

Police Aviation News

©Police Aviation Research

Issue 311

March 2022



QUEENSLAND PLANS REVEALED

BELGIUM MARK THE PAST

BEYOND VISION

PROBING THE SNOW

EDITORIAL

The world has changed. Many never thought it would happen right up to the wire, but it did and now there is a significant European war on our doorstep. The coming days may be bad for many, but they are a disaster for the people of Ukraine. As Margaret Thatcher said at the time of the 1982 invasion of the Falklands Islands "... we thought that the days had gone when anyone belonging to the United Nations attempted to take someone else's territory by conquest.....?"

Hopefully the coming difficult months will not greatly affect the hopes, aspirations and plans of the airborne law enforcement and emergency services industry to meet and cooperate to the common good.

Bryn Elliott

LAW ENFORCEMENT

AUSTRALIA



Surf Life Saving Queensland supports the police air service

QUEENSLAND: The Queensland Police Service (QPS) has made some significant advancements and announcements in regard to the future state of its aviation assets and activities over the past 4 months.

Notably, an announcement was made by the Queensland Government on Monday 21 February 2022 that a new contract had been signed with Surf Life Saving Queensland (SLSQ) for the provision of three Bell 429 helicopters for a 10-year period from 2024.

SLSQ are the current provider of QPS POLAIR helicopters and pilots, with QPS providing sworn police officers to perform TFO roles. As the current contract expires in July 2022, QPS and SLSQ reached an agreement to continue the provision of services through until 2024. This 2-year agreement will see the existing BO105 helicopters being replaced with EC135's. The first replacement has occurred this month, with the second coming online in June of this year. Both EC135's will be replaced with the Bell 429's in 2024.

In April 2021, the Queensland Government transitioned control of Queensland Government Air (QGAir) from another government department to the QPS. QGAir operates a fleet of five fixed wing and five rotary wing aircraft for the purposes of community health and safety, persons in custody movement, organ re-



Coming in two years—the Bell 429

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



Police Aviation Research Airborne Public Safety Association Member since 1994—Corporate Member since 2014

SPONSORS

Teledyne FLIR Systems
L3 Harris/Wescam
RDDS
Trakka Systems

Airborne Public Safety Association

www.flir.com
www.l3harris.com
www.rdds.co.uk
www.trakkasystems.com

www.publicsafetyaviation.org

retrieval, disaster management, and Ministerial and dignitary transport. QGAir Fixed Wing are currently undergoing a fleet renewal programme with an ageing fleet being replaced with new assets to meet future demand. Following realignment of QGAir, QPS established the Aviation Capability Group (ACG) within the Operations Support Command to manage all frontline aviation assets and operations. The ACG is led by a Chief Superintendent.

Following a strategic review of existing QPS aviation assets, a decision was made to also consolidate all operational aviation assets (including POLAIR and RPAS Unit) into the ACG under the unit Police Air Operations (PAO). Grouping police aviation assets into the one structure enables QPS to assess demand drivers (general crime, road safety, serious and organised crime, search, disaster management and counter terrorism) and utilise the most appropriate aviation capability/asset to deliver the best outcome for the community. PAO is led by the Inspector, Operations Manager.



Katarina Carroll (left), Cameron Dick (centre) and Police Union president Ian Leavers at the Brisbane event (Supplied: Jack Simmons)

In 2010 the QPS considered the potential benefits of RPAS and subsequently commenced research into its operational use. The QPS was successful in achieving a CASA Operators Certificate in December 2013 and were the first Australian Law Enforcement Agency and first Queensland Government Department to do so. On the 26 December 2013 the QPS became the first Australian law enforcement agency to use RPAS operationally. In 2021, with 80 licensed pilots and 83 aircraft, the QPS performed 1,357 flights. On 21 February 2022, the Queensland Government announced funding of up to \$1M to conduct a 12-month trial of advanced RPAS in the north of the state (Cairns and Townsville). Whilst existing RPAS aircraft and pilots are based in these locations, the project will focus on the use of more advanced and higher grade RPAS technology rather than the mostly commercial products currently in use. Options are currently being reviewed and it is expected the project will commence in June 2022. [Daniel Bust]

Editor: This is a story in two halves. The detail above was barely touched upon by a media event held to launch the future and the arrival of the first of the two EC135 helicopter VH-POF c/n 0914, set to replace the two BO105s VH-NVH c/n 923 and VH-NVI c/n 927. The added detail is from social media and press reports of the event.

Last year the Queensland government issued requests for proposals for new helicopters in the state and the above is the result. The media event of February 21 was held in Archerfield in front of the "newly arrived" replacement EC135 and touched on many of the details but was less clear on who was the provider and what the strategic thinking was. The fact of the short term EC135 replacement deal was not reported, nor was it reported that the EC135 had been at Carrara for nearly two months on training. Cameron Dick Queensland Treasurer and Minister for Trade and Investment fronted the event and was accompanied by Police Commissioner Katarina Carroll. Dick saw the developments as part of a build-up in capability designed to protect Queenslanders through to the Olympics in 2032 and beyond. He spoke on the military-grade drones soon be at the disposal of North Queensland police and pointed out that they will not be used to pursue stolen cars. The drones have a five-kilometre range but only to be operated in line of sight.

Despite the limited capabilities of the drone trial, Commissioner Carroll maintained that the technology was more suitable for North Queensland than a dedicated helicopter. There has been a lengthy debate, fuelled by the Opposition, on whether a dedicated police helicopter is needed to service Cairns and Townsville amid the region's long-standing problem with vehicle thefts and youth crime. In Townsville police have access to a helicopter to assist with operations but Commissioner Carroll said it would be "dangerous" to be using that aircraft or a dedicated helicopter for extended police operations in Townsville. There is a very busy Air Force base there and a commercial airport close by. In the past they had operated a helicopter and its presence resulted in a major shut down of the entire area on several occasions.

The new agreement will also see the Gold Coast's Polair base moved from Carrara, a city of the Gold Coast to a facility at the Southport Airfield, Coombabah, around 12 km distance.

The aircraft of the former Queensland Government Air, now administered as part of the police fleet are based at Brisbane airport, Archerfield, Townsville, Cairns, Mt Isa, and Horn Island. It combines the aviation assets, facilities and personnel of the former Emergency Management Queensland Helicopter Rescue, Government Air Wing and Police Air Wing into a unified government flight service operating five rotary wing and six fixed wing aircraft.

AUSTRIA

POLICE AVIATION CONFERENCE: It is perhaps too early to place too much emphasis on the long term intentions of the Austrian Government but in February the daily newspaper Kronen Zeitung reported that it had become aware of what it called a "seismic U-turn in policy", Austria is to relax all the strict rules it was threatening to target the nation's unvaccinated from March 5.



According to the report the threats have not proved to be too long lasting, and the government has announced a roadmap for the relaxation of the pandemic measures which will see the nation's unvaccinated once again allowed into bars and restaurants.

Some rules currently remain in place, however, including the mandatory use of high-class FFP2 masks on public transport and in supermarkets. It is expected that for the time being when entering Austria from abroad people will require either proof of vaccination, recovery, or a negative COVID test.

The changes in these measures were underway when the June 2022 PAVCon Europe site was visited in late February. If nothing changes it would appear that the signs are good for most restrictions to be set aside by June and therefore for the PAVCon Europe event to go ahead as usual.

The police currently operate an Airbus Helicopters fleet of EC135 and AS350 helicopters, the AS355N was disposed of some time ago after modern flight practices effectively led to the type no longer having a specification that met engine out criteria. The AS350/H125 fly operations and training and there is one elderly Bell 206 in the fleet that is their initial flight trainer. It starred at the last PAVCon in Wiener Neustadt and is expected to be there this year alongside the duty Vienna based EC135 that will come and go as the need presents itself. Also expected in the static line up will be the local air ambulance, normally located a few doors down the street from Airborne Technologies, along with ISR airframes from Diamond Aircraft. As with all years – subject to availability.

The Police air base currently located in the police HQ complex in Hohenberg Strasse, Vienna is due to close next year with a new base being in construction on the military side of Wiener Neustadt. This, Flugplatz Wiener Neustadt, is not the PAVCon airfield but a much larger site to the west that is now grass, the original infrastructure having been largely grubbed out. Although not planned that way, the holding of PAVCon Europe in the town this year will therefore have some domestic interest locally



The police aviation facility in Vienna, Austria that is to close down and be demolished. It will be replaced by non-aviation buildings.

Proving that some airframes can simply go on and on if there is a need, the Bell last 206 continues to serve in the basic training role. [©PAR taken on 23/02/22]





BELGIUM

FEDERAL POLICE: Twenty-five years ago, in January 1997, what is now the Federal Police but was then the military Rijkswacht or Gendarmerie took delivery of its first McDonnell Douglas MD900 Explorer at Melsbroek, the military side of the airport in Brussels.

It was the first stage in a reequipment operation that replaced five Sud Alouette and three early model Aerospatiale SA330 Puma helicopters. After numerous equipment upgrades, that MD900, G-10, is still in service with over 11,000 hours on the counter and the unit is looking to find a type suitable to replace it and its younger stablemates.

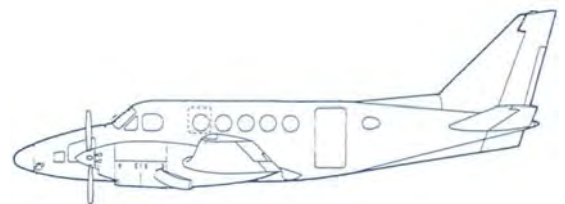
Ed: From 1955 the Gendarmerie called upon the army for air support [as it was then a military unit]. It acquired six Alouette's for its own use in 1967 but these were seconded military aircraft, many of which were rotated through the police fleet as required.

From January 1st. 2001 the nature of the former military Gendarmerie/Rijkswacht changed and the civil Federal Police was created. The MD Explorer fleet currently up for replacement includes G10/OT-GIA c/n 900-00034, it was converted to the MD902 in 2013. It was joined by G11 c/n 900-00045 in the summer of 1997 and G12 c/n 900-00038 in 2001. Two other Explorer's both already built to the MD902 standard were added in 2010 and 2017. G16 c/n 900-00132 and G17 c/n 900-00137, they heralded the conversion of the fleet to the later build standard.

GERMANY

HESSEN: In its November 2020 edition PAN carried a story from the European Tender Website of an order for a turboprop twin for the police in Hessen. A contract for an unidentified twin engine police aircraft was awarded to Atlas Air Service AG, in Ganderkesee, Niedersachsen. The type is not specified but the specification appeared to meet that of a Beechcraft King Air and presumably it was slated to replace the fixed wing Vulcanair P68 this police force acquired in 2012.

The purchase turned out to be Beechcraft 200 King Air D-CHEB c/n BY390, it was delivered late last summer, on test with the Polizei markings partially obscured and has since been noted regularly flying across Europe. It appears to be acting as a state transport rather than a surveillance airframe.



Meanwhile the original 2012 Vulcanair P68 fixed wing D-GHEA, equipped with a retractable EO/IR turret, continues in service. Unlike such as NPAS flights tend to be around one hour rather than the 5-6 hours typically favoured by the British operator.



SAXON: The Sachsen State Police Aviation Unit is about to replace their fleet of three EC135 helicopters with something larger. A potential candidate is the H145, and Airbus Helicopters brought one of their latest demonstrators, D-HBTF, to the Polizei Hubschrauberstaffel Sachsen, base in Dresden on February 8 to fly staff in the type.

Ed: This unit has been in operation for over 30 years. In keeping with its East German ancestry, it was equipped with Mil Mi-2 helicopters, then the Polish W-3A before transitioning to the EC135T1 in 1999. Over the following years a further two EC135T2 were acquired, the youngest being brought into service a decade ago.

SPAIN

CATALAN POLICE: The Mossos d'Esquadra. Police of Catalonia. Have a fleet of two EC135 helicopters and at the end of February officers from the unit were at Airborne Technologies in Wiener Neustadt Austria accepting one of them after a role equipment upgrade that saw the addition of new role equipment mounts and a new operator panel to one of the fleets.

The alterations included the fitting of an TFO/operators console in the rear of the cabin and new mounts for the sensor and searchlight. The console features Airborne Technologies own carbon fibre construction which offers a significant weight saving but the customer elected to use the heavier Meeker mounts for the step and sensor mounts in preference over the carbon fibre offering. The searchlight is a Trakka unit.

Control Panels

Mission Computers

HD Displays

Video Management

PROVEN HARDWARE. BESPOKE SOLUTIONS. DEPENDABLE SUPPORT.

RDDS Avionics is a leading OEM of hardware for the special mission environment. For over 25 years, we have built a deep understanding of the unique requirements of Police, Military, ISR and SAR Operators. The result is a highly regarded reputation for delivering innovative, quality COTS equipment and bespoke solutions with built-in reliability and outstanding support to demanding professional end users across the globe.

To find out more about our air cleared displays, VMUs, mission computers and how RDDS can support your team, contact us directly at sales@rdds.co.uk

AS9100 - EASA Part 21.G and 21.0 - EASA Part 145 - UK MOD DAOS Approved - FAA Repair Station

UNITED KINGDOM

NPAS: In mid-February NPAS belatedly issued a press release to announce that the National Strategic Board had decided that two P68R were to become four and cover the whole of England and Wales. This news was carried in last month's PAN.

Part of the statement claimed that "they can remain airborne for around eight hours, covering a range of 800 miles."

The National Strategic Board which governs NPAS comprises nine Chief Constables and nine Police and Crime Commissioners, each representing the regions of England and Wales. [NPAS]

Ed: All the documentation supplied by NPAS in recent times does not support the claim that the NPAS version of the Vulcanair P68R can stay in the air for eight hours. The original specification talked only of six hours. There are several models of the P68 available, and some are lighter and cleaner than others and some can carry extended fuel tanks. As with all things aerospace it is a matter of balance.

The two main types used by police are the P68 Observer with its Plexiglas nose and fixed landing gear and the NPAS P68R with a solid nose and retractable landing gear. The retractable landing gear in the P68R adds 68lbs to the basic weight and the level of role equipment further adds to the overall weight of the type.

The standard P68 Observer with extended range tanks (177 USG) could fly for 8.65hours but NPAS specifically stated they did not have extended tanks so comes back with an endurance just under 6 hours, the original requirement. As ever the statement comes clouded with smoke and mirrors.

The change in heart over the use of the fleet of four P68R has led NPAS to also advertise for additional pilots to be based at Doncaster Sheffield. NPAS are offering two full time posts with a salary in the range of £59,271 - £62,466 per annum (plus Market Factor payment of £7,000 subject to annual review) for Line Pilots (Fixed Wing). The applications were scheduled to close at the end of February.

DRONES: The National Police Air Service (NPAS) has received funding from the Home Office to launch a project aimed at growing understanding of the benefits long-range drones operating beyond the visual line of sight (BVLOS) could bring to police investigations.

Most of the UK police forces have use of drones these days though some are more experienced than others in their deployment. In 2017 28 of the 43 forces in England and Wales used drones and this had grown to 40 three years later.

The newly announced plans designed to research and test long range drones allowing police to monitor and film suspected criminal activity up to 20 miles away are to be piloted in a handful of forces.

In the absence of effective air cover from conventional air support provided by NPAS, drones were used 1,500 times in the county of Norfolk last year. When it had its own helicopter, the area was considered a low intensity user, a factor which led to the area being in receipt of little NPAS effort. The drones have proved to be an increasingly valuable tool for police and cheaper alternative to helicopters and fixed wing that are difficult to obtain. Norfolk currently has 22 fully trained drone operators and 20 drones, although eight of those are only used for training.

At the moment, CAA rules require operators to see the machine they are controlling but four police forces, Norfolk, the London Metropolitan, West Midlands (Birmingham) and Thames Valley Police, have been chosen to be involved in national research aimed at expanding the range they can be remotely flown.

NPAS, which currently provides air support to 46 forces using full size helicopters and fixed wing, is leading the Home Office funded research to "better understand the capabilities that BVLOS drones may provide to police aviation in the future".

In a statement it said: "The project will not only consider drone types, but also command and control and hazard detection systems, to ensure compliance with Civil Aviation Authority (CAA) regulatory policies and procedures.

"Other important considerations will include the potential value for money and environmental gains of drone use, plus a reduction in noise compared to traditional aircraft."

On February 16 the means by which "NPAS" are to drive forward this project was revealed in an announcement by Massachusetts, USA based Plymouth Rock Technologies Inc., or Plyrotech.





Plyrotech announced it has received an order for an Unmanned Aircraft System (UAS) for beyond visual line of sight (BVLOS) operations with Norfolk Constabulary with delivery set as before April 2022. [©Plyrotech]

The PRT XV-H fixed wing aircraft was specifically designed for land and maritime operations at extended BVLOS distances. The vertical take-off and landing (VTOL) aircraft can operate for up to 4 hours. The aircraft also have an unlimited communications range due to being equipped with the latest SatCom (Satellite Communication) technologies and are also equipped with COFDM (Coded Orthogonal Frequency-Division Multiplexing) communications technologies for secure, high-quality data feeds.

The aircraft will carry the latest SatCom technologies as well as high-grade transponder and anti-collision capabilities. The project will be managed and maintained from the company's Norfolk and Lincoln facilities.

Ed: The four force areas will offer a broad spectrum of experience. Norfolk and Lincolnshire are very flat areas in the east of England which should assist in the early trials. The exact layout of the trial craft, four electric lift engines and one for propulsion, will no doubt vary but the basic machine can lift (only) an 8.8lbs (4kg) payload which will restrict its sensor options. Naturally the company are claiming an exceptional performance from the existing camera, but it is what it is, and that weight class will not be providing the same quality as currently carried by the helicopters and fixed wing. Later in the programme a more capable craft and sensor combination can be introduced although there must be a danger of role creep where it becomes more effective to employ a manned machine.

The biggest potential danger may be that the commercial contract may hide some of the long-term costs – in particular the real cost of the SatCom. This will currently be absorbed by the contractor. Moving forward when the SatCom becomes a police responsibility the cost spread over the BVLOS fleet may well prove that sophisticated drones are not necessarily the cheap option when you factor in communications, staffing and control rooms.

The supposedly cheap fixed wing proved the point with the apparently simple addition of FIKI. Perhaps the UK police chiefs need to be hoping and praying that the vast and expensive Space X Starlink satellites being put in the sky by Elon Musk will drive the real cost down in a timely manner.

At the moment SatCom is considered far too costly for day-to-day policing operations and is not part of the planning for the upcoming ESN. If it were ever considered a financially viable option by planners, it would have been cheaper to forget building the vast ESN terrestrial cell phone infrastructure and go for a Sat-Com solution.

Although the original press release from NPAS spoke of the organisation leading on this project, they do not have their own craft at this point and are therefore following the operational lead of the four selected forces in London, Birmingham, Norfolk and the Thames Valley for the time being. This may change in time of course, meanwhile it is probably a positive move for NPAS not to create their own drone unit simply to research the subject others know far more about.

Regular readers may remember the recent PAN stories about NPAS seeking a special person to lead the BVLOS project and others – the Head of Futures and Innovation. Well, it seems they still have not found him/her.

In December PAN reported the vacancy for a Head of Futures and Innovation and that it was not popular

in November, then there was the December 5 deadline.... That came and went, only to be extended some days in a very public Tweet on December 7, to December 15. Even that date was quickly altered in the official advert to the eve of Christmas. At that point it appears to have been withdrawn.

On February 10 the advert was back with a new deadline of February 22. Will the new dateline be any more successful?

This focus on drones is increasingly looking like the tail wagging the dog. The drone is not complete police air support, it is a useful search tool, a device that assists the user to "look over the fence" but remains way short of what the broad air support mission capability should be. There are signs that the unknowing hierarchy are being fatally distracted by a nominally cheap make do option. As I have suggested, it is often not as cheap as it pretends to be.

The desire to fill a post with a single person focussed on predicting the future is in the realms of luxury, surely it is the task of a team. This organisation cannot afford to be employing people to contemplate their navel, simply to think what might happen in the future of police aviation, which is the task of writers and dreamers with vision. The George Orwell's and Stephen King's of this world. New technology was dreamed up and developed by the Marconi, the Wright Brothers and Juan Cierva not the edict of a bunch of coppers in Wakefield or London.

The apparent lack of reaction to the advertising suggests that their audience of would-be employees have similar doubts. Who within this organisation would interview and choose such a specialist person, it surely could only be a person possessing similar vision? Who in their right mind would employ Leonardo de Vinci?

The reality may be that either the organisation already has people who understand "Futures and Innovation" or the selection of the specialist is going to be very difficult.

UNITED STATES

PODCAST INTERNATIONAL: This next item is really directed at the non-American audience reading PAN. I was asked to mention it in the upcoming PAN edition: The HangarZ Podcast which can be found at

<https://www.hangarzpodcast.com/>

It was new to me (apparently it started last year) and its clear that the thing to love about this podcast is that it is all about "our" world, the ALE world. The owners, Jon Gray and Jeff Ratkovich, do a great job and draw in some interesting chat partners.





CRITICAL VISION TECHNOLOGY
To see, to save and protect

TOTAL SOLUTIONS PACKAGE



TrakkaCam® TC-300
High performance cost-effective surveillance system, 4-axis gyrostabilised, available with a full suite of 7 payload options (HDIR, HDTV, LRF, LP, LI, A/T, IMU/GPS), Lightweight/compact single LRU design, ITAR-free



TrakkaMaps® TM-100
Mapping & Recording Video Management System, Multi map views with augmented reality, Integration with open and proprietary user databases, Intuitive control and innovative post-processing



TrakkaBeam® TLX
High performance searchlight with superior beam quality, Lower power draw, Internal multispectral filters, optional new dual EO/IR sensors for full situational awareness

trakkasystems.com

The Hangar Z Podcast? Well of course it is a Podcast and American so its pronounced Hangar Zee and also of course it is American voices, so you have to be able to survive each of those aspects to enjoy what follows. None of them should present problems to most of us so all good so far.

The chatter is informed emergency services aviation – and the guest interviewees are focused on people filling all the various roles within the aerial firefighting, search & rescue, EMS, and law enforcement sectors. Pilots, tactical flight officers, flight nurses & paramedics, and of course the backbones of any aviation unit operation, the aircraft maintenance technicians!
Ed; Recommended. Certainly, worth a try!

CALIFORNIA: The County Sheriff’s SAR resources have long included heavy helicopters of the type used by military SAR; most were Department of Defense surplus equipment duly refurbished. In the past these helicopters have been Sikorsky types [the S58 and the S61] and more recently they were replaced by a Puma. All large beasts and costly to operate but often the only type with the power to undertake often challenging tasks.

Last month there was a Social Media suggestion that new thinking may be in the air after Airbus Helicopters took a short lease on the Riverside County Sheriff’s H145 N995RC to demonstrate the type to Orange County. The social media post suggested that the type might usefully fit in between the standard patrol helicopter (AS350/H125) and the AS332 Puma for often less challenging day to day operations.



©ScottHebble



Ventura County Sheriff, operating on the west coast north of Los Angeles have also long been associated with Department of Defense surplus refurbished Bell Huey helicopters to run in their air operation. Ventura announced that they are to acquire a new Bell 412.

County officials approved the \$14.5M acquisition of a Bell 412EPX helicopter to be used for search-and-rescue missions by the aviation unit as well as for general law enforcement operations. The decision was passed unanimously during a Board of Supervisors meeting early in February.

The new helicopter will replace one of the unit's current search-and-rescue aircraft, a 1969 Bell UH-1 Iroquois. The new Bell is currently scheduled to arrive in October.

As the old and new helicopters are made by the same manufacturer, the unit is stating that it can reuse some of the \$2M worth of equipment and parts already held for support of the fleet. There are also synergies in operational capabilities for pilot and crew training.

Funding for the purchase will come from \$9.5M from general reserves and \$5M from public safety funds, a state sales tax dating back to 1993. The unit also plans to sell one of the Huey helicopters later in the year.

The Bell will be brand new and state-of-the-art where two other recently acquired airframes for the unit, two Sikorsky Firehawks, are former military machines. The Firehawks served a different function by greatly expanding the county's aerial firefighting capacity. [JC VCS]





The old and the new. The Bell on the right of the line up is sporting the new Trakka Cam TC-300 camera [ACSO]

FLORIDA: In 2020 the joint Gainesville Police and Alachua County Sheriff's Office (ACSO) based in Gainesville, Florida was set aside leaving the Sheriff's operation on its own operating Bell OH-58 Kiowa helicopters with Richard Bray, Chief Pilot of the unit in charge.

The disbanding of the one-time consortium reduced funding across the board and reduced the number of flying hours and operating days. With only one flight crew available the seven day a week coverage 12 hours a day, dropped to 5-day week and eight hours a day.

The financial challenges did not stop ACSO from paying for a new paint job and around \$300,000 for a new camera and mapping system from Trakka Systems. The Trakka Cam TC-300 long range, multi-sensor surveillance system allied to the TrakkaMaps TM-100 mission mapping and mission mapping system provides an HD camera with better zoom, tracking and infrared capabilities along with being lighter than the existing FLIR analogue camera used by the unit's other helicopter. Testing other options in cameras took place but the final choice was greatly assisted by the presence of the local Trakka representative being under two hours down the road in Bradenton, Florida.

The new HD equipment confers better capability in surveillance and locating people thanks to a much clearer view and an ability to fly higher, quieter and safer. [W.C.J.B.]

Ed: This consortium has been operating since the mid-1990s with one or two breaks in the level of in service when funding stream from the GPD fell short.

IDAHO: There are very few aerial law enforcement resources in the state of Idaho. The State Police have operated a few drones since 2017 but otherwise the only aircraft have been elderly fixed wing formerly operated by the military and mainly used for transportation of state officials.

Last month in Boise the State Police tried to advance their case for something more modern and law enforcement related in putting in new requests for their first ever helicopter, an Airbus Helicopter H125.

The legislative budget writers declined the funding of the helicopter requested. The request was for \$7.1M to cover funding the helicopter, staff and a new hangar.



Parapex Media

Marketing, Social Media Management, Website Design, Press and PR
dedicated to the Aviation Industry

www.ParapexMedia.com

MICHIGAN: PAC International recently completed an exterior refurbishment on a second Bell UH-1H for Michigan State Police. They use the UH-1 for law enforcement support missions as well as search and rescue.

PAC removed all existing paint utilising their state-of-the-art soft media blast booth to allow for a detailed inspection of the airframe exterior. Repairs were made to the bumps and bruises acquired during its many

years of service, and any corrosion was addressed as needed. The aircraft was painted with Imron Polyurethane base coat and clear coat to include all lettering and the Michigan State Police badge. The result is a superior finish that will last for many years to come.



Michigan State Police's Aviation Unit works closely with all Michigan law enforcement agencies, as well as the Michigan National Guard and the United States Coast Guard air stations. The Aviation Unit has a fleet of aircraft based out of Lansing's Capital Region International Airport, with satellite offices in Saginaw and Ypsilanti. Aircraft include a Beech King Air 90, Cessna 182R, Bell 206L3, two Bell 407s, two Bell UH-1H Huey, and several drones.

Paradigm Aerospace Corporation in Mount Pleasant, Pennsylvania, United States is a worldwide provider of completion services for various types of helicopters and specialises in Bell aircraft. PAC is a 145 Repair Station for Bell, Leonardo, Airbus, Sikorsky and MD.

 The advertisement features a black and white photograph of a LAPD helicopter in flight. A person in tactical gear is sitting on the rotor hub. The helicopter has 'LAPD' written on its side. In the top left corner, there is the Teledyne FLIR logo, which consists of a stylized white arrow pointing upwards and the text 'TELEDYNE FLIR'. Below the image, the headline reads 'IDENTIFY THREATS EARLIER' in large white letters. Underneath the headline, a paragraph of text describes the product's capabilities. At the bottom, there is a call to action: 'LEARN MORE AT [FLIR.COM/PAN380HDC](https://www.flir.com/PAN380HDC)'.

TELEDYNE
FLIR

IDENTIFY THREATS EARLIER

Unmatched spectral imaging in a compact and low-profile package. With 2x-4x greater magnification than other lightweight systems in its class, the Star SAFIRE® 380-HDc is an essential tool for airborne law enforcement.

LEARN MORE AT [FLIR.COM/PAN380HDC](https://www.flir.com/PAN380HDC)

AIR AMBULANCE

GERMANY

FAI AIR AMBULANCE: Since 2020, German-based FAI has saved 225 covid patients. Most of these patients have been isolated with the EpiShuttle. Safe patient transport from outbreak hotspots to areas with intensive care units available has proven a critical factor when fighting a pandemic.

Volker Lemke, Managing Director in FAI Air Ambulance, says that they investigated the market for single-unit isolation units and decided to acquire the industry-leading EpiShuttle in 2020. It was primarily deployed as a security measure for FAI pilots. In contrast to the medical staff who also work in hospital settings, pilots were not used to this kind of patient transport. At the beginning of the pandemic, there was a lot of insecurity and lacking accurate information regarding transmission, routines and severity.

After almost two years, the main rationale for deploying the EpiShuttle has changed in line with the development of the pandemic. All FAI staff have grown to appreciate the advantages of using the EpiShuttle. It provides a completely sealed and pressurised barrier between an infectious patient and the surrounding environment, protecting both the craft and the staff. At the same time, it allows patient monitoring and full intensive care treatment during transport, including emergency procedures like intubation. It is cost-efficient and can be disinfected and re-used for the next mission.

There are different benefits easing the pressure on the staff, not only the pilots. The medical staff do not need to use PPE which is especially advantageous on long-haul flights. This reduces the risk of fatigue and the risk of making mistakes. They can also drink, eat and talk to each other in a more normal manner.

The patients also benefit from being transported inside an EpiShuttle. They are usually more relaxed and comfortable when being transferred; when awake they have access to an iPad or iPod with music and movies which reduces potential boredom when confined for extended periods. FAI specialise in long-haul transport with intercontinental flights that can extend between 16 and 26 hours.

For record 3rd-time FAI was awarded the Air Ambulance Company of the Year by ITIJ (the International Travel and Insurance Industry Journal) last November. The award is given to a company that has made an outstanding contribution to the global travel and health insurance industry over the past year. [EpiShuttle]

SWEDEN

BABCOCK: Stockholm's Karolinska University Hospital will be the first in Sweden with a new healthcare helicopter that can provide transport for seriously ill patients requiring intensive care whilst in the air. This will include the provision of the ECMO life support machine.

Babcock Scandinavia and Karolinska have signed an agreement for the operation of a Leonardo AW139 helicopter. In addition to up to two pilots, the interior cabin can also accommodate up to five medical attendants alongside four stretchers and has large sliding doors on both sides to ensure rapid loading and unloading of patients.



©Babcock

The aircraft is equipped with two Pratt & Whitney PT6C-67C turboshaft engines with full authority digital engine control (FADEC) and is capable of cruise speeds of 306km. It offers a maximum 1,061km range with a maximum endurance of five hours and 13 minutes.

The Karolinska Institute has also been exploring the use of medical delivery drones via its Centre for Resuscitation. In partnership with Västra Götaland regional council, emergency number operator SOS Alarm, and drone developer Everdrone, the trials continue.

The technology is currently accessible to around 200,000 people in Sweden, with rapid expansion planned for this year. Although the load capability is limited, the scheme quickly and successfully delivered a defibrillator to an elderly man suffering from a cardiac arrest earlier this year. The details were not released so it is not clear whether the patient was actually sick or playing sick and who applied the treatment.

TRINIDAD & TOBAGO

HEALTH AUTHORITY: The Tobago Regional Health Authority (TRHA) currently owes \$27M for helicopter services to transport patients to Trinidad. The revelation was made at a Joint Select Committee (JSC) meeting of the Public Administration and Appropriations Committee to examine the internal controls, expenditure and the accessibility and availability of diagnostic imaging services at public health institutions with specific reference to the TRHA.

The debt has grown at a rate of \$115,000 per transfer. The transfers average one to two hours each at the hourly rate of \$60,000. Finding money to meet the debt is ongoing, but it may take six months to clear as the authority juggles a number of ongoing debts.

The patients are having to be transferred to Trinidad after the local cardiac catheterization lab contract ended in 2015. Since that time, there have been several efforts for a new service provider, but they had come to nothing.

If a cardiac patient requires immediate attention and does have a heart attack, they are provided with emergency care at the hospital, and if any intervention is required, the NCRHA can transfer those patients by helicopter.

In recent times part of the former cath lab has been converted into a covid19 ICU care facility. Until the covid treatment need goes away in a month or so further moves to restart a cardiac lab will be delayed.

[Newsday]

UNITED KINGDOM

ESSEX & HERTS: As part of its commitment to make the very best choices for the environment and reduce its carbon impact, Essex & Herts Air Ambulance (EHAAT) has added two new plug-in hybrid vehicles to its fleet of rapid response vehicles (RRV).

The charity is the first air ambulance in the UK to purchase the Volvo XC90 Recharge plug-in hybrid SUV for use as part of an emergency response fleet.

As well as providing pure electric driving producing zero tailpipe emissions, the new vehicles will give better results when measured against the traditional miles per gallon, thereby reducing fuel costs. The hybrids are powered by an electric motor and a combustion engine, which work together seamlessly to deliver optimal efficiency, reduced tailpipe emissions and a smooth, powerful drive. Overall performance is not affected in any way. Both RRVs are also fitted with a modern and innovative AI-powered telematics platform, which will further allow EHAAT to ensure optimum operational efficiency is maintained.



Scott McIlwaine and the new Volvo XC-90 at the North Weald base [©EHAAT]

Wrapped with innovative and highly reflective branding, with the latest blue light system to enhance visibility and safety, the two new RRVs join the existing petrol Volvo XC90 response vehicles used by EHAAT, which were purchased in May 2018.

As well as having operational advantages with regard to familiarity and spares, the move by EHAAT to an RRV fleet that is totally Volvo has started a trend, in which the EHAAT is leading the way.

The RRVs are crewed by a Pre-hospital Care Doctor and a Critical Care Paramedic and carry the same life-saving equipment as the helicopters. They are used before sunrise, after sunset or when the helicopter is unable to fly because of poor weather or maintenance. Overnight, the service is provided using an RRV based at EHAAT's North Weald Airbase.

With quick and easy access to the new charging points that have been installed, the hybrid RRVs will now take up residence at their new homes. One will operate from EHAAT's new airbase at North Weald, the other from Earls Colne, where they will serve the communities of Essex and Hertfordshire providing advanced life-saving pre-hospital care directly to the side of patients with a sudden life-threatening injury or medical emergency.

Over the coming year, EHAAT will be continuing to innovate when it intends to purchase two further SUVs, becoming the first air ambulance in the country running an RRV fleet that comprises entirely of Volvo plug-in hybrids.



FIRE AUSTRALIA

NATIONAL: International Defense and Aerospace Group, LLC (IDAG) and HeliQwest International based at Broomfield, Colorado, USA' are to provide firefighting support in Australia. HeliQwest is currently operating an IDAG refurbished UH-60A Blackhawk, equipped with an external fire-fighting tank, for rapid fire suppression missions in Australia.

IDAG, with bases across the USA and eastern Europe, has been building a firefighting fleet of UH-60s to address the fire seasons in Europe and Australia (which do not overlap) to join the existing movement of fleets between danger areas at short notice. www.idag.corp

SEARCH & RESCUE EUROPE

FRANCE: Throughout February a Leonardo ATR-72 of the Italian Guardia di Finanza (GdiF) operated several extended missions over northern France. It would appear to be a Frontex mission in support of the anti-migrant voyages from France to England. Where the Danish support missions were less evident there was no obvious attempt to hide the detail of the probing ATR flights.

Each time the ATR 72 of the Italian law enforcement agency, which acts as finance and customs police in its home country, took off from the airport at Lille in northern France and over a five-hour period, operating at around 8,000 feet, the aircraft loitered over the beaches from Abbeville to Ostend before returning to Lille. The ATR has an ability to fly relatively low speeds when compared to other types employed on these missions. The stalling speed is given as 85knts, observed flights were generally around 125mph.

The Italian GdiF has operated smaller variants of the ATR on surveillance missions for many years and the ATR-72, designated the P-72B, has been integrated into the aeronautical capabilities of GdiF to meet the multirole tasks that are assigned to the operator. The primary role of the ATRs in service is sea surveillance, using on-board sensors. [Photo credits: GdiF/Luca Nicolotti]

Ed: Three missions in succession and the ATR appears to have come to the end of its stint over the beaches of northern France. We may never know who was paying for this service. Most European nations pay for the use of Frontex resources including aircraft as part of the Schengen Treaty, but it is not clear whether that extends to an additional payment for actual sorties. This may be British money paid to the French to cover the actions on the beaches, certainly the UK never subscribed to Schengen when it was an EU member. So far France has apparently requested Frontex to base relatively large, expensive to operate, aircraft at Lille, first the jet from Denmark, now the ATR from Italy. There seems to be little effort on using aircraft more suited to the task of low and slow air observation.



UNITED KINGDOM

MIGRANTS: Meanwhile on the coast of the English Channel much is happening under a cloak of secrecy. Although inclement weather has perhaps dampened down the small boat traffic a little there are signs that those directly involved in monitoring and recuing the migrants are growing tired of being 'followed.' As a result, it seems that UK Coastguard fixed wing aircraft operated by 2ExCel from Doncaster and other potential search aircraft are now running with their profile edited on the transponder apps and a clamp on the numbers is in place.

Meanwhile there are signs of acute embarrassment among politicians at the inability of existing commanders to stop the flow of people and they are apparently being allowed to quietly slip back into obscurity.

The British have appointed a new Channel commander, Rear Admiral Mike Utle, and are now reliant on the surface ships of the Royal Navy. Will he be more successful than his predecessors? Time will tell. Meanwhile the navy have discovered a problem with their ships. They are too big and high sided for migrants to climb up. As a result, the navy are hunting for smaller vessels more the size of the RNLI Lifeboats and Border Force vessels used so far. Normal service may be resumed when they are found.



Finding good seaworthy vessels with a low freeboard is only the start of a process that will require training of the crews. It all takes time and agitated politicians always want results yesterday. RNLI vessels off Brighton [©PAR]



EVOLVING EO/IR TECHNOLOGY FOR ADVANCED MISSIONS

Supporting global airborne law enforcement agencies with 45 years of product evolution and flight-proven technologies.

Missions are longer, more complex and need to be executed faster. More is expected of you and your crew each and every time you fly. L3Harris' electro-optical and infrared systems are designed with the latest technologies to address changing mission requirements. Delivering robust performance and ease-of-use, WESCAM MX™ sensor systems enable operators to see more, operate easier and analyze live video intelligence with confidence. When minutes count, trust WESCAM MX systems to help you see first and act first.



L3HARRIS.COM

INDUSTRY

Specialist Aviation Services has announced it has signed a very significant, multi-year contract with the Ministry of the Interior in Kuwait for the maintenance of Police, Search & Rescue and VVIP Helicopters belonging to the Kuwaiti Government.

This game-changing deal for the SAS business will see the creation of 40 new Maintenance and Engineering roles based in Kuwait commencing May 2022, this represents a 20% increase in the SAS employee base.

Both 2020 and 2021 were difficult years for SAS with significant changes in the UK customer base – mainly in the air ambulance sphere so the gaining of the Kuwait contract is a positive and optimistic start to 2022.

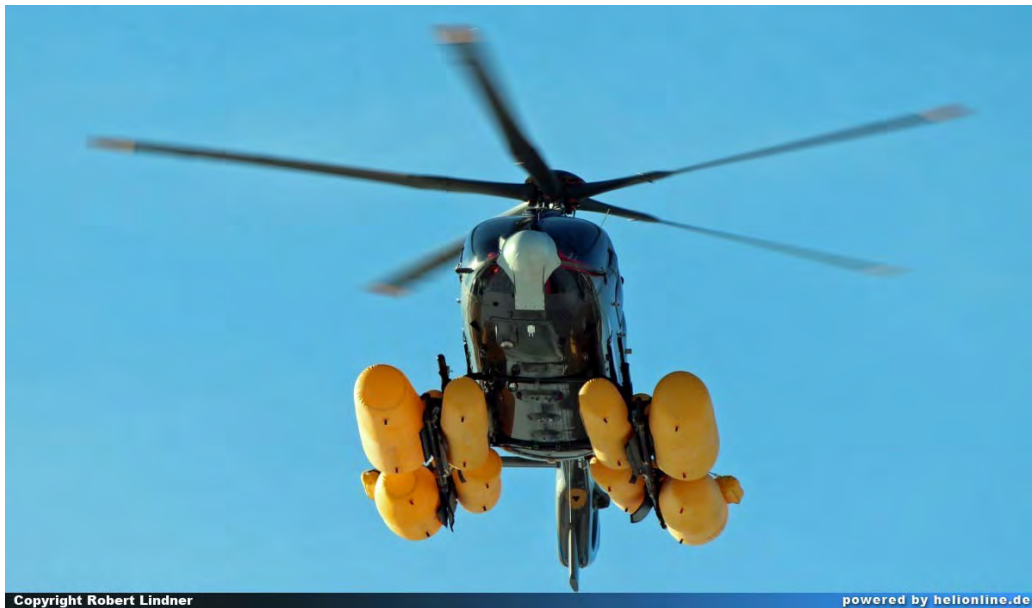
Here is a picture taken at the Ministry of the Interior in Kuwait as we signed the contract earlier this week. SAS are now hiring in the build up to May, with the attractions including a tax-free salary plus accommodation & other allowances. Details at <https://lnkd.in/drF-Eygt>

In 2021 **Robinson Helicopter** saw a significant increase in aircraft sales, more than 450 confirmed orders, the highest the company has seen since 2011. For the first time, R66 orders surpassed Robinson's long standing top seller, the R44 Raven II.

Although overall production for 2021 was better than 2020, they fell short of their build target.

DART Aerospace has received FAA Supplemental Type Certification (STC) for its Emergency Float System with Integrated Life rafts for the five-bladed Airbus H145. This certification comes alongside its existing TCCA & EASA approvals.

Previously approved for the Airbus four-bladed H145 and EC145 models, the floats feature a tri-bag float design for increased stability in water up to sea state 6. The design includes two externally mounted life rafts delivering a 45% weight reduction over other externally mounted life raft options while saving cabin space.



As industry slowly reconnects with live events Kopter took part in **Rotors Switzerland 2022**, an event organised by the Swiss Aerospace Cluster (SAC) on February 8 at the Payerne Airport, Canton of Vaud. Now part of Leonardo Helicopters and developing the former Marengo design as the AW09, an all-new single engine helicopter in Switzerland, Kopter is playing a key role within the Swiss helicopter community. As platinum sponsor, the company brought one prototype of its next generation helicopter to Switzerland's most important event for the helicopter industry. Furthermore, it participated in the conference programme with a presentation from its CTO, Michele Riccobono, on the hybrid and electric solutions it is currently maturing with technological partners alongside its AW09 helicopter.

Across the world many operators will have a **TLC Helilift** helicopter ground handling device. They will be equally aware that the company went out of business during the pandemic and that attempts to restart have failed. The positive aspects of the equipment centre around it being constructed using basic engineering and that most engineering concerns can service or repair wear and tear that arise from time to time. Meanwhile the designer of the Helilift, Tony Hancock, is still available to advise on any operating issues that former customers may have. Call him in office hours (UK time) on +44 (0)7970541268 or drop him an e-mail and he will get back to you as soon as possible tony.hancock73@gmail.com

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



Last month British SME's, **Britten-Norman** and **Blue Bear**, announced they will partner to make autonomous flight a reality in the next 3-4 years.

Britten-Norman is the UK's only sovereign commercial aircraft manufacturer. It has designed and produced aircraft for over 60 years. Its most famous platform, the Islander, is one of the world's most successful and enduring aircraft designs. Known as a rugged workhorse, the aircraft serves in a variety of roles from passenger and cargo transport to medevac and search & rescue.

Blue Bear is a Managed Service Provider in unmanned systems and the UK's foremost leader in air autonomy. Blue Bear has routinely flight demonstrated 'UK firsts' for single UAS and swarm UAS operations. The project's first milestone will be to demonstrate single pilot operations with an autonomous co-pilot providing assistance. It will present a significant efficiency increase and cost saving for regional air operators.

The **Bell 505** has achieved 100,000 global fleet hours since the first customer delivery in 2017. The figure was achieved after Bell completed more than 360 Bell 505 deliveries, enabling successful missions with the world's most advanced short light single aircraft.



The Bell 505 combines the latest avionics and engine control technology with a large open cabin that provides panoramic views for all passengers. A fully integrated Garmin G1000H NXi avionics suite and dual channel FADEC controlled Safran Arrius 2R engine provide pilots of all skill level with maximized situational awareness and workload reduction to fly successfully in a multitude of scenarios. Combined with its cabin versatility and impressive performance, the 505 is relied on for missions ranging from private owners to public safety and training entities around the globe.

StandardAero will be unveiling the industry's first 4-Axis autopilot available for retrofit on AS350 helicopters with demonstration flights at the 2022 HAI/Heli-Expo on March 8-10. The autopilot, developed in partnership with Thales and known as StableLight, is equipped in an AS350 test rotorcraft which will be located at the Dallas Kay Bailey Hutchinson Convention Center Vertiport and available for onsite customer demo flights during the exposition.

The equipment is currently in the process of certification. StandardAero anticipates that the StableLight Supplemental Type Certification (STC) will receive FAA certification this summer and shortly thereafter, the STC will also be approved by EASA and Transport Canada.

Demo flights will require registration prior to HAI/Heli-Expo and have limited availability. Operators interested in booking a flight test may contact Christian Blagborne at the following email and phone number: christian.blagborne@StandardAero.com, +1-236-688.1934. www.standardaero.com.

A new multi-agency initiative will involve live footage being transmitted to ambulance crews in response to major incidents in partnership with the fire service and the National Police Air Service (NPAS). Under the scheme **West Midlands** Ambulance Service Trust has invested in two Enterprise Control Systems (ECS) receivers which will be installed in incident command vehicles to provide chiefs with a bird's eye view of incidents to aid assessment and decision making.

If required, the police aerial footage can be streamed to ambulance control rooms using a laptop. West Midlands Fire Service have been trialling drones for a year and appreciate how an aerial dimension can complement work on the ground. The NPAS partnership will help decision making. All NPAS aircraft have the capability to transmit high-quality footage to officers on the ground and incident control rooms via the downlink system.

Handyviews, portable monitoring terminals that can be added to command vehicles and in control centres, are designed to provide instant access to encrypted audio and video footage of live incidents monitored by units of NPAS and their fleet of 19 helicopters and four airplanes.

The West Midlands is the first region in the U.K. to use this technology.

Editor: The technology is not particularly new and neither is arranging the downlinking of images from police helicopters to assist both fire and ambulance. What may be new is that the agencies have bought their own equipment rather than loan it from the police.

There are suggestions of an ongoing problem with Drone technology in that it seems to suffer ongoing 'resilience' issues in several areas. In this storyline the West Midlands Fire Service state that they have been trialling drones for a year and yet to the knowledge of PAN they were a lead organisation in promoting the technology more than a decade ago. A West Midlands fire officer, Pat Mika, was operating at the leading edge of the technology around 2008-09 but he retired and everything he set up was apparently allowed to collapse like a pack of cards by management. It probably happened more than once and became a 'new' toy for WM Fire several times.

Right: This image has appeared in PAN before—Alistair Fox of MW Power hands over their latest quad rotor to the West Midlands Fire Service—in 2008!



FOR MORE INFORMATION VISIT: WWW.PUBLICSAFETYAVIATION.ORG

MONDAY, MARCH 7, 2022

APSA RESCUE SUMMIT 2022

DALLAS, TX

www.policeaviationnews.com
Emergency Services First

ACCIDENTS AND INCIDENTS

3 March 2021 Airbus Helicopter EC145 N145TN Air Ambulance of Stanford Life Flight operated by Air Methods. Six minutes into flight, the co-pilot door flew open when the aircraft was at cruising altitude. After the flight nurse sitting in the co-pilot seat was able to safely re-secure the door, the decision was made to abort the flight and return to base. The on-duty mechanic inspected the latches on the top and bottom of the door and removed a small amount of debris from the bottom latch. It was determined that the cause of the door opening was due to the bottom latch not being engaged despite the door appearing closed, door light turned off, and tactile sensation of the door latching normally. Subsequent to this inspection by the mechanic, all flight crew used additional caution and visual inspection when closing the co-pilot door to ensure both the top and bottom latches were engaged. This issue was documented in the aircraft logbook and communicated back to the team members that primarily use the aircraft. [Concern]

Ed: No location details given but it is shown that Stanford Life Flight is the only academic hospital-based flight operation in California. The service area extends from the Oregon/California border in the North, to Reno, NV in the East.

12 February 2022 Airbus Helicopters H145 SE-JSS Air ambulance of Babcock Scandinavian Air Ambulance operating from Mariehamn Airport to Fiskö, on Åland island. with four persons aboard. When landing at Fisko the helicopter went down a little too fast slid and hit and demolished a single storey building causing damage mainly to the MRB. The airframe remained upright. All four people are taken to the Mariehamn Central Hospital by the border guard's Super Puma helicopter. One with injuries. [ASN/ARTV/Babcock]

14 February 2022 Bell Garlick UH-1H Iroquois VH-UHX Fire Fighting helicopter of Richmond Valley Aviation. The pilot died after the helicopter he was piloting crashed into a paddock while fighting the Lebrina bushfire in northern Tasmania. One report states that the 41-year-old Tasmanian pilot dropped his Bambi bucket load immediately prior to losing control and impacting the ground. The man was the sole occupant of the aircraft. [Media/ASN]

14 February 2022 PZL Mielec M-18 Dromader Firefighting aircraft. Was being refuelled on the ground at Ituzaingo Corrientes, Argentina an electrical fault ignited fuel and the aircraft was destroyed in the resultant fire [ASN]

19 February 2022 MD520N N521HB Police helicopter HB1 of City of Huntington Beach. Came down on its side in water some 10-20 feet off El Paseo Street, Newport Beach, California USA. The area of water lies between Lido Isle and the Balboa Peninsula. Several civilian boats rushed to the scene of the wreckage in an attempt to assist the officers who were trapped onboard the aircraft. Footage from the newscopter on scene showed beachgoers and officers working to open the helicopter doors and rescue the pilots. Both officers on board were rescued from the wreckage and transported to nearby hospitals. One of the officers, a 14-year veteran, 44-year-old Nicholas Vella died as a result of the accident. The other officer, a 16-year-veteran, is in stable condition. The helicopter had been flying for around 30 minutes and was enroute to a "disturbance fight call" in Newport Beach at the time of the crash. The helicopter came down in shallow water that barely covered the wreck. The three 24 years old MD520N HBPD helicopters serve Huntington Beach, Newport Beach and the Costa Mesa areas. [Media/ASN]

21 February 2022 Airbus Helicopter H125 RP9710 Philippine Police. Crashed in Quezon Province while in transit from Manila to pick up senior officer from Balesin Island. One of the three crew members died. The helicopter went missing after taking off from Manila and was found two hours later. Police and firefighters reached the crash site and rescued the pilot and co-pilot, who were taken to a hospital with injuries, but the third crew member was pinned in the wreckage and died while rescuers were trying to remove him. Unofficial reports state that the helicopter was manoeuvring to land in clear weather when hit by a strong gust of wind and control was lost.

The flight was to pick up national police chief Gen. Dionardo Carlos and his companions. Carlos was scheduled to fly back to Manila on a commercial flight to attend a flag-raising ceremony, but the flight became unavailable, and the police aviation unit offered to take him by helicopter. [media]

BAPCO
The Annual Event **2022**



8 -9 MARCH 2022
Coventry Building Society Arena

SAFETY



The deformed skid gear on the EC145 at North Weald. The AAIB report, available on line includes other images [©AAIB]

On February 3 the UK AAIB issued a report on the accident to the 15 years old Airbus Helicopters EC145 (BK 117 C-2), G-MPSB at North Weald on March 12, 2021.

Although classified as a serious incident and initially thought to have severely damaged the airframe the conclusion was that the damage was less than a hard landing and as a result the aircraft was quickly returned to service.

It occurred during the demonstration of an engine failure after take-off emergency procedure on a revalidation flight for the commander's type rating instructor qualification. The engine failure was simulated by the commander reducing Engine No 1's throttle to idle. Shortly afterwards the commander increased the throttle setting, but Engine No 1 did not respond. During attempts to resolve the problem, the throttle setting for Engine No 2 was inadvertently reduced, resulting in insufficient power being available for continued safe flight. The commander rejected the take-off and executed a firm landing within the airfield boundary. The aircraft's skid assembly was deformed as a result of the landing. It is believed that the less than catastrophic damage caused was due in part to the soft ground it came down on and the amount of attenuation absorbed by the skids.

The matter is still under investigation, meanwhile the manufacturer is working out new procedures to allow safer repetition in a 'live' scenario – meanwhile on the grounds of safety replicating the procedure has been assigned to simulators only.

New helicopter project in the pipeline?

You need Helimetrics Ltd to help you manage the maze. From operational requirements to programme management, aircraft acceptance, and warranty supervision

Helimetrics Ltd clients already include government agencies, the police, multi national technology companies and private owner-operators

Helimetrics Limited

Telephone: 01608 642231 E-mail: josmond@helimetrics.com

Website: www.helimetrics.com

UNMANNED

Reports that British parts were allegedly found in Russian-made spy drones captured by Ukrainian and Lithuanian troops in recent years are particularly poignant right now. The part was found during research into drones used in past conflict.

Conflict Armed Research (CAR), funded by the EU and Germany, suggests that Moscow is using opaque supply lines to circumvent sanctions designed to stop them buying military components. One of the drones with British-made parts was captured by Ukrainian forces early in 2017. CAR found an inertial sensor, manufactured by a British company named Silicon Sensing System in the craft. There is no suggestion that the company violated the law or knew that its parts would be used for military purposes. Another part manufactured by the company was found in a drone that crashed in Lithuania in October 2016.

Silicon Sensing Systems apparently sold the part to Radiant-Elcom CJSC (now known as Radiant Group LLC, a Russian private electronics distributor). They in turn said it went to “various educational institutions” in the country, but the final destination turned out to be ANO “POKSI”, which manufactures aerial surveillance systems for the Russian Ministry of Defence. The sales took place at least seven years ago. It was also found that parts sent by a German company to the Russian-owned World Logistics Group, which was registered in the Czech Republic before the transaction was closed in October 2018. <https://www.conflictarm.com/reports/weapons-of-the-war-in-ukraine/>

Robotics Centre, Inc. and **Smith Myers** announced that the Smith Myers Artemis Mobile Phone detection, location and communication suite has been integrated into the new Robotics Centre Echo SAR (Search and Rescue) payload for small Unmanned Aerial Systems (UAS) built by Teledyne FLIR Defense. Echo SAR enables operators to quickly find, map, and interact with mobile phone handsets in fast moving disaster situations, aiding and boosting first responders’ ability to locate victims and save lives. Designed for use on Teledyne FLIR’s R80D SkyRaider™ and SkyRanger® R70 drones, the advanced Echo SAR payload will provide users with the stand-alone ability to find an individual mobile handset, conduct mass mapping of mobile phones in out-of-service areas, and to communicate either with individuals or groups of mobile phones.

Previously, Artemis airborne capabilities were only available for use on manned rotary and fixed-wing platforms, but as recently shown at the EC135 demonstration at Brighton City Airport, Shoreham, UK Smith Myers have been continually downsizing and lightening the equipment for use in fairly small drones. This late September event was reported on in the October 2021 edition of PAN. Now, for the first time, this life-saving technology can be deployed in minutes on a small quad-rotor UAV, providing a whole new capability to SAR operators working in the most difficult conditions.

Artemis turns a mobile phone into a rescue beacon specifically designed for SAR and natural disaster situations.

The operationally proven Teledyne FLIR R80D SkyRaider and SkyRanger R70 UAVs, used by military and public safety agencies worldwide, are rugged, all-weather plat-

forms well suited for Search & Rescue missions. Easily deployed and operated by a single user, the drones can provide extended situational awareness when and where it’s needed most.

“The Echo SAR payload adds a critical new sensory capability to our SkyRaider and SkyRanger platforms,” said Anne Bulik, Vice President of Unmanned Aerial Systems at Teledyne FLIR Defense. “From disaster relief to border security and beyond, we see many applications for small UAS mobile device detection across both our defence and non-defence customer communities.”

Ed: Access to the technology is however restricted so you are unlikely to see it entering service with such as local volunteer groups. The first line of control is a requirement to obtain Artemis via Export Licensing. That said there is a proposal to include Artemis in a live trial as part of the 2022 PAVCon Europe in June.



Copyright Notice: The content of this publication includes items that are the copyright of others. Where the information is available the source of words and images will usually be indicated together with the source of additional information that seeks to enhance the original information.

Police Aviation News includes materials produced for it by Ian J Commin of Insight Design of North Burnham, Slough SL1 6DS. This includes the banner titles and the PAVCon logo. In addition from time to times images specifically altered by Insight Design and others but originally produced for McAlpine Helicopters [now Airbus Helicopters UK], Oxford, will appear with permission of the original owner. In some cases it may not be possible to indicate the source of this material directly associated with the images used, or such information may have been lost. Such images may be marked 'File' or 'PAR Collection'.

US Defence Contractor, **Phenix Solutions**, is flight testing their new aircraft with the USAF under a programme called Agility Prime. FAA Type Certification is in progress with completion expected in early 2023. In 2019, Phenix Solutions successfully developed, produced, and conducted test flights of two Heavy Lift Rotary UAS concept demonstration platforms for the USAF Agility Prime that consisted of a single rotor and quadcopter design. These prototype platforms helped Phenix refine the concept into a highly stable single-engine Coaxial Remote Piloted Aircraft (RPA). The prototype flight testing validated the flight control avionics leading to a modular off-the-shelf coaxial design delivering enhanced performance, reliability, and sustainability in an efficient and affordable multi-mission package. The testing has helped optimise a 'zero-maintenance' blade system, thus eliminating over 60% of the maintenance costs and increase availability rates. The coaxial system eliminates the need for a tail rotor.



The Phenix Ultra 2XL is built to fit within a standard 20ft. shipping container for expeditionary deployment. It is specifically designed for rapid extraction/configuration and can be made flight-ready in less than 15 minutes by trained troops and to offer them Beyond Visual Line of Sight (BVLOS) capability.

The Ultra 2XL offers significantly lower flyaway and total cost of ownership to both military and civil operators by using certified and proven Commercial Off-the-Shelf technologies (COTS). The FAA Type Certification has tremendous benefits for operators wishing to fly in civilian airspace for support of cargo, firefighting or agriculture missions.

www.phenixuas.com They will be at HAI Heli Expo: Booth #6019 in Dallas, TX.



In 2020 a research group called Drone Wars submitted Freedom of Information (FoI) requests to 48 UK police forces asking about their use of drones that year. The recipients were 43 police forces in England and Wales, Police Scotland, Police Service Northern Ireland (PSNI) and 3 specialist forces: Ministry of Defence Police, Civil Nuclear Police and British Transport Police.

They had responses from 42 of those approached and despite the reticence of some they learned that at least 40 were using drones.

At that time, it is clear there were nearly 300 drones in use and that they had undertaking around 5,500 sorties in a six-month period – although a significant proportion of the total was demonstrating, training and maintaining currency. The article can be read in full at <https://dronewars.net/2020/11/02/benchmarking-police-use-of-drones-in-the-uk/>



People Solutions

- Transformation Management
- Crew Resource Management
- Organisational Development
- Psychometrics
- Talent Management
- Coaching
- Facilitation

'Helping you to realise and release the talent potential that sits within your organisation, developing your people and ensuring that you safely thrive and fly'

David Howell, Director

www.ableandrush.com

AirMed 2022

WORLD CONGRESS

„United in quality care by air“

Salzburg, Austria
June 28 - 30, 2022



LETTERS TO THE EDITOR

Dear Editor,

POLICE USE OF DRONES

References:

A Benchmarking the police use of drones in the UK - 2 November 2020.

B Freedom of Information Request, Norfolk Constabulary - August 2020.

The two references, between them, provide an illuminating insight into the exponential growth of drone units and the number of drones owned by the UK police forces. Ref A lists over 288 police drones in the UK in 2020 with some interesting variations between police forces. For example, Durham Constabulary has 4 drones whereas Norfolk Constabulary had, in 2020, seventeen! If we take the total for East Anglia, (Cambridgeshire, Bedfordshire, Essex, Hertfordshire, Norfolk and Suffolk), there were, according to Ref A, more than 34. Almost double the number of drones in East Anglia compared to the number of aircraft belonging to the National Police Air Service!

Both references list the incidents attended by police drone units with searches for missing persons being the highest number. Norfolk Constabulary lists 80 missing person searches in the first 6 months of 2020, although there is, unfortunately no indication of how many were successful. Surprisingly, there are only 16 instances of drones being used in Norfolk, in 6 months, to counter hare coursing, wildlife and rural crime. Obtaining evidential photography is minimal, 7 operations in 6 months!



Norfolk Constabulary has used drones to deter Hare Coursing. [Norfolk Constabulary]

Staying with Norfolk Constabulary, this growth requires an explanation, particular as Norfolk has never been noteworthy for promoting police air support with manned aircraft. Nevertheless, it's quite possible that the use of drones, in Norfolk, took off, literally in 2018 when, in June, the Norfolk Constabulary drone unit found and, most probably, saved the life of Peter Pugh, a 75-year-old pensioner, missing for over 20 hours in Titchwell Marshes, near Brancaster (Police Aviation News, July 2018).

Despite earlier successes, the recent announcement of the procurement of a new drone by Norfolk Constabulary, the PRT XV-H, a 'hybrid', fixed-wing with vertical take-off and landing, together with beyond visual line of sight operations (BVLOS), is a quantum leap in capability and not without new and costly challenges. These challenges will include the size the crew, the diminutive Tekever AR5, used by the Border Force has a crew of 6, airspace management and the capability to see and avoid other aircraft. This list, when compared to operating the typical police drone of today, for example the DJI Inspire, is endless! Unfortunately, the press release from the manufacturer, Plymouth Rock Technologies does not specify the size of the EO camera turret which, presumably will be the main sensor with a video camera and a thermal imager.

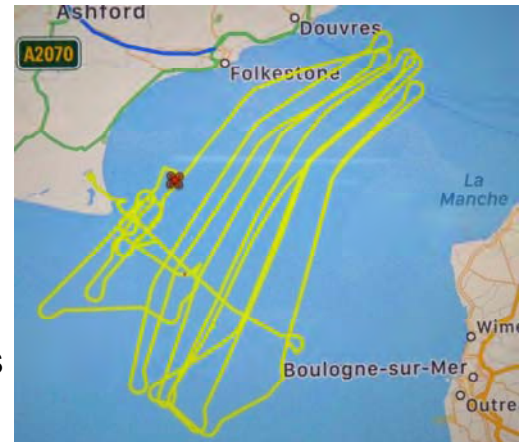


The PRT XV-H 'hybrid' drone with BVLOS ordered by Norfolk Constabulary [Plymouth]

Although both the Border Force and HM Coastguard have accumulated some considerable experience with BVLOS, with the Tekever AR5, the Tekever AR3 and the Schiebel S-100 Camcopter, these operations have been overwater, mostly over the English Channel and the coast of north Wales. A 'barrier patrol' in the middle of the English Channel, searching for inflatable boats carrying migrants, flying clear of land and flying below 1,000 feet, is relatively simple when compared to BVLOS police operations over land. Even in an area such as East Anglia with very few obstructions, but several centres of population and numerous airfields.

A 'barrier patrol', over water, with BVLOS is relatively simple when compared to the proposed operations over land by Norfolk Constabulary.

The question for the police and, in particular, Norfolk Constabulary, is will the additional complexity, together with a significant hike in costs, not least for communication between the drone and the ground, justify the move from the current, relatively simple, inexpensive police drone operations to the much more complex BVLOS overland? Will this prove to be a case of 'what goes around, comes around'?



Before the formation of the National Police Air Service (NPAS) in 2012 there were some 30 territorial police air support units, some with just one aircraft, often a helicopter and others with both an aeroplane and a helicopter, for example the former North East Air Support Unit. Now NPAS has half the number of bases, just 15 and struggles to provide a viable service for its potential customers, the 43 police forces in England and Wales. Many, if not all, of these individual police forces have, since 2012, formed their own drone units. These drone units although not as responsive as a manned aircraft and without the comprehensive role equipment which may be carried by an aeroplane or a helicopter do, nevertheless, provide a basic, 'eye in the sky' service on a budget.



The very popular multi-role, Cessna 172 Skyhawk, more Cessna 172s have been built than any other aircraft (44,000+), is flown by both the US Civil Air Patrol [illustrated] and the French Police Aux Frontieres (Border Police).

Is it now possible that drones, those with BVLOS will prove to be so expensive that there will be a renaissance in manned police aircraft? Is it possible that a manned fixed-wing aircraft such as the Cessna C172 Skyhawk with a pilot and an observer will prove to have more utility and be less expensive to operate than a fixed-wing drone such as the PRT XV-H 'hybrid' drone with BVLOS? One fact that is often overlooked in the rush to exploit new and emerging technology is that the best airborne sensor, with night vision goggles if required, is the observer viewing the ground from their airborne vantage point - the proverbial 'eye in the sky'!

James A Cowan MBE

Note: The author is a former member of the Royal Air Force and was also a pilot with the former police North East Air Support Unit which served the police forces of Cleveland, County Durham and Northumbria. He also flew air ambulances with the Scottish Air Ambulance Service and was the former chairman of the UK Civil Air Patrol.



PEOPLE

The Airborne Public Safety Association, Inc. (APSA), a California Public Benefit corporation, is seeking proposals from individuals or entities to provide comprehensive safety programming to public safety aviation agencies, personnel and managers as part of the ongoing APSA Safety Program.

It is a major role within US law enforcement and quite labour intensive for an individual to undertake. The current incumbent is **Bryan Smith** the Chief Pilot with an air unit in west Florida. He will be staying on until a new replacement is identified if not in post and will regardless of the outcome be attending the 2022 PAVCon Europe in Austria. This maintains continuity for that event but may well be the last time he attends in his APSA Safety role.

Just some of the tasks undertaken by the APSA Safety Program Manager include: Developing an Annual Strategic Safety Plan for APSA with specific goals and objectives to be attained by members and their agencies.

Develop a network for interactive communications between APSA and its membership with specific emphasis on senior management, unit managers and safety officers using the APSA website and other media approved by the Executive Director and/or the APSA Board of Directors.

Make recommendations to the Awards and Scholarships Committee for recipient(s) of the Annual Safety Award.

Work in concert with the APSA Training Program Manager on the presentation of safety education at APSA training events.

Make recommendations to the APSA Training Program Manager regarding the names of qualified persons to teach on aviation safety.

Monitor aviation mishaps around the world, with a special emphasis on public safety, and produce bulletins and reports on them, and much more.



ADVANCING PUBLIC SAFETY AVIATION

WWW.PUBLICSAFETYAVIATION.ORG

On the eve of producing the last edition of Police Aviation News, West Yorkshire Police (WYP) published notice of the promotion of three senior officers. Two of these officers are or were embroiled in the mess that is NPAS and the announcement might be seen by some as nothing short of a reward for failure. Details of the third officer have been redacted. We know redaction!

On 31 January 2023 WYP announced three new permanent appointments have been made to West Yorkshire Police's Chief Officer Team, following recent Assistant Chief Constable (ACC) interviews. ACC **Tyron Joyce** has Specialist Crime and Criminal Justice and was the former Chief Superintendent for NPAS, while ACC **Scott Bisset** is the current ACC for the NPAS.

Chief Constable John Robins QPM, said "I am delighted to welcome XXXX, Tyron and Scott to the team on a permanent basis.

"I am confident that their collective knowledge and keen strategic thinking will be a massive asset, not just to me and my COT colleagues, but to the organisation as a whole and, most importantly, to the public of West Yorkshire who we serve."

Tyron joined the Chief Officer Team in January 2021 as Temporary Assistant Chief Constable Operations, having been in the police service since 1990.

He served his first ten years with the Metropolitan Police and prior to joining West Yorkshire Police was with Cambridgeshire Police.

He joined West Yorkshire Police in September 2008 and initially served as Superintendent in charge of Disclosure and then as the Superintendent Operations at Wakefield District.

On promotion to Chief Superintendent in 2016, Tyron led the formation and delivery of the National Police Air Service (NPAS) and in April 2019 moved to Commander at Operational Support, a Force resource which includes dog and mounted sections, as well as firearms.

ACC Joyce said, "I am proud to have the opportunity to continue to lead and work alongside some outstanding people."

Scott Bisset joined the Chief Officer Team in September 2020 as Temporary Assistant Chief Constable

leading the National Police Air Service (NPAS), a national collaboration led by West Yorkshire Police. Scott joined West Yorkshire in 1995 and has wide operational experience in a variety of uniform and detective roles in both Bradford and Leeds. He is an accredited Public Order and Firearms Commander. As a Chief Superintendent he spent time as the Force lead for organisational change to meet the continuing challenges of transforming policing in West Yorkshire.

Prior to his NPAS role he served as the Bradford District Commander until 2019.

Scott said "I am delighted to be appointed in West Yorkshire. It is a privilege to continue to work with outstanding colleagues who are committed to serving the public. I want to do all I can to help keep the people who live, work and visit the county safe".

All three took up post in their substantive ranks from Monday, 24 January 2022.

Scott Bissett is still in charge of NPAS. Vicki White, who was seen to clarify the fixed wing problem whilst in temporary charge of the operation is returning to her role in charge of the transition process. Not that there seems to be a place for the stewardship of NPAS to transition to just a month from the supposed cessation of control by West Yorkshire Police.

You can never have enough bosses.

Helinet announced the appointment of **Jorge Gonzalez** [right] as its new Chief Operating Officer. Gonzalez recently retired from the Los Angeles Police Department after 38 years' service and brings years of strategic aviation leadership to his new role.

Jorge will be responsible for overseeing the company's ongoing operations while spearheading new growth activities with a strong focus on the company's Helinet Technologies division, which supports law enforcement, public safety, and government agencies with customized aviation technology solutions.

Gonzalez's history with Helinet dates back over a decade when the company first started supporting LAPD with microwave downlink technology, allowing aircrews to transmit uninterrupted high-definition video and data from aircraft to ground personnel and command sites in real-time. At the time of its launch, the system was one of the first HD surveillance and microwave downlink solutions in operation.

His career highlights include being a winged Los Angeles Police Department Tactical Flight Officer and Command Pilot and receiving 320 commendations and 2 Life Saving Medals for bravery. He also holds a commercial helicopter rating and has logged over 7,000 flight hours.



MOVE ALONG THERE

They seem to have special people as Federation Reps in Hampshire. First, we had John Apter who sold f/w down the Swanee and then got booted out of high office at the PF before his time and then this young lady who apparently did not think before speaking.

Good surname as well Wakefield now where did I hear that before?





BLUE LIGHT SYMPHONY ORCHESTRA

From my experience classical music has had only a limited following in the UK emergency services, indeed most police forces abandoned their own orchestras and bands years ago on the grounds that it was not core policing. Well that is due to change it seems with the creation of The Blue Light Symphony Orchestra (BLSO), in collaboration with Chroma. A pilot project was successfully completed delivering group Music Therapy to emergency service workers to help them recover from traumatic experiences.

Working with Surrey and Sussex Police, Surrey and East Sussex Fire and Rescue and Southeast Coast Ambulance Service, the project, a UK first, delivered a bespoke music therapy programme for emergency workers. It drew inspiration from the USA where music therapy is widely used to treat PTSD and trauma-related issues in army veterans.

The BLSO was awarded £10,000 funding from the Coronavirus Community Support Fund, to deal with increased levels of trauma while responding to the Covid-19 pandemic. It seems they think it is the cure when certain US Presidents think it is bleach and your editor is sold on the idea of taking Victory V lozenges. Each to his own.

Despite the term 'Orchestra' being used that magic word improvisation crops up, it amounts to learning simple drumming techniques, to which are added health and wellness education. Add in "mental health issues" "camaraderie" "enjoyment" and "playfulness" and it seems we are on to a sure-fire winner even if the numbers are a bit sparse.

The project started in Surrey and is looking to expand to other parts of the UK.

On March 13 the first BLSO workshop of 2022 will be concentrating on Brahms second symphony. Apparently they are still looking for Trombones, trumpets and strings. I guess they are a couple of slices short of a sandwich then.

Ed: From what I know of Orchestras a couple of French Horns and a triangle does not really add up to much, not quite a quintet.

It can only get better of course and fuller (less critical) details can be found, along with a documentary video at: <https://www.bluelightsymphony.org/charity/bluesandtunes/>




DefenPol China2022
the 6th Guangzhou International
Defense and Police Exhibition & Summit
15-16 July 2022
NICEC(Guangzhou)

Estimated scale:
 280+ Exhibitors
 20000 Sqm
 11000+ Professional Visitors
 pavilions :Russia,Turkey,Israel, France,Italy,Canada,UAE

www.defenpolchina.com

SINGAPORE AIR SHOW

The last Singapore Air Show in early 2020 was one of the first to be decimated by the Covid Pandemic. That event was marked by large halls deserted and echoing by an industry staying at home. Even on its return this year's show, held from 15-18 February, was severely affected by the now receding plague, with limited access to the site by the commercial audience and the complete loss of the public days. Those entering the site faced a strict, onerous, testing regime each day but industry had returned with people – if not exactly the full complement. Where possible the people on the stands were already based locally.



The opening ceremony (L-R) Mr S Iswaran, Minister for Transport and Minister-in-charge of Trade Relations, Dr Ng Eng Hen, Minister for Defence and Mr Ravinder Singh, Chairman of Experia at the Ribbon-Cutting Ceremony of Singapore Airshow 2022. [supplied]

Most of the news emanating from the Singapore Air Show related to big money subjects – the recovery of air-line traffic and sales and the acquisition of military aircraft.

The event did see the return of air display flying but only to the invited audience of professionals and those of the media that showed up. There was a critical problem in that the anti-Covid measures still in place amounted to a major invasion of comfort and privacy with intrusive daily testing regardless of vaccination status.



The Bell booth with a model 429 [supplied]

THE EMERGENCY SERVICES SHOW



The majority of the flying programme included airliners and heavy metal military craft, but most companies tried to send representation.

To reduce options for casual observation of the activity at the show by uninvited outsiders the coastal paths around the eastern end of the island were closed off

It was not all bad and the organisers were able to wrap up the event by announcing that the Changi Exhibition Centre had played host to more than 13,000 trade attendees and almost 600 participating companies from more than 39 countries/ regions: representing more than 70% of the top 20 global aerospace companies. Around 100 American exhibitors were present to fill over 30% of indoor exhibit space with a majority within the USA Partnership Pavilion.



Singapore Airshow has also adopted sustainability efforts by going largely paperless – which is atypical of airshows. The traditionally printed show directory has evolved into an electronic format, and online platforms such as a digital media centre have been created to minimise printing. The event is also powered by solar energy generated from 15,000 panels installed on the roof of the Changi Exhibition Centre.

FUTURE EVENTS

After losing out for one year registration for arguably the most important aerospace and defence event in the UK over four years, Farnborough International Airshow 2022, is now open.

Taking place 18-22 July 2022, the event will see global aerospace and aviation leaders return to Hampshire, United Kingdom, for five days of unrivalled opportunities to discover the latest pioneering technology and engineering, announce historic partnerships, build connections and work towards the cumulative sustainable aerospace vision as an industry.

PAvCon
POLICE AVIATION CONFERENCE

6-8 June 2022
Wiener Neustadt, Austria

The Networking continues
www.pavconeurope.eu





New for 2022, the Aerospace Global Forum will revolutionise how the industry will share knowledge and tackle global challenges. Bolstering Farnborough International Airshow’s position as the pinnacle aerospace event, the Aerospace Global Forum will see pioneers and innovators from across the worldwide technology, sustainability, engineering, space, and defence spheres convene and immerse themselves in driving accelerated material change through an aerospace lens.

Gareth Rogers, CEO of Farnborough International, said: “With the entire world now focusing on the critical health and sustainability of the planet, we are at the most important junction in the history of aerospace. Without face-to-face opportunities to discuss the opportunities and challenges for the future of aerospace over the last two years.

The event will attract Airbus, Boeing, Boom Supersonic, Lockheed Martin, Rolls-Royce and GE Aviation, exhibiting their latest aircraft, innovations and technology at the show.

For more information on attending or exhibiting, visit the Farnborough International Airshow website, <https://www.farnboroughairshow.com/fia2022/>



15-17 March 2021 Home Office Security & Policing, the official Government global security event, will return as a live event for its 40th anniversary. Farnborough International Exhibition and Conference Centre



1974 The British Open Golf. Lancashire Constabulary, one of the leading edge police aviation operations in their day, used a Piper fixed wing and an officer perched in the dorrway to provide video from the sky. Surprisingly PC Pickles did not wear his cap when flying operationally! His companion was Inspector David Mander.

Meanwhile the following year Hertfordshire Constabulary were using Air Gregory Hughes 300 helicopters for operations. The man with the clipboard was Inspector Ken Wisbey

[images from the aviation collection www.brynellott.co.uk]

