

Police Aviation News

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Issue 255

July 2017

**UK AW169
GET HEMS
RELEASE**



HIGH RISE RESCUE

A Perennial Problem

NEW YORK NAMING

Remembering the heroes

LAW ENFORCEMENT

BOSNIA & HERZEGOVINA

MINISTRY OF INTERIOR: An international tender with a submission date of July 12 has been issued for the procurement of a helicopter for civilian use.

A new helicopter is required to support disaster support, medical air transport, special police operations and VIP transportation. The buyer has specified the need for the contract to include essential spare parts and a training programme.

Additional information is being made available through the Trade Teams in country. [UKG]

FRANCE

GENDARMERIE NATIONALE: The French Gendarmerie Nationale is purchasing an additional EC145 aircraft to be delivered in 2018. The aircraft will be delivered in the same configuration as the existing Gendarmerie fleet, with mission equipment notably including a hoist, search light, sling, and specific radios. Fourteen EC145s are currently being operated by the Gendarmerie Nationale for their critical law enforcement and public services missions.



The Gendarmeries Nationale and Securite Civile in France were the launch customers for the EC145 variant of the BK117. [Airbus]

“The EC145 is an important asset to the Gendarmerie Nationale” said Colonel Emmanuel Sillon, head of the Gendarmerie Nationale Air Forces. “Thanks to the global service solution provided by Airbus Helicopters, our fleet has reached 80% percent availability rate which allows us to ensure our missions 24/7 in the most challenging conditions,” he added.

FRONT COVER: It has been a long time coming but the Specialist Aviation Services HEMS interior for the fleet of AW169 helicopters has received the go-ahead from EASA. The delay, nearly two years for one of the charities, was costly. Since the release for service four of the new generation helicopters were released to their new operators for training and service. [Image : SAS]

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INDONESIA

BORNEO: The Sarawak police contingent hope the government acquire more helicopters to enable them to monitor the security situation and fighting crime in the vast state. Sarawak cover 48,000 square miles [124,450 sq.km.] of Borneo and has a population of around 2.5 million. That roughly equates to the size and population of New Mexico.

State Commissioner of Police Datuk Mazlan Mansor said the state contingent currently had only two helicopters, one of which is no longer in operation.

Ed: The police in Indonesia operate an elderly fleet of airframes including examples from Airbus [BO105 and AS365] and Russian Mils [Mi-2 and Mi-8].

ISRAEL

POLICE: At the Paris Air Show Controp Precision Technologies Ltd., the Israeli producer of EO/IR surveillance, defence and homeland security equipment announced the sale of several iSky-20HD (formerly SHAPO-HD) and iSky-50HD (formerly DSP-HD) EO/IR payloads to the Israeli Police, to be installed on new helicopters and integrated with Churchill Navigation Mission Systems. Controp was displaying the family of six (6) multi-spectral, highly stabilised, low weight airborne payload at Le Bourget.

The iSky payloads were chosen for Israel Police helicopters that will replace the Bell 206 fleet in due course. In recent months Controp has sold several iSky-30HD and iSky-50HD systems to customers in North America, Asia-Pacific and Africa, for installation on Helicopters, Fixed Wing Aircraft (A/C) and other

After many years flying Bell helicopters the police in Israel have chosen Airbus machines fitted with Controp sensors. [Controp]



platforms. Features of the six-model range include a continuous optical zoom lens in the day (or high definition-HD) and thermal imaging (SD/HD) cameras, gyro-stabilised gimbals and multi sensor options including Eyesafe Laser Range Finder (ELRF) and/or Laser Pointer. www.controp.com

JAPAN

TOKYO: The Tokyo Metropolitan Police Department (MPD) has signed a contract for one H215, making it the first operator in Japan to operate the rotorcraft when it is delivered in 2020. Currently operating a fleet of 14 helicopters, the largest police air corps in Japan plans to enhance its law enforcement activities with this new H215.

The brand new H215 will be delivered ahead of the Tokyo 2020 Summer Olympics, and is dedicated for missions including personnel and VIP transportation, material transport, as well as wide area support missions. The high-performance rotorcraft is fully-operational and can cover the entire Tokyo region, including the Izu islands. The heavy lift helicopter will also be involved in missions conducted nationwide.

The H215 will also join the H135 and H155 helicopters in supporting the day-to-day patrol and rescue missions in Tokyo.

Ed: In addition to the Airbus types TMPD operate a mix of Bell and Leonardo types.



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UNITED KINGDOM

LONDON: It is something no-emergency service in the UK has specifically trained for and few might be equipped to undertake at their peril in any case – High Rise Rescue.

Last month in the dead of a warm night a fridge is thought to have exploded in a 4th floor flat and, although subsequently extinguished, sparked off a fire in the external cladding of Grenfell Tower in north Kensington.

A mass evacuation was set in place when it soon became clear the blaze was out of control. Some reports suggested that there were people on the roof or at least at the top of the block trapped by the raging fire below.

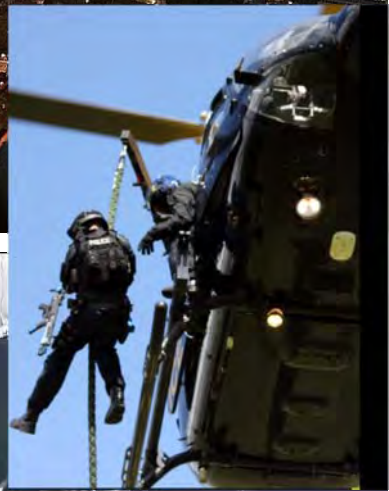
The 24-storey block contained around 120 flats and hundreds of people and many failed to get out before being killed by fumes and fire.

Eyewitnesses reported seeing people trapped inside their homes for hours after the fire broke out but they were way above the height of any ground based rescue ladders. And as had happened in 9-11 some chose the quick death that jumping promised.

The first reports of fire in the tower, in Latimer Road, on the Lancaster West Estate, came in at 00:54 BST and over the next five hours many hundreds – perhaps 85% of the residents - were safely evacuated 30 people had been taken to hospital, some with life threatening injuries and a few were known to be beyond hope.

It may be many years before the truth emerges but the seeds to the disaster were apparently an expensive, but suspect, external cladding of the outside of the 1960s structure and the continuation of fifty year old advice to residents to remain in the flats in case of fire. It is feared that the stay put advice was compromised by the refurbishment in making alterations to the internal structure and exterior invalidated that advice. Already there are allegations that perhaps 10% of the high-rise housing stock has suspect fire safety.

In the wake of the fire there was plenty of broadcast media video evidence of unmanned drones being used to aid the searching of the blackened and unsafe shell. There has been anecdotal evidence to suggest that most of these were not emergency services owned craft but the result of cooperation between civil operators and manufacturers keen to both help and gain media exposure for their product and service. As has been commented on within these pages in recent issues the emergency services face severe problems in being the operators under current CAA rules. [MP/Media]



British police are undertaking some training but are far from able to undertake high rise rescue [NPAS image]



Ed: Many years ago a wholly untrained UK police aviation crew undertook an ad-hoc roof top rescue that fortunately had a happy ending. A Metropolitan Police Bell 222 was called to a burning power station to the east of London where a workman was trapped on the roof. The aircraft had been delivered in 1980 with a winch but it was quickly consigned to the storeroom. There was no training. In April 1992 the crew hovered close to the roof and simply opened the door to allow the man to step into the cabin and be transported to the ground. All very gentlemanly and British but a very lucky outcome.

NPAS: Noted arriving at Babcock International facility in Staverton at the end of May was the former Lancashire Police Eurocopter EC135T2 G-LASU. Local information suggests that this is the next NPAS helicopter that Babcock will be upgrading. It will be re-registered G-POLG in due course. [MJ]

Rumour has it that the first NPAS fixed wing has arrived at Doncaster. The Vulcanair P68R was due late last month but no confirming announcement has been made by NPAS. The aircraft is not destined to enter operational status for some months so there is no real reason for them to promote the arrival by announcing it. [PAR]



POLICE SCOTLAND: The spare airframe for the Scottish contract G-PSHU formerly G-WONN, is now reconfigured and was on flight tests in the middle of last month. Painted in the yellow & dark blue conspicuous colours it was devoid of Police Scotland titles at that time. [MJ]

UNMANNED: Security Systems and Alarms Inspection Board [SSAIB] a private company based in Tyne & Wear in the north east of England has helped two police forces in the pioneering use of drones for a variety of crime related objectives. SSAIB has certified both Dorset Police and Devon & Cornwall Police to the surveillance camera code of practice.

This certification lasts for five years and is an addition to the CAA-accredited qualification. [SSAIB]

Ed: It may be noteworthy that the article with this information included an image of the five police officers currently assigned to the Dorset drone unit. That is apparently a large number when compared to the staff assigned to the manned helicopter unit Dorset operated.

Forces across the UK continue to investigate the use of drones and it is known that many units were re-searching at the London IFSEC Show last month, with a force from Wales being mentioned and Merseyside apparently making use of contractor supplied craft as an alternative strategy.

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UNITED STATES

FLORIDA: The Manatee County Sheriff's Office will be getting a new helicopter later this year. On June 20, the county commission approved the funding, paving the way for the sheriff's office to make the purchase which is estimated will cost \$4.9M.

Since the project was included in the projects to be funded by the infrastructure half-cent sales tax, approximately \$1.1M will be paid with sales tax revenue generated this year while the remaining \$3.8M will come from an interfold loan from the general fund and repaid over two years from sales tax revenues. The cost of the new helicopter is higher than originally projected. Last August, it was estimated that the cost be \$4M.

Sixteen years ago, Manatee acquired a Eurocopter EC120B N504MC to replace a fleet of increasingly elderly Bell OH-58s operated from the airport. Now the newer aircraft is showing its age and suffering in increasing maintenance downtime. The unit has a backup Bell OH-58. [Bradenton]

No sooner had Bryan Smith returned to Florida from the PAVCon in Europe than he was running the 2017 Orlando Area Public Safety training day. The Seminole County Sheriff's Office where Bryan is a pilot hosted an annual meeting for agencies in the central Florida area to discuss interagency coordination and local area operations as well as training, tactics and safety. The event underlines the healthy appetite that many units across the world have for interacting with and earning from others in the interests of flight safety and personal development. Recent developments have underlined that this positive attitude is far from universal. [BS/ALEA]



MARYLAND: in Baltimore the serving Mayor Catherine E. Pugh, a Democratic politician has been working through her budget. When, in March she announced her first \$2.8 billion budget plan it included millions in increased funding for schools and police, the return of speed cameras, refinancing the city-owned Hilton Hotel and a modest tax cut for homeowners.

But recent detailing has revealed a downside on the aviation operations in that there is a proposal to ground one of the police department's four EC120 "Foxtrot" helicopters, saving about \$1M. The proposal abolishes six aviation unit positions: three police officers, two flight officers and one police sergeant.

Where the police budget apparently gains is in supporting role office jobs. There are proposals for 17 new positions to assist with the Department of Justice monitoring of Baltimore's Police Department including six auditors, five compliance managers, three policy analysts and three community liaisons. There would be \$1.45M for an independent monitor and \$220,000 for police to travel to other cities to learn about reform efforts and \$430,000 to monitor and administer body worn cameras.



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NEW YORK: The fleet of seven Bell helicopters now carry the names of officers who have fallen in the service of the NYPD.

Hundreds attended a ceremony fronted by NYPD commissioner James O'Neil, top NYPD brass and family members of the ten officers who died in the line of duty. The names of the ten are: Ptl. Plato Arvantis and Ptl. George H. Bishop; Ptl. Patrick Harrington and Ptl. Joseph Mariconda; P.O. James Rowley and P.O. Charles Trojahn; P.O. William Rivera; Det. Omar J. Edwards; P.O. Alain K. Schaberger; Det. Peter J. Figoski;

Among the invited guests were the four daughters of slain NYPD Detective Peter Figoski, they posed alongside the Bell 429 N920PD that will be flying over the skies of New York with their father's name emblazoned on the vertical tail fin into the future. Christine, Caitlyn, Corinne and Caroline Figoski lost their father on December 12, 2011, when he was killed while investigating a break in.



©NYPD

NORTH CAROLINA: In Kinston, Lenoir County, Mayor BJ Murphy made an urgent plea to Gov. Roy Cooper and North Carolina legislative leaders, seeking more law enforcement aircraft in eastern North Carolina.

Murphy cited the lack of available resources during a manhunt earlier this year. Air support was provided by the North Carolina State Highway Patrol, while the State Bureau of Investigation utilized robots to help the Kinston Police Department, Wayne County Sheriff's Office and Lenoir County Sheriff's Office SWAT teams.

Air support was requested at 5 a.m., but didn't arrive on scene for another four hours because of the travel distance. In the past, units would have been dispatched from the North Carolina Global TransPark in Kinston, but budget cuts implemented in 2013-14 reduced staffing. Where NCSHP once boasted ten helicopters with twenty pilots, it now has access to six helicopters and ten pilots. It seems that across the state response times are hindered by a lack of resources to support law enforcement agencies.

Murphy is suggesting more funds to improve the NCSHP fleet in both western and eastern locations in the state. [wcti12]

VENEZUELA

CARACUS: Mystery still surrounds the truth of the situation when a police helicopter attacked the Venezuelan Supreme Court on June 27. The incident was an escalation of the months-long crisis engulfing the regime of President Nicolas Maduro.

The Bolkow BO105 helicopter was apparently stolen and piloted by an officer in the country's investigative police force, Oscar Perez. As it strafed the court building and the Interior Ministry in Caracas, the attackers fired gunshots and lobbed grenades. Although some news reports suggest that Perez was not alone in the helicopter, none identified accomplices.

Maduro condemned the attack as an attempted coup, saying "terrorists" were behind the offensive and that an operation was underway to track the perpetrators down. It seems to have been a failure, with no injuries caused.

Prior to the helicopter assault a man who identified himself as Perez appeared in a video online saying an operation was underway to seize democracy back from Venezuela's "criminal government."

Photographs posted online show a BO105 helicopter with the initials of the investigative police unit on its side, flying above the capital, Caracas.



The 36-year-old Perez is said to be an investigative police officer but he is better known for his acting part where he was seen firing a rifle from a helicopter and emerging from water in scuba gear in an action movie *Suspended Death*, which he also directed. In PR footage he is seen in numerous interviews about the film and riding horses, scuba diving and jumping out of a helicopter with a dog. Rare additions to work by most officers in elite units.

The Venezuelan government is said to be hunting for Perez after the police Bolkow was found dumped on the Caribbean coast. [media]

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AIR AMBULANCE

BRAZIL

SAO PAULO: The Campo de Marte Airport, home to Helibras and the first airport built in *São Paulo*, held Brazil's first Airbus Aeromedical Transport Symposium last month. The symposium, held over two days, had speakers such as Élcio Alves Barbosa, the national civil defence disaster director; Ralph Setz, Airbus HEMS specialist; Col. Carlos Eduardo Falconi from the São Paulo police and Thomas Gassmann from ADAC Training Academy in Germany.

They had an aeromedical configuration display of an Airbus AS350B2 and AS365. Many of the audience consisted of HEMS users, doctors, operators from the oil-and-gas sector and government officials from ANAC. [AIN]

CHINA

SHANGHAI: A medical conference convened last month announced plans for Shanghai to establish a medical helicopter first aid team and management system within three years to improve emergency rescue efficiency based on the Ruijin Hospital.

The group will be tasked with building professional air ambulance service teams, formulating transfer standards and a transfer mechanism through cooperation with local health authorities, the medical emergency centre and other government departments.

The city's first helicopter equipped with a medical role fit will be introduced this year, but at least five such helicopters are needed to transport patients from different parts of the city and even Yangtze Delta regions to leading hospitals.

During the event, a Sino-Czech air aid cooperation program was signed. Under the programme with a US\$500,000 fund from Home Credit China, Prague Medical Emergency Services will over the next two years carry out training of medics, paramedics and managerial personnel at Ruijin Hospital, lead clinical and technical guidelines, and conduct training among Helicopter Emergency Medical Services and intensive care units.

So far, there are two helicopter teams — one for emergency transport from the sea and one for police use. Though their helicopters also transport critical patients, there is no professional first aid equipment on board. [ecns]

UNITED KINGDOM

STAVERTON: Specialist Aviation Services were finally able to announce the approval of its AW169 Aeromedical fit which heralds the start of operations for its AW169 customers in the UK.

The modifications designed and installed by the SAS Part 21 approved Completions Centre include the installation of a nose-mounted Trakka A800 searchlight, the use of white phosphor Night Vision Goggles and an innovative modular multi-configuration medical interior.

The medical interior features a longitudinal swivelling and sliding stretcher and enables a wide range of seating and equipment rack configurations each of which provides all-round patient access.

The fixed quick-change oxygen installation covers all types of cylinder and valves in common use across the UK's National Health Service for maximum mission flexibility. Equipment racks and seating for up to five people can be moved around to suit individual requirements, and items of medical equipment can be re-positioned, thanks to the use of a standardised mounting interface on all equipment racks. These changes can be made in the field in a matter of minutes without the need for further approval.

The initial aircraft were formally handed over in a combined ceremony at the company's Gloucestershire Airport base on June 9 when the aircraft were handed over to Kent, Surrey & Sussex Air Ambulance, Lincs & Notts Air Ambulance and Dorset & Somerset Air Ambulance. The airframes were G-KSST, G-LNAC and G-DSAA respectively [see front cover image].

The aircraft features an APU mode to enable on-scene ground power without rotors turning as well as the superior performance and modern safety features which the AW169 offers. See more AW169's set for delivery to Air Ambulance customers this year, with further deliveries already signed for next year too.

AAA: A new Clinical Best Practice Guidance document has been issued by the Association of Air Ambulances (AAA) on 'Advanced analgesia and sedation' to promote best practice in advanced prehospital care, delivered by UK Helicopter Emergency Medical Services (HEMS).

The new Best Practice Guide joined three other Guides being republished following updates; 'Defibrillation and Pacing during Aeromedical transport', 'Post Return of Spontaneous Circulation (ROSC) Care' and 'Photography and Video Imagery'. All four documents were developed and published by the AAA's Clinical subcommittee in May 2017 led by Dr Gareth Davies Medical Director of London's Air Ambulance. Each of the documents aim to provide an introduction, guidance and treatment recommendations for air ambulances, enabling them to adopt best practice in the topics they cover. Best Practice Guides issued by the AAA draw on the experience of clinicians working on helicopters around the whole of the UK and form a bench mark for excellent care.

ESSEX: The operator is moving closer to operating its first AW169. The current fleet of MD902 Explorers are destined to be exchanged for an upgraded model. The former Lincs & Notts MD902 G-LNCT has now been resprayed into a similar new red paint scheme as the Essex & Herts AW169 G-HHEM, their first owned helicopter.

SAS owned G-LNCT, previously all-yellow will adopt the new registration of G-EHEM. This will be a leased airframe and will remain so until the charity finalises their intention to buy a second AW169. Both the AW169 G-HHEM, & G-EHEM once adopted & entered service, will replace the current leased Essex & Herts MD902 G-EHAA, & G-HAAT.



The AW169 was delivered to North Weald [right] over the weekend of 23-25 June on a promotional and training trip which saw it flying into the charity air bases, fetes and both The Royal London Hospital [above] and Addenbrookes Hospital over the following week.



UNITED STATES

MASSACHUSETTS: Boston MedFlight has planned to move into their new facility on the civilian side of Hanscom Field by June 2018. Located off Route 128/95, Hanscom Field is a link to domestic and international destinations for individual pilots and commuter airlines. The proposals for the move started in 2015, as the current base is on the military side, making it difficult to operate. The new base will include a hangar, simulation lab for medical emergencies and training for first responders. The plan is to design an eco-friendly facility with solar panels to power all their electrical needs.

TEXAS: STAR Flight has been authorized by the Travis County Commissioner's Court to change its reimbursement practices for patients transported by the service, starting August. 1, 2017. STAR Flight operates EC145 helicopters on HEMS in Austin, Texas.

While the financial burden on the patient will remain limited to co-payments and deductibles — determined by the patient's insurance provider — the county will charge a base rate of \$15,000 and \$200 per mile to available funded sources like insurance companies, Medicaid and Medicare. The original base rate was

\$4,500 for Travis County residents, which would make the rate increase a 233% increase.

A transported patient who is uninsured or under-insured and can provide proof will not be required to reimburse STAR Flight. However, reimbursement will be sought if a patient receives a settlement because of the injury or illness that led to the transport.

Currently, the county says they do not receive reimbursements that are consistent with the rates paid to other air ambulance providers in Texas.

The service will only issue a bill if a patient is transported to a hospital. They will not charge for just a response, or fire suppression, law enforcement or search and rescue services.

VIRGIN ISLANDS: AeroMD has put a Cessna Citation Bravo jet into service as its primary and dedicated medevac aircraft. The US Virgin Islands-based air ambulance provider said the upgraded plane has been added to its fleet in conjunction with aviation partner Bohlke International Airways. AeroMD highlighted the new plane's speed and range, which will mean patients more quickly reach specialty centres at greater distances without making a refuelling stop.

The jet offers a range of up to 1,587 nautical miles; has a top cruising speed of 460 mph and a maximum operating altitude of 45,000 ft. It requires a runway of 5,000 ft for take-off or landing, which makes it ideal for the limited runways at airports in the Caribbean. Configured as a medevac aircraft, the interior can accommodate one patient, their travel companion and the AeroMD medical team.



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FIRE

UNITED STATES

NEVADA: To deter residents from putting themselves in harm's way the authorities in Phoenix -always an oppressively hot spot in Nevada publicised the point at which they would not launch a rescue helicopter.

With temperatures nudging 120 degrees the airlines were cancelling a significant number of scheduled flights but no stated limit had been made public for the rescue helicopter fleet.

The American Airlines cancellations are due to heat rising above one of their smaller plane's "maximum operating temperature" and mainly effect regional flights undertaken by the Bombardier CRJ. The maximum operating temperature for this plane is 118 degrees while Airbus and Boeing models can run up to 126 degrees.

The local newsgathering AS350 helicopter of Channel 12 N125HD is limited to 116 degrees, the same temperature that grounds the local Fire Department Leonardo AW109 N109FB.

The Maricopa County Sheriff's Office says it's helicopter pilot does not need to follow the same temperature restrictions as a commercial airline. Rather, MCSO has self-imposed restrictions that whilst they accept that higher temperatures decrease performance on the aircraft place the onus on the pilot to decide whether the emergency is of sufficient gravity to fly.

Based in Phoenix Maricopa County Sheriff's Office operate two Bell 407 helicopters including a recently delivered \$3.5M 2014 407 GX.

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SEARCH & RESCUE

CANADA

COAST GUARD: DART Aerospace has been chosen to supply the equipment for the new Canadian Coast Guard Bell 412 helicopters.

When Bell 412 Helicopters were selected to renew the Coast Guard fleet, the Canadian Coast Guard needed specialized accessories to meet Transport Canada requirements. DART Aerospace was then selected as a partner to equip the Bell 412s based on DART's reputation for quality and value, exclusive technology, and the ability to provide many of the accessories needed.

Key equipment provided by DART Aerospace includes the Tri-Bag Float System with Integrated Life rafts, External Hoist Compatible Full Vertical Reference Door Modification Kit, Landing Gear and the rear skid Bearpaw Kit



IRELAND

In mid-June, the European Journal issued notice a tender for the Provision of Helicopter Aviation Services (Search & Rescue helicopters) to the Irish Coast Guard. The response deadline is July 25

JAPAN

COAST GUARD: At last month's Paris Air Show it was announced by Airbus Helicopters that they had been awarded a contract from the Japan Coast Guard (JCG) for the purchase of three additional H225s. This new order will bring the JCG's total H225 fleet to nine units by February 2020. The JCG already placed an order for a sixth H225 in 2016, which will be delivered in 2018.

Under the agreement, the three H225 helicopters will be used for security enforcement, Japanese territorial coastal activities, as well as disaster relief missions.

The Japan Coast Guard has been operating helicopters from the Super Puma family for 25 years, and the H225 follow-on order illustrates a confidence in the product.

Currently operating eight helicopters from the Super Puma family, the JCG first introduced Airbus Helicopters' AS332 L1 into its fleet in 1992, and subsequently welcomed its first H225 in 2008. With this latest order, the JCG's Super Puma fleet will eventually grow to eleven units by 2020.

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NORWAY

COAST GUARD: At Paris Leonardo announced the official opening of its AW101 Norway Training Centre at Stavanger Sola Airport by Per-Willy Amundsen, Minister of Justice & Public Security.

The training centre includes a new AW101 Full Flight Simulator (FFS) which will support the training of Norwegian aircrew and will also be available to other AW101 customers. The first training course at the centre, for Royal Norwegian Air Force pilots, also started yesterday prior to delivery of the first two of 16 aircraft ordered by the Norwegian Ministry of Justice and Public Security for search and rescue.

The AW101 Full Flight Simulator, jointly developed by Leonardo and CAE to Level D, the highest qualification for commercial flight simulators, is a CAE Series 3000 device. Located in a new annex to the Thales Flight Training Centre, the simulator is operated and managed by Leonardo Helicopters to deliver its wide range of OEM training courses. The centre will also house a Royal Norwegian Air Force owned AW101 SAR console training device that is linked to the FFS to provide rear crew training.

The facility is conveniently located just 800m from Stavanger Sola Airport, making it easily accessible for aircrew from around the world to attend type conversion courses, refresher training and specialised operational training for the AW101 helicopter.



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tation's and landing on platforms at sea. The AW101 FFS combines a Leonardo Helicopters developed flight dynamic model, avionics and aircraft software modelling, with CAE's core simulation technologies, including: CAE True six degree-of-freedom (DOF) electric motion system and high-performance vibration platform to replicate vibration cues critical to helicopter pilots; a high-fidelity CAE Medallion-6000 visual system; and a direct projection 210 degree by 80-degree extreme field-of-view dome display system. This new AW101 FFS also includes important mission systems such as SAR autopilot modes, digital map, radar, aircraft mission management computer, multi-purpose control and display units, cockpit display system and flotation system.

The new AW101 service in Sola will be a dedicated satellite of Leonardo Helicopters' Yeovil Training Academy, marking a further expansion of its Regional Training Centres.

In December 2013 Leonardo Helicopters signed a contract with the Norwegian Ministry of Justice and Public Security for 16 SAR configured AW101 helicopters plus support and training services for the initial 15 years.

SOUTH KOREA

COAST GUARD: The South Korea Coast Guard has accepted delivery of its second S-92® helicopter for search and rescue following a ceremony attended by the South Korea Coast Guard's Senior Superintendent and Factory Acceptance Test Inspection Team Lead, Kim Youngmo.



The South Korea Coast Guard has operated a single S-92 helicopter since March 2014. To date, that aircraft has flown more than 850 flight hours, saving more than 30 lives flying search and rescue and emergency medical transport missions. The second aircraft was displayed at this year's HAI Heli-Expo [above]

Following the aircraft's shipment to South Korea, aircrews will conduct training in-country. The aircraft is expected to enter service by year-end.

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INDUSTRY

The demand for **L3 WESCAM MX™**-Series of electro-optical and infrared (EO/IR) systems within the Canadian market continues to grow in support of critical surveillance missions operating both domestically and internationally. Orders received over the past year for Canadian customers include contracts from Transport Canada, the Royal Canadian Air Force, PAL Aerospace and numerous policing agencies. Earlier this year, Canada's PAL Aerospace awarded L3 WESCAM a first-time contract to supply its MX™-15 airborne sensor for the Bombardier DHC-8 multi-role surveillance aircraft. ISR missions for the platform will include maritime surveillance, fisheries patrol, environmental protection, search and rescue, and overland surveillance. The MX-15 system will be configured L3 WESCAM Meets Canada's Ongoing Demand for EO/IR Sensor Solutions with leading sensor technologies, including a high-definition (HD) thermal imager, an HD colour low-light imager, a dual-channel spotter and a wide-angle laser illuminator. The powerful imaging capabilities of L3 WESCAM's airborne systems provide a faster, more powerful means to perform missions under various lighting conditions, in addition to haze, fog and other visual deterrents found in the Canadian domain.



For many years, L3 WESCAM's systems have been the EO/IR turret of choice by many leading Canadian Police agencies, including the York Regional Police and the Calgary Police Service. In 2017, the Ottawa Police Service purchased an MX™-10 for its Cessna 206 aircraft, as did the Winnipeg Police Service for its EC120 helicopter and the Edmonton Police Service for its AS350.

Air BP, the international aviation fuel products and service supplier has bolstered its presence in the Southeast of England with the addition of a new location at Redhill Aerodrome in Surrey (KRG\EGKR). With immediate effect, Air BP will be the sole fuel provider of Jet A-1, AL48 and Avgas at the aerodrome. With access across the southeast of England, Redhill is ideally suited for both business aviation and rotary activity, the latter of which accounts for some 80% of its traffic serving as the base for Arena Helicopters and the National Police Air Service. The airport has recently installed a new fuel depot to meet the supply needs of customers such as the Kent, Surrey and Sussex Air Ambulance Trust's AW169 helicopter, and additionally to address the expansion of the Trust's activities at Redhill. Air BP has also invested in a new state-of-the-art Jet A-1 and AL48 fuel bowser for the airport. Open 7 days a week and year-round (except for Christmas Day and Boxing Day), Redhill Aerodrome is located 22 miles south of London within easy access of the M25 and M23 motorways.





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Two Austrian high-tech companies, the aircraft manufacturer **Diamond Aircraft Industries GmbH** and **PIDSO-Propagation Ideas & Solutions GmbH**, producer of antennas, jointly developed a brand-new antenna solution.

For the first-time reception of S-band and C-band frequencies has been combined in just one antenna, whereas until now two antennas were needed. Diamond Aircraft was in the need for such an antenna solution for its special mission aircraft DA42 MPP and DA62 MPP and found the perfect partner in PIDSO.

Eagle Eye Networks, Inc. announced the acquisition of Panasonic Cloud Management Services Europe BV (PCMSEU) makers of Panasonic Camera Manager and Panasonic Nubo. PCMSEU operated the largest number of cloud recorded cameras in Europe and now combined with Eagle Eye creates the world's first global cloud video surveillance company.

Panasonic Cloud Management Services Europe BV will be renamed Eagle Eye Networks BV and will function as the European Headquarters for Eagle Eye - selling and supporting the expanded Eagle Eye product line. To learn more about the Eagle Eye Networks, visit www.EagleEyeNetworks.com or www.nubocam.com +31 (0)88 00 68 450.

Safran Helicopter Engines has received EASA engine type certification for its Ardiden 3G engine, which powers Russian Helicopters' Ka-62. The helicopter made its official maiden flight on May 25, 2017. Since its first ground test, the Ardiden 3 maturation and certification campaign has accumulated more than 8,500 hours of test. Thanks to this extensive test phase, the Ardiden 3G will demonstrate a high level of maturity at entry into service.

Unveiled in 2010, the Ardiden 3 engine family is the only new-generation 1,700 to 2,000 shaft horse-power engine range designed for the six to nine-ton helicopter. In 2011 the 3G variant was selected by Russian Helicopters to power the Ka-62. Another variant, the 3C / WZ16, has also been selected by Chinese manufacturer Avicopter to power its AC352 which made its first flight in December 2016.



FLIR Systems, Inc. announced a partnership with a leading Norwegian aircraft maintenance provider, AIM Norway (Aerospace Industrial Maintenance), to open a regional FLIR Service Center. The companies will partner to provide technical maintenance and support for FLIR's electro-optical/infrared (EO/IR) systems in service in Norway, including the Star SAFIRE 380-HDc, which the Norwegian Ministry of Justice will begin using this summer as part of their Norway's All-Weather Search and Rescue Helicopter (NAWSARH) program.

The collaboration will provide FLIR maintenance and support capabilities for regional search and rescue (SAR), airborne law enforcement (ALE) and military customers where mission availability is paramount. Underpinned by a series of technical maintenance and assistance agreements, the centre will open in Kjeller, Norway and deliver support for FLIR Star SAFIRE family of products www.flir.com/airborne. FLIR Systems announced an award of \$17.9M for an indefinite-delivery, indefinite-quantity contract for the procurement of a maximum of 19 FLIR Star SAFIRE 380-HD (high-definition) systems, in support of the United States Coast Guard HC-27J surveillance aircraft fleet. FLIR will provide the Star SAFIRE 380-HD systems, cabling, controller units, software, mounting hardware, technical engineering services, and logistics support.

FAA has issued an STC for the DART R66 Heli-Utility-Basket™ as a validation of the previously issued Transport Canada approval. The R66 Helicopter Utility-Basket from **DART Aerospace** has added operational flexibility to Valley B Aviation's Robinson R66 aircraft. The initial installation of the provisions was seamless and straight forward, and the field installation is quick and simple. Installation of the DART basket adds many new capabilities to the R66 and features a weight capacity up to 175 lbs and length capacity up to 76"



Leonardo and **Sino-US Intercontinental Helicopter Investment (Shanghai) Co., Ltd.** Have announced a further reinforcement of their strategic cooperation in the Chinese helicopter market. During an official ceremony held at the Paris Air Show, the parties announced the signing of a contract for the purchase of 17 helicopters comprising 2 AW119Kx single engine, 10 AW109 Trekker light twin and 5 AW139 intermediate twin engine models. The order is valued more than €100M, with deliveries starting later this year. The contract was signed in the framework of a Distributorship Agreement renewal, which also foresees the purchase of additional aircraft in the next three years, and makes Sino-US Intercontinental the exclusive distributor for the Chinese civil, commercial and offshore helicopter market (including Hong Kong and Macau). Furthermore, the exclusivity under the Distributorship Agreement will be extended to the entire Chinese helicopter market no later than mid-2019. Sino-US Intercontinental has so far placed orders for nearly 100 Leonardo helicopters and has established the largest EMS (Emergency Medical Service) helicopter programme in China.

At the Paris Air show, last month **Airbus Helicopters** unveiled the aerodynamic configuration of the high-speed demonstrator it is developing as part of the Clean Sky 2 European research programme.

Codenamed **Racer**, for **Rapid And Cost-Effective Rotorcraft**, this demonstrator will incorporate a host of innovative features and will be optimised for a cruise speed of more than 400 km/h. It will aim at achieving the best trade-off between speed, cost-efficiency, sustainability and mission performance. Final assembly of the demonstrator is expected to start in 2019, with a first flight the next year.

The Racer demonstrator will be built around a simple architecture, ensuring safety and cost-efficiency. An innovative “box-wing” design, optimised for aerodynamic efficiency, will provide lift in cruise mode while isolating passengers during ground operations from the “pusher” lateral rotors designed to generate thrust in forward flight.

Optimised for performance and low acoustic signature, these lateral rotors as well as the main rotor will be driven by two RTM322 engines. An “eco mode” will be tested by the engine manufacturer to demonstrate an electrically-powered “start and stop” of one engine in flight, thus generating fuel savings and increasing range. The Racer demonstrator will also benefit from a hybrid metallic-composite airframe, specifically designed for low weight and low recurring costs.



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ACCIDENTS & INCIDENTS

28 March 2017 Leonardo AW109SP N. Air ambulance of Intermountain Life Flight, Salt Lake City, Utah, USA. Responding to a scene flight with one medical crew member, to meet at the accident scene where an additional crew member was waiting to complete the team. Just as the aircraft lifted into a hover from the Utah Valley pad, the yellow Caution/Warning light started flashing. It was an Open-Door caution. Upon landing, the crew member exited the aircraft to secure the door and to retrieve his coat which had been blown across the helipad to the front of the aircraft, (unknown to the pilot). The crew member secured the door and re-entered the aircraft for departure with no further issues. [Concern]

19 May 2017 Airbus Helicopters EC145 N197LL Air ambulance of Indiana University Health LifeLine operated by Metro Aviation. While in cruise flight at 3000 MSL, a "loud bang" was heard with a secondary "loud rushing" noise. The pilot verified no flight control or system malfunction and initiated a precautionary landing to nearest suitable landing area. After landing, a post-flight inspection revealed a broken co-pilot chin bubble with bird remains. No occupant was seated in the co-pilot seat at time of incident. The crew was in the cabin area, attending to patient care. No injuries were sustained from the incident and no additional aircraft damage was noted. As a proactive step to assist with avoiding bird strikes, Metro Aviation has begun an initiative to install pulse light systems throughout its fleet of aircraft. [Concern]

4 June 2017 Eurocopter EC135P2 OE-BXY Police aircraft of the Bundes Ministry of the Interior, Austria based at Flughafen Graz. The Federal Police helicopter was called in for a routine-mission to the Hochschwab-Eisenerz area, to assist an Austrian couple in their late 40s who had got into difficulties while hiking near Mount Reichenstein. A 28-year old policeman was lowered down uneventfully to the persons to be rescued. After connecting all three to the longline, the pilot started gaining altitude again. At a significant altitude, the rope left the helicopter under unknown circumstances. All three fell to ground and were severely injured. Additional helicopters attended and lifted them off. The policeman and the female hiker were dead on scene and the other person was airlifted in critical condition. [media]

15 June 2017 Bell UH1H N72594. Department of Homeland Security. US Customs and Border Protection. Force landed in a field near San Manuel, Texas. [FAA]



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16 June 2017 Bell 206 helicopter N509PD [?]. Westchester County Police, New York. A collision with a bird caused the helicopter to make an emergency landing in Coyne Park, Yonkers at night. The Aviation Unit crew examined the helicopter, determined there was no damage or any resulting safety issue, and took off again.

UNMANNED

At Paris **CONTROP Precision Technologies Ltd.** launched T-STAMP-XR, its unique, compact payload for UAS with exceptional thermal sensor optics.

T-STAMP-XR – a new member of the CONTROP STAMP family of gyro-stabilized miniature EO/IR payloads for UAS – weighs only 3.5kg. It is comprised of a high sensitivity HD day camera, a cooled thermal imaging (TI) camera, and an optional laser designator or laser pointer. The built-in INS on the Line-of-Sight provides precise and accurate target coordinates, geo-location, hold-to-coordinate and point-to-coordinate capabilities. The optional laser pointer is available for onboard target pointing. Additional features include onboard automatic video tracker, image enhancement, local automatic gain control (AGC), picture-in-picture (PIP), digital video output, and optional H.264 video output. The T-STAMP-XR enables tactical interoperability with other platforms in the theatre, and has low life-cycle costs due to a unique and high endurance cooled TI detector.

The STAMP is a family of gyro-stabilized miniature payloads, which were especially designed for day and night tactical over-the-hill reconnaissance missions on small aerial platforms. Lightweight yet ruggedized, the STAMPs provide precise geolocation and can withstand high-shock landings. With low power consumption, the STAMPs incorporate only one LRU and provide the most cost-effective solution of their type for small manned and unmanned systems.



THE BRITISH SCENE—Buying and operating unmanned *provided by Ian Povey*

At the recent Police Aviation Conference (PAvCon) 2017, held in Doncaster, there were lots of bright, shiny, modern looking drones to admire. Unsurprisingly they weren't cheap with one model calmly described as costing just £35,000 – an absolute bargain.

Whilst high-end drones have their place in the industry their cost effectiveness for emergency services is a little dubious. Unknowingly, police forces can easily spend a large amount of money on hardware with little understanding of whether its enhanced features make it good value for money or a waste of resources. In this respect, they are hampered in delivering best-value and somewhat at the mercy of salespeople.

One European police force present explained that their first drone cost €17,500 and their latest one cost €70,000 and had a maintenance budget of €30,000 for the 5 years of its anticipated lifespan.

In the short term, this lack of ability to ensure best-value procurement with drones leads to strains on budgets. More worryingly in the longer term this is likely to have a detrimental effect on the reputation of drones within the emergency services. A common theme is thinking more is better without understanding that you can be wasting money on capacities that far exceed your operational needs.

Take payloads for example. A key factor in high end drones is their ability to fly quickly and smoothly whilst carrying a payload of between 5-10kg, whereas most lower priced drones are happy with a 1-2kg payload. Payload is a significant factor in buying choice only in the film and TV industry. They often use cameras such as the Red Epic which weighs in at around 2kg. Add a hefty lens and gimbal system to it and you're over the tolerances of the cheaper drones and into the high-end ones.

Obviously, these drones are a perfect fit for the film industry but are they of real benefit to the emergency services when manufacturers such as DJI produce drones for £1,000 – £5,000? What would you get for the extra £30k – £65k and is it worth it?

The Drop Test

At some point in your journey as a drone pilot the thought will cross your mind about what will happen if your drone cuts out and falls from the sky. Unsurprisingly they don't do too well and the heavier they are the bigger the smash and the larger the repair bill.

The reason I raise this as the first point is because it has a significant bearing on costings when deciding a budget for a drone – you must assume that at some point it will crash.

As much as pilots try to avoid crashing, drones are often at the cutting edge of technology. The push is ever present for manufacturers to release the next model as soon as possible before their competitors can catch up. For this reason, they often have teething problems and need to be regularly updated. Indeed, the updates themselves can cause flight problems as some have discovered.

The aforementioned European police force recounted how one of their drones just stopped working mid-flight and crashed. When they investigated it turned out that the latest software update contained a bug which caused the system to stop working. So even when you're following the manufacturer's recommendations, regularly updating the software, and flying correctly you can turn your drone into £50,000+ of broken plastic and metal.

There are ballistic parachute systems, but these often require manual activation which depends upon the pilot overcoming their initial shock and hitting the parachute switch in time. In practice, you have about 1-3 seconds to do that. Also, the demonstrations of the systems show parachutes launched just as the rotors cut out so the drone is in an ideal position. Drones don't glide, so as soon as they lose power they are likely to tumble in a fall meaning that the parachute launcher could be pointing towards the ground when deployed.

Even when you consider systems with propeller redundancy and battery redundancy they can still crash due to the drone's flight controller failing, bird strike, or operator error. Bearing this in mind it's safest to work on the principle that the drone may crash, so you might want to consider a cheaper option than £35,000+.

Crowd-Sourced Information

The best value, most cost-effective drones are without doubt those manufactured by DJI. They are the most popular drone manufacturer in the world and their recent exponential growth has seen them pushing the boundaries of aerial systems much further and faster than anyone else.

Typically, a DJI system will cost between £1,000 – £5,000 and suits most general purposes. If you need to have FLIR capabilities that adds on another £5,000 – £10,000, although the effectiveness of these systems in practice is somewhat uncertain. The demonstration videos of drone FLIR systems often show very close up operations, so don't imagine it will be anything comparable to the FLIR turrets on helicopters – they're light years apart.



©File image

The main benefit of DJI drones, other than their comparatively low cost, centres around their popularity. When buying a new model, you can be certain that there will be lots of other users out there commenting on it and posting videos of it in operation on YouTube. This enables you to make a clearer, more realistic assessment prior to purchase.

Pretty much every drone manufacturer stretches the truth in their write ups which are accompanied by slick photos showing carbon fibre weaves, smoke, and dramatic lighting. The drones are designed to look impressive, but you need to know the reality beyond the marketing and that's where the crowd help.

The more people who use a drone, the higher the probability of its weaknesses being exposed, and with DJI they have the highest number of users throughout the world so you can leverage this to your advantage.

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

This also helps when it comes to the dreaded update process. Each pilot's flight operations manual will specify that they'll always fly the drone with the latest updates in accordance with the manufacturer's instructions. If they don't regularly update the drone they're in breach of the flight operations manual and are no longer flying with any commercial permission.

However, if they update the drone's software within a reasonable time-frame to ensure safe operations, they'll be legal. In practical terms, this means that when a new update becomes available they can wait for a week or two before committing to carry out that update. Within that period other users will have performed the update and tested it, so if there are any bugs in it there's a better chance of exposing them.

If one manufacturer has 1,000,000 users worldwide as opposed to 10,000 users then there is more likelihood that flaws in the update will be revealed before you install it yourself.

When is a DJI drone not a DJI drone?

The simple answer to this question is when someone puts a different label on it, which happens far more regularly than you might have guessed. Whilst there are lots of different drone manufacturers to choose from, a lot of them rely heavily upon DJI software and hardware.

Going back to the European police at PAVCon they showed a screenshot from one of their exercises. It showed the flight path of their drone as seen on the pilot's monitor. It was immediately apparent that the user interface for the drone was a DJI one, but without the DJI logo.

The reason for this is because DJI are the market leaders not just in 'Ready To Fly' (RTF) drones, but also in drone components, data-links, and software. Other manufacturers do exist who produce their own proprietary components and systems, but they are a lot harder to find than you may think.

For instance, one manufacturer, Acecore, who produce the very attractive looking Neo and Zoe drones use the DJI A3 flight controller.

The flight controller is the very heart of the drone. It manages the GPS system, the batteries, motors, and both the control and data downlinks. Not knowing this you may purchase an Acecore drone thinking that it's separate from DJI, but in reality you're flying a drone with a DJI brain.



This becomes an issue specifically for law enforcement and security agencies who may be worried about the rumours of data sharing with China. DJI are a Chinese company and there are very credible reports that during the update process some data from the drone is shared with DJI.

Exactly what data is shared and how that might find its way into the hands of the Chinese intelligence community no-one is quite clear now, but there is a question mark hanging over DJI products in this respect.

If your drone is manufactured by DJI you'll naturally be careful with sensitive data. However, if you believe your drone is manufactured by Acecore for instance you might think you're safe from such worries. Not so, because you'll still have to connect with DJI to update your flight controller, you just might not be aware that it's DJI you are updating with.

Other manufacturers don't even say whether their flight controller is made by DJI or not, so always assume it is unless they can offer some form of proof it's their own or another manufacturer's flight controller. On a side note there is a perfectly safe way to update your DJI drone and ensure a physical barrier to prevent any data being sent to DJI – I'll cover this in more depth in a future article, but if anyone has immediate concerns you can always get in touch and I'll explain it.

Life Span

Another key element in deciding a budget for drone procurement is the anticipated life span of the system. Although some people put this rather optimistically at around 5 years I'd say that realistically it's between 2-3 years.

As mentioned before drone technology is very fast paced and shows no sign of slowing down. Within the space of 18-24 months the latest technology has been replaced and certainly after 3 years whilst the drone may still be operational it's going to be out of date and facing problems with continued firmware updates and manufacturer support.

Take for example the Matrice systems developed by DJI. The Matrice 600 was launched to market in 2016.

This system was a step change for DJI because it featured both battery redundancy and propeller redundancy whilst also incorporating a gimbal compatible with Red Epic cameras. If your camera costs £40,000 you really want some redundancy before you'll be happy flying it through the air, and the Matrice 600 checked all the boxes.

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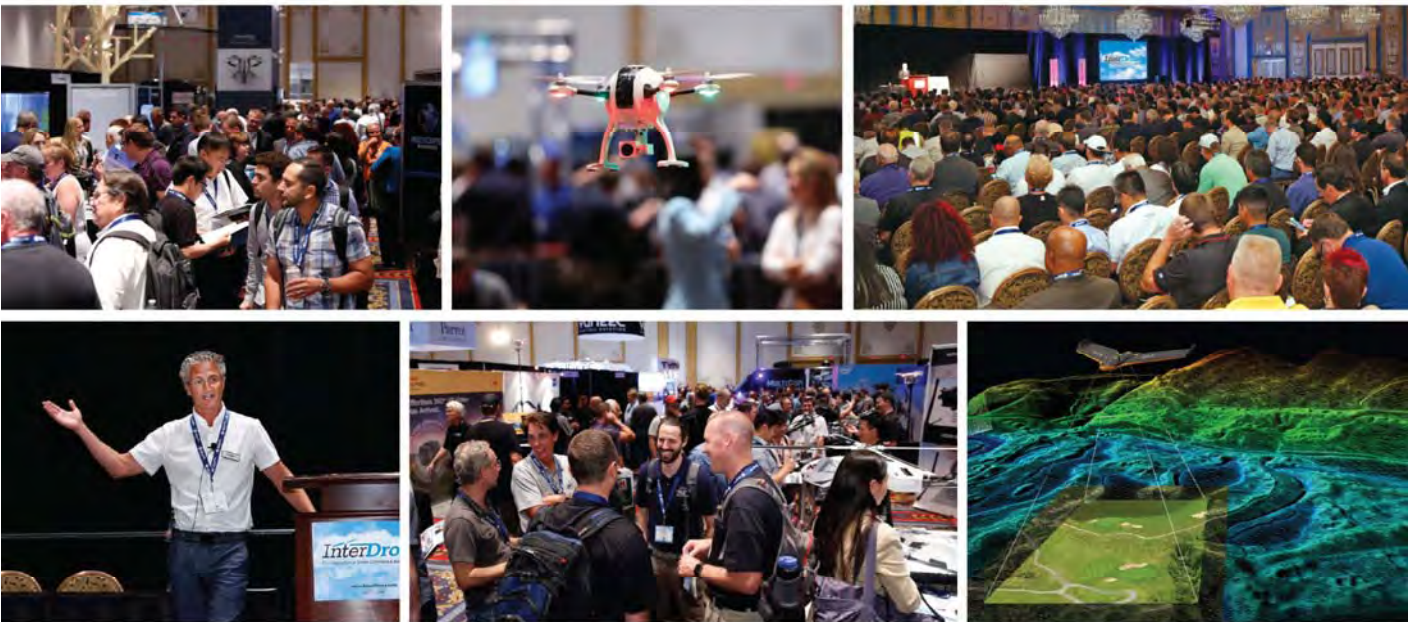


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Now in 2017 DJI launch to market the Matrice 200 series which is another improvement on the model. Although it can't support the Red Epic type cameras and doesn't feature propeller redundancy, it does still have battery redundancy. The main added features are that it can be tethered with a power-line and data link and has an IP43 water-proof rating meaning it can be flown legally in wet weather conditions.

The IP43 rating is very important because in the UK you can only operate a drone within the manufacturer's specified conditions. Even though it may be possible to fly a drone in light rain or snow unless it has an IP rating from the manufacturer that meets those criteria you can't legally operate it in rain or snow. To do so would be in violation of the flight operations manual, so the pilot would not only be operating illegally, they would also have invalidated their insurance.

The Matrice is just one example but it's symptomatic of the way drones change. They are becoming much more capable, faster, more agile and more tailored to specific industries. To harness this pace of development it's best to try to keep hardware budgets low, bearing in mind that you'll want to replace or expand your fleet every 24-36 months.

If you're buying drones that cost £35,000 – £65,000 that doesn't represent best-value. You'll be tied to a system that becomes outdated and outpaced which starts to have an impact on its operational effectiveness when going up against newer technology.

Conclusion

To date, despite their flaws (terrible customer support being one of them), DJI continue to offer the best value and (usually) most advanced technology on the drone market that I've seen.

They're continuing to drive the pace of innovation in the marketplace as shown by their recent launch of a goggle viewing system that adjusts the drones camera position according to your head position.

In my opinion the main benefit of DJI systems for the emergency services are that they provide a low-cost entry to the technology which makes maintenance budgets practically pointless.

If for example you purchased an Inspire series drone your cost is around £4,000. If it had a life span of 3 years with a maintenance budget of £6,000 you could afford to crash it a few times and still be left with a perfectly functional Inspire at the end of the 3 years.

On that basis the total cost would be £10,000. That's still less than half the cost of the Acecore Neo, and the more expensive the drone costs to buy the more expensive it is to repair.

For most emergency service deployments DJI equipment will provide the best value and most reliable technology. It's backed by crowd-sourced information which is immensely beneficial when it comes to avoiding update problems and glitches.

The other key advantage of DJI products is that you know what you're getting and can take that into account when dealing with data protection and sensitive intelligence issues. With some other manufacturers you may still be using a drone completely unaware that its heart and soul is made by DJI.

Ian Povey ClearVision

PEOPLE

Two of the US based speakers at this year's PAvCon made good use their presence in the UK by extending their stay by a few days to take in the sights [or sites, as both would apply]. For these law enforcement pilots they were exchanging their AS350s for wholly new experiences.

Last year the ALEA Safety Officer Bryan Smith took in a chunk of Germany and Austria this year it time to head south to take in a brief dose of London and Stonehenge in Wiltshire. The driving was of course a challenge -these Limeys insist on driving on the wrong side of the road. I am not sure he was too calmed by my insistence that it was nothing – he always flies his Sheriff's Office AS350 from the right seat!





Despite his clear issues with the roads Bryan made it to London to take in the usual tourist sights and travelled way back in time to take in Stonehenge in Wiltshire—and of course he took his new PAVCon attire with him! [via BS]

Which side to drive on was much less of a problem for Bill Proberts of course as he hails from Surrey and is an ex-constabulary man who is now in charge of a US police law enforcement air operation in northern California.

Bill was off to the south of London to fly a Vickers Supermarine Spitfire two-seat aircraft from the former RAF fighter station at Biggin Hill in Kent. It was an expensive experience but well worth the high premium. The flying was across the green fields that had once witnessed Spitfire's and other types in mortal aerial combat. Over land the exhilarating experience was pretty low key but once over the English Channel he was able to fly the 80-year-old type aerobatically – closer to the manner that it had been flying in the 1940s.



Spitfire at Biggin Hill [in 2015 PAR]



The real thing—inverted over the English Channel in a two-seat Spitfire [via BP]

LETTERS

Dear Bryn,

Although it's extremely difficult to make a comparison between the newly commercially certified Cavalon autogyro powered by the ubiquitous Rotax engine, in this case the Rotax 914F, there's no escaping the fact that it costs peanuts, both to purchase and to operate, when compared an Airbus EC135 with all its 'bells and whistles'

With a crew of 2, pilot and observer, together with the new, lightweight L3 Wescam MX-8 EO turret, weighs 6.5kg, the Cavalon can fly more than 5 hours on a tank of fuel, sipping Mogas, or Avgas, at around 16 litres per hour! At today's prices, in the UK, the fuel bill is around £20 per flying hour.

The purchase price of the aircraft which, together with a lightweight EO turret, would make it eminently suitable for the 'bread and butter' tasks of searching for missing persons, reporting serious flooding and tracking wildfires, as well as more general air observation and air to ground photography, would be in the order of \$US 500,000, or £300,000. A fraction of the cost of a multi-million-pound helicopter doing the same, routine jobs. With the doors removed the view of the ground, with or without stabilised binoculars, is unparalleled.

Best regards,

Tony Cowan
Civil Air Patrol UK



The Civil Air Patrol brought the Cavalon to this years PAVCon Police Aviation Conference in Doncaster. It is fair to say the type was not of great interest to UK police but at least one member of the NPAS board took an interest. [PAR]

EVENTS

PAVCon POLICE AVIATION CONFERENCE

Details of the 2017 Police Aviation Conference held at the Best Western Premier Mount Pleasant Hotel, Great North Road, Doncaster DN11 0HW in early June are contained in a report on-line and to be found at both www.pavcon.org and www.pavcon.info

Down at ExCel in the London Docklands one of the major security shows in the UK calendar took place over the Summer Solstice. The event is a collection of different themes drawn together in one place to cover security, fire prevention, health and safety, facilities and specialist clothing. Six shows in one. Some of it relates to the airborne emergency services but that is a very tiny element and for the main part the event is over-run with CCTV cameras, steel barriers and how not to break your neck when working. There were 1600 exhibitors showing 20,000 products and if you told me 19,500 or those products were cameras I would tend to believe you. All pretty intense but well off the PAN market. The Paris Air Show was on during the same week so aviation content was meagre.

Occasionally the event throws up something interesting. Not this year I may add.

The nearest element of interests was the appearance quite a few drone training and operating companies mixed in with the growing interest in trying to overcome the



potential menace [“threat”] posed by drones. The ones appearing at Ex-Cel seemed primarily to be peddling means of interfering with the control of rogue drones. To a person none of them included that vital information that civilians cannot legally interfere with a drone until specifically challenged. Even then there was a scholastic argument whether messing about with the algorithms of a flying aircraft was the same as sending a jamming signal as far as the ICAO unlawful interference rules were concerned. There were not many too keen on being the one testing that argument in court. At the moment then ‘knock out rays’ are to remain as no more than a military option.



We were all agreed though that when a rogue drone appears in the garden of someone very important in government carrying something nasty adherence to that rule will change rather quickly.

The use of drones as an owned asset that might be a less costly alternative to calling in expensive NPAS helicopters is the focus of most forces but some see calling in contractors as an equally appealing alternative. A number of units were researching at the show but the fact that the event went head-to-head against Paris thinned out the options.



Drones are the subject of the moment although no-one is quite sure yet whether they will save masses of money. They still need a 'crew' of two and transport to the operating base. Yes, they may be cheaper than a big twin-engine helicopter but the actual costs are challenged when compared with smaller manned craft that can often offer lower running costs and rely on less trained staff.



THIS MONTH

Over in Singapore the stage is set for INTERPOL World 2017 as it readies to welcome over 10,000 law enforcement agencies, government bodies, academia, solution providers, security professionals, and buyers from around the globe.

In its second edition this year, INTERPOL World, comprising the INTERPOL World Congress and Exhibition, promises an immersive experience covering the latest innovations, best practices, and thought leadership aimed at accelerating timely and accurate responses to future global security challenges.

In many ways the event will reflect the content of IFSEC bringing up such as facial recognition, access control, solutions for public safety, identity management, biometrics, forensics, investigations and cyber-crime to an Asian audience.



Another constant challenge for law enforcement is in securing and managing borders. SICPA's EXTENS® SmartStamp is a machine-readable travel stamp that combines material and digital technologies to contain both static and dynamic data about travellers and their trips, thus allowing border control authorities to immediately access previously unattainable data.

The use of robots in law enforcement is also gaining traction and the worldwide market for law enforcement robots is estimated to reach USD 5.7 billion by 2022, an increase from USD 1 billion in 2012.

It is a much smaller show than the one at ExCel with over 200 companies from 30 countries and regions showcasing solutions at the Exhibition.

Complementing the products and solutions showcased on the exhibition floor, the INTERPOL World Theatres is a carefully curated programme featuring seminar and workshop sessions that lend practical technical insights to address current and emerging security issues. Solution providers and subject experts will share the latest industry trends and exclusive case studies to help professionals keep up to date with the rapidly evolving industry.

INTERPOL World 2017 Congress will be held from 4 to 6 July, alongside the INTERPOL World Exhibition, which will take place from 5 to 7 July at the Suntec Singapore Convention and Exhibition Centre.

www.interpol-world.com



Later in the month it is all over to Reno in Nevada for the ALEA Annual Exposition and training days. The last time we were there in the gambling town was five years ago.

Except for the backdrop it is very much business as usual as far as the event programme goes.

23-28 July 2017 ALEA Annual Conference & Exposition. Reno, Nevada www.alea.org

ALEA EXPO 2017
RENO, NV | JULY 23-28



ADVANCING PUBLIC SAFETY AVIATION

Having been to ExCel for the IFSEC event I noted that the operators of ExCel have really gone to town on ramping up their car parking charges. Last Helitech I seems to recall it being £15 a day to park and last time there is was up to £16. None of which excuses the sudden leap to £20 I found last month. What country are they in that excuses a 25% hike in rates during a period of low inflation? Was it the exchange rate perhaps?

I have asked the organisers of Helitech whether they intend having any control over the car park charges?

For exhibitors it is a hidden tax [remember Duxford was free] and exorbitant at that and for multiple visitors the same applies.

So far a deadly silence prevails

