

Police Aviation News

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PAR

**NEWS FROM THE ALEA EXPO
BRAZIL SEEKS EXPERIENCE
GERMAN UNIT PASSES 50
TOKYO TO FIX HIGH RISE FIRES**



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EDITORIAL

I have just returned from Houston and the ALEA annual convention. It may be many miles from my home shores and the words may have been spoken by an American but they rang somewhat true to the situation at home where the new and developing National Police Air Service is still finding its feet.

I was sitting in on the Unit Managers Course when the instructor, a greatly respected man who earned his respect by running a large and successful air operation, reminded his students of their purpose in life.

“If the cops on the street are not screaming for you to come in the expectation of getting [air support] help, the operation is flawed and should be considered a failure”

Bryn Elliott

LAW ENFORCEMENT BRAZIL

PARA: Emergency services aviation in Brazil has reportedly fallen on hard times. A few years ago the sector had in place a major forward plan that encompassed most of Brazil's States and most of the airborne service provision and was expected to see growth in resources and manpower controlled within a number of complex governing groups [DFNSP, CAVSEG, CONAV, AEAP, SENASP] but when President Rousseff took power in 2011 she swept them away leaving a vacuum.

That change in President returned public service aviation to a fragmented approach with little real prospect of advancement as a cohesive plan. The main saving grace has been the need to service the major sporting events in recent years – the Fifa World Cup and the upcoming Olympics – but that has not been sufficient to remove the disquiet felt within the ranks. Fortunately some mutual aid is required so even those states not directly involved in the sports activities gain from the upgrade in equipment. The sporting events brought modern examples of the prolific AS350 and a handful of the latest H145 and AW119 Koala into service alongside a lesser fixed wing fleet predominantly filled by examples of the Cessna Ce208 Caravan. There are few roads and the helicopter is king, particularly in the Amazon region. Of 266 aircraft just 94 are fixed wing and 90% of the rotary craft are the AS350.

The States are now acting individually and arriving at their own versions of a forward plan to support some 55 bases.

FRONT COVER: Airbus Helicopters EC145 N392TC of Travis County Sheriff lifts off from the parking lot adjoining the Convention Center in Houston, Texas at the end of the exhibition. Travis undertake a mix of law enforcement rescue and fire suppression work near Austin, Texas.

While Brazil has its own home aircraft industry in Helibras which over comes many language difficulties the role equipment inevitably arrives with instructions in English rather than the native Portuguese. Some small manufacturers are seeking to remedy the problem but they are few and the choice of languages large.

There is no requirement for law enforcement pilots to meet the ICAO requirement speak or read English and it is thought that no more than 30% have even a small experience of the language. Rear seat crew numbers, the ones most likely to be presented with an instruction book in English, are way lower than that percentage. Some 7,500 people work in the industry, 2,000 pilots, 3,500 observers, 500 mechanics, the rest are support staff.

Having lost the original planning structure a new sleeker version has emerged as the Brazilian Federation of Aviation of the State [Federação Brasileira de Aviação de Estado]. This is something akin to the US based ALEA in intention but set against a very different political background and legal framework.

It is in this situation that the State of Para, based at the International Airport in Belen, in the north of the country is seeking access to the numerous skills within the US based ALEA membership to enhance its future development but clearly the plan will be hampered by the language barrier. [PAR]

Josilei Albino Goncalves de Freitas the Director of Grupamento aereo de Seguranca Publica for the State of Para in the north of Brazil addressing ALEA members in Houston last month. [PAR]



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GERMANY

NIEDERSACHSEN: The last time they purchased new helicopters, in 2007, they chose the MD product but now the police in Niedersachsen have again ordered Eurocopter/Airbus products. An Airbus Helicopter EC135P2e with the temporary marks D-HCBK was noted at Flughafen Ingolstadt-Manching undergoing flight test on July 14.

It is understood that two of the helicopters have been ordered to replace Dauphin's the police have. [Helihub]

BADEN WÜRTTEMBERG: This year marks 50 years of police aviation in northern Germany and a number of events will take place. Long time correspondent of PAN Michael Mau has sent in a number of images from an event held in Germany late last month. [MM]



The locally based helicopters—MD902s and Eurocopter EC135 performed set pieces for the gathered crowds.



Meanwhile in the static area an Airbus Helicopters H145 displayed future options both in terms of the airframe and its equipment.

Next month will see the marking of 60 years of aviation for the Federal Police in Potsdam.



INDIA

GUJARAT: The Government of Gujarat, a border state with a long coastline is expected to purchase a helicopter for the exclusive use of its State Police.

The process will involve the forming of two committees to research and oversee the acquisition. A purchase group will come from government sources and a nine-member technical review committee with members from the Border Security Force, Air force and commercial companies including manufacturer Hindustan Aeronautics.

Ed: Based only on the local news reports the process come across as being mired in red tape and likely to be slow in delivery terms.

SPAIN

DRUG RUNNERS: As if the horde of would be migrants crossing the Mediterranean were not enough the authorities in the south of Spain are having difficulty in halting aerial drug trafficking inbound from north Africa.

Earlier this year they found a crashed Eurocopter BO105 in the hills near Malaga, the pilot the former Captain Sokol Feka, a helicopter pilot in the Albanian armed forces for 15 years, was dead. If the helicopter had not hit wires during its illicit flight the mission may never have come to attention.

Feka was looking to make a little extra money during a holiday in Spain, but wound up dead. He and his Spanish co-pilot were thrown out of the helicopter by the impact of the crash, along with around 900 kilograms of hashish, which was scattered over the hillside. The crash led the Spanish Civil Guard to arrest 19 members of a drug-trafficking gang that was about to buy two more helicopters to ship hashish into Spain from Morocco.

Although illicit flights are not new the traffickers are increasingly looking to the skies to move their goods. Helicopters are fast and effective but every four or five months, one is found in countryside somewhere along Spain's Andalusian coastline. Investigators find no flight plan, and the crew has usually disappeared. Most significantly, the aircraft is never reported missing, even though these helicopters can cost over €500,000. The Civil Guard is investigating an incident in Almería province in April involving a Polish-made PZL W-3 helicopter, which is widely believed to have been carrying drugs when it went down near Níjar, in Cabo de Gata.

Drugs traffickers are now also using crop sprayers, ultra-light aircraft, and even drones. The Civil Guard has already found a number of radio-controlled devices carrying two-kilogram loads floating in the sea off the Spanish coast. These are just the unlucky flights but no-one seems to know how many succeed.

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UNITED KINGDOM

NPAS: Despite all of the downsizing that has taken place there are vacancies being advertised as the organisation attempts to get all of its Tactical Flight Officer's [TFO] and pilots in the right place and 'on side' with the corporate message. With the ongoing changes in the final form of the organisation still unknown this may be a drawn out affair. Most of it is now ordained but it has been ordained twice before and what we have now is very different from that first National Police Air Service [NPAS] model of 2012. In theory the only outstanding issue is where the Ripley helicopter is going to end up and where the [separate] fixed wing will go.

The latest advertisement calls for TFO's for NPAS bases at Benson, Redhill, Lippitts Hill, St Athan and Bournemouth. Those may include significant locations Lippitts Hill is a recent addition to NPAS and it was a fairly large unit when the Metropolitan police operated it so there should be plenty of bodies around. It seems that that may no longer be the case. The forthcoming 24 hour operations across the country may be an issue at some locations but Lippitts Hill has been 24/7 for a long time.

NPAS is the police air support service which covers England and Wales, with West Yorkshire Police being lead Force. It was formed in October 2012 and provides all air support services without force boundaries.

The advert outlines the current expectation of TFO Duties and training so it may be worth repeating for some readers not currently involved with NPAS.

[Candidates] need the ability to successfully complete the Tactical Flight Officer's course and pass the line checks during this process. This includes operation of police aircraft role equipment and night navigation with the ability to read maps effectively with the ability to create and interpret a six figure OSGB 1:50 000 map reference.

To be considered for this role [they] must have an ability to pass the NPAS initial recruitment assessment. This includes multitasking, spatial/situational awareness testing and map reading/interpretation exercises.

Applicants should have good interpersonal skills and the ability to work as part of a small team. A high level of self-motivation is essential.

[They] must be physically fit and a competent swimmer. With a flexible approach to working hours [there is a] need to achieve and maintain the TFO's Medical Standard.

Applicants should be aware that it is not always possible to carry out adequate security checks on persons who have not been resident within the UK for the last three years. Therefore, where this applies, applicants may be refused on the grounds that it was not possible to vet them to the appropriate standard.

The Assessment centres will be held w/c 3rd August 2015 and flight testing and interviews will take place w/c 17th August 2015.

NPAS LONDON: One of the most prolific British police aviation Tweeters was the Metropolitan Police Air support Unit. They have 122,800 ever loyal followers, a number that reflected their position as the Capital's helicopters and their people friendly style – great images and style. The unit joined NPAS at the end of March this year. In the middle of July the unit put out a Tweet showing a very oblique shot of a popular entertainer and cheerily asked for their followers to identify him.

A few people complained that it was an intrusion of privacy on the person, the entertainer and others apparently brushed the matter aside as unimportant. Nonetheless NPAS in West Yorkshire decided that the tweeted image would be deleted.

After Tweeting over fifty times that month and four times that day there were no Tweets from NPAS_london for ten days from 16 July.



Whilst on tasking in central London this morning we spotted a certain energetic funny man... Can you guess who?...



GREATER MANCHESTER: Although it is nearly two years since it was withdrawn from service the Britten Norman Defender 4000 operated by Greater Manchester Police has only just been put up for sale.

The police quietly acquired the surveillance aircraft just before the 2002 Commonwealth Games for some £3M. Originally a high visibility resource it increasingly took on more covert duties but was not required by the new NPAS organisation when they took over police helicopters in 2012. The crew of the Defender were at the forefront of trials for fixed wing aircraft for NPAS and flew both the Tecnam and P68.

Meanwhile the Defender halted operations in 2013 after its operations were judged to be unsustainable. It is thought to have flown 10,000 hours and being offered for sale at around £600,000. [MEN/PAR]



WALES: Over in Dyfed-Powys they continue to gird their loins for the battle to keep their own AgustaWestland A109 helicopter in service inside or outside NPAS.

But as July progressed a new enemy to the project surfaced – a need to massively cut budgets. It was always there of course but the defenders of their helicopter chose not to acknowledge it. I suspect things may go very quiet in the valleys from here on in.

UNITED STATES

FEDERAL: The U.S. government filed paperwork to revoke the ownership of a helicopter seized in McAllen possibly tied to a Mexican drug cartel, according to court papers.

A helicopter registered to Miguel's Trucks & Trailers, Inc., appeared in television footage covering the arrest of drug traffickers operating in Mexico in March this year.

The FAA has two helicopters registered to Miguel's Trucks & Trailers Sales, Inc. in San Antonio, Texas. One of these, a 1991 Eurocopter was seized in McAllen during April. The owner of the company, Miguel Andrade, allegedly invested in two customer owned helicopters some time ago and only went to clear his name with the authorities after reports appeared linking one of the helicopters to a known leader of the Zetas drug cartel. Money to purchase the helicopters came from Mexico.

One of the pair, a 1991 Eurocopter was seized in McAllen during April. It is said that this airframe was "knowingly and wilfully registered in a false name, making it subject to forfeiture."

Aircraft owners in the United States must be either a U.S. citizen, a permanent resident or a corporation doing business under U.S. or state law with primary use in the United States. Although he is a citizen Andrade is not the "true owner" of the helicopter. The other helicopter was seized in Mexico.

The Airborne Law Enforcement accreditation arrangements in the USA and Canada [ALEAC/PSAAC] are to be offered to a wider market.

At the recent ALEA Annual Conference it was announced that the model had already been prepared for the US Fire industry and would within days be ready for the Search & Rescue industry. Beyond that it is to be offered to the world market.

Originally set up as a low cost means of recognising improvement in flight and operating standard among its membership, and available for inspection free to members it will be able for wider access at a price. With overseas membership being just \$60pa it would seem that having one member join is the bargain option.

The Accreditation is itself seeking official recognition, perhaps by a body such as ICAO, to increase its acceptability in the English speaking aviation world. It will also increasingly lose its identity as a law enforcement product [hence the change from ALEAC to PSAAC, the PS being Public Service].

At the Houston event the Houston PD was recognised for renewing their own accreditation after three years. The other units with accreditation include, Columbus PD in Ohio, Highway Patrol in Florida, St Louis Metro, Spokane County and Sonoma County.

1033 PROGRAM: The long standing arrangement that saw the provision of military surplus aircraft for the use of the US emergency services – mainly 40 years old uncertified Bell OH-58 – looked likely to be bolstered with the availability of more modern TH-57 versions of the civil certified Bell 206 and the OH-58D until recently. In 1993, the US Army awarded Bell the NTH (New Training Helicopter), an \$85M contract that led to the building of around 180 new modified 206B-3, as the TH-67 Creek, they are therefore more than 20 years younger than the other airframes. The types will be released by the military but the number available for the police to take up will be far less than first assumed.

The release of these more modern airframes is not widely welcomed. They bring a whole new level of civil certification and many units are quite happy with the current freedoms – the current ability of units to ‘abuse’ normal aviation safety regulations is popular in some areas.

A growing number of US police aviation units have undertaken accreditation via the ALEA but although to be lauded these are still relatively few in number in what is a recently created option.

ARIZONA: Last month the Maricopa County Sheriff's Office introduced a new \$3.5M helicopter in memory of Deputy William Coleman, a 20-year veteran who was killed in 2012. Coleman's badge number, 977, is part of the registration N977MS on the helicopter. The Bell 407 GX helicopter is the second of its kind to be added to the fleet. The older helicopter, a 1998 Bell 407 N585MC, has conducted 113 rescue missions and saved 78 people and will remain in service alongside the new 2014 model.

The new Bell was accepted some months ago and then role equipped with radios, FLIR and Trakka searchlight prior to entry into service. At launch it had already flown about 160 hours in the month since commencing operations. MCSO also added a new airplane to his fleet in memory of Deputy David Wargo. The 2014 turbo-charged Cessna 206T will primarily be used to save money on out-of-state flights to transport inmates. MCSO has been flying since the 1950s.



The air support unit of Mesa Police, located just across the road from the MD factory, has taken delivery of a new MD530F helicopter N507MP c/n 0226FF, it was previously registered N60426. It replaces a 20-year old MD500 N504MP lost in an accident in mid-June last year.

Mesa's fleet of three helicopters provides air support to patrol units on the ground.

Mesa-based MD Helicopters, owned by Lynn Tilton, has some 2,500 aircraft currently in use around the world.

Earlier this year, the MD500 was named as the best civil helicopter of all time based on a December 2014 survey by Vertical Magazine.

But according to a Reuters report the US judiciary remains at odds with Ms Tilton the owner of MD as she learned that A U.S. judge on 30 June rejected New York financier Lynn Tilton's bid to block the U.S. Securities and Exchange Commission from trying her before an administrative judge for defrauding investors.

U.S. District Judge Ronnie Abrams in Manhattan dismissed a lawsuit Tilton filed in April against the SEC, saying she lacked the power to block the agency from pursuing its case against the head of private equity firm Patriarch Partners before its in-house court.

CALIFORNIA: The new CHP helicopter fleet of H125 machines is not to be identical across the board to ensure that there is no technology slippage. Although they will be similar across the planned new fleet it has been decided that each batch of three ordered will be identical but they will fully reflect any technology and equipment advances that might take place in the period since the previous batch were ordered.

It certainly could not happen everywhere but they know all about flexibility and meeting public needs in the USA. In Anaheim was hot and dry and looked perfect for the game of baseball until the overnight rain drenched the diamond and its outfield. The surface water on the Angel Stadium outfield was said to be “ankle deep,” yet The Angels had to fit in two games against the Red Sox the next day and their solution was to call 911 and ask for the local police helicopter to blow away some of the excess water.

And the local police in Anaheim were happy to assist the desperate Angels to make sure the games went ahead, using their Eurocopter AS350 AStar to solve the problem. The helicopter turned out and hovered inches over the lovingly manicured outfield, using the downwash from the rotors to blast away the remaining moisture.

Most might say what a waste of public money – but it was a great publicity stunt on the day and made many people happy without a massive cost being involved. Just like those other instances of interacting with the public that pay the tax bills – throwing golf balls out of helicopters for charity.

Ed: There is a lesson to be learned there for the police in other jurisdictions, meet the needs and aspirations of a large and enthusiastic section of the public and they may just be on your side the next time you do something really stupid. Because you will one day.

As July drew to a close the military were running an exercise that primarily recognised the threat presented by the drone.

The 14th edition of military exercise Black Dart, a two-week test of tactics and technologies to combat hostile drones on the Point Mugu range at Naval Base Ventura County in California examines a range of threats but this year is focussed on the unmanned – of all sizes from the Reaper down to the quadcopter.

The subject is recent threat led. Incidents like the quadcopter that crashed onto the White House lawn in January, unidentified small drones flying over nuclear reactors in France, and other high and low profile events including when the Pirate Party of Germany flew a small drone right up to the podium as Chancellor Angela Merkel spoke in Dresden two years ago.

NEW YORK

The NYPD has two Bell 412EPs, a Bell 407 and now four Bell 429s in service for a variety of missions ranging from search and rescue at sea to gathering intelligence and combating terrorism. The last of the AgustaWestland A119 Koala helicopters will leave shortly, the Bell 412 lost in the ditching being stored on site.

The delivery of the last 429 led both parties to the deal to hark back to the long history the NYPD has had with Bell Helicopter since the late 1940s, although the Koala was not the only instance of the operator changing to another manufacturer in their rotary history.

The Bell 429 delivers exceptional speed, range, hover performance and enhanced safety margins with a fully-integrated glass cockpit, advanced drive system and best-in-class WAAS navigation and IFR capability. The Bell 429 has more cabin space than any other light twin helicopter, with flat flooring and seating for seven passengers and one flight crew. Wide 60 inch side doors and optional rear clam-shell doors provide quick and easy access for flight officers when every second counts. NYPD took up the additional cost rear clam shell doors option but they have no primary purpose for them like HEMS use.



Image ©PAR



OHIO: The Ohio State Highway Patrol have ordered what will be the first 'all American' H125 [or AS350B3e] off the new final assembly line at the company's production facility in Columbus, Miss. The H125, locally known as the "AStar" and America's most popular single-engine turbine helicopter, is now built in the United States by American workers.

Airbus Helicopters Inc. 'recognized' the Ohio State Highway Patrol order at a brief ceremony at the Airborne Law Enforcement Association ALEA Expo 2015 in Houston, Texas on Friday, July 17 and a similar photo call was held at the factory alongside the H125.

Ohio State Highway Patrol currently operates two AS350 B2 AStar's to conduct a wide variety of law enforcement missions. The highway patrol has been operating AStar's for more than 20 years.

Captain Randy Boggs of the Ohio State Highway Patrol Aviation Section said the agency is ready to begin operations with the latest, most capable version of the AStar. "Our new H125 will give us increased power and useful load, along with additional safety features," said Boggs. "We are looking forward to placing our new helicopter into service later this year."

Airbus Helicopters marked the order by holding a short ceremony on the recent ALEA exhibition floor where Chris Emerson, President Airbus Helicopters presented Captain Randy Boggs OSHP with a commemorative plaque. Also present was Ed van Winkle, Law Enforcement Sales Manager for Airbus Helicopters [left].

Airbus Helicopters Inc. had partially assembled AS350B2 and AS350B3 AStar helicopters in Columbus since 2005. Production of the H125 on the full final assembly line began in late 2014. The OSHP aircraft is the first H125 produced from the Columbus assembly line and certified by the Federal Aviation Administration.

The H125 assembly line is part of Airbus Helicopters Inc.'s 40-acre facility in North-eastern Mississippi that also produces the UH-72A Lakota for the U.S. Army. The plant has delivered more than 340 Lakota's to date, all of them on time, on budget and meeting Army quality requirements.

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AIR AMBULANCE

CANADA

TORONTO – Ornge, the troubled air ambulance operation is now reported to be refusing to land on many helipads in isolated communities at night.

Instances have been cited of locations with landing pads being refused a direct service and having to transport even the critically injured some distance to get them picked up. The change in policy was not announced in a general manner, the news became knowledge after a number of instances arose of a refusal to attend.

It is believed that each of the helipads north of MacTier — around 90 of them — have been given the “blackhole” designation by Ornge and won’t take night landings any more. Lighting is an issue but some of the affected helipads do have lighting. The affected sites were not refused service in the previous 20 years.

Although there is a clear communication issue it seems that the new problem facing Ornge is a currency requirement that says in order to accept a trip to one of the night-restricted helipads during night-time hours, at least one of the two pilots needs to have landed at that site once in the previous six months – clearly a costly undertaking across that number of helipad sites. Meanwhile if the pilots can’t accept the trip to that site due to the currency requirement, Ornge may propose an alternate landing site, such as a Transport Canada certified helipad at a hospital, where the helicopter can rendezvous with the land ambulance crew.

Meanwhile some pilots are starting to experiment with night vision goggles to help fly the night mission. [Toronto Sun]

PAPUA NEW GUINEA

Only one air ambulance service operates in Papua New Guinea. The customers in the region are spread out, the weather conditions can be poor with wind rain and fog and much of the terrain is mountainous. Radio New Zealand recently interviewed the chief executive of the operator Manolos Aviation, Jurgen Ruh,

The service started in Morobe province in 2009 with only a helicopter, a pilot and a stretcher and has slowly built upon that in subsequent years with a nurse and medical equipment on every flight since 2013 - drastically improving survival rates over the alternative waterborne journey that might take two days.

In 2009 the number of medevacs numbered around 50 a year but this was partly related to poor communications. With the roll out of mobile phones call outs have trebled and the recently announced expansion to the neighbouring provinces of Milne Bay and Oro will see numbers rise over 200 a year. In January the service started in E’esala district.

The topography is daunting. The highest mountain near Lae it is 20 minutes away from Lae and at 30,000 feet. In the rainy season there are lots of challenges and not all pilots can meet them. Recently a new pilot from South Africa spent two weeks with the operation but resigned after finding he was unable to endure any more of the terrain and the weather. He was not used to having a mountain after a mountain with wind rain fog and cloud and having all those conditions change so quickly.

Funding the operation is difficult and mainly injected by local government with the day to day commercial operations supporting shortfalls. It started as being funded by Ruh with cash flow money and the later setting up of local agreements. Payment is rarely prompt. Milne Bay province is reliant on agreements with the members of parliaments of the districts and that is the only province currently to pay in accordance with the agreements. In Morobe province where the operation started there are agreements but they have found it a challenge to

get funding from central government in Waigani [a suburb of Port Moresby in PNG] to the province so the operation is still owed for flights months ago. The medevac is flown in the



hope of later payment - sometimes it takes up to a year to get paid and that reduces options for the service to expand further.

The next area to be added is the Highlands with an ultimate aim of being able to reach any village in Papua New Guinea within two hours' notice served by a toll free number that allows even those with no credit to use their phone to call in the emergency. [Radio New Zealand Broadcast]

Ed: Manolos Aviation operated two BO105 helicopters out of Tokua Heliport, Rabaul, East New Britain Province PNG on commercial operations. <http://www.manolosaviation.aero/>

UNITED KINGDOM

NATIONAL: Last month saw the first meeting of the reformed All Party Parliamentary Group for Air Ambulances now under the Chairmanship of Chloe Smith MP for Norwich North. The Group which was dissolved at the end of the last Parliament was instrumental in UK air ambulances changing VAT legislation and helping access LIBOR fines.

The group will continue to champion the air ambulance cause in Westminster, highlighting ongoing issues affecting patient outcomes. A priority area for the group is the continued highlighting of inadequate landing facilities at hospitals and ensuring the smooth transition from the current ambulance service radio system to a new 3G / 4G mobile phone based platform.

The group will be engaging with Ministers in the coming months and will publish its Key Issues in September in readiness for its annual reception in October where it invites all members of both houses of Westminster to meet representatives from all twenty air ambulance charities and eleven ambulance services.



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The first of this year's experts have been confirmed to speak at the National Air Ambulance Conference which takes place on November 16 2015 at the Millennium Gloucester Hotel, London.

Organised by the Association of Air Ambulances; the National Conference has become a firm fixture on event calendars across the European air ambulance community and is open to members and non-members. It aims to inform, incite debate and provide a platform for the air ambulance industry to come together, share ideas and build partnerships.

The key colleges of Clinical, Air Operations and Charity are all present in an agenda which is comprehensive and packed with experts within their fields. Additionally, group debates and further presentations will be made in many of the workshops taking place throughout the day.

Dr. Andy Smith, has been actively involved in medical management for a number of years. Prior to the appointment of Executive Medical Director at the South Western Ambulance Service NHS Foundation Trust in February 2010, Andy was the Associate Director of Primary Care Services and is still the joint Board Champion for Clinical Quality. He is a member of the National Ambulance Service Medical Directors (NASMED) and will deliver a presentation on the 'Control of Controlled Substances', Management and their Clinical Governance.

Many air ambulance charities across the UK hold lottery draws as part of their fundraising campaigns. The Lotteries Council will present, 'Lotteries - The Income Life Blood of Charities - The Future Potential Dangers to Social Lotteries'.

The Department of Health Ambulance Radio Programme (ARP) will oversee the planned rollout of the new national emergency services radio system in 2016. A presentation from senior representatives from the Home Office and Department of Health will give attendees an update on this critical project including the chosen equipment, installation program and financial solutions.

Ed: It will be interesting to see what positive developments there are with the radio system by November. Earlier reports suggest significant contractor/provider problems in recent months.

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CHILDRENS AIR AMBULANCE: Within days of the Association of Air Ambulances declaring that all the Libor fines money for UK air ambulances had been distributed through them and that there was no more the government announced that £2M was to be given to the Children's Air Ambulance [CAA] a section of the Coventry based charity operating AgustaWestland helicopters to buy a new helicopter.

The CAA is tasked with paediatric transfers where the two other parts of the charity operate standard HEMS missions.

The CAA is a member of the AAA and yet the first latter knew of the award was when it appeared as a government announcement and appeared in the media.

PAN enquiries to Clive Dickin at the AAA revealed that on this occasion the money was not being distributed through its offices and that the money is not Libor fines money. It is however fines money from other errant banks and from what may turn out to be an even larger amount of money. [AAA/PAR]

EAST ANGLIA: Amid much understandable public interest the newest pilot for the East Anglia Air Ambulance commenced flight operations last month. HRH Prince William started flying one of the new Airbus Helicopters H145 which was justifiably newsworthy but then some publications ruined what had been a good news story when they decided to comment on the physical likeness between the accompanying female doctor and the wife of the Prince.

Ed: And they even published images of both women to prove how wide of the mark the comment was. Plain stupid.

The news media again stepped into the Prince William arena when one of the newspapers discovered that an easily obtainable smart phone App was able to track the helicopter flown by the Heir to the Throne. The App, Flightradar24 was indeed able to track the transponder on the helicopter and the alerted security forces arranged for the facility to be disabled.

LONDON: A fresh plea was made last month for a second emergency helicopter in London, after the capital's only air ambulance was unable to fly on the 10th anniversary of the 7/7 bombings.

The charity behind the service said the helicopter required unscheduled maintenance on the day — the 50th day this year it has not been available.



During the July 7 attacks in 2005, the same London Air Ambulance flew 18 sorties. By chance, about 30 doctors and paramedics were visiting the helipad at the Royal London hospital that day, and the helicopter was able to fly them to the bomb sites and to take medicines and equipment between hospitals.

Dr Gareth Davies, medical director of London's Air Ambulance, said: "The helicopter absolutely came into its own on the day of the 7/7 bombings. We were able to respond in a way we could never have imagined."

London's Air Ambulance estimates it could reach an extra 400 patients a year within the M25 with a second helicopter. Its appeal, Your London, Your Helicopter, needs £2.1M to reach its £4.4M target.

Ed: London has a very good response car facility which has taken the brunt of the call outs during the many absences of the MD900 G-EHMS over the years but for the Air Ambulance charity to actually mention the 50-day downtime this year suggests that they are getting rather short tempered with the reliability of their Explorer. Having the aircraft missing for a 30 day annual maintenance is one thing but losing a third of the first 188 days of this year is plain unsustainable!

No mention has been made of the type of helicopter the operators plan to obtain to supplement the Explorer but it seems likely that there will be a change.

SCOTLAND: London may have had its woes as far as airframe availability goes but there were red faces to be seen in Scotland too last month.

Last month it was decided to undertake a tour of the region with the new Airbus Helicopters H145 [EC145T2] fleet.

Unfortunately first time out the helicopter being used had technical issues and did not appear on tour on the original schedule. The next time the subject matter was aired a day or so later the 'broke down' message seems to have morphed into 'weather affected.' At least it was unavailable no-where near 50 days!

NORTHERN IRELAND: Since the military pulled out of the region at the end of The Troubles Northern Ireland has not had an air ambulance.

There have been several thwarted attempts to set up an air ambulance charity but they have comprehensively failed in a spectacular and costly manner.

Now almost 60,000 people have backed a renewed call for a service in Northern Ireland and this has been precipitated by the untimely death of road racing doctor John Hinds, a campaigner for a civil HEMS service for many years.

The 35-year-old consultant anaesthetist at Craigavon Area Hospital, died from his injuries following a crash as he provided medical cover at the Skerries motorcycle races practice session near Dublin on July 3.

At the moment the renewed campaign has only led to the signing of an on-line campaign rather than raising large amounts of cash but there are hopeful signs of improvement. [Media]

YORKSHIRE: The new hospital helipad in Sheffield has been given a major funding lift with the donation of £250,000 from a single source.

The appeal raising funding for the helipad at Sheffield's Northern General Hospital has been given a major boost from Westfield Health; they donated £250,000 and construction work has since started on the project.

The size of new Coastguard rescue helicopters could cause a busy main road to close every time they land in Middlesbrough.

The UK Coastguard Sikorsky S92 helicopters that replaced the RAF Sea Kings from April appear to have created issues at James Cook Hospital and Marton Road was closed for two minutes each time to cover both landing and departure.

It looks like the "larger size and weight" of the Sikorskys will see the main arterial route closed every time they land at the hospital's helipad.

The helipad at James Cook Hospital is directly adjacent to the road. When landing in public areas further precautions are taken at the captain's discretion to ensure public safety."

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UNITED STATES

MICHIGAN: From Traverse City come reports that Spectrum Health and Munson Healthcare are creating a joint venture to provide air emergency transport service in northern Michigan.

The hospital systems announced early last month, that Spectrum's Aero Med service will join with the North Flight EMS Air Division to create North Flight Aero Med.

The service will operate from a Traverse City base and provide emergency transport as well as air medical charter services. It will operate with two aircraft - a King Air B200 airplane provided by Munson and a Sikorsky S-76 helicopter from Spectrum Health.

Hospital officials said the joint venture will expand access in northern Michigan and improve efficiency. [Grand Rapids press]

FIRE

JAPAN

TOKYO: The Tokyo Fire Department will launch a helicopter-based unit called Air Hyper Rescue to battle fires in high-rise buildings.

The number of 11 storey or higher buildings in the city has risen by 50% in the last decade and there are now around 12,500 such buildings. Each year there is an expectation of around 80 fires in such high rises, a rate that doubled between 2003 and 2013.

At the end of 2014 it was stated that there are 1,154 condominium buildings of 20 or more stories high across Japan.

The Fire Service Act defines high-rise buildings as those at least 31 metres tall, the maximum height that the ladders of the Tokyo Fire Department's fire trucks can reach is about 30 metres, around the height of a 10-story building.

In the event of a fire in a high-rise, fire engines send water to pipes connected to outlets inside. Such pipes are required in buildings of seven stories or higher.

The new rescue unit, to be created by next April, will fight fires in high-rise buildings and engage in activities in areas cut off during a disaster.

Its helicopters will be equipped with a tank that can hold around 2,500 litres of water. For a high-rise fire, the helicopters will hover about 40 meters from the building and horizontally discharge 600 litres of water per minute.

Perhaps the most controversial aspect of the plan is to have 10 person 'Rescue Gondolas' available for carriage by helicopters to and from isolated areas or building roofs.

In addition, the department is easing restrictions on the use of emergency elevators designed for firefighters, who would use them to rescue elderly and disabled people.

The combination of these measures will enable "multilateral approaches" to fighting high-rise fires, the department official said.



SEARCH AND RESCUE

ITALY

COAST GUARD: The operator continues to take more AW139 helicopters and has ordered two further examples. The purchases have followed a European Tender process that provides a package that encompasses the airframe, support and training.

The latest order will increase the Italian Coast Guard's AW139 fleet to ten units, with options for a further four helicopters. The aircraft perform maritime patrol, search and rescue and emergency medical service missions.

The delivery ceremony for the three most recent deliveries was attended by Italian Minister of Infrastructure and Transport, Graziano Delrio; Chief of Italian Coast Guard, Felicio Angriano and AgustaWestland senior management.

Delivery of the first batch of Italian Coast Guard's AW139s started in 2010 but the current deliveries were covered by a tender dated 2014.

The Italian Coast Guard's AW139s feature a wide range of SAR equipment including an external rescue hoist, cargo hook, wire strike protection system, search/weather radar, marine band and satellite communication systems, high definition FLIR/LLTV system, high definition mission console, Optical Proximity LiDAR System (OPLS), full Night Vision Goggle (NVG) capability, new generation Trakka searchlight, emergency floatation system and external life rafts. The AW139 design incorporates a large spacious cabin for the crew, equipment and survivors accessed by two large sliding doors.

MALTA

AFM: Another user of the AW139, albeit mainly thanks to central European funding is Malta. They have now ordered their third AW139 to further strengthen Malta's maritime border control capabilities.

Ed: The chances are that if you get into trouble in a boat in the Mediterranean that it will be an AW139 that will be rescuing you. The number of AW139s in operation with Italian government operators is now 37, covering a wide scope of public utility roles including law enforcement and homeland security, patrol, special operations, search and rescue, command and control, government/VVIP transport, disaster relief and training. The type is pre-eminent in the western end of the sea in Spain and again in the eastern end in Cyprus. Approximately 900 orders have been placed by more than 220 customers from nearly 70 nations to date with more than 730 units already in service.

What were Bell management thinking when they pulled out of what was the AB139 all those years ago?

UNITED KINGDOM

LYDD: The Bristow Coastguard helicopters have moved in, currently based here are two AW 139 helicopters G-CIJW and G-CIJX, which are only here for a short while until the AW189 helicopters are delivered.



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INDUSTRY

AgustaWestland has announced that last month the new generation AW169 helicopter was issued with type certification by the European Aviation Safety Agency (EASA). Delivery of the first production helicopters to customers will now commence.

AgustaWestland has achieved EASA type certification less than five years after the AW169 programme launch. This achievement has been made possible also due to the strong collaboration between the EASA and AgustaWestland teams. With the AW169, AgustaWestland has responded to market demand for a new generation versatile light-intermediate twin-engine helicopter and has achieved its aim of greatly reducing the time to market, whilst meeting the most stringent operational and safety requirements set by the certification authorities and by the market.

The AW169 4.6 tonne helicopter is the first all new aircraft in its weight category to enter the market in more than 30 years, setting new certification and safety standards and marking the operational readiness of the whole AW Family. The first units will be delivered from the Vergiate final assembly line in Italy. A second AW169 final assembly line is being established at AgustaWestland's Philadelphia plant in the USA. AgustaWestland's Yeovil plant in UK plays a key role in the production of rotor blades and the tail rotor transmission system.

More than 150 AW169 helicopters have been ordered by customers around the world to date, including framework contracts and options, for a wide range of applications including executive/corporate transport, air ambulance, law enforcement, offshore transport and utility roles. Designed with inherent dual-use capabilities, the AW169 is also ideally suited for the wide scope of parapublic and government applications and will be able to meet military and naval requirements.

Euro Avionics, a provider of Situational Awareness and Mission Management Solutions for aviation, has received Airbus Helicopters First Annual Suppliers Award in the category of "Innovation". The award was presented by Airbus Helicopters at the Musée de L'Air near the Paris Air Show in mid-June. The Suppliers Award brings together a selection of French and international suppliers of all sizes, ranging in revenue from millions to billions of dollars - all being recognised for their contributions to and support of Airbus Helicopters.

Donaldson Aerospace & Defense, a division of Donaldson Company, Inc. continues to add to its list of operators relying on its Inlet Barrier Filter (IBF) systems for airborne law enforcement missions. Donaldson filtration systems are utilised by more than 40 U.S. law enforcement agencies, including new customers, the California Highway Patrol (CHP).

Integrated Microwave Technologies (IMT), a leader in advanced digital microwave systems serving state, local and federal law enforcement markets, introduced the Compact Receiver (CRx6) with multi-channel options, at ALEA Expo in Houston.

It is a fully integrated receiver offering exceptional RF performance and IP66-rated environmental durability for external use, enabling law enforcement to mount it permanently onto the roof of headquarters or remote tower. It accepts the input from external antennas without problematic block down converters and streams directly over an IP network to a decoder or video management system. The CRx6 features optional two- or four-channel six-way diversity reception in the same package.

The system is designed to optimise the receive signal automatically at all times, virtually eliminating human intervention. In contrast to older single, highly directional antennas, it employs multiple antenna elements that cover 360 degrees of azimuth in overlapping sectors.

Curtiss-Wright were among this year's exhibitors in Houston. In addition to exhibiting, Curtiss-Wright hosted a Technical Briefing on Mission Display Technologies for Airborne Law Enforcement.

On display at the Curtiss-Wright stand were Rugged LCD Mission Displays, Video Recorders, Mission Computers and Switch/Router Systems.



Image ©Airbus Helicopters

Throughout late June and early July **Airbus Helicopters** were undertaking a month long tour of the H145 to prospective Australian customers. The tour started in Sydney and moved to Brisbane and North Queensland at the end of June.

While in and around the Sydney region, the H145 was demonstrated to a wide cross-section of current and potential customers, including local hospitals, surf life savers and private aviators.

The busy H145 programme in Brisbane and Queensland was followed by the helicopter heading further north to Mackay, Townsville and the Whitsundays. It returned briefly to Brisbane before continuing south to Melbourne and Canberra, and left the country in late July. With around 170 orders currently, the new H145 is winning over customers and becoming the best-selling, modern helicopter in its class.

Ed: Just how times have I heard that the H145 is the 'aircraft that the EC145 should always have been'?

A quieter and more fuel efficient future for rotorcraft flight was unveiled by Airbus Helicopters last month with its Bluecopter demonstrator, which has validated leading-edge technologies ranging from an advanced Fenestron®, improved rotor and airframe design to intelligent engine power management.

In the more than 28 flight hours logged during evaluations performed throughout its operating envelope, Bluecopter

has confirmed the feasibility of Airbus Helicopters' advancements in eco-friendly helicopter design while also proving the company's next-generation eco-efficient technologies.

Using one of the company's light medium twin-engine rotorcraft as the demonstrator platform, Bluecopter incorporates transversal technologies that can be applied across Airbus Helicopters' product line. The aircraft made its public debut at an event held at Airbus Heli-



Image ©Airbus Helicopters

copters' Donauwörth, Germany facility.

Airbus Helicopter's signature Fenestron® is further evolved on Bluecopter, with additional performance improvements from the shrouded tail rotor achieved through optimized blade and stator designs. The acoustic liner integrated in the Fenestron's shroud and the active rudder on the tail fin contributes as well to the reduced noise footprint of the Bluecopter.

Its newly-developed rotor system improves operating efficiency while attenuating the acoustic footprint. The demonstrator's innovative five-blade bearingless main rotor system has BlueEdge™ style blades with an increased diameter, significantly reduced tip speed and an improved distribution of twist along their length.

To achieve the ambitious targets in reducing CO₂ emissions, a dedicated engine power management is implemented. During cruise the Bluecopter can be switched to an "eco-mode" by shutting off one engine. The remaining engine operates more efficiently and the fuel consumption is drastically reduced. The "eco mode" is based on an automatic control system that assists the crew and ensures safe operation of the aircraft.

The demonstrator features several measures to reduce aircraft aerodynamic drag, including fairings for the main rotor hub and the landing skids and a newly developed aft-body concept.

Ed: It is only a concept airframe of course but I recall that many years ago when Bell Helicopter attempted to introduce the idea of shutting down one engine in its 206LT design the certification authorities reacted with horror. It will be interesting to see whether the passage of time has changed that conservatism.

In an open house ceremony and 20-year anniversary celebration, Boise, Idaho based **Aviation Specialties Unlimited Inc.**, (ASU) held a ribbon cutting ceremony and grand opening tour of their new expanded base of operations. More than 200 Industry leaders, elected officials, customers and members of the media from around the world participated in the ceremony.

ASU began its operations in a small 200-square foot office with one employee. Today the new headquarters is 39,000 square feet and the company employs 44 full time people. At any given moment ASU employees can be found throughout the world furthering the mission of safety.

ASU has sold more than 20,000 night vision goggles, performed more than 900 cockpit modifications to aircraft, and trained more than 5,900 pilots and crewmembers.

Bell Helicopter has successfully flown the Bell 525 Relentless. The maiden flight of the super-medium helicopter took place at the company's aircraft assembly plant in Amarillo, Texas.

The first flight test started with taxi testing and then went into an initial hover, performing various hover manoeuvres and then tested low speed handling qualities with winds gusting to 20 knots.

The Bell 525 is the world's first fly-by-wire commercial helicopter designed to operate safely and reliably in austere environments with decreased pilot workload. The aircraft features the first fully-integrated touch screen avionics suite designed for helicopters, the Garmin G5000H®. Best-in-class

payload, cabin, cargo volumes, and passenger comfort complement the technological advancements on the aircraft.



Image ©Bell Helicopter

FLIR Systems, Inc. has received a production order totalling \$19.5M for its Mobile Surveillance Capabilities (MSC) systems, the second option exercised for the procurement of additional units under its five-year firm-fixed price contract with the U.S. Department of Homeland Security, U.S. Customs and Border Protection (CBP). FLIR's MSC system is an integrated mobile surveillance and detection vehicle made to operate day and night in rugged areas of the U.S. southern border, and features FLIR's TacFLIR 380HD long-range stabilised multi-sensor system and a long-range radar integrated into a vehicle-mounted surveillance tower. The contract builds on FLIR's long-term history of providing U.S. CBP with advanced surveillance systems. www.FLIR.com

PRODUCT REPORT FEATURE PART 2

Think Tank Airport Helipak™ Backpack for DJI Phantom Quadcopter

By Mark Colborn DPD

Our family recently went on holiday to the big island of Hawaii. I dreaded the idea of leaving my new DJI Phantom 3 quadcopter at home. A solution to my transport dilemma presented itself with *The Think Tank® Photo Airport Helipak™ Backpack*. We boarded four separate flights on our trek to and from Kona Airport, and it fitted nicely into every overhead bin, even the cumbersome middle bins on the Boeing 767. The backpack measures 20.5 by 14 by 9 inches (35.6 x 52.1 x 22.9 cm) and there are plenty of padded compartments for the quad (sans rotors), controller, extra batteries, charger, extra cameras, and other items. The bag with two 68Wh 15.2V LiPo Phantom batteries passed through both TSA screenings without a glitch. The soft sided case easily rode on my back during a long trek through the Honolulu airport. I flew on the beach near the resort nearly every morning. I even managed to fit in a night flight under a full moon after sunset. This flight apparently attracted the attention of resort security. As I was landing, two noisy figures with LED flashlights were trudging purposely down the beach in my direction. I was able to quickly pack up the quad and scurry down the beach before they arrived, evading a potential “situation” but adding several circuitous miles to my step count that day!

The case comes with thick padded and adjustable arm straps with a chest level clip strap. The bottom of the case (or the side resting on your back) is also padded for the protection of the gear inside and for carry comfort. This is not your normal backpack, and supports a thicker lumbar pad for extra comfort. The case retails for \$239.75, but it also includes a pocket for a 15.4” laptop computer. It is a great case with strong zippers, a water repellent coating, padded interior pockets, and also includes a rain cover.

The airlines only allow one carry-on bag and a small handbag that will fit under the seat. I chose to check a bag and carry the Think Tank. Naturally, my checked bag with clothing was “delayed.” On the way back we connected in LAX. The red-eye to DFW was a full flight, and packed with airline pilots headed to Fort Worth for training. Since pilots can’t check their bags, they have to carry them on the plane, thus overhead bin space is limited. We boarded in Group 4 and were told all carry-ons that wouldn’t fit below the seat would have to be surrendered at the gate. I began to panic, having visions of a brutal baggage handlers throwing my Think Tank with \$1,300 quadcopter onto a baggage slide then into the belly of the aircraft. So I approached the ticket agent and very politely explained my situation. She very graciously granted me an exception.



The Think Tank is a very nice bag for general everyday use and hiking, but if you planning a lot of air travel with your quad, my short travel experience led me to believe a safer option may be a hard case with significant padding that can be locked and checked. At least if your quad case gets “delayed” you will still have something else to wear, and avoid an expensive visit to the hotel gift shop for a Hawaiian shirt, swim trunks, and flip flops! Aloha!

Ed: As most of the ALEA attendees noticed the writer of this article is not short of Hawaiian shirts and could easily blend in with any tropical forest encountered. <http://www.thinktankphoto.com/>

Lockheed Martin Corp. is buying United Technologies Corp.'s Sikorsky unit, adding the largest maker of military helicopters to a line-up that includes warplanes and missiles, for \$9 billion.

Aside from Black Hawk helicopters, Sikorsky is making the presidential helicopters. Sikorsky had sales of about \$7.45 billion last year.

With a deal, Lockheed would extend its status as the world's largest defence contractor and widen its lead over Boeing Co. in the U.S.

On the very day your editor set off for Houston AgustaWestland were celebrating the centenary of the formation of the Westland Aircraft Works in Yeovil and the many aeronautical achievements that have been made during 100 years of continuous aircraft manufacturing on the site. Established in 1915 Westland has produced many famous fixed wing aircraft designs such as the Whirlwind, Welkin, Wapiti and Lysander. Other notable events included the design and production of the Wapiti - the first aircraft to ever fly over mount Everest, flying the first ever police helicopter operation in 1947 and the 1986 Westland Lynx world helicopter speed record that is still held today.

Today more than 3,200 people are employed at the Yeovil site which in turn supports a further 6,800 jobs in the supply chain. In 2001 AgustaWestland was formed with the bringing together of two great names in aviation. 100 years after building the first Short Type 184 seaplane, the Yeovil factory is at the forefront of rotorcraft technology - designing, developing and manufacturing the latest generation of rotorcraft for military and commercial applications.



Image © AgustaWestland

As expected the ALEA Night Vision Awards event was the venue for releasing details of the winner of the Best Colour Scheme on a public safety helicopter being run by a North America based magazine.

With the somewhat biased slant of the readership I guess we should not be too surprised that the winner was a scheme on a Puerto Rico police aircraft.

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Another America based competition was the annual 'did Bell Helicopter win the helicopter manufacturer of the year award' again. The short answer is yes but there were some caveats in the findings that are not always too obvious. Firstly it was a fairly close run thing between all the contenders as perhaps the other 'losers' improve their own performance and secondly it is evident at least some elements in the voting panel are becoming critical of the perpetual winners.

Although they were indeed the clear winners with large numbers of good or excellent ratings it looks as if the utility sector are becoming restive at the lack of product development. But there was no sign that the law enforcement market was following their lead. Robinson, who have recently given the R44 Police a makeover lie second followed by Airbus, Sikorsky, AgustaWestland and MDHI.

The revitalised R44 Police [right] now offers the FLIR Systems Ultra 8000 sensor system, Spectrolab SX-7 and new streamlined instrument panel with Garmin G500H primary and multifunction display system and a range of new options. One of the new airframes will be joining the new Law Enforcement Air Support Entity [LEASE] option that was promoted at the show along with the airframe N88911.

LEASE is Night Flight Concept's offering to a market that does not generally embrace aircraft on lease—indeed it is rare cross the law enforcement sector as a whole. Their main target is units wishing to move out of the military surplus market.



Image s via Robinson Helicopters



Clear roof markings on emergency vehicles are a familiar sight in Europe but not universally popular in the US. In addition there is an unrealised need to mark covert cars in a manner that allows the mark to be invisible to the naked eye and daylight cameras but clearly evident to airborne police using FLIR.

For some years covert markings have been in widespread use in the military and two companies, one wholly US and the other a US representative of a rival British version, were vying for business among a fairly sparse crowd attending this year's ALEA event in Houston. Both products work by reflecting the temperature of the sky to give a contrasting signature to the temperature of the vehicle it is attached to. Generally the heat of the vehicle is a contrast to the cold of the sky. Tried and tested by a number of nations involved in the recent Afghanistan War it has proven its worth.

The system is not perfect in that sometimes the material reflects the warmer temperature of surrounding buildings and the only answer to that is for the air asset to orbit to change to a colder reflective source. This is no worse a problem than is already observed when ground temperatures match those of the suspect passing over them. For the military this was less of a problem in Afghanistan where there are few, if any, high rise buildings.

The US product is Hawk-I Markers, already in service with police

The images demonstrate how Mirage™ has been exploited by UK Police Forces. The upper vehicle has conventional black sign vinyl roof markings. The lower vehicle has selected black Mirage film markings with conventional white sign vinyl letters and symbols on the rear part of the roof. Grey Mirage™ has been applied to the roof bar.



in Maryland, Calgary [Canada] and an unidentified Middle East operator after time with the military. The company has produced a range of colours and continues to expand the options.

The rival product, Mirage Thermal ID film, marketed by **The Artworks** in the USA originates from **Qinetiq** in the UK and is marketing by PVL Ltd in Burgess Hill, Sussex as a system tried and tested by the British Military.

Although the markings are traditionally letters and numbers it is also possible to employ 'art' panels to create a daylight coloured pattern that highlights the whole vehicle/craft it is adhered to, and to attach 'invisible' see-through panels that allow the original colour scheme to pass through. Mirage is a government restricted, thermal reflective vinyl and currently only available to official government entities throughout the world.

Conventional black sign vinyl markings are highly conspicuous in the visible waveband image, but only these new markings are visible in the thermal Infrared image. [PAR]

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With a deal, Lockheed would extend its status as the world's largest defence contractor and widen its lead over Boeing Co. in the U.S.

Security and survival equipment specialists, **BCB International** Ltd, have successfully delivered the first orders of the SQ4 a newly developed small vertical take-off and land (VTOL) Unmanned Air Vehicle (UAV) which weighs less than a typical large loaf of bread.

For more information visit www.uas.wales



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A BZ Media Event

There were four searchlight exhibitors at ALEA this year so the degree of choice for operators remains high.

Only one was exhibiting something entirely new this year and that is a light in development. **Spectrolab** now have the Nightsun XP IR LED searchlight system on offer and it looks quite different from earlier XP models although it retains some of the familiar features.

The familiar standard searchlight and gimbal, all tried and tested, are retained as the basis for the new offering. This provides the 1600 watt Xenon short-arc lamp with an output of 30-40 million candlepower.

In the past the only way that an 'invisible' IR lamp could be rigged was by adding a clumsy additional lens over the main beam on the earlier SX series of lamps; the new additions to the XP are a ring of 10 watt LED lights that the manufacturers predict will act in a similar manner.

At the time of writing the company still did not have the light on its website so details are sparse as trials continue with some selected US police operators.

RT LTA Systems Ltd., designer, developer, and manufacturer of the Skystar™ family of aerostats for use in intelligence, surveillance, reconnaissance, and communications applications, has introduced a new enhanced version of the Skystar 180 system, a small sized, mobile aerostat.

The enhanced system includes a new upgraded payload named TR-stamp and manufactured by Controp. The TR-stamp payload features a better stabilised day/night electro-optical payload, which allows wider detection range: 5 KM range for a man target and 7 KM for a vehicle.

The system includes an upgraded navigation system with high capacities that include point on map ability as well as advance controllers, allowing better control and management of missions and targets.

The system is based on a towable trailer, the system has a stabilized day/night electro-optical payload suspended from a helium filled aerostat, tethered to a ground system. It operates continuously at wind velocity of up to 40 knots, and can lift a payload of up to 20kg, providing surveillance coverage from an altitude of up to 1,000 ft., for up to 72 hours, after which it is brought down for a 30-minute helium refill. Only 2 people are required to fully maintain the system.



ESG Elektroniksystem- und Logistik-GmbH worked with Diehl Defence and ROBIN Radar Systems, to develop an effective protection against the unauthorised use of micro-drones to assist in guarding Elmau Castle during the G7 summit in Bavaria.

The three companies have been working intensively since early 2015 on a joint solution as a defence against threats due to the unauthorised use of commercial micro-drones. The solution focuses on electronic detection, verification and countermeasures as well as appropriate means of command & control.

Following a demonstration of the joint solution this spring to a broad audience of representatives of the security forces and the German Bundeswehr, the system has now been successfully deployed to protect the G7 summit. ESG's command & control system "TARANIS" was also used in Elmau.



Image ©ESG

ACCIDENTS & INCIDENTS

13 May 2015 AgustaWestland AW119Kx N356LL. Air ambulance of Life Link III, Minneapolis, USA operated by Air Methods. Helicopter departed the Anoka County Blaine Airport (KANE) at 2345 CDT enroute to a referring hospital located approximately 30 nautical miles north of the base. During cruise flight at 2,500 feet the crew heard a loud noise followed by wind in the cockpit following a bird strike entry into the cabin through the top left greenhouse window. It struck the front co-pilot seat head rest and the top of the flight paramedic's helmet. Remains were also scattered throughout the cabin and rear bulkhead wall. Nobody was injured. The aircraft returned to base. [Concern]

29 May 2015 AgustaWestland AW119Kx N356LL. Air ambulance of Life Link III, Minneapolis, MN. Operated by Air Methods. Departed the Anoka County Blaine Airport (KANE) at 2340 CDT on a ferry flight to the Alexandria Municipal Airport (KAXN). During cruise flight at 4,500 feet MSL, a green laser beam was pointed at the aircraft from north of the town of Big Lake, MN. [Concern]

1 June 2015 Airbus Helicopter AS350B3 N904CF. Air ambulance of Care Flight, Reno, Nevada USA. Operated by Air Methods. Late at night the aircraft was responding to a scene request. Approximately fifteen minutes into the flight, after cresting a ridgeline, the pilot initiated a shallow descent from 8,000 feet towards the location. Traveling at 120 knots, without warning, the aircraft experienced a series of sudden violent, vertical hops, causing the pilot door to open and the night vision goggles of one of the medical staff members to detach from the mount. The door was secured. The pilot reduced speed to 60 knots which resulted in the aircraft becoming stable. The hopping motion of the aircraft slowly abated over one to two minutes. The decision was made to continue to the nearest level place to land but when approaching Reno the decision was made to continue to the Care Flight maintenance facility where a landing was completed without incident. [Concern]

22 June 2015 Airbus Helicopters EC135 N243AM. Air ambulance of Wake Forest Baptist AirCare, Winston Salem, North Carolina, USA. Operated by Air Methods. The flight crew responded to an officer that had been shot and law enforcement still involved with trying to close in and detain the assailant. The area was deemed to be a "hot zone", but the LZ was secure. The crew landed, retrieved the patient safely at the LZ and lifted without apparent incident. It was not until hours later they were informed that during the approach, the assailant was firing at the aircraft with an assault rifle. Fortunately, no bullets struck the helicopter. [Concern]

30 June 2015 American Eurocopter MH-65D US Coast Guard. The helicopter crashed on its side at the US Coast Guard Air Station at San Francisco International Airport during a routine post maintenance flight. The two pilots aboard escaped major injury. [media]

3 July 2015 Eurocopter AS350B3e N390LG. Air ambulance of Flight for Life operated by Air Methods. The pilot was killed and two crew members were injured in a crash at St. Anthony Summit Medical Center in Frisco, about 70 miles west of Denver Colorado USA. The helicopter was taking off from its base and fell in an employee car park destroying two parked vehicles in the subsequent fire. It appeared that the wreck was on top of one vehicle. The pilot was identified as 64-year-old Patrick Mahany, a Vietnam War veteran. The other two crew members were airlifted to Denver. St. Anthony Summit Medical Center and later identified as flight nurse and paramedic Dave Repsher, 45, in critical condition with burn injuries and flight nurse Matt Bowe, 32, in fair condition. [image Lake Dillon Fire & Rescue]



11 July 2015 Bell 412 C-FWTK Crashed on firefighting mission at Slave Lake, Canada. Pilot injured but not seriously. [Helihub]

17 July 2015 Agusta A109K OM-ATB Slovenia HEMS Rescue. Aircraft en-route to pick up an injured party with four on board struck wires and fell into a ravine at Hrabusice killing all four personnel on board. [Spectator]



19 July 2015 Eurocopter BK117B2 D-HAID. Air ambulance of was blown partly off its landing pad by high winds at Manheim Germany. [Helihub]

20 July 2015 Bell Huey N121PT. Operating over wild fire suffered mechanical failure and made hard landing east of Walla Walla, near Blue Creek, Washington State USA. The pilot, and sole occupant, walked away from the wreck.

20 July 2015 AgustaWestland AW139 VH-YHF Air ambulance of Careflight HEMS made an on scene landing but was unable to leave due to unknown fault in Litchfield National Park, Northern Territory, Australia [Helihub]

21 July 2015 Eurocopter EC135 N. Air ambulance of VCU LifeEvac made an emergency landing in a field near 18000 Rosemont Road, Sedley, Southampton County Virginia, USA. One patient, two crew members and the pilot were on the aircraft, and none of them were injured, according to Virginia Commonwealth University.

PEOPLE

Last month saw the retirement from flying of Captain **Rob Mackie** from the Devon Air Ambulance [DAA]. Rob, 59, was a constant at DAA over its 23 years of operation, having flown their helicopters since April 1993. He is thought to be the longest serving Air Ambulance pilot working at one single service in the UK and had flown in excess of 7,000 missions.

Paignton, Devon, born Rob started his flying career as an Army pilot and the skills he picked up flying Scout and Gazelle helicopters in military situations are very suited to the daily challenges faced by Air Ambulance crews where very different incidents on unknown terrains make instant decision-making an integral part of the job.

He will be staying on with DAA as their Safety Manager overseeing their *Air Operating Certificate (AOC) and SMS and will be overseeing the surveying of all the community helipads needed to introduce night flying next winter.*



Right: Rob Mackie photos by: Darren Goodwin

Retired Royal Navy helicopter pilot **Anthony Hall** took nearly £20,000 for his own personal use, Stafford Crown Court was told.

Hall, from Lichfield, who carried out 'high-profile' missions during his military service, got deep into debt after his business partner died and their company collapsed.

Mr Robert Edwards, prosecuting, said the victim in the case was the Royal Hospital School Old Boys' Association, in Suffolk.

MOVE ALONG THERE

There is a great deal of interest in unmanned craft among law enforcement in the US and that includes established air units. Despite there being many reasonably well attended ALEA conference slots in the week and that included a three day 'pay for access' course, the situation is fragmented and far from clear. Only one manufacturer ventured to exhibit to the gathered delegates.

Unfortunately, in this highly PC [politically correct] country there are numerous legal stumbling blocks and a couple of them include what to call the craft and what to call what they do.

The term DRONE is currently out, and UAS is the preferred option. Apparently you must not say SURVEILLANCE because it apparently scares politicians and perhaps even some of the people. Not exactly a useful state of affairs but perhaps similar to the situation that the US finds itself in over FLIR cameras and their surveillance capabilities. Fortunately it is a near unique US problem.

That said there are areas of progress including one state where the FBI are being set up state-wide and others where individual agencies are either operating or experimenting.

Ominously there are stories that appear to have some basis in truth where the politicians and police hierarchy see unmanned craft as replacements for existing air support helicopters.

It is new technology so acquisition mistakes will be made along the way and Miami Dade admitted to theirs at ALEA.

They got the plan together and worked out what they wanted their trial UAS to do. A primary mission was to undertake searches of buildings to ensure they were clear for any human entry so the craft needed to fit through a standard doorway easily.

Armed with these details and others they looked around the market and found an apparently ideal machine to undertake their trials it offered the right size and a significantly better endurance than the usual clutch of battery powered craft, in addition it was a proven military system. The Honeywell T Hawk was a 20 pound craft with a pedigree.

From 2009 training was undertaken at a remote site hours from anywhere so there were few dangers from the craft going astray as they came to terms with it.

The training went well and after they had a degree of proficiency they invited the media along for some positive PR for the department. The few public observers [hardly passers-by] were not rejected either and sometimes there was a little crowd watching the training.

Where the story went all wrong was how the craft was powered. It soon became abundantly clear that the two-stroke engine made an unholy racket. That was fine for the military to use it in a noisy war zone and even for the police training task but as they became proficient and thinking of moving into a more urban environment they were clearly not going to be good neighbours. As for hovering through the doors in building searches using the craft it was found that while the craft could physically undertake that task the sound levels and emission of some noxious 2-stroke fumes were not going to be acceptable!



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In the wider arena of the unmanned there are other negative scenarios around. Like the arrest of William H Meridith a man from Kentucky who decided that a thing flying in the vicinity of his house might be spying on his sunbathing daughter..... He got arrested and charged over successfully downing the \$1,800 prying craft with a well aimed shot despite the continued lack of direction over flight rules coming out of the FAA.

The police used existing rules of law relating to him shooting into the sky—an action that brought four men associated with the by now deceased drone to his door..... It seems you do not need fancy FAA rules when a fracas is about to start!

Even the established form of air support also continues to have its bad days. Like in Berkeley, California where they have no air support but they have a highly efficient City Manager responsible for the administration of City services, enforcement of the City's Municipal Code and ordinances, and preparation of the annual budget. One thing the City Council in their wisdom was to say they did not want air support and on July 27 he proved his mettle in supporting the wishes of his masters.

A suspect fled from Oakland Police and was believed armed and hiding on a rooftop so they called in mutual aid from a neighbouring air support operation. The usual thing, officer safety, citizen safety, and an increase in the chances of apprehending the suspect.

Unfortunately it seems that the suspect appears to have been on the roof of a house in the City of Berkeley who have written into their rules that not only they would not have air support but that no air support was allowed in the skies above them!

The air unit arrived but as soon as he was made aware of the operation the City Manager demanded that they leave, the air crew had no option but to comply.

FOR YOUR DIARY

9-11 September 2015 InterDrone Conference and Exposition. Rio, 3700 W. Flamingo Road, Las Vegas, Nevada. www.interdrone.com

15 September 2015 BGAD British General Aviation Day, Biggin Hill, Kent. This has become a significant date in the industry calendar, showcasing all of the key elements usually experienced in a three day trade show in a single day. BGAD was first created in 2001 to offer the UK business aviation industry a cost effective exhibition and meeting place and from the very start it achieved that aim. Partnering with Marshall Business Aviation Service at Cambridge Airport, BGAD has become an informal yet productive networking day with around 500 attendees.

This year BGAD is partnering with London Biggin Hill Airport - and in future years, BGAD will rotate between London Biggin Hill and Cambridge.

And this year, BGAD will be much larger - more booths, more aircraft, twice the seminar space. Two shows in a single day!

There are extended opening hours - BGAD will be open for business from 09.00 - 18.00 and will then conclude with a fabulous reception and historic flying display drawing on the past history of the famous World War Two Battle of Britain airfield. BGAD this year takes place on what is the 75th Anniversary of Battle of Britain Day, the occasion will be celebrated by an historic aircraft flying display immediately following the BGAD event.

Entry to BGAD is free of charge, and visitor registration is now open by visiting this page on the BGAD web site - <http://www.bgad.aero/register.html>



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