

Police Aviation News

©Police Aviation Research

Issue 265

May 2018

50 Years of the FENESTRON

AUSTRALIAN EXPANSION

ABT P68 GETS FIKI OK

IS THE PRICE RIGHT?

UKRAINE 'NEW' IS OLD



EDITORIAL

I think it is a move designed to swamp *Police Aviation News* with so much information in one month that it simply cannot record it or comment. Are those in high places playing games?

In the wake of the recent meagre NPAS Annual Report reported on last month my favourite police aviation organisation have released no less than three sets of minutes to the world. A bit like London buses, three arrive at once.

So, dear reader we are back to a bumper edition of 'What NPAS did next' in this month's edition. *Apolo-gies perhaps to Susan Coolidge the author of 'What Katy did...'*

Perhaps they feel they are under attack, clearly the path they weave consists of a zig-zag pattern that any Navy would have been proud of. Occasionally the zigs and zags cross over into reality. Must be a Navy man in there somewhere.

Bryn Elliott

LAW ENFORCEMENT

AUSTRALIA

NEW SOUTH WALES: Three new aircraft joined the NSW Police Force Aviation Support Branch in early April, making it the largest police aviation fleet in Australia.

NSW Police Force Commissioner Mick Fuller, opened the hangar door revealing PolAir 2, PolAir 6 and PolAir 8 in a commissioning ceremony at Bankstown Airport on April 10. He was joined by His Excellency General The Honourable David Hurley, AC, DSC (Ret'd) Governor of NSW, and Minister for Police Troy Grant to commission the aircraft into operation.



Bell 412 ©NSWP

The three new additions are a Bell helicopter and two Cessna fixed wing. PolAir 2 is a twin-engine Bell 412EPI helicopter, both PolAir 6 and 8 are turboprop Cessna Grand Caravan EX 208B fixed wing aircraft with a cruise speed of more than 340km/h and a range of over 1400kms, which makes them ideal for use in remote locations. The NSW Police Aviation Fleet now consists of five helicopters and three fixed wing aircraft.

Following the April arrivals, the NSW Police Aviation Fleet consists of five helicopters and three fixed wing aircraft. Other aircraft in the fleet include PolAir 1, a 2005 Eurocopter AS350-B2 Single Squirrel; PolAir 2, a Bell 412 EPI twin engine Helicopter; PolAir 3, a 1997 Eurocopter AS350-B2 Single Squirrel; PolAir 4, a 2011 Eurocopter EC135P2e; PolAir 5, a 2014 Polair 8Bell 412 EPI twin engine Helicopter, PolAir 6, a Cessna Grand Caravan EX 208B single engine fixed wing, and PolAir 7 and 8, Cessna Grand Caravan EX 208B single engine fixed.



The audience gathered before the new Bell 412, the second they have operated. Up on the left is the winch training rig previously reported in PAN. ©NSWP

The PolAir fleet covers a vast area of more than 800,000 sq. km and has conducted 592 SAR operations, 316 missing persons searches and 44 specialist transport operations since July 2016

Other aircraft in the fleet include PolAir 1, a Eurocopter AS350-B2 Single Squirrel; PolAir 2, a Bell 412 EPI twin engine Helicopter; PolAir 3, a Eurocopter AS350-B2 Single Squirrel; PolAir 4, a Eurocopter

FRONT COVER: On April 12, 1968, the first Fenestron took to the skies on the second prototype of the Gazelle. It has since evolved to be emblematic in turn of Sud Aviation, Aerospatiale, Eurocopter and now Airbus Helicopters. The image is of the latest in the line—the H160, the next generation of rotorcraft. [©Thierry_Rostang]

The system adorns hundreds of helicopters. By comparison the apparently far more advanced NOTAR system is 36 years old and never overcame the initial suspicion of the prime customer—the US military.

PAN—Police Aviation News is published monthly by
 POLICE AVIATION RESEARCH, 7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK.
 Contacts: **Main:** +44 1992 714162 **Cell:** +44 7778 296650 **Skype:** BrynElliott or +44 20 8144 1914
E-mail: editor@policeaviationnews.com and admin@pavcon.org and policeaviation@hotmail.com

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

SPONSORS

Airborne Technologies
 Avalex
 Babcock International
 Broadcast Microwave
 CarteNav
 Enterprise Control Systems
 FLIR Systems
 L3 Wescam
 Powervamp
 Trakka Searchlights

www.airbornetechnologies.at
www.avalex.com
www.babcockinternational.com
www.bms-inc.com
www.cartenav.com
www.enterprisecontrol.co.uk
www.flir.com
www.wescam.com
www.powervamp.com
www.trakkacorp.com

Airborne Public Safety Association

www.publicsafetyaviation.org#

EC135P2e; PolAir 5, a Bell 412 EPI twin engine Helicopter, PolAir 6 and 8 the new Cessna Grand Caravan EX 208B which were preceded by PolAir 7, a similar Cessna in 2013.

Ed: Like most air support operations, priorities alter over the years. Around 2011 when the EC135 entered service it was predicted that the type would replace the by now elderly AS350s in short order. Clearly priorities have altered.

Photo Right: Senior Police Chaplain, Reverend Sarah Plummer and Commander Aviation Support Branch, Superintendent Mark Noakes APM at the Commissioning Ceremony for PolAir 2, PolAir 6 & PolAir 8 on April 10, 2018.

In keeping with long standing traditions our aircraft receive a blessing when Commissioned into operational service. [NSWP]



WESTERN AUSTRALIA: WA Police has funding for a new helicopter. Although the type has yet to be selected the funding, \$26.9M, has been set aside from the Road Trauma Trust Account by the state government with the expectation that the new machine will arrive in 2-3 years.

The Road Trauma Trust Account is derived from speeding and traffic offence fines.

As carried in these columns from time to time, there have been numerous reports over several months which raised concerns over the state of the two current police helicopters, Polair 61 a 28-years old Kawasaki Bolkow KB117 and Polair 62 a six-year-old Eurocopter AS365 N3+ Dauphin. The differences in the two only compounded spares holdings made difficult in having the pair at widely separated bases.

WA Police is responsible for the policing and search and rescue for a nearly 1 million square-mile area in the region. It currently has two units — one covering the southern state, and one covering the north. In addition to the helicopters it currently operates 12 years old Pilatus PC-12 and a six-years old Gippsaero GA8 fixed wing to undertake transport and surveillance roles.



INSIGHT DESIGN

Insight Design specialises in aircraft and helicopter paint scheme design, brochures, advertising and publicity, corporate design, logo design and illustration.

Insight Design can also provide side view illustrations of UK and Irish police and public service helicopters and fixed wing aircraft at A4 size, suitable for framing and printed on archival quality paper.

commin@btinternet.com
Telephone: 01628 666337





PHILIPPINES

NATIONAL POLICE: After months of paperwork and the risk of a contract cancellation, the new Bell 429 of the Philippine National Police (PNP) finally flew on April 16.

Onboard was outgoing PNP chief Director General Ronald dela Rosa, who was flown to Baguio for his testimonial parade at the Philippine Military Academy. The flight was apparently its "maiden flight" before the PNP equips the Bell for disaster response and humanitarian deployments among other missions. The helicopter was delivered 3 months earlier than expected, as Bell Asia Pacific initially promised to send it over by July 2018.

Before its flight the Bell was blessed with dela Rosa and the PNP's top logistics officials Deputy Director General Francisco Archie Gamboa and Director Jose Ma. Victor Ramos.

The PNP awarded the contract to Bell in June 2017. Delivery was put in question when President Rodrigo Duterte cancelled a Bell 412 contract for the Armed Forces of the Philippines with Canada. Amid concerns over human rights, the North American country ordered a probe into the deal, vexing Duterte so much that he abruptly shut down the programme. (See February see March edition of PAN).

PAvCon
POLICE AVIATION CONFERENCE

PAvCon 2018

WARSAWA
POLICJA
SN-32XP
A-013

Warsaw, Poland
May 21 - 23, 2018

The Networking continues

www.pavconeurope.eu

The PNP deal went through unhindered because it was made with Bell's US office. The airframe was however seen wearing its Canadian marks – a detail that appears to have escaped notice. The next example is expected to be delivered in 2019. [Inquirer/Rappler]

UNITED KINGDOM

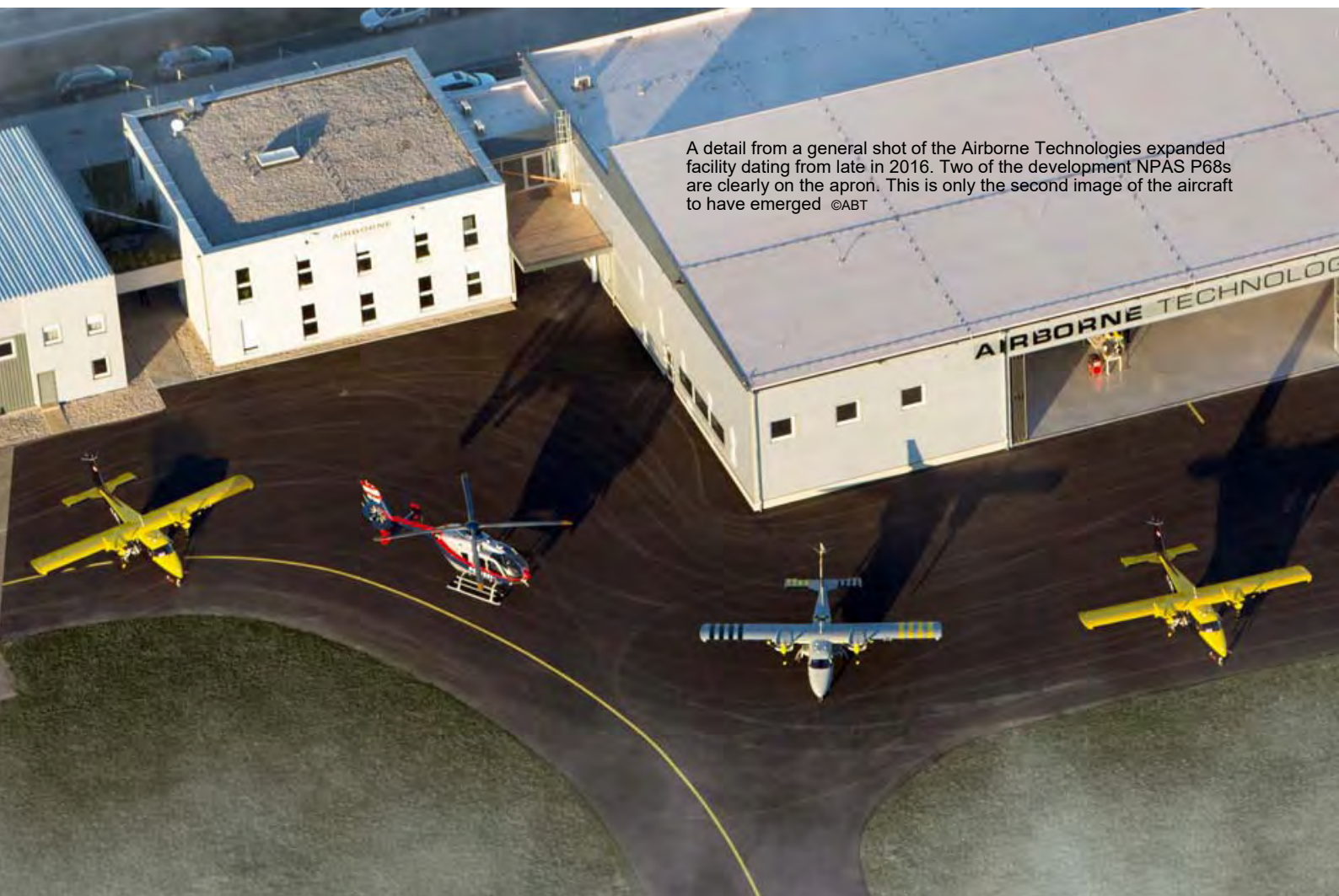
NPAS: It seemed at times that the time would never come – and there is no doubt that the extended delay greatly embarrassed the prime customer – but now the Vulcanair P68R has been certified for flight into known icing (FIKI) by the European Aviation Safety Agency (EASA).

The official handover of the documentation to Airborne Technologies [ABT] took place at the EASA booth during the AERO show in Friedrichshafen on the afternoon of April 18th but the announcement was made in a press release by ABT on April 10.

The complex modification of the basic aircraft with all redundant systems included a test flight programme with dry ice shapes, as well as natural ice flights in northern Scotland, to prove the de-ice capacity under most adverse conditions. All modifications for the special mission equipment such as EO/IR gimbal and the whole array of antennas for tactical radio and down/uplink, are covered by this STC as well. With this FIKI capability for a 2t-class aircraft, ABT expect to set new standards with regard to dispatch reliability and safety of the light twin. Wolfgang Grumeth, CEO of ABT, says: "The integration of special equipment into the different platforms goes far beyond the simple installation of sensors. The complexity of systems and customer requirements makes it increasingly necessary to intervene in all areas. We are taking over more and more modifications previously assigned to OEMs. Besides FIKI we have recently certified TCAS II and P-RNAV/SBAS."

Limited details on the performance to be expected from the modified airframe have been released but not yet full details on how much additional weight the FIKI airframe will have for the icing and role systems. When released, they will indicate whether the process is likely to be a success.

There is little doubt that this long drawn out certification process is an achievement for ABT. Bringing the diminutive P68R up to FIKI standard and meeting the requirements of the customer has clearly been far more challenging than expected.



A detail from a general shot of the Airborne Technologies expanded facility dating from late in 2016. Two of the development NPAS P68s are clearly on the apron. This is only the second image of the aircraft to have emerged ©ABT



Handover FIKI STC at the 2018 AERO in Friedrichshafen last month. From left to right: Thorwald Buck (EASA ECS Expert), Wilhelm Jagritsch (ACG - Head of Airworthiness and Certification), Burkhard Jäger (Airborne Technologies - Head of Design Organisation), Trevor Woods (EASA - Certification Director), Wolfgang Grumeth (Airborne Technologies – CEO) © ABT

Ed: The question remains whether the process was worth the bother. The P68R has been taken to FIKI standard to meet the requirements of one single customer – NPAS. That customer has a stated requirement for perhaps seven airframes. Regardless of who ultimately paid for the modification the real cost per airframe is going to be astronomical and I can foresee another fine crop of heavily redacted documents seeking to keep those numbers from public view. ABT is not a charity and somehow, they will need to cover the considerable costs involved. Either the contract first cost was fixed and high value, or the future support or production costs will claw it back.

All the initial order NPAS airframes are said to have been completed but some may well be behind on the modification state.

Although the whole project circulated around this one order it is noteworthy that the icing image issued by ABT was of an unpainted airframe and taken late last year. Clear signs of the icy grip NPAS has had on information relating to the programme. Everyone has either been sworn to secrecy or much worse.

Around 500 examples of the various P68 variants have been built over the last 48 years and they have seen limited police and surveillance use. The initial producer was Partenavia, Vulcanair took over production of the type over 20 years ago.

The type was periodically trialled and rejected by UK police in the 1980s and beyond, at that time the airframe of choice was the significantly larger BN-2 Islander.



© ABT

Three lots of minutes

Turning to the unprecedented recent release of no less than three sets of minutes [December, January and March] we learn a little about how the fixed wing model has developed while it has remained firmly grounded.

In the December 7 minutes there is mention that the fixed wing is to be considered for 'loiter patrols' but until the final certification numbers are known about basic weight, with police role equipment, and the maximum take-off weight (MTOW) it is impossible to see how that might work from the sidelines. When the P68R was presented to me in a PowerPoint screen show in Doncaster over a year ago they were expecting an endurance of 6 hours. Even then some doubt was being expressed whether the two occupants would embrace that many hours in a cramped environment, so such a maximum figure may well be academic.

If they loiter awaiting a call too early the chances are that they will need to refuel before the first job comes in. As with the helicopters, launch will probably be instigated by a substantive task followed by a period loitering.

The March minutes state that the P68R will be flown single crew [presumably meaning pilot and one TFO]. That has long been called into question. Devon & Cornwall did it for years on their roomy BK117C1 before finally succumbing to reality and operating pilot and two like everyone else. Their thinking [from on high] was in the same crackpot class as made them assume the crew had to be sergeants to 'order' rather than advise the officers on the ground.

You can operate pilot and one in the short term when you have to – and during times of staff shortage NPAS has had to face up to that for relatively short helicopter sorties – but to start off with a long duration strategy that places undue workloads on the man in the back for as many as six hours at a stretch is likely to strain the safety bonus of CRM and SMS to the extreme. The work of two helicopter TFOs in the back can be very intense over a relatively short duration, extending the patrol time and reducing the number of operators is going to be asking a great deal. Some believe it is a potentially dangerous strategy.

All this pent-up pressure on getting returns from the fixed wing is apparently because NPAS has been unable to maintain helicopter availability. In the same document there is a forecast that up to 7 helicopters might be off-line at any one time. That is an admission that getting on for half the fleet may not be available – but it has been far worse than that in the past when all but two were off-line. This is not new or unique to NPAS, this is the result of having to constantly upgrade elderly airframes and being accountable. Before NPAS no-one knew there were no aircraft, some units simply closed down for months on end waiting for spares or the money to pay for them. Lips sealed by pride and the threat of punishment did the rest. NPAS does not have that luxury—all eyes are upon them.

South Wales

It appears that the base at St Athan is on notice. NPAS are now talking about Cardiff. St Athan is a military technical base and fine for helicopters, but I doubt they will allow out of hours fixed wing even if the landing aids were in place.

Pooley's Flight Guide states that both Cardiff and St Athan have Mogas and both have an ILS. However, Cardiff is 24h and night flying at St Athan, RAF base 3 miles west of Cardiff, is by arrangement. That could make a significant difference to fixed wing operations. The latest comment in the minutes does not explain whether the NPAS helicopter unit at St Athan [right] might now move to Cardiff or whether the rotary and fixed wing units will be split. Keeping both together would be more economic.



The police air unit ©PAN

There seems to be a big unstated flaw here on fixed wing. I wonder whether they ever considered where to uplift Mogas at midnight? Cardiff Airport may be an answer, but it is late to the party. The whole 24/7

Creating the difference in live video communications

Providing flexible, efficient and cost-effective microwave downlinks to law enforcement agencies globally.



www.vislink.com | sales@vislink.com

fixed wing must have always had a night flaw, Mogas was always in short supply, 24/7 ILS is as rare as hen's teeth at airports willing to accept diminutive light twins. Night airports are big jet freight hubs and dangerous for that. As numerous units In Europe have proven in the past, operating light aircraft in the presence of large airliners is fraught with danger. You only need to ask the Belgians and the Dutch.

Operating an interim fixed wing service with an Islander over the last 18 months might have answered many questions and evolved tactics by now. But perhaps NPAS already know all the answers without the chore of discovery and test. It must be so, they constantly tell me it is so.

Aircraft availability is clearly a problem and it may be that the lateness of the fixed wing has completely blown their strategic plan out of the water. They ditched the expensive Explorer's, no doubt expecting a tiny time gap until the P68 rescued them only to find that they have insufficient aircraft available because of rebuilds and general worn out airframes with high maintenance needs.

It is unfair to blame the lack of available airframes purely on NPAS but, for a team that includes many police aviation professionals, they appear to have forgotten far too many home truths of aviation operation. Asking the NPAS airframes to continue to operate in excess of 900 hours a year on 10,000-hour airframes flies in the face of common sense. Most police aviation units across the world expect only 400 hours a year and completely renew the fleets at 8,000 hours. Others take a leisurely 25 years to rack up 17,000 hours. The British model is, and always has been, one of working a single airframe to an intensive level. That is unique and as we can now see – difficult to sustain with older aircraft.

There may be another explanation. It may be that the 'police aviation professionals' are being asked their opinion and then being totally ignored, bypassed or bullied out of sensible opinions. Too many died in the




RELENTLESS. JUST LIKE YOU.

FLIR Systems continues to redefine what's possible with the new Star SAFIRE™ 380HDc. Unmatched multi-spectral HD imaging in a light, compact, low profile system designed for your Law Enforcement mission.



Star SAFIRE®
380-HDc

To learn more visit

www.flir.com/police-aviation or  @flir



The World's Sixth Sense®

wool professionals have second pensions to protect. Occasionally a growing number simply pull the plug and take their professional expertise away from the organisation – a proper job.

I know NPAS get very annoyed about PAN at times and can say 'hah he got it wrong again' regularly ... but it is remarkable how right I get it at times bearing in mind that I have no real inside line other than out-guessing them occasionally. This is greatly assisted by NPAS changing their minds with monotonous regularity. At some point my guesses and their realignment of thoughts are bound to cross paths! And thank you, I do not need counselling.

I liked their comment on the delay besetting the recently issued Annual Report in the minutes. "Due to be published following a delay regarding the HMICFRS aspect". Well of course, other than the data collection by the HMICFRS in the first part of 2017, the subject was not even mentioned. The HMICFRS report had no bearing on the period under review!

These are of course my own opinion, the reader can make up their own mind at leisure. All these minutes are available to read on the NPAS website.

Fleet Upgrades

Meanwhile the EC135T2 upgrade programme continues with the final two airframes entering the process this year.

POLB [0283] Upgraded from SURY

POLC [0209] Upgraded from CPSH *plus a spoof R44 [right].*

POLD [0300] Upgraded from NMID

POLF [0267] Upgraded from ESEX

POLG [0228] Upgraded from LASU

The last two in the series are thought to be POLH and POLJ for the last airframes [0333] NEAU, [0204] WCAO

The other eight NPAS owned EC135s are P&W engine P2 examples some of which retain their clear and awkward original county marks. Some are obscure enough to be less of an issue.

CPAO [0843]

CPAS [0920]

EMID [0524]

HEOI [0825]

NWOI [0887]

POLA [0877]

SUFK [0730]

TVHB [0874]



Ed: Because it was the first P2 to be purchased, G-EMID was built to the 'old' standard and is on high skids. It might therefore be expected to be modified in the future, certainly it will be treated as 'different' to the general fleet – potentially one element that led to its current allocation to London base to operate alongside the EC145s. That leaves one other airframe, formerly with Merseyside Police as G-XMII. This has been flying with the Norwegian Police as LN-OCB. Six months ago, I would have been writing that the level of modification to fit the needs of the Norwegians is such that it will not be converted on return. Now an airframe shortage appears likely to have reversed the latest opinion according to recent NPAS minutes.

The upgrade and recertification programme will go some way towards obliterating the bane of the whole NPAS 'thing' – the clear links with the past via the 'county' registrations. There has been a paranoia with the past that probably cost a great deal in unnecessary recertification fees and there are clear signs that no-one can lift a finger towards preserving the ephemera or the lessons of the past.

Perhaps fortunately Police Aviation News has been based on preserving every awkward bit that it can – at least photographically but often in the form of more tangible artefacts.

There are so many different upgrades, voice and crash recorders and a new radio fit for a start, that the fleet downtime can only continue to blight availability.

The following G-POL* markings are unavailable to NPAS as they have already been issued to other operators. UK marks are generally only used on one specific airframe. G-POLE was an amateur build, G-POLI R44, G-POLL a microlight; G-POLO Piper PA-31; G-POLT R44 and G-POLY was a balloon



Even after ignoring the subject in the 2016-17 report unmanned craft are back in the minutes with mentions of search and rescue, 'providers', and the use of drones.

The HMICFRS report spawned the NPCC Aviation Group to answer many of the problems highlighted. They first met in February and from that is a proposal that an ACC in Cambridgeshire Constabulary write to all chief constables to tell them to postpone the purchase of any more drones. NPAS, who in their own minutes state they cannot deliver a full service, are now to give advice on Drones, even though they have precious little expertise in the subject matter.

Nonetheless NPAS are consistent in that they refuse to have anything to do with the voluntary sector like SkyWatch CAP, made up of many high hour professional pilots flying light aircraft, and yet they laud operations made up with professional drone pilots sworn in as Special Constables.

Earlier this year Lincolnshire Police used their DJI drone to find a missing driver at the scene of an accident. That life-saving mission was flown by an unpaid volunteer, a Special Sergeant, Kevin Taylor, who has a commercial drone qualification from his day job at Mettis Aerospace. It seems that this professional was called out from home to help.

Ed: Because he was a Special he was free. There may well be a question of ethics here. Surely Mettis Aerospace and their competitors have the right to expect the opportunity to bid for commercial gain to supply Lincolnshire Police and others with drone services on a level playing field. In this instance a trained Mettis employee appears to have lost sleep providing his commercial expertise for free.

This is an area where the NPCC needs to lay down some rules. There are more technologies available than Drones. They appear cheap, but a few drones require the diversion of manpower to train on and then run them. This is the classic case of how air support flourished before NPAS had to declare the real costs. Most of these forces will be blinding the local populace with figures that do not include the true 24/7/365 support costs, staffing, transport and logistics. A realistic support bill will break through £100K easily. Has anyone considered the cost of commercial drone services or even other aviation services volunteers including SkyWatch CAP and various other rescue services? No.



CRITICAL VISION TECHNOLOGY

To see, to save and protect



WORLD LEADING SEARCHLIGHTS

- Superior beam quality & efficiency
- Selectable internal multi-mission filters
- Optional dual TI/TV sensors
- Industry-best reliability

NEW GEN GYROSTABILISED CAMERAS

- Family of 200, 300 & 400mm systems
- Single & multi LRU configurations
- Leading multi-spectral sensors
- Fully exportable



trakkasystems.com

North Weald

As this issue closed for press no work has started on the new base at North Weald to replace the Lippitts Hill and Boreham bases. The land-owners, Epping Forest District Council, are happy with the project so the delay is either financial or contractual with the building suppliers or builders.

AIR AMBULANCE

GERMANY

GREIFSWALD: DRF Luftrettung has placed an EC145 [BK117C2] rescue helicopter at the “Christoph 47” station in Greifswald, Mecklenburg-Western Pomerania. The newer helicopter D-HDER replaces an earlier BK117B [usually D-HWWW].

The new aircraft offers increased capabilities, including a 700km range and speed of 254km/h instead of 240km/h compared to the previous model.

“Christoph 47”, the helicopter of the DRF Luftrettung staffed with a pilot, an emergency doctor and a paramedic, is operational daily from 7:00 am until sunset. The base located in eastern Germany on the Baltic coast is primarily responsible for places within a radius of 60km – reached in a maximum of 15 minutes.

Ed: Normally a locally newsworthy story only, replacing an older BK117 with a nearly newer version.

This one has history in that 14 years ago it was registered G-CDGM and was the McAlpine Helicopters EC145 demonstrator from December 2004 to February 2006 at which time it went to DRF as an air ambulance. It is pictured right when it starred on the McAlpine stand at the ACPO Show.



RUSSIA

TATARSTAN: Russian Helicopters delivered the first Ansat helicopter in medical configuration this year under a contract with State Transport Leasing Company (STLC). This year STLC will get another 11 Ansat helicopters in medical configuration from Russian Helicopters.

Last year Russian Helicopters delivered 29 medical helicopters under the contract with STLC. In accordance with the new contract STLC will get 31 helicopters in 2018: 12 Ansat, 13 Mi-8AMT and 6 Mi-8MTV-1.

The Ansat light twin-engine utility helicopter is produced at Kazan Helicopters. In May 2015 a helicopter modification with a medical module passed certification. The modification complies with all the international air medical standards and allows supporting patient's vital functions during transportation. In accordance with the certificate the design of the helicopter allows for its prompt transformation into either cargo, or passenger version with the capability to transport up to seven people.

The Ministry of Health of the Republic of Tatarstan became the first customer of the medical version of the new Ansat produced by Kazan Helicopters. The helicopter designed for medical evacuation and on-board emergency medical services has already been put at the disposal of the Republic's hospital as the means for emergency medical evacuation and transportation of casualties.

Ed: Contemporary accounts on the origins of the Ansat seem to forget that it is not as new as it is being portrayed. A mock-up was at shows from the mid-1990s and it first flew 18 years ago.



The Farnborough Air Show in the 1990s ©PAN

SWITZERLAND

REGA: New Bombardier Challenger 650 ambulance aircraft have been delivered to Swiss air rescue company REGA in Kloten, Switzerland.

Bombardier announced the delivery of the first *Challenger 650* aircraft converted into an air ambulance, ahead of two more similar aircraft this year, replacing its earlier-generation *Challenger 604* fleet. Bombardier delivered the first during a ceremony in Peterborough, Canada.

The robust, spacious and high-performing aircraft are being specially outfitted with intensive care units, representing the next generation of airborne medical evacuation.

Swiss Air-Rescue Rega, a non-profit foundation and one of the world's pioneers in aeromedical evacuation, carries out air-rescue operations in Switzerland with a fleet of 17 rescue helicopters and repatriates' patients from abroad with three ambulance jets. A long-standing Bombardier customer, Rega acquired its first *Challenger* aircraft in 1982 and has operated *Challenger* aircraft ever since.

The new *Challenger* aircraft offers a quieter cabin and a smooth ride, for the comfort of both patients and crew, as well as an impressive range of 4,000 nautical miles.

UNITED KINGDOM

CORNWALL: The first charity air ambulance created in the UK is now planning to upgrade its helicopter from the MD902 to the £7.5M AW169.

Cornwall Air Ambulance has put aside £5M already towards the new technology-filled 'A&E department in

MEET YOUR NEW MISSION PARTNER...

L-3 WESCAM'S SMALLEST EO/IR SYSTEM – THE MX™-8



Introducing the Latest Addition to L-3's MX™-Series

The L-3 WESCAM MX™-8 is a high-performing HD EO/IR surveillance system with a low 10-inch clearance level and an install weight of only 15 lb./6.5 kg. Engineered to capture critical ISR intelligence from light, manned rotorcraft and small tactical UAVs, the MX-8 is configured with a fully stabilized 4-axis gimbal design, 4-sensor payload suite and advanced processing capabilities. Compatible with L-3's Kinetic™ situational awareness and target detection capabilities, our MX™-GEO suite of target location technologies and third-party mission equipment, the fully digital MX-8 is compact, powerful and lives up to its legendary "MX" name.

To learn more, visit WESCAM.com.



WESCAM



L-3com.com



Later in the day the recently completed AW169, G-SASX, returned to the Specialist Aviation Services base at Staverton where James Lloyds captured it on the pad. ©JL

the sky' and the event at their headquarters at Newquay Airport addressed the people of Cornwall, the many seasonal visitors attracted to the area by tourism and leisure and the industries that benefit from them.

Late last month the charity brought a Specialist Aviation Services demonstrator AW169 to Cornwall to launch the New Heli Appeal for an additional £2.5M. The two-year fundraising campaign aims to bring this next generation air ambulance helicopter to Cornwall by April 2020, the date the lease runs out on its current aircraft.

Paula Martin, Chief Executive of Cornwall Air Ambulance, said: "We are asking people to join the mission to bring this next generation air ambulance helicopter to Cornwall – a medically advanced, faster, better equipped helicopter that will change lives every day.

"It will provide our aircrew of critical care paramedics, doctors and pilots with the technologically advanced features and equipment they need to truly exploit their lifesaving skills."

ESSEX & HERTS: Essex & Herts Air Ambulance (EHAAT) has been highly praised by independent healthcare regulator, the Care Quality Commission (CQC). The full report is available at www.ehaat.org

Following an inspection earlier this year, the CQC highlighted areas of outstanding practice at the Charity's two airbases – in North Weald and Earls Colne – with no recommendations for further improvement.

CQC Inspectors measure effectiveness by asking the same five questions of all services – is the service safe, effective, caring, responsive to people's need and well-led? In all cases the CQC inspectors found EHAAT to be meeting the criteria.

Jane Gurney, Chief Executive Officer at EHAAT, said: "The Trustees and myself are very proud of the incredible commitment and hard work of all of our staff, in delivering the highest possible clinical care to the people of Essex and Hertfordshire. We are delighted that this has been clearly reflected in the CQC report. We would like to thank the people of both counties for their continued generosity and support of our life-saving work."

The report praised the Charity's Clinical Governance Days (CGDs) – workshops to improve clinical knowledge and to share best practice that is open to internal clinical staff and external emergency services staff for their inclusive learning opportunities.

It applauded how the Charity uses the forum to open its missions up to scrutiny and audit by external

healthcare partners, including the NHS and other emergency services.

EHAAT's annual free-to-attend Aeromedical Conference for professionals and students in the medical industry, was also praised, with inspectors acknowledging the fully positive feedback from delegates.

“Paediatrics - our care, their future”

On June 27 the air ambulance charity is to run the 2018 version of its medical conference in pre-hospital care at Anglia Ruskin University. It brings together delegates from all over the UK and Europe, giving a unique insight into the Aeromedical world. Last year, our conference won 'Innovation of the Year' at the Association of Air Ambulance Awards.

The team aim is to bring together the specialists and emergency services involved in the care of patients in the pre-hospital and critical care industry to create an atmosphere in which we can learn from each other and inspire clinicians of all specialities to strive towards greater patient care and safety.

This year's conference will place a focus on the pre-hospital environment and paediatric care. Speakers are yet to be confirmed. With tickets selling fast, Essex & Herts are asking that healthcare professionals make sure that they register for a FREE ticket online now.

TAAS: The recently criticised provider of air ambulance services in the Midlands has been praised by inspectors for the standard of emergency and urgent care its patients receive.

During its inspection on January 15 and 16 the Care Quality Commission (CQC) looked into The Air Ambulance Service (TAAS) which runs Derbyshire, Leicestershire & Rutland Air Ambulance (DLRAA), the national Children's Air Ambulance and the Warwickshire & Northamptonshire Air Ambulance (WNAA).

Their resulting report praised DLRAA services for being “doctor led and highly skilled” and made mention of a “high level of paramedic critical care expertise”.

The CQC is the independent regulator of health and social care in England. While it does regulate independent ambulance services, it does not currently have a legal duty to rate them.

The report highlighted some areas where improvement was required but was largely positive overall.

Review processes for maintaining safeguarding policies was one of the areas the CQC suggested needed looking into. It was also suggested that the service should consider formal safeguarding training for pilots and look at mandatory training levels and increasing compliance with some modules.

GREAT WEST AA: Last month in reporting on the moves within the Association of Air Ambulances [AAA] and The Air Ambulance Service [TAAS] and The Children's Air Ambulance [TCAA] I mentioned that the friction between them all had dissipated. A recent letter in the Wilts and Gloucester Standard indicates that the friction has become more evident since TAAS/TCAA were suspended from AAA.

The Chief Executive for Great Western Air Ambulance Charity (GWAAC), Anna Perry, wrote to her local newspaper “to clear up some confusion for the people of Gloucestershire and South Gloucestershire.”

For ten years GWAAC has been the primary provider of air ambulance and Critical Care services across Gloucestershire – offering a free charity funded service to all in need, regardless of age. Most of the air ambulance services within the UK are run by independent charities, and occasionally they work across boundaries in mutual support. Most charities operate within defined local areas for fund-raising, but it has again been noted that TCAA has been collecting in the GWAAC – a practice that has “caused some confusion with our supporters” effectively GWAAC are distancing themselves from TCAA.

Ed: Probably little new here, the cross-border collection activities of Midlands based TAAS under the guise of the emotive Children's title have long been going on. It appears that the brief period where membership of the AAA took them out of the firing line has been suspended and it is again 'open season' on their activities. TAAS operates two AW109 on ordinary HEMS duties in the counties of Derbyshire, Northamptonshire and Warwickshire but unlike most other charities they regularly poach charity funds for their whole service across England and Wales under the guise of being a national children's air ambulance. The aircraft are dually marked as being TCAA resources.

KENT, SURREY, SUSSEX: As predicted some months ago the Marden based Kent HEMS helicopter is due to return to operating out of Rochester Airport, Chatham, Kent this month. The base will be a short distance from the previous base of nearly two decades ago but on a more substantial scale.

The development known as Innovation Park Medway sees the HEMS operation as its first official resident. The charity will be returning to the airport after 18 years based 13 miles away in the Weald of Kent. Pending the move the two new Leonardo AW169 helicopters are based at Redhill where the maintenance contractor is located.

The purpose-built hangar and accommodation block at Rochester was previously the base of AV-8 helicopters and backing on to the Holiday Inn Hotel on the east side of the airport. Although it is an existing structure it is being reconfigured and refurbished. It is in the final stages of construction last month with only electrical and communications work to be finished. Kent, Surrey and Sussex Air Ambulance (KSSAA) currently has around 30 staff based in Marden, all of whom will relocate to the new premises which has the capacity to accommodate up to 40 employees. The hangar now contains the large AV-8 portable building and a smaller unit owned by the air ambulance. Both have been moved from an external position at the side of the tented hangar structure under cover at the rear of the hangar interior.



©KSSAA

The Marden facility is brick built and set on the outer edges of a small business park. The charity was set up there by a property developer, Alan Firmin, after it moved from the small and basic portable building set on the south end of Rochester Airport at a time when the airport was threatened with closure. The then then new facility was purpose adapted for helicopter operation and perfect for operating the previous MD902 Explorer in daylight.

The move to a new home was precipitated by the delivery of the two new larger and more capable AW169 helicopters which are too large for the confines of the existing helipad when operating an extended role including night operations. Late 2015 plans to set up a new base on a green field site in the

CIRRUS PERCEPTION®

THE BEST-SELLING PISTON AIRPLANE HAS A NEW MISSION

Introducing Cirrus Perception™, an all-new cost-effective, multi-mission platform. Now FAA certified, learn more about Cirrus Perception at cirrusaircraft.com/fleet or email govsales@cirrusaircraft.com.



© 2018 CIRRUS DESIGN CORPORATION. ALL RIGHTS RESERVED.

county at Paddock Wood for the new helicopters were halted. The current plan is to have one helicopter in west Surrey at Redhill Airport and the other in the east at Rochester.

The innovation park, run by Medway Council, is one of three hubs which form the North Kent Enterprise Zone, aimed at attracting new business to the area. Their creation turned around the closure of the small grass airfield.

Ed: AV-8 Helicopters had a close connection with the Kent HEMS. They reduced the scope of their operations at The Helipad, Maidstone Road in 2016. As it is the same structure the post code may well remain Rochester ME5 9SD

SCOTLAND: Scotland's Charity Air Ambulance (SCAA) hopes to raise £6M for a second helicopter to add to the three existing air ambulances in operation.

The charity has operated an air ambulance helicopter since 2013, alongside two funded by the Scottish government. The long-established government scheme covers the country and the outlying islands using two Airbus Helicopters H145 and two Beech fixed wing. The charity operation was set up using a leased BO105 but later moved to an EC135. The area these few aircraft cover is massive when compared to the resources available to the charity sector in England and Wales.

SCAA chairman John Bullough said: "Our highly visible helicopter air ambulance has become a familiar sight as it deploys to time-critical medical emergencies throughout the country.

"Having responded to more than 1,700 emergency call outs, the charity has built a loyal and passionate following of donors, supporters and volunteers."

The charity is in talks with existing and potential major donors to secure the £6M required to launch and sustain a second helicopter for the first three years.

ULSTER: Air Ambulance Northern Ireland (AANI) is seeking 400 volunteers to raise £2M needed to keep the service operational. The charity says that this sum is crucial to enable provision for the next 12 months. A local volunteer information session has been organised for the evening of May 10 at the Royal Hotel, in Cookstown.

AANI, in partnership with the Northern Ireland Ambulance Service (NIAS), provides the Helicopter Emergency Medical Service (HEMS) for the region and from its base in Lisburn it can reach any part of Northern Ireland in approximately 25 minutes. The service's primary role is to deliver advanced critical care, benefitting those whose lives are at serious risk following significant injury or trauma by bringing urgent medical assistance directly to the patient at the scene.

Ed: The air ambulance has been tasked on approximately 280 missions since it was launched using Libor funds last July. To maintain the service AANI need to create and build up a fund-raising structure to supplement and eventually replace the one-off funding via central government.

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



Part of The Air Ambulance Service, the Children's Air Ambulance will soon take delivery of the AW169. The image was captured at Staverton by James Lloyds © JL

UNITED STATES

NEBRASKA: In Scottsbluff Regional West announced that it is adding the management and oversight of a fixed wing aircraft to its Air Link air ambulance flight programme. The new partnership will enhance Air Link's 22 years old air medical transport services with the fixed wing aircraft's capability to travel longer distances, carry larger patient loads and safely fly in varying weather conditions.

Med-Trans Corporation, a leading air medical company, is partnering with Regional West to assist with adding the fixed wing aircraft to its helicopter services. The airplane will be based at Western Nebraska Regional Airport in Scottsbluff. The Air Link helicopter will continue to be based at the Regional West campus. The program is fully accredited by the Commission on Accreditation of Medical Transport Systems (CAMTS) and serves a vast region spanning western Nebraska, eastern Wyoming, southern South Dakota and northern Colorado. Western Nebraska poses challenges both for those who need care and for the health care providers charged with serving them, especially in rural areas. A reliable, quality air ambulance service is vital for the region. [Star-Herald]

Your Mission – Our Business





Tailor-made police ISR solutions

www.airbornetechnologies.at

Designed for Precision

VIETNAM

PUBLIC SECURITY: In a country where public service aviation is in its infancy it can be difficult to push all high-tech and radical ideas forward. The growth of aviation in any form has been slow and confined to recent years. Readers may recall the recent addition of Viking Twin Otters in the transport and SAR roles. That required a major effort to facilitate new pilots who were able to speak English – indeed half of the eventual cost of the contract was aimed at language education. Although they have been operating in the oil fields for some years now helicopters are a new element – witness the Bell 505 order at the Singapore Air Show.

Now Vietnam's Ministry of Public Security has called for helicopters to be deployed during rescue operations on the country's highways, after multiple crashes caused serious congestion on a Hanoi expressway in March. Multiple fatal crashes that caused an eight-hour tailback on the Phap Van-Cau Gie Expressway in Hanoi should be a wake-up call to push for better rescue service. Hanoi is home to more than 7.6 million people and the southern city around 13 million. Both cities are packed with millions of motorbikes and cars and do not have much space for ambulances or fire trucks – leading to the suggestion that helicopters might overcome some of the issues. Ho Chi Minh City revealed plans to buy helicopters for rescue first in 2013 and Vietnamese police also agreed in late 2015 that the two cities should be equipped with such services. But no actual transactions have ever been reported.

Road crashes and fires are a main area of interest. Deaths on the road ran at an average of one person every hour last year, according to official figures. [VNExpress]

FIRE

UNITED STATES

CALIFORNIA: It is not news that Cal Fire wants to swap its fleet of Vietnam era Bell helicopters for the significantly more modern Sikorsky Blackhawk. It was one of the prime storylines at the recent HAI Heli-Expo- the biggest contract on the floor. What is apparently news for everyone concerned is that only now have some discovered that the Sikorsky option costs a great deal more than the older Bell machine and other types that were part of the protracted bidding process.



It took three rounds of bidding over two years to complete a process that rejected the low bidder, Italian manufacturer AgustaWestland/Leonardo, each time. The administration is now requesting nearly \$98M to buy four helicopters for Cal Fire. That sort of figure was seen as providing twice as many helicopters when the competition started.

The Sikorsky helicopters in the budget request cost about \$24M each, more than double the rejected low bid of \$11.4 M received from Leonardo for their AW139. In later bidding the greatly more capable AW189 was on offer at \$16M each. A saving, but not of the same magnitude.



Far from the HAI announced deal being signed and sealed it seems they are using terms like "it is not clear if lawmakers are ready to commit to the project." Now they want more information even though Cal Fire has been trying to get the state to buy a new fleet of helicopters since 2004. The older airframes, including 50-year old Bell UH-1 Huey's, are experiencing extreme structural fatigue, and their availability and efficiency on the flight-line diminishing. Spares are hard to get and expensive.

Cost wasn't the only thing that mattered when the winning contract was chosen. It was part based on a range of technical options including the availability of flight simulators for the Blackhawk and its overall performance. There is little doubt that the combat proven MilSpec Sikorsky product has the edge on both actual performance and perceived robustness in operation.

Leonardo challenged the award, but the technical specification still failed to sway the contest their way – albeit by a narrow margin. The Governor’s Office and Cal Fire feel they have provided all the required numbers and are ready to start buying the new machines, those with the purse strings demur. [Sacramento Bee]

Ed: This will not be the first time an idea outstripped the ability to pay. The difference here may be that a deep public safety need may well sweep aside the financial considerations. There are people’s lives and a lot of property at stake in this. For months out of each year California [and other states] are ablaze and the perception of putting out the fires more efficiently may well be the overarching focus on the project that sweeps aside sensible discussion. No doubt the “Italian” AW products can do the job just as well at a little over half the price of the “US” product but in this case the heart is undoubtedly ruling the head.

SEARCH AND RESCUE

IRELAND

COAST GUARD: The International Federation of Air Line Pilots’ Associations (IFALPA) and the European Cockpit Association (ECA) are urging the Irish Minister for Transport to conduct an independent review into the Irish air accident investigation unit (AAIU). Both organizations seek the review regarding AAIU’s investigation into the cause of the accident to “Rescue 116” Sikorsky S-92A helicopter near Black Rock Island in March 2017.

IFALPA and ECA’s call for the review comes following a preliminary report and interim statement on what caused the accident of the helicopter, which was taking part in a search and rescue (SAR) mission. The publication featured several safety recommendations that are supported by both organisations.

JAPAN

COAST GUARD: Airbus Helicopters has secured an additional order of one H225 helicopter from the Japan Coast Guard (JCG), bringing JCG’s H225 fleet to ten units. JCG currently operates three AS332s and five H225s, both from the Super Puma family. With this new order, the customer’s Super Puma fleet will grow to 13 units by March 2021, becoming the largest Super Puma operator in Japan. The new H225 will join the rest of the fleet in security enforcement, territorial coastal activities, as well as disaster relief missions in Japan.



CHOOSE THE **CORRECT** GROUND POWER SOLUTION
WITH THE

Powervamp Ground Power Selector Guide

ENTER your aircraft manufacturer and model ▼

> VIEW the **most suitable turbine start unit** and **power supply** for your needs from Powervamp’s extensive, internationally renowned range

IT’S QUICK • IT’S CLEAR • IT’S INFORMED

Decision-making made easy. Go to: www.powervamp.com/product-selector



+44 (0)1934 643000 info@powervamp.com



MALDIVES

Maldives has asked India to take back one of two naval helicopters New Delhi had gifted to them. A top Maldives government source has been quoted as saying that the country wanted a Dornier 228 maritime surveillance aircraft instead of the Dhruv Advanced Light Helicopter (ALH) which India had gifted to Maldives.

This is seen by some as the latest incident in a series indicates deteriorating ties between the two countries in the face of investment interest from China and political unrest in the Maldives. Various trials are said to have been politically motivated and flawed, the President unpopular but backed by China, the imposition of a state of emergency and the arrest of court judges all ring alarm bells in India that have not been well received in the Maldives.

UNITED STATES

MICHIGAN: Traverse City, Michigan, is planning a U.S. Coast Guard Memorial sculpture in the shape of a helicopter located in Mini Park. Two stone walls will flank the sculpture at its north and south edges; one will read "Coast Guard City."

City commissioners approved spending up to \$60,000 to be raised by local groups and donations. It should be completed later this month. [R&W]

INDUSTRY



FLITELite lip lights, finger lights, flashlights, and lantern power stations are engineered for light discipline. NVIS lights are filtered for the NVG environment. Recessed LED's minimize light signature. Programming provides simple, reliable, power saving control.

They are approved for use by the military and in service across the world with Airborne Law Enforcement, HEMS, and Search and Rescue operators. The Operator Lip light is designed with single button control, recessed LEDs, dimming, 10-minute auto-off and excellent goggle compatibility. The company is based in Bellingham, Washington State. www.flitelite.com

DART Aerospace has received EASA certification for its Bell 505 Bearpaws. These lightweight, Canadian designed and built Bearpaws are now available for purchase and are offered with very short lead times. Canadian certification was issued just a few weeks ago and FAA approval should follow shortly.

Notwithstanding the clear cost issues being raised by the Californians on their renewed purchase of Sikorsky Blackhawk helicopters for firefighting, **Sikorsky** were in Chile promoting the firefighting formula to South American customers in early April.

At FIDAE 2018 the company launched a two-month promotional tour of Chile, Ecuador, Colombia, Brazil, Argentina and Peru to raise awareness of the Black Hawk helicopter's effectiveness as an aerial firefighting platform. Many of the Black Hawk helicopters delivered to the region's militaries and government agencies over the last 30 years can easily be equipped to carry water and foam to fight wildland fires that are growing both in severity and frequency. The message was naturally underlined by both past LAFire use of the Firehawk variant and the February 2018 order for two more Firehawk helicopters for entry into service in early 2019. The same month, the City of San Diego ordered its first Firehawk aircraft.

The FIREHAWK Aerial Firefighting Mission Package is compatible with



older model UH-60L and S-70A Black Hawk helicopters delivered during the late 1980s into the early 2000s; and with newer model UH-60M, S-70M and S-70i Black Hawk aircraft, which feature a digital cockpit, wide chord main rotor blades and more powerful engines.

Colombia operates the region's largest fleet of Black Hawk helicopters, with almost 100 acquired since 1988. Argentina, Brazil and Chile collectively operate another 22 Black Hawk aircraft.

Precision Heliparts [PHP] an Australian subsidiary of Atlanta, Georgia USA based Precision Aviation Group (PAG) has signed a distribution agreement with LORD Corporation for its rotary wing product line.

Under the agreement, PHP will assume responsibility to sell, distribute and support LORD aftermarket products for the Bell 206, 407 and medium series platforms in Australia.



S.A.F.E Structure Designs has delivered safety-first ergonomic Bell 429 maintenance stands for the Nassau County Police Department (NCPD) in Bethpage, New York.

SAFE Structure has pioneered the way for developing a complete ergonomic safety first custom maintenance stands and hangar equipment specific to the Bell 429. SAFE Structure worked alongside the NCPD maintenance crew gaining critical feedback throughout the design and prototyping phase of the project. The first set of prototype stands were delivered in January 2017 at which S.A.F.E. Structure conducted a thorough test fit to inspect all aspects of the designs furthering perfecting and optimize safety and ergonomic concerns. SAFE Structure then made enhancement modifications to the stands and now the final product line is out on the market.



DEDICATED TO SOLUTIONS

YOUR PARTNER FOR AIRBORNE MISSION SYSTEMS

Customised Mission Management Systems:

- ▶ Design & Certification
- ▶ Manufacturing
- ▶ Integration
- ▶ Maintenance
- ▶ Training

- ▶ Operator Workstations
- ▶ Mission Management Software
- ▶ Command & Control Systems
- ▶ Ground Stations
- ▶ Simulators

www.esg.eu

ESG is Design Organisation according to EASA Part 21J, Production Organisation according to EASA Part 21G and Maintenance Organisation according to EASA Part 145.



On April 12, 1968, the first **Fenestron** took to the skies on the second prototype of the Gazelle. It has since become emblematic of Sud Aviation, Aerospatiale, Eurocopter and now Airbus helicopters with the H160 carrying this sound-reducing, safety-enhancing technology into the next generation of rotorcraft.

The idea behind shrouding the tail rotor was initially developed to provide additional safeguards for workers on the ground but also to protect the tail rotor in forward flight and in complicated operational environments, such as working around high-voltage power lines. Sound reduction benefits followed much research and optimisation from one generation of the Fenestron to the next.

Originally called the “Fenestrou”, which is Provençal for “little window”, the term evolved into the renowned Fenestron. It was first certified on the Gazelle in 1972 and then subsequently integrated into the first single-engine Dauphin prototype, whose first flight was in June 1972. Trials were then conducted with a seven-tonne Puma in 1975, however, with its diameter of 1m60 and its 11 tail rotor blades it required too much power for the Fenestron to bring an operational advantage on this class of helicopters.

The second generation came at the end of the 1970’s with an all-composite Fenestron, which increased the diameter of the new Dauphin’s Fenestron by 20% up to 1m10. This improvement was motivated by the U.S. Coast Guards’ requirement for a highly manoeuvrable aircraft for Search and Rescue operations. The U.S. Coast Guards aircraft are still in service today and have accumulated more than 1.5 million flight hours.

In the meantime, research continued to optimise the shape of the Fenestron, blade foils, and to improve sound reduction, especially during certain phases of flight. Between 1987 and 1991 it was successfully tested on an Ecureuil, the prototype of which is still on display at the entrance to Airbus Helicopters’ headquarters in Marignane.

In 1994, the 3rd generation was fitted onto the H135 and optimized sound levels by using an uneven setting of the blades. In 1999 the H130 performed its maiden flight with a Fenestron derived from this version. The H145 followed suit in 2010.

50 years on, the H160 possesses the latest and largest Fenestron to be built on an Airbus helicopter with a diameter of 1m20. The fact that it is canted to 12° allows for improved performance with an additional payload and increased stability especially at low speed.

Editor: Other manufacturers have tended to shy away from emulating the Fenestron, leaving it as a unique Airbus feature, but many have tried. Major manufacturers including Agusta and Bell have ventured into encasing the tail rotor with both lookalike structures and simple ring mounts but, in the end, they left well alone. Either the resultant shrouding was too close and infringing the patent or the design failed to offer sufficient advantages. There have been some manufacturers that have successfully emulated the design – Kopter for instance – but they clearly worked with rather than against the original designers with a different, non-competitive, class of airframe.

#

In early April **Iridium Communications** announced that the fifth set of 10 Iridium NEXT satellites, launched by SpaceX, are functioning nominally and have begun the testing and validation process. This second launch using the Falcon 9 rocket increased the total number of Iridium NEXT satellites in space to 50.

Once testing is complete, there will only be another 25 Iridium NEXT satellites needing launch to complete this ongoing technology refresh.

The Iridium constellation is comprised of six polar orbiting planes, each containing 11 operational cross-linked satellites, for a total of 66 satellites in the active constellation. This unique architecture creates a web of coverage around the earth, enabling Iridium to provide real-time communications over the oceans and from even the most remote locations. Three more Iridium NEXT launches are scheduled for 2018, to bring Iridium's total to 75 new satellites in orbit, including nine spares.

Some things just will not go away. Intrigued by a report in a Chinese newspaper I researched their story-line about a "new" Ukrainian helicopter.

The news story was pretty specific, Ukraine's first long-range helicopter MSB-2 "Nadiya" has made a successful maiden flight. It went on to explain that the helicopter, developed by **Motor Sich**, took off from a helipad in the city of Zaporizhia in south-eastern Ukraine.

Equipped with two turbocharged engines, "Nadiya" is a multipurpose helicopter which can be used on rescue, medical aid and patrolling missions. It has seating capacity of 10 people, a maximum speed of 230km per hour and a flying range of 720km.

It was only then that it became clear that the 'new' craft was in fact a development of the venerable Mil Mi-2, a Russian design of the 1950s that had been produced in large numbers. The Ukrainian tweak does now embrace modern materials, it is claimed that composite materials amount to 70% of the structure. Other alterations are that the fuel tank is installed in blisters outside the passenger compartment rather than in a prominent bolt-on tank.. Although limited production starts in July the type will be on certification trials for the next 12 months so plenty of time to form an orderly queue.

Politics plays a part here, as you may recall there was a violent split between Ukraine and Russia in recent years, this leaves helicopter production of such as the Mil Mi-8 developing independently in several centres. The MSB-8 multipurpose commercial helicopter is the post-conflict Ukraine evolution of the Mil Mi-8. It too embraces more composite materials which offer improved payload or range. It is otherwise the Mil.



The **London Heliport**, London's only licensed heliport, handled 11,900 total movements (including exempted movements) in 2017, representing a 5% increase in activity, slightly less than 2016. The trend toward medium to large twin-engine executive helicopter movements also continued into 2017 with types like the Leonardo AW169 recently becoming available for public charter for the first time (with Halo and Starspeed).

London Heliport is undergoing a major investment to upgrade its communications equipment, including a new transmitter and receivers to meet the new 8.33 MHz spacing regulations for VHF Ground-Air communications. New voice-switch and recording equipment is part of the upgrade which was due for completion by the end of April.

SEE MORE DELIVER MORE



SELECTED BY
POLICE SCOTLAND
NPAS | FRONTEX
POLISH BORDER GUARD

AIMS

MISSION SYSTEM
SOFTWARE

- ITAR-FREE
- MULTI-SENSOR INTEGRATION
- DEPLOYED WORLDWIDE



JOIN US AT **PAVCON** (MAY 21-23, BOOTH 6) + **SOFIC** (MAY 22-24, BOOTH 354)
cartenav.com

Early this year a partnership agreement was ratified with the Meteorological Office to upgrade available sensor equipment enabling the London Heliport to disseminate METAR data widely to the aviation community and make official forecasting available for the first time in history using skilled qualified met. observers within the heliport ATC team. Preparatory work is complete, and installation of new sensor equipment is expected to commence this month, with regulatory approval from the CAA anticipated following a three-month trial to prove the reliability of observations and the data produced. This will result in a significant enhancement of weather information available to air crew of conditions when entering the challenging airspace and operating environment of the London heli-route system.

www.londonheliport.co.uk



Safran Helicopter Engines has received EASA (European Aviation Safety Agency) engine type certification for its Ardiden 3C. Powering the Avicopter AC352, the engine has been jointly developed and built by Safran Helicopter Engines, Dongan and HAPRI, parts of the Aero Engine Corporation of China (AECC) consortium.



Known in China as the WZ16, it should be certified by CAAC (Civil Aviation Administration of China) in September 2019. The Ardiden 3C/WZ16 will be the first helicopter engine to be certified by both CAAC and EASA.

The Ardiden 3C/WZ16 is a new-generation turboshaft in the 1,700 to 2,000 shp power class. It features a remarkably compact modular architecture, a best-in-class power-to-weight ratio and a low cost-of-ownership. Compared to engines operating in the same power range, it offers ten per cent lower fuel consumption.

Ardiden 3C flight test campaign started in December 2016 with the AC352's maiden flight. Another variant, the Ardiden 3G, has also been selected by Russian Helicopters to power its Ka-62 which made its first flight in May 2017.

Since first ground tests of its two variants, the Ardiden 3 range maturation and certification campaign has accumulated more than 10,000 hours of trials and will demonstrate a high level of maturity at entry-into-service.

Adams Aviation started in 1968 in the basement of a pub at 12 Beavor Lane in the Hammersmith area of London and has grown to become a well-known and respected company in the aviation world. They recently marked 50 years in business.

These days Adams Aviation boasts covering eight European languages; a turnover of nearly £30M pounds (\$43M / €35M); shipping over 100 consignments every day, to more than 50 countries worldwide.

Adams Aviation Supply Co Ltd, Mercury House, Vulcan Way, New Addington CR0 9UG



The **Mirage** covert vehicle marking system developed by QinetiQ is marketed in the USA by The Artworks Unlimited LLC in Colorado under licence from PVL UK Ltd. Both companies work many trade shows together to promote the unique system. Unique in that the system works, where others strive to emulate.

The Mirage system was displayed at the Home Office and Security Policing event at Farnborough this spring and will again be working alongside each other at the PAVCon in Warsaw later this month.

PVL UK Ltd won two awards at the 10th anniversary of the Gatwick Diamond Business Awards. They may be prestigious, but they are local recognition rather than something the world competes for. PVL were finalists in four categories.

The Gatwick Diamond is home to a wide range of businesses, spanning all sectors from household names to niche companies and from multinationals to sole traders. The event celebrates businesses, organisations and people who have shown innovation and inspiration in their work, demonstrating a real commitment to this fast-developing region. Over 600 people came to celebrate the awards and recognise the achievements of their fellow GDB members. Yes, very much a local niche event.

PVL took Manufacturing Business of the Year as a well-presented business with a high attention to detail evident throughout the company, Supply Chain Excellence by demonstrating high level ethics and how these are mirrored with the partners that they work with. They were runners up in the International Business of the Year category.

Even though these are local awards they do highlight the class of the company involved. They claim to have a 50% share of the UK emergency services market and are strong in international markets.



ACCIDENTS & INCIDENTS

17 April 2018 'Helicopter' Iran's official news agency stated that a rescue helicopter crashed in the Persian Gulf, killing at least two people on board. The unidentified helicopter was flying from an offshore rig toward Kish Island transporting an oil worker who had suffered a heart attack. It says the oil worker and a paramedic died in the crash. Another two passengers are missing, and the pilot survived. [Media]

26 April 2018 'Helicopter' Emergency responders have found a missing medical helicopter in northern Wisconsin, but no word yet about the condition of the helicopter or the people on board. The Oneida County Sheriff's Office said the helicopter was located in Hazelhurst, a small town about 150 miles (241 kilometers) northwest of Green Bay. [Media]

FLIGHT SAFETY

Close Call!

On September 27, 2017 a HALO-Flight Bell 429 [N429HF] out of Corpus Christi, Texas carrying a pilot, Flight Nurse, Flight Paramedic suffered an incident of note.

During a flight to a scene, the crew noticed a few odd things with the pilot such as slow start of the aircraft, erroneous radio calls, distracted behaviour and just a perception that "something is wrong". Upon landing and while attending the patient in the back of the ambulance, the crew discussed the situation with the HALO-Flight Chief Medical Officer and elected to take the patient by ground. The Executive Director/ Director of Operations agreed with their decision and grounded the aircraft in place.

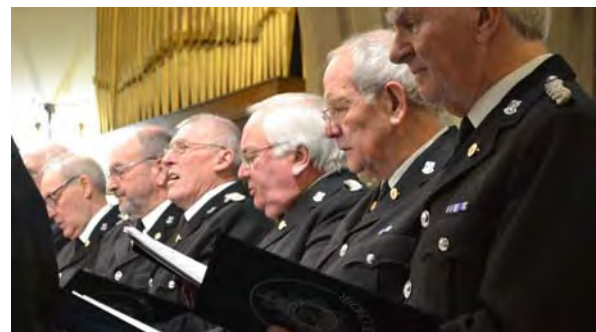
The pilot was taken off flying status and was medically evaluated. It was determined that he had an epileptic condition and has since retired from flying.

MOVE ALONG THERE

A chorus of protesting voices was heard in Derbyshire in April. Fortunately, they were both male and female voices or I would not be able to report on the matter objectively.

The occasion was in reaction to the news that the local police Male Voice Choir was changing its name rather than its sexual orientation.

The Derbyshire Constabulary Male Voice Choir is distancing itself from the force after being told it went against equal opportunities policies. The group was asked to become a mixed-voice group in September last year but the chairman [can he be that anymore?] Kevin Griffiths said it would be "difficult" to hire the 50 women needed to balance the sound. The group met with the chief constable in January to discuss the issue but was given a notice in March saying authorisation to use the force in its name had been revoked.



Derbyshire Police chief constable Peter Goodman, previously reported to have been of sound mind and good character, said the group was "incompatible" with force policies. The choir is made up of about 35 ex-police officers and a woman pianist and has raised £750,000 for charity since it was founded. Members sing with other mixed groups, but this group is oddly stated to be a male voice choir – that tends to cramp their style somewhat.

It will retain its unique sound and in future be known as the Derbyshire Community Male Voice Choir. Meanwhile Derbyshire Police will not have a choir.

Twenty-seven years and still going strong! In the past UK police changed their aircraft every 10 years, ten years may work for helicopters, which do tend to shake themselves to pieces, but aeroplanes are quite different. A Britten-Norman BN2B-20 Islander was built in 1991 and registered as G-BTVN. In March 1996 she was re-registered as G-NESU by Northumbria Police and gave exemplary service as a police aircraft until August 2005. Then, she was re-registered for a third time, as G-SICB, and today she is still in service as an inter-island transporter, passengers and freight, in the Shetland Islands.

27 years in service isn't at all exceptional for aeroplanes. The C-130 Hercules first flew in 1955 and many still fly today, albeit a much-improved aircraft but many of the old ones are still operating. The Canberra served the RAF for over 50 years, the BAe Nimrod MPA was in RAF service for 41 years, and the iconic DHC1 Chipmunk entered RAF service in 1950 and today, 68 years later, it's still flying with the RAF Battle of Britain Memorial Flight [a formation with several 80-year-old aircraft]. In each case the operations were decades after they first left the production line.

There are examples of helicopters with over 20,000 hours so the time when the still oh-so young NPAS fleet is truly geriatric may soon be upon us. Perhaps they just need more to keep the fleet numbers at a level that can sustain the promises. Year-on-year helicopters are cheap, it is the people in them, and the high-ranking support organisation that costs the money.

In Europe we often despair at the numbers of people shot and stabbed in public places.

It seems that there is a real bad reason the US is not too worried about gun deaths after all.

In the USA drug deaths far outstrip even those of guns. Drug overdoses are now the leading cause of injury-related death in the United States, eclipsing deaths from motor vehicle crashes or firearms. According to the Centers for Disease Control and Prevention (CDC), there were nearly 64,000 overdose deaths in 2016, or approximately 174 per day, over 42,249 (66%) of these deaths involved opioids, and the sharp increase in drug overdose deaths between 2015 to 2016 was fuelled by a surge in synthetic opioid involved overdoses.

They expect 2017 statistics will show that fentanyl and other illicit synthetic opioids will be the primary catalyst for fatal overdoses in 2017.

On that basis I can begin to see why the US police have held back on prosecuting people growing and smoking cannabis. Perhaps having a section of the population 'wacky' on weed saves them from finding time to kill themselves with opioids.

PEOPLE

Over in the State of Virginia last month the police marked the death of one of their pilots by dedicating a Virginia State Police helipad to the memory of Trooper-Pilot Berke M.M. Bates, who was killed last August when his helicopter crashed while monitoring a white-nationalist protest in Charlottesville.

Officials and members of Bate's family, unveiled the new sign that designates the helipad in Bates' memory on April 18, at the VSP headquarters in Chesterfield County. Bates, 40, and the State Police Aviation Unit Commander, Lt. H. Jay Cullen III, became the Department's 64th and 65th Virginia State Police line-of-duty deaths when their helicopter crashed on August 12, 2017. The Department dedicated its Chesterfield Aviation Base and Headquarters in Cullen's memory in February.



BN2 NESV ©PAN



There has been a change in command at Lippitts Hill, NPAS London if you will. Former Metropolitan Police officer Andy Hutchinson has now resigned from the post. The OIC is now Sergeant David Howell formerly with the Central Counties operation at Halfpenny Green he became the base manager for NPAS Wolverhampton base until it closed. He has been operational at Lippitts Hill for a year.

UNMANNED

This November's International Security Expo and the UK Drone Show have got together to enhance the drone content of the event.

Successfully launched in 2017, the Drone Zone returns to the International Security Expo from 28-29 November at London Olympia once again in partnership with the UK Drone Show – Europe's largest drone event.

The Drone Zone incorporates a large scenario based flying area showcasing the latest in unmanned aerial vehicles, drone technology and counter drone Solutions. Situated alongside a dedicated drone pavilion where companies will exhibit a broad range of drone capabilities and counter-drone solutions including: infra-red camera technology, thermal imaging, drone detection, explosives/substance detection and training.

Leading manufacturers and suppliers will present their high-quality UAV products, explaining how their concepts can enhance security efforts whilst adhering to safety and regulatory requirements. Video feeds and interactive Q&A sessions will ensure visitors are not only immersed in the impressive demonstrations but are also given an opportunity to widen their knowledge of the endless capabilities and solutions available to them.

ESG's modular Counter-UAS system GUARDION [right] was a part of the security measures operated by the police authorities during last month's ILA Berlin 2018 air show, thus ensuring effective protection against the dangers of the unauthorised operation of drones. [ESG]



The Italian accident investigation board ANSV published its 2017 Annual Report drawing attention to 46 drone incidents over the past year in Italy.

ANSV notes that it continued to monitor interferences recorded in the Italian airspace between unmanned aircraft and manned aircraft. The number of incidents (46) is in line with that of the previous year (51).

Of the 46 incidents reported, 42 were conflicts with manned aircraft. Four incidents pertained to single drone operations, for example a bird strike to a tethered drone, and drones observed near airports by ground personnel. [ASN]

EVENTS IN THE COMING MONTHS

Search and Rescue, the SAR community's annual gathering will return to London from 26th-28th June 2018. The event is being held at the Hilton London Kensington, 179-199 Holland Park Ave, London W11 4UL.

The programme identifies opportunities for delivering a multi-agency response to emergency.

[Download the agenda here](#)

Unique in offering maritime and land-based case studies, the conference will hear from:

UK Maritime and Coastguard Agency; UK Mountain Rescue; the Canadian Coast Guard Auxiliary; Danish National Police; Cape Verde Coast Guard;

As well as other speakers from Denmark, Greece, Norway, Serbia, the Slovak Republic and USA.

The event will include a scenario-based workshop, delivered by a former SAR leader in the Canadian Coast Guard. <https://searchandrescueeurope.iqpc.com/> <https://bit.ly/2HdmM6d>



The Airborne Public Safety Association's 48th Annual
AIRBORNE PUBLIC SAFETY CONFERENCE



APSCON 2018
 LOUISVILLE, KY | JULY 9-14



- ◆ **APSCON 2018** (formerly known as ALEA EXPO) sets the standard for excellence in the field of public safety aviation education.
- ◆ Exhibition floor features the latest, cutting-edge technology for public safety aviation.
- ◆ Subject matter experts share a wealth of information on law enforcement, firefighting, SAR and other public safety aviation operations.



ADVANCING PUBLIC SAFETY AVIATION

For more information, visit www.publicsafetyaviation.org or call 301-631-2406

Copyright Notice: The content of this publication includes items that are the copyright of others. 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 Eurocopter 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.

The seventh edition of Dubai HeliShow, the biennial International Helicopter Technology and Operations Exhibition dedicated to the helicopter industry, will be held from November 6 to 8, 2018, at the Royal Pavilion, Al Maktoum International Airport, Dubai South, under the patronage of H.H. Sheikh Mohammed Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.



The 2018 edition of the show, with its focus on exclusive conferences that feature leading global speakers, will provide a unique platform for both regional and international players in the field of civil and military helicopter technology and operations to showcase their products, services and technologies for the commercial, civil defence and military helicopter sector and explore prospective partnerships.

Two exclusive three-day conferences will take place - 'Helicopter Technology and Operations' and 'Military and Homeland Security.'

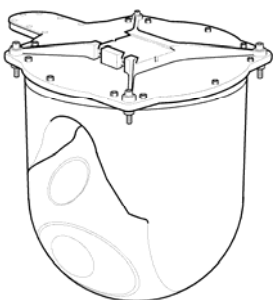
Domus Group will be organizing Dubai HeliShow 2018 in partnership with IQPC, and the show is supported by leading government authorities including the Ministry of Defence, UAE Airforce, Dubai Civil Aviation Authority, Dubai Airports, and Dubai South.

THIS MONTH

21-24 May 2018 PAvCon 2018 Warsaw, Poland.

The build-up of the event continues with more companies signing up. Many old favourites of course but also new exhibitors drawn to the new location.

Police attendees include around ten of the local Polish Police air support who will be taking part in the event alongside aviation colleagues from Germany, Spain and Turkey. This is the first-year multiple officers from the Polish or Turkish police have joined the PAvCon event.



The Monday 21 May training day is again focussed on the use of EO/IR sensors. Last year Jack Schonelly gave a magnificent introduction to tactics and area containment—very much a police officers viewpoint on how to find and capture criminals using the sensor by night and day.

This year attendees will be receiving a more technical appraisal of how to use and train on sensor turrets. With the majority of even experienced operators being unable to make use of the full capabilities of the equipment this will be attractive to both new TFOs and those with many hours knowledge.

Currently the main sponsors are Bell and Cirrus but recent talks with Airbus Helicopters seem to promise a high level of interest from them this year. Bell look likely to bring a 505 and Cirrus a SR22 to add to the numerous aircraft that are normally based at the venue—though it seems unlikely that any European police force will wish to operate either a T6 Texan or many of the other resident types!

As the event is still more than two weeks away there are a great many details to be clarified and as ever we expect late bookings by both police and exhibitors – it is the nature of the event.

Hosts are JB Investments Sp z oo, 05-510 Konstancin – Jeziorna. www.jbi.com.pl

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



24-26 May 2018 Rotortech 2018 Sunshine Coast, Queensland, Australia. +61 (0) 3 5282 0500 expo@amda.co.au www.rotortech.com.au



31 May 2018 Three Counties Defence and Security Expo (3CDSE) 2018, the region's leading expo for the defence and security industry www.3cdse.co.uk.

Following on from the success of the first Herefordshire showcase for the defence and security industries, the event has grown, but maintains its original premise to provide a forum for military, suppliers and security agencies to identify common interests, solutions and opportunities.

Priced to provide an opportunity for SMEs to exhibit shoulder-to-shoulder with prime contractors such as BAE Systems, Thales and Vodafone, this event promises to become a significant fixture in the defence expo calendar.

14-16 June 2018 AeroExpo UK/Heli UK Expo, Wycombe Air Park. 'The UK's Private Helicopter Owner and Pilot's Exhibition' The co-located events AeroExpo UK being the UK's premier General Aviation event, new initiatives will be introduced to coming events in the continuing effort to improve and enhance the overall experience. The Heli UK Expo Team will be hosting the 4th Heli Leaders Round Table Discussion next month. The discussion will serve as an opportunity to discuss the industry and current key challenges. Events are run by AvBuyer Events AvBuyer House, 34A High Street, Thames Ditton, Surrey KT7 0RY United Kingdom office@heliukexpo.com

A large advertisement for the Public Safety Drone Expo 2018. At the top is a logo with wings and a target, with the text 'To Serve, Save and Protect From the Air'. Below the logo, it says 'PUBLIC SAFETY DRONE EXPO 2018' and 'Police • Fire • Search & Rescue'. The main text describes the event: 'Public Safety Drone Expo 2018 will offer a combination of interactive public safety specific UAS courses, classes and general sessions focusing on law enforcement, fire and SAR applications. Attendees will learn from top experts and public safety operators offering their insights into best practices, fundamentals and integration. The Expo Hall will be teaming with industry service providers, manufacturers, advocates and thought leaders who bring together cutting-edge technology and applications.' At the bottom, it says 'RENO, NV October 1-4, 2018' and 'Public Safety Drone Expo is produced by the Airborne Public Safety Association, Inc. For more information or to register today, visit www.publicsafetyavation.org'. There are also small images of people at a drone station and a drone in flight.