

# Police Aviation News

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PAR



**N.P.A.S. SEEK CVR  
BACON SHOOTOUT  
MIDLAND LAUNCHES AIR 25  
AUDS SECRET ACCEPTANCE**

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## EDITORIAL

As fully expected the blackening of the sky with unmanned craft over the recent holiday season failed to materialise. In contrast though the Federal Aviation Administration chief Michael Huerta reported that 181,000 [since increased to 300,000] drones recorded under new rules that require users to pay a fee and register their devices with the US government so the devices do still march on.

Drone users have complained about the nominal fees, labelling them a tax and, in keeping with the litigious nature of US society the matter is headed for the courts as some argue over the legality of the FAA from regulating recreational devices.

The dangers continue to present themselves though and a few days ago the UK airline pilots association [BALPA] highlighted a spate of serious near misses involving drones and called for urgent action to integrate them in to airspace safely and prevent a collision with other aircraft. In December the UK Proximity Board looked at 7 incidents involving drones: 4 of which were classed as the most serious category A, where a serious risk of collision existed. In one case a drone came very close to colliding with a Boeing 737 which was climbing out of Stansted. Other category A incidents took place at Heathrow, London City and Manchester. They are calling for a US style registration system so drone operators can be easily traced and prosecuted for any irresponsible flying. They are also calling for technology to stop drones from being able to fly in areas where they could meet commercial traffic.

*Bryn Elliott*

## LAW ENFORCEMENT CHINA

SHAANXI: Shaanxi Provincial Public Security Department and Airbus Helicopters signed an agreement for an order of one H155 medium helicopter for police, law enforcement and other public services, to be delivered in the beginning of 2017.

The helicopter will be equipped with a powerful searchlight, an electrical hoist and rappelling system, firefighting equipment, and a loud speaker.

The H155 is already deployed within China, in Shanghai, Dalian, Fuzhou and Hong Kong units where its 12 seat cabin, high speed and long endurance make it an ideal tool for police missions including air patrol, transportation, firefighting, search and rescue, traffic dispersion and air command. Equipment can easily be loaded into the large baggage compartment.

Shanxi lies in the west of North China, covering an area of 156300 square km and has a continental monsoon climate. It was an early police helicopter operator and ten years ago a

**FRONT COVER:** The Turkish Police have been operating the Bell 429 successfully in the law enforcement role since late 2013 and this year will see the police in Sweden build up to operating similar helicopters despite the weight restriction imposed on what is a very capable helicopter. It is hoped that this years PAvCon will include an example in the static. [Bell]

local mine operator sponsored the local police in the purchase of a Bell 212 helicopter but it is said that this is now out of service and recently replaced by a Robinson R66.

The Robinson is a standard aircraft not the police model which would be affected by strict ITAR rules. The company stated that "Due to U.S. State Department and Department of Commerce regulations, we cannot export a Police Helicopter to China. We are aware that an R66 aircraft went to China and is being used in a law enforcement capacity however it was not equipped with the law enforcement equipment that we normally install on standard police aircraft."

Robinson do not sell factory direct. The sale was made by a Chinese dealership, probably Heliflite China.

## IRELAND

**GARDA:** Although the Garda are denying the story it appears that the closure of Carnmore Airport and its refuelling facility has led to restrictions on the operation of the two helicopters in the Garda Air Support Unit based at Casement Aerodrome in Baldonnel, Dublin into areas of Galway.

It appears that the story emanates from volunteers involved in the search for a missing person along the Galway coastline who were told the flight time for the Garda chopper was reduced because refuelling in Galway was not an option.

The Department of Transport – which oversees Coast Guard operations – has said SAR operations in Galway have not been affected by the closure – they use nearby Shannon 12 minutes flying times away.

Carnmore Aviation Ltd were operating services at the airport in Galway until last December when the lease expired. They have supported local operations by both police and SAR helicopters in the past. [Media]

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## SPAIN

### CIVIL GUARD:

The Civil Guard have had continued success with their campaign against the airborne drug runners. The latest chapter has led to twenty arrests of individuals alleged to be part of an organization transporting hashish in the provinces of Seville, Malaga and Cadiz from Morocco by air.

The Civil Guard have seized 615kgs [1,350lbs] of Moroccan sourced drugs hidden in a helicopter. In addition, they have seized six cars, one stolen SUV, two trailers a gun and ammunition and located another helicopter buried to prevent it from being located.

The operation began after the agency detected a helicopter flying at low altitude and without any lights, it was located in flight by a helicopter of the Civil Guard. It was tracked to a landing spot in a farm located in the Acorn Park (Cádiz). Three people aboard were arrested – the pilot, co-pilot and a third person responsible for the custody of hashish.

The helicopter pilot was found to be a Ukrainian national working in Spain on firefighting he had extensive experience in night flying. In the wake of the initial arrest 17 people believed to be linked to the flight were also rounded up from various locations including remote farms.

In one of the farms officers found the buried helicopter several metres deep. It had been damaged on take-off loaded with drugs and was useless so it was buried to ensure its presence did not attract attention.

Both helicopters were Sud ALOUETTE II single-engine light helicopters manufactured in France, but acquired by the criminal organisation from an unstated country. The four seat helicopters were stripped down to a basic structure and open cabin and had the rear seat removed to lower weight and to make space for the packages of drugs – usually between 300 and 400 kg each flight. This space was supplemented by incorporating side baskets each side of the engine and transmission bays to further increase capacity by 200kg.

Since 2013 twelve aircraft have been intercepted and almost four and a half tons of hashish seized with 30 people arrested. [GC]



Participating Agency





## SWEDEN

**POLICE:** With entry into service of their new fleet of Thommen searchlight equipped Bell 429s imminent news has been released that Saab are to deliver three AeroVironment Inc., Qube quadrotor UAV systems to the Swedish Police. Each system comprises air vehicles equipped with day/night sensors and a ground station, plus spare parts, consumables, documentation, training and technical support. The contract will be in effect from 2016 to 2018. The system will be tested in operations by the Swedish Police during 2016. The UAVs will be equipped with digital cameras for collection of information about specific geographical areas, as well as sensors and technology for downlink.

Saab has extensive experience with unmanned aerial vehicle systems, since the mid-1990s Saab has been responsible for systems and support for the Swedish Army's UAV Ugglan, UAV Örn and SUAV Falken.

## UNITED KINGDOM

**NPAS:** The National Police Air Service/West Yorkshire Police has just put out to industry a requirement for a basic cockpit voice recorder for their helicopter fleet of EC135 and EC145 helicopters. It appears that the request will cover all of the UK's police helicopters certainly the NPAS fleet and those of the PSNI - in excess of 20 airframes.

The Air Accident Investigation Branch's report into the police helicopter accident in Glasgow made several recommendations that are being assessed by the Civil Aviation Authority (CAA). West Yorkshire Police as the Operating Certificate holder for the National Police Air Service (NPAS) intends to comply with the CAA's regulatory response to these recommendations which are contained in FACTOR 6 which is available on the CAA website.

For the purposes of this request for information, NPAS is considering fitting additional equipment to its fleet of Airbus H135 and EC145 helicopters and is seeking indicative prices (equipment and fitting listed separately) and timescales for the following categories of equipment:

AIRCRAFT/EQUIPMENT	H135	EC145
Number in fleet affected	16	6
CVR to ED112 standard	P	
AIR (Classes A & C)	P	
AIR (Class A only)		P

or

CVR to ED155 standard	P	
AIRS (Classes A & C)	P	
AIRS (Class A only)		P

AIR and AIRS are sub-divided into the classes of image captured: A - capture supplemental data (ambience) such as switch moves and hand gestures; C - flight data when not practical or prohibitively expensive to fit full CV/FDR.

The content of this proposal was submitted to likely interested parties by NPAS and PAN as the deadline passed on Thursday 28<sup>th</sup> January 2016 but this is only a market test and it will not affect eligibility to submit a proposal for the tender when it is published via the new blue-light e-tendering system found at <https://bluelight.eu-supply.com/register>. If not registered, please ensure you register your company on the new site via the link above in order to receive the tender when it is published.

On the 21-22 January one of the former Metropolitan Police EC145's was active undertaking routine training in rappelling techniques with firearms teams. The activity, Currency Training, was noted as taking place at North Weald airfield [Essex] on the first day and Upper Heyford [Oxford] the following day for Thames Valley Police. The comment from NPAS described the rarely noted activity 'Business-as-usual.'

The latest pilot vacancy posted by NPAS is for a pilots to serve the south east [Lippitts Hill/Boreham and Bournemouth] and St. Athan South Wales. Perhaps significantly the new pilots are expected to have 1500 hours, a Class 1 medical and an EASA single pilot instrument rating. There are moves to have all the pilots SPIFR rated but only by 2020. The salary range is £54,213 to £57,135.

**THE HAVE NOTS:** *Some of the former police helicopter operators are still noisily less than happy in having to hand over their airframe to NPAS and in some cases citing that the purchase debt was set up assuming long term ownership. A number are said to be still paying off their share of multi-million pound debts at a time when budgets are under severe pressure and yet are getting less service.*

*Or are they?*

*The matter was highlighted by the Police and Crime Commissioner for Essex, Nick Alston when talking of overall police budgets and the effect shortfalls in income have on them. This was in the context of major cutbacks in finance in the Essex Police world.*

*NPAS assigned 'repayment' as part of the take-over deal when launched but this was in the way of being a stage payment plan rather than an immediate full amount cash payment. To date, Essex has received £684,130 and are due to receive a further £26,804 in 2017/18 which will complete their capital credits. Capital Credits have their worth but they are not exactly hard cash.*

*Essex bought their EC135T2 G-ESEX a decade ago [delivery July 2003] at a cost the police authority reported at the time as being £2.4M of which something like half the money was financed by the Home Office. So Essex paid £1.2M for an asset thought to be worth about £1.1M today.... and they are set to be paid over half of that 15 years later.... And it might be said that the Home Office owns the other half anyway.*

*Along the way Essex picked up all sorts of other Home Office funding over the years for equipment and infrastructure enhancements and are now presumably involved in the renting the Boreham base to NPAS so, in this instance at least, perhaps the 'missing' sums are not entirely significant. And in 2003 most police forces assumed that the aircraft would be disposed of and replaced after ten years so it's gone way beyond that!* [Editorial/PAR]



**UNMANNED:** Based on the results so far of the ongoing six-month trial of unmanned craft by Devon & Cornwall Police and Dorset Police the PCC for Devon & Cornwall is indicating that more of the craft will be acquired in his region. Officers are currently using four DJI Inspire 1 Drones which are equipped with high definition (HD) cameras which can capture both video and still images.

Two are currently on trial in the force area and that could increase to five.

Devon and Cornwall Police, trained by the Resource Group, has been trialling two devices since early November 2015 and they have been used at a number of major incidents across the two counties on taking aerial photographs, recording videos and mapping areas of interest to assist police investigations.

Last month the Police and Crime Commissioner Tony Hogg met with police officers from Devon and Cornwall Police and the National Police Air Service (NPAS) to learn about their benefits. It was a busy time in the region and many of the potential users of unmanned craft – including NPAS – were at a meeting at Avon & Somerset police HQ on January 22.

A large number of the 43 police forces have started negotiations with industry and considered their options but only a handful have made a decision to move forward.

*Ed: But there are some worrying aspects about the publicity surrounding this activity. If it is taken at face value questions need to be asked about how a supposedly cash-strapped police force can seek to have five UAVs which will require the training and currency of at least four officers [probably many more], vehicles to put them in and then the logistics to keep them active. The business case must have been good to overcome the lack of money when bidding for significant funding on the project that is basically a clever 'camera on a stick'. More worrying is the report that appeared in one national newspaper. Who spoke the words that appeared in the headlines of the Daily Star...? **Police set to smash crime rates – by using DRONES.** Now that is raising expectations through the roof, that level of payback on the rate of crime is not going to happen!*



## UNITED STATES

**FEDERAL:** Last month PAN announced the actions of the FAA in requiring everyone to register before using a radio controlled flying device – assumed to be both the UAS the rules were designed for and now also the previously unregistered hobby plane builder and flyer – and asked the throwaway question of how the 'FAA will regulate its own vast backyard.'

Well it seems that the usual answer applies. The police will do it! A fourteen-page missive of how to undertake this daunting task has appeared - "Law Enforcement Guidance for Suspected Unauthorized UAS Operations".

Who will read it?

PAN was set up twenty years ago as a digest of stories distilled from often giant press releases in the sure and certain knowledge that most police officers lose interest after a couple of paragraphs. That many pages are daunting and will soon be an entry for recycler of the year.

*Ed: There are other angles on this errant FAA assumption. They apparently believe that when they say jump, drone owners and cops will ask "how high!" Sadly, the suits in Washington D.C. running the FAA do not appear to have ever consulted with many of the cops (or their organisations) that they are calling on to enforce their current interim policies.*

*And it apparently doesn't matter to them that it is illegal for state and local cops to enforce federal policies, let alone federal regulations (which we are still waiting for). On that basis why would they take time out of their day to report seeing an errant drone/UAS or scale replica of a B-17 bomber in operation! Air support might, if it gets in their way, because they are*



File



in the same loop as the FAA but they represent just a tiny part of cop society. I am assured that most of the rest will not care a hoot.

This situation is not helped by an apparent lack of joined up thinking when addressing the issues to professional audiences. The presentations so far given show signs of major divergence of opinion within the organisation [aka 'arguments in public'] like that given to the ALEA event last summer when no-one on the podium seemed to agree on anything let alone know the answers posed by police officers expecting some guidance on how and where to fly the things.

Early in January they had another try to a different market at the **Consumer Electronics Show (CES)** in Las Vegas. FAA Administrator Michael Huerta discussed unmanned aircraft registration and provide updates on the agency's work to safely integrate them into the National Airspace System (NAS). It was here that he reported the significant numbers of people had already registered. He was joined at the event by four key UAS Registration Task Force members.

In moving forward, the FAA claims to be constantly looking to identify new education outreach opportunities [but perhaps not always delivering the message too well]. At the January 6 'Vegas event with Huerta were Dave Vos, project lead for Google X's Project Wing, Nancy Egan, General Counsel, 3D Robotics, Brendan Schulman, VP of Policy & Legal Affairs for DJI, Doug Johnson, Vice President of Technology Policy, Consumer Technology Association (CTA).

The CES saw the launch of some interesting technology in the Consumer market including the unveiling of the Yuneec Typhoon H by Intel. Intel has integrated its RealSense technology into this craft to sense and avoid obstacles while in flight. <https://www.youtube.com/watch?v=feZ7yRpg4UE>

This is probably the most interesting development in drones in 2015. Teaming up with Intel for an obstacle avoidance system looks to have paid off for this company – but whether that is an acceptable system for the wider market remains to be seen.



File

Any hopes that law enforcement was going to be the main recipient of free Bell TH-67 Creek [Bell 206] took a knock when it was announced that thirty of the US Army's divested helicopters are heading to South America to provide initial helicopter training for allied militaries across the region. It is expected that 35 will retire in FY16 as the training role transitions over to the UH-72.

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**ALEA NEWS:** Now is a good time to consider attending the North East Region Safety Seminar to be held in New York State on April 26-28, 2016. The venue will be the Holiday Inn Wolf Road, Albany, NY.

It will be a great opportunity to get together with other professionals from across the North-east to network and discuss what is important to exhibitor's intent on gaining the attention of police officers, pilots, TFO's, medics, mechanics, Unit Managers, etc.

The New York State Police Aviation Unit is hosting the seminar. The Education and Social Agenda has been drafted and is in the process of being finalised. By mid-February the on-line registration will be open on the ALEA website with all the information regarding transportation, lodging, discounted ALEA rates and the agenda.

This month ALEA will launch the 2016 General Membership Survey. The results of the survey will be used to chart the course the association will take in the next three years to best serve its members.

A date to remember is the annual ALEA get together – this year on the East Coast in Savannah, Georgia. July 18-23, 2016. Full details on the ALEA website at <http://alea.org/alea-expo-2016-savannah-ga> PAN/PAvCon has already booked flights to this unmissable event, even before booking flights to the PAvCon in Munich!

**ARIZONA:** As reported last month the Cochise County Sheriff's Office is moving its air support operations to a new supplier this year. The prior arrangement ended in tears as the unit suffered two accidents, one fatal, in a short period of time. The ultimate reasons for these accidents remain to be decided.

The new grant funded arrangement uses an AS350B2 operated by a film company as a camera ship and charter airframe.



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The AS350 registered to H5 Media Productions is N511SC, a company based in Scottsdale near Phoenix. H5 have been contacted but have so far not replied to queries on how the single airframe is to serve the previous uses and law enforcement at the same time. It is also unclear how much of the specialist camera equipment will be available to Cochise County. The website states the camera is capable of providing high end camera fit utilising Cineflex gyro stabilized gimbal systems. The V14HD, the Cineflex Elite and the Red Dragon Ultra with 2k - 4k and 6k capabilities, all based on the aerial platform of the Airbus AS350-B2 "SaberCat1" – now seen in a variation of the colour scheme to suit the law enforcement role. H5 appears to retain a primary role in serving the Motion Picture and Feature Film market but it is not known how many hours this and maintenance downtime amounts to annually.

There is another issue of course in that the pilots assigned to the role required by law enforcement may have very different skillsets to those in the Motion Picture market.

Over in Tucson the New Year was a bit quiet after the air unit was grounded in late December. Tucson residents were told they would not see a Tucson Police Department helicopter in the sky for a while.

The unit was grounded following an audit that recommended changes to training and safety, prompting concern in the nearby Pima County Sheriff's Department. The unit was not pre-warned it would be grounded as the result of the outside audit that apparently found issues with the operation and its policies. It has since been returned to service. [Tucson News Now]

**CALIFORNIA:** The Fresno County Sheriff's Office has ordered a new MD530F to update the elderly fleet of two MD500E helicopters operated for nearly 20 years.

The decision to buy was made last month by the Fresno County Board of Supervisors. Although utilizing a similar airframe the new MD 530F will offer greater horsepower, increased payload capability, and reduced operating costs when it enters service later this year. The current helicopter fleet includes two MD 500E aircraft that have been in service with the Air Unit since 1997. Known as Eagle One and Eagle Two the pair have a logged a combined 30,000 flight hours in the execution of search and rescue missions, pursuit, and aerial surveillance in support of ground operations.

The new MD 530F will feature the Rolls-Royce 250-C30 650shp turbine engine, extended landing gear, Fargo 21-gallon auxiliary fuel tank, wire strike protection system and Talon LC Keeperless hydraulic release cargo hook for external loads up to 2,000 pounds. High-contrast main rotor blades, a new Spectrolab SX- 16 searchlight, and an NVISB interior will provide improved visibility for both officers and citizens during low-light operations. The cockpit configuration features the Garmin 500H EFIS flight display, Garmin GTN650H touchscreen GPS/Navigation and communications panel, Aero Computers UC-6000 airborne mapping system, the Garmin GTS 800 Traffic Avoidance System, and Garmin GTR 225 audio panel.



The Fontana led police air support operation has lost a backer. Colton is no longer participating, according to Fontana Police Chief Rod Jones, who said the departure means about \$95,000 must come from somewhere else. He did say he expects to close the gap and continue the operation.

The air operation costs about \$1.2M of the department's annual budget of \$40M.

Colton had to withdraw from the air operation because of local budget constraints would not allow them to increase payments to meet increased costs proposed by Fontana, according to City Manager William Smith. He indicated that they would seek to re-join the operation as soon as their immediate problems eased.

Redlands and Rialto, the other members of the consortium say they are committed to continuing the programme.

The collaboration began in late 2010, starting with the Redlands Police Department sending its single-engine Cessna 172 over to Fontana to help out with aerial surveillance and the Fontana Police Department sending over its Robinson R-44 helicopter to assist with patrol work in Redlands — mostly at night. Later, Colton and Rialto joined.

Soon after the program started, Fontana acquired the gas turbine powered Robinson-66. A second R-66 was acquired months later. All three helicopters were acquired primarily with drug asset forfeiture money.



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TEXAS: First responders from the Brazos Valley north of Houston gathered at a local ranch early in January for a sponsored session of medical training rounded off with some shooting practice including in-flight firing from a stripped down Robinson R44 helicopter N300WZ.

The first responders, consisting of 35 local police officers, firefighters and paramedics were primarily present at Tonkaway Ranch near College Station to pick up some techniques from doctors on responding to serious trauma, and recognising that some apparently minor trauma event can hide a more serious issue. The shooting element, the carrot that attracted the attendees, included a fairly tame skeet shoot but this was greatly enhanced by an opportunity to let off a machine gun and get airborne in the R44 supplied by Helibacon a Houston based operator that flies a range of customers specifically to shoot boar from the air. The range of firearms options, including the automatic weapons and the air firing, brought different kinds of weaponry to some attendees that have not necessarily had exposure to them previously.

The day was an arrangement between Brazos County Constable Jeff Reeves Precinct 1 with Dr. Andy Wilson with Caprock Emergency, a sponsor of the day of teaching at the ranch owned by State Representative Kyle Kacal. Caprock Emergency is hoping to offer the program in the future and more lectures for first responders. [Media]



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# AIR AMBULANCE

## CANADA

WINNIPEG: The city will get its first hospital-based helipad this spring. Helicopters will land on top of the new Diagnostic Centre of Excellence, a seven-storey building currently under construction and connected to the new women's hospital at Health Sciences Centre.

Winnipeg Regional Health Authority officials said the helipad is to be built beside the Children's Hospital on top of the new Diagnostic Centre for Excellence at HSC, Manitoba's largest trauma centre.

The 18-by-18-metre rooftop landing pad is heated by glycol to prevent icing and includes a function to put out fires with foam. It will meet the H1 Heliport Standard and accommodate twin-engine helicopters to provide direct elevator access to both the adult and children's emergency and operating rooms, as well as the intensive care units at HSC. It is anticipated one or two air ambulances will land there every day. The STARS ambulance flew 541 emergency responses in Manitoba last year. [Sun]

## CROATIA

MINISTRY OF HEALTH: The trial of a civil medical air ambulance service to replace the military forebear started in September last year. Utilising an Italian company, Air Green, and Italian registered helicopters the trial brought something of the acceptable standard of European HEMS to Croatia for the first time. Only a small region was served, the military remaining on call across the rest of Croatia.

The helicopter EMS is a pilot project of the Ministry of Health, fully financed by the World Bank, which provides to the Croatian patients high-quality and accessible health services at the level of EU standards. There are ten specially trained medical teams and two helicopters which are equipped like small intensive care units, stationed on the islands of Krk and Brač.

The arrangement was undertaking missions from the day of its introduction and brought modern aircraft and medically skilled crews in place of an ad-hoc reliance on military resources with medically untrained crew. The first mission, a road traffic accident, was completed within the Golden Hour, it itself a vast improvement on the reaction times offered by military resources. t within the comprehensive reform of the health care system, which aims to raise the quality of health services accessible to all Croatian citizens.

From the start the programme lived up to the high expectations – albeit in a restricted area of Croatia – with a review due in January. A planned cessation of the trial on January 9 was extended by an extra two weeks as the matter was discussed by a new government thanks to temporary finance being found.



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Over the four months of the trial the HEMS has proven a great success, with medical teams and two helicopters having a total of 219 emergency interventions from 9 September to 31 December. The outgoing Deputy Health Minister Miljenko Bura said that the current government has managed to reach an agreement with the Italian companies which provide emergency helicopter transport about a two-week extension of the provision of services, based on the Law on Public Procurement which allows contracting services to be temporarily extended. However, the long-term fate of the project is uncertain. [Croatia News Online]

## IRELAND

**AIR CORPS:** Pending the creation of a viable civil air ambulance service anywhere in Ireland the need for HEMS in the south falls to the air corps.

A recent series of arguments over the allegations of a whistle-blower that related in part to airworthiness issues remain under investigation.

Air Corps operations in 2015 included 277 maritime patrols, 68 air ambulance operations, over 370 completed emergency aeromedical service missions and 32 wildlife surveys.



**LPR:** The public air medical rescue operator LPR (SP ZOZ Lotnicze Pogotowie Ratunkowe) has received four new H135 (formerly known as EC135P3) helicopters to extend its HEMS operations in country. This latest delivery brings the total H135 LPR fleet to 27 units. Prior to this on-time and on-quality delivery of four new H135s, an intensive technical acceptance process took place in December 2015 at Airbus Helicopters' Donauwörth site in Germany. All helicopters were subsequently transferred to the main LPR base in Warsaw. The total fleet of 27 H135 helicopters is now fully operational with LPR, representing a ma-



for step in the modernisation of the country's helicopter-based medical evacuation services and making Poland one of the world's largest users of this helicopter in its new-generation EMS configuration.

The agreement for the delivery of four new H135 helicopters to LPR was signed on 4 August 2015, following a competitive public tender procedure won by Airbus Helicopters. The LPR fleet has an average availability rate of over 95%.

In the present organizational structure of the Polish Medical Air Rescue, LPR was created in 2000 as the heir to the traditions of the Polish pre- and post-war medical aviation. LPR performs tasks connected both with medicine and aviation: medical emergency, air transfer of patients between the hospitals, air transfer of patients from abroad to Poland, air transfer of patients to the hospitals outside Poland. The Polish Medical Air Rescue operates from 17 bases in Poland. In each of them there is a helicopter medical emergency crew on duty, consisting of a pilot, paramedic/nurse and physician. Additionally, it is on call with a plane medical emergency crew, which is stationed in a military zone of Warsaw-Okęcie airport. The head office is located in Warsaw.

Airbus Helicopters has delivered nearly 1,200 helicopters of the H135-family to customers around the globe, which have logged more than 3 million flight hours. One-quarter of this total fleet is deployed for EMS duties.

## TONGA

The Polynesian kingdom of more than 170 islands, many uninhabited, is to start its own air medical helicopter this year.

The idyllic country of white beaches, coral reefs and tropical rainforest has a scattered population of only just over 100,000 but is an attraction to tourists. The main island, Tongatapu, is the home to the laid-back, rural capital of Nuku'alofa where the helicopter assigned to undertake the service will arrive by sea on January 31.

The new AS350 based helicopter service will be multi-use and will enable visitors to enjoy the beauty of Tonga from the air and to drop into remote island resorts.

The AS350, VH-VWA has been illustrated, will be the first of two helicopters to service the aerial needs of Tonga and will be based on the island of Tongatapu. The second helicopter will be based in Vava'u close to the heart of business and the tourist trade. From these locations they will be well placed to assist police rescue boats and help people in trouble.

The helicopters will be arriving with a selection of the equipment required for medical emergencies, including stretcher kits and oxygen, life rafts and vests that can be dropped into the

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water and a large net that can hold and lift five or six people out of the water into rescue boats or to land and a fire fighting bucket and other helpful items for emergency work. The operation is a partnership that includes Australian aviation company, Helicopter Group of Melbourne. Tonga has not yet granted a helicopter operating licence for the service.

## UNITED KINGDOM

**EAST ANGLIA:** The second East Anglian Air Ambulance H145 helicopter is due to be delivered to the end-user this month.

**LONDON:** The second MD902 Explorer helicopter for London's Air Ambulance took to the air on January 22, at Gloucestershire Airport on its first UK test flights with the appropriate registration G-LNDN. The helicopter arrived by road in October in the lime green colour scheme of its previous owners – the Hamad Medical Corporation. Hamad flew the aircraft from autumn 2008 until it retired its two Explorers in February 2014 and started operating AgustaWestland AW139s.

The helicopter has been worked on by Specialist Aviation Service in the intervening three months, bringing it to UK standards, being delivered to the Royal London Hospital late last month with a low key entry into service ceremony. [Helihub/BBC]

*Ed: The aircraft is visually almost identical to its predecessor G-EHMS but offers lower total airframe flight hours. Although naturally marketed as a major enhancement in service offered it is more an insurance to increase the number of hours that the medical service can be carried by air. For operational reasons the night, bad weather and maintenance downtime service has always continued with the use of road cars. London may never be able to have a night helicopter service even with a switch of base away from the Royal London helipad but it is undoubtedly an aspiration if the safety concerns can be mitigated.*

**MIDLAND:** This year, 2016, marks the 25<sup>th</sup> anniversary of the vitally important emergency pre-hospital service provided by Midlands Air Ambulance Charity and in the coming months the charity will be running a series of events and activities to celebrate the milestone of operations across the Midlands. Last month the charity called in the local and national media to launch a programme of events designed to promote the charity and enhance the fund-raising. The charity now requires an additional £500,000 per annum to operate, meaning in excess of £7M million has to be raised each year.

As one of the first air ambulance services in the country, named 'Air5' with just one helicopter flying out of a temporary airbase five days a week, Midlands Air Ambulance is rightly proud of its heritage. The charity now has three helicopters serving a population of six mil-







lion people from three separate bases, and to date the service has responded to over 43,000 missions.

#### Ambassadors

To mark the launch of 'Air25', Midlands Air Ambulance Charity and its prime sponsor M6Toll hosted the 'Press Call' at the RAF Cosford airbase, supported by charity ambassadors, Lee Pearson CBE, Neil Back MBE, 'Blind' Dave Heeley and Mickey Bushell MBE. The ambassadors [pictured left] will be evident at many of the commemorative events, including a prestigious garden party at Hagley Hall, where 'Air5' was first launched in May 1991.

Over the past 25 years the charity has seen several innovations added to its service including increasing doctor-led cover across the service – taking the highest level of medical car to the patient on scene. Critical care training for flight paramedics has been nurtured and part of that includes to provision of training facilities at each of its bases. In March a new training facility is to be opened at Tatenhill the newest base in Staffordshire.

#### Future Plans

With ten years at the helm of the charity behind her Hanna Sebright, chief executive for Midlands Air Ambulance Charity, believes that this year will be very exciting for the charity, and one on which they will continue to

build for the future. The charity currently owns one of its three aircraft and has plans to own more. Purchasing airframes future proof's the charity against any significant financial downturns in the charity market but it remains very happy with the lease service offered by Bond Air Services since the start of operations and sees no intention of ever owning all of its aircraft. The existing agreement provides spare aircraft at short notice in order to maintain the three aircraft service even without mutual support. For the near future there is an expectation that the next purchase may well see the charity upsizing to the Airbus Helicopters H145 but nothing has been signed. The current EC135T2 G-OMAA based at Cosford is the first owned airframe and that entered service just under two years ago.

## New helicopter project in the pipeline?

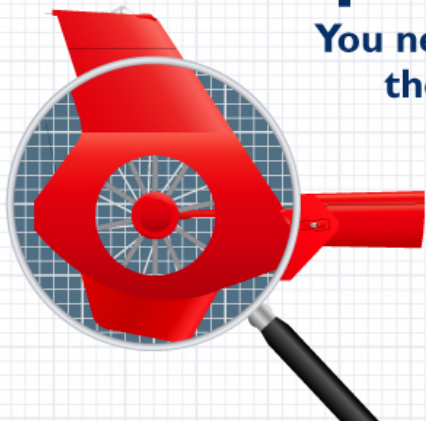
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OXFORD: Fixed-wing providers American Medical Response (AMR) Air Ambulance of the US and AirMed UK have announced they have made a collaborative agreement that will enable their respective clients to have access to a broader geographical range for air medical transportation. The new memorandum of understanding (MoU) will allow both companies to arrange and co-ordinate air medical services where either company can use the others' services to arrange for and co-ordinate air medical services.

Patients and customers will now have access to a fleet of 19 turbine powered aircraft one of the largest in the world. [www.facebook.com/AMRAirAmbulance](http://www.facebook.com/AMRAirAmbulance)

WALES: Last month's article on the new base for the Wales Air Ambulance contained a small factual error. Apparently Premier Construction made a mistake in the content of the original article they prepared regarding the build of the new airbase and charity HQ.

The error stated that: "The project is being funded by the European Regional Development Fund, Welsh Government, and Carmarthenshire County Council..." This isn't quite accurate – the European Regional Development Fund is contributing some funding to the construction of the charity office, rather than the entire project (i.e. approx. 25% of the overall project) - the rest will be funded through charitable fundraising, for which WAA has launched an appeal for (<http://www.airbaseappeal.com>).



WILTSHIRE: The service has marked its first year operating as a stand-alone air ambulance with a 10% increase in missions undertaken.

Wiltshire Air Ambulance (WAA) has been operating since 1990, but 2015 was the first year as a stand-alone air ambulance using its own new state-of-the-art helicopter, a Bell 429. For the previous 24 years WAA shared a helicopter with Wiltshire Police.

From when the charity began using the Bell 429 helicopter on 9 January 2015 to 8 January 2016, WAA was called out to 537 incidents, an increase of 51 on the year January to December 2014.

The largest number of call outs, 167, were to cardiac arrests, up from 139 in 2014. The number of Road Traffic Collisions was 145, up from 132 in 2014.

Other missions included 56 sporting injuries, 35 falls, 24 horse riding injuries and 6 industrial incidents. WAA Critical Care Paramedics also gave pre-hospital blood transfusions to 10 patients since August, when it began carrying blood on board the helicopter and Rapid Response Vehicle [WAA]



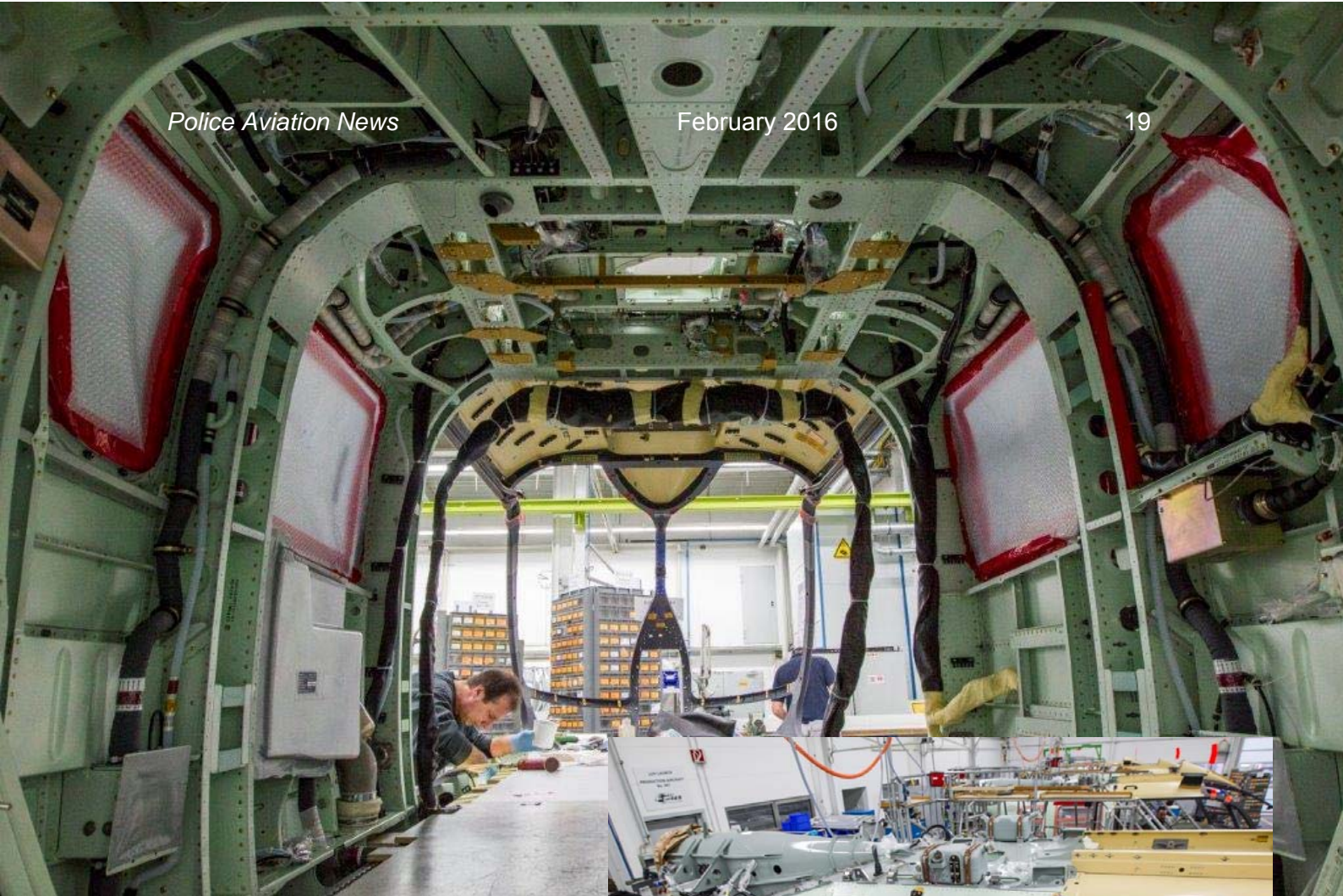
## UNITED STATES

NEW YORK: American Medical Response (AMR), is the new owner of Rural/Metro Medical Services, and is bringing a new air ambulance capability to Western New York. A fixed wing aircraft can now transfer patients who need to travel long distances for treatment.

Their first Western New York patient was transported to Chattanooga, Tennessee for specialized care. Rural/Metro say the average cost for such a trip, with minimal medical care required, is between \$7,000 and \$10,000, about what







**YORKSHIRE:** Later this year the Yorkshire Air Ambulance will be taking delivery of their first H145. Recently YAA released a series of images of their airframe on the production line back in November 2015. The airframe will be serial number 20084

©Airbus via YAA



ground transport would be but more often than not air ambulance service costs more than ground transport, depending on the medical needs of the patient, insurance and distance travelled. Domestic air ambulance flights can range from \$5,000 to \$50,000.

There are already two not-for-profit air ambulance services available for emergency and non-emergency transport in Western New York: Mercy Flight and Wings Flights of Hope.

Mercy Flight Medical Operations Director Donald Trezepacz has expressed concern that the arrival of another medical air service entering the market would further dilute an already low level of need in the region. [WVVB]

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**NORTH CAROLINA:** United Rotorcraft have delivered the first of two Bell 429 helicopters equipped with a next generation EMS interior for the University of North Carolina (UNC). The first aircraft was delivered from United Rotorcraft's completion facility in Englewood, Colorado. The supplemental type certification (STC) approved interior was amended to include the new machined aluminium floor, additional medical crew seating configurations and various product improvements to improve functionality and durability.

"Redesigning the floor and addressing product improvement reinforces our commitment to our customers by listening to their needs," stated Frank Graham, senior director of Global Sales & Marketing. "The Bell 429 continues to be a popular twin platform for the helicopter air medical industry, and we are confident the new products will facilitate international opportunities, as well as augment our domestic business."

United Rotorcraft will deliver the second aircraft – "Tar Heel 2" – before the end of the first quarter to compliment "Tar Heel 1" when it enters into service.

*Ed: Tar Heel is a nickname applied to the U.S. state of North Carolina and its inhabitants. It is also the nickname of the University of North Carolina athletic teams*

## FIRE UNITED KINGDOM

**NORTHUMBERLAND:** There is no fire air service in the UK but occasionally various units undertake trials with the technology. In the latest operations Northumberland Fire and Rescue Service has taken part in training exercises based on new search and rescue (SAR) arrangements for Holy Island.

The fire service, working alongside HM Coastguard, will respond to future incidents on and around Holy Island under a new national framework using a helicopter fitted with the latest SAR technology.

It follows the UK's switch to a civilian SAR service, operated by US-owned firm Bristow Helicopters Ltd, under the auspices of HM Coastguard.

The SAR helicopter is one of a range of options available when an incident occurs on Holy



Island and the causeway is not usable. Northumberland Fire and Rescue Service can also call upon the RNLI to attend incidents via boat.

Officers completed the sessions to familiarise themselves with the new helicopter, took part in safety training and carried out a run-through of a mock operation. [Gazette]

## UNITED STATES

WYOMING: Sky Aviation based in Worland is officially the first Civilian owner and operator of a CH-46E Sea Knight. In March of 2014 they bought four airframes from the GSA auction. After overcoming many hurdles, they received a Type Certificate in July 2015 and now have approved training and maintenance procedures in place. This helicopter is ready to enter the medium to heavy lift sector. Modifications include bubble windows for both pilots, cockpit controlled hook and Bambi bucket controls, load cell and more. The CH-46E is the same frame as the BV-107, the helicopters feature an upgraded engine and transmission system as well as the AIMS system on board.



The CH-46E was primarily used by the Navy and Marines, it was designed in 1960 and was first flown in 1962. It served as a troop transport, vertical replenishment vehicle, firefighting, construction and was used in Search and Rescue missions from the Vietnam Era through 2014 when it was retired from service in favour of the V-22 Osprey.

*Ed: As often happens the news story presents a very narrow viewpoint. Sky Aviation may be the sole operator of the ex-Marine CH-46E but the basic Vertol 107 has been in civil service for some years with such as Columbia Helicopters.*

## SEARCH AND RESCUE LITHUANIA

ARMED FORCES: The Lithuanian Ministry of Defence and the Lithuanian Armed Forces has accepted into service their next generation search and rescue helicopter with around the-clock availability.

The Lithuanian Ministry of Defence and the Lithuanian Armed Forces assigned their three new AS365 N3+ helicopters to the 24/7 SAR mission service.

Only two years after ordering the helicopters, Lithuanian Armed Forces are now ready to ensure SAR 24/7 service with their AS365 N3+. Following the first two deliveries in June and September 2015, Air Force pilots, rescue workers and technicians were able to undergo a full training programme, including on a full flight simulator.

Lithuanian Armed Forces received their third and last AS365 N3+ in December 2015 and started missions as of 11 of January.

The three AS365 N3+ SAR helicopters are fully equipped with the latest technologies such as forward looking infrared (FLIR), radar, search lights, hailer, hoist, and stretchers. The full glass cockpit and the Airbus Helicopters' unique 4-axis autopilot with SAR modes significantly decrease the crew workload, allowing them to perform their highly demanding missions safely.



## UNITED KINGDOM

**CIVIL AIR PATROL:** In the latter part of 2015 parts of northern England and Scotland were hit by severe weather and this resulted in widespread floods inundating towns and villages.

In a matter of a few hours' gale force winds and torrential rain left more than 60,000 homes without power and led to 1,000 people being evacuated. There was significant damage in Carlisle, Appleby, Keswick, Cockermouth, Kendal and many small villages in the north-west of England and the main rail line to the north was closed – simply washed away.

In Cumbria the initial response included the drafting in of four helicopters from NPAS, MCA, air ambulance the military – a Chinook used to carry heavy pumping equipment. The full time crew manned aircraft were pulled from the area in short order and the resultant void was filled by the volunteer sector in the form of the Civil Air Patrol [CAP].

CAP volunteers operated a Cessna 210 on two long range missions from Turweston, near Coventry to Cumbria, a distance of 185 miles, only the second one landing for a local briefing at Carlisle. As a result, the CAP were able to supply digital images of the flooded areas to a number of agencies to assist them in dealing with the emergency.

Although these events were as nothing when compared with some of the regular inundations some parts of the world suffer each year they were unusual and therefore did present a significant and unexpected strain on the rescue services.

Throughout the period the UK CAP was very busy and after responding to the flooding in Cumbria other volunteer aviators were requested to assist across the other side of England in North Yorkshire. At one point, over a period of two days, CAP had four aircraft deployed in a triangle between York - Selby - Tadcaster. Two aeroplanes, a Cessna 210 and a Piper Arrow, an MT Sport autogyro and a small unmanned aerial vehicle (sUAV) operating. This was the first time that the CAP had deployed a DJI Inspire PRO sUAV/drone, together with an autogyro, on an operational mission on the UK mainland.

CAP use of the UAV may well expand in the more amenable atmosphere of the UK but that said ensuring the pilots are of a good quality remains a significant challenge. The CAP is only interested in recruiting those 'drone pilots' who understand the law and have a CAA 'permission to operate'. All too often examples are coming forward of probably well-meaning amateur pilots breaking the overflight of crowds rules in the relatively lax UK regime.

## INDUSTRY

Early last month a popular UK newspaper ran a story claiming that a device to block drones flown by terrorists will be used at major public and sports events following a successful trial at **London's Remembrance Sunday** parade in November last year. Subsequent enquiries on the story have led to the manufacturers being obliged to offer 'no comment.'

The system, undoubtedly that being offered by the AUDS Consortium including Enterprise Control Systems, Chess Dynamics and Blighter Systems was said to have been installed on the roof of Scotland Yard, close to where the commemoration took place – allegedly the first time it has been deployed by police in the UK.

The equipment, designed and built by a 'British consortium,' can detect, track and intercept small unmanned aerial vehicles (UAVs) flown by enemies.

The million dollar [£700,000] device could even be used to defend critical infrastructure such as nuclear power plants, borders and other buildings of national importance. The portable system can spot small, slow-moving drones up to four miles away using radar, a camera tracks it before jamming the radio signals that control it, making it impossible to fly. [Daily

Mail/PAR]



Using funds transferred from the Coast Guard, in December the Air Force awarded a contract to **Lockheed Martin** Corp. for production of one C-130J Super Hercules aircraft, with a ceiling price on the aircraft of \$62.6M. The 12<sup>th</sup> C-130J destined for the Coast Guard is contracted for delivery in 2019.



The Coast Guard aircraft was part of an Air Force contract award that included acquisition of 31 other aircraft for the Air Force and Marine Corps. The Air Force is the government's executive agent for all C-130 procurements and the Coast Guard has a separate contract with L-3 Communications to configure its HC-130J aircraft to meet mission requirements. This award is part of a multiyear contract that includes options for the Coast Guard to acquire up to four additional C-130Js.

The Coast Guard currently operates six HC-130Js as part of its long range surveillance aircraft fleet. Two additional C-130Js are being missionized with the current system while another aircraft is being converted as the prototype for the next-generation Minotaur Mission System Suite (MSS+), which will be used to incorporate the radar, sensors and other equipment necessary to complete Coast Guard missions. Two additional aircraft are under construction with delivery in 2016 and 2017. Those aircraft, plus this latest C-130J order, will be missionized with the MSS+ system upon delivery.

The Super Hercules carries out many Coast Guard missions, including search and rescue, drug and migrant interdiction, cargo and personnel transport, and maritime stewardship.

Late in December the Metropolitan Police Service [MPS] in partnership with the Mayor's Office for Policing and Crime (MOPAC) signed a contract with the UK office of the multinational **Frequentis** which will lead the way in ensuring the MPS is ready to adopt the ESN system and transition between mid-2017 and 2020, ensuring interconnection for the period of the handover.

Metropolitan Police Service (MPS) has now moved a step closer to joining the Home Office Emergency Services Network (ESN) with a contract award to Frequentis that ensures the MPS control rooms across London can manage ESN calls from the start of the national transition in 2017.

The Home Office Emergency Services Mobile Communications Programme (ESMCP) is responsible for replacing the current communications network across the UK with a next generation communications system that will provide coverage for all three emergency services (police, fire, and ambulance) and other public safety users. ESN will provide critical voice and broadband data services with appropriate coverage, public safety functionality as well as appropriate security, resilience and availability.



Textron Aviation, the parent company of Beechcraft, Bell and Cessna, has entered into an agreement to acquire **Able Engineering and Component Services** and Able Aerospace an Arizona-based aircraft repair and overhaul company. The financial terms of the deal were not disclosed but details are expected within the next three months.

The company employs about 450 people and is located at Phoenix-Mesa Gateway Airport in the city of Mesa, a suburb of Phoenix. Textron Aviation also operates a Cessna Citation Service Center at Gateway. Able provides repair, overhaul and parts for helicopters and fixed wing aircraft. [Kansas.com]

**FLIR Systems Inc.** debuted two compact thermal cameras with the company's Lepton micro camera core at the 2016 Consumer Electronics Show (CES): the FLIR Scout TK thermal vision monocular [right] and the FLIR TG130 spot thermal camera [below].

The FLIR Scout TK thermal vision monocular, the smallest and lightest camera in the FLIR Scout series, is developed specifically for outdoor enthusiasts. Pocket-sized and designed for one-handed use, the Scout TK allows consumers to see in total darkness and become better aware of their surroundings. With more than five hours of battery life, the Scout TK detects body heat of people and animals, or helps identify key landmarks. Whether camping, fishing, or hiking, the rugged Scout TK provides outdoor enthusiasts with the power to fully explore and visualize their surroundings regardless of the environmental conditions.

The FLIR TG130 spot thermal camera is an entry-level camera for a broad spectrum of home and small business applications. By simply pointing the TG130 at an object, anyone can identify energy and temperature-related issues within and around a structure. From finding drafts/draughts, detecting heat loss around doors and windows, or locating areas of missing insulation, the TG130 pinpoints problems and helps users increase a home's energy efficiency.

The FLIR Scout TK will begin shipping worldwide in the first quarter of 2016 for \$599. Consumers can pre-register for the product at [www.flir.com/scouttk](http://www.flir.com/scouttk) The FLIR TG130 will be available worldwide through FLIR distributors and retailers in the first quarter of 2016 for \$249.



Early in January **Aerolite AG** announced that it had received its first EASA Supplemental Type Certificate (STC) for an AW169 air medical interior in December. This STC is for the first of a family of interior configuration options that Aerolite is developing for different operational profiles and operator needs around the world. Aerolite has already delivered components for six air medical interiors destined for different end users. For more information, please contact [info@aerolite.ch](mailto:info@aerolite.ch) or [info@aeroliteamerica.com](mailto:info@aeroliteamerica.com) [www.aerolite.aero](http://www.aerolite.aero)

Following on from the item on the new **Celier Aviation** gyro ambulance last month is news of another ongoing programme involving the same core three seat Xenon gyro.

A 3-year R&D effort brought to market the ADRAM variant carrying the AMS 584 Airborne Mapping System is designed to offer maximum productivity and versatility in a small package that is an excellent alternative to expensive fixed wing aircraft and helicopters. The low level of investment & operating costs required means it is competitive even to UAVs at their current state of development and offers a far less contentious regime. AMS 584 integrates the best components available on the market into highly productive mapping tool capable of carrying a wide range of easily replaceable sensors.

The large space available for fitting sensors allows the set-up of various combinations including laser scanner, photogrammetric camera and 4 oblique cameras at once. It can also carry a stabilized mount.

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Some drones are getting bigger. After the announcement of the EHang Passenger Drone at the CES show we now have the resurfacing of the Israeli AirMule concept as it continues its oh so slow development.

Designed for military use it is a creation of an Israeli company called **Urban Aeronautics**, although they were briefly associated with Bell Helicopter many years ago at one Farnborough Air Show.

The concept recently got financial support from the Israeli government towards its aim of providing a remotely controlled air vehicle able to go where no helicopter might — for example, in the middle of fighting where you want to evacuate people from a street or from a narrow roof without risking the lives of others. More daunting is that they see civilian applications, such as rescue missions in the mountains or flying into disaster areas — for example, nuclear facilities where no person in a helicopter could get in.

The drone itself is around 20 feet long and 7.5 feet tall and can take off and land vertically, like a helicopter. The aim of the company is to make it able to fly at speeds of up to 112 mph and as high off the ground as 18,000 feet, however, these goals won't be achievable until the drone is fitted with a more powerful engine.

The drone is also being worked on to improve its lifespan – so testing continues. The drone will not be cheap but it is not known how expensive a price tag it will carry and whether any unmanned craft will be acceptable for passengers to ride in.

*Ed: Safe? Surely a mere detail!*

The latest in the anti-UAV market comes from Mo Rastgaar, an associate professor of mechanical engineering at **Michigan Technological University**, who has worked on a drone catcher, which could pursue and capture rogue drones that might threaten military installations, air traffic, sporting events and political residences - the White House of course.

It's a deceptively simple system: a launcher that shoots a big net attached to a large drone by a string. The system can be autonomous, controlled by a ground-based human pilot or a combination of the two.

After an intruding drone is spotted, the drone catcher takes up the chase and fires the net at it from a distance of up to 40 feet. It is claimed that the large net can overwhelm even the fastest, most manoeuvrable small drone. A video of it operating is on-line.



Other members of the team who worked on this project are Evandro Ficanha, a research engineer, PhD student Guilherme Ribeiro and recent mechanical engineering graduates Ruiyu Kang and Dean Keithly.

Rastgaar and Ficanha have filed for a patent on this drone catcher system and think that it could have several potential applications, from foiling spy drones, smugglers and terrorists to supporting federal regulations.

*Ed: This is a growing industry of course, invent it and then render it inoperative and if all else fails destroy it! The video posted on YouTube does however suggest that this particular defence is only good against a single craft and a pretty placid one at that. Some suggest a*

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*craft undertaking any tactical weaving might be almost impossible to ensnare with the 'one shot' net.*

Most small unmanned craft are fairly benign but have some rotating parts that can still cause significant damage. A new drone called **Fleye** uses a new safer drone design, using protective grids to prevent any injury from the drones spinning blades— the creators made sure that the craft was safe to use. The main innovation is its unique spherical design, where all moving parts are fully shielded. This means that you can hold, touch, push, and move it out of the way with much reduced chance of injury.



At last month's **SkyTech** UAV event – a small focussed gathering in Islington – the exhibitors represented a broad range of manufacturers, trainers and insurers.

The industry remains unsure about where it is going even without any attempt on my part to concentrate on where the emergency services are placed. A multitude of conversations gave conflicting answers to apparently identical questions, it all added up to a refreshing mix.

There were two companies claiming they are training West Country police but only one of them is actually doing it. As ever a multitude of craft being offered for 'Search & Rescue' operations but quite clearly only some of them actually appear to be only slightly waterproof for operations in a country well known for fog, rain and wind. Clearly some think that SAR missions take place on sunny windless days and fail to grasp reality. Industry faces mixed reactions from the emergency services. While some see no problems with dealing with industry – the people that produce the equipment – other refuse to interact with them. To some it is all a deadly secret and the members of industry untrustworthy even though it is they that have the keys to the technical aspects of the equipment. That attitude harks back to the early days of conventional air support so is perhaps not too surprising. The police with the deepest distrust do not necessarily include the most likely groups such as anti-terror security police.

A cost-effective option that would give the police the equipment without major financial outlay might be calling in a contractor to undertake tasks to meet actual demand. Some of the police forces would never do that on the grounds of secrecy.

There were a couple of insurers on site but it was clear that individual UAV operators are uninsurable unless the operator can prove that he/she has at least a trainee UAV pilots licence or bar that a licence to fly a 'real' aeroplane.

I guess we are all waiting for the first court cases where private UAV owners face a sticky situation when they find out that a household or public liability insurance contains specific clauses that rules out cover for any air vehicle.

**Bell Helicopter** has delivered a Bell 407GXP configured for HEMS to Air Methods. This is the first of many Bell 407GXPs expected over the next ten years. Bell Helicopter and Air Methods commemorated the delivery at a special ceremony at Air Methods headquarters in Englewood, Colorado.

All of the Bell 407GXPs will be equipped with United Rotorcraft emergency medical services interior, designed with air critical care operators in mind. The adaptable interior can accommodate a single patient or specialty transport, and includes the articulating loading system for easy patient loading. The United Rotorcraft interior also provides integrated medical systems such as medical oxygen, suction, air, storage, electrical power, and approved provisions for securing medical support equipment during all aspects of flight.



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# ACCIDENTS & INCIDENTS

**29 December 2015 Cessna 172** Civil Air Patrol [CAP] aircraft crashed into the Brady Building, Anchorage, Alaska, USA damaging two office complexes, one unoccupied and fell to the ground killing the pilot and sole occupant, 42-year-old Doug Demarest. The reason for the crash was not clear but one of the offices damaged was where the deceased's wife worked as a lawyer. The FBI is leading the investigation into the wreck. The Cessna is owned by the CAP, a voluntary search and law enforcement aviation resource operated by the USAF. The offices were closed and only slightly damaged, a transformer was damaged and started a fire, which firefighters quickly extinguished. Demarest was a licensed pilot and a member of the CAP but the flight unauthorized. The Cessna was housed at Merrill Field, a small 24-hour airport on the edge of Anchorage but no-one saw it leave there and only an open hangar was discovered. entry. It did show up on the radar at Anchorage International but did not raise any specific interest.

**25 January 2016 MD Helicopters MD600.** Air ambulance Kazakhstan. An air ambulance transporting a 2-month-old girl with leukemia to a hospital crashed killing all five people on board. The bodies of a paramedic, a pilot, a doctor, the infant and her mother were recovered after a search was instigated when the helicopter went missing some 15 minutes before it was due to land. The baby was being transported to a larger hospital in poor weather. Snow and strong winds hampered the search for the helicopter for two days until it was found. [Agence France Presse]

**28 January 2016 Piper PA-32-300 N70746** Air ambulance operated as BERT Air Ambulance. In Florida two persons escaped safely from the single engine aircraft in an accident landing at the Punta Gorda airstrip to pick up a patient. The pilot reported that the landing was disrupted by a dog near the runway. On landing the aircraft bumped, lost a landing gear leg, veered left and started sliding down the runway on its wing and two landing gears. No major damage. [Media]

**30 January 2016 Helicopter.** One person died after a fire-fighting helicopter crashed near a temple on a mountain located in South Korea's southwest province. The machine rented by North Jeolla Province for fighting forest fires crashed near Geumsan Temple in Gimje, about 260km southwest of Seoul. The accident took place while it was being flown to the place where it was to begin its mission early next month. The 61-year-old pilot, who was identified only by his last name, Kim, died in the crash. He was the only person on board. No cause has been put forward but the area was reported to be foggy at the time of the accident. [Media]

**30 January 2016 Robinson R44 Raven 5H-FCG** Operated by the air charter company Tropic Air Kenya on anti-poaching patrols. A British helicopter pilot was reportedly 'shot and killed' by elephant poachers in Tanzania. Roger Gower was said to be taking part in an operation with the Tanzanian wildlife authorities to 'track down and arrest active elephant poachers' when 'his helicopter was fired at and he was fatally wounded.' Mr Gower originally qualified as an accountant before becoming a helicopter pilot in 2004. He moved to East Africa in 2008. [Friedkin Conservation Fund]



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## PEOPLE

It is Heli-Expo time again and Helicopter Association International (HAI) has announced that **Lieutenant Pat Lawrence**, chief pilot and commander of the Michigan State Police Aviation Unit, has won the 2016 MD Helicopters Law Enforcement Award. Lawrence, who also earned ALEA's Robert L. Cormier Award in 2015, was honoured by HAI for rebuilding the Michigan State Police Aviation Unit, which was hit hard by the economic downturn of the late 2000s. Once a unit with five helicopters and three fixed-wing aircraft, it shrank after 2008 to just two helicopters and three pilots. Lawrence established a schedule to patrol Detroit, Flint and Saginaw on a nightly basis and flew more than 1,000 hours himself. A flight instructor in both fixed- and rotary-wing aircraft, Lawrence trained two new pilots in 2014 and established a tactical flight officer training programme.

**Dana Kerrick**, a long time ALEA member, won the association's Bell Helicopter Lifetime Achievement Award. He served the aviation industry for more than five and a half decades as a military and civilian maintenance specialist, civilian pilot, flight instructor, air taxi operator, pioneer in helicopter rotor blade composites and frequent instructor for courses to re-new helicopter inspection authorization. He recently retired as vice president and cofounder of International Aviation Composites, Ltd.

Other winners of HAI's Salute to Excellence Awards were Randy Padfield, recently retired as the chief operating officer of Aviation International News (Lightspeed Aviation Excellence in Communications Award), Captain João Bosco Ferreira, a helicopter instructor who flew for the Brazilian Air Force in the 1970s and 1980s (W.A. "Dub" Blessing Award for Flight Instructor of the Year), Troy Lewis, area training manager for engine manufacturer Turbomeca USA (Rolls-Royce Excellence in Helicopter Maintenance Award), Eileen Frazer, executive director of the Commission on Accreditation of Medical Transport Systems (Airbus Helicopters Golden Hour Award), Boston Area Helicopter IFR Infrastructure Team (BLR Aerospace Safety Award), the Italian Air Force, Navy and Coast Guard (Sikorsky Humanitarian Service Award), and New Zealand-born freelance helicopter pilot Jason Laing (Appareo Pilot of the Year Award).

The 2016 Salute to Excellence Awards will be presented March 2, 2016 during HAI's HELI-EXPO 2016 in Louisville, KY.

## MOVE ALONG THERE

That twelve page FAA missive entitled "*Law Enforcement Guidance for Suspected Unauthorized UAS Operations*" includes an items on special areas and occasions where flying is not allowed. The List includes sporting events, Disney, Washington DC which are pretty well known to the population at large but then adds Presidential Movements which are a pretty random series of events that cover vast swathes of the USA, close airports, restrict travel etc. So besides hoping to stir the non-aviation elements of police society it seems that the brains at the FAA are expecting the population at large to subscribe to and read Notams every day just in case they want to fly their toy as the President is passing overhead... Yeah, dream on!

CES, Las Vegas, brought us some cool stuff though some of it may well not work too well in the real world but there is always the oddball including this UAV that is quite clearly designed to be manned.... Now the question is 'How long before they tell us the it's just the perfect tool for cops to patrol in.....?'

Closer to home it has been reported that UK police forces are going to use drones to help them control protests and carry out sieges. Senior police even claim that drones could be more effective than helicopters and police dogs. Perhaps this is the point where we might suggest that they may even replace some 'thinkers' at the NPCC!





# HISTORY

The Helicopter Museum at Weston-super-Mare in Somerset [UK], has entered a £3M bid with the UK Heritage Lottery Fund (HLF), to build new facilities for the collection and its visitors. The museum, which holds the world's largest line-up of rotary-wing aircraft, has set itself a £1M fund raising target to match-fund a £2M request to the HLF.

The museum has a growing collection of aircraft, together with workshops for restoration, archives and education space but the original buildings, which include a former mobile home used for offices and a Pratten pre-fabricated building, which houses introductory displays, admission, retail and catering, are now well past repair and need replacing.



The museum wants to replace the structures with a new frontage building, which can offer additional space for artefacts and meet the demands of a growing number of visitors, as well as providing new educational facilities for colleges and schools teaching science and technology subjects. The trustees are also keen to construct a new “sponsor” hangar on the site, to house aircraft currently stored outdoors in the local saline environment and to extend the restoration work.

This will include the rebuild of a rare Piasecki H-21 “Flying Banana” recently discovered in mainland Europe, and restoration of an early Whirlwind helicopter, which found fame in a Beatles movie in the 1960s. This hangar is costed at £300,000 and the museum is open to naming it after a major donor, if one comes forward.

In 2015 the museum successfully bid for funding towards the restoration of the original 1935 airfield control tower and 1940 Pilots Block, which are now being converted to tell the wider history of aviation in the town, which included aircraft manufacturing during the war years and subsequent until 2002, and Royal Air Force training and trials work over a similar period. The museum heliport is now the last local link with the flying history.

## EVENTS

### SINGAPORE AIR SHOW

This month arguably the largest show in Asia. Singapore may be but a small island but as demonstrated time again it is at the centre of aviation in the region and also plays a major part in being a primary supplier to the world market.

The show is to be held February 16-21 in Changi Exhibition Centre, Singapore. The 2014 edition of the Singapore Airshow wrapped up the trade segment of the six-day event with deals announced worth US\$32 billion, surpassing the value of deals announced in 2012. Major announcements include contracts for Airbus, Embraer, Boeing and Rolls-Royce. This reinforces Singapore Airshow's standing as one of the most important aerospace and defence exhibitions in the world. Singapore Airshow 2014 played host to over 1,000 exhibitors from 47 countries and 279 delegations from 72 countries. In all, over 40,000 trade visitors from 125 countries visited the show during the first three trade days, compared to some 38,000 in 2012.

Immediately prior to the Singapore Airshow, Asia's largest and one of the most important aerospace and defence exhibitions in the world, will see the holding of the Singapore Airshow Aviation Leadership Summit (SAALS) 2016 at the Raffles City Convention Centre (RCCC) from 14-15 February 2016.

Jointly organised by the Singapore Ministry of Transport (MOT), Civil Aviation Authority of Singapore (CAAS), Experia Events and International Air Transport Association (IATA), the conference will bring together key stakeholders in aviation, including top government representatives, civil aviation authorities and senior executives of airlines, airport operators, aircraft manufacturers as well as the heads of the International Civil Aviation Organization (ICAO) and IATA to exchange valuable insights, network and strengthen the nexus between governments and the aviation industry. Taking place every two years, SAALS has established itself as the definitive global aviation conference that offers a unique platform for industry players to engage government officials to advance the strategic interests of the aviation sector.





## HAI HELI\_EXPO

*Last month parts of Kentucky were under feet of snow and at least one main route was jammed with snowbound traffic. Hopefully will be just a memory in a month's time!*

1-3 March 2016 HAI Heli-Expo The world's largest helicopter trade show is landing in Louisville. The show should attract more than 20,000 exhibitors and aviation industry representatives, including helicopter manufacturers, owners and operators, and representatives of government agencies and helicopter industry product suppliers. Kentucky Exposition Center, 937 Phillips Lane, Louisville, KY 40209 USA

FEC Heliports will be exhibiting HEMS-Star, their new Portable Battery Powered Rechargeable LED Helipad Lighting System.

The HEMS-Star® Helipad Light is an advanced battery powered, microprocessor controlled light designed for rapid deployment in temporary and emergency situations to provide safe and effective marking at designated or ad-hoc helicopter landing areas.

HEMS-Stars are capable of showing, at programmable intensities, white, green, blue, red and infra-red (IR) or a combination of visible colour and infra-red to support pilots wearing Night Vision Goggles (NVGs).

The HEMS-Star can be individually programmed to display flash patterns to include Helipad Identification Beacon and Morse Code, and have the ability to detect light levels for automatic sunset and sunrise switching. HEMS-Stars are fitted as standard with an 868 MHz (915 MHz in USA) UHF transceiver and each individual light or set of lights can be programmed, interrogated and controlled by wireless commands. Using this function, HEMS-Stars can be operated by Remote Lighting Controller or using a PC/Tablet with the Zulu "dongle" transceiver with USB connector provided with each case as standard. Wireless can set up, test and control groups of lights via the UHF transceiver operational up to 2km away.

Each set of 8 HEMS-Star is supplied in a toughened 'Nanuk' resin case incorporating a power cable to simultaneously charge all units in the case from mains at 100-240V AC or in vehicles at 13.5-28VDC, from solar panels or wind turbines. Each light has an integrated advanced charge management system to ensure optimum charging and battery condition and life, whilst 'Traffic Light' LEDs indicate the state of charge of each battery and further indicators give confirmation of correct charging.

Typical battery life depending on colour, light level and flash pattern, can be up to 30 hours.

HEMS-Star is IP65 rated and fitted with rubber soled solid stainless steel bases to ensure stability under the toughest rotor-wash conditions. Booth Number 9139.

## COMING THIS MONTH

### **Maritime Surveillance and Reconnaissance Technology 2016 Conference**

15 February, 2016 - 16 February, 2016, Rome, Italy. Focussing on Search and Rescue, Military and Law Enforcement agencies and the monitoring of coastlines and economic exclusive zones. Many nations are currently seeking to upgrade and develop those platforms that serve them in the Maritime Domain, from Patrol Planes and Helicopters to Unmanned Aerial Vehicles and Satellites.

The aim of the event is to provide, industry leaders, Maritime Surveillance and Reconnaissance project managers and end users the knowledge and contacts they need to further develop their capabilities in Maritime Domain Awareness through panel discussion and briefings based on topics from acquisition projects to operational experiences and lessons learnt.

The next day in Rome [17 - 18 February, 2016] finds a Border Security conference, now in its 9<sup>th</sup> year. The Italian Navy who will be sending a delegation to attend and provide a senior speaker to speak about the current operations in relation to the migrant crisis.

The continuing instability in Libya means the tragic circumstances in the Mediterranean are still recurrent and the effects are being felt across Central and Western Europe all the way to the France-UK Border of Calais and Scandinavia. The 2016 event will devote a day to discussing the potential resolutions and difficulties of the current migrant crisis and sessions will be delivered by the key organisations, who will also be participating in interactive panel discussions. The event will also focus on drugs and goods smuggling and counter terrorism.



# ALEA EXPO 2016

## SAVANNAH, GA | JULY 18-23



## ADVANCING PUBLIC SAFETY AVIATION

### LATER THIS YEAR

**13 June 2016 PAvCon Classes** and **14-15 June 2016 PAvCon Police Aviation Conference 2016**. All the details of the event, how to book your place, travel there and book your hotels are now on-line at [www.pavcon.org](http://www.pavcon.org)

So far 21 exhibitors have verbally confirmed that they want space and a number of other companies have shown interest in joining the regulars. With 42 exhibitors last year it looks quite likely that significantly in excess of that number will be showing their wares at Oberschleissheim near Munich. Details are on-line at [www.pavcon.org](http://www.pavcon.org)

The additional day [13 June] set aside this year will feature Officer Jack Schonely from California leading an ALEA style class on the use of FLIR [guide cost £75]. At the US based ALEA classes this is seen as a three-day [\$300] teaching session which has been condensed to fit with European needs and is aimed at both the newcomer and the old hand in handling the tactics of FLIR use. The plan is to bring ALEA to Europe.



PAR has arranged that the training day event is sponsored by the FLIR industry as a whole – each on an equal basis – and will be ‘badged’ as such. This event, and the training elements of the main two day conference are put together in close cooperation with the ALEA—the ALEA will be at the event and PAR/PAvCon will be at their event in Savannah, Georgia in the summer.



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