Health Services to restart, and fast-track, the Provincial Helicopter Emergency Medical Service (HEMS) Review and with an overwhelming outpouring of community support, HALO has raised significant funds to help ensure the continuation of HALO Air Ambulance service.

Later in June an online auction for HALO Air Ambulance came to an end, with an unofficial final tally of $213,018 raised. Not bad considering that the target was $5,000. The organizers of Help HALO Weekend earlier in June had a similar experience in that they $30,476, comfortably exceeding a goal of $25,000.

NEWFOUNDLAND: EVAS Air based at Gander International Airport, has ten aircraft of three types that meet a range of broad commercial needs, passenger, cargo, training and air ambulance. In the past, the Gander-based company has equipped its Beechcraft 1900D aircraft with custom-built lavatories and installed one with a glass cockpit.

The ten EVAS Air aircraft are seven Beech 1900, four Cessna 172 and a single DHC Twin Otter. Both the Beech and the Twin Otter are used for air ambulance flights in the province when not undertaking passenger and freight work. By the end of the year, EVAS Air would like to outfit three planes as cargo aircraft, on top of its two air ambulances and its passenger capabilities.

EVAS Air has a long history of providing air ambulance evacuation services. For over the past six years, EVAS Air has been providing air ambulance transfers throughout Newfoundland and Labrador and Eastern Canada. As a first choice EVAS Air uses the fast and efficient Beech 1900D aircraft in all medevac operations. This aircraft is uniquely capable of transporting two patients via stretcher, and transporting bariatric patients. The large stand up cabin is comfortable for medical teams to manoeuvre while monitoring critical patient care en-route. The aircraft is fitted with the reliable Life Port system on all medevac transfers.

In the early stages of the COVID-19 pandemic, the company was quick to initiate precautions among its
employees to help prevent the spread of the coronavirus. Those included new regulations around how personnel get to their accommodations, how they get their food and their onboard safety checks. This allowed the company to maintain the weekly cargo runs it does between Halifax and airports in Newfoundland and Labrador. [Nicholas Mercer]

FRANCE

NORMANDY: The AW109 Trekker has been chosen as the new helicopter to support Emergency Medical Service (EMS) operations from Rouen Hospital in Normandie, France. One aircraft, with a specially customised EMS interior, is expected be delivered by the end of 2020 from Leonardo’s Vergiate final assembly line in Italy, and the rotorcraft will be operated by S.A.F. Hélicoptères.

The SAF Hélicoptères’ AW109 Trekker-based offer was selected following a thorough and rigorous tender process outperforming competing types. The contract award marks the entrance of this Leonardo light twin helicopter model into the French civil helicopter market and follows the success of the AW109 Power and Grand for EMS tasks in the country. This expands the number of French commercial customers using Leonardo helicopters such as the AW109 series, AW169 and AW139 for a range of roles including EMS and VIP/corporate transport. [Leonardo]

HUNGARY

HAA: Airbus Helicopters is helping Hungary’s largest civilian operator become a digital organisation capable of capturing, storing and then analysing the rich amounts of data generated from its day-to-day helicopter operations, turning them into continuous improvement actions. At Heli-Expo 2020, Hungarian Air Ambulance became the first helicopter operator to purchase a complete end-to-end solution, from digitisation to analytics, through a close collaboration with Airbus Helicopters.

The three-year contract will deploy Airbus Helicopters’ Connected Services for Hungarian Air Ambulance’s new fleet of nine second-hand H135 helicopters. The operator aims at putting in place all the bricks of a data-driven organisation, to begin harnessing and learning from their data all along the operational chain.

With this new contract, Hungarian Air Ambulance will roll out the core group of digital services: the Fleet Keeper digital technical logbook; the new Flightastic digital pilot logbook and compliance monitoring sys-
tem; Airbus’ homegrown Fleet Master maintenance information system (for small and medium-sized operators); and digital log cards, which trace the entire maintenance history of a single component. The operator has also purchased Flight Analyser analytics, thus becoming the first customer of this service.

Flight Analyser analyses flight data to prevent situations that could have led to an incident. Every flight session is checked and analysed daily by Airbus Helicopters teams composed of experienced pilots, aviation safety specialists and data-software experts, based on customers’ requirements and procedures. All relevant pieces of information are highlighted and transferred to the operator’s safety managers for validation.

The system also correlates this data with weather data and environmental context such as sky coverage and obstacles that might be present at the time of a potential event. [AM]

NEW ZEALAND
TARANAKI: The Taranaki Air Ambulance Trust lost an aircraft in a minor crash a year ago. Now, after changing their aircraft supplier, the Trust reports that it is flying more missions than ever in a more powerful plane.

The trust, with operator Skyline Aviation and Taranaki District Health Board, had transferred 512 critical care patients on 334 flights between New Plymouth and seven hospitals in the North and South Islands, including Wellington, Hamilton, Auckland, Palmerston North, Whanganui, Nelson and Greymouth. In April 2020 the trust had helped transfer 61 patients compared to 27 patients in April 2019. The relationship between the trust and the Napier-based Skyline Aviation had been positive since the company began flights using a Beechcraft King Air C90A in late 2019, he said.
The former Taranaki Air Ambulance Cessna 421C that crash-landed at Hamilton Airport in May 2019 is now for sale on Trade Me, complete with bent propellers and a deeply scratched paint job. The 40-year-old aircraft operated by Skywest Aviation developed landing gear problems in its nose wheel as it approached Hamilton Airport on a medical transfer flight, but the pilot managed to safely land, albeit nose down.

After the charitable trust agreed a deal for the King Air an operator from outside the area Skywest Aviation the operator of Taranaki’s air ambulance set about suing the charitable trust for $752,000 for breach of the contract they had. The sum was for the pre-purchase of an aircraft, associated costs, and loss of revenue.

NIGERIA

NATIONAL EMERGENCY MANAGEMENT AGENCY: The NEMA Director-General, AVM Muhammadu Muhammed (rtd), declared that the agency is currently incapacitated in the air as its operational plane and helicopter are grounded awaiting maintenance and spares.

Currently COVID-19 is being blamed for making matters worse as flights have been disrupted between countries over the months. This factor has slowed down the process of returning the fixed and rotary wing air ambulances to flight status. Efforts are being made to turn the situation around in cooperation with the Nigeria Air Force.

He was presenting his situation to a parliamentary committee as part of presentations on the NEMA budget. He was questioned why 70% of the N400million grant given to the ministry in 2019 was spent on office furnishing, spent on the use of guest houses as against building official quarters for staff. [Deji Elumoye in Abuja]

Ed: NEMA was established in 1999, to manage disasters in Nigeria. Over the years it has used aircraft in the rescue and air ambulance role – a single helicopter and a business jet (5N-EMS) – each flown and supported by the Nigerian Air Force. Their impact on operations across a massive country the size of Nigeria was limited

Starting with a Mi-8 the operation took delivery of a new Bell 429 (5N-NEM) in 2013 but by 2017 PR Nigeria was reporting that there were indications that NEMA was unable to support any air emergency response in the country following the grounding of both airframes. They stated that rather than relying on qualified and experienced Nigerian pilots, a foreigner had been employed to manage the air operation unit of the agency and that he was not doing it well.

The air ambulance launched in February 2015 was meant to deliver emergency healthcare and quick transportation of patients with emergency cases. Investigations suggested that the air ambulance was last flown on June 07, 2017 and needed a series of safety checks and both the airworthiness certificate and insurance of the aircraft had expired. This situation has not changed since but all that appears to happen is that a succession of officials are hauled before committees to explain why they are claiming funds for operating airframes that have not moved from their positions outside the Police Air Wing in the best part of three years. The ex-pat manager is an easy target.

UNITED KINGDOM

DEVON: Two developments last month after a phased re-introduction of the service, they are now back to full flight operations until 2am every day,

The latest community landing site, the 150th, has been brought into service on a sport playing field at Newton Ferrers marked a significant milestone in the development of a County-wide network of sites which enable Devon Air Ambulance to reach patients ‘during the hours of darkness’. These floodlit surveyed landing sites can be remotely activated in an emergency and enable the Charity’s medical teams to safely land in the heart of communities, until 2am every day.

The lights are switched on remotely by the HEMS (Helicopter Emergency Medical Services) Dispatcher based at the South Western Ambulance Service NHS Foundation Trust by making a simple phone call to an electronic control box connected to the switch mechanism at each community landing site. Once the crew have cleared the scene, they are turned off using the same procedure. [DAAT]

SCOTLAND AIR AMBULANCE: As detailed at the launch event on March 2nd just as the pandemic was starting the full-service takeover of the Scotland operation passed to Gama Aviation at the start of June. The contingent of Airbus H145 assets started work at 07.00hrs. Due to the prevailing conditions Gama were not able to mark the occasion as originally intended but are hoping to formally open the new Inverness hangar later this year (it also went operational at the start of June). The Group, as the prime contract holder, and following the successful entry into service of three Airbus
H145 helicopters (announced on 24th December 2018), has fully transitioned in-house all contract-ed operations and maintenance of the helicopter service alongside the fixed wing service that has been operated by the Group for many years.

Pauline Howie, Chief Executive of the Scottish Ambulance Service, welcomed the new arrivals. "Gama Aviation have delivered consistent, high quality service for nearly three decades with the Scottish Ambulance Service as part of our emergency pre-hospital care response. Bringing fast medical care to patients as well as quick life-saving transport to hospital, these helicopters will continue to support the whole of Scotland when needed during these difficult times and into the future.

The air ambulance is vital and saves lives by giving access to the best possible emergency medical treatment available, especially for those in remote and rural areas through a network of delivery partners including Gama Aviation and the Scottish Charity Air Ambulance SCAA. We want to wish their experienced and professional crews safe flying and thank the Gama Aviation and SAS teams involved for their hard work in delivering the transition project to completion."

Marwan Khalek, Group CEO commented: "We are delighted to have bought together all flight operations for the Scottish Ambulance Service under our direct control and to have commenced HEMS operations using our fleet of new helicop-
ters in Scotland today. It is the product of 18 months’ hard work and demonstrates our ability to effectively and efficiently deliver our clients’ mission requirements within precise parameters. We look forward to greater participation in the UK rotary market.”

Ed: June 1 was the official start of the air ambulance air ops by Gama mainly using their new G-GSAS and G-ISAS in the customer preferred all-yellow scheme. They had been operating for a while on training flights. The Babcock owned H145s G-SASN and G-SASS departed back to Staverton. The Scottish Ambulance Service contracts with Gama and they in turn had let the helicopter sub-contract to Babcock. This is not a new contract with the health service simple a non-renewal of the Babcock deal after around 30 years of service. Under Bond Helimed 2 was the first Scottish HEMS aircraft based in Dundee for a 6-month trial in 1989. It was joined by Helimed 5 on a full contract in 1993. Despite this legacy none of the experienced Babcock Helimed pilots took the opportunity to join the new contract. As stated in the April edition of PAN all the pilots are new and require advanced training by Gama. Babcock (Bond) continue to provide the two charity helicopters in Scotland Helimed 76 and Helimed 79.

UNITED STATES
FEDERAL: As discussed on page 8/9 there are investigations into the use of low flying helicopters over civilian crowds protesting the President ad government in central Washington DC. The claims of low flying were supported by several videos taken by both crowds and media. They showed the Blackhawk and a Lakota flying at low height over crowds and a report of tree branch being snapped.

The pertinent potential Geneva Convention breach relates to Article 23(f) of the 1899 Hague Regulations provides: “It is especially prohibited ... to make improper use of ... the distinctive badges of the Geneva Convention.” It is a matter of opinion whether it is accepted that using a military helicopter bearing the Geneva Red Cross in an aggressive manner contravenes the edict that it is especially forbidden to make im-
proper use of ... the distinctive badges of the Geneva Convention. The emblem of the red cross on a white ground shall not be used either in time of peace or in time of war, except to protect or to indicate the medical formations and establishments and the personnel and material protected by the Convention. There is another question whether the crew of an ambulance Lakota should carry sidearms.

FIRE

CANADA

BRITISH COLUMBIA: Talon Helicopters of Richmond, BC, is taking on nighttime fire attack missions with its night vision goggle (NVG) approved Airbus AS365 N2 Dauphin — the only Transport Canada approved NVG night fire attack medium helicopter in Canada.

The nine-passenger aircraft, configured with a night vision cockpit and cabin, has been approved for day and night fire attack operations with the Simplex Model 301 belly tank, which can hold up to 901 litres (238 gallons) of water. The Dauphin with the Simplex tank is 30% faster than other belly tank-equipped mediums. The tank has an easy install process with four hard points on the aircraft, the removal of the tank takes 20-30 minutes. An alternate fit is a 350-gallon FAST Bucket for daytime wildfire operations.

Talon’s Dauphin is also used for medevac, search-and-rescue, aerial lift work and passenger transport operations. They have an approved stretcher kit, have a hoist approved for day and night hoisting.

UNITED KINGDOM

SCOTLAND: Wildfires in Britain are relatively small affairs that other nations would consider little more than scorching. Locally though they are seen as every bit the threat that the giant fires represent to others. Most do not require the assistance of water bombing but their very rarity does present supply and demand problems—there are few suitable aircraft and a limited number of pilots that keep their Bambi bucket skillset up to date.

There have not been too many fires this year, last month one at Polkemmet Moor, near Fauldhouse, West Lothian attracted nine appliances - about 45 firefighters – at its height and was assisted by helicopter water drops.

The wildfires in West Lothian were tackled by a Bell 212 G-BBIG which refueled at Eshott airfield, Morpeth, Northumberland on its way north.

www.PoliceAviationNews.com

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UNITED STATES
CALIFORNIA: Helinet Aviation Services, one of the most diverse and respected helicopter companies in the United States, announces the addition of a UH-60 Blackhawk helicopter to California’s aerial firefighting fleet. The former U.S. Army helicopter is on standby at Van Nuys Airport to assist with firefighting missions under call-when-needed contracts with the U.S. Forest Service and the California Department of Forestry and Fire Protection CAL FIRE. The aircraft is the first of several UH-60 Blackhawks that Helinet intends on operating in the aerial firefighting market over the next few years.

The Sikorsky UH-60 Blackhawk cruises at 160 knots and can lift to 8,000 pounds of external cargo. When using its Bambi PowerFill buckets it can drop up to 900 gallons of water and can be refilled in less than a minute. Through Helinet’s partnership with the Blackhawk’s two private owners – Brown Helicopter, Inc. and Anduze Helicopter – the aircraft is supported by a team of pilots, a fuel truck, back-up equipment and maintenance technicians.

In 2019, California experienced around 7,860 wildfires burned nearly 260,000 acres of land, damaged or destroyed 732 structures and took three lives.

MONTANA: Bridger Aerospace in Belgrade have taken delivery of a new firefighting aircraft for this forest fire season. The aircraft is a $30M CL415EAF built in Canada. It came out of production in April and was delivered to Bridger marked N4158T. Bridger Aerospace contracts the plane out to various agencies, including the U.S. Forest Service.

The aircraft and its specific roles require extensive training for pilots. Pilots and air crews spend 25 role and aircraft specific hours in the simulator at the factory even before they get their hands on the aircraft. Support crews also must be ready for unexpected maintenance issues. It is a relatively simple airframe, but it does shake itself apart, requiring daily inspections to make sure everything is tight on the aircraft.

Six more CL415EAFs will arrive in Montana over the next two years.

SEARCH & RESCUE
INTERNATIONAL
ASR: The 50th year of flight by the Westland Sea King development of the Sikorsky Sea King was recently the subject of several somewhat muted events.

Leonardo Company
The Westland Sea King first took to the skies in 1969. Over the course of the last five decades, the aircraft has proven to be trustworthy and reliable and has seen service with the UK MoD and eight international operators, with over 340 aircraft being delivered – it has not only stood the test of time but has bridged the gap to the latest-generation AW101 helicopter.

Today, there is a global fleet of more than 70 Sea King aircraft still active with six international operators. Whilst the helicopter’s key capabilities are bespoke to each respective customer, the Sea King’s mission roles include troop transportation, search and rescue, anti-submarine warfare, airborne early warning, and anti-ship warfare.

Currently, Norway still operates ten Mk43 Sea Kings within its inventory, and it is now expanding its fleet with AW101 helicopters. The Norwegian Ministry of Justice and Public Security ordered 16 AW101 All-Weather Search and Rescue helicopters in 2013 and the government received its first AW101 in 2017.

**UNITED KINGDOM**  
**UK COASTGUARD:** The UK Maritime & Coastguard Agency has a fleet of aircraft that’s larger, includes larger aircraft, both helicopters and fixed wing, than the police agency, NPAS.

Subject to day-to-day maintenance availability, the police agency has fifteen Airbus Helicopters EC135T2 and P2, four EC145, and four P68R fixed wing. A total of 24 aircraft (none of which will be active or available at the same time).

The MCA/HM Coastguard can call upon ten S-92, eleven AW-189, one Boeing 737 + reserve, one Cessna 406 + reserve, two King Air 200’s and two Piper Navajo’s. That total of 29 aircraft does not include such as the Bristow Jetstream 41 and the Doncaster based Boeing 727s assigned to oil spill spraying.

HM Coastguard provides support to all blue light emergency services, as well as other government departments and agencies, through the deployment of its search and rescue helicopters and planes.

Since 2013, the UKSAR helicopter service has been delivered by Bristow Helicopters Ltd. From ten strategically located bases around the UK, rescuing over 4,500 people since the service started in 2015. This contract is due to finish in 2024, with plans for what is now called UKSAR2G well in hand. UKSAR2G will work from first principles to develop a more tailored and modern means of delivering vital search and rescue capabilities in a more cost-efficient and innovative way.
The published development plan leading to procurement in four years is currently working through its Market Engagement phase (March 2020 to October 2020). It is expected that in the first quarter next year they will publish the OJEU notice and commence the procurement cycle phase through until December 2022. Contract award is set for December 2022 and service commencement is from the end of September 2024.

MIGRATION: Meanwhile the good weather and calm conditions in the English Channel are attracting ever growing numbers to make the dangerous journey across 21 miles to England unnoticed. As this issue goes to press the weather has deteriorated and perhaps offers Britain's meagre coastal resources a respite.

To date there has been a death but no major, multiple death, tragedy. Given little choice, it appears that 'the government' (actually the agencies working on their behalf) seem to be taking the view that 'rescuing' migrants from their small, often overloaded small boats is better than having bodies washed up on the beaches! Actually halting this people trafficking, which includes hundreds of unaccompanied children, now in the care of Kent County Council, would seem to be beyond the skill set of the Home Office, the Border Force, HM Coastguard and their French equivalents. For reasons better known to themselves the Home Office no longer identifies children in their press releases, just males and females.

Between Saturday, 13 June and Sunday 21 June there were multiple crossings on every day, bar one. A total of 278 migrants in 9 days, mainly arriving early in the day. A further 119 arrived over the next four days.

These are conservative figures provided by the BBC which for 2020, to date, gives a total of 2,313 migrants arriving in the UK in small boats. There are others who have been turned back, or taken back, by the French, but it's very difficult to obtain any reliable numbers. Only the turn in weather has stopped the total reaching 2,500 in the first 6 months of 2020! Of course the numbers relate to migrants detected, there will be others who make the journey unseen and those that travel by other means.

UNITED STATES
CIVIL AIR PATROL: Textron Aviation Inc., has been awarded a contract by the U.S. Civil Air Patrol (CAP) for the sale of 17 Cessna piston engine aircraft. Using fiscal year 2020 funds, the CAP agreed to purchase 11 Skyhawk 172S, five Skylane 182T and one Turbo Stationair HD T206HD aircraft. The aircraft will join a fleet of nearly 550 Cessna aircraft currently owned and operated by the CAP.

As the Air Force Auxiliary, the CAP performs missions for government agencies, and as a non-profit organization they also serve states and communities. In fiscal year 2019, the CAP saved 117 lives and flew nearly 96,000 hours in their Cessna piston fleet. Today, the CAP is the world’s largest Cessna piston operator.

COAST GUARD: The U.S. Coast Guard (USCG) uses a fleet of fixed-wing (FW) and rotary-wing (RW) aircraft to conduct a variety of missions. That fleet’s composition is now ageing, with the RW aircraft nearing their ends of life.

To plan for the next thirty years a team from Rand has been working on future needs across fixed wing, rotary and unmanned assets. UASs will likely be a major element of the force structure. In many demand scenarios, fleets with UASs appear to be the most cost-effective, although future UAS costs are uncertain. However, fleets with UASs could be riskier and less flexible than fleets with additional manned aircraft because UASs cannot do everything manned aircraft can. [www.rand.org]
FLIR Systems, Inc. announced it has installed its EST™ screening system at the Pentagon Visitor Center in Washington, D.C. The company's integrated EST screening solution, the A700 EST-IS, features the FLIR A700 thermal imaging camera. The system is being used to screen visitors for elevated or higher than expected skin temperatures, which can help guard against the spread of COVID-19.

FLIR Systems has installed its EST screening system at the Pentagon Visitor Center in Washington, D.C. The company's integrated screening solution features the FLIR A700 thermal imaging camera and is being used to screen visitors for elevated or higher than expected skin temperatures, which can help guard against the spread of COVID-19.

The installation of its EST system at the Pentagon is one of many efforts FLIR is currently discussing with United States Department of Defense officials for applications across the armed services. For applications in public buildings, hospitals, airports, schools, sports venues, or manufacturing, FLIR Systems’ EST cameras can be a first line of defence in managing the risks associated with a global pandemic. These groups and others are using FLIR thermal imaging cameras and software for the initial screening needed to help detect people with signs of elevated skin temperature. Once identified, those individuals can be checked with a medical device to determine if they have a fever, one of the symptoms of a coronavirus or other flu infection.

Airbus Helicopters’ five-bladed H145 has been certified by the European Union Aviation Safety Agency (EASA), clearing the way for customer deliveries towards the end of summer 2020. The certification covers the full range of capabilities, including single-pilot and instrument flight rules (IFR) and single engine operations (Cat. A/VTOL), along with night vision goggles capability.

The new version H145 was unveiled at Heli Expo 2019 in Atlanta, Georgia, with launch customers announced for almost every market segment. Prior to the successful high-altitude test campaign in South America, where the aircraft set its skids down on the Aconcagua, the highest mountain in the Southern hemisphere, the new H145 performed several test campaigns including in Spain at medium altitudes and Finland for cold weather.

This latest upgrade of the H145 family increases the useful load of the helicopter by 150 kg (330 lb). The bearingless main rotor design will ease maintenance operations, further improving the benchmark serviceability and reliability of the H145, while improving ride comfort for both passengers and crew. Certification by the Federal Aviation Administration will follow later this year. The certification for the military version of the five-bladed H145 will be granted in 2021.

EASA has granted ESG Elektroniksystem- und Logistik-GmbH an STC for the installation of 3G/4G mobile communications and cabin Wi-Fi in helicopters. Thus, ESG enables Internet in helicopters and expands its range of aviation services with state-of-the-art special equipment for EC135 and EC635.

This May, the European Union Aviation Safety Agency (EASA) approved ESG the approval after comprehensive ground and flight tests were carried out. It was essential that they demonstrated that interference with the helicopter could be excluded for all mobile radio frequencies.

A software developed by ESG is installed on the Wi-Fi router integrated in the helicopter for the customer, which not only enables Internet connection as such, but also secure access to networks of public authorities and companies.

This ESG solution package has opened up numerous promis-
ing applications both in the context of specific police deployment scenarios and in the field of rescue services or for use in private or business situations: protected transmission of police mission data, real-time transmission of sensitive patient information, "working in flight" or infotainment in helicopter shuttles. The STC issued by the EASA also allows for a comparatively fast transfer to other helicopter types. This in turn creates added value for a wide range of customers in the short term.

ESG is a certified aviation company for aircraft and aviation equipment for the Bundeswehr (German Federal Armed Forces) and an aviation engineering company in line with EASA Parts 21J/G and 145.

**Helitrans of Norway** has become the first customer to take delivery of new Airbus helicopters using the e-Delivery process devised to enable deliveries while ensuring compliance with COVID-19 health and safety restrictions.

Trondheim-based Helitrans formally accepted the latest two H125s into its fleet following a series of actions that allowed all the requirements of the normal process to be met without the need for physical meetings or travel.

The system relies on the customer accepting flight-test and inspection findings conducted by authorized Airbus staff in place of their own employees who usually perform those tasks.

Key elements include an expanded test flight including the customer acceptance tests, a video inspection of the helicopter and loose object check, disinfection of all items, and the aircraft documentation verification.

The summary information was presented via an online video conference with representatives of Airbus Helicopters, authorized dealer Østnes and Helitrans enabling the formal transfer of title to take place. Finally the helicopters were transported by road to Norway to be received by the customer at Trondheim.

Recent **Bell** patents reveal a new split-tip rotor blade and a tail rotor replacement system that resembles one proposed by the company some years ago.

Future Bell helicopter designs could come with split-tip main rotor blades and anti-torque control provided by a crossflow fan embedded in the tail boom, rather than a traditional tail rotor, if two recent patents are used.

While the manufacturer has previously revealed the crossflow fan on its FCX-001 concept aircraft in 2017, but it was being illustrated way before then as part of its Bell's Modular Affordable Product Line (MAPL). In 2004 that was effectively a tail rotor in a ring that was flown but other illustrations resembled the NOTAR tail. What we have now is a detailed patent application – granted on 28 April – and that provides more information on the design.

The United States Patent & Trademark Office application is described as a "centrifugal blower system", the fan sits within the tail boom generating thrust by expelling air through "variable aperture" ducts, whose size would be controlled by the pilot's foot pedals.

These would be combined with "adjustable Coanda slot(s)" – which would push airflow down the side of the tail boom, producing the lift-inducing Coanda effect – to "direct the appropriate amount of thrust through the appropriate side(s) of the tail boom in order to provide anti-torque and directional control."

Drawings accompanying the application show the air intake for the system variously located further forward on the tail boom, or at the very end of the structure. Bell says the fan could be mechanically, hydraulically or electrically driven.

As part of its justification for the concept, Bell notes the safety disadvantages of traditional tail rotors and the added weight and complexity of ducted fan designs such as the Airbus Helicopters' Fenestron. Bell also require gearboxes and drive shafts to deliver power from the engines. Bell also notes the "performance drawbacks" of MD Helicopters' NOTAR system, which "increases complexity" and requires a less aerodynamically optimised cylindrical tail boom.

"Accordingly, a centrifugal blower system provides numerous benefits over existing approaches, including..."
improved safety, acoustics, and performance, and reduced complexity, cost, and weight, among other examples."

The Bell centrifugal blower can be used in conjunction with a traditional tail rotor or rudder to augment or improve the anti-torque and directional control.

Meanwhile, Bell also appears to be seeking to bring to rotorcraft the performance gains fixed-wing aircraft have obtained from the use of split-tip winglets, such as those produced by Aviation Partners for the Boeing 737NG. The patent application for the split-tip rotor blade notes that in wind-tunnel testing of the design, lift rose by about 13.5% and drag reduced by about 17%. “Accordingly, the lift/drag ratio was increased by about 36.91%”. This, Bell says, “can result in fuel savings of about 15-17%”.

Ed: Although presented as new the NOTAR aspects of this have a history stretching back nearly 40 years. Bell Helicopter and McDonnell Douglas worked together on a submission to the LHX helicopter project that resulted in the later cancelled RAH-66 Commanche. Bell and MDH worked together on this and later experiments led to the first NOTAR based on a converted OH-6 Cayuse helicopter. By then MDH were working alone but Bell always had a connection that is clearly being reinvestigated now.

Twenty years ago, early illustrations of the MAPL project showed a design without a tail rotor and one with a Fenestron. The nearest they got to the latter was the 1983 Bell 400 with a rotor in ring and more recently a Bell 407 with a shrouded tail rotor. The 2017 Bell FC-001 mock-up at HAI Heli-Expo that clearly mirrors the vague drawings of the LHX and MAPL. The question may be whether that early work by Bell secures rights to the Copyright on NOTAR.

Gama Aviation, the global business aviation service provider, has been awarded a contract by the Home Office to complete Transmitting Portable Electronic Devices (“TPED”) testing on several Emergency Services aircraft in-line with its delivery of the new Emergency Services Network (ESN). ESN is the next generation of critical communications for the three Emergency Services and other user organisations, and an element of ESN is the development of a 4G LTE Air to Ground (A2G) network and Aircraft Communication System (ACS).

This TPED contract facilitate the carrying out of early Electro-Magnetic Compatibility testing on Emergency Services aircraft in preparation for ACS installation.

The Home Office has engaged Gama Aviation to complete this testing on several different aircraft to gain approval from EASA (European Union Aviation Safety Agency). The contract has been awarded from April 2020 – April 2021.

Aerospace Logistics Group (ALG) members Compass Forwarding and Talkcargo partnered to ship a Eurocopter EC135 helicopter from the United Kingdom to the United States this month. The group handled the door-to-door movement of the aircraft from Brighton City Airport in Southern England to Allegheny County Airport in the Pittsburgh area via containerized ocean freight. The project included specialized trucking solutions in both countries, airside coordination of a 50-ton crane, and rapid customs clearance to meet a tight delivery schedule.

New helicopter project in the pipeline?

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The aircraft was delivered to a leading operator of emergency medical helicopters. The ALG was founded in 2007 as a group of freight forwarders with specialized expertise in transporting aerospace equipment around the world. Today, the group has partners in over 50 countries with 24/7/365 AOG support. The network offers integrated solutions for the global movement of engines, airframes, and spare parts – as well as on-board courier options for the most time-sensitive shipments. ALG also coordinates stocking and distribution solutions for aircraft systems and spare parts.

By early June Italy’s troubled Piaggio Aerospace had attracted nineteen international bidders’ intent on buying the company. Piaggio filed for protection from creditors late in 2018. Most bidders were interested in taking over the company, adding the aim was to find a new owner for the group before the end of the year. The maker of planes and drones has an order book worth €640M while other contracts for €260M are at different stages of negotiation, the company said. (Reuters)

The managing director of the Iran Aviation Industries Organization (IAIO), a subsidiary of the Defence Ministry, announced early in June that Iran is going to mass produce the domestically manufactured helicopter Saba-248 this year. The type was unveiled in 2017. The twin-engine light/medium helicopter has eight seats and is to be used for a wide variety of missions, including freight, passenger transport, rescue operations and can be used as air ambulance. The Iranians plan to lean heavily on Western suppliers for critical equipment. The first aircraft is powered by two Turbomeca Arrius engines with a 640hp rating at take-off power. The transmission is provided by an Austrian company. The aircraft features two engines, four rotor blades and carries eight people – hence, the Saba-248. Saba is a Farsi term meaning “good wind.” (Flight)

RUAG carries out regular maintenance work on the Super Puma helicopters and its components. In addition to the Swiss Air Force, customers include foreign military units and civilian clients. The twin-engine Super Puma is powered by the Makila 1A1, manufactured by Safran Helicopter Engines, the world’s leading manufacturer of helicopter engines. It offers the widest range of helicopter turboshfts in the world and has more than 2,500 customers in 155 countries.

The close cooperation between RUAG and Safran Helicopter Engines has existed for many years. As an original equipment manufacturer (OEM) approved service centre, RUAG’s Lodrino site regularly processes fuel control units for Makila 1A1 engines. The contract between the engine manufacturer and RUAG has now been extended for the existing year and the upcoming year 2021.

Nova Capital, the European independent helicopter lessor, has announced the acquisition of eight new helicopters in Emergency Medical Services configuration. These latest additions to the Nova Capital portfolio, include 2 Leonardo 139’s, 3 Leonardo 169’s, and 3 Airbus H145’s. All the Aircraft are factory new and are already deployed serving on EMS missions in Italy, Sweden, the United Kingdom, and France. Each Asset benefits from a long-term lease contract. The deliveries occurred in the period between September 2019 and March 2020. The acquisition of these Aircraft expands Nova’s owned and managed fleet to 85 Helicopters and 14 fixed-wing Aircraft in operation, with a combined total value surpassing US$450 million.

Bristow Group Inc. and Era Group Inc. have completed their combination (the “Merger”), creating a financially stronger company with enhanced size and diversification. The newly combined company will use the Bristow Group name (“Bristow”) and will remain a publicly traded company on the New York Stock Exchange. The newly combined company’s common stock began trading under the stock ticker “VTOL” beginning on June 12, 2020.

The Merger strengthens Bristow’s global leadership position, with significant operations throughout the Americas, Nigeria, Norway, the United Kingdom and Australia for offshore aviation transportation and search and rescue. The combined company will be headquartered in Houston, Texas. The Merger was first announced on January 24, 2020.
HENSOLDT’s newly developed airborne multi-mission surveillance radar PrecISR™1000 has successfully completed its maiden flight. In a one-week flight campaign together with H3 Mission Systems GmbH based in Tussenhausen-Mattsies, Germany, the radar proved its value in terms of simple integration and performance.

Thanks to its simple industry standard interfaces, and to the excellent support of an experienced mission aircraft team at H3, the aircraft was modified and the radar was integrated, tested and flown within two months from kick-off to mission completion. PrecISR™1000 proved to be very stable and generated a huge amount of high-quality reconnaissance data such as SAR pictures during its first operational flight.

The radar translates latest achievements in active array and digital receiver technology into a scalable high-performance sensor which can be installed aboard helicopters, UAVs, and fixed-wing mission aircraft. Due to its software-defined radar modes and electronic beam steering, it can fulfill different tasks virtually at the same time. It can detect, track, and classify more than a thousand objects and thus literally find the ‘needle in a haystack’. Because of its compact design and the fact that all radar related components are located outside of the airframe, the airborne platform integration of PrecISR™ is significantly simplified compared to other radars. Its superior precision and target accuracy make it the sensor of choice for surveillance of large maritime and coastal areas.

HENSOLDT has been awarded an order by a provider of airborne special missions operations to deliver PrecISR™1000 until year-end for installation underneath a Pilatus PC-12 special operations aircraft.

Last month the Russian Helicopters Mi-8AMT helicopter in its Arctic version completed the flight-test program and the procedure of acceptance by an independent commission of the Federal Air Transport Agency (Rosaviatsiya). The rotorcraft’s main features include a unique system for heating transmission parts, designed by JSC. The system provides for quick start of engines in extremely low temperatures, even if the helicopter is deployed without a hangar for a long time.

The system for heating transmission parts is complemented by an improved system for thermal protection of the cargo cabin and special thermal insulation shutters in sliding doors and cockpit doors. Special cover protects the helicopter from low temperatures, high humidity and strong wind, if it is deployed without a hangar for a long time. The helicopter systems have teflon hose, which is resistant to freezing temperatures, instead of rubber hose.

The helicopter is equipped with two additional fuel tanks, which allow it to fly long distances. The Arctic version of Mi-8AMT can fly up to 1,400 km.

The Civil Contingencies Secretariat and Airbox Systems Limited have launched an all-new Resilience Direct mapping platform. The tool provides a single codified place for emergency responders to come together to plan for and brief all types of resilience events across the UK. It allows them to clearly visualize complex situations, giving a focal point and a single source of truth to allow fast, safe, coordinated planning and response.

The new service replaces the previous mapping tool. It is free at the point of use and available to all UK category 1 and 2 responders. Nearly two years in the making, the mapping has been reimagined from the ground up; employing current best practice around ease of use, compatibility with modern devices and incorporating many new features requested by the community. The end solution will provide the emergency services with a tool which better serves their needs today and is scalable and extensible to tackle future scenarios.

The standard functionality includes access to a range of very high quality mapping, overlays and data feeds produced by UK national agencies such as the Met Office, Health and Safety Executive and Environment Agency. It also includes annotation tools to add information to the maps and tools to interrogate information such as the ability to view and export addresses within given areas. The overall package provides access to the best planning data available in the UK and combines it with tools to allow specific contingencies to be planned and shared.

Examples of new functionality include:

Grids: Grids can be created and added to the map. This is useful for many types of contingency plans, but also means that, in seconds, responders can create and share search grids for finding missing people.

Kopter, the Swiss helicopter company planning to house its North American headquarters in Lafayette, has received approval for test flights of the latest prototype of the SH09 helicopter on the island of Sicily in Italy.
The Lafayette facility will produce the SH09 for the North American market. The test flights, done in Italy, were halted due to COVID-19. During the three-month period without flying, Kopter maintained some operations and engineering continued working on the upgrades for the third prototype and preparing for the fourth prototype.

The UK Civil Air Patrol, 'the volunteers in the air', responded positively to a request from the British Divers Marine Life Rescue (BDMLR) to transport Cetacean Satellite Tagging Kits to locations in the UK, close to 'hotspots' where whales, dolphins and porpoises are known to beach and to endanger themselves. When one of these magnificent mammals is saved it’s tagged before being returned to the sea.

BDMLR national coordinator, Julie Cable said, “Once a veterinary surgeon attaches a tag to the dorsal fin we can follow the animal over subsequent days and weeks to track their progress and, most importantly, to make sure that they haven’t re-stranded elsewhere. We were very excited when we heard that the UK Civil Air Patrol could help us by transporting this valuable equipment throughout the UK.”

Four of a total of eight tracking kits were transported from Perranporth in Cornwall to Turweston in Buckinghamshire from where they will be flown to Newcastle, Perth and Inverness. Once the distribution is complete there will be two kits in Cornwall, one in Devon, one in Newcastle, one in Perth, one in Inverness, one in Moray and spare kit at the BDMLR HQ in Uckfield in East Sussex.

The pilot for the flight from Perranporth to Turweston was Carl Beardmore, a former technician with the RAF who served mostly on the Nimrod, at RAF St Mawgan in Cornwall. Carl then joined the Royal National Lifeboat Institution in 1992. At Newquay he was a helm on inshore lifeboats, including the very fast Atlantic 75. He then moved to Falmouth where he crewed on the Arun class offshore lifeboat before being promoted to navigator and then coxswain on the larger Severn class. During his lifeboat service he has been both a trainer and an examiner. He is now a senior assessor and trainer in England with responsibility, together with a team of eleven, for 119 of the RNLI's 238 lifeboat stations. He retains his 'hands on' lifeboat skills as a volunteer coxswain with the Falmouth offshore lifeboat.

After the flight Carl said, “After a lifetime in the air and at sea I was privileged and delighted to support the vital work of the BDMLR by delivering their satellite tracking kits to Turweston on the first leg of their distribution throughout England and Scotland.”
In addition to the transportation of tagging kits, the UK Civil Air Patrol has continued to work with British Blood Bikes, to complete its most ambitious NHS ‘pony express’ delivery flight during the COVID-19 pandemic. The operation involved two aircraft and three individual blood bike groups. This combined operation followed a request by the Birmingham Medical School to deliver two packages of unique time critical drugs to hospitals in Plymouth and Bournemouth.

After weighing up all the options it was agreed that the drugs would be delivered from the Birmingham Medical School to Halfpenny Green airfield at Wolverhampton by the Midland Freewheelers. Both time critical packages were then flown by Civil Air Patrol pilot, John Royce in a Piper PA-28 Cherokee directly to Dunkeswell airfield in Devon where one package was collected by Civil Air Patrol pilot, Anthony Draper who flew it by helicopter, in an MD 500, to a private landing ground at Plymouth. It was then delivered to the Derriford Hospital by the South West Blood Bikes.

At the same time, John Royce continued his flight from Dunkeswell to Bournemouth Airport where, with support of CAP member Steve Griggs and Bliss Aviation, the second package of time critical drugs was collect by the SERV Wessex Blood Runners rider, Phil Taylor, for delivery to the Royal Bournemouth Hospital. This long distance relay, using a combination of aircraft and despatch riders shortened the journey time by many hours and, at the same time, permitted the individual Blood Bike groups to remain ‘in area’ and available to support their local NHS Trusts.

The time critical drugs were collected in Birmingham at 08:15 hours, delivered to the Derriford Hospital in Plymouth at 11:35 hours and delivered to the Royal Bournemouth Hospital at 11:50 hours.

After the flight the pilot of the Piper Cherokee, John Royce said, “Everything went like clockwork, everyone was at the right place at the right time and from start to finish the whole operation took just 3 hours and 35 minutes!”
ACCIDENTS AND INCIDENTS

6 February 2020 Airbus Helicopters AS350B3 C-GMPN and Aeryon Systems FLIR SkyRanger R60 Drone. Royal Canadian Mounted Police. A collision between a manned police helicopter and an unmanned police drone operating together in the dark over rural terrain in British Columbia. Operational scenario at a demonstration against pipelines. The helicopter containing three personnel made a precautionary landing with significant damage from the collision. The drone was destroyed. The details are mundane but they do paint a picture of the perils of putting manned and unmanned aircraft in close proximity even when they’re playing for the same operator. The drone was one of two involved in a “policing activities” with the helicopter about 24nm from the small city of Houston in central B.C. The helicopter and drone came together at about 300 feet AGL. After obliterating the drone, the helicopter exhibited a brief vibration and the pilot headed for a clear spot on a road below. Maintenance staff found damage primarily to the main rotor blades along with superficial damage on the tail boom and tail rotor. It was later removed by airlift using a Puma. Drone list price is about $100,000. (Cadors 2020P0775/ASN)

8 June 2020 Dornier 228-212 PH-CGN. Kustwacht (Netherlands Coast Guard). Aircraft on a training flight from Amsterdam-Schiphol International Airport to Eindhoven Airport. On landing at the latter a right main landing gear tyre burst. The airport was be closed the rest of the day for investigation and recovery by crane. No injuries reported. [ASN/photoSmR]

13 June 2020 Agusta Westland AW119 Mark II Koala 5Y-NPW Kenya Police. The helicopter crashed in a banana plantation in the Kaithe-Kithoka area, Meru on a survey flight to Sololo, Marsabit. Injured occupants were taken to a hospital. It is reported that an officer on board was headed for a joint security meeting with North Eastern counterparts. At least six people were injured after the helicopter came down onto its right side. There was no fire.

SAFETY

In a change to the EASA rules there is now an general exemption for any helicopter flying on a Helicopter Emergency Medical Service (HEMS) flight in accordance with Commission Regulation (EU) No. 965/2012 (‘the Air Operations Regulation’) from the requirements of the Standardised European Rules of the Air (SERA) with regards to minimum heights and Visual Flight Rules. The document has been re-issued to enable HEMS operations to be conducted without helmets during the transport of COVID-19 suspected cases.

Several US senators have introduced the Helicopter Safety Act, a bill to require terrain awareness and warning systems and crash-resistant flight data and voice recorders on all helicopters that carry six or more passengers. Since 2006, the National Transportation Safety Board has issued and re-issued recommendations urging this safety equipment be mandatory on helicopters. Yet, the FAA only requires certain helicopters, such as air ambulances, to carry it.

In enacted, the Helicopter Safety Act of 2020 will finally direct the FAA to require these safety features for passenger helicopters to reduce tragedies.

The ‘make it happen’ pressure for the flight safety features was brought about by the death of a well-known US sports personality immediately prior to this years HAI Heli-Expo on January 26, 2020. An S-76
helicopter carrying Kobe Bryant and eight other passengers crashed in Calabasas, California killing everyone aboard. A preliminary report from the NTSB found that the helicopter was flying in foggy weather and was not equipped with terrain awareness technology.

**UNMANNED**

Within days of the last issue of PAN appearing with an advert for the sixth edition of Commercial UAV Expo Americas to be held at Paris in Las Vegas the organisers announced that the event was to be held as a virtual event.

The same organisers had already decided that Commercial UAV Expo Europe was also going virtual.

Neva Aerospace specialises in industrial drones that use electric ducted fans rather than rotors to produce “safety-first, collision-tolerant” aircraft systems that lack freestanding, potentially dangerous blades. The Brighton, England–based company, whose drones can carry loads from 2 kg (4.4 lb.) to 2 metric tons (2.2 tons), was founded in 2013.

Neva offers a variety of products, including electric turbofans, cargo turbodrones, industrial cargo and maintenance drones, and heavy industrial cargo drones.

**Athena Series** electric turbofans, which are optimized for static thrust and vertical takeoff and landing (VTOL). The turbofans’ housings are designed to boost thrust without adding weight.

**Wohler** cargo turbodrones, designed for small deliveries (2 kg to 30 kg, or 4.4 lb. to 66 lb.). The all-weather drone is capable of 30-minute flight times and a top speed of 60 kph (37 mph). It’s suitable for firefighting, chemical spraying, construction, and cargo infrastructure replacement.

**Vlinder** industrial cargo and maintenance drones, which feature a payload of 10 kg to 50 kg (22 lb. to 110 lb.) and are capable of high-precision, outdoor and indoor flight.

**Air Quad One** heavy industrial cargo drones, used for cargo, air ambulances, air taxis, and precision air racing. The product can carry 100 kg to 500 kg (220 lb. to 1,102 lb.), is suitable for manned or unmanned operation, and is engineered to be safe for people, animals, and vehicles.

The police in Sussex has paid out £200,000 over the arrest of a couple falsely accused of causing chaos at Gatwick Airport with a drone.

Armed officers stormed the home of Paul and Elaine Gait in December 2018, and held them for 36 hours after drones caused the airport to close repeatedly.

The couple were released without charge, and sued Sussex Police for wrongful arrest and false imprisonment.

The Gait’s legal team said the force had agreed an out-of-court settlement which Sussex Police confirm as £55,000 in damages, plus meeting £145,000 legal costs.

Twelve armed officers swooped on Mr and Mrs Gait's home, even though they did not possess any drones and had been at work during the reported sightings.

The force commissioned a “thorough independent review” of the drone incident last year.

During this 96 people of interest were identified, researched and ruled out. The cost of that review is said to be £790,000. No-one was ever prosecuted for the disruption.

**Ed:** This was a very expensive incident for the airport and airlines in which even the local air ambulance helicopter approaching the airport was declared to be hostile and briefly targeted by the security services. Furthermore it has been suggested that some of the alerts were tripped by police drones. All of which blows a massive hole in the pre-supposition that the use of drones by police is always an economic proposition.

Honeywell has begun in-flight testing of sensors that will guide urban air mobility (UAM) vehicles to land without pilot intervention. Aircraft involved in the testing are outfitted with Honeywell sensors and include cameras that analyse visual markings resembling QR codes, which help guide the vehicle to a designated landing spot. This is a key first step for the future of flight as Honeywell adds sensors that support safer, autonomous urban air mobility operations.

Testing of these sensors is currently underway to gather data and refine their capabilities to support future autonomous landing capabilities. Data collection was compiled in Arizona using Honeywell’s AS350 helicopter, and additional testing is planned in collaboration with Honeywell’s partners. This milestone in test-
ing furthers the initiative to achieve cleaner, safer and smarter aircraft and signals important progress to the goal.

As testing and data collection move from proof-of-concept prototypes to reality, there are benefits to improving navigation and implementing features such as automatic landing. With more automatic features and processes, pilot workloads will ease and critical manoeuvres during intense phases of flight will become easier and safer. Operations may also benefit from the strategic use of autonomous landing, making vehicle throughput more predictable and reducing turnaround time. Passengers ultimately can benefit from the improved reliability, safety and comfort of smoother autonomous landing practices along with more reliable transportation schedules.

Honeywell’s data collection work will continue for the rest of 2020, with the demonstration of fully automated landings taking place within roughly the next 12 months. When fully developed and tested, these solutions will be the latest addition to Honeywell’s rapidly expanding UAM product portfolio. Honeywell offers certification expertise as well as hardware and software technologies to support the UAM space, including its next-generation AHRS (attitude and heading reference systems), compact fly-by-wire system, RDR-84K radar and hybrid-electric turbo generators.

Ed: Nothing to do with Honeywell, but twice this month I wrote to the press office of BAE to enquire what the current status of the ‘sense and avoid’ Jetstream test airframe was. Neither enquiry received a reply. As far as I am aware there have been no reports on this ‘leading edge’ programme for about 2-3 years now

MOVE ALONG THERE

In Thailand a senior officer of the Tourism Police Bureau has been transferred to headquarters pending investigation after landing his helicopter inside the compound of a famous temple.

The Tourism Police chief moved Police Major General Krissak Songmoolnak, chief of the Tourist Police Division 3 based in Phuket, to the Bangkok head office. The transfer was made to clear the way for an investigation into his decision to allow a Bell 429 helicopter carrying himself and other passengers to land at Wat Chedi in Sichol district in early June. A damning photo of the helicopter parked on the ground inside the temple grounds was posted on the Watchdog Facebook account.

The temple is revered by worshippers and he should have found a better landing place and then continued to the temple by car, the order said.

It is said that he was there to make an offering to the statue of Ai Khai, a boy respected by visitors to the temple. On its part the temple responded on its Facebook account, saying the police chief was at the temple to monitor safety measures to prevent the spread of Covid-19. Meanwhile the Tourist Police Division 3 posted a Facebook message asking that its boss be treated fairly.

Presidents and helicopters. By now the US President should have been flying around in an EH-101 based helicopter but that was cancelled because it could not carry the loads expected [and was European] so they opted for a smaller type based on the S-92 which amazingly seems to be able to carry the loads! Closing in on its 2021 entry to service as the US presidential helicopter, the new Sikorsky VH-92 still has trouble landing at the White House without scorching the manicured lawn, according to a federal government watchdog report.

The US Navy plans to purchase 23 VH-92As to replace the Marine Corps’ current fleet of VH-3D and VH-60N aircraft that fly the president, president’s entourage and other VIPs on short trips, typically around the Washington, D.C. region. The issue with the aircraft damaging the White House lawn was noted in 2018 but no fix has yet been found. ([OT&E]).

During an update on the investigation into the fate of flight PK8303 in Pakistan some disturbing facts have emerged. The Pakistan International Airlines Airbus A320 flight crashed after a missed approach on May 22 in which the airliner landed wheels up, went around with badly damaged engines and crashed in a residential area. There was no apparent aircraft technical failure. The aviation minister has now announced that up to 262 of the 860 pilots in Pakistan may have cheated on the license exam by having someone else take the exam. In response, PIA has grounded 150 of its pilots and initiated firing procedures against them. Other airlines in the region are also affected.

Unfortunately it is all too often a case in the case of car drivers taking the test for others and that is why most nations have licences with images and other identification clues. Clearly if more than 25% of the pilots in PIA are allegedly affected there must be a wider issue. Be careful who you hire.
NOT IN MY NAME

“Police officers must be apolitical, impartial and accountable for their actions. If not, how and what we police will become subject to political whim and electioneering. The operational independence of our police service comes with the Office of Constable” [The Police Federation of England and Wales]

We all have our political and lifestyle inclinations, but they should necessarily be switched off as soon as the uniform of constable is worn. I know for a fact that if any of my colleagues of 1965-95 were to be seen to show any political inclinations we would be facing at least suspension and loss of pay. We could expect to lose our jobs. And yet this recent embarrassing action in London was fully supported by members of the National Police Chiefs Council the very body that might seek to judge and sack any officers erroneously showing favour to and body.

PAvCon FUTURE

There will be no event this year but PAvCon is talking to the organisers of the 10-12 November 2020 European Rotors event scheduled to be held in Cologne, Germany with a view to inserting a ‘mini PAvCon’ half day conference feature into the show. This may provide the first opportunity for an international meeting place this year. The format will be a little different but it is intended that serving police officer delegates will as always be afforded free entry.

It may be that borders will remain closed to foreign travellers even then (five months away) but with a bit of pre-planning in place it may work out as we learn more about the longevity of the COVID-19.

www.europeanrotors.eu

EUROPEAN ROTORS is set to operate from November 10 – 12, in Cologne, Germany).

The aim of this high-level industry event is to set a new standard of networking, discussing and developing the skills of the rotorcraft community incorporating the challenges the industry is facing due to Covid-19. The concept envisions a unique conference, training and workshop agenda alongside the trade show, in order to offer visitors strong insights. One of the highlights of the event is the well-established Rotorcraft and VTOL Symposium, held by the European Union Aviation Safety Agency (EASA). The symposium is developed to be the premier platform for European helicopter operators and the industry to jointly discuss current and future challenges with the European regulator. The integration into European Rotors will allow EASA to expand its audience welcome and reach out to new entities within the rotorcraft industry. The call for papers of potential presenters has already started and registrations are open.

The Conference Programme is focusing on Flight Safety, Innovation, Covid-19 impact and recovery assessment alongside overviews on the latest developments, products and best practices of the rotorcraft sector: Airbus, Bell, Leonardo and others will share news and important information during dedicated customer briefings.

For the first time in Europe, visitors can take the opportunity of joining an aviation trade show and booking training courses with certificates handed out after completion. Highly renowned organisations, such as Aerossurance, AECA, Leocopter and EASA, will offer a great bandwidth of subjects for pilots, engineers, and technicians. The topics include, but are not limited to, firefighting, data management, and human factors.

“We are really proud to offer this comprehensive conference programme. Especially the opportunity to profit from educational lessons done by high class professionals is unique in Europe,” says Dr. Frank Lemandt, Show Director of EUROPEAN ROTORS. “Having this variety of conference topics confirmed at such an early stage shows the high interest of the entire rotorcraft community and the declared will to engage,” ads Tobias Bretzel, Project Manager of the show.
CANCELLED
If the organisers of European Rotors thought their event was sure to take place it probably took a knock when they learned that this year’s Helicopter Association of Canada Convention, an event set to mark 25 years for HAC, was cancelled. The annual opportunity to meet with suppliers and hold discussions around the business of helicopter operations, and safety in the industry was due to be run the week before European Rotors in Vancouver, November 5-7 2020.
This cancellation is of course set with a different, stricter, background of Canada. The Premier of British Columbia and the BC Minister of Health virtually ban large gatherings of people for the foreseeable future. Current health-related international travel restrictions and the uncertain economic climate in the helicopter industry have made any travel-related decisions difficult for operators and exhibitors. The decision to cancel was made after careful consideration by the Board, and following discussions with key member-companies, and host venues.
In November of 2020, HAC will still be holding its Annual General Meeting (in a format, to be discussed) and some limited presentation-programming. The next full event will go ahead as HAC 2021 in Vancouver BC November 4-6.

The Jakarta International Expo Kemayoran, Indonesia set for November 4-7, 2020 is also cancelled and moved forward to April 7-10, 2021. The bi-annual event incorporates Indo Defence, Indo Aerospace and Indo Marine and was to be held at the same venue now set for next year - Jakarta International Expo (JIExpo) Kemayoran, Jakarta - Indonesia. www.napindo.com

MUTED
Commercial UAV Expo Americas and Commercial UAV Expo Europe will both become virtual events in 2020. Producer DivCom’s extensive resources and best-practices implementation will ensure that these are the absolute highest quality virtual events on the planet, while acknowledging that virtual events cannot replace many aspects of live events.

THE JURY IS OUT
It is now only two months until the Nineteen Group are hoping to run their cancelled and reset exhibitions and conferences held over from April.
Late September is the hope for a series of emergency services events that have been co-located at the National Exhibition Centre [NEC] Birmingham alongside its existing Emergency Services Show. Now the four co-located events - The Security Event, The Fire Safety Event, The Health and Safety Event and The Facilities Event are to move to the 22-23 September 2020.
All four events had already reached twice the size of last year and been receiving record-breaking pre-registration numbers, but the market has to settle and deal with unprecedented circumstances.
Free-of-charge passes now offer access to 5 industry leading events.
The Emergency Services Show: https://www.emergencyuk.com/
The Security Event: https://www.thesecurityevent.co.uk/welcome
The Fire Safety Event: https://www.firesafetyevent.com/
The Health & Safety Event: https://www.healthandsafetyevent.com/welcome
The Facilities Event: https://www.facilitiesevent.co.uk/
Free of charge parking is available for attendees registered for The Security Event, click the link to register now: https://www.thesecurityevent.co.uk/free-passes-new-date

NOVEMBER
4-6 November 2020 AMTC Atlanta, GA. Association of Air Medical Services [AAMS] Annual Conference and Exposition. Provides up-to-date information on the latest techniques and innovative approaches to air medical practice from community experts while giving attendees lots of opportunities to earn continuing education credits. Top-notch keynoters and expanded educational offerings (including mechanics technical briefings, special information exchanges, new clinical sessions, scientific abstracts and poster sessions). www.aams.org

2-4 November 2020 AAMS Nashville Tennessee. Association of Air Medical Services [AAMS] Annual Conference and Exposition. Provides up-to-date information on the latest techniques and innovative approaches to air medical practice from community experts while giving attendees lots of opportunities to earn continuing education credits. Top-notch keynoters and expanded educational offerings (including mechanics technical briefings, special information exchanges, new clinical sessions, scientific abstracts and poster sessions). www.aams.org
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