

# Police Aviation News

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Issue 307

November 2021

NEW SOUTH WALES

POLICE FORCE

**BELL 429 MAKING ITS MARK DOWNUNDER  
CAYMAN ISLANDS RESOLVE PILOTAGE  
LOWER SAXONY AT 50**

**ITALIAN STATE POLICE MARK 5 DECADES   
MIGRANTS GRAB THE HEADLINES  
HELITECH 2021 REPORT**



# LAW ENFORCEMENT

## AUSTRALIA

**NEW SOUTH WALES:** Thanks in part to the vagaries of the pandemic they have already been serving the people of New South Wales for months – they were delivered late in 2020 – but finally time has been found to hold an official launch ceremony in Sydney for the new fleet of Bell 429s for the police.

On October 26 the NSW Police Force commissioned a trio of Bell 429 helicopters, PolAir 1 VH-PHW, PolAir 3 VH-PHB and PolAir 4 VH-PHM which serve in a number of missions.

The helicopters carry the latest technology in airborne law enforcement, including a Trakka searchlight, Teledyne FLIR HDc 380 camera system, advanced mapping systems, tactical radios, and a rescue hoist winch. The helicopters were funded by the \$50m Future Light Helicopter Programme.

The NSW Premier Dominic Perrottet and the Minister for Police and Emergency Services David Elliott today joined NSWPF Commissioner Mick Fuller and Aviation Commander Superintendent Brad Monk at the Aviation Command to unveil the new aircraft.

By now using only two types of helicopters (the Bell 429 and Bell 412), the unit has standardised the fleet making it more cost-efficient to operate and easier to maintain. The Bells replace the aging fleet of helicopters, including AS350 single-engine Squirrel, AS355 twin-engine Squirrel (both operational since the 90s), as well as a twin-engine EC135 (operational since 2012).

The updated fleet operational across an area of approximately 800,000 square consists of five helicopters and three fixed-wing aircraft: PolAir 1 (Bell 429), PolAir 2 (Bell 412); PolAir 3 (Bell 429); PolAir 4 (Bell 429); PolAir5 (Bell 412); PolAir 6 (Cessna Caravan); PolAir 7 (Cessna Caravan) and PolAir8 (Cessna Caravan).

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*It may be seen as the empty words of a politician, but when the Premier of NSW expressed those words at the Bell 429 official delivery event that injected \$50M into police aviation it was against the background of UK media stories that the UK Government were considering bringing in an Australian police officer to replace Police Commissioner Cressida Dick. Even if it does not happen it underlines the sense of exasperation felt in the UK government that the current crop of NPCC hopefuls is simply not impressing those that might select them.*

**COVER IMAGE:** New South Wales Police Air Wing Bell 429 equipped with a Teledyne FLIR HDc 380 sensor turret, locally sourced Trakka searchlight and public address speakers at the units base near Sydney, Australia. The helicopters arrived last year, various pandemic related lock downs having delayed the gathering for the official launch for nearly a year. A sign of the times. (screen grab from a video released by the NSW to record the event on 26/10/2021)

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

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**VICTORIA**

Elsewhere in Australia , former Chief Pilot with the Victoria Police Air Wing (VPAW) was securing a new home for one of the first helicopters operated by VPAWi. Thanks to his efforts the SA365C has a new home at the Moorabbin Airport Museum.. [Screen grab Channel7]

**BANGLADESH**

**POLICE:** At the 28th meeting of the Cabinet Committee on Economic Affairs (CCEA) this year held virtually with Finance Minister AHM Mustafa Kamal in the chair. The government has decided to procure two Mi-171A2 helicopters for Bangladesh Police from Russia on Government-to-Government basis to enhance further the capacity of this law enforcement agency. They currently have two Bell 407 helicopters acquired nine years ago.

Mi-171A2 is a medium-class civil passenger transport helicopter developed by Mil Moscow Helicopter Plant, a subsidiary of Rus-



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sian Helicopters. It features upgraded main rotor and gear systems, as well as fuselage and propulsion systems.

## CAYMAN ISLANDS

**POLICE SERVICE:** Global aviation specialists, HeliSpeed has been awarded the contract to support The Royal Cayman Island Police Service (RCIPS). The new partnership will boost Cayman’s capability in search and rescue, law enforcement and border protection operations. HeliSpeed is an aviation supplier that operates worldwide, with a growing network of over 2,500 aviation professionals.

HeliSpeed will provide pilots trained in operating the H145 model, to support Cayman’s operations in security, public safety, border control and SAR in territorial waters.

The RCIPS has long struggled in getting enough pilots – and in particular short-term cover – since the beginning. The two aircraft operation exacerbated the situation

With ongoing support from HeliSpeed, The RCIPS will be able to increase its capacity to carry out its own operations, supporting disaster relief efforts, and other Overseas Territories during times of crisis.

Steve Fitzgerald, Head of Air Operations at Royal Cayman Island Police Service, said: “This partnership with HeliSpeed and their access to a large group of aviation professionals will allow for immediate cover at critical times and allow for leave cover for continuity of operations on both H145 helicopters”

## CHINA

**HONG KONG:** The Government Flying Service (GFS) company, responsible for the air rescue service in Hong Kong, and the Logistics Department (GLD) of this Government have selected Indra, one of the main global technology and consulting companies, as supplier of the Simulator of Flight and Mission of the H175 Helicopter.



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The selection was after an open competition among the main companies in the sector. The system has been developed to facilitate top-level mission training. The pilot is immersed in a virtual world in which authentic scenarios and situations are faithfully reproduced. The use of simulators accelerates and improves pilot training, reinforces safety and contributes to extending the life cycle of aircraft, reducing breakdowns and reserving their use for real operations. It also reduces unnecessary fuel costs and CO2 emissions.

## GERMANY

**NIEDERSACHSEN:** The state police air unit operating over Hannover is 50 years old this year. The Police Helicopter Squadron of Lower Saxony is based at two locations. In addition to Hanover as the main location, there is also a base in Rastede/Oldenburg.

The Polizeihubschrauber operation started in July 1971 flying Sud Alouette II helicopters D-HOPI and D-HOPK before moving on to progressively operate the larger Alouette III, Aerospatiale SA365C, SA341 Gazelle, currently they operate two examples of the MD Helicopters MD900 and two Airbus EC135P2+.



Aerospatiale SA365 ©MMau

## GHANA

**POLICE SERVICE:** The Ghana Police Service will take delivery of three helicopters in November. The latest report identified the helicopters as being two Aerospatiale 341 Gazelle light attack singles and an Airbus AS350.

According to information from the office of the President, Nana Addo Dankwa Akufo-Addo, hangars for the helicopters have been erected at the National Police Training School in Tessano, Accra. Six officers have completed pilot training courses in South Africa.

The announcement was made on October 1 during a graduation ceremony of the 50th Cadet Officers course at the Accra facility. The country is in the throes of a massive increase in police strength with thousands of additional officers being sought.

According to the report the setting up of the air wing is part of a general build-up of resources for the police that has included sourcing several patrol boats and some 568 motor vehicles, including 15 buses and light armoured vehicles, since 2017. Other additions to the security of the country have been boosting the 800 CCTV installations in-country to in excess of 6,500, with 3000 being added in the coming year. [Ghana Web]

*Editor: In the past few years there have been several reports relating to the acquisition of an air arm for the Ghana Police. Impending delivery may yet be an illusion.*

*In 2013 there was a police helipad in Accra and a military helicopter was seen to be carrying police personnel. In 2017 when the present President arrived making promises things looked to change. In 2019 there were reports that the hangar was being built, in 2020 the news that three helicopters were coming to operate from the hangar. In May of this year the air wing was finally announced and now, five months later, they have been identified by type.*

*There is no current intelligence on where these three airframes originate from. They are not new and have not yet been noted in Ghana.*

## INDIA

**KERALA:** Operational patrol aircraft in India are as rare as hens' teeth. At the moment nearly all flying relates to flying VIPs around.

The Indian state of Kerala has recently issued a new tender for a light twin helicopter. Primarily for state VIP travel, other tasks may include medical evacuation. The tender will be managed by the police.

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They are offering a three-year contract with a potential two-year extension, and the expectation of at least 20 flight hours per month. The requirements seek a twin-engine IFR helicopter capable of carrying six people, and the helicopter must not be more than 15 years old, operated by an approved AOC operator. A backup helicopter of the same type must also be available to cover maintenance down time. Desired features include TCAS, EGPWS and satellite tracking, and the operator is expected to demonstrate continuous CRM (Crew Resource Management) training is in place. Despite previous criticism raised against the level of spending, Anil Kant, the Director General of Police, has initiated a new tender process for operations from Trivandrum International Airport. Tenders were issued on 7th October for submission no later than 22nd November, with bids being reviewed on 25th November. Once the results are announced, the winning operator will need to have their helicopter ready to commence flying 15 days after contracts are signed.

Kerala Police have previously contracted with Pawan Hans, who supplied a Dauphin up to the middle of 2021. Parapex Media suggests that the only other potential bidders are Heligo Charters, OSS Air Management and Global Vectra. Only some of Pawan Hans AS365N3 fleet meet the age criteria, while the earlier 365N3s and standard 365N models do not. [Mathrubhumi/APSA/Helihub]

## ITALY

**STATE POLICE:** The Italian State Police Air Service has celebrated its 50<sup>th</sup> anniversary. Using both fixed and rotary wing aircraft since 1971 the operation has provided support from above in a range of emergency situations.

The flight operation was established at the Pratica di Mare airport, near Rome, since then another ten bases have been created on the national territory,

Marking the anniversary, the head of the Police Lamberto Giannini spoke to a gathering in the briefing room of the Flight Department in Pratica di Mare, a room dedicated to the memory of the first manager Giovanni Liguori and the chief inspector Eliano Falivene who on October 16, 2007, lost their lives in the vicinity of Pomezia, south of Rome, in a Agusta-Bell AB206 helicopter accident during a training flight.

Their deaths were remembered by the words of Mrs. Fortuna Pappalardo, wife of Inspector Falivene and Mrs. Viviana Liguori, granddaughter of Giovanni Liguori. The ceremony also included Lamberto Giannini unveiling a plaque dedicated to the two pilots, it was then duly blessed by Don Antonio Raaidy, chaplain of the State Police.

*Editor: There is a connection with the memorial plaque ceremony, this publication and the PAVCon Europe police aviation conference. In 2007 Giovanni Liguori, was scheduled to speak at the Shephard Police Aviation conference set for The Hague, Netherlands in November that year. At that time the Editor was employed by the Shephard Group to arrange the speakers for the events that, in 2009, morphed into what we now know as PAVCon.*



P68 light twin at Milan ©PAR



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# SPAIN

**NATIONAL:** The Chinese eVTOL developer EHang has announced an agreement with the Spanish National Police to collaborate in exploring the potential for autonomous aerial vehicles (AAVs) in emergency and security missions, including rescue and surveillance.

The Spanish National Police's air vehicles unit will explore potential uses for EHang's eVTOL technology across a range of police services. The announcement, made during Press Day of the World Air Traffic Management Congress at the Cuatro Vientos Aerodrome in Madrid.

Under the agreement, to which the Polytechnic University of Valencia (UPV) will also be a party, EHang and the Spanish National Police will undertake trial flights and case analysis to study the potential of AAV technology to make police operations safer and more effective.

*Ed: I suspect that many serious aviators both in and out of Spain will be suitably cringing at the whole prospect. Few will have expected that policing would return to an era where serious and efficient air patrol would be entrusted to a craft the size of a Robinson R22. Argentina did that basic air patrol thing many years ago with the R22 - but not for long.*







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## UNITED KINGDOM

LONDON: I missed carrying the NPAS September 22 announcement on the transfer of the EC145s from North Weald to Lippitts Hill last month, here for completeness is the edited text of that announcement.

“At the request of the Metropolitan Police Service, the National Police Air Service has re-established a helicopter base at Lippitts Hill, Epping Forest, Essex.

“NPAS crews, working with four EC145 helicopters, will operate 24-hours, seven days a week, from the newly-refurbished base, to support the policing of London.

“The 34-strong team includes pilots, Tactical Flight Officers and Base Managers.

“For the last two years, the capital has been served primarily from the NPAS base at North Weald, Essex – although as a national service, aircraft can be deployed from anywhere across England and Wales when called upon to do so.

“NPAS has retained its base at North Weald and crews from there continue to serve the East and Southeast of England, alongside colleagues based in Redhill, Surrey and Benson, Oxfordshire.

“The re-instatement of the Lippitts Hill base brings NPAS’s total number of bases to 15, with a current total fleet of 19 helicopters and four aeroplanes.”



Lippitts Hill revisited ©NPAS London

Lippitts Hill is again NPAS London, there is no current intention to place it directly under the control of the Metropolitan Police, although circumstances may eventually require that.

### BLACK OUT

Police Aviation News does not receive news releases or reports from such as NPAS, NPCC or police services in the UK. Occasionally items are missed. Other less controversial means of publication, including such as Police Oracle and suitable tame local newspapers, may receive these public information messages but you will undoubtedly have to pay significant amounts for access to what are supposedly free public service words and/or give up private personal information to see them.

Elsewhere there has been a minor critique of my uninformed take on the situation relating to the appetite of industry to take on the wider NPAS contracts.

One important industry insider believes that my take on the negative vibes of the situation is slightly in error. The situation was that BlueLight Commercial commissioned SmartCube to do an assessment of industry capacity and balance sheets etc. and they arrived at the conclusion that, in a post-Covid world, it was too high risk. As a result of that guidance the decision was taken for the Metropolitan Police [London/ Lippitts Hill] outsourcing to be done as a ‘pilot’ location to explore possible outsourcing for England and Wales.

It is suggested that there is both appetite and capacity to go for supporting the wider and significantly more expensive ‘whole NPAS’ contract but, as I suggested, only if a long-term host for NPAS can be found.

The opinion, and there is probably another dozen more out there, does bring us back to my own general opinion that the lack of movement towards settling on an identifiable lead group to replace West Yorkshire Police will probably halt any good will among industry in its tracks.







### DAY AT THE RACES

During last month the appetite of industry to engage with NPAS was tested by a restricted entry Blue Light Commercial market engagement day held at Cheltenham Racecourse. The event on October 13 aimed to meet individual industry groups to talk through potential proposals for the future of NPAS.

So far, no document has been issued by NPAS setting out their position in the ongoing future form process which may hamper the understanding of industry attending the Cheltenham event.

Nonetheless at the end of the day Scott Gallagher MBE the Head of Projects at NPAS was able to report via Linked In that they had a productive day with 26 suppliers to lead up to the intention to issue a specification in December.

### RING MY BELL

On October 10 Bell brought a law enforcement configured Bell 429 from the Prague factory to the Babcock Mission Critical Services UK Ltd., facility in Staverton. The Bell 429 C-FNFO performed several demonstration flights of 20 to 40 minutes in the following days fully supported by the Bell special missions' sales team.

As far back as the summer of 2008 what was then Bond Helicopter was linked to the Bell 429. The AirMed event at Prague in that year included a bright red 429 widely assumed to be the first for Bond. It was not to be but now, more than a decade on, Bell and Babcock are playing 'buy me.' Will it happen this time?

In the past comment has been made by prospective customers that they, the customers, do not like the Bell proposal that the airframe was to be completed at the Prague facility. Most 429 aircraft in Europe have bowed to this requirement but unless the 'customer' preference has eased there may continue to be issues if this edict remains in place. Babcock are of course well regarded for their law enforcement completions and upgrades of Police Scotland, NPAS and Netherlands police fleets.

*Editor: All too often the predisposition of modern police to contract out decision making is being found at fault. In recent weeks the dark side of a vicious killer policeman in London seems to have been overlooked in part because his selection was outsourced to private industry. And for decades now industry has been providing smart crime fighting and personnel organising computer systems that were supposed to allow police to detect and lower crime and return masses of police to front line policing. None of the magical promises took place but police continue to pay over masses of public funds to the creators of these magic boxes. Crime is up (or swept under the carpet) and police are invisible, seemingly tied up with paperwork to feed labour saving devices - the very computers that promised so much. What is the point of having supposedly clever university educated police when they cannot make a decision among themselves? The older generation, mostly retired now, had to make decisions on their feet on the street for decades simply to live long enough to retire. The decision maker new generation simply do not get the opportunity to experience real life on the streets - and maybe even get the chance to risk sudden death occasionally. There are constant calls to replace this police chief and that, but who or where is the replacement to be found? They appear to be all made in the same mould.*

*Last month the Daily Mail, admittedly not the most respected UK newspaper by senior police or politicians, reported that the Home Secretary Priti Patel was becoming disturbed at the quality of chief officers of police in the UK. It is claimed that part of the reason for not refusing the retention of Cressida Dick in the post of Metropolitan Police Commissioner was that*

*she could not see anyone suitable to replace her. She is alleged to have described senior ranks in London as 'tin eared' and 'defensive' when criticised. It has been further claimed that the NPCC appeared to be running their organisation in a manner that assumed that all the members took it in turns to take up the next choice ranking post rather than being selected on their true worth. Hence the threat to look to Australia for new bloodstock.*

CITY



NATIONAL: Congratulations due to the two-man NPAS team [Paul Watts and Pete Botchett] who presented the 'Future of police aviation in the UK' to a full house audience at the Helitech event in London's Docklands early in October. They managed to turn a pretty well-worn pigs' ear of a presentation into something not quite a silk purse on the basis of minimal information and a very dated video.

The presentation confirmed that two of the P68R fixed wing are to be sold off. This also leaves the 24/7 fixed wing coverage being promoted by NPAS not so long ago in tatters. The aircraft will operate a nighttime 12-hour shift mainly concentrated in the north-east of England.



Paul Watts (left) and Pete Botchett (right) present the corporate vision of the future to a crowded audience ©PAR



The two operational Vulcanair P68R of the NPAS fleet. ©NPAS NE

The ultimate future it seems is drones capable of operating Beyond Visual Line Of Sight (BVLOS) to replace the fixed wing fleet and eventually the rotary wing. The plan or desire is subject to the development of a type capable of operating Sense and Avoid [a reasonably priced commercial craft that so far has not been demonstrated as a done deal].

Unfortunately, the type preferred by the NPAS is not identified. On the face of it the type may be a fixed wing twin engine but as NPAS have recently gone on record stating that their customers, the police forces in the UK, have stated categorically that they do not want police aviation coverage delivered by fixed wing. Forgive me but that was a really stupid question to ask. What do they know about the delivery of ALE? Even the professionals struggle at times.

The RAF are about to take delivery of a nice thing with the comforting name Protector at a basic price around twice that of a new role equipped police helicopter. As a single it does not fit the police requirement.

The General Atomics Aeronautical Systems Protector RG Mk 1 (MQ-9B), as chosen by the RAF for the type the manufacturers marketed as the Sea Guardian comes across as a much cosier name than the earlier Reaper and Predator. However, it would not be cosy enough for the police. They would further smooth out the name and perhaps call it something tough but feminine – perhaps Cressida.

There is of course one option that already has twin engines, the Portuguese Tekever AR5, but it is doubtful that it is sophisticated enough, it cannot carry a decent EO/IR turret and does not have a long track record yet and it's a fixed wing twin that is operating BVLOS. At its current state of development – there are very few built and in service, so it is not fully certified for an over city loitering mission. In contrast it is seen as safe enough being employed over water at low level looking for would be migrants. See elsewhere in this edition for a report on how the AR5 lost both engines while returning from an over-sea mission.



Tekever AR5 ©Tekever



Another option is the Aeronautics Defense Dominator (right) an unmanned airframe based on the Diamond Aircraft DA-42 Twin Star fixed wing. Politically that would be difficult as the DA-42 was a type specifically passed over in favour of the Vulcanair P68R because of its low wing. A further potential problem is that it is an Israeli military project and that may have political and high-cost implications.



I still cannot get my head around one important type selection factor. If having a high wing fixed wing was so important in 2016 (apparently so the two observers originally proposed could look out of the window and use a superior peripheral vision as a search asset) how does that fit in with proposal for a BVLOS drone in the 2021 thinking? A drone has no windows and it arguably confined to looking on the world through a camera with a superb, but very restricted, view. Although the images can be recorded on-board and retrieved after landing the downlinked images are not of the same high quality as those being observed by a human TFO on the aircraft, all led by the option to simply look out of the window.

The plan relies upon NPAS experience in drones and the availability of a foolproof "Detect and Avoid" capability in the chosen craft. To date it would seem that NPAS experience has not been in operating any drones, merely observing those operated by others. It is difficult to square the deletion of two of the fixed wing aircraft with a clear statement made at Helitech that they hope to define an acceptable response time for BVLOS drones that might be similar to fixed wing response times. With the fixed wing now greatly reduced and confined to the north and east of England and Wales it might be construed that the feedback will be minimal.

**MARK ONE EYEBALL**

One thing is certain and that is that the human eye makes a far better observation tool than any EO device in daylight. That was the 2016 thinking anyway! So where did that go?



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There was talk of aerial surveillance, and how it has changed considerably in recent years. Not so long-ago divisions would put up a request for aerial images taken by the aircraft – usually on an SLR camera – for planning purposes but such requests are rare now. The availability of Google Earth instantly downloadable to provide potentially historical but otherwise good images covers most needs. Where an up to the minute image is required – perhaps at a site where redevelopment is taking place – a simple screen grab from the EO/IR camera will be sufficient. The recorded, in aircraft, image is far superior to the downlinked version in terms of quality and provides a high level of detail.

So, the days of the SLR camera, the swivelling crew seat and the photographer's harness are numbered in terms of a strict policing need. The only images that seem to have seen growth are those of the police operated PR footage achieved via a smart phone that feeds into Facebook, Twitter and Instagram accounts – the expensive SLR seems to be left to the specialist media and PR department camera operator.



**KENT:** According to a surprise story in a late September issue of the *Hawkinge Gazette* helicopter and light aircraft pilots will be Kent Police's eyes in the sky after a new Community Policing Volunteer (CPV) was launched in a fanfare that caught many by surprise.

Aviation CPVs will patrol the skies above the county of Kent and report back on what they see. This could be in relation to a variety of incidents on the ground including a search for a missing person, a traffic issue or helping to perform other specific functions in relation to a pre-planned operation.

The first recruits celebrated the launch of the new scheme at a passing-out ceremony held at Rochester Airport on September 21. The event was attended by Superintendent Jason Wenlock, Head of Kent Police's Citizens in Policing Department, and the Kent Police and Crime Commissioner Matthew Scott.



The new Aviation CPVs with (far right) Citizens in Policing coordinator PC Graham Cheyne and PCC Matthew Scott Photo: Kent Police



The Superintendent said 'We benefit so much from the many public-spirited individuals who give up their free time to support their police colleagues and help keep the people of Kent safe.

'Our CPV programme offers more roles than any other police force in the UK including those designed for volunteers who have their own horses, live by the coast, have a passion for protecting dogs or own a 4x4 vehicle. The Aviation CPV role is for those talented individuals who have access to a light aircraft or helicopter, and which will add real value to our day-to-day police work.

Candidate pilots must hold a private or commercial pilot licence appropriate to the type of aircraft they will fly – whether Group A, microlight, gyrocopter, helicopter or Group B. Anyone who is not a qualified pilot can still sign up by acting as an observer, partnering a CPV pilot and helping them to monitor incidents from the air.

The launch was well prepared and on the appointed day the Kent Police website set out all the details of the new creation – the Aviation CPVs – set to patrol the skies over Kent.

Officially the resources of Kent Police were deployed to support the effort, the police were offering training for both roles as a partnership between themselves and the voluntary organisation 'Air Search.' Air Search is an UK based voluntary organisation made up of Pilots, Observers and Ground Crew who donate their time and aircraft free of charge. Their primary function is to provide 'Eyes in the Sky' free of charge to help the emergency services and local authorities fulfil their humanitarian, statutory or community role.

Their website states that they work with the Police, Fire Service, Ambulance Service, HM Coastguard, Local Council Authorities, National Government departments, Resilience Forums, Lowland Search and Rescue Teams, Highways England, Maritime Coastguard Agency, Environment Agency, the RNLI, Network Rail and other multi-agency partners and voluntary organisations. They are clearly embedded in the local element of the local authority Resilience Organisation. They point out that they are not a primary emergency rescue service but could be considered a secondary responder under the Civil Contingencies Act 2004. Furthermore, they have a familiar looking badge that is not too far removed from organisations such as Sky Watch and the Civil Air Patrol.

Kent Police were at pains to point out that membership of Air Search allows individuals to help Kent Voluntary Services Emergency Group (KVSEG). This is a semi-uniformed role with no minimum hourly contribution. There is no fitness test or medical examination required for this role. Medical checks are completed through a self-assessment medical questionnaire.

*Editor: I have little doubt that it was all a massive accident. Kent Police thought that this was the best aviation story since they got involved in the doomed South Coast Project in 2009 and Air Search thought they had finally got through to the police hierarchy that they wanted to help out in policing and public safety in the same way as Special Constables, Mountain Rescue and the RNLI had been doing for years. There is no discernible difference and they subscribed to that.*

*Unfortunately, the senior police officers at the NPCC have long held contrasting views. Such a sensible and public-spirited cooperation is 'Verboten' not up for consideration at all. For years the NPCC have deflected the very thought and have been downright rude to the right minded, public spirited, proposals put forward by such as Sky Watch. Oh dear, and then along came a clone called Air Search. Despite two requests for comment last month, the NPCC have been very quiet on the subject. So perhaps after all these years it is acceptable to use volunteer pilots of Sky Watch and similar groups to undertake flights assisting police in their duties. Extricating the local PCCC from any embarrassment that might occur if they simply reversed the story is probably beyond the NPCC and they will have to find another way! This development by omission might signify to the officers in larger poorer areas, including Cumbria and North Yorkshire, that there is after all a cheaper system providing air support than the NPAS. For years these areas tried to use volunteer aviators, but they were pushed back by both ACPO and NPCC who abhorred the very idea. If they remain so negative on the subject, why has their press office gone into silent mode? A month on the press release issued by Kent Police launching the Air Search deal remains in place.*

*I hope they do not get their CPVs mixed up with their LDVs, or every open police station will be inundated with volunteers for the Home Guard air section!!!! We will fight them on the beaches.*



The Kent Police launch was fully and publicly supported by the local County of Kent Police and Crime Commissioner Matthew Scott. ©Kent Police

It seems that there are less issues with the other aviation antics of Kent Police, they operate drones.

In Kent, a total of 34 officers have been trained to use the force's drones in line with the law and in accordance with national policing approved professional practice. As of the end of September 2021, they have been deployed a total of 285 times this year which is more than the whole of 2020 when they were used 261 times.

So far this year, 73 deployments were to locate a suspect, 63 were to find missing people and 47 were to capture crime scenes. They were also used to help support the execution of 15 warrants, assist in planning for upcoming events and operations 64 times and help to find stolen property on seven occasions.

[Hawkinge Gazette]

## UNITED STATES

**CALIFORNIA:** California Highway Patrol [CHP] has assigned its latest Airbus Helicopters H125 to the Coachella Valley, the desert area around Palm Springs.

The 2021 build Airbus H125 c/n 8927 N988HP is the eleventh of the 15 helicopters CHP is replacing throughout the state. This one was built in the USA, registered in July and entered service last month.

It can travel straight at 180 miles per hour, has updated sensor technology thanks to its Teledyne FLIR 380 and features a rescue hoist.

Last year CHP said it conducted 97 rescue missions in the Coachella Valley region last year alone. The CHP helicopter will be able to remove the left-hand seat to enable a stretcher to fit and enable the transportation of victims directly to the hospital. It is intended that at least one of the helicopter pilots will always be a paramedic, and able to attend to someone in the event they need care. Last month the CHP aircrews in Thermal completed a 2.5-week training course with the intention of. After October 20 the helicopter will be put to use around the Coachella Valley.

In the middle of last month San Bernardino County Sheriff and Ontario Police Department got together for a training fly-in, an event sponsored by industry. [B

C Bowmar]



**MICHIGAN:** As the police in Flint MI have found to their cost, hiring in a helicopter for police use is not that straightforward when both the operator and the user have not got a history of working together. There have been several 'hiccups' in the process but Flint police are still hopeful of getting use of the helicopter by the end of October, but they had expressed similar hopes in August and September.

The as yet unidentified company the department has contracted the helicopter through is currently seeking additional insurance. In mid-October the police chief was hoping that the helicopter will be in the air by Devil's Night, which fell on October. 30, the day before Halloween.

City Council members approved a three-month lease on July 26 for the helicopter at a cost of \$304,050 as a surge in violence pushed the number of homicides to nearly 40 for the year. Since the funding was passed by council, the number of homicides in the city has risen to 54. The money must be spent before the end of the city's fiscal year, which ends June 30, 2022. Going into the winter months, there is often a reduction in violent crime, so the plan remains to use the helicopter for six weeks in 2021 and seven weeks in the first part of 2022 depending on weather and crime trends. [mive]



NEBRASKA: The State Patrol has signed for a Bell 505. The Bell 505 will join a Bell 407 to aid in daily public safety missions including search and rescue, surveillance, photography, criminal pursuits and apprehension, as well as natural disaster response.

The Nebraska State Patrol began their Aviation Support Unit in 1970 with a Bell 206B Jet Ranger. In 1979, the Patrol purchased a Bell 206BIII Jet Ranger and the following year acquired three Cessna 182RG's. Over a period of nearly 30 years these aircraft flew a combined 40,000 flight hours serving the citizens of Nebraska.

Today, the agency's aircraft operate almost daily in the interest of public safety. The Aviation Support Division (ASD) will operate a Bell 505, a Bell 407 helicopter, three Cessna T206H Turbo Stationair fixed-wing aircraft, and a Piper Super Cub, and provide support to any law enforcement agency in the state.

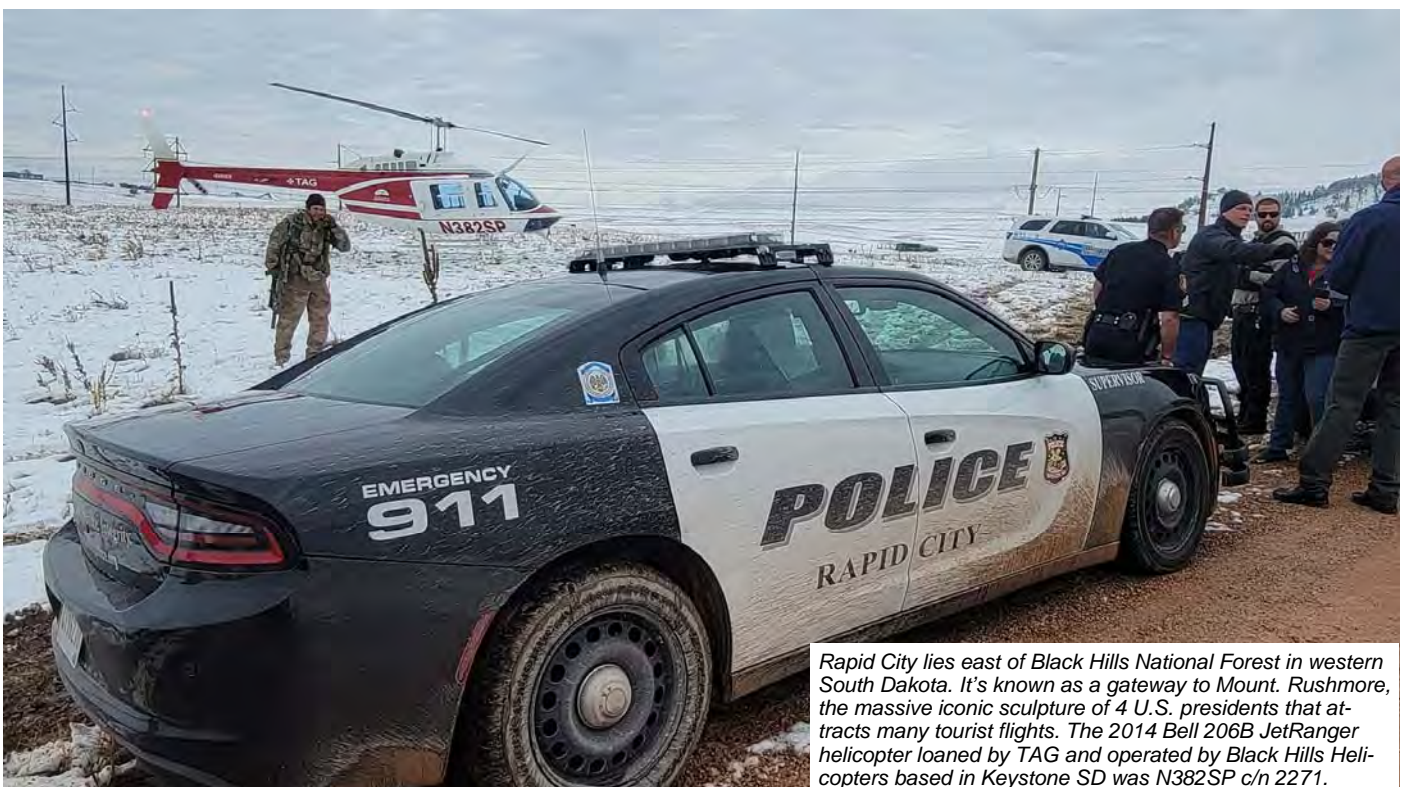
Nebraska State Patrol's Bell 505 is outfitted with mission-leading equipment including L3 Wescam MX-10 camera system, Trakka Beam TLX, and a MacroBlue Tactical Display with Churchill ARS 700C Augmented Reality Mapping System technology.

With a speed of 125 knots (232 km/h) and useful load of 1,500 pounds (680 kg), the Bell 505 is Bell's newest five-seat aircraft designed for safety, efficiency and reliability using advanced avionics technology. With a Garmin G1000, the platform leverages advanced avionics to reduce pilot workload and enhance mission experience.

SOUTH DAKOTA: Rapid City Police Dept. do not have regular air support – in fact air support anywhere in the state is rare - so when airborne assistance is needed it is very much a case of people volunteering their services and 'follow that car!'

And that is what happened on the morning of October 20. Police initiated a traffic stop on a vehicle on the city's north side, the vehicle did not stop and fled from police. Police pursued the vehicle to a dirt road on the north end of Deadwood Avenue. Multiple firearms were discarded during the pursuit. Three occupants of the Ford SUV fled the vehicle into the hills north of Interstate Road I-90.

Two were quickly located and taken into custody as a search was set up. Local law enforcement had a large number of resources in the area searching for the third occupant in the area between Deadwood Avenue and Haines Avenue, I-90 to Peaceful Pines Road. This included a chartered helicopter already working in the area on sightseeing in the Black Hills. It volunteered to lend its capabilities as a resource, the two passengers gave up their seats on the helicopter to police officers before pilot Andrew Busse, chief pilot for Black Hills Helicopters took to the air on behalf of the police search. Eventually the remaining suspect, believed to be armed and dangerous, was traced and taken into custody. [media/@rapidcityPD/Facebook]



Rapid City lies east of Black Hills National Forest in western South Dakota. It's known as a gateway to Mount Rushmore, the massive iconic sculpture of 4 U.S. presidents that attracts many tourist flights. The 2014 Bell 206B JetRanger helicopter loaned by TAG and operated by Black Hills Helicopters based in Keystone SD was N382SP c/n 2271.

# AIR AMBULANCE

## AUSTRALIA

The Royal Flying Doctor Service (Western Operations) are getting their two pre-announced Airbus H145 helicopters for service in in Jandakot and Brooke. It is a first for the RFDS.

The first arrival recently seen on test is VH-JFQ H145.

## POLAND

**HEALTH MINISTRY:** A contract has been signed between the Ministry of Health and Pratt & Whitney for the purchase of engines for their EC135 fleet. Pratt & Whitney Canada Customer Service Center Europe GmbH has been contracted to provide 48 new engines, made up of 35 PW206B2 and 13 PW206B3. The contract was concluded in early October and is valued at 132 million zloty excluding VAT – at current exchange rates this is US\$ 33.4M. The contract includes the exchange of the same number of existing engines, and it would thus appear that new engines are an easier solution rather than overhauling the existing ones.



Polish Medical Air Rescue operates 23 EC135P2+ and 4 EC135P3 helicopters from 22 bases, and the fleet is close to achieving 90,000 flying hours. [Helihub]

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## ROMANIA

**SMURD:** The Romanian Government has announced the results of a helicopter tender, although like many such processes, it is already subject to an appeal from an unselected bidder.

The requirement was for up to twelve medium/heavy helicopters, to be operated by Serviciul Mobil de Urgență, Reanimare și Descarcerare [SMURD] translating as Mobile Emergency Service for Resuscitation and Extrication.

The General Inspectorate for Emergency Situations (IGSU) plans to issue a framework agreement to the winner for four years and will cover between 4 and 12 helicopters. The requirements include SAR, Fire-fighting and Medical Evacuation. Four of the fleet are to be capable of over-water operations. The winner was declared as Lockheed Martin (Sikorsky), who were bidding with the S70i via their PZL Mielec subsidiary in Poland.

Since the announcement, local website Economica.net reports that Leonardo has filed an appeal claiming that, as this is a competitive negotiation procedure, IGSU should have asked them if they could adjust their final financial offer. <sup>[Hellhub]</sup>

## UNITED KINGDOM

**CASTLE AIR:** With bases at London Biggin Hill Airport, Liskeard in Cornwall and Cheltenham and Gloucestershire Airport Castle Air operate flights all over the UK.

The prime business is offering speedy transfers to our private and business clients, as well as large corporate and small business owners. They operate film work and photography.

At the recent Helitech Show in the ExCel at London Docklands they were exhibiting a recently acquired Leonardo AW109S G-KRNO in an air ambulance configuration.

The staff at the show were presenting the helicopter as a general HEMS spare to the industry, at the time there were no contracts signed [the CoA had only been issued a few days earlier]. Rumours abound.

The 2013 AgustaWestland AW109SP Grand New c/n 22298 had been bought in the USA as N602SM but it had been in service with a Canadian HEMS operator, Airmedic in Quebec, since new as C-GVAM. It had only accrued 885 flight hours in the eight years. The Castle Air machine still wears the Airmedic colours.



At the Helitech Show in London ©PAR

Air Medic replaced their AW109SPs C-FKAM and C-GVAM with two EC145e models C-FTMQ and C-GTUQ. In the meantime, both 109s were parked - C-GVAM became G-KRNO and the other 109SP was sold into Japan where it operates for the Doctor Heli network.

**CHILDREN'S:** A few hours after a leading industry website ran a story announcing that the Children's Air Ambulance (TCAA) had cut ties with Specialist Air Services (SAS) and returned its two Leonardo AW169 helicopters to Staverton, thereby ending a seven-year aircraft fleet and services contract, the story was withdrawn. In its place was a relatively bland explanation which was perhaps only understood by those that had read the original text.

There was a dispute over the accuracy of the text – basically which party had terminated the agreement. The fact remains that the Children's Air Ambulance no longer flies the AW169 and regardless of the outcome SAS now has the expensive airframes to reassign to other customers along with the Lincs & Notts AW169 also recently returned.

TCAA is one of three brands of The Air Ambulance Service (TAAS) charity. The main contract for two AW109 covering HEMS operations is served by Sloane Helicopters.

**EAST ANGLIA:** Since the launch of EAAA's 24/7 service by air and road on June 30 and up until October 18, the charity's crews have been tasked 307 times between 7pm and 7am, averaging nearly three missions a night. During this time, 87 of the taskings were by helicopter and 220 by rapid response vehicle.

As the nights draw in and the seasons change, the EAAA teams will be operating even more during the hours of darkness, to provide enhanced critical care, by air or by road, to people mainly living across Norfolk, Suffolk, Cambridgeshire and Bedfordshire.

EAAA has been providing 24/7 care from both its bases in Norwich and Cambridge by rapid response vehicle for the last 18 months but began flying around-the-clock for the first time at the end of June this year, extending the night-time helicopter emergency medical service coverage in the region from its previous finishing time at 1:30am. This change saw EAAA become the first air ambulance in the East of England to become 24/7 by both air and by road.

As a result of the increased operational hours, the crews have been able to cover a much wider area in East Anglia at night, helping more patients than was previously possible. By air, the crews have been tasked to Peterborough, across north Norfolk, into the depths of south Suffolk and as far southwest as Harpenden in Hertfordshire, to a mixture of emergencies including accidental injuries, cardiac arrests, road traffic collisions, medical emergencies, self-harm incidents and assaults.

To facilitate the additional night flying at Norwich Airport also required upgrading the control system for the runway lights, costing around £60,000 which was kindly funded by the HELP Appeal. This drastically helps to reduce light pollution and saves energy by allowing the EAAA pilots to turn the lights on remotely via the aircraft VHF radio as they depart or approach the airport.

The HELP Appeal's latest donation to EAAA's Norwich base comes after it funded two sets of portable lights and covered the entire cost of the helipad upgrade at its Cambridge Airport base earlier this year. The resurfacing helped to ensure the safety of the crew and the helicopter from loose debris caused by wear and tear.

The HELP Appeal also funded the £250,000 helipad at Ipswich Hospital which included state of the art night lights enabling air ambulances to land around the clock.

**ESSEX & HERTS:** On October 19 the long completed new airbase at North Weald was officially opened. Over 100 guests attended the event including airlifted patients as well as those directly involved with the development of the new airbase, along with important partners of the charity including representatives from the East of England Ambulance Service, police, fire and the military, as well as the Lord Lieutenants of Essex and Hertfordshire, the High Sheriff of Hertfordshire, the Chair of Epping Forest District Council, and many another distinguished guests.



Watched by local officials from Essex County, Epping Forest Council, and volunteers, the Essex & Herts Air Ambulance CEO Jane Gurney, assisted by airlifted patient Maisie Moon, cuts the ribbon to officially open the new airbase at North Weald. ©Phil Mynott EHAAT

Once the ribbon was cut, the building was blessed by Area Dean for Epping and Ongar, the Reverend Lee Batson. Guests were then invited to take a tour of the new purpose-built facility, where they had the opportunity to meet the fundraising, operational and clinical teams.

Work on the facility began back in February 2020 after planning permission was granted by Epping Forest District Council. The project was managed by quantity surveyors Castons and designed by architects Hurley Porte and Duell and structural engineer specialists Superstructures. The new airbase was built by Barnes Construction and was delivered on time and on budget despite the challenges of the COVID-19 pandemic.

The new building includes a hangar which houses one of EHAAT's two helicopters.

However, there is also space for both helicopters, when necessary, for example, to permit aircraft mainte-



nance. The helipad has underground heating beneath it to keep it free of snow and ice during the winter months. The new airbase also has a specially designed garage for two of its rapid response vehicles.

In addition to these spaces, the airbase has specific areas for training, mentoring, patient liaison and fundraising. There is also space for cross training with other emergency services, which benefits both the charity and the wider pre-hospital care community. Importantly, part of the new building has a dedicated interactive visitor centre which allows EHAAT to welcome and engage with its supporters so that they can learn more about the life-saving work of the charity.

**MAGPAS:** Magpas Air Ambulance welcomed Robert Bertram; Chief Executive of the HELP Appeal to its airbase in Cambridgeshire after receiving a £300,000 donation to its 'Future 50' appeal to fund a new airbase due to start construction at Alconbury Weald at the end of the year.

The HELP Appeal is the only charity in the UK that funds the development of helipads at Major Trauma Centres, key A&E hospitals and air ambulance bases.

Robert Bertram, Chief Executive of the HELP Appeal explained, "The HELP Appeal is best known for funding hospital helipads. But this isn't all we do to help air ambulances save time in getting critically ill patients the emergency care that they need. We are very proud that this is our ninth air ambulance base helipad that we've helped to fund."

Magpas Air Ambulance provides emergency lifesaving care in Cambridgeshire, Bedfordshire and across the East of England and can reach 12 counties and a population of over 10 million in their AW169 helicopter. The charity needed to re-locate from its current base after the land it occupies at RAF Wyton was sold.

## UNITED STATES

**TEXAS:** Washington County is working on ways to improve public safety in their community. Washington County EMS has had a helicopter for some time, but they are adding firefighting to its capabilities.

The county recently upgraded the EC145 helicopter to be used to help fight wildfires with fire suppression equipment. The helicopter is based in a newly dedicated aviation hangar on Highway 105, near the Brentham Municipal Airport. [KBTX]

# FIRE

## UNITED STATES

**CALIFORNIA:** The last remaining USDA Forest Service Pacific Southwest Firewatch Cobra Program helicopter took its final flight last month as the department transitions to a new era. The Vietnam War-era Bell AH-1F Cobra attack helicopter is being replaced by modern helicopters and fixed-wing aircraft able to range over a larger area.

In addition, Region 5 has stood up an Unmanned Aerial System (UAS) operation to reduce risk and hazards to firefighters both in the air and on the ground.



The roles previously served by the two Cobra helicopters [believed N107Z and N109Z] will be modernised and will result in no degradation in firefighting surveillance or capability. It is claimed that local communities and wildland firefighters will be better served by the modern technology being introduced.

The two Forest Service-owned AH109 helicopters were repurposed warplanes that shed their rockets, missiles and nose mounted cannon turret for a high quality EO/IR sensor pod and systems. Their primary role was aerial supervision, acting as command relay station, and intelligence work. They served the Forest Service for nineteen years and had reached their maximum lifespan after flying approximately 7,600 flight hours in the role. Similarly, to the Bell Huey transport helicopter the Bell's were powered by a single Lycoming T53-L-703, they had a smaller fuselage with tandem seats that lent themselves to observation duties by the crew – and that fed through to the USDA role after the type was replaced by the Apache in military service.

The Forest Service manages 18 National Forests in the Pacific Southwest Region, which encompasses over 20 million acres across California, and assists State and Private forest landowners in California, Hawaii and the U.S. Affiliated Pacific Islands. A YouTube video on the Cobra operations can be found at: [https://www.youtube.com/watch?v=bw78iml\\_euY](https://www.youtube.com/watch?v=bw78iml_euY).

OREGON: DART Aerospace has signed an agreement for the supply of a new generation of Fire Attack® Systems for the FIREHAWK®. DART will be partnering with United Rotorcraft, the exclusive completion center for the FIREHAWK®, for the development and certification of lightweight Fire Attack® systems.

The systems will be developed and manufactured at DART's Portland facility in Oregon, leveraging the latest design and manufacturing technologies to provide a 1,000-gallon belly tank combining lightweight materials and durability while offering an optimized drop pattern. The new FIREHAWK® tank is expected to receive an FAA Supplemental Type Certificate (STC) approval in the second half of 2022.



## SEARCH & RESCUE

### EUROPE

MIGRANTS: The European Border and Coast Guard Agency, also known as Frontex, has warned of an ongoing surge of illegal migrants entering the European Union, noting that the number of foreigners who have illegally entered the bloc thus far in 2021 is up 61% from last year.

In the central Mediterranean, which particularly affects Italy, saw an 87% increase in landings since the beginning of the year. The European Union's Southern Mediterranean flank isn't the only region to see a dramatic uptick in illegal migrant arrivals this year. A similar surge has been witnessed along the bloc's eastern edge, as well. The authorities continue to hamper rescues by refusing to accept loads of humanity picked up by well-meaning vessels. They then spend unproductive time and fuel sailing around the region trying to find a port that will accept the migrants.

The past few months have seen torrents of illegal migrants' flood across the Belarusian border into Poland, Lithuania, and Latvia.

The apparently important work being undertaken raises questions about the motives of a group dedicated to the abolition of Frontex and its air patrols - 'abolishfrontex.org' -has issued supposedly revealing and controversial material on the operation of Frontex air patrols.

At the beginning of August, the EU published two new contract award notices for aerial surveillance services for Frontex, worth €84.5M. Some of the companies that were contracted have already been performing surveillance flights for Frontex in the Mediterranean and elsewhere for years. This activity is not universally popular.

A €53.6M for 'Mid-Range Maritime Surveillance Missions' was awarded to DEA Aviation (UK), EASP Air (Netherlands) and Scotty Group (Austria). The same companies, with the addition of ISR Support Europe



(Netherlands), also got a €30.9M contract for long range maritime missions.

Frontex charters the planes from private companies to support its operations, and those of member states partly to relieve pressure on individual governments having to supply aircraft and crews from their own resources. In the past this governmental effort has seen helicopters from the Bundespolizei in Germany and fixed wing from Finland's Border patrolling the Mediterranean.

The contracted aircraft have been operating over the Mediterranean Sea, Balkans, Aegean, Black Sea, Slovakia, Poland, Portugal and Denmark since 2017. Flights have extended into the airspaces of Algeria, Libya and Tunisia with over 1,000 missions annually accruing 4,700 hours. Drones are expected to start supplementing the manned flights, using technology being promoted by Airbus, Elbit and IAI in Israel.



It is alleged that the European Commission wants to keep the identities of the aircraft used a secret. It is also alleged that the operators sometimes switch off the transponders during operations to avoid disclosing potentially sensitive operational information. As a result of these observations, they have concluded that some or all the reasons for hiding their surveillance activities is associated with a desire to hide their presence when watching migrants and refugees who get into difficulties and consequently drown. [Stop Wapenhandel]

*Editor: On the face of it the article appears flawed by wrong conclusions. The aircraft in use may well not be widely promoted but equally no-one appears to have actively sought to hide details of the aircraft operated by the operators. As regular readers may recall there have been regular open reports in PAN about air operations by government agencies from Finland, Germany and others in support of rescue operations undertaken under the Frontex banner. The reports on commercial Frontex surveillance operations by DEA based at Gamston [UK] flying the Diamond DA-42 and taking delivery of a new DA-62, reports on the Dornier 228 aircraft at Amsterdam and an ongoing replacement programme, and the crash of a CAE Luxembourg surveillance Metroliner in Malta are just highlights. Perhaps no one has seen a need to actively sit down and connect all the resources involved recently.*

*For the record 'abolishfrontex' claim that the recent aircraft services contract was the third for both DEA and EASP since 2015. That year they were two of several companies selected by the agency for a €10M contract, in 2017 a new contract for €14.5M was agreed, that being followed in 2019 by a four-year contract costing €28M. That year included CAE Aviation in the operations.*

*Although it appears unrelated 'abolishfrontex' also pointed out that EASP Air provides surveillance services to the UK Border Force from Den Helder, using a new Piper PA31 Panther MPA since last autumn. The "secret" operation is said to be in cooperation with 2Excel Aviation in the UK and Scotty Group based in Austria. The article quotes information freely published at the time as if it were being withheld by Frontex. For the record the news report stated the aircraft was specifically intended for Frontex operations and is equipped with a Thuraya 444 Kbps SatCom, MX15 EO/IR, Radar, AIS and FlyingFish-III satellite telephone detection equipment. The same press notice makes the link to 2Excel Aviation. As we know, they provide fixed wing twins to the UK Coast Guard and are regularly mentioned in reports on the migrant flows across the English Channel – not Frontex. I checked with them, and they have no links to any Frontex operations.*

Last year ISR Support Europe (Netherlands), a joint venture of Dutch company JetSupport and Canadian Provincial Aerospace Limited (PAL Aerospace), contracted future air support for the Netherlands Coastguard using two Dash-8 airplanes, including maintenance for the next ten years. The company will also provide the pilots for these planes, of which one is also for Frontex missions – the current Dornier 228 aircraft have regularly undertaken missions in the past. Far from being 'secret' the 2020 announcement stated quite clearly that the aircraft's tasking will include other missions such as "out of area" deployments in support of FRONTEX in addition to primary tasking for SAR, law enforcement and surveillance off the coast of the Netherlands.

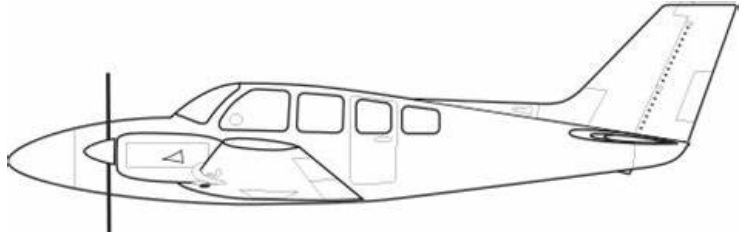
The claim is that all these companies are flying very controversial and illegal work, including pushbacks, pullbacks, violent interceptions and leaving people on the move to drown. Furthermore, it is alleged that the European Parliament failed in its investigations into the allegations against Frontex. In view of the demonstrated flaws in the various allegations little in this article can be relied upon for its interpretation.

While the primary task of rescuing people making crossings of the Mediterranean Sea falls to national governments and Frontex there are several non-governmental organisations, charities and pressure groups, that set themselves up as critics and self-declared authorities on how the migrants should be safeguarded.

There have been high profile instances of interference by charity ships, some equipped with unmanned aircraft, watching over the shipping lanes in the past, and largely unnoticed, there have been manned aircraft.

A German non-governmental organisation called Sea-Watch operates light aircraft in the area between Lampedusa and the north African mainland and has done since 2017. Their mission is to document human rights violations committed against migrants at sea and relaying distress cases to nearby ships and authorities who have increasingly ignored their pleas. Even where they get to find vessels in need, they have to convince surface vessels to divert and then to overcome migrants refusing help. The level of being ignored is not solely down to the authorities in Italy, Malta and Libya.

They currently rely upon a Swiss registered Beechcraft Baron 58 twin HB-GMM called Sea-bird, it came into use in the spring of 2020, replacing a single engine Cirrus which was deemed by the Italian authorities on Lampedusa as unsuitable for the task of patrolling the offshore areas.



Two engines allow Sea-Watch to adapt the speed to different needs during missions, the 228mph (368km/h) dash to arrive on scene when information about a boat in distress comes in, before slowing to a loiter speed that can allow the aircraft to stay above the target for up to eleven hours, flying for up to 1,500 nautical miles.

Sea-Watch has been working with the Swiss Humanitarian Pilot Initiative since 2017 operating Moonbird, the Cirrus SR22. The smaller type can take a crew of 3 – 4 persons and cover an area of about 16,000 km<sup>2</sup>, which is about half of the area of Belgium. One mission takes about 6 hours, of which up to 5 hours can be spent in the operational area off the coast of Libya.

More than 49,000 migrants have reached Italian shores so far this year according to the Italian Ministry of Interior, nearly double the number of people who crossed in the same time period last year. So far this year, Libya has intercepted roughly half of those who have attempted to leave, returning more than 26,000 men, women and children to Libya.

Sea-Watch has relied on millions of euros from individual donations over several years to expand its air monitoring capabilities as well. It now has two small aircraft that, with a birds-eye view, can find boats in distress much faster than ships can.

## FINLAND

**BORDER GUARD:** Aeronautics Group - a leading provider of integrated turnkey solutions based on unmanned system platforms, payloads and communications for defence and Homeland Security applications – has concluded a successful evaluation week of the Orbiter system, operating from the Finnish Border Guard's Turva offshore patrol vessel, demonstrating high capabilities in a marine environment.

Over the course of the week, the Orbiter system was tasked with various maritime mission scenarios, including search & rescue, identification, surveillance & reconnaissance of suspicious vessels and figures, while transmitting a real-time video stream to the vessel's command & control center. This evaluation was carried out as part of the Border Guard's Valvonta 2 (Surveillance 2) project, which is designed to examine future integration of UAVs on board its vessels.



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## UNITED KINGDOM

**SAR2G:** As a submission deadline passed on October 8, Airbus Helicopters issued a statement to HeliHub.com regarding their interest in the UK SAR 2G contest.

Airbus Helicopters has concluded that it was not in the best interests of the company to submit an offer in respect of the Maritime & Coastguard Agency's Second-Generation UK Search and Rescue competition. It has informed the MCA that it no longer intends to submit a formal offer. Airbus Helicopters will continue to offer its helicopters and associated support services to any interested remaining bidder.

The Home Office has threatened to impose cuts on the amount of money paid to the French police supposedly guarding the beaches of mainland Europe to stop them launching their boats towards England. The threat is actually to withhold the extra money proposed to be given to France to make their beach patrols more effective. The threats of the UK Home Secretary (Priti Patel) were later repeated by the Prime Minister, Boris Johnson. The French authorities confirmed that they had not seen the money, so that bit is going well.

It is a difficult situation and, very much like the Covid pandemic, they really do not know what to do for the best, they are only politicians. There is a great deal of difference between saying there will be a stop to migrants crossing from Europe and those hands on physically stopping them on the high seas and beaches using means that are deemed acceptable in these days of 'woke' and the peering eyes of CCTV. That said the French police did their best and at one point near Dunkirk (quite a poignant location) are said to have fired non-lethal rubber bullets at a group trying to launch from the beaches. The result was that one would be migrants had a bruised hand and another a broken leg. Needless to say, when the British newspapers got involved, they were stressing that the non-lethal rubber projectiles could kill! It makes for better headlines and has a shred of truth based on an unfortunate but rare historical fact that someone somewhere died.

## INDUSTRY

**Global Medical Response (GMR)** has ordered 21 more new Airbus helicopters with options for 23 more. This order from the Greenwood Village, Colorado-based air and ground ambulance operator will be distributed across Airbus H125 and H130 singles and the H135 light twin.

This latest order will add to GMR's current Airbus fleet of nearly 133 helicopters. As part of an ongoing fleet expansion, in the past 18 months, GMR has taken delivery of 15 Airbus helicopters.

"The H135 has stood out in the twin-engine segment thanks to its consistent reliable performance in this mission," said Romain Trapp, president of Airbus Helicopters and head of the North America region. "The fact that GMR's entire twin-engine fleet is made up of the H135 speaks volumes to its success in the air medical market." Airbus provides 55 percent of the 2,600 EMS helicopters flying in the world today, and the company produced more than half of all new air medical helicopters sold in the U.S. in the last decade. Privately held GMR operates under the Air Evac Lifeteam, Guardian Flight, Med-Trans Corp., and REACH Air Medical Services brands and transported more than 125,000 patients by air in 2020. The ground and air ambulance company were formed via the 2018 merger of Air Medical Group Holdings and American Medical Response and employs 38,000 people. In 2020, GMR performed 4.9 million patient transports utilizing 7,000 ground vehicles, 111 fire vehicles, 306 rotor-wing aircraft, and 106 fixed-wing aircraft. [AIN]

At the recent Helitech Show in London Docklands **Thales Group** were effectively the most high-profile exhibitor in terms of public profile, stand size and visibility. Although firmly located at the rear of the Helitech area of the hall they were marketing to both the helicopter and the drone visitors. Using its existing market penetration experience into customers including the French Securite Civile, the helicopter market product was a mobile application and web portal carry on device primarily aimed at the SAR market.

Presented as a new solution for SAR mission management it allows better coordination between those on the ground and in flight. It utilises mobile phone GSM technology, a web portal and satellite operating through handheld tablets, smartphones and a non-fixed antenna. Based on equipment drawn from COTS computer, smartphone and tablet it offers the opportunity to better manage with enhanced security and continuous tracking of mission assets and members.



The communication system does not require the need for a supplementary type certificate (STC) thanks to its carry-on nature and is type agnostic. One option is to make it available to aircraft pressed into service at short notice in emergency situations and to give them a boost in connectivity. The antenna is designed to fix on the interior of the cockpit glazing but can also utilised an existing fixed aerial.

At the end of September **Bell Textron Canada Ltd.**, celebrated 35 years of operations in Mirabel, Canada. Founded in 1986, the plant is home to civil and commercial aircraft manufacturing, assembly, flight testing and customer delivery.

From its first Bell 206B Jet Ranger aircraft produced in 1986, through new helicopter development programs like the Bell 429, Bell has been instrumental for vertical flight technology in Canada. Certifying single and twin-engines rotorcraft over the last 35 years, Bell has produced more than 5,600 commercial aircraft operating around the world, among which 1,000 are in the Canadian market today.

Bell Textron Canada is represented by 1,300 highly skilled employees focused on innovation, product development, airframe design, world-class composite production, complete integration, certification, customer experience, and renowned service and support for customers in country and around the globe. Bell sustains more than 6,200 jobs in Canada, has 550 suppliers across the country and contributes \$848M to Canada's GDP per year.

The tiltrotor AW609 AC4, fully representative of the final production configuration, arrived in Dubai early in October for the first official presentation of the multirole type in the region. The aircraft performed a ferry flight from the **Leonardo Helicopters'** Headquarter in Cascina Costa di Samarate (Italy) on September 10 and landing in Dubai on September 13, following stops in Southern Europe, Northern Africa and the Middle East.

Once there was Agusta and there was Westland. The two came together as **Agusta Westland** – a bit of an odd marriage that was soon lost in Finmeccanica and then Leonardo. Clearly the British might have missed the historic Westland name and the Italians their equally loved Agusta, but the Italians were and remain in the driving seat of the marriage. They were still able to do something about the loss of the iconic Agusta and last month they moved to bring it back.

Leonardo has announced the launch of a new initiative to reinforce its leading position in the world's VIP/corporate helicopter market, as it pioneers new advanced and sustainable air mobility solutions in the vertical flight domain. Agusta becomes the brand that embodies the company's distinctive design, technology and service philosophy and values in the executive transport rotorcraft sphere.

The announcement took place at the grand opening of the new rotorcraft terminal by Leonardo and Falcon Aviation Services in Dubai, purposely designated Casa Agusta. The Casa Agusta design is based on a brand-new concept, which combines a helipad, showroom and lounge areas in a single city-based heliport.

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**Air BP** has secured the contract for supplying aviation fuel to the police in Norway. The Politiets fellestjenester awarded the contract after a European tender for aviation kerosene [21/4954] that called for a framework agreement for the procurement of fuel Jet A1 for helicopters refuelling at airports in Norway, and for bulk for refuelling facilities belonging to Politiets nasjonale beredskapssenter (the Norwegian Police National Emergency Response Centre) at Taraldrud outside Oslo. The value excluding VAT is given as 25M NOK (€2.498 or £2.138M)



POLITIETS HELIKOPTERTJENESTE

**SAFRAN Helicopter Engines Germany GmbH** in Hamburg has been awarded an engine maintenance contract worth €800.000 to cover the maintenance of Lithuanian Ministry of the Interior Safran Arrius 2F, Arrius 2B2 and Arriel 1E2 engines. In 2006 Lithuania added to an existing fleet of two EC120 helicopters by using EU money to buy two EC135T<sup>1</sup> and one EC145 helicopters for border patrol by the Valstybės Sienos Apsaugos Tarnyba or Border Guard. [2021/S 157-416670]

More grief for **MD Helicopters**. The verdict returned by a US Federal Court jury in Huntsville, Alabama could result in MD having to pay more than \$100M to whistle-blowers and the federal government. The jurors found the company fraudulently induced the U.S. Army into contracts with Saudi Arabia, El Salvador and Costa Rica.

Attorneys for MD refused to comment immediately after the case but an attorney for one of the plaintiffs said that their clients and the U.S. government stand to receive triple the damages awarded by the jury. The jury deliberated for just over an hour before finding MD Helicopters liable in three claims, awarding baseline penalties of nearly \$3.8M in one claim, \$29.7M in the second, and \$3.3M in the third.



The lawsuit from 2013 was originally filed under the False Claims Act by two former employees of MD Helicopters. Under that act the whistle-blowers can receive up to 30% of the tripled damages, with the rest going to the government. The exact amounts will be determined after discussions between the whistle-blowers and the Department of Justice.

The Army wanted to buy military helicopters to sell under its Foreign Military Sales programme to three American allies: Saudi Arabia, El Salvador and Costa Rica.

It was alleged that MD Helicopters didn't follow the Army contract code, and that the company was improperly involved with an army contracting officer in Huntsville who later went to work there. There was no performance issue with the helicopters, and the company had saved the Army \$100M on another helicopter deal and delivered on the contract. [Roop]

UK based operator of the MD902, **Specialist Aviation Services (SAS)** has partnered with Advanced Composite Structures in Winnipeg to develop a repair solution for their stockpile of unserviceable MD 902 Flex Beams. They expect a large percentage of the quarantined Flex Beams to be repaired and returned into service or sold to customers. This reduces costs and creates an alternative supply chain solution. These components are being released with a TCCA approval which can be readily transferred to the UK and other markets.

The team are now confidently exploring options for FAA/EASA certification.

SAS are able to support other MD 902 operators with repaired flex beams to reduce their costs and provide sourcing alternatives. [Helihub]

Promoting a certified isolation stretcher in a market now pretty much dominated by the Norwegian origin EpiShuttle is no doubt hard work but the older non-rigid designs can ease their way into the market on a price advantage. Italian company **IN MM Srl u.s.** and its UK subsidiary brought their Bio-Avio stretcher to Helitech last month. The bio-containment system N36, upgraded with a specific AVIO kit, facilitates transportation of highly infected patients. Equipped with its own negative pressure filtration system it provides maximum protection and operational safety for the contaminated patient and the medical team in both aircraft and land transports.



The military version of the stretcher at Helitech 2021 ©PAR

**Helicopter Association International (HAI)** has announced a new safety management system (SMS) software program designed for small operators and others with cost concerns.

Open solely to HAI Operator Members in good standing, the HAI SMS Program is the direct result of an HAI membership survey in which a significant number of respondents requested turnkey SMS support programs, including ways to make an SMS easier to implement and track. In response, HAI solicited proposals from industry-leading SMS software providers, expecting to select a single provider from the responses. Instead, while evaluating the bids, HAI determined that choosing 3 of the 14 submitted proposals would better meet the needs of its members.

The three software providers HAI chose for the HAI SMS Program are:

- Air Charter Safety Foundation (ACSF) of Washington, D.C. ACSF provides a full range of SMS software options.
- Baldwin Safety and Compliance of Hilton Head Island, South Carolina. Baldwin provides the Baldwin SMS Product Suite, which offers a menu of options available for small, medium-sized, and large businesses.
- WYVERN Ltd. of Nashua, New Hampshire. WYVERN offers its SMS Software and 24/7/365 Support Services package, with affordable options for small operators and other choices with premium SMS software capabilities.

Each of the packages offered through the HAI SMS Program allows users to verify their compliance with current and future international and domestic regulations. While the FAA does not currently require SMS programs for all operators, HAI and the National Transportation Safety Board (NTSB) have recommended that helicopter operators develop and adopt a safety reporting system that allows for collection of data, analysis, and corrective action where necessary. "Each of these programs provides that system for operators," adds Hill. "They are responsive and can be adapted as a company continues to grow."

The HAI SMS Program packages also offer training, self-auditing capabilities, gap analysis, reporting capabilities, and user support services. "We could not be more pleased with the submissions we received,



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and with those we chose to use,” notes Viola. “We believe our members will appreciate the versatility, and especially the value, these SMS programs offer. We believe our partners have made it so easy and affordable that it will be hard for an operator to justify not implementing an SMS program.”

**Universal Avionics** has introduced Aperture™, a sensor fusion and augmented reality platform that will provide a new level of situational awareness and improved decision making to flight crews and mission specialists. Initially oriented towards multi-sensor video management, this family of products can process a variety of video and sensor inputs to deliver real-time content analysis, such as visual positioning, obstacle detection, taxi guidance, and traffic awareness.

Currently in advanced development with certification and delivery scheduled for Q3 2022, the initial release of Aperture will process eight video inputs supporting up to four video outputs with near zero latency at a Design Assurance Level A, the highest criticality attainable in aviation.

**Logos Technologies LLC**, a developer of wide-area motion imagery (WAMI) systems, were showing a new ultra-light infrared BlackKite Pod at the recent DSEi trade exhibition at ExCel London.

Weighing less than 38 pounds (17.2 kg), the BlackKite Pod is the platform-flexible version of BlackKite1, the infrared wide-area motion imagery (WAMI) sensor system fitted to the payload bay of the Insitu Integrator unmanned aerial vehicle and deployed with US government’s Boeing RQ-21A Blackjack UAVs.

The BlackKite Pod images objects on the ground in medium resolution, which is enough to track every vehicle within its vast field of view, as well as detect moving individuals. Should a user need a closer look, they can cue the collocated hi-res full-motion video turret camera.

BlackKite also records and stores all the imagery it collects (up to 11 hours), allowing forensic analysts to “go back in time” and uncover hidden connections between people, vehicles, and places, in real-time.

The pod can be mounted to many different airborne platforms in support of a wide range of missions. It is being marketed to law enforcement, border security and illegal migration prevention.



Texas Aerospace Technologies have entered into an agreement with **Curtiss-Wright’s Defence Solutions** division to distribute the Fortress CVR/FDR/Air recorders and accessories. Texas Aerospace Technologies responsibilities will include all worldwide aftermarket applications in the Business Aviation, General Aviation, and Rotorcraft segments for both commercial and military applications. Texas Aerospace Technologies will be leading the effort to certify solutions which fit many different aircraft types and categories to meet the growing number of mandates and upgrade requirements around the globe.  
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The Diamond DA-42 transited out to Belgium in good conditions (right) but the demonstration was undertaken in typical northern European conditions with copious rain. An unexpected aspect of the demonstration was when the aircraft was asked to go on task over the North Sea to look for a migrant boat that was missing. ©DSMAD

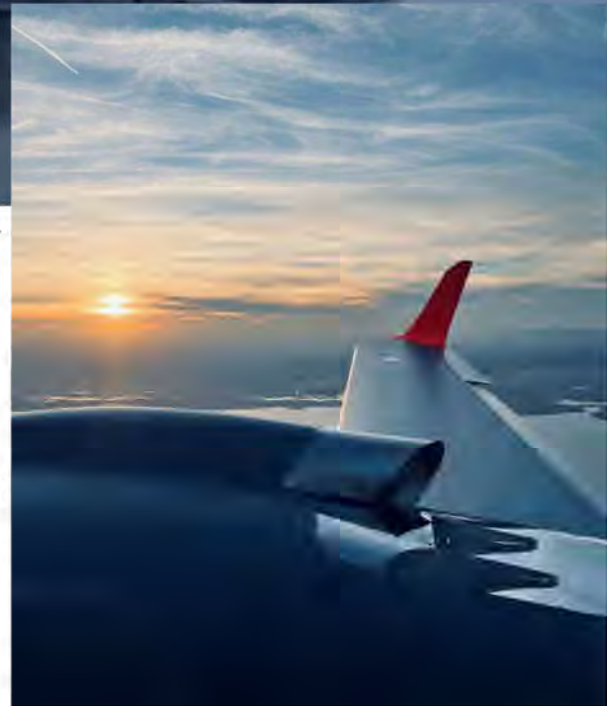
Late in October **Diamond Special Mission Aircraft Division** hosted a live demonstration focused on Search and Rescue in Ostend, Belgium, and over the North Sea, in cooperation with North Sea Aviation Services, a Diamond MPP customer, late in October.

The DA42 MPP utilised for the demonstration was equipped with a ViDAR (Visual Detection and Ranging) Pod developed by Australian company Sentient Vision Systems, a Trakka EO/IR gimbal and an AIS receiver.

This was the first time that a VMS-5 (ViDAR Maritime Surveillance) Day/Night optical radar pod was being utilised in its operational configuration on a fixed wing aircraft. ViDAR employs Artificial Intelligence (AI) and Machine Learning to detect and classify targets in the imagery stream from an Electro-Optic or Infrared (EO/IR) sensor that would be invisible to a human operator or very hard to spot. With its wide search swath, it can cover a designated search area up to 100 times faster than an aircraft without ViDAR.

ViDAR can autonomously detect small objects on the sea surface over very wide areas, by day and night, up to Sea State 6. ViDAR has proven its capability as both a Search and Rescue (SAR) and a maritime surveillance tool, with demand for support of a wide range of missions growing globally, including drug interdiction, anti-piracy and illegal fishing detection.

The combination of the highly effective Diamond Special Mission Aircraft along with the autonomous wider-area search performance of ViDAR, provide unrivalled SAR capabilities at reasonable cost.



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**Cotswolds Airport**, formerly known as RAF Kemble, have joined with Solivus to install innovative thin-film solar across its estate. The airport will become the first in the world to use new ultra-low carbon organic thin-film solar (OPV) on top of an aircraft hangar to generate green hydrogen to fly ZeroAvia's hydrogen-electric aircraft.

Previously home to the Red Arrows Aerobatics Team, the airport has initiated plans to decarbonise its operations. The installation of 226kw is the first phase of its efforts to generate as much of its energy from renewable sources on site, while improving energy efficiency. The team will use its specialist experience in delivering solar projects to provide the installation for Cotswold Airport in early 2022. Using new generation lightweight thin-film technology that allows rooftop solar installations on structures that can't take the weight of conventional solar, they will be delivering a 'world first' for the airport's aircraft hangars. The solar products to be used include a low carbon OPV technology which has won global awards for the small amounts of carbon embedded in its manufacture and its ability to be recycled.

Cotswold Airport is already home to innovation that is leading the way in tackling aviation's climate change impact. ZeroAvia, the leading innovator in hydrogen-electric zero emission aviation, has a 30,000-square foot facility at the airport - the company's dedicated base for developing its zero-emission engine technology for 19-seat Dornier 228 aircraft. Much of the electricity generated will be used to produce green hydrogen in ZeroAvia's on-site electrolyser, which will then fuel the company's aircraft for test flights. The remainder will be used by the company to power its operations.



In a recent survey of UK Emergency Medical Services, Fire and Police commissioned by **Safeguard Medical**, 87% of respondents agreed that if the public were more aware of the immediate care required following major trauma, preventable deaths would decrease. The majority of first responders (85%) believe that more lives could be saved with the introduction of bleeding control kits, placed alongside every public access defibrillator. The number of stabbing incidents is on the rise in the United Kingdom.

The UK Government has released statistics that over 41,000 knife crime offences occurred in 2020/21, of which 224 were homicides. Bleed kits contain lifesaving equipment including tourniquets to stop major bleeding and haemostatic bandages that can be 'packed' into a wound to stop haemorrhaging.

The **Maritime and Coastguard Agency (MCA)** recently completed a training exercise off the Cornish coast designed to make sure its teams are prepared and ready to respond to a major pollution incident in UK waters.

The exercise took place at sea south of Fowey in Cornwall on Sunday 10 October and on the morning of Monday 11 October. It involved HM Coastguard team members as well as the MCA's contractor **RVL Aviation** which operates the MCA's aerial oil dispersant spray system.

During the exercise, one of the MCA's dedicated Boeing 737 aircraft carried out low altitude passes over a target marker buoy representing an oil slick.

The 737, assisted by another MCA plane which located the target buoy with its onboard sensors and provided safety overwatch to make sure that no other aircraft or vessels were in or near the 737's flight path, used its onboard oil dispersant spray system to spray plume towards the target area.

For the purposes of the training activity, water was used in place of the chemical dispersants which would normally form part of the response to an actual oil spill at the coast.

Dispersants help to break down oil slicks into very small droplets and cause these small droplets to sink into the water column. This facilitates the process of biodegradation, with the increased surface area of each of these oil droplets enabling them to be quickly and easily degraded by the oil consuming microorganisms in the sea.

In-between each pass, the aircraft refuelled and refilled with water at Newquay Airport. An accompanying boat was also on hand to observe the exercise at sea level and to recover the marker buoy, helping to feedback with further information about the outcomes and key learnings of the exercise.

*Ed: 2Excel based in Doncaster also offers aircraft [Boeing 727] for oil slick dispersant.*



Boeing 737 with pollution sprays activated ©MCA Social Media

Geo-location start-up, **Naurt**, has announced full public access to a game-changing software set to unlock



the future of hyper-precise location tracking. Following a year of beta testing with a pilot group of high-profile local and international businesses and governments, Naurt has now made their first-of-its-kind software accessible to any and all businesses around the globe. The start-up's plug-and-play toolkit currently has no direct competitors and promises to deliver 45 times more accurate location data when used indoors or outdoors and across borders.

Current Global Navigation Satellite System (GNSS) technology – what most people think of as GPS or SatNav – simply cannot ensure accuracy in built-up areas where even a reasonably large tree can make pinpointing an exact location impossible. Even in open spaces, industries that rely on knowing where something is in relation to something else are still using outdated technology that is good enough at best.

Naurt's software does not replace the satellite location services businesses currently use. Instead, it simply integrates seamlessly with it and fixes the problems that cause the location data to be inaccurate. Where businesses might currently be able to pinpoint a location to within around 20 metres, integrating Naurt could improve accuracy to within centimetres. [Naurt]

**Safran Helicopter Engines** has assembled, tested and delivered the first Arriel 2E engines produced in Texas to Airbus.

Until now, the Arriel 2E was produced in France. However, Safran Engines has now opened a second assembly line at their facility in Grand Prairie Texas for the engine. The Arriel family of engines are installed on a range of aircraft, for example, the 2D is installed on the H125 and the 1E2 is installed on the Lakota.

There are currently over 3,000 engines in service in the US, the US army is a major operator with over 900 engines in its Lakota fleet, while the US Coast Guard fleet of Airbus MH-65 Dolphins are also powered by the Arriel.

Arriel engines are the bestselling helicopter engines in its class, with over 12,000 engines produced and 50 million flight hours.

The **Competition and Markets Authority's** (CMA) has opened an investigation into Motorola's Airwave network, the mobile radio network currently used by all emergency services in Great Britain until the planned new Emergency Services Network (ESN) comes online at the end of this decade.

Motorola Solutions Inc.'s (Motorola) Airwave network is the infrastructure and services that enable the police, fire and emergency services to communicate securely with each



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other when first responders are working in the field.

The CMA decision to launch a market investigation follows a consultation, opened in July 2021, which set out concerns about the impact of the dual role of Motorola as the owner of the company providing the current Airwave and as a key supplier in the roll-out of the planned new ESN.

## ACCIDENTS AND INCIDENTS

**2 October 2021 helicopter [Bell 412 or AW139]** Four people were killed in an ambulance plane crash while on duty on Saturday, Abu Dhabi Police have announced.

In an official tweet, the force confirmed that pilot trainer Khamis Saeed Al-Holy, Lieutenant Pilot Nasser Muhammad Al-Rashidi, as well as civilians Dr Shahid Farouk Gholam and nurse Joel Qiui Sakara Minto died.

*Ed; Despite the passage of almost one month since this accident no further details have emerged.*

**6 October 2021 Bell 429 N505TJ** Air ambulance Hard landing of unidentified helicopter ambulance of Mercy Flight with no injuries reported at Genesee County Airport is a public use airport located two nautical miles (4 km) west of the central business district of Batavia, New York State. The helicopter normally based there is a Bell 429. [WGRZ]

**6 October 2021 Bell 206B3 N373SP.** Flight records show the 1979 build helicopter was 20-minutes into a flight when it crash landed near the Port of South Louisiana Executive Regional Airport. The single occupant was not severely injured, but the airframe damage was substantial. The chopper took off from the Baton Rouge airport at 2:02 p.m. and it went down around 2:22 p.m. [Media and ASN]

**13 October 2021 Airbus Helicopters AS350B3 N881SD** San Diego Police aircraft operating from San Diego Montgomery-Gibbs Executive Airport on law enforcement patrol with two crew. Struck two birds while in cruise causing damage to the nose and window. [ASN]

**17 October 2021 Agusta 109 N901EM** Air ambulance of LifeFlight of Maine was disabled after it was struck by a road ambulance while responding to a crash in East Machias. The LifeFlight Agusta based at Bangor had arrived in the evening to transport a person who had been injured in a motor vehicle crash. It was on the ground, shut down, at Washington Academy when an ambulance operated by the town of Machias struck a main rotor blade causing minor damage but making the aircraft unflyable for two days. *Ed: LifeFlight operates three Agusta 109 helicopters from three bases: Bangor (Eastern Maine Medical Center and Bangor International Airport), Lewiston (Central Maine Medical Center and Auburn-Lewiston Airport), and Sanford (Sanford Seacoast Regional Airport).and earlier this year purchased two new Agusta 109SP tail numbers N901LF c/n 22240 and N901XM c/n 22422, to replace two 2005 Agusta 109E Power machines. Previously a single 109SP was acquired in 2017.*

**17 October 2021 Bell 407 N889??** Air Ambulance of Eagle Med with one patient aboard made an emergency landing on Highway 99 at Elm Creek Road, Wabaunsee County near the county line in Kansas after engine problems emerged. Dealt with by Lyon County and Wabaunsee County Sheriffs. No damage or injuries reported. [KVOE]

**17 October 2021 Leonardo AW169 G-LNCC**, Air Ambulance of Lincs and Notts AA. Aircraft was a call out to Laceby, near Grimsby, Lincolnshire when it suffered a mechanical issue and was unable to complete the mission. [BBC]

**23 October 2021 MBB BO105CBS-4 LV-CVE** Air ambulance SAME Modena. helicopter sustained substantial damage after being hit by a truck on the Perito Moreno highway at the height of the Parque Avellaneda tollbooth in Buenos Aires, Argentina. An on line video shows the helicopter landed, rotors running, on the open Tollbooth Plaza area and a heavy lorry passing at some speed came too close. The tips of the main rotor blade hit the side sheets of the trailer. The damage included delamination of the MRB. The helicopter had been dispatched to assist in a collision between two trucks, as a result of which one of the drivers was trapped inside the cabin of the vehicle. [la100]

## SAFETY

Helicopter operators and flight crew involved in rescue hoist operations should review their operational practices to ensure hoist operation and hook stowage are in accordance with the manufacturers' published procedures, the Australian Transport Safety Bureau (ATSB) urges. The advice comes as the ATSB publishes its final report into a rescue hoist cable failure which oc-



occurred when a New South Wales National Parks and Wildlife Service-operated Airbus AS350 B3 Squirrel helicopter VH-UAH was conducting personnel and equipment winching near Bulga, New South Wales on February 5, 2020. A crewman operating the helicopter's Breeze Eastern-manufactured winch detected the outer strands of the load cable toward its termination into the hook assembly had loosened in respect of the inner core.

During a subsequent 'cable conditioning' hoist operation intended to tension the cable and realign the wires to restore the cable integrity, the cable fractured at the hook assembly while under load, releasing a 160 kg weighted bag and the hook assembly to the ground. There was no damage to the helicopter or injuries to personnel.

The ATSB's investigation found that variations in the operator's hook stowage practices over an extended period of winching operations led to inadequate compression of the hook assembly and subsequent wear of the load cable. The wear damage was due to vibration and movement of the hook assembly during periods of helicopter operation. This led to a significant reduction in the cross-sectional area of the cable, fatigue and fracture of the strands and an associated reduction in cable strength.

It is likely that specific post-flight inspection requirements for the Breeze Eastern rescue hoist required in a Civil Aviation Safety Authority's Airworthiness Directive were not being adequately completed by the operator.

The ATSB first highlighted this critical safety messaging in April 2020, approximately two months after the incident, when it published a Safety Advisory Notice (AO-2020-013-SAN-001) addressed to helicopter operators and flight crew involved in rescue hoist operations.

You can find here the final report – Rescue hoist cable failure involving AS 350 B3, VH-UAH, 1 km south west of Bulga New South Wales, 5 February 2020 (AO-2020-013) View in full on the ATSB web page here.

News: Rescue hoist operators ([atsb.gov.au](https://www.atsb.gov.au))

Twin engine power does not guarantee there will never be a total power loss. A recent incident report relating to a twin-engine Tekever Ar-5 drone demonstrated the dangers.

At the time of the incident there were rumours but, when asked, the operators of the Tekever AR5 based at Lydd on the English Channel coast cited commercial confidentiality forced on them by their unidentified customers.

Now the story of the forced landing following the simultaneous shutdown of both engines, at Lydd Airport, Kent, on December 29, 2020, is out in a report by the UK Air Accident Investigation Branch (AAIB).

While orbiting south of the runway in preparation for landing, both the unmanned aircraft's engines shut down unexpectedly. The External Pilot on the ground, who was visual with the aircraft, took control and landed it without further incident. It is believed that the loss of engine power was likely to have been caused by an on-aircraft data error, induced it is thought by EMC consequent to modifications. Various safety actions, including improvements to the aircraft's hardware and software, and the Ground Control Station software, have been taken to reduce the risk of a reoccurrence.

The unmanned aircraft, G-TEKV, was returning to Lydd Airport from an extended flight over the English Channel. Flight operations were conducted from a Ground Control Station (GCS) where the operating crew of six control the aircraft from take-off to landing and operate the camera to fulfil the mission objectives of seeking out migrants crossing between the European mainland and England. The GCS contained two stations, the flight GCS (fGCS) and the mission GCS (mGCS). The fGCS focused on all aspects of the control of the aircraft platform, whereas the mGCS focused on the mission goals and operation of the payload. The GCS was manned by the Mission Commander (MC), the oncoming Internal Pilot (IP), the off-going IP, and the Payload Operator (PO). An External Pilot (EP)<sup>1</sup> and a Maintenance Technician (MT) were positioned at the side of the runway abeam the intended touchdown position for the aircraft and both could communicate with the IP through air band radios.

While the aircraft was orbiting off the coast prior to transiting back to the airfield, the two IPs conducted a handover; the off-going IP remained to act as a second pilot to assist with the conduct of the remainder of the flight. Meanwhile the EP advised that the wind favoured a landing on Runway 03 with a light cross-wind.

The aircraft transited towards the airfield at 700 ft amsl to remain clear of the cloud and icing. On arriving overhead, the airfield, the aircraft entered an orbit while the IP, assisted by the off-going IP, proceeded to load the mission waypoints for a landing on Runway 03. The AR5 was instructed to descend to 600 ft at which point it was seen visually and clear of cloud. After further orbits and as it was being set up for the approach and landing it was noted that the nose dropped more than normal. At this point the EP became



aware that he was not able to hear the aircraft's engines. He operated the throttles and confirmed that there was no engine response. The EP switched to fly-by-wire (FBW)3 mode, took control of the aircraft, confirmed control response, and instructed the MT to inform the GCS about the complete loss of engine power. None of the team reported seeing or hearing any alarms or warnings but the parameters for both engines indicated zero rpm. Under control the Tekever landed uneventfully.

This event followed a related one that occurred in June 2020 where, during an integration ground test of equipment onto a new AR5 aircraft at the manufacturing and development site in Portugal, both engines shut down, uncommanded. In that instance the aircraft was orbiting in preparation for landing, both engines were commanded to shut down due to a spurious 'Ignition OFF' signal being detected by the autopilot.

Since the June 2020 and December 2020 events, the operator has: redesigned the GPU to reduce emissions and is installing these on the AR5 aircraft fleet, changed the design of the radio command channel used by the EP and bypassed the multiplexer, embodied an autopilot firmware update on the AR5 fleet of aircraft so that 'Ignition OFF' must be asserted for 10 consecutive commands to trigger engine shutdown. An additional feature is to disable the 'Ignition OFF' command unless the aircraft is within 500 m of the EP and revised its internal documentation to ensure that consideration is given to EMC when integrating new equipment.

*Ed: Noteworthy is the size of the crew required to operate this airframe. There is undoubtedly a case of over enhancing the safety margins because the craft is unmanned (which in the event did not stop the incident) but six people is a lot. A manned airframe would only require a pilot and observer - the Mission Commander and the Payload Operator - not an effective three pilots. With a 'normal' operation the maintenance technician might serve many masters, with this operation it is a dedicated post.*

## UNMANNED

DroneShield Ltd has announced the purchase of several of its DroneSentry-X systems, providing on-the-move Counter-UAS (C-UAS) capabilities to the U.S. Department of Homeland Security ("DHS"). DroneShield continues to strengthen its collaboration with DHS and several of its component agencies on multiple fronts.

In February 2021, DroneShield entered into a Cooperative Research and Development Agreement (CRADA) with the U.S. Department of Homeland Security Science and Technology Directorate, the group within DHS primarily tasked with collaborating with private sector organizations on development of new technologies, and subsequent adoption by U.S. Government agencies.

As a result of the partnership, DroneShield has undergone significant field trial evaluation working closely with DHS S&T throughout the year.

In addition to its work with Homeland Security agencies, DroneShield has recently been awarded multiple contracts for its C-UAS solutions by U.S. Department of Defense (DoD) and other Federal and State level government and law enforcement agencies, for both domestic and overseas deployments.

In Norway a joint venture deal has been agreed between Nordic Unmanned and Aeromon. The newly established joint company, NUAer, will combine the operational excellence and global reach of Nordic Unmanned and the world-leading emission monitoring technology of Aeromon. The mission of NUAer is to support the acceleration of the green transition in the maritime industry through world-leadership control of marine air pollution.

NUAer aims to be the world-leading system integrator providing mobile maritime emission monitoring systems to end clients. Its customer base will be governmental agencies, port authorities, shipping companies and oil and gas operators directly and through Nordic Unmanned's existing and new maritime contracts. Nordic Unmanned's multi-purpose drone Staaker BG-200 has already been qualified for starting maritime emission monitoring operations with the new sniffing technology from NUAer, whilst Nordic Unmanned's fleet of Camcopter S-100 will be equipped with NUAer sniffers during first half of 2022.

Following integration, NUAer is mission-ready and on track to deliver cutting-edge emission monitoring technology to its clients. Nordic Unmanned expects a sizable improvement in EBITDA within its Maritime operations with the NUAer sniffer system operational.

Nordic Unmanned is expecting to expand its Emission Monitoring operations into the US during Q2 2022. The sniffer can measure several gases, including SOx, NOx, CO2, and Methane, providing actionable insight to both emitter and authorities. NUAer will integrate its offering with the services of its sister company Ecoxy, the leading Norwegian provider of accredited emission measurements for the shipping and oil and gas industry. These synergies will expand Nordic Unmanned's service offerings to existing clients and strengthen the Group's environmental monitoring profile for the governmental segment.

As previously communicated, Nordic Unmanned will invest EUR 1.5 million in the joint venture and will have an exclusive right to acquire the remaining 40 per cent of the shares of the company based on certain performance criteria.

Kristin Alne, an executive from the Energy industry with a Masters' degree in Energy and Environmental Engineering, has become the CEO of NUAer. The company is based in Sandnes, Norway.



Drones are being used to deliver post to a remote island in a Royal Mail trial as part of moves to reduce carbon emissions. Early in October the company started a two-week trial of scheduled, autonomous flights between Kirkwall and North Ronaldsay in the Orkney Islands with Windracers Ltd to help better connect remote island communities over 30 miles.

The mail is being carried by a large, twin-engine, UK-built unmanned aerial vehicle (UAV) named Ultra which can transport 100kg of post of all shapes and sizes – equivalent to a typical delivery round.

Letters and parcels will be delivered by the local postie in the usual way when they reach the island, which is further north than the southern tip of Norway and is home to around 70 people. The trial is part of the Sustainable Aviation Test Environment (Sate) project based at Kirkwall Airport.

The Windracer drone has been involved in other trials in the past year including the delivery of NHS PPE to islands. This UAV type can fly in poor weather conditions, including fog, because they are uncrewed, and unlike boat services they are not affected by tides.

If the trial is successful, the technology will be considered by Royal Mail to support postmen and postwomen in delivering to very remote areas and addresses across the UK.

This is the third drone trial that Royal Mail has taken part in over the last year. In December 2020, Royal Mail delivered a parcel via drone to a remote lighthouse on the Isle of Mull, which it said was a first for a nationwide UK parcel carrier. In May 2021 it trialled an out of sight drone parcel delivery with Windracers Ltd, and the first inter-island deliveries on the Isles of Scilly which it also described as a UK first. [NewsTime]

*Ed: Someone is determined to find a job for this 'Windracer' drone. No one has yet explained why the bits of mail [and PPE] might not be placed on the regular, daily inter-island flights, or on the ferry that runs twice daily. With two pilots, one at each end, plus other staff, this drone operation must be more than doubling the cost of mail delivery to a tiny corner of the UK at a time when Royal Mail is threatening to significantly reduce services to high population areas.*

Last month he sent us a comprehensive report on the drone show in Las Vegas [before going on the other drone events] and since then I have grabbed some telling words from one of his social media comments... the thoughts of **Mark Colborn** [pilot Dallas PD recently retired]

You just can't beat DJI, despite all the negative publicity the company has unfairly received as of late. Stability, reliability, control and video transmission ranges, quality of the hand controller, and the image quality of the cameras, they are all far superior. You get what you pay for, and if you settle for a cheap DJI knockoff (also made in China!) you will probably regret it. Yes, you can buy American, but beware these drones are only assembled in America, with a majority of the parts coming from China. You'll pay more and get less features (and with one company a cheap gaming controller)!

**Transport Malta Civil Aviation Directorate** (Transport Malta), the country's Civil Aviation Authority (CAA), and SwissDrones, a manufacturer of long-range unmanned helicopter systems, conducted a series of long-range Beyond Visual Line of Sight (BVLOS) flights over water for rigorous maritime patrol, search and rescue, and surveillance mission simulations. Additional flights were conducted to test and validate communication and sensor payloads.

All operations were executed in accordance with European Union Safety Administration (EASA) regulations for unmanned aircraft under the Specific Category, with full authorisation from Transport Malta. SwissDrones utilized its SDO 50 V2 Vertical Take-Off and Landing (VTOL) unmanned helicopter system designed for a multitude of long-range missions in adverse weather conditions, day and night, and in a large spectrum of temperatures, without any risk to the crew.

The aircraft's unique design features provide superior payload capacity (45 kg/99 lbs, including fuel), long endurance (3+ hours), stable flight patterns, the ability to carry single or multiple high-quality sensors, and



a high degree of safety features. An integrated autopilot system enables autonomous take-off and landing procedures as well as autonomous flight patterns.

The SDO 50 V2 uses the Flettner system of intermeshing twin rotors turning in opposite directions. Each rotor mast is mounted at a slight angle to the other, allowing the blades to intermesh without colliding. This design enables its superior payload capacity, prolonged endurance, and stable flight patterns. It also allows the helicopter to function without a tail rotor, which saves power and allows for a significantly higher payload to weight ratio.

## BOOKS

Not a book but it is a publication encountered previously. The Aviation Historian, the print and digital quarterly that describes itself as the journal for seasoned enthusiasts who want to explore the lesser-known paths of flying history has a police story to tell. The 37th quarterly issue (it has been publishing since 2012) includes a story on an obscure police air unit in Africa. Guy Ellis's two-part series on the British South Africa Police Reserve Air Wing, begins in this issue. At the core it is about a Rhodesian police outfit manned by farmers and businessmen flying their own civilian light aircraft fitted with door-mounted machine-guns and homemade grenade-chutes. For the record the rest of the edition includes stories about Fairey Flycatcher, an article on Hawker Hunter fighters, the Panavia MRCA, the final days of the Luftwaffe's tank busting Junkers Ju 87G Stukas in the closing stages of World War Two; a tale on how Sweden sent aircraft and personnel to the Caribbean to set the Dominican Republic's air force and another on the Royal Iraqi Air Force's first two decades, from its formation in 1931 to the early 1950s.



On the civil side, there are items on the early years of Ethiopian Air Lines, the Short S.32 landplane project, and more.

[www.theaviationhistorian.com](http://www.theaviationhistorian.com) Prices from £12.50 each printed copy. Due to some border silliness the print copy is not available in the EU, but anyone can buy a digital copy for just £8.99.

## LETTERS TO THE EDITOR

Good morning Bryn.

Thank you for continuing to publish *Police Aviation News*.

Thank you, also, for mentioning the 50th Anniversary of Sloane Helicopters in the October issue. As far as I know, there are no UK helicopter companies that have been trading for more than 50 years - definitely none under the same management and ownership. The photograph of our Robinson R22, G-BTIY, was taken 30 years ago when we operated that helicopter for the Northamptonshire Police. I recall that The Game Fair was held at Castle Ashby in July 1991 and our R22 was used for traffic control!

The Dyfed-Powys Police Authority owned and operated their Agusta A109E Power, G-DPPF, very successfully between 2003 and 2016. We supplied and equipped the helicopter and provided the maintenance. Then NPAS was created, and the expected chaos ensued.

Please keep up the good work.

Yours sincerely,

David George  
Chairman/Founder  
Sloane Helicopters



David George (right) with the Dyfed-Powys A109 and Helitech Duxford 1999. The Dyfed-Powys Chief Constable Ray White is in the observers seat ©File



## MOVE ALONG THERE DEMISE

Another ancient UK emergency service helicopter maybe lost in action. Long since retired from operations with Staverton based Specialist Aviation Services the AS355 G-PASH had recently been refurbished to enhance its more recent use as an executive tool with Excel Charter at Stapleford Tawney.

It was among a great number of aircraft blown about in the wind in a heavy storm on September 28 when parked on grass at night. Numerous fixed wings were turned upside down in the storm and two ancient helicopters succumbed.

Given that the storm was sufficient to blow PASH on its side, and to strip another AS355 of its cowlings it is likely that age will tell against both of them when the assessor decides their future.

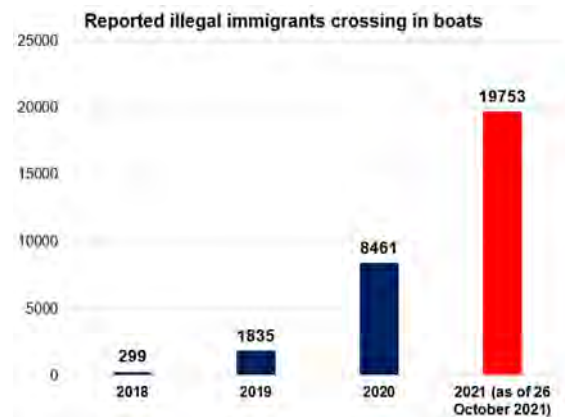
For the record AS355F1 G-PASH was c/n 5040 built in 1981 and imported from France in May 1996. It served with the emergency services until 2006.



## RELENTLESS comment on comings and goings at sea by Tony Cowan

In an earlier report (Police Aviation News, September 2021) it was highlighted that the British government had agreed to pay the French £54M to improve security on the beaches of northern France, between Dunkirk and Boulogne-sur-Mer. This financial aid was to have stopped the surge of migrants entering the UK without permission by crossing the English Channel in small, often overloaded, inflatable boats. It now transpires that this money has not yet been paid.

Many will agree that any further financial aid, on top of the £28M paid to France in 2020, also to improve security on the beaches of northern France, should only be paid once there is irrefutable evidence that, as the result of action by the French, the numbers of migrants crossing the Channel are decreasing. In fact the numbers have rocketed! There were 4,653 landings in Kent and Sussex in September and a further 2,669 in October with, at the time of writing, in late-October, an annual total for 2021 of 19,753. In 2020 the total was 8,461; in 2019 it was 1,835 and in 2018 it was just 299. The total for the whole of 2021 will, most likely, exceed 20,000 by a significant margin. The mass migration across the English Channel is relentless.



## THE BLAME GAME

It's very easy to blame the French for this unsatisfactory situation, particularly when gendarmes stand aside to permit migrants to launch their large inflatable boats, each one carrying 40 passengers, from a beach near Calais in broad daylight! Unfortunately, for the gendarmes, this dereliction of duty, in October 2021, was filmed by a team from Sky News! However, the French, in turn, blame the 'pull' exercised by the UK with its generous benefits, accommodation and lax employment rules. The truth, most probably, lies somewhere in the middle with neither the British nor the French providing sufficient basic, secure accommodation for those migrants who enter the country without permission and then claim asylum. In the UK migrants, those awaiting the result of their asylum applications, are housed in hotels. In France they're more likely to live in a tent, with a sleeping bag if they're lucky!



## OBSERVE AND REPORT

In the meantime, those migrants who choose to take their chance by crossing the English Channel, one of the world's busiest shipping lanes, in an overloaded inflatable boat may expect to be identified by a patrolling Coastguard aircraft, or a Tekever AR3 or AR5 drone flown on behalf of the UK Border Force. These aircraft, flying an 'observe and report' mission then forward their reports to the joint coordination centre at Dover and to those patrol boats belonging to the Border Force, together with the lifeboats of the Royal National Lifeboat Institution. The majority of the migrants are then 'rescued' and delivered to the reception

centre at Tug Haven at the Port of Dover. Others may land on the beaches of Kent and Sussex in south-east England.

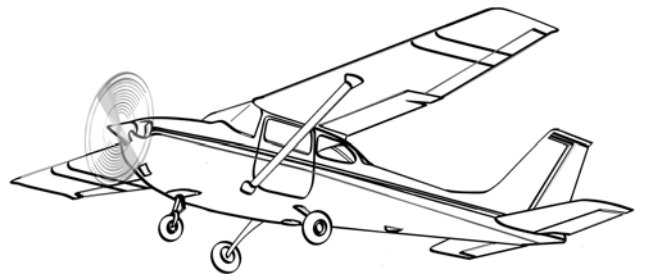
More recently, General Atomic Aeronautical Systems Inc. (GA-ASI) demonstrated their MQ-9B SeaGuardian remotely piloted system to senior members of the UK Border Force whilst it was deployed to the UK to take part in the military exercise 'Joint Warrior'. The Royal Air Force has ordered 16x MQ-9B's which will, in RAF service, be named the Protector RG Mk1. For the demonstration flight for the Border Force the SeaGuardian was flown from the north of Scotland to complete an 8 hour 'barrier patrol' of the English Channel between England and France, before returning to Scotland.



The SeaGuardian is equipped for surveillance and reconnaissance with a multi-mode search radar, Inverse Synthetic Aperture Radar (ISAR), an Automatic Identification System (AIS) receiver, together with a high definition, full motion video sensor equipped with optical and infrared cameras. Nevertheless, whether such capability is required to spot an inflatable boat travelling between Calais and Dover is debatable. The expression, 'Using a sledgehammer to crack a walnut' springs to mind! Sensibly, the French Police Aux Frontieres (Border Police) use a Cessna 182 'spotter' plane to patrol the coast between Dunkirk and Boulogne-sur-Mer. This response is proportional, many will agree, but, unfortunately, these patrols are infrequent and lack the persistence that is required to properly promote a policy of 'deter and detect'.

The recommendation that Her Majesty's Coastguard should emulate the US Coast Guard and form an auxiliary coastguard (air) to patrol the coast with light aircraft has yet to gain traction. Nevertheless, to achieve the necessary 'persistence', at a price which offers value for money, we may yet see the inclusion of the voluntary sector to fly additional border, coastal air patrols to 'observe and report' under the direction of HM Coastguard and the UK Border Force.

*The French Police Aux Frontieres fly Cessna singles for aerial patrol duties. A recommendation for HM Coastguard to emulate the US Coast Guard and form an auxiliary coastguard (air) has yet to gain traction.*



**NEW LEGISLATION**

The British Home Secretary, Ms Priti Patel MP is now advocating a policy 'turn-back' within new legislation, 'The Nationality and Borders Bill'. Boats carrying migrants will, in the future, be prevented from entering British waters. At the same time, the French minister of the interior, Gerald Darmanin has advocated a migration treaty between the European Union and Great Britain. The EU minister has also spoken of an assurance, from the Executive Director of the European Border and Coast Guard Agency (Frontex), Fabrice Leggeri, of the provision of aircraft to 'monitor' the coast of Belgium and France where it borders the English Channel.

The British Home Office clandestine channel threat commander, Dan O'Mahoney is of the opinion that, "We'd love to do joint patrols (with the French) at sea as well as on land, but the French have a very strong view about sovereignty and therefore it's not an avenue they want to explore at the moment." Sadly, Mr O'Mahoney fails to mention the value of persistent air patrols over the beaches of Belgium and northern France with 'spotter' aircraft, to 'deter and detect' the migrants whilst supporting land and sea patrols with real time intelligence.



*The coastline of northern France continues to challenge the French land and sea patrols whilst air patrols with 'spotter' aircraft have yet to be fully exploited.*



The Frontex Executive Director has also highlighted a sharp rise in the numbers of migrants entering the EU illegally in 2021, mostly along the Mediterranean coast; 134,000 in less than 10 months, 68% more than in 2020. In the meantime, the criminal gangs, the people traffickers, continue to run circles around the French police and the UK Border Force. Although, in a recent press release, the UK Home Office has claimed credit for almost 300 arrests and 65 convictions related to small-boat crossings so far this year. A further statement from Dan O'Mahoney that, *"The government is determined to tackle the unacceptable rise in dangerous Channel crossings using every tool at our disposal, at every stage in the journey"* is also very welcome. Nevertheless, persistent air patrols over the beaches of Belgium and northern France are noticeably absent, as is the use of an aerostat to provide persistent surveillance of the Dover Strait, between Calais and Dover.



*The Lockheed Martin 'Persistent Threat Detection System,' seen here at Topcliffe North Yorkshire, could be used to provide persistent surveillance of the Dover Strait between Calais and Dover.*

### LUCKY TO SURVIVE

Most recently, early in October, 38 migrants were very lucky to survive after their inflatable boat sank, in daylight, 10 miles from the French coast. According to *'The Brussels Times'* they were very fortunate to be rescued, suffering from severe hypothermia, by a Belgium NH90 search and rescue helicopter from the airbase at Koksijde, together with a French naval vessel.

Then, on Saturday, October 23, another group of 39 migrants were also very lucky to survive after their large inflatable boat also sank in mid-Channel. Fortunately, they were spotted and rescued by the crews of 2 passing merchant ships, who immediately launched their lifeboats, together with a nearby fishing vessel. These were joined by the French Navy patrol ship, 'Cormoran', the SNMS lifeboat from Boulogne-sur-Mer, a Navy Dauphin helicopter from Le Touquet and a Coastguard AW189 helicopter from Lydd in the UK.



*On October 23 2021, 39 migrants were rescued from the English Channel by a flotilla of 2 merchant ships, a fishing vessel, a French Navy patrol ship, a SNMS lifeboat and 2 SAR helicopters.*

Sadly, not all rescues of migrants risking their lives in small, often unseaworthy inflatable boats are successful. Two days later on Monday, October 25 there was a report of a dinghy that was lost and in distress in the North Sea, north of the Dover Strait. Two migrants from Somalia were rescued by a Coastguard SAR helicopter. However, despite an intensive search by Coastguard patrol aircraft and three RNLI offshore lifeboats up to three migrants are still missing and are believed to have perished. The number of migrants who have attempted to cross the English Channel from France, or Belgium to the UK at night and have never reached their destination will never be known.

**POLICE AVIATION**  
**NEWS** First for  
 Emergency Services



## CONCLUSION

This very dangerous ploy by criminals, people traffickers, arranging life-threatening journeys in open boats must be stopped, and stopped soon. If the French have, as has been suggested, a problem with their sovereignty, together with Anglo-French cooperation, then all the more reason to invoke Article 4 of the NATO Treaty to maintain the territorial integrity, together with the security of the national borders of Belgium, France and the United Kingdom. Security that would be enhanced with a full range of air assets, from light 'spotter' planes with volunteer aircrew to larger, manned patrol aircraft, together with drones and aerostats. Also, at sea, a multi-national force of patrol boats deployed close inshore to intercept all boats carrying migrants immediately after they leave the beaches of Belgium and France and before they reach the very busy shipping lanes of the Dover Straits Traffic Separation Scheme. The same migrants who may have evaded the French police patrols on land. In the meantime, as part of its annual, autumn Budget the British Government has shown its determination to protect its borders by allocating an additional £700M to improve security at UK airports and to purchase new patrol boats for the UK Border Force.

James A Cowan MBE BA CF FRIN

Squadron Leader  
Royal Air Force (Ret'd)

The author, a former RAF maritime reconnaissance pilot, is also a former member of the North East Police Air Support Unit and the Scottish Air Ambulance Service. He is a Churchill Fellow and a Fellow of the Royal Institute of Navigation.



## EVENT REPORT

### 5-6 October 2021 Helitech Expo

The return of Helitech, rather than its immediate last name of Vertical Lift (the effort at Farnborough) was an event to note but perhaps not to celebrate. For many it was an event and place to shun but in many cases that was probably a mistake. Setting aside various security events and the military ExCel, Helitech was for a few the chance to return to face-to face meetings after at least 18 months of enforced Zoom calls. It was therefore an important event. Far more important to the human psyche than we perhaps appreciated.

It is so easy to criticise the whole thing. When I was asked on the first day whether I was going to write a Special Edition – just as I have in for past Helitech events – it was a thought a million miles from my head. Now the idea is not that stupid after all but there will still be no Special Edition.

As advertised Helitech was a couple of halls in ExCel, 300 exhibitors and 100 speakers. The reality was two thirds of the floor space was drones not Helitech. The footfall was I believe heavily orientated towards the drone enthusiast.

Those 300 exhibitors and 100 speakers were a misrepresentation, and it is clear that the 45 or so actual attending exhibitors were largely unhappy with the footfall and just two helicopters and an autogyro to kick the tyres/skids of. It was not the Duxford Helitech we recall, and neither was it the Redhill event in a tent where wellies were required for the sea of mud. Even that dire and very damp Vertical Flight event at Farnborough last time out was visually more commanding and significantly bigger.



The ExCel event worked on many levels but I tend not to congratulate the organisers – it worked despite the organisers simply because it was an event of its time, a long overdue post Covid opportunity to Network.

In that hall were the industry. Emergency Services, CAA, the MROs. In the main they were not exhibiting which must have been painful for the organisers but (if you are any good at ‘significant people’ spotting) the important people for customer-to-customer interaction were there. Dozens of conversations and meetings were taking place in the coffee houses, in the aisles and with the exhibitors who were fully aware of the identities of their often-anonymous visitors. The biggest pain may have been felt by the exhibitors who did not know who they were in the presence of. Organisers have improved their take on the science in recent years but the print on name badges is never large enough to decipher from a metre or so unless you have particularly young eyes!

There were a number of exhibitors present who I could not understand what they were selling, where the connection with an aviation event lay and how they survived two days in an environment they probably had little understanding of. Some left early, others never turned up – apparently including the BHA who were supposed to be a co-sponsor of the event. In fact, they were there both days but the short sighted organiser failed to ensure they had seats and a table. As an organisation they were important to the event, but they are not cash rich and that should have been appreciated. What would a table and chair have cost?

At the end of day one a straw poll showed grounds for a disaster that many had predicted. At the end of day two by which time many of those important people had returned because they had not finished their intended business there was a wholly different attitude. I am aware that several exhibitors signed up for next year. All it takes for the ‘swingometer’ to flip from a bad show to good is for two potential customer enquiries to take place on an exhibitors stand.

There are caveats, but Helitech was certainly not a business disaster, it put potential customers in the path of several exhibitors. For the wider audience, including the enthusiasts who might just boost the takings on the catering side, it remained something of a disaster. For some making profits in coffee sales at an aviation event is very important.

The static helicopter line up was disappointing – two Leonardo helicopters and an autogyro – but there were numerous drones of all shapes, configurations and sizes and arguably they attracted a larger audience to the joint exhibitions. Perhaps it is that drone fans are less snobbish about the format of the events they visit.

The static airframes included a Leonardo AW109 Trekker G-HITB brought by Hilti Air Flight Training based at Elstree Aerodrome. They also operate another Trekker, an A119 Koala G-HITX and a range of Airbus types including AS350B3e [H125] and B2 and D2 variants, an EC120 and H130.

The other static helicopter was a Leonardo A109E G-KRNO operated by Castle Air in Cornwall. The HEMS configured machine was imported from the USA and only received its UK CoA a few days before the event.

The massive range in designs continue to give drone shows interest, just as there was great variety in the early days of ‘full size’ aviation. Anything goes. Fixed wing can be clunky or sleek and the number of rotors found on vertical lift designs range from one to a dozen. In many cases it is difficult to see how the crew and passengers actually get into the cargo or passenger pods of these new-fangled e-taxis – in many there certainly will be no ‘rotors running’ loading and unloading! Naturally there is a



Leonardo A109 Trekker ©PAR



Leonardo A109 Power ©PAR

widespread assumption that all these designs will be 'perfect' for operation by all the emergency services. It seems that for most there is nothing quite like the marketing attraction of a drone with POLICE on the side. Few seem to worry whether the craft is practical for the role. Nothing new there then.

The Drone-X Show appeared to attract the larger audience – we are constantly told that drones are the future, so perhaps that stands to reason – and there was no shortage of exhibits and exhibitors.

The Techsyn CGT50-VTOL is a 4,71 m wingspan T-Tail UAV. It uses electric powered motors for take-off and landing and does not require a runway or catapult. It is a composite airframe with 5 kg payload capacity, powered by a petrol engine. The low fuel consumption enables a safe endurance of 6 hours. About the same as a manned fixed wing.

The CGT50-VTOL, we are told, can take-off from a table and land on a 5x5 m surface with high accuracy. The UAV has a 55 kg MTOW (including payload). It can be operated by just two people. Missions can be undertaken autonomously and the brochure states that the craft is sense and avoid/detect and avoid ready. *Ready? Is that code for not yet?*

The craft is put forward as useful for law enforcement, but it is not in the realms of a craft needed by such as NPAS even if it appeared to soar over the Inmarsat stand and its BVLOS signage. That 5kg payload provides only a puny EO/IR camera. There are not many drones around capable of lifting either a 10 inch or 15-inch sensor—and put a typical police persons size 12 boot anywhere near that and it will be toast.

I do think that the new owners of the Helitech brand name, the Prysm Group - need to get their act together on this event.

Prysm have been organising leading B2B trade exhibitions for over twenty years and are responsible for a portfolio of over 50 shows across the world, from niche industry events like European Neuro Convention to major global events like The B2B Marketing Expo and White Label World Expo.

In 2019 they opened new offices in the USA, Hong Kong, Germany and UK, adding 10 more events to a global portfolio. A company that size has a good reputation which they evolve and improve.

They took over an event that had been consistently over sold but they had time to mute the untruths and temper the silly text. Continuing to bill Helitech as the UK's largest event for the industry [which it was once] and failing to achieve that claim in a new post Covid World must serve to damage their image. If only it were the fault of the pandemic. Marketing can be brash, but it also works at a subtle level and I fear that in this instance they neglected the latter option. There were no "incredible features" but there were features, the keynote speakers



THEATRE 2			
TUESDAY 5TH OCTOBER			
	David Tait CAA	The CAA's Approach to Innovation	11:00 - 11:30
	Steve Robertson Air & Sea Analytics	<b>SEMINAR CANCELLED</b>	11:45 - 12:15
	Dr Marcus Bauer Inelation GmbH	<b>SEMINAR CANCELLED</b>	12:30 - 13:00
	Simon Witts ENGAP	<b>SEMINAR CANCELLED</b>	13:15 - 13:45
	Neil Perrett GPR	Legacy Equipment Sustainment	14:00 - 14:30
	Peter Myers South Myles	The Mobile Phone as a Location Beacon Using Manned and Unmanned Aircraft	14:45 - 15:15
WEDNESDAY 6TH OCTOBER			
	Andrew Fuller BHS	Laser Scanning and Applications From Manned Helicopters	11:00 - 11:30
	Tony Payne BHS	Sustainability and Investment in Vertical Take-off: The New Frontier of Aviation	11:45 - 12:15
	Ian Holder BHS	Why Undertake a LOSA (Line Operations Safety Audit)?	12:30 - 13:00
	Lloyd Wason GPR	Expert Witness Work and Safety Performance	13:15 - 13:45
	Steve Robertson Air & Sea Analytics	<b>SEMINAR CANCELLED</b>	14:00 - 14:30
	Katherine Krell & Paul Crowhurst Aviation Technology	Intelligent In-flight Test Instrumentation for Helicopter Aerodynamic Development	14:45 - 15:15

For the full theatre timetable **SCAN HERE**



were credible but there were never 100 of them and the number of speakers failing to attend – or was it refusing to speak when they saw the event - damaged everyone.

There was no “Helitech Networking Area” as promoted but in fact the whole floor turned out to be a networking area that the organisers had no control over, but the effect was the same and it pretty much saved Helitech. The organisers could easily have given the impression that they always intended that to happen.

Great slogan – “grab a coffee, catch up with old friends and make new connections in a more relaxed yet still professional setting” but there was insufficient chill out areas, even spare seats in booth spaces not taken up act as an attractive gathering point but on the grounds of misguided economy there were no seats in these starkly ‘abandoned’ areas.

I have little doubt that some of the missing exhibitors could not make the event for some reasons they had no control over – covid, flight connections and others – but instead the organisers just left the areas as a negative space that an exhibitor had shunned. Take the sign off or put up a sorry notice. Even telling the media hounds would get the real reason out there.

The media shunned the event – or were they simply not invited or appreciated enough to be looked after. I only saw one person with a Press badge, and it was not me, apparently that identification was hard won by the individual. In days of yore the press area of Helitech Redhill was a large room brimming with coffee and sticky buns, phone lines, a printer and internet to host the hundred people from every continent who are going to promote the event and its good name into the future at little cost. If the press writes about the event in a not too damaging way there is thousands of pounds of added advertising value given freely to the organisers. Where did that cheap bit of advertising go? There were spare spaces where exhibitors had not turned up already built, but simply short of a few chairs and a table or two which were probably already stored out the back. In the event, the few attending did not have anywhere to write their story, send their Tweet, post on Facebook. These people have followers and those that read their words might be swayed in deciding to attend late in the day to swell the footfall.

I know that running events is no cake walk, but some aspects are easy and cheap to achieve with a little forward thinking. Right up to the opening Helitech were promoting themselves as having 300+ exhibitors, a figure few believed related to the actual number of booths and yet their biggest rival – and the former partner – European Rotors in Cologne in November are happy to announce 135 registered exhibitors in the knowledge that they include the main MROs. On the face of it Helitech did not have airframe or engine manufacturers present, but I spoke to some of them. They were present. Because many people saw the ‘300’ as a desperate marketing ploy many people simply stayed home. There simply was no likelihood of 300 exhibitors. Airbus was there and Leonardo was there in the hall checking out whether they had been wrong to shun the event. Sadly there was little to divert their pre-judgement.

*News and product stories generated in and around the Helitech event appear throughout this edition.*

From September 28 to 29, the **International Security Expo** – charmingly billed as the world’s premier Government, industry, academia and end-user security event – returned for the first time in nearly two years. How many events have similar delusions? I thought that the mantle fitted several other of the world’s events far better. But it is a good event in its own right if you blind side the debatable claim.

Co-located with the newly launched **International Cyber Expo**, the events welcomed thousands of security professionals from all corners of the industry, including senior representatives from Heathrow Airport, British Army, Bank of England, Tesco Stores Ltd, BAE Systems, Chester Zoo, CPNI, Dell, Neptune Energy, Post Office, NaCTSO, DASA and the Embassy of Argentina. Further to this, recently appointed Minister for Security and Borders Rt Hon Damian Hinds MP, was also in attendance and carried out a keynote speech, clearly demonstrating the importance of the event to the security sector.

Reconnecting the market from far and wide, the international audience was made up of attendees from 36 countries including Israel, Italy, Sweden, Switzerland, Spain, Canada, Hong Kong, Singapore, Belgium and Australia. This included senior delegates from NATO - HQ AIRCOM, Germany, Government of Gibraltar, US Army RCCTO, New Jersey State Association of Chiefs of Police and the Embassy of the State of Kuwait.

It was a modest show with little or no aviation content and few exhibitor no-shows under the circumstances. Reigl present at ExCel were perhaps the nearest to the aviation field with their laser equipment although the Olympia show focussed more on the ground-based crime/accident scene mapping variety.

There were numerous government departments represented with stands, including Border Force promoting their training and the Home Office promoting their own Security & Policing event, at Farnborough, well they were there but as government departments they seemed to revel in being stand offish with little engagement with visitors. Contrast that with most commercial stands where the staff put themselves and their product forward – for them being forward feeds their family.

For the record the **Security & Policing**, the official Government global security event, will return as a live event for its 40th anniversary next year, between 15 and 17 March 2022. It will be held in some contrived secrecy at the **Farnborough International Exhibition and Conference Centre** although the content is simply a mix of content drawn from plentiful and everyday Security Expos, DSEI, Milipol Paris, none of which seek the ultimate mantle of secrecy. By all accounts there is rarely anything dreadful or new at Security & Policing but registration to attend or exhibit at the 2022 event is now open.

International Security Expo and International Cyber Expo will return to Olympia London from 27 – 28 September 2022. To find out more, visit: <https://www.internationalsecurityexpo.com/>

## EVENTS

PAvCon Europe 2022 in Austria is receiving increasing interest and personal contacts at the recent Helitech event in London have effectively underlined the support for the event next June. Even excluding the few exhibitors that have already paid for attending the event next June the line-up is getting impressive. And, eat your heart out Helitech, it includes the main MROs. Axnes, Avalex, Austro Engines, Diamond Aircraft, Hensoldt, Luminator Aerospace, SmithMyers, FLIR, Bell, Airbus Helicopters, Leonardo, L3 Harris, and of course Airborne Technologies who are hosting the event at their facility, have all declared an intention to support the event. Others, including Frasca, Luxopus/Spectrolab searchlights and Reigl have expressed an interest. As for media tie ups for the event we have non-exclusive marketing agreements in place with AirMed & Rescue, Helicopter Monthly, Helicopter Life, Helihub, and Rotorhub. *Other publications are available.*

It comes across as something the size of Helitech, but it is not and is a completely different concept focussed more on training and ALE focussed operational information. Networking is the key component. We do not expect thousands of visitors – hundreds perhaps – and 30 or so exhibitors. There is no tempta-

**PAvCon**  
POLICE AVIATION CONFERENCE

**6-8 June 2022**  
Wiener Neustadt, Austria 

*The Networking continues*  
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tion to claim more (just yet)! The coffee and lunch are expected to be free at the point of consumption.

If it follows the form of the last event in Austria in May 2013 there should be a significant static line up, the airfield is the location of the Diamond production line and that of Scheibel. Last time the event was held in the local air museum next to the Diamond factory so there were perhaps a few too many Diamond airframes providing a backdrop, but I still expect a good static exhibition.

The event has a few hurdles to jump in the next seven months but they are mainly procedural and related to the still big unknowns of Covid, so it looks set to happen.



A small part of the PAVCon static line up when the event was last in Austria. In 2022 the event will be on the other side of the airfield. ©PAR

## UPCOMING EVENTS THIS MONTH

16-18 November 2021 European Rotors, Koelnmesse Convention Centre in Cologne, Germany. A victim of Covid 19 last year, the event is about to try again one year later. The VTOL show and safety conference is the one and only European event where the entire rotorcraft industry meets and grows its business.

For the first time, the European Helicopter Association (EHA) and the European Union Aviation Safety Agency (EASA) are teaming up to create an exceptional showcase for the European rotorcraft community. EUROPEAN ROTORS will be the unique leading platform offering the industry an exhibition where all stakeholders (including OEMs, suppliers and operators) gather to do business and share knowledge in a comprehensive training and conference programme.

The conference programme spread over three days and includes significant airborne emergency services items spread thinly across the three days. The police focussed events appear on the afternoon of the last day, but there are air ambulance, rescue and firefighting elements on other days.

Those Day 3 items include presentations from Martin Landgraf, the deputy chief of the Baden-Württemberg police helicopter unit on the use of drones in police missions, Cologne based police aviation support pilot Tim Pittelkow on helicopter missions in North Rhine – Westphalia, Jeroen Eeckelaers from Belgium on the challenges facing a non-military state aircraft operator and Chief Inspector Michael Korvas of the Austrian BMI talking on helicopter missions in an Alpine environment. There is only one commercial presentation scheduled for that afternoon and that is from a familiar face at PAVCon Europe, Hector Estevez of Centum who will present on that company's Lifeseeker mobile phone related application for assisting in SAR missions.

Like the HAI Heli-Expo in the USA this is a pay to enter event, EHA members are charged €80 for one day, €190 for three days. Non-EHA members face charges of €110 for one day and €250 for three days. *Editor: The entry fees are not insignificant amounts to which must be added the cost of travel to Cologne and accommodation. The numbers could easily climb up past €1,000 for a non-German individual staying for the whole event. In these Covid distorted times it will be interesting to see how many people who are not sponsored by their workplace will make that journey. It has long been held that the primary difference between Europeans and Americans has been the wide gap in willingness for individuals to allot time and to pay for memberships and training related to the workplace. The Americans do and, generally, the Europeans do not have that willingness. If attending the European Rotors event is somehow perceived as a leisure break (despite the Covid restrictions) that may make a positive difference to the outcome in terms of numbers attending. The coffee is an extra.*

