

# Police Aviation News

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Issue 260

December 2017



**18 years apart  
Come in #42**



## THE VOTE DECIDER

*Queensland Police on a promise*

## N.P.A.S. SLAMMED

Upcoming Tenders: Netherlands and Poland

## EDITORIAL

The long-awaited report into NPAS performance by the HMICFRS was published as PAN was due to go to press so this edition is slightly delayed. It does not make good reading but there is little that is new or unexpected. This is simply the report that puts into words the slow-motion car crash that many of us have been watching over the past few years.

At 97 pages it appeared daunting read, but the core of the report and the recommendations lie in the first 20 pages. The report will of course be considered "tomorrow's chip paper" as better juicier stories take the eye of the media pundits after just a few hours. Tellingly the report requires certain remedial actions be put in place by March 2018. But most of us know that based on past performance those actions will be discussed by the Strategic Board around then and the much-redacted result will appear many months later – so we may never know the outcome.

But it is not all bad news. Much of it highlights a situation that NPAS have got themselves in through no fault of their own. Unfortunately, the result is much the same.

For the first time, the FAA is seeking public comments on proposed airworthiness criteria for a working drone.

The FAA is seeking comments on proposed design standards needed for a Scheibel Camcopter to fly safely in U.S. airspace. Those in the industry have known the single-engine Camcopter for a while and it remains probably the best in class and in terms of a paper trail the most documented civil drone around. Whether it will ultimately gain the certification of the FAA should be of interest to everyone in the industry. Where the Scheibel goes will mould the way others should strive to also gain certification. It is doubtful other craft can even hope to demonstrate any form of existing paper trail.

If the Camcopter S-100 gains the right to FAA Certification on the narrow task of power transmission patrol the next stage will be widening the tasking to include oil, gas and then perhaps Homeland Security. But that assumes that the next few weeks go well.

Everything takes time we know but the fact that it has taken four years to announce that an inquiry is to be held into the 2013 Clutha Bar crash in Glasgow is stretching credibility. Even now the latest statement mentions an inquiry to be set up well into next year rather than anything immediate.

Bryn Elliott

## LAW ENFORCEMENT AUSTRALIA

**QUEENSLAND:** After a long winded ten-year campaign the south of the state has now had BO105 helicopters for four years. They supplement the mainly transport orientated fixed wing fleet but are confined to just a small area between Brisbane and the Gold Coast. It is 1,300km or a 15-hour drive to travel even half way up the coast to Townsville.

It is election time again and the politicians are out promising some of the usual 'goodies' if they get elected after a poll on November 25.

The Queensland LNP Leader Tim Nicholls was citing the rise in drug and violent crime as a reason to offer the police increased resources in the north of Queensland via its North Queensland Crime Action Plan.

He said, "North Queensland deserves a dedicated police helicopter as an 'eye in the sky' to crack down on local hooners and give police an advantage in the fight back against the crime epidemic."



Police pursuit guidelines, introduced in 2011 following a coroner's inquest into chase-related deaths, severely restrict the rules of engagement for police chasing vehicles.

**FRONT COVER:** Production of the MD900 may have been limited over the past 20 years but those airframes just keep coming back into view. The latest "new" iteration of Explorer #42 has it finally converted to MD902 standard as an air ambulance for Cox [MDHI]

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An LNP government would allocate \$10M over four years on a role-equipped helicopter based in Townsville to be used by police in north Queensland. [Brisbane Times]

*Ed: It may take a while, but this is following a similar pattern to the campaign that led to the purchase of the Bolkow's a few years ago. It will take a favourable election result first but there is the promise that the Bolkow's are to be replaced by EC135s soon which would release the older airframes at low cost. It apparently got better a few days later after rival politicians realised that the LNP offer was indeed a vote winner. Now it seems the acquisition of an additional police helicopter for Townsville is assured as both leading contenders are promising to get one. Meanwhile as PAN goes to print it looks as if the vote is close but still undecided but likely to see the LNP lose the vote.*

Meanwhile inland by some 400km from the Gold Coast in Queensland Boeing subsidiary Insitu are offering another form of police air support to the residents in the interior of the state. Even as the emergency services struggle to decide how and when to operate small drones some are talking about upsizing to high level surveillance systems and undertake wide-area surveillance with all the ramping up of the infrastructure needs that with entail.

In concert with the Commercial UAV show in London UK Insitu announced a contract with Shell QGC to use Remotely Piloted Aircraft Systems (RPAS/drone) to deliver automated infrastructure inspection and management services for its operations within Queensland.



Scan Eagle: It is pretty large and requires a significant support structure—not for the faint at heart

In a first-of-its-kind programme in Australia, the contract covering the extensive coal and gas deposits in the Surat Basin represents a significant move towards the use of autonomous air vehicles and advanced analytics in the field of broad area infrastructure operations and maintenance.

The prime purpose of the RPAS is the inspection of wells and other infrastructure hardware components (tanks, valves, floats, vents, pipes etc.,) with a largely automated operation saving many hundreds of thousands of kilometres of driving for QGC inspection crews

The key to the wider market availability is flexibility in the oil & gas contract that allows the operation to disengage from the prime role and concentrate on other emergency services operations affecting surrounding infrastructure for the effects of such as fire, subsidence, flooding, livestock and vegetation encroachment. Police missions are also potentially available.

The fine print and the spirit of the contract with Shell allows the Insitu crews to undertake immediate response to many unplanned missions. The oil and gas elements require the availability of the Insitu operating team daily but normally their duties are not usually time critical and can be performed on another occasion. The data collected by the RPAS is automatically processed and analysed in near real-time with actionable information (including equipment check lists and operational status) before being delivered directly to field operators and supervisors, and management staff in the headquarters facility in Brisbane.

Vice President Insitu Commercial and General Manager Insitu Pacific Andrew Duggan who was in London for the UAV show said that the contract with Shell's QGC business was the culmination of two years of extensive testing and evaluation of Insitu Commercial's aerial sensing, data analysis and data distribution capabilities.

"Insitu's robust systems consistently excel in rugged environments, and have the range to cover broad areas to provide vital analysis and alerts to site managers, safety experts and surveyors," Duggan said.

[www.insitu.com](http://www.insitu.com)

*Ed: Insitu have been talking to law enforcement agencies across the world to try and interest them in either operating the fixed wing system directly or through the operating infrastructure offered by Insitu. So far it has been difficult to say the least. Hopes that the general moves by US law enforcement to embrace small drone use might spill over into multi-agency use of the Insitu craft have been dashed time and again. The difficulties are brought together by a mixture of meagre budgets and the still massive number of agencies involved in US law enforcement today [circa 17,000].*

## HUNGARY

**NEW ORDER:** Strange happenings around Staverton as the various ex-NPAS MD 902 Explorer's remain in the SAS hangar in various stages of completion.

This delivery process is getting so long drawn out it seems that the airframes are being sent away on 'tax holidays' on the back of low-loaders. These are not complete airframes, they have no rotors, but clearly enough of the airframe is being exported to meet the yet unclear tax advantages. The financial advantage must be significant as the transportation process must be costing well more than £5,000 each trip. Two of the Explorer's, SYPS & BXZK, were noted going away from Gloucester on a short trip to Ireland and have since returned. Three others that were unmarked and therefore more difficult to identify apparently went off on a trip to France.



International traveller ©James Lloyds

So far only SYPS & BXZK have flown at Staverton painted in Hungary Police colours, minus Police titles. The former Manchester based G-GMPX is still in its yellow & dark blue conspicuity colours. Others are unmarked, not carrying registrations and have not flown since storage & repaint. [A-B]

*Ed: There seems to be no rush to get these airframes out of the UK and to Hungary and perhaps no rush to accept them in their new home. There are anecdotal stories of the previous batch of German MD902s being 'parked up' on the roadside at border points and not expected to fly anytime soon.*

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## NETHERLANDS

**POLICE:** The police in the Netherlands are organised nationally and employ a single contracting service. The Facility Management Service of the Police Service Centre (PDC) is responsible for the quality of the organisation and the execution of tenders.

The Police recently published its Police Tender Calendar for 2017 and 2018. The Calendar contains the Police's proposed tenders at a given point in time, providing information for suppliers on: [www.politie.nl/leveranciers](http://www.politie.nl/leveranciers).

The 2017 list included such as Drones to the value of €4.5M but there are another six tenders listed under aviation with a potential value of €20M due in 2018. [NIDV]

## POLAND

**POLICIJA:** The Polish police continue to rely upon a dwindling number of Russian designed helicopters – the Mil Mi-2 and Mi-8 – supported by a surviving Bell 206B3 JetRanger. In recent days industry in Poland have been tasked with meeting a purchase tender for three single engine helicopters. The tender is expected to result in the selection of a base type in the first quarter of 2018.



The tender for State Aircraft is financed by Police Government money and that allows them to select a single engine design rather than a EU preferred twin.

The timing of this Government tender should be positive for the commercial attendees of next year's PAvCon Europe in Poland. The tender is for basic airframes and role equipment mounts, there is no provision for specific equipment. This factor should leave the field open for the unique marketing opportunity in May 2018. [PAvcon Europe]



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## UNITED KINGDOM

NPAS: The long-awaited report into NPAS performance was published as PAN was due to go to press so this edition is slightly delayed. The news broke the day before in the National media and quickly died down as yesterday's story. Overall the report is something of the wholly predictable bloodbath that was expected but it is already historic. The research that led to the report was undertaken over 6 months ago and it has been with selected readers for months now and is already out of date.

The report is not by an aviation person, HMI Matt Parr CB was a Royal Navy submariner and has barely a year in this HMI-CFRS role. NPAS must have been near enough his first major task and no doubt his supporting team will have been important to him. If nothing else his report will reflect the view of a complete outsider with few preconceptions of aviation.

My comments that follow are based on the report [“Planes, drones and helicopters”](#) but that should not be a reason not to read at least the start of the report on the HMI-CFRS website (or I can send it to you direct).

### The Report

The quality of the report hopefully does not follow the example set by “Appendix B – a history of police air support” surely the easiest and best documented element in the whole report. It stated that...

“Although police forces were making limited use of air support in the 1920s and 1930s, after repeated trials in the post-war years, significant use of police aviation began in 1973 with the purchase of three helicopters by the Metropolitan Police”. They did not purchase the three Bell 222s until late 1980.

There are other such detail errors of fact but generally they appear few and minor.

The BBC news report covered the core message that (the) “police helicopter service in England and Wales fails to get air support to thousands of incidents before they have ended and needs urgent reform.”

The HM Inspector of Constabulary said helicopter flying hours had nearly halved since 2009, and 24,873 missions were cancelled mid-flight in 2016 ... the cost of flight hours had more than doubled since 2009 and that some forces used drones instead of the NPAS.

HM Inspector of Constabulary Matt Parr said that “urgent reform is needed” to NPAS, and that “there was concern amongst a lot of chief constables”.

Since the inception of NPAS, the number of stations has reduced from 31 to 15 and the number of helicopters has been reduced from 33 to 19 and yet NPAS is expected to provide a similar or even better service.

### “We told you so....”

As claimed time and again on the unofficial web chatrooms response times have extended. In the report the worst response time mentioned was for Cumbria Constabulary which might wait over an hour for a helicopter to arrive to an operation, the best can be found in London, where there was an average response time to calls of 10½ minutes. The chat room claims highlight these matters but if anything, a general NPAS silence on such matters and attempts to silence the chattering has left us not knowing whether these times are even acceptable to the new regime. Except for London and other big cities where a full service was already embedded the service has now extended to 24 hours a day, 7 days a week and every day of the year – a place it never was before. Often all users were without air support for days on end through maintenance or weather, so it might be said that it is a preferred tool rather than essential. Response cars and even ‘Bobbies on bicycles’ are essential but even they do not turn up as often as they used to. Perhaps this is all simply a malaise of our times. Old coppers may turn in their graves at the lack of service to the ultimate customer—the public—but it seems typical.



Even the negative times and capabilities quoted in this report are better by far than some equivalent operations across the world. The question remains what do we expect of the service? England and Wales 151,000 sq.km. is covered by 19 aircraft where Sweden's near 174,000 has just seven modern Bell 429 helicopters. Yes, there is a vast difference in population – under 10 million compared to over 50 million but the distances, and therefore the reaction times, are much the same. In contrast Germany is 1.5 times the size of whole United Kingdom, a population around 80 million and something like 200 police aircraft that are undertaking vastly different duties and flying significantly less hours per airframe. The question there is

whether the German public expectation of police response to a given scenario is greater or less than that in Britain.

**No Fault**

The HMICFRS report starts off with an apologist view in stating that it is not criticising such as the Chief Constable of West Yorkshire Dee Collins. Fair enough, she has only been in post for a very short time, but there is a theme in the report of nobody being at fault. We are expected to believe it is all down to financial resources being cut. We are not supposed to again question why the hierarchy have systematically weeded out the intelligent, knowledgeable, resourceful and often argumentative police aviation professionals along the way. Nobody's fault? Bah humbug to that.



The numbers of senior officers with the blood of UK police air support on their hands grows. Lord Hogan-Howe and Alex Marshall are just two, but a lot of the blame can be spread across NPCC, the Home Office and government if only for dithering. I have seen NPAS expertise and enthusiasm first hand and I was not impressed. Nice people, great slurping a beer in a bar, but apparently their unbounded confidence in their own ability is not actually appreciated by their peers or of any great substance.

**Drone Power**

There appears to be an undue regard given to drone use in the report as if this were the magic bullet. Contrast that with clear evidence from large scale users of drones (the Canadians) and even the result of this year's 'Exercise Northumberland' follow on to the Home Office experiments of 1987-88 and 2008, that indicates, very clearly, that although drones have great value at the scene of an incident, for overhead photography for example, their utility when searching a wide area is very limited when compared to a manned aircraft with several pairs of eyes and a modern camera turret. There's no comparison between the military specification Thales Watchkeeper drone and the DJI Inspire. Flying a sensor equipped drone is like looking at the world through a cardboard tube, no periphery vision, no hunches.



DJI Inspire

At the core of the problems besetting NPAS is a world-wide malaise reported on here so many times. Properly costing the product, getting the numbers right when acquiring an aircraft and offering a service. Most air operations have traditionally looked at their expenses in an insular manner that does not reflect the true cost. Best example by far is the Alabama DPS. In 1999 they reported that they could fly a Bell OH-58 for just \$10 an hour DOC. No, of course they could not but, like most things in life, if you do the sums a certain way you can certainly 'prove' it.

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When NPAS was set up it took a figure – £45M that air support was then costing for a fleet of 33 aircraft - with the intention of cutting it to £37.5M. The trouble was that police air support never was costing just £45M so it was doomed to fail from the start. When the Home Office and ACPO originally asked air units for their costs most sent basic figures never adding in the hidden costs – they never dreamed they were needed. Why would they, you can bet no-one asked for that depth of information.

The bright sparks in the accounts department also forgot to add those many hidden support expenses – the cost of ground rent, telephones, pencils, paper, an hour of the Chief Superintendent’s time on Wednesday, the man cutting the grass once a month .... it went on and on. Inevitably, when NPAS replicated the support organisation at the new Wakefield HQ for a wholly new organisation, suddenly, the money tail was wagging the dog. Even at the todays shared Wakefield HQ many hidden costs remain unaccounted for.

As the report states ‘NPAS in its current form is financially unsustainable.’ I have commented before on the urgent need to replace aircraft that are just plain old. There is no money to do that.



Lippitts Hill: Air Support flies from concrete and never costed the vast area of grass that has to be cut [WAFW]

The result is that NPAS could only reach the unrealistic financial savings by cutting the operation to the core. As a result, the service failed to meet the potentially unrealistic expectations of the customer (the police services across the country) on almost every count. In their former life many units undertook operations with a truly local flavour – Hare Coursing being one of them – such items were set aside. The operational effect was perhaps negligible but the negative effect on customer goodwill was out of all proportion to the cut. If you lose customer goodwill the downward slide just gets steeper.

**Get a Drone.**

Among the recommendations is for the NPCC lead for air support to commission an evaluation on the cost-effectiveness of police use of drones, drawing on advice from the College of Policing and working with any other partners considered appropriate.

I wonder what the College of Policing, Alex Marshall’s last post, knows about drones? The HMICFRS wish is for NPAS to take a lead on drone technology even though they have never claimed specific knowledge or specialism in the field and have even demonstrated a marked reluctance to learn. They have never operated such craft operationally and cannot even get the numbers on what they do know right.



Drones and police. A nice day out in the sun. Do not count the real cost [Essex Police]

Meanwhile the police units that do operate drones are simply repeating police aviation history in setting up un-costed fiefdoms within their respective police forces reliant upon all those hidden support expenses that are said to be at the core of the NPAS problems.

By March next year NPAS should tell the customer police forces its plans for the use of fixed wing aircraft. What fixed wing aircraft? NPAS had a comprehensive Power-Point presentation in place when Mr Parr was researching the report and clearly, he did not appreciate it then as he states in the report that he considered they had no fully developed plan for them.





In 1997 the police on Teesside were successfully operating a BN-2 on police operations.

There are still no fixed wing aircraft certified and delivered so putting in place a fully assessed and operated plan by March will be difficult. I have commented before that I could not understand why they are not flying some sort of aircraft already, simply to develop tactics – let alone provide a limited VFR service.

The report specifically highlights the inability of a fixed-wing aircraft to get off the ground quickly. It says NPAS believe it will take at least twice if not three times as long as a helicopter to take off.

How do they know that?

The Chief Pilot was, I understand, based at an International Airport in Manchester where time to gain access to the runway will have been long. I understand that at Teesside - and you can ditto that at Doncaster - it was so quiet that take-off times were short. In winter fixed wing could beat a helicopter to the sky.

And this takes us back to the point .... they have not flown fixed wing for a couple of years so there is no plan, no tactics and no interim aircraft. There are a couple EO/IR equipped P68 out there they could have on lease.... OK they are not identical or IFR but they could have been doing something with them. Like flying over Norwich chasing hares.... Meanwhile the pilots are on their 900th game of Kaluki....

Having the most expensive element – the £70,000pa pilots - sitting around is wasteful for an organisation that is pleading poverty. A significant number of long transits to calls are to the vast eastern counties region from Newcastle to London that is supposed to be being watched over by fixed-wing aircraft from that large empty hangar in Doncaster.



The P68 is not a rare beast but the wheels may be fixed.

**No Strategy**

The report states that here is no up-to-date police air support strategy. Strategic thinking basically went out of the window when the Home Office dumped their Aviation Advisor role along with the creation of NPAS. The role was to sit back and independently criticise from a position of informed isolation. I do not think that the units greatly loved the likes of the late Max Kenworthy and Ray England, but they kept an eye on things from offices in Exeter and London and only the foolish ignored their advice. Now strategy might be said to be in the hands of the NPCC but of course that assumes there is someone there with knowledge. The post has recently changed hands after the incumbent Chief Constable unexpectedly went on gardening leave.

There may not be a great deal that is new in the report, but it is worth a read – if only to raise many more unanswered questions.

**Bristol to Almondsbury**

Early in November work started on the new National Police Air Service (NPAS) base in Almondsbury, South Gloucester which is due to be operational in autumn 2018. NPAS and Great Western Air Ambulance (GWAAC) will be housed at the new base funded by BAE Systems.

BAE Systems purchased the land in Almondsbury for use by GWAAC and NPAS as part of the agreement to sell Filton Airfield, where the services are currently based. The new base will replace the existing NPAS Filton site and be part of the national network of 15 bases from which NPAS operate borderless air support for the police forces of England and Wales. The base will predominantly serve the south west.



The ceremonial sod cutting ©NPAS

Mike Craddock, Programme Manager for BAE Systems, said: "I'm delighted that the construction work on the new Air Operation base at Almondsbury has started. The brand-new base will help both services continue their fantastic work for the region and we're proud to be playing our part in this."

Meanwhile the North Weald application procedure continues.

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## North Weald Progress

Early in November it was announced that no objection has been voiced by North Weald Bassett Parish Council to the plans to enable the National Police Air Service unit to relocate from High Beach to North Weald airfield.

A planning application for the hangar, office, store and workshop together with a 50,000-litre aircraft fuel tank and a 2,000-litre LPG tank for heating the accommodation unit.

The air unit - three helicopters - must move from its current base at Lippitts Hill. Most reports state by the end of March but some leeway is known to be acceptable while a new site is secured and constructed. Even if there was a build started this month it would not be ready by March. There is no spare hangar space at North Weald, indeed in recent months the airfield has seen the construction of a dozen new hangars around the perimeter – that activity has reduced the number of sites available to NPAS planners.

Although yet to be agreed, the preferred location will change the whole dynamics of the public use of the airfield. This will be the first construction on the 'interior' of the airfield (i.e. inside the peritrack) and the layout achieved after the planning process will be interesting. Before plans have been made public it appears that the vehicle access will be from the N-S western peritrack with the airside apron opposite The Squadron onto runway 13/31. Public access to the public cafes such as The Squadron and The Wings Cafe along the peritrack will bring with it security issues so we can expect to see significant defences and not a little disruption.



Bore holes have already been taken on the preferred site close to the air ambulance base on the west side of the airfield.

For NPAS, still very much a start-up organisation in many ways, just getting around between a myriad of projects must be difficult – let alone paying for them.

In theory Almondsbury is 'free' but there are costs and commitments even if only to get to the photo-calls associated with it! There will be an annual lease payment like that at the Filton site. North Weald will be more of a cash up front planning and building project immediately on the coat tails of Doncaster and then the expected annual rent of £120,000 plus rates over the expected 25-year period.

There have been positive money angles in that NPAS have removed the costly Explorer fleet and eventually sold them [though perhaps for a figure that no-one really wants to shout about] but that saving will have long been swallowed by the other needs of the fledgling organisation. It may look 'top heavy' to many but they are still seeking to hire more experts to fill those core support staff spaces that the prior organisations tended to take for granted.

Positive too is that the fleet is all now returning a general 800-1000 hours each. Contrast that frenetic activity with the rest of Europe where individual airframes are only expected to return anything from 300-600 hours a year and you might see some semblance of efficient use of resources within NPAS – even if they are growing older and more unreliable by the day.

Even if the fact that NPAS helicopters are flying far too many transits cross-country to make up for the missing fixed wing might be considered positive compared with some other countries that do the same thing and see nothing wrong in it. The point is that a multiple cross-country flight by one of the Midlands based operations from Northampton to Norwich to Hurn looks wrong only when compared to the pre-NPAS scenario in the UK. It might not raise a murmur if compared with what has always happened in other countries where central-



isation of air resources is normal.

That takes us back to the beginning where the HMIC report complains that there is no strategic plan and if there is a plan no-one has been told about it.

SCOTLAND: Four years on from the fatal police crash, ten victims from the Clutha Bar helicopter crash in November 2013 have won £1.3M in compensation.

According to media sources in Scotland they were paid sums ranging from £5,000 to £600,000 by the helicopter's owners, Babcock International.

A source has suggested that Babcock, the current owners of the Bond Helicopter operation that then flew the EC135T2 that crashed onto the Clutha Bar in Glasgow, could see the compensation bill rise to £10M after some 80 individual claims had been processed.

In addition to the ten fatalities there are claimants among the pub-goers and family members of the dead claiming such as both physical and mental effects of the trauma.

Meanwhile it is reported that the owner of The Clutha Bar is still battling for more than £300,000 in compensation four years after the crash. He has received a similar sum already but Babcock International, having admitted liability, dispute how much they should pay in compensation.

Alan Crossan was given an initial payment for refurbishing his badly damaged pub, which was shut for 20 months but is struggling to realise payment for loss of earnings. The claim includes lost takings while the pub was shut during the 2014 Commonwealth Games. It reopened in July 2015. [Daily Record]

Late in November [four years after the crash] it was announced that a fatal accident inquiry is to take place next year into the deaths.

The inquiry is likely to begin in the autumn of 2018 the Crown Office said. They also confirmed that there would be no criminal proceedings in the case.

Investigators found that fuel transfer switches were turned off on the helicopter at the time of the crash.

### Drones Again

Having acquired its sole helicopter from the Glasgow [Strathclyde] police, decided not to increase the numbers of helicopters or buy a fixed wing addition Police Scotland is planning to buy two drones equipped with high-resolution cameras in what would be a first for the force north of the border. There have been trials of drones north of the border but not under the Police Scotland banner.

Tender documents reveal plans to spend around £125,000 on two drones for the force's Air Support Unit. I would guess that someone chose to forget that Strathclyde trialed drones some years ago [right] but that is what happens in this industry. Selective memories.

Police Scotland said the drones would "greatly enhance" the unit's ability to "quickly deploy resources to incidents such as missing person searches and crowd monitoring, obtaining live, detailed imaging of search areas and significantly reducing deployments". This contrasts with a statement by Assistant Chief Constable Bernard Higgins who said, "research is underway" to find a suitable drone.



Although this is just out for tender with the type not selected, the specification requires a "minimum of six rotors", alongside a tracking device, satellite positioning system and a high-definition camera capable of both daylight and thermal imaging. Tender documents posted to the Public Contracts Scotland website detail a raft of specifications for the drones, including "weather resistant and robust protective casing" to cope with Scotland's climate.

The force said the drones are to be deployed to units across Scotland for operational use, with Aberdeen and Inverness as the prime bases.

The unmanned aerial vehicles will initially be deployed to the north of Scotland, to provide additional support to communities located in some of the most rural parts of the country, and within some of the country's most challenging terrain. Further information will be made public before these systems are put into operational use.

*Ed: Clearly the "greatly enhance" statement is over egging the situation at this stage of the procurement proceedings.*

*In another odd statement they say that the drones will be there in case the force [EC135T3] helicopter is unable to travel due to inclement conditions; thereby suggesting that the said [yet unselected] drone will be able to outfly the real helicopter. The distances are such that ground transporting the drones to any operational site in a reasonable time is going to be challenging. They may also require high investment in infrastructure, support vehicles and training. Do not forget the cost of the pencils.*

## UNITED STATES

**CALIFORNIA:** In November 2017 it was reported that Riverside (CA) Police Department hoped to add a Cessna T206H N903KA fixed-wing aircraft to its fleet after the local city council approved the purchase in mid-October. The department plans to use the airplane for surveillance of narcotics traffickers, gang members and large events, as well as patrol.

The \$982,870 airplane, fully equipped for law enforcement, will be cheaper to operate than the department's MD500E helicopters, and will offer the ability to stay in the air longer and fly higher and more covertly. The estimated cost to operate a helicopter is more than \$400 per hour; the estimated cost to operate an airplane is \$190 per hour. The money for the purchase will come from:

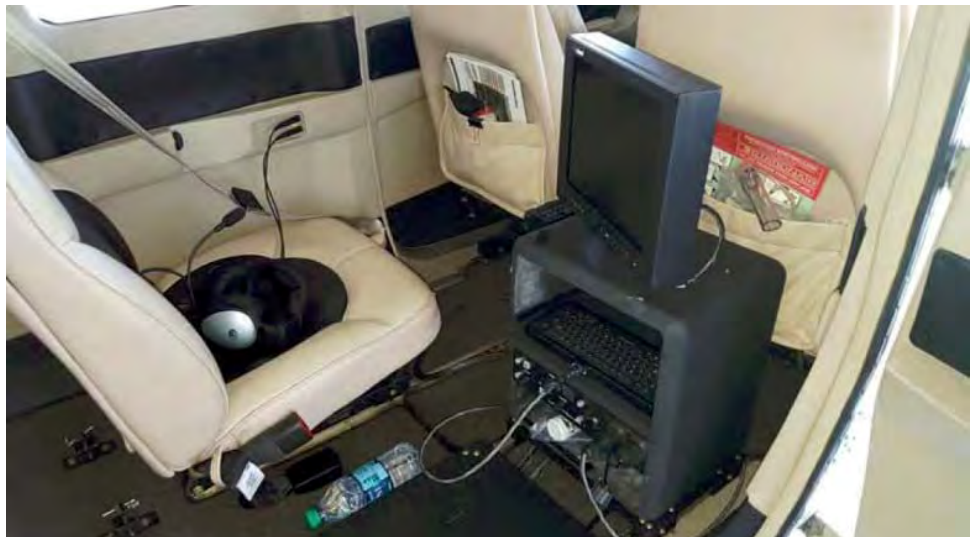
- \$400,000: Sale of helicopter
- \$382,870: Reallocation of Measure Z funds – unused police vehicle lease funds
- \$135,000: Police evidence trust account
- \$65,000: State asset forfeiture account, such as money seized from drug dealers

The Cessna T206H is equipped with a EO/IR that can deliver sharp, high-resolution images from 6 to 9 miles away to officers on the ground. Riverside Police currently operates three helicopters but is expected to sell the oldest to facilitate the new acquisition.

Riverside has three helicopters, one 34 years old with 11,518 flight hours, another 21 years old with 12,834 flight hours and one 8 years old with 5,226 flight hours. The estimated cost to maintain all three over the next five years is \$2.6 million. The estimated cost to operate a helicopter is more than \$400 per hour; the estimated cost to operate an airplane is \$190 per hour,



*The images shown by Riverside County state that they are purchasing a 6 years old Cessna from Arrowdata LLC based in Bend Oregon. #*



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FLORIDA: The International Association of Chiefs (IACP) of Police Leadership in Police Aviation Award was presented to the Seminole County (FL) Sheriff's Office Aviation Section at the recent IACP Annual Conference and Exposition.

The Seminole County Sheriff's Office (SCSO) Aviation Section (located on the edge of Sanford Airport just north of Orlando) is responsible for providing air support within the county and provides service for several other city police agencies within the service area.

The agency mainly focuses on supporting patrol operations and offers a firefighting capability and the only SWAT deployment and hoist rescue ability in the Orlando metro area.

In 2016, the unit delivered 128 water drops on wildfires in and around Seminole County. Within the first six months of 2017, the unit had already been called to make 276 drops. In April 2017, near the Chuluota area of Seminole County wildfires directly threatened a large housing development and water drops from the unit helped ensure that no homes were lost in the fire and no personnel were injured. Last year, the unit located 150 persons and 118 of those persons were located using the thermal camera.

The Seminole County Sheriff's Office Aviation Section has worked to maximize efficiency and safety since its inception. The unit members make great efforts in training and continuing education to ensure they are delivering the best possible service to the community. Unit members are motivated to find new and innovative ways to deliver the most professional public safety aviation services possible. [IACP]



Seminole County AS350B3 N174SC ©PAR

In Naples the Collier County Sheriff's Office welcomed the latest helicopter to its fleet with the \$400,000 purchase of a Vietnam-era Huey helicopter to better equip rescue efforts in natural disasters.

The agency also spent another \$350,000 to retrofit the helicopter and train its staff to fly the aircraft which has an interesting and well-travelled history. The Bell is a UH-1H N205LE and it complements a fleet of other Vietnam era helicopters including N158LE a Bell OH-58

The Huey was used during Vietnam, shot at and damaged one month into its first tour of duty in 1971. After returning for repairs, the helicopter was utilized by the FBI, Border Patrol, and finally the Customs and Border Protection Air and Marine Operations office before being purchased at auction by the CCSO. The retrofit includes new floors, upholstery, intercom system, hoist, cargo hook, and video cameras.

The aircraft can carry 10 people and up to 4,000 pounds, and is expected to be used to fight wildfires and assist in a variety of search-and-rescue operations. Multiple brush fires over the summer each burned thousands of acres in Collier County, highlighting the need for such a vehicle. The Huey has been equipped with a 240 bucket to help extinguish active fires.



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NEW YORK: More than 600,000 drones were registered with the Federal Aviation Administration last year alone. As they grow in popularity, so do the number of accidents involving some of the amateur aircraft.

Recent high-profile incidents have included a drone hitting a window on the Empire State Building, another falling in Times Square and a collision with an Army helicopter flying over Staten Island, additionally countless more have been seen or smashed up across the city. The NYPD receive as many as ten calls a day to drone offences and although Kennedy Airport should be the last place you would want to see a drone it happens are the time.

Whenever the NYPD's Aviation Unit takes to the skies it is on the lookout for drones flying in the many prohibited areas with a view to tracking and cracking down on the operators of illegally flown recreational drones.

It's largely prohibited to fly a drone in most of New York City, except in five designated parks that represent a tiny part of New York. [CBS]



The addition of the hoist equipped Bell 429 to the fleet has allowed the type to undertake rescues like this one in October rather than rely wholly on the Bell 412. #

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# AIR AMBULANCE

## IRELAND

**SOUTH OF THE BORDER:** There have been air ambulance transport issues in the whole of Ireland for many years now and just as one issue appears to be cleared another step up.

A private air ambulance service has been put in place on a temporary basis by the Health Service Executive for patients who need transport at night to another country, for life-saving transplants. Most of the patients involved are children, and the other country of choice is invariably the UK where they need to be within eight hours, for heart or liver transplants.

The transfer of patients abroad for life-saving transplants is a rare event, with an average of five cases a year since 2012, with all except one transfer completed by the Air Corps or the Irish Coast Guard (IRCG).

On November 6 it was decided that due to staff capacity constraints with the Air Corps and regulatory requirements on the IRCG the organisations have not been available to provide Priority 1 transfers between 1900-and 0730 daily.

The local health service has now implemented an interim solution for the provision of night-time Priority 1 air ambulance transfers while a longer-term answer is negotiated, perhaps by modifying the future Coast Guard contract that is up for bidding. One option mooted is for the existing IRCG contract to be modified allow for 12-hour rosters at one or more bases, enabling the undertaking of night-time transfers.

Other options include the setting up of a long-term air ambulance service supported by philanthropy or, the preferred long-term alternatives based on the Coast Guard or the Air Corps. Currently the Air Cops is

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hampered by a lack of air crews in supporting its own operations as well as piloting the Garda [police] air support; the Coast Guard recently lost an airframe and crew that are not expected to be replaced prior to 2022.

The next contract to provide coast guard services could include an additional aircraft and aircrew to provide air ambulance services. Whichever way it goes in the long-term there is a continuing and so far, unrealised need for the development of an integrated aeromedical service for Ireland able to provide a more sustainable and efficient use of resources. [Journal/RTE]

## UNITED KINGDOM

**NATIONAL:** The Annual Conference and Awards Ceremony took place in The Chelsea Harbour Hotel, London last month

In the UK there are 39 operational Helicopter Emergency Medical Services Helicopters operated by 21 charities in close support of local ambulance services. All are independent of government organisation and raise most of their funding themselves.

Almost 300 guests celebrated the best and brightest from the air ambulance community last month at the national Air Ambulance Awards of Excellence 2017. Awards hosts, BBC News reporter and presenter Sophie Long and Helicopter Heroes presenter Rav Wilding handed out 12 Awards to outstanding individuals and teams, whose stories were inspirational, astounding and humbling.

The awards, which are independently judged, went to pilots, paramedics, doctors, fundraisers and volunteers who collected their trophies at a ceremony held at The Chelsea Harbour Hotel on November 13.

The winners included the Midlands Air Ambulance who won the Air Ambulance Campaign Award.

The Charity Staff Member of the Year WINNER: Frank Chege, London's Air Ambulance

The Volunteer of the Year: Jill & Don McLaren, Lincs & Notts Air Ambulance.

The Doctor of the Year was Dr Syed Masud, Thames Valley Air Ambulance.

Innovation of the Year Award: Essex & Herts Air Ambulance.

Lifetime Achievement Award: Christine Margetts.

Air Ambulance Paramedic of the Year: Adam Carr, Essex & Herts Air Ambulance.

Air Ambulance Pilot of the Year: Neil Airey, North West Air Ambulance.

Special Incident Award: Wales Air Ambulance.

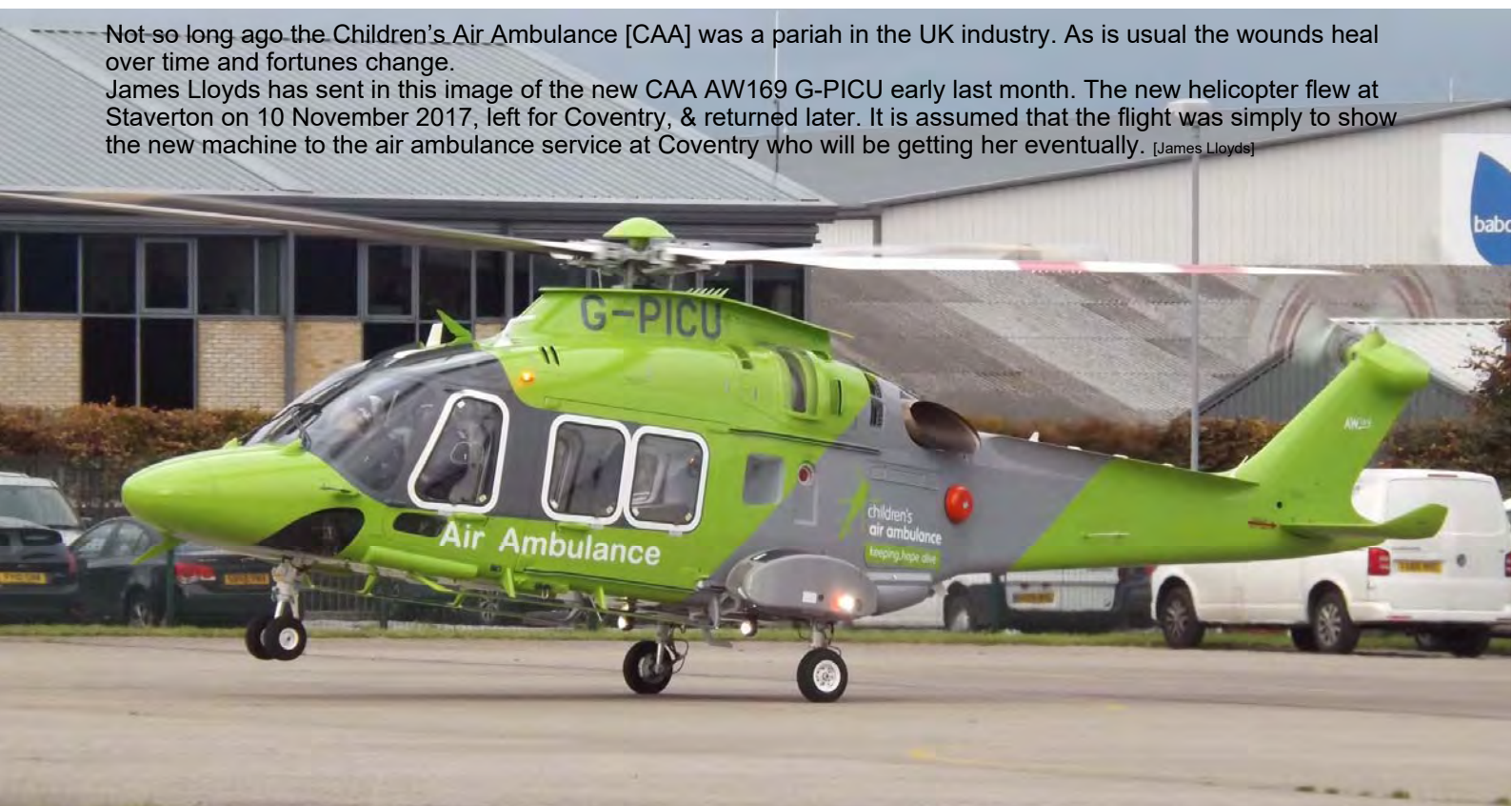
Air Operations Support Staff Member of the Year: John Power, London's Air Ambulance.

Outstanding Young Person Award: Josh Bright, Magpas.

AAA Chairman's Award: Caroline Creer

Not so long ago the Children's Air Ambulance [CAA] was a pariah in the UK industry. As is usual the wounds heal over time and fortunes change.

James Lloyds has sent in this image of the new CAA AW169 G-PICU early last month. The new helicopter flew at Staverton on 10 November 2017, left for Coventry, & returned later. It is assumed that the flight was simply to show the new machine to the air ambulance service at Coventry who will be getting her eventually. [James Lloyds]



## UNITED STATES

MISSOURI: MDHI has announced the delivery of a newly converted MD 902 Explorer to Springfield, Missouri-based CoxHealth.

The purchase of this helicopter, the second to join the CoxHealth family, was announced in April of this year.

CoxHealth first chose the MD Explorer as its EMS/air ambulance platform in 2007. With this latest acquisition, CoxHealth has standardized its fleet on the MD platform, reinforcing their commitment to deliver operational economies alongside improved patient care.

The CoxHealth Air Care team has the option of having their newly certified MD 902 retrofit with MDHI's advanced, all-glass cockpit featuring integrated Genesys Aerosystems' Advanced IDU-680 displays. With the activation of this option, the CoxHealth team will become the first EMS/Air Medical MD 902 operator to field this advanced cockpit configuration.

*Ed: The ultimate in recycling! This is one of the original Explorer's built [c/n 00042] with a life that goes back to the earliest days of PAN! Built by McDonnell Douglas in 1996, in 1998-2000 it was operated by the United States Coast Guard as an MH90 Enforcer N9201U to prove the HITRON concept that was then ceded to the Agusta A109E Power. It returned to the manufacturers. When the Dutch Police ordered Explorers this MD 900 was loaned to them in 2002 for flight training pending the arrival of the ordered fleet of MD902s. When that contract went wrong because the pre-Tilton MDHI could not deliver on its performance promises the MD900 remained a prisoner of fortune in a Dutch Police hangar for eight years. Eventually released from custody the aircraft was rebuilt at the MDHI factory in Mesa, Arizona and delivered as a certified MD 902 with full factory warranty. And, with the Genesys system upgrade, the up-tick work apparently continues. An airframe with a character moulded [battered even] by history! You must hand it to those MD salesmen. I bet that the sale price was nowhere near the price of those former NPAS Explorer's – many of which were way younger [in any terms] than No 42!*



NEW YORK: Non-profit medical transport operator Mercy Flight has signed a purchase agreement with Bell Helicopter for three Bell 429s.

The three aircraft were purchased with a \$23M loan from M&T Bank and the USDA. "Mercy Flight and Bell Helicopter have shared a rich history since they started their business more than 35 years ago using a Bell 206 Jet Ranger," said Anthony Moreland, vice president, North America at Bell Helicopters. "Today, Mercy Flight remains one of the few non-profit providers of air and ground medical transport services and we are proud to continue to support their mission."

Mercy Flight has completed more than 27,000 patient missions since it was established in 1981. The company operates in the Western New York and North-western Pennsylvania. The order brings the total number of 429s operating in the Northeast US region to 21.

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# FIRE AUSTRALIA

NEW SOUTH WALES: Illustrating the international nature of world forest and brush fire fighting are these images from New South Wales. Correspondent Alan Norris stopped in to Illawarra Airport, NSW and Valhalla helicopters, from British Columbia, Canada, had just arrived for the fire season with their BLR fin fitted Bell 205's and a Bell 212. The other firefighting helicopter companies call them the "Ambulance chasers" as they monitor the information on fires and then head off hoping to get a short term ad hoc contract for that fire before heading to the next fire.

Alan was in town visiting Touchdown Helicopters based at Illawarra Airport who have two ex-military Bell 205's and the one in the photo on the trolley is always on 30-minute stand by.

# UNITED STATES

OREGON: Insitu, a wholly-owned subsidiary of The Boeing Company, together with Esri, the world leader in spatial analytics, have completed test flights on a revolutionary new way to support firefighting efforts using state-of-the-art software for firefighters and first responders. The flights were held at the Warm Springs, Oregon.

A week after successfully completing customer acceptance test flights, Insitu deployed its INEXA™ Solutions remote sensing teams to aid firefighters in suppressing the Eagle Creek Fire in Oregon.

Coordinating with the Oregon Department of Forestry and other governing entities, the ScanEagle system provided near real-time data for firefighters and first responders, resulting in heightened emergency re-



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sponse efforts, increased situational awareness and safety, and supported planning and resource allocation. Equipped with EO/IR and mid-wave sensors, the ScanEagle surveyed fire lines at night over the Eagle Creek wildfire, which had spread to nearly 49,000 acres throughout the Columbia River Gorge region.

The ScanEagle can supplement manned fire-fighting fleets by operating during dense smoke and at night, when manned aircraft typically cannot fly.

As the sole aviation over watch within the temporary flight restriction, the ScanEagle provided persistent night time oversight, and monitored the progression of the fire. Insitu coordinated manned and unmanned aviation assets, and through data collection, analysis, and integration capabilities, produced near real-time georeferenced spatial data (maps tied to specific known locations). Incident commanders, firefighters, and first responders had data that delivered updated incident perimeter maps, identified spot fires, located fire lines and hotspots, and provided near real-time video feed and still images of critical infrastructure, historical structures, and more.



ScanEagle was displayed at the recent Commercial UAV Show in London, England. A small show but it was attended by international police [but it appears not NPAS]. ©PAN

A pilot wearing a helmet and flight suit is seated in a cockpit, operating a computer system. The cockpit is filled with various instruments and screens. The pilot's hands are on a keyboard. The background shows a view of the ground through the cockpit window.

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# SEARCH & RESCUE

## NORWAY

**MINISTRY OF JUSTICE:** On November 20 Leonardo announced that the first of 16 AW101 all-weather search and rescue helicopters has been delivered to the Norwegian Ministry of Justice & Public Security. The aircraft departed Leonardo's Yeovil facility on November 17th for Sola Air Base in southern Norway where the aircraft entered a period of Operational Test & Evaluation (OT&E) before entering service with the Royal Norwegian Air Force in 2018

Aircraft deliveries will continue through to 2020 with SAR operations being established with the aircraft deployed across each of the six main operating bases.

Bjørn Ivar Aarseth NAW SARH Project Manager, Ministry of Justice & Public Security said: "The delivery of the first aircraft marks a major milestone for the Norwegian All-Weather Search and Rescue Helicopter programme and everyone is delighted to see the first AW101 in Norway. I would like to congratulate my team in the Ministry of Justice, key contributors within the Norwegian Defence sector, Leonardo and all other industry partners on achieving this milestone."



The pristine arrival ©Leonardo

Jon Clark, Leonardo's Programme Manager said: "The AW101 we have developed for Norway is undoubtedly the world's most capable SAR helicopter and it is with great pride that we have delivered the first aircraft that will serve the people of Norway for decades to come. This contract is very much a long-term partnership, consisting of industry, the Ministry of Justice & Public Security, the Royal Norwegian Air Force and the Norwegian Defence Materiel Agency, which has a common goal to deliver a SAR service second to none - we are all looking forward to the aircraft entering operational service in 2018."

The AW101 benefits from three-engine safety, a full ice protection system for flight in known icing conditions, long range and endurance, a proven 30 minutes "run dry" gearbox as well as multiple redundancy features in the avionic and mission systems. The large cabin doors and rear ramp provide easy access for personnel, survivors and equipment into the 27 m3 cabin which has stand-up head room throughout.



*Ed: Unfortunately, what started so well went so visibly wrong within days. The aircraft turned over while running on the ground on 24 November. There have been many suggestions as to the cause, but it is too early yet to suggest why. We do not yet know whether flight crews or engineers were in charge, but the airframe is clearly set for a return to Yeovil and a potential return next year.*

## SOUTH KOREA

**RESCUE:** Airbus Helicopters has been awarded a contract from South Korea's National 119 Rescue Headquarters for the purchase of two additional H225 helicopters.

The National 119 Rescue Headquarters currently operates an all-Airbus helicopter fleet comprising two AS365 N2 and two H225. This new purchase will bring the fleet of the country's primary provider of firefighting and rescue services to six helicopters by end 2019. The agency will be using these two multirole H225 helicopters for search and rescue missions, with the flexibility to reconfigure them to accommodate fire-fighting and emergency medical services equipment onboard the aircraft.



©Airbus Helicopters

**UNITED KINGDOM:** Since Victorian times the Royal National Lifeboat Institution (RNLI) has been at the forefront of search and rescue technology – be that creating safety equipment or developing new vessels across some 190 years – the latest moves are that the RNLI are looking to future technology, apparently with an open mind, a study that might see realisation in 5-10 years. The prime partners are the UK Coast Guard and their Bristol supplied helicopters. The timescale is such that the detail in the research should feed into the next round of helicopter fleet tenders. Whether the tenders of the mid-2020s will be for helicopters alone or a mix of rotary, fixed wing manned, unmanned or satellites is in the melting pot.

To that end Hannah Nobbs, the RNLI spokesperson was addressing last months Commercial UAV Show in the conference and in an open theatre slot – seeking expressions of interest and industry partnerships.

Under the title ‘Exploitation of the 3rd Dimension for Search and Rescue’ the RNLI are intent on identifying future technology designed to assist, and hopefully enhance, existing resources. No assumptions have been made and all options are open. Using the UAV event did not prejudice that such craft stand any chance at all in the future – after all no-one has yet claimed to have produced a viable UAV for operation in sea storms. But already the genre has been considered for observation even considered as a means of providing safer area illumination – when compared to such as flares.

The programme already has inertia and will be a public reality in a matter of months. At the end of October, a call went out for expressions of interest, but several major industry partners were already in place by then. It is expected that participants will have been attracted and confirmed by year end and a development workshop run in January.

The RNLI and its partners are talking to the MCA, the CAA, police, Lowland SAR, industry and academia. Oddly they have not yet spoken to such as the Civil Air Patrol, but I suspect that there are several other organisations in that position.

Contacting the group at the Poole, Dorset, based RNLI HQ is by e-mail on [innovation@rnli.org.uk](mailto:innovation@rnli.org.uk)

## INDUSTRY

**StandardAero Aviation Holdings** and Airbus SE have finalised the acquisition by StandardAero of Vector Aerospace Holding SAS from Airbus.

Vector is a global aerospace maintenance, repair and overhaul company, providing responsive, quality support for turbine engines, components, fixed- and rotary-wing aircraft. Generating revenues of over \$700M last year it employs approximately 2,200 people in 22 locations across Canada, the United States, the United Kingdom, France, Kenya, South Africa, Australia and Singapore.

The newly combined company, which will maintain the name of StandardAero, has more than 6,000 employees in 42 locations across five continents, with annual revenues of approximately US\$3 billion.

**Civil Air Patrol** pilot Tony Cowan has been asked by the UK's Meteorological Office to assist with the trial of the new National Significant Weather Warning Service (NSWWS) Responder Trial which runs for a month from the 6 November to the 4 December 2017. Each day Tony will receive test emails with PDF attachments and test SMS messages from the Met Office HQ at Exeter to see what the new service looks like and to provide feedback.



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Weather warnings are of value to the UK's Civil Air Patrol as they permit its members to plan reconnaissance flights for the emergency services and local government emergency planning departments with near real time aerial imagery of significant flooding, together with significant damage to buildings and infrastructure.

A no-doubt nervous **Airbus Helicopters** were over quick in letting the world know that the Puma involved in a fatal accident in Japan had no links with the sub-types involved in the North Sea accidents. The 8 November crash of an AS332L in a village northwest of Tokyo killed four, a 60-year old pilot and three mechanics employed by the owners Toho Air Service Co. The helicopter crashed and burst into flames in the Gunma Prefecture village of Ueno. It is claimed that it was flying west to east but made a U-turn. After it lost altitude an object that appeared to be a piece of equipment fell off the aircraft's rear. The accident caused a power failure in the village as electricity lines were damaged.

In late July this year **Oceana Aviation** based at Ardmore Airport in New Zealand gained the Federal Aviation Administration (FAA) Supplemental Type Certificate (STC) for its elegant Airbus H125 [nee Eurocopter AS350 and AS355] Cargo Pod.

Dozens of the cargo pods have been actively operating in the New Zealand and Canadian aviation industries (Helsinki, Tourism, Logging and routine Utility Operations), but the FAA STC was a bonus. Oceana has several helicopter role equipment successes under its belt including the design of the world's first AS350/H125 Bike Rack (also FAA approved), an AS350/H125 Pilots seat slider [lateral] for VREF operations as well as Spray Systems for both the AS350/H125 and the MD500 series of helicopter. Utilizing state-of-the-art materials, the cargo pod is fully composite and is designed for strength and lightness. Its internal capacity allows operators to carry a class leading 265 lbs (120 kg). The equipment gained its first gained NZCAA STC in December 2011.



The Oceana Aviation pod ©Manufacturer

The company has now achieved approval of a Cargo Pod System for the Bell 429, and they are looking to further expand their role equipment range.

They worked with a private owner to gain New Zealand Civil Aviation Authority (NZCAA) approval for its Bell 429 Cargo Pod Supplemental Type Certificate (STC). In early 2017, the private owner who was unhappy about a recently purchased cargo basket approached the company with a view to make changes to the H125 Series cargo pod for the Bell 429. Oceania Aviation's streamlined cargo pod has a much lower drag penalty than wire mesh type of basket and keeps valuable property safe from the elements as well as being locked when the aircraft is parked.

They are now looking for expressions of interest to get the cargo pod approved for the Bell 407 and take the bike rack onto the 429.

# AIR ACCIDENTS

**16 June 2017 Beechcraft Super King Air 200 N912SM.** Air ambulance operated by Air Methods for CareFLIGHT, Grand Junction, Colorado. Pilot, flight nurse, flight paramedic and patient on board. Care-Flight 2 was performing an interfacility transport of a patient from Grand Junction (GJT) to Denver (APA), moments after take-off, during the climb out, the pilot noticed that more than normal right rudder input was required to maintain coordinated flight. A return to Grand junction resulted in a safe landing. The mechanic and pilot found that the rudder trim wheel set screw was loose thus misaligning the rudder trim indication and input. The aircraft was returned to service within an hour. [Concern]

**8 November 2017 Bell 206L LongRanger N275AE.** Air Ambulance of Air Evac Lifteam. Heavy landing after a landing at a facility went wrong at Home Street/Harrison Street, Union City, Memphis, Tennessee, USA. The tail struck the ground first resulting in a heavy landing in which the main rotor separated and struck nearby power lines. It was a non-operational flight with three crew on-board, they received minor injuries but the damage was substantial. The airframe came down upright with the landing skids collapsed and evidence of major tail boom distortion. No fire. [image Hailey Eastep Parker]

**19 November 2017 Bell 407GXP N620PA.** Air ambulance of Pafford EMS operated by Air Methods. Crashed near the Arkansas County town of DeWitt, about 60 miles southeast of Little Rock while flying from Pine Bluff to DeWitt with no patient on board. Pilot Michael Bollen, 46, Nurse James Lawson, 61 and John Auld, 26, were killed. One report states that it may have collided with geese and another state that there were bird carcasses in the wreckage. The helicopter is normally based at the Ruston Regional Airport in Ruston, Louisiana and responds to emergency calls within a 80 mile region of Ruston [Media/ASN]


**22 November 2017 Hughes 369 XC-TIJ.** Police helicopter of Secretaría de Seguridad Pública Municipal (SSPM) crashed near the Mexican border at La Morita, Tijuana, Baja California killing at least two officers, a police captain and the helicopter pilot. They crashed onto a road and the wreck burned. They were reportedly assisting in a search for criminal suspects at a robbery when the accident occurred. [ASN/Media]

**22 November 2017 Cessna 421C Golden Eagle N421RX.** Air ambulance of Aroostook Medical Center, Upon take-off for Bangor Maine, the aircraft, carrying a patient as well as a paramedic and nurse from the Crown Critical Care Transport team returned and crash landed at the south end of the Northern Maine Regional Airport in Presque Isle. The plane is owned and operated by Fresh Air, LLC and is one of two con-


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tracted by The Aroostook Medical Center. Reports state that the Cessna experienced an engine fire after take-off and was trying to return to the airport when it lost power and landed short of the runway. The occupants were transported to an emergency department for evaluation of minor injuries. [Channel 8]

**24 November 2017 Leonardo AW101 Mk612 0268.** Search & Rescue craft, Ministry of Justice for the Royal Norwegian Air Force. Four days after customer delivery was involved in a ground running incident in which it turned on to its starboard side causing fuselage damage destruction of the main rotor blades. [Media/ASN]

## FLIGHT SAFETY

An Ontario court judge has found that ORNGE air ambulance service was not negligent for failing to provide night-vision goggles to two pilots killed in a helicopter crash in Moosonee, Ontario, Canada, four years ago.

Justice Bruce Duncan dismissed three Canada Labour Code counts facing ORNGE that collectively alleged the provincial agency failed to ensure employee safety at the northern Ontario outpost on James Bay.

“The law requires that decisions be made in a dispassionate and objective manner. However, the unavoidable result of that is the proceedings may appear to be technical, analytical and maybe even cold,” Justice Duncan told the court. “I want to assure, particularly the families and friends and the public as a whole, that the tragic loss of life here has not been forgotten.”

Captain Don Filliter, co-pilot Jacques Dupuy, and flight paramedics Dustin Dagenais and Chris Snowball were killed on May 31, 2013 when an ORNGE Sikorsky S76 helicopter taking off from Moosonee in pitch darkness crashed shortly after take-off.

In dismissing two of the counts related to ORNGE’s decision not to fit night vision goggles, the judge ruled that in 2013 “no reasonable operator” would have introduced the visual aids for several reasons, including that they were not required or urged by regulator Transport Canada; their use was not common practice in Canadian helicopter emergency medical services at the time; the helicopters and the crew at Moosonee were all capable of flying on instruments alone; and the remaining life expectancies of the S76s “could not begin to justify the cost, which, if incurred, would come out of the public purse.”

The Justice did however note that helicopter EMS operations were still not fitting the equipment. This latter comment is putting aviation operators across Canada on notice that they will be held to account where evidence suggests that they have not prioritized the safety of their employees.

The Public Prosecution Service of Canada will review the judgment before deciding whether an appeal is viable or in the public interest.

## UNMANNED

Put that dream on hold—Some police services are already dreaming of replacing manned machines with drones, big drones.... There may be trouble ahead if no-one gets down to researching, costing and assessing their ill-thought out dreaming. It seems that a fully trained team of aerospace engineers and soldiers cannot control them so what chance a couple of cops?

A damning UK Ministry of Defence report into the UK government department’s safety oversight systems has revealed when two unmanned aerial vehicles crashed into the sea off Wales.

The British military Watchkeeper system, built and partially operated by French defence contractor Thales, has suffered crashes in British service over the past few years and the MoD tried to hide the story from the public to the point of denial.

The secret leaked recently, just a chance remark by an admiral, led to a disclosure that two drones crashed within seven weeks of each other, in February and March this year. Both were lost in Cardigan Bay, immediately west of the testing base of West Wales Airport, Aberporth. The remaining 52 drones were grounded for four months.

In 12 years of testing Watchkeeper has achieved relatively little at high cost. A total of 146 hours of active duty achieved at a spend of over £1.2bn.

The drones were being flown from its ground station by a combined crew of Army, Thales and UAV Tactical Systems (UAVTS) operators when lost. Operations are based on inserting waypoints rather than them being flown in control.





Things may not be all at sea for the Schiebel S-100

In stark contrast on the other side of the Atlantic there may be a new dawn on the subject. It may be too early to claim success, but it is one more move towards commercially acceptable operations by larger drones. Previously operations have tended to be in safe locations like remote deserts or the sea. This may be something else.

For the first time, the FAA is seeking public comments on proposed airworthiness criteria for an unmanned aircraft system.

The Federal Register asks for comments on proposed design standards needed for the **FlightScan Corporation** Camcopter S-100 to fly safely in U.S. airspace. The goal of this and other projects is to grant FAA airworthiness certification to fully functional, ready-to-operate unmanned aircraft. The S-100 is the first unmanned aircraft to have its certification basis published.

The Camcopter S-100 is a vertical take-off drone that looks much like a traditional helicopter. It is powered by a liquid-cooled rotary engine and has a maximum take-off weight of 440 pounds including its payload. The drone's main purpose is to conduct airborne surveying of power transmission infrastructure using aerial photography.

FlightScan applied for FAA certification of the S-100 using the special class provisions under Part 21.17b of FAA regulations in June of 2015. Since then, the agency has worked with the company to develop airworthiness criteria that support safe integration of the S-100 into the National Airspace System.

FlightScan Corporation is a registered in Naples, Florida. Even without the S-100 there are significant Austrian connections with ownership interests in the President and Treasurer, **Johannes Podhragy** and **Peter Vitz** acting as the VP and Secretary as well as local US input from **Broadcast Microwave Services** [Poway CA] and **David B Morton** who is the VP of Operations and Safety.

During the evaluation that led to the documentation handed to the FAA it was assumed that the S-100 would be used for power transmission line survey operations, operating in a designated corridor and area within the right-of-way of the power transmission lines and is operationally limited to 100 feet above and laterally within 100 feet of the power line it would be surveying.

In this manner there is assumed to be minimal population exposure within the power transmission line right-of-way, but the mission path would cross several public highways and pass near several neighbourhoods with population densities of less than 950 people per square mile.

The S-100 would operate Beyond Visual Line of Sight (BVLOS) commanded by a radio control uplink and downlink would operate within frequencies approved by the Federal Communications Commission (FCC). The aircraft is designed to operate both autonomously and manually by the pilot-in-command (PIC) with a minimum crew of three FAA certified personnel (the PIC, a mission specialist, and a mission flight director) and they will only operate only one S-100 at any time.

Although mention have been made of BVLOS the aircraft would remain within Radio Line of Sight (RLOS) of the control station (the straight and unobstructed path between the transmitting and receiving antennas).

After the comment period ending December 18, 2017, the FAA will evaluate the public comments to determine if any changes should be made to the proposed airworthiness criteria. All comments received by the FAA will be posted to <http://regulations.gov>.

Immediately prior to the issue of the Camcopter documents **US Congress** passed the National Defense Authorisation Act, including language that would restore the drone-registration requirement for model aircraft operators. The measure now goes to President Donald Trump for his signature.

AOPA supports registration of unmanned aircraft systems “to promote accountability and safety of UAS operations in the National Airspace System,” said Justin Barkowski, AOPA director of regulatory affairs. In 2015, AOPA participated in the Unmanned Aircraft Systems Registration Task Force Aviation Rulemaking Committee, whose recommendations formed the foundation of rules requiring registration of small UAS, including model aircraft.

The FAA issued an interim final rule in December 2015 mandating that all unmanned aircraft weighing less than 55 pounds and more than 0.55 pounds be registered online with the agency prior to operation. The provision and its \$5 fee applied whether the unmanned aircraft was to be used for commercial or recreational purposes.

On May 19, the U.S. Court of Appeals for the Washington, D.C., Circuit decided a case, *Taylor v. Huerta*, invalidating the registration requirement for operations conducted under the Special Rule for Model Aircraft known as Part 101.

The ruling observed that the 2012 FAA Modernization and Reform Act “provides that the FAA ‘may not promulgate any rule or regulation regarding a model aircraft,’ yet the FAA’s 2015 Registration Rule is a ‘rule or regulation regarding a model aircraft.’ Statutory interpretation does not get much simpler.”

Other rules for operating commercial and recreational drones, including the 400-foot-agl altitude limit, and the requirement to notify airports before flying within five miles of them, remain in force.

The FAA responded to the court action on the same day with a statement: “The FAA put registration and operational regulations in place to ensure that drones are operated in a way that is safe and does not pose security and privacy threats. We are in the process of considering our options and response to the decision.”

The agency added, “We continue to encourage registration for all drone operators.”

AOPA has long advocated for the safe integration of drones in the National Airspace System, and is a member of the FAA Drone Advisory Committee, the Unmanned Aircraft Safety Team, as well as other aviation rulemaking committees impacting unmanned aircraft operations. In February, AOPA invited drone pilots to join the association, which provides a variety of services including education, training, legal services, and insurance. [AOPA]

## PEOPLE

Bryan Smith, well known in the police aviation industry as the ALEA Safety officer, has moved on from his line-pilot job with the Seminole County Sheriff’s Office at Sanford Airport north of Orlando, Florida to take-up post as the Chief Pilot of the Pinellas County Sheriff’s Office based at Largo west of Tampa. It is perhaps noteworthy that Seminole CSO was in receipt of the IACP Excellence in Aviation Award just as he left.



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## MOVE ALONG THERE

An investigation has been launched after a man who lost six members of his family in the Grenfell Tower fire disaster accused the police helicopter of helping to fan the flames.

Nabil Choucair has lodged a formal complaint with the Independent Police Complaints Commission (IPCC) also alleging that the use of the helicopter gave a "cruel and tortuous" hope to his family who were trapped on the 22<sup>nd</sup> floor.

The Metropolitan Police will now carry out an investigation into the role of the helicopter on the night, which will be overseen by the police watchdog.

This will be linked to the criminal inquiry currently being undertaken by the Metropolitan Police - one of several probes prompted by the June 14 fire.

Mr Choucair's 29-year-old sister, her husband, 38, and their three daughters, perished in the disaster. He made a complaint to the IPCC after listening to 999 calls from members of his family, who he said he believed stayed in their flat rather than trying to get out because they thought they were going to be rescued by the helicopter.

## EVENTS

**PAVCon 2018.** There is a long way to go yet but current plans are that the next edition of this popular annual event will be held at Warsaw in Poland. The date for your diary is 21-24 May 2018. The latest meeting on the subject was a few days ago [November 28] at which time the venue, the JB Investments facility, was visited by both Bryn and Gareth.

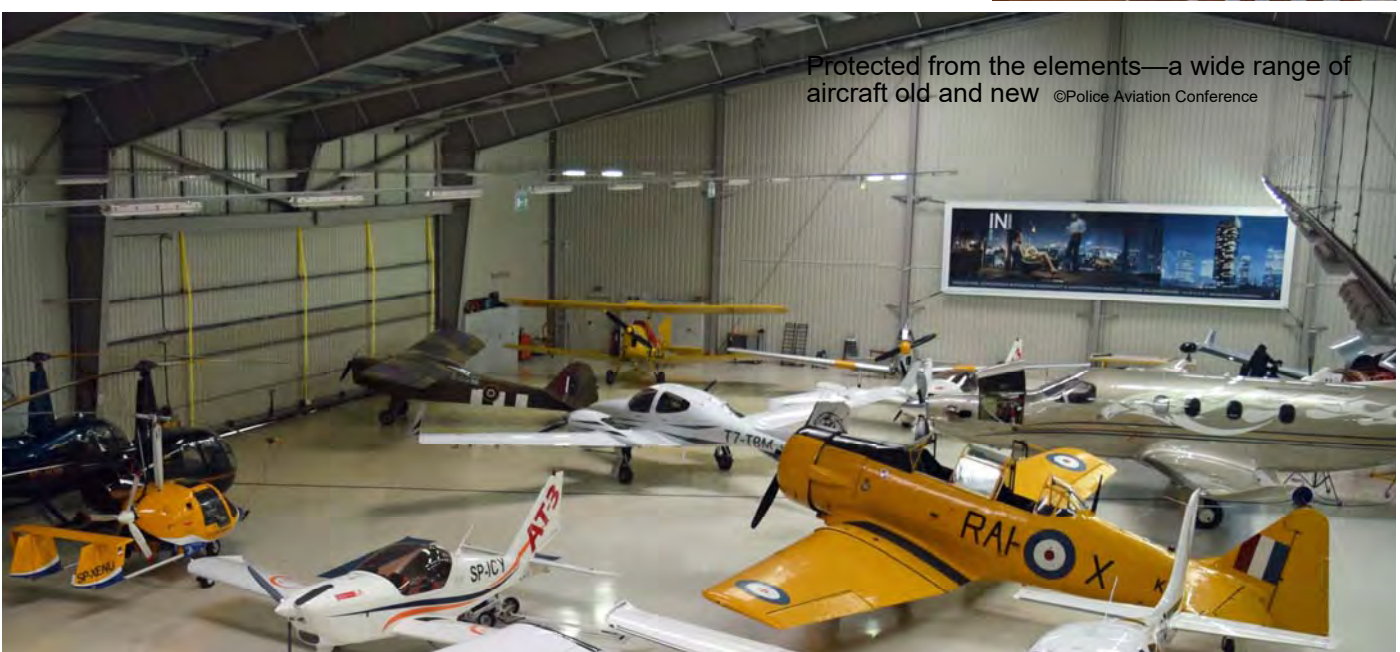
The location is a small grass airfield a few kilometres south of Warsaw. The field can take fixed wing up to the size of a Pilatus PC-12 and of course helicopters and has a substantial hangar space. It is a bit on the desolate side of comfortable this time of year as the temperature plunge but has great facilities and parking for visitors by road or air.

Check out the website [www.pavconeurope.eu](http://www.pavconeurope.eu) to see a video of a previous (sunny day) event at the location.

As might be expected the number of large hotels in this part of Poland is few but we have checked out some already and they are all fit for purpose. Still I managed to find one in the centre of Warsaw that I may well seek to avoid—if only for the unfortunate name (this will mean more to the British and French than other readers).

Getting from the Warsaw Chopin Airport is low-cost at around 20 Euros and hotel rooms can be had for as little as 55 Euros a night. The beer is good and the food far better than expected!

Check out the website for the ongoing details of the event and an opportunity to book your place. More details will be added in the coming days.

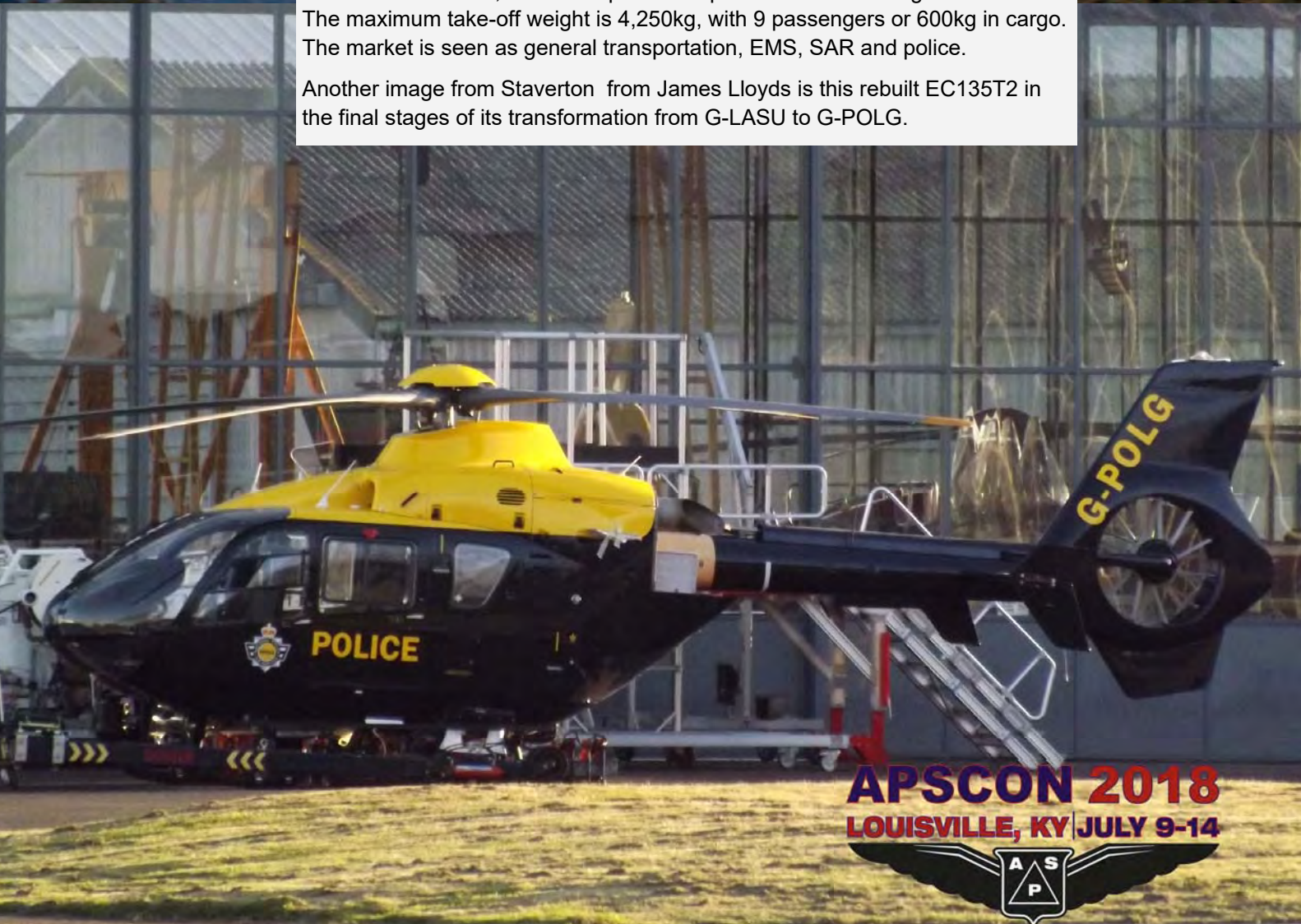


Protected from the elements—a wide range of aircraft old and new ©Police Aviation Conference



It may look a whole lot like a French Dauphin but China is marketing this bird as the AC312E. Developed by the Aviation Industry Corporation of China (AVIC), it flew in late July in Harbin, Heilongjiang Province. Based on the licence built AC312A, the development is optimised for “hot & high” conditions. The maximum take-off weight is 4,250kg, with 9 passengers or 600kg in cargo. The market is seen as general transportation, EMS, SAR and police.

Another image from Staverton from James Lloyds is this rebuilt EC135T2 in the final stages of its transformation from G-LASU to G-POLG.



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