Police Aviation Research Issue 263 March 2018

PHILIPPINE CANCELLATION PULL BACK ON HASH MIDLAND H145 UPGRADE SINGAPORE REPORT HELI-EXPO PREVIEW

Midla

LAW ENFORCEMENT

ONTARIO: An Ontario Provincial Police (OPP) officer has been demoted for a year for going public with his opposition to moving the provincial police service's emergency rescue helicopter from Sudbury to Orillia in 2015. OPP Sergeant Dan Mulligan lost an appeal of his demotion last month, which stemmed from a letter he wrote to local media opposing the decision.

The case began in spring 2015, when the OPP announced plans to centralize both of its emergency rescue helicopters at its base in Orillia. The move was expected to save \$254,000 a year and allow the force to expand the operating hours of the two helicopters. The decision was criticised at the time over fears it would affect service to people in Northern Ontario and Mulligan sent the letter to the media in May 2015, outlining his concerns, questioning whether the move would save money and said the decision would cost lives in the North.

In the letter, he accused the OPP of "a classic shell game at best and a very negligent crapshoot with Northern lives (the losses of which are inevitable/irrefutable) at worst.

"As a former Sudbury boy with family remaining in the North, I couldn't possibly express in publishable words how strongly I object to such ill-conceived relocation of such an important aircraft ... The OPP has both a moral and legal obligation to continue to provide what has logistically proven to be the best professional search and rescue response possible to our northern families." He signed the letter, "Dan Mulligan, Sergeant, Aviation Services-Helicopter Unit OPP General headquarters Orillia."

He was charged under the Police Services Act with breach of confidence for sending the letter, and discreditable conduct for undermining the public's confidence in the OPP. He was found guilty in March 2017 and demoted to the rank of first class constable for one year, after which he would be a sergeant again. Mulligan appealed the decision to the Ontario Civilian Police Commission on several grounds but they were rejected.

EUROPE

PAvCon 2018. There is still a way to go yet but the next edition of this popular annual event will be held at Warsaw in Poland on May 21-24, 2018.

We have now put together a programme for the Training Day, Monday May 21, with content aimed at sen-

sor use and TFO/Observer training. This year the training will be undertaken in English by European police and industry. Booking, for all classes at just €50 for the day, has started. This is an event where 'everyone is equal' exhibitors are delegates [at no additional charge] and will hopefully take a full part in the conference days.

Meanwhile prime exhibitor positions in the hall are being snapped up with Cirrus Aircraft now taking up prime position and role as a major sponsor of the event alongside Bell Helicopter. Check out the current floor plan on the website <u>www.pavconeurope.eu</u>



FRANCE

Five people died after two military Aerospatiale AS341 Gazelle helicopters crashed in the south of France on the morning of February 2.

The accident took place over Lake Carces, a popular tourist spot north of the Riviera resort of St Tropez. Both aircraft were from the Army's School of Light Aviation (EALAT) in the nearby town of Cannet des Maures. EALAT trains helicopter pilots for the French Army, Navy, and Gendarmerie, as well as customs and other civil security agencies. [AP]

Ed: In the event all those aboard were military personnel and not police.

FRONT COVER: Formula One racing legend Nigel Mansell CBE, and former England Captain and Rugby World Cup Winner Mike Tindall MBE, joined forces at the delivery into service of a £7M H145 HEMS helicopter to Midlands Air Ambulance Charity, at Babcock Mission Critical Services in Gloucestershire. The new H145 G-RMAA was to be delivered at the unit base at RAF Cosford in mid-February until the weather inter-#vened and moved the venue to Babcock Mission Critical Services in Staverton, Gloucestershire. PAN—Police Aviation News is published monthly by POLICE AVIATION RESEARCH, 7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK. Contacts: **Main:** +44 1992 714162 **Cell:** +44 7778 296650 **Skype:** BrynElliott or +44 20 8144 1914 **E-mail:** <u>editor@policeaviationnews.com</u> and <u>admin@pavcon.org</u> and <u>policeaviation@hotmail.com</u>

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PHILIPPINES

NATIONAL POLICE: In the wake of a dropped deal top sell a number of Bell 412 helicopters to the Philippine Army the police in the country has reiterated its continued commitment to a single example on order.

At the recent Singapore Air Show a military contract for multiple Bell 412s was signed. After the contract was announced social media was soon on the case claiming that the new helicopters would be used in the drug war in the country. The government has been killing drug criminals wholesale and that is not going down well with many nations. Belatedly the deal that was being quietly facilitated by Canadian Commercial Corp., a Crown corporation, came to the notice of the less robust souls in the Canadian government. They visualised the new aerial threat to the drug barons and dealers and clumsily attempted to impose their will on the Filipinos. Some sources suggest that they were trying to get the deal under the wire unnoticed by choosing Singapore for the announcement and signature rather than say HAI next month. Perhaps they should have dealt with it as the bad news it was by never announcing it.

Either way Philippine President Rodrigo Duterte announced that he is cancelling his country's plans to buy the helicopters from Canada – a lost deal worth an estimated \$300M.

The Philippine National Police (PNP) expects its own multi-million contract for one helicopter to push through. The PNP awarded the contract to Bell on June 20 last year. The newer army contract was on a government-to-government pact, dealing with the state-run Canadian Commercial Corporation. In contrast, the PNP had dealt with Bell directly in open bidding.

Elsewhere in the country PhilJets fleet welcomed a new addition in the form of a new Airbus H145 delivered to the company at the Manila Domestic Airport in mid-December. The arrival of the H145 was a highly anticipated milestone for PhilJets because it is the company's second twin-engine helicopter. The arrival adds to the company's options to carry out new services for their charter like law enforcement operations, crew transport to oil and gas plants and power lines inspection.

The new H145 comes equipped with a night vision goggle-compatible cockpit and an advanced mission management system. The type is well-suited for patrol, surveillance and rescue operations because it can easily be equipped with a forward-looking infrared, searchlight, hoisting mount, daylight camera and connectivity features for communications and data exchange. The wide sliding doors and spacious cabin make it well-suited for taking forward the option of an Emergency Medical Services (EMS) role. The H145 also offers comfort for both patients and medical personnel onboard because it is quiet.

Although the H145 twin is seen as the future in some of their markets PhilJets has placed an new order with Airbus Helicopters for its eighth H130 helicopter. The new H130 will be deployed for charter heli-tours and VIP transport services. PhilJets took delivery of its seventh H130 helicopters in January 2018 taking its fleet to eleven helicopters and three business jets. The company aims to add three more aircraft within the year.

Image PhilJets

UNITED KINGDOM

EAST ANGLIA: Police forces denuded of their air support by central government edict are increasing turning to alternatives and promoting even the minor the successes of their drones.

Norfolk Constabulary launched a three-month drone programme last year and has now doubled its drone capabilities. When the project was announced towards the end of 2017, Deputy chief constable, Nick Dean, said: "While the technology still has its limitations, the option of launching a drone in the air in a few minutes could help save lives and secure evidence if a crime was in progress. "Drones offer many benefits that complement the National Police Air Service (NPAS) helicopter. This technology offers a highly cost effective approach to help assist our officers." The police unit has two drone units which cost £1,500 and £850 and can fly in winds of up to 50mph.

Meanwhile in the next county, Suffolk, a number of services have banded together to also operate two drones at a cost of £42,500. The police paid £20,000 to the total – with the remainder coming from the others including the fire service, lowland search and rescue, four-by-four response and the county council. Generally four by four response, a volunteer group that provides Emergency Services Support, will operate the resource on behalf of the others.

Police and Crime Commissioner Tim Passmore said they would not replace the National Police Air Service (NPAS) helicopter, which serves the region from Essex and has regularly faced his criticism for the cost of "dead flying time" on journeys. In his statement he included a typical jibe at the helicopter service - "It will complement, not substitute for the helicopter. We get a pretty rubbish service from the NPAS and I think this will help reassure people – particularly in the north of the county." [EDP]

UNITED STATES

TRAKKA

NATIONAL: President Trump's FY 2019 Budget proposal totals \$28 billion for the Department of Justice to support federal law enforcement and criminal justice priorities of state, local, and tribal law enforcement entities. The request represents a comprehensive investment in the Justice mission and includes increases in funding for strengthening security efforts to reduce violent crime, enforce the nation's immigration laws, combat the opioid epidemic, and continues its commitment to national security.

CRITICAL VISION TECHNOLOGY

To see, to save and protect



March 2018

The Department of Justice's areas of investment include:

- +\$295M to fight the opioid crisis and support law enforcement safety. Additional resources will be devoted to combatting transnational criminal organizations, known for supplying illicit substances to the US.
- +\$65.9M for immigration to enhance border security and enforcement.
- +\$109.2M to strengthen federal law enforcement's ability to reduce violent crime.

\$3.9 billion in discretionary and mandatory funding for federal grants to state, local, and tribal law enforcement and victims of crime, to ensure greater safety for law enforcement personnel.

The United States sees itself as being in the midst of the deadliest drug epidemic in its history. More than 63,600 Americans died from drug overdoses in 2016, a 21% increase from the previous year. Over 42,200, or approximately two-thirds, of these overdose deaths were caused by heroin, fentanyl, and pre-scription opioids.

One element of last month's editorial comment about how Airbus and Leonardo were both involved in an ongoing spat over orders drew to a close early last month when Travis County rejected the Airbus Helicopters protest at their decision to go with the AW169 for their new fleet. In a further development Leonardo has announced plans to drop its challenge to the US Army selection of the Airbus Helicopters Lakota.

CALIFORNIA: Regular readers will recall a front page related comment about legal changes taking place in California relating to the growing and possession of cannabis. Airborne law enforcement action against grows is on the wane in the state although in certain other parts of the USA police are as active as ever beating the growers.

It goes way beyond no further prosecutions, in some areas they plan to forgive and forget even the historical law-breaches. San Francisco will retroactively apply California's new marijuana legalisation laws to prior convictions, expunging or reducing misdemeanours and felonies dating to 1975. Nearly 5,000 convictions will be reviewed, recalled and resentenced.

San Francisco's move could be the beginning of a larger movement to address old pot convictions, though it's still far from clear how many other counties will follow the famously liberal city's lead. Proposition 64 legalises among other things, the possession and purchase of up to an ounce of marijuana and allows individuals to grow up to six plants for personal use. The measure also allows people convicted of marijuana possession crimes eliminated by Proposition 64 to petition the courts to have those convictions expunged from their records as long as the person does not pose a risk to public safety.

About 75% of San Franciscans voted to legalise marijuana, the highest margin among all of California's 58 counties. [LATimes]

Last September's edition of PAN (#257) reported on the growing acceptance of 'personal crops' of cannabis in the USA.

As this image shows the term 'personal' is being interpreted very liberally.

This well manicured patch was situated north of San Francisco. [PAN]



AIR AMBULANCE AUSTRALIA

NEW SOUTH WALES: More than 2,000 patients have been rescued by aeromedical choppers in Sydney and southern NSW in the past year. The means to undertake this uses a Helicopter Retrieval Network that costs \$151.2M the single biggest NSW Government investment in aeromedical services in the state's history.

Last month Premier Gladys Berejiklian and Minister for Health Brad Hazzard opened a new \$25M Bankstown NSW Ambulance and Toll Rescue Helicopter Base that features clinical, servicing and training facilities, including three helicopter and servicing hangars and a state-of-the-art training centre with simulators, a water training pool, environment training facilities, medical simulation rooms and an auditorium. The facility ensures every aeromedical staff member will be trained to the highest possible standards.

IRELAND

Two Government ministers have objected to proposals for a revamp of trauma centres, which include plans to treat severely injured patients at three centres in Dublin. The department has proposed a major streamlining of existing arrangements for treating people injured in incidents such as falls, car crashes and violent attacks.

Under Minister for Health Simon Harris' proposals the State would be divided into two trauma networks, with one covering the south and the other designated as a larger "central network". The exact boundaries of these areas are yet to be determined but it is envisaged that the central network could have a catchment population of about three million and the southern network would cover about 1.5 million people. Within each network a hospital would be designated as a major trauma centre, one in Dublin and another in Cork.

A question has been raised as to why three trauma centres, including a major regional facility, should be based in Dublin. The absence of a major trauma unit in the west, northwest or midlands has been high-lighted.

NEW ZEALAND

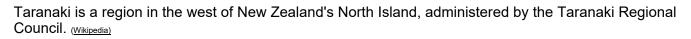
TARANAKI: Two Taranaki trusts have financed baby pods for its fleet. South Taranaki babies were previously seen to be at risk while being transported by road and air.

New ambulances should be arriving in the next few months but it is understood that incubators cannot fit in the vehicles so the Taranaki Patriotic Trust [TPT] and the Taranaki Air Ambulance Trust [TAAT] will provide a specially-designed, high-tech baby pod to be based in Hāwera.



These state-of-the-art pods will enable babies from South Taranaki to be transported safely to New Plymouth's Taranaki Base Hospital [TDHB] by road in the new ambulances, and allow the Taranaki Air Ambulance to fly babies to and from Auckland's Starship Hospital, or other hospitals in the country for specialist treatment not available in Taranaki.

The pod basically fits on top of a stretcher and can be strapped in. St John recommends five different secure points of harness for safety, which the pod has. It can also cater for bigger babies up to 8kg. TPT had already donated \$20,000 for the first baby pod to be purchased by the TAAT last year, but a bargain buy meant two pods became a viable proposition.



UNITED KINGDOM

This month there have been a couple of developments in the UK air ambulance world that this edition does not have sufficient space to cover. The Midland Air Ambulance at RAF Cosford scheduled a launch of their new H145 at the base for February 19 only to have it take place in Staverton because of the weather. Meanwhile up in the Northeast Great North received the go-ahead for a new base to replace their flying operation out of Teesside Airport.

UNITED STATES

TEXAS: South Texas Blood & Tissue Center, a subsidiary of BioBridge Global, has launched a programme to aid accident and trauma patients served by area air medical services and hospital helicopters. The programme, "Brothers in Arms," will enable air medical crews to administer special pre-hospital transfusions of whole blood, proven to counter blood loss and dramatically improve survival rates when tested in battlefield situations.



San Antonio is one of the first cities to implement the system, which is based on the battlefield transfusion programme developed by the U.S. military and later adapted at the Mayo Clinic Trauma Center. Research led by Dr. Donald Jenkins, a former U.S. Air Force officer and the principal architect of the Joint Trauma Theater Trauma System in Iraq and Afghanistan, showed that combining the practice of pre-hospital transfusions with specially tested units of whole blood – rather than transfusing individual blood components of red cells, plasma or platelets – is most effective in treating trauma victim suffering from significant blood loss.

"The general mortality rate for critically injured patients requiring massive transfusions at hospital trauma centers is 75 percent," said Jenkins. "Our battlefield experience showed that providing earlier, pre-hospital transfusions of whole blood, rather than blood components or primarily red blood cells, brought mortality rates down as low as 20%."

The new project is a collaboration involving the South Texas Blood & Tissue Center, the Southwest Texas Regional Advisory Council (STRAC), University Health System, the San Antonio Military Medical Center, The US Army Institute of Surgical Research, the UT Health Science Center and medical helicopter services Air Evac Lifeteam, PHI Inc. and San Antonio AirLIFE and part funded by the San Antonio Medical Foundation.

The universal blood type generally used for emergency transfusions, O-negative, is found in just 7% of the population. More than 30% of donors are type O-positive, making it the most common blood type. A protocol identifies O-positive donors with low antibody levels, making it possible to use O-positive blood for the trauma victims. The programme is targeting male O-positive donors because men tend to have lower levels of certain types of antibodies in their blood than women, reducing the possibility of adverse reactions in patients. southtexasblood.org



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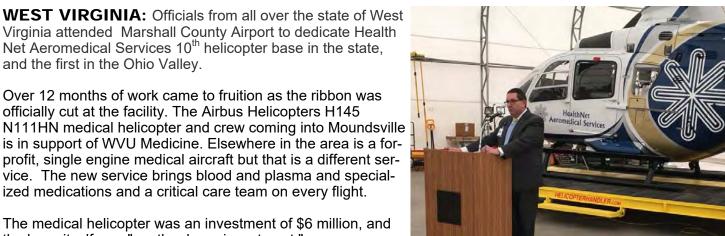
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The medical helicopter was an investment of \$6 million, and the base itself was "another large investment."

ized medications and a critical care team on every flight.

Net Aeromedical Services 10th helicopter base in the state,

Over 12 months of work came to fruition as the ribbon was officially cut at the facility. The Airbus Helicopters H145



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INDUSTRY

The Czech Republic has halted an acquisition process for new military helicopters to redraw its specifications for the new aircraft.

March 2018

Prague had in October 2017 shortlisted the Bell Helicopter UH-1Y and Leonardo Helicopters AW139M for the 12-unit requirement to replace its Mil Mi-24s.

The Czech defence ministry confirms that the acquisition is now on hold pending the issue of a new revised request for proposals later this year.

Sikorsky is hopeful that it can find a European customer for the recently qualified armed variant of its S-70i

and the first in the Ohio Valley.



Black Hawk.

That model, assembled by subsidiary PZL Mielec in Poland, had been excluded from the previous tender due to the requirement for a government-to-government deal.

Elsewhere in Eastern Europe, Poland also appears to have extended the deadline to submit final offers in two separate acquisitions for a total of 16 helicopters for its special forces and the navy.

Airbus Helicopters delivered the 1300th helicopter from the H135-family, a number underlining the multipurpose lightweight twin-engine helicopter's worldwide success.

The global fleet of this type has accumulated a total of more than 4.5 million flight hours since the entry into service of the first helicopter in 1996. More than 300 customers in 60 countries use helicopters from the H135 family for a wide range of missions. The majority of the lightweight twin-engine helicopters of this type are operated in Europe (641), followed by North America (316) and Asia (195).



RUAG has selected a new model of medevac stretcher for the Dornier 228 with STC from **GVH Aero-space.** The EASA-approved STC for the installation of the AeroStretcher® Mk IV in the Dornier 228 is offered by RUAG under exclusive contract and is available immediately.

GVH Aerospace is a global aerospace company, operating under the EASA Part 21 Subpart J DOA framework and headquartered in the United Kingdom. GVH Aerospace has been serving the civil aviation market for over 25 years, providing design and certification expertise for a wide range of aircraft, from small aircraft and helicopters to transport-category aircraft and helicopters.

L3 Wescam finished the second half of 2017 with more than \$250M in contracts from military and law enforcement customers for its MX[™]-Series electro-optical/infrared (EO/IR) products and in-service support products and services. The orders will provide a range of MX imaging and targeting solutions to both experienced MX end users and military customers new to L3 WESCAM products and services. The demand for L3 WESCAM's ISR technologies continued to grow as systems were sold for the first time into four new countries across four separate continents, including Africa, Europe, Asia and North America. Additionally, MX-Series systems were purchased for the first time on six significant airborne platforms, including airframes developed in Europe, Japan, Saudi Arabia and Turkey. L3 WESCAM turrets are now operating in over 70 countries on more than 190 different types of platforms across the air, land and maritime domains. www.WESCAM.com.

When is 50% not quite what it means? Last month we had Airbus Helicopters claiming 50% of the market whilst conveniently forgetting to count the significant number of helicopters sold by Robinson. Last month Leonardo were putting out similar 'funny numbers' set to confuse the unquestioning.

Leonardo is blaming indiscipline from its customer sales teams, underperformance in military sales, and challenging market conditions for causing its profit margin to tumble in 2017.

Despite the challenges it is facing, Leonardo's helicopters division claims over a 50% share of the intermediate and medium category. It means the sector occupied by the AW139, AW169 and AW189 but clearly 50% of anything sounds good.

On January 30 Leonardo unveiled a new five-year industrial plan in Vertigate, Italy.

Leonardo, and Agusta before it, never reveal the exact numbers in time for Heli-Expo but have said that the helicopter division's revenues and profits were down from 2016, which itself had represented a steep decline from 2012 in revenue (the fall has been from \in 4.2 billion to \in 3.6 billion), that has trimmed the profit by \notin 0.05 billion to \notin 0.43 billion.

Gian Piero Cutillo took over as managing director helicopter division in October 2017. He realised that the cause of the problems lay in the lack of sales discipline, including being too flexible on aircraft configurations when selling, and that was affecting planning and production.

The financial impact of having a significant number of younger designs such as the AW189 and AW169 is that they have lower margins early in the production cycle.

Moving on from the selective 50% claim Cutillo is actually stating that Leonardo's helicopter division was strong, and gaining in market share but just 30% of the civil market.

In a ceremony held at **Pilatus Business Aircraft Ltd**, Broomfield, Colorado, last month the first production PC-24 twin jet was handed over to U.S. customer PlaneSense. The aircraft is the first of six PC-24s which PlaneSense has on order with Pilatus.

Since 1996, PlaneSense has successfully specialized in offering fractional ownership transportation service with the single engine turboprop PC-12. PlaneSense, currently operating 36 PC-12s, will continue to acquire and operate the popular single, and will use the PC-24 to expand their product offering to new and existing customers.

Pilatus CEO Markus Bucher personally handed over the keys to the first PC-24, serial number 101. In addition to the larger cabin and faster speed, PlaneSense will take advantage of the PC-24's unique cargo door, short field performance, and ability to land on grass runways to access locations which traditional business jets are unable to use.

Flightcell International say they have successfully integrated the Flightcell DZMx and medical monitors, enabling 12-lead ECG data to be sent from an aircraft inflight. Both the Zoll X Series and the LifePak 15 have been validated with the help of Zoll New Zealand and GCH Aviation.

Flightcell and its technology partners are excited about the benefits of this technological advancement: "Our customers can now send ECG data to the hospital ahead of their arrival, giving staff more time to mobilise and prepare", says John Wyllie, CEO, Flightcell. This potentially lifesaving technology is achieved using cellular broadband data and a Wi-Fi or Ethernet internet connection to access Zoll online account and LifePak LIFENET systems. It's not just limited to Zoll X Series & LifePak 15, it will operate with any medical



monitor/defibrillator that can transmit data via WiFi to a hotspot gateway.

Flightcell has achieved significant business success with a wide-range of air medical/SAR companies and organisations in North America, Europe, Africa and Australasia. They have factory installations at Leonardo Helicopters, Lockheed Martin, Bell Helicopters, Airbus Helicopters and Sikorsky.

The same product is to offer optional Bluetooth, allowing onboard devices to pair and be connected to the aircraft ICS. Mobile phone calls can be taken through the headset, providing pilots and crew with a hands-free capability and they can now listen to streaming audio.

These are the latest developments inside Flightcell DZMx product platform, a platform that continues to lead the industry when it comes to integrated satellite and cellular voice, data and tracking solutions. Bluetooth will be an optional extra for all new purchases that ship from July 2018. DZMx customers will also have the option to upgrade existing units. Find out more about Flightcell DZMx Bluetooth at Heli-Expo Booth C2141 or inquire now at: info@flightcell.com

Last month Helihub reported that four Bell 505s are to join the Japan Coast Guard on utility duties. They were noted in JCG colours at Kagoshima Airport in the south west of Japan. Helihub believes that it is unclear at this time whether they will replace or supplement the Bell 206B JetRanger IIIs currently operated. All the 505 carry marks JA181A to JA184A and are MSNs 65026, 65027, 65028 and 64032 respectively.



At the upcoming Heli-Expo expect to see the new helmet 'hear-thru' system on the Gibson & Barnes booth. Helps You Hear the Outside World thanks to newly integrated external microphones on the helmet exterior. The new system offers super hearing in stereo which will mean that the wearer no longer needs to take off the helmet to hear people talking. The system is small and light and offers on/off and volume control powered by a single 9-volt battery. The system protects the hearing of the wearer by having a 85 dB limit. The system is available for HGU-56/P & Alpha, works with earphones, CEP, and ANR and is compatible with electronic stethoscopes.

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



Also to be sought out in Las Vegas are **FEC Heliports Equipment**, a company offering a complete one stop shop offering equipment for every type of helipad installation, from offshore oil and gas, to onshore hospitals and heliports, plus portable solutions that can be in used in any location. They claim to offer a wealth of expert knowledge as to industry standards and recommended practices as set-out by the major aviation authorities in force throughout the world. London's Air Ambulance now uses a case of HEMS Star portable helipad lights. This development continues our ongoing work with the HELP appeal who generously provided funding for the purchase.

A case of HEMS-Star[®] weighs only 10.6kg and contains eight powerful rechargeable battery powered LED helipad lights that can rapidly be deployed at designated or ad-hoc helicopter landing areas. <u>heliportsequipment.com/offshore/</u> helid



Precision Aviation Group, Inc. (PAG), has been formally selected as an authorized BendixKing repair, overhaul and OEM component distribution partner. The new authorisation, on such a successful product line, provides an excellent source of future growth for PAG and will allow them to build on their existing MRO services for fixed and rotor wing customers.

March 2018

PAG operates 8 FAA, EASA, CASA and Transport Canada approved repair stations globally, combining PAG's MRO capability on over 35,000 products and 100,000 line item inventory enables them to provide just-in-time support to customers. As a BendixKing repair partner, PAG will provide AOG repair, overhaul and sales support -globally- for BendixKing's wide array of products include integrated flight decks; audio panels and accessories; displays; autopilots and indicators; navigation and communication equipment; and safety, terrain and radar systems.

Robinson has added wire strike protection provisions to its R66 options list. Available only on R66 helicopters, the provisions are FAA certified and allow for easy, bolt-on installation of Magellan's WSPS (Wire Strike Protection System) sold separately by Magellan Aerospace, Winnipeg, Canada.

Robinson provisions add 7 lb to the empty weight of the helicopter and include reinforcement and attach points on the windshield bow, roof, and chin, with low-profile deflectors near the ground handling ball and forward landing gear struts. MSRP \$4,200

Magellan's R66 WSPS, complete with wire deflectors and cutting blades adds 16 lb. to the empty weight of the helicopter. The system is available as a kit compatible with Robinson factory-installed provisions for \$16,000 or as a complete aftermarket kit with field-installable provisions for \$22,800



Also on display at Heli-Expo will be the R66 cargo hook installation. The optional extra carries external loads up to 1,200 lb and, for external load operations, the R66's maximum gross weight increases from 2,700 lb to 2,900 lb.

Two installations of the hook are available: **Basic** - includes the cargo hook and right-seat controls allowing operations from the pilot seat only. MSRP \$12,800 and **Advanced** - includes the cargo hook, right and left-seat controls, a left-seat hydraulic switch, and a left-seat start button. A load weight gauge and a second set of engine power gauges (torque and gas temperature) are located in the left door sill allowing the pilot to monitor engine operations while keeping an eye on the external load. Provisions for remote control of external equipment (e.g., long line hook or a water dropping bucket) are also included. MSRP \$28,000. Robinson is now accepting orders for cargo hook installations on new R66 aircraft. Certification pending.

AIR ACCIDENTS

12 January 2018 AgustaWestland A119Kx N626LF. Air ambulance of Life Flight Network, Aurora, Oregon, USA. Helicopter returning to base at night. While approaching a mountain pass, the crew encountered IMC weather. The decision was made to abort the flight and divert to an alternative airport about 15 miles behind them. The pilot changed his mind and turned back towards the pass only to lose special orientation and a descent at greater than 1,000 feet per minute. The pilot realized the decision error, levelled off at 250 feet and again turned to abort. At 150 feet AGL, the G1000H system provided a voice alert of height. At 125 feet AGL, the aircraft was still descending at greater than 1,000 feet per minute. The pilot recovered the aircraft at 100 feet AGL and with little to no airspeed. The aircraft continued on to land safely at a nearby airport. As a result of this near CFIT incident Life Flight Network is tightening up its strict procedures. Currently, the AW119Kx's G1000H system provides voice callouts and that are only heard in the front two seats. This will not be adjusted to all Crew Positions. [Concern]

28 January 2018 Airbus Helicopters H130. Air ambulance involved in a hard landing on an EMS helipad in Tennessee. The helicopter was damaged in the heavy landing at the Regional Medical Center, forcing the hospital to temporarily shut its helipad. Neither the patient nor the two crew members were hurt. Helicopters were forced to land on the street for a period. The Air Evac craft from Jackson, Tennessee landed at the Memphis hospital to offload a patient. The initial landing was fine but, according to Air Evac, the helicopter unexpectedly became airborne after landing, hovering about 5 feet before the pilot was able to make a second, hard landing that caused minor damage to the skid tubes and skin of the helicopter.

29 January 2018 Bell OH-58C N942SC. Law enforcement helicopter operated by Spalding County Sheriff's Office in Georgia crashed in Pike County in a field behind a residence on Highway 19. The aircraft was on a training flight in Spalding County when the engine failed at, resulting in the emergency landing. Aboard were SCSO Chief Pilot Dr. Phillip Smith and Chief Deputy Tony Thomason. Neither was injured but the damage to the helicopter was significant.



5 February 2018 Sikorsky UH-60M Blackhawk NA--706 National Airborne ServicesCorps/ Taiwan Air Force. Went missing on an air ambulance flight with six aboard and is believed to have gone in the sea between Orchid Island and SETaiwan. The helicopter carried 1 patient, 1 family member of the patient, 2 flight crewmembers, 1 mechanic and 1 nurse. The helicopter took off from Lanyu Airport to Taitung (Feng Nien) Airport and lost contact with the control tower three minutes later. (ASC TW)

20 February 2018 EH101 Cormorant Royal Canadian Air Force. A night time rescue attempt went awry when a Cormorant helicopter's hoist became snagged while trying to airlift an injured crew member off a ship about 280 nautical miles from St. John's.

Halifax's Joint Rescue Coordination Centre (JRCC) also dispatched two Hercules and a Canadian Coast Guard vessel in addition to the Cormorant in response to the distress call. The tangled hoist had to be cut and the rescue delayed. A search and rescue technician stayed overnight on the vessel to provide medical care to the injured crew member. The rescue concluded the next day. [CBC]

Marketing to the police? A new market area ? Helimetrics Ltd's unique experience with high value projects and with UK police forces and law enforcement agencies will deliver research, market appraisals and strategy proposals that make sense Helimetrics Ltd clients already include a wide range of agencies and multi-national companies

UNMANNED

In what might be seen as another round of a drone achievement race a Chinese hybrid multirotor drone achieved 7.3 hours world record endurance. This outran the new world record achieved in December 2017 when Spain's Quaternium claimed a new world record of four-hours, 40-minutes in Valencia. On January 19, 2018, a hybrid drone named 'Owling' took off at 9:15am and landed on 16:32pm. Flight hours 437 minutes. The hybrid system was provided by Richenpower Ltd.

Intel went a few steps further for the opening of the Winter Olympics in South Korea last month using their Shooting Star drones. The sky above Pyeong Chang was apparently blessed with an impeccable drone light show that also set a Guinness World Records* title for the "most unmanned aerial vehicles airborne simultaneously." The world record flight was pre-recorded for the event.

The display exceeded Intel's previous record of 500 drones flown simultaneously in Germany in 2016. The Intel Shooting Star drones are a type of unmanned aerial vehicle (UAV) specifically designed for entertainment purposes, equipped with LED lights that can create countless colour combinations and easily be programmed for any animation. The fleet of drones is controlled by one pilot.

Aurora Flight Sciences is collaborating with Socionext Inc., a top expert in radar sensor technology, to provide a radar-enabled collision protection system for consumer drones.

The Radar Flight Control Module (RFCM) is comprised of a single-chip 24GHz radar with range measurement software. The radar responds acutely to its surroundings and can detect multiple objects, objects in open spaces, target distance and speed, and more. The RFCM provides distance, warning and braking signals to the flight controller through a simple interface, allowing for integration on a wide range of drone products. When installed, the RFCM acts to prevent head-on collisions with everyday obstacles in the drone's path.

The RFCM is available in small, lightweight and low-power packages designed specifically to meet the demanding needs of small drones.

In an effort to address safety concerns arising from the widespread use of small unmanned aircraft, the Aviators Code Initiative (formerly the Aviators Model Code of Conduct Initiative) and the University Aviation Association released guidance aimed at advancing safety, airmanship, and professionalism among UAS pilots and operators.

The *Unmanned Aircraft Systems Pilots Code* (*UASPC*) is the product of extensive research and peer review within the manned and unmanned aviation communities. The *UASPC* provides a set of principles and practices to help a pilot interpret and apply standards and regulations, and confront real world challenges and avoid mishaps.

The UASPC is designed to help UAS pilots develop and implement standard operating procedures, effective risk management, and safety management systems. It encourages UAS pilots to consider themselves aviators and participants in the broader aviation community.

The growth of unmanned aircraft operations has been so rapid that safety technologies and regulations are not yet fully developed. Nevertheless, UAS pilots bear the same obligation to operate safely as do manned pilots for whom training and safety programs are well defined and rigorously implemented. The *UASPC* provides a set of recommended best practices that both new and experienced UAS pilots can integrate into their operations. Check out <u>www.secureav.com</u> or contact <u>PEB@secureav.com</u>

It may be an ultra young technology for the police but increasingly they have been noted venturing out into the dark night. That raised the question of how you might have 'line of sight when you could not see the drones or the surroundings.

I asked lan Povey one of the commercial experts in this field for his opinion. He replied:

"Line of sight can apply equally to day or night operations, in that respect drone use is different to manned aviation where night flights wouldn't be under line of sight rules as far as I understand them.

"Within the force's permission from the CAA it would state whether the permission applied only to daylight hours or whether it also included night time hours, so it's difficult to ascertain whether individual forces are operating within their permission unless you know the specifics of it.

"The push for 24/7 drone operations I suspect is because the Police rely on air support more heavily for night time operations and as most forces are implementing drones to avoid using NPAS they need to be able to deploy in the peak times they'd need air support.

"An area you might want to investigate are the claims some forces are making about the effectiveness of drones in missing person searches, especially Wiltshire Constabulary. If you look at the Twitter feeds for each forces' drone team they seem to claim a surprising number of missing person success stories with drones.

"I had the good fortune to speak at a multi-agency drone conference focused on search and rescue and one operator for the fire and rescue service said that despite flying hundreds of searches they'd only had one successful outcome with the drone. Likewise I heard that one NPAS base only had 5 successes in their whole history of missing person searches with their helicopter.

"Drones are the least likely asset to find a missing person simply because they are a small area search tool, usually 1 square km at a time, whereas missing person searches cover much, much larger areas. "Drones can find people but there is a high probability that the missing person simply won't be in any of the small areas the drone searches. So either the police have stumbled on the holy grail by developing a new search technique with drones that no-one else has discovered, or they're simply misleading the public.

"No-one is denying that drones are useful in search and rescue operations, however I have serious concerns about the way several police forces appear to be misleading the public. Their attitude is reckless and potentially life threatening. Whenever you try to ask them precise details about any claimed success they quickly stop the conversation and usually block you - not the behaviour of someone with nothing to hide.

"I'm still actively involved in moving the industry forward both in terms of participation in scientific studies and finding ways to collaborate with industry leaders such as Brendan Schulman, the Vice President of Policy with DJI. It's just frustrating that so many police forces in the UK are abusing the technology for cheap publicity and the illusion of efficiency and public safety."

MISSING PEOPLE: <u>CybAero</u> has signed a collaboration agreement with Missing People Sweden. The agreement allows Missing People to use CybAeros remote controlled drones. When needed, CybAero will provide Missing People with remote controlled helicopters. With the help of CybAeros helicopters, Missing People will be able to, in a more time-efficient and cost-effective way, search for people in areas that have previously been difficult to reach. The first step of the agreement is non-commercial and CybAero will only receive coverage for their costs. The intention is to evaluate the conditions for a long-term collaboration and a commercial agreement.

DRONE TRAINING: In the February edition of Police Aviation News there was a reference to a one day 'taster session' for new and potential drone pilots which is provided by the company 'Heliguy' (www.heliguy.com) based in the North East of England. These training days are free of charge, inclusive of light snacks, and take place each month. The training day in January attracted 12 students, some of whom were hobbyists whilst others were professional photographers and members of the construction industry. The one day course includes all aspects of drone operations, including the current CAA rules, together with potential commercial applications. The course is rounded off with some 'hands on' flying experience. The drone is flown inside the classroom using a safety net. There is also an introduction to first-person vision (FPV) where, with 'goggles', the pilot sees what the drone sees through its on board camera. First person vision is permitted in the UK if the pilot is accompanied by an additional safety pilot to keep an eye out for other aircraft and any persons or vehicles entering the operating area.

Attached are a selection of photographs from the Heliguy training course that took place in January at their HQ in North Shields, Tyne & Wear Best regards, Tony Cowan





Later in this edition there is a report on the Singapore air show. While attending the event I noted a report in the local Straits Times about plans to set up a so called "Drone Estate" – a centre of excellence for the drone industry.

The area one-north, already a research and development hub in the Buona Vista area of this crowded island, is now designed to attract and promote all industries working on drones and drone use.

Singapore is a small island state and therefore setting aside free air space for trialling the yet unknown vagaries of new technology drones was going to be a political decision. Larger countries such as the United Kingdom and Sweden chose to banish such testing to large remote areas but there are no such luxuries in small crowded islands.

Already some of the big names in local drone aviation, including ST Aviation and Nanyang Technical University, have signed up

LETTERS

Good afternoon, Bryn.

Happy Friday! We received your latest edition today and realized that we are listed as "ALEA" under your Sponsors list. Can you please update our name and email to: Airborne Public Safety Association www.publicsafetyaviation.org

Also attached is our new logo. Thank you for your attention regarding this matter. Hope you have a great weekend!

Best regards, Andrea Capwell Sales & Marketing Airborne Public Safety Association 50 Carroll Creek Way, Suite 260 / Frederick, MD 21701 +1 301-631-2406 /Fax +1 301-631-2466 acapwell@publicsafetyaviation.org www.publicsafetyaviation.org

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Ed: Belatedly, because I did know it had happened, I changed the Sponsor wording and link in time for this issue [see the box on page 3] and trawled through my address book to try and change all the e-mail to @publicsafetyaviation.org. I will have missed some no doubt, but the process is started. But have I really been a member of APSA since 1994? The answer is really no, I was proud to be a member of ALEA, but I guess I will get over it eventually!

MOVE ALONG THERE

The PAvCon team seem to have the magic touch.

Take Friday 2 February 2018. The Chairman, Gareth Davies, was skiing with police friends from England so he put behind him thoughts of running conferences and chasing up-to-date information from old friends and joined the throng of skiers on the Austrian slopes.

His party of three approached the four seat open ski lift. Off to the left a line of singletons was feeding in to make up the numbers, a highly random process.

So when the trio was joined by a familiar face it was indeed a jaw dropping moment.

The fourth seat was taken by none other than Manfred Bleyer, the head of the Austrian Police Aviation unit and PAvCon regular.

One wag always suggested that for a lucrative future you should bag on working for a printing company with government contracts. Whenever they changed their mind on the title of the latest ministry from say the 'Ministry of Aviation' to the 'Aviation Ministry' tons of existing printing gets shredded and a new batch ordered. These days it is simply not done to get a rubber stamp with the name change.

The same applies to policing. The London Metropolitan Police says it is short of people and short of money. Yet a lot of those sparse and hard pressed people are about to be used to launch a costly merger that will cost highly in time and signage. They are to



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merge all of its policing boroughs in a bid to save £325M by 2021/22. The current 32 borough model will be condensed to 12 Basic Command Units (BCU) made up of two or three boroughs. The force warned its numbers are due to fall to 30,000 by April (which is still 3,000 up on 1980). They say the move will "improve efficiency".

Pull the other one. They had the same basic model 30 years ago and just ditched it.

EVENTS

Organisers of the Farnborough International Airshow have confirmed that trade passes are now on sale and promises its most feature-packed show yet. Taking place on 16-20 Julv 2018, Farnborough International has developed the show to offer even more business opportunities for exhibitors and visitors.

Alongside its existing features such as the Space Zone, Innovation Zone and Meet the Buyer programme, Farnborough International has launched an area dedicated to the fourth industrial revolution. Entitled Aerospace 4.0, the area has been sponsored by Deloitte with Additive Industries, 3D Systems, Frazer Nash Manufacturing, LPV, Salesforce and SAP confirmed as exhibitors. Originally launched at the



2016 show, the Cargo Village also returns with Volga Dnepr confirmed as headline sponsor. In 2018, it will showcase its own exhibition hall and incorporate a two-day conference.



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Singapore Airshow 2018, still Asia's largest and one of the most important aerospace and defence exhibitions in the world, officially opened its doors at the beginning of February. It brought to this small island state off Malaysia the latest technology innovation trends including cybersecurity, autonomous technology, unmanned aerial vehicles and smart technologies with some 1,062 companies from 50 countries & regions showcasing their latest products and innovations.

In the two years since that held in the "winter" of 2016 the island state has grown apace. More land reclaimed from the sea, more skyscrapers lurching skyward and more building in all directions. The warmth of its people barely matches that of the weather most days – hence the mention of winter. Around here, close to the Equator, there is no real bad weather – or for that matter crime. When the social talking point is about what to do about all the free bicycles strewn around the place there is unlikely to be much call for the development of airborne law enforcement [ALE] in Singapore.

Free bikes? Well, many cities have sponsored free to ride bikes in them, in London they are "Boris Bikes" and elsewhere other names apply. Basically a sponsored resource hire scheme originally based on placing bikes in 'docks'. Last year the dock idea was partly dropped and as long as they were left in a public place you could download the App and take a bike to use. It appears that a year ago Singapore went for the dockless model [a far cheaper option all round]. Unfortunately the floodgates were opened and several "Chinese Companies" flooded the island with the bikes. They are literally everywhere, secreted away in corners that could not be described as public and literally piled on top of each other. Yes they are a success but this nation famous for having a 'no chewing gum' policy clearly has another problem to replace it. Rusting bikes.



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Now back to aerial devices. This year was notable in that it was an air show marred by its first major crash when a Korean T70 jet left the main runway at Singapore Changi. There were repercussions across Asia as flights due to set off for the island nation were delayed by around 4 hours to allow the authorities to handle already committed long-range traffic on the one remaining runway as the burned wreck was cleared. When your airport is busier than New York JFK having wrecks of jets littering the place matters. Despite the aircraft turning over and burning in a convincing manner the crewman survived the experience. The Korean display team however prematurely retired from the show.



Sikorsky was muted by its new ownership on the showground but they were forward in the briefings nonetheless. Lockheed Martin were very much about fixed wing military programmes and particularly the F-35 fighter at the show but at a sideline press conference the message remains that Blackhawk is king and may well still hold that lofty position in another lifetime. Sikorsky has major interests in the Asia region primarily with variations on the military Blackhawk and Seahawk and their message reflected that at Singapore.

Later this year the company will be celebrating the 40th Anniversary of the type while holding the expectation that it, or at least later developments, will still be in service as it approaches its 100th Anniversary. If so this might put the 50-years old Sea Kings in their place. For now this is but an expectation and none of us will be around to recall the prediction! There is little doubt it is possible, if you also assume that the venerable DC-3 might still be undertaking useful work in 2035.



It may be a military derived type but there has been a resurgence in civil derivative operations. Recent reports on the Cal Fire acquisition of new Firehawks are based on a 20 year history with the type. The documents are not yet all signed but there is little doubt that the substantial sale will go ahead with new airframes joining the old ones.

These new airframes are a significant improvement on the original with more lift capability based on engines and weight saving measures over the US Army specification.

The airframe structure is built in Poland and the Czech Republic [nose area] and the whole assembled in Poland using brought in components as the S-70. This is the export model that deletes all of the tricky items that the US authorities state some countries are not allowed to have or that they choose not to have.

The S-70 remains a special beast though, it is not FAA or EASA certified. That restricts its market in some areas but the vast majority of likely customers can accept the aircraft as either a para-military or public airframe.

Italian Group Leonardo were muted in their presence at the show, they had a reasonably sized stand, and clearly they wanted the sales but perhaps they feel their name remains harmed by the issues surrounding the Indian EH101 sales [and the questions now asked about other similar sales] for they saw no reason to bring any significant hardware to the event.

Leonardo were promoting maritime patrol aircraft and their helicopters in model form but there was no evidence of their plans for a significant expansion in the Asia-Pacific region. They are looking for total orders in the region of \$10 billion by 2022. Their presence like many was stand-offish. It is as if they like being there, will take your money, but do not really want to be too welcoming.

Leonardo is expanding its share of the growing Bangladeshi helicopter market with the announcement of the upcoming delivery of five helicopters to Bashundhara Airways, of Three AW109 Trekker and two AW119|Kx to be used for EMS, utility, law-enforcement, surveillance, VIP, corporate & passenger transport applications and are all scheduled to be delivered before the end of 2018 bringing Leonardo's market share to exceed a 30%.

Leonardo and Mitsui Bussan Aerospace, the official distributor in Japan for the AW169 and AW139 helicopter models, announced today the signing of a contract with Asahi Broadcasting Corporation (ABC) for one AW169 light intermediate helicopter. The aircraft, replacing an older model, will be used to perform electronic newsgathering (ENG) operations, with entry into service expected

And that brings us to Airbus who these days are making a brilliant job of not being welcoming to anyone. At one time it was difficult to approach Agusta and one or two others but now Airbus are making it their aim to be the chief isolationist brand. It was not so bad in the USA last year so we will have to see whether they too have been caught up in the same attitude when Las Vegas comes around. It is difficult to know where and when the lack of interest came about but it is probably an Airbus rather than a Eurocopter thing. Maybe money talks? Why spend five minutes with someone who wants one piffling little \$3M helicopter when you can be taking wine and carousing with another who wants a whole fleet of Airbus airliners at 100s of millions each?

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I am not the only one to have noticed and commented on the decay in attitudes at Airbus helicopters. The latest scenario was very low key. Two years ago it was open house on most of the airliners at Singapore and fairly easy to arrange access to photograph them thanks perhaps to the influence of Qatar Airlines. This year there was a dearth of Airbus airliner's so the target was the A350 or nothing. Although it was clear that the A350 was quiet and unvisited the company simply set glowering security people in place to direct everyone to the Airbus Chalet.



It was the same at the helicopter static where two mildly interesting airframes sat baking in the sun ringed by steel and two less than welcoming black clad security handlers.

'Speak to the chalet' was the common message.

Understandably the Airbus chalet was busy, bursting at the seams on Singapore Show Day 1 with all the great and the good in the airline buying world. But there too there was intransigence. Three busy young ladies were spinning on their heels for a full twenty minutes doing their very best not to arrange 5-minutes access for a pair of the press to their already well-guarded helicopters just one minute away.

It appears that the policy of the day was to be less than helpful to the people they use to their own ends in columns like this. In most cases publishers and journalists spend several thousand pounds of their money getting to events without the potential reward of [Airbus] advertising, so just a little give and take would not go amiss. Many years ago, McAlpine Helicopters, the predecessor of Airbus Helicopter's in the UK said taking their piffling helicopters to big shows was a waste of effort as they could not get their profile up alongside the big companies. Airbus generally seems to suggest that profile is no longer an issue they want at all.

The recently published results figures tend to underline that. The group as a whole is doing well – numbers in billions - but Helicopters' income declined to \in 337 million from the 2016 level of \in 350 million. Lower deliveries, an unfavourable mix and lower commercial flight hours in services were compensated by

Feb. 26–Mar. 1 • Las Vegas Exhibits Open Feb. 27–Mar. 1 in the North and Central Halls

March 2018

transformation efforts which have globally supported the Division's competitiveness in a challenging market. They sold off the ailing maintenance, repair and overhaul business Vector Aerospace in November. Even Defence and Space, another group that operates partly in the emergency services sector, lost profit margin. But the detail is piffling compared with those best-selling airliners.

Airbus Helicopters' business in Japan gained two new orders and two new deliveries at the start of the year, reaffirming the company's strong presence in the country. Currently leading the Japanese civil and parapublic helicopter market with more than 50% market share, Airbus Helicopters plans to increase its position in tandem with the Japan's projected fleet growth of 2% annually over the next 20 years. The first contract was signed with longstanding customer Excel Air Services, for a Helionix-equipped H135 helicopter. This new aircraft will join the operator's growing Airbus fleet currently comprising an AS355N, AS350B2, AS350B3 and Hermès-designed H135. This best-seller light-twin helicopter will be dedicated for electronic news gathering missions.

The second contract was signed with a new customer the Hokkaido Government, which placed an order for one AS365N3+ helicopter from the Dauphin family. The helicopter will be dedicated for rescue missions and supporting activities in the Prefecture and will play an important role in the North of Japan, known for its extensive fields and harsh winter conditions.

Additionally, Airbus has delivered one AS365N3+ helicopter each to the Fukuoka City Fire Department and the Kumamoto prefecture respectively, for firefighting work, search and rescue missions and emergency support.

In contrast with the stuffed shirt attitude at Airbus dealing with Bombardier was a real breath of fresh air. Yes they wanted a measure of control in the issue of badges but other than that it was all sweetness and light. The badges came with a smile and the security was relaxed. They looked the same but they were different beings. I do hope that they were not expected to rotate between the different companies with massively different attitudes on a daily basis that would be confusing!



Once on board a Bombardier business jet every assistance was afforded - even though it was clear that the 'journo' would never be buying one for his fleet – and even iced water proferred as defence against the growing heat outside the ice-cool fuselage. With Bombardier the story of the time is the upcoming closeness between the company and their C-Series saviours, Airbus. I can only hope that they manage to keep their marketing team at arms length.



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Also very welcoming were Bell. They too opened the show with a pair of helicopters for their static in front of the line of chalets. They too were fenced off, and staffed but the difference was that they had two yawning gaps in their physical defences and welcomed all-comers to view their products. A Bell 429 company demonstrator and customer Bell 505 due for delivery to Cambodia after the show.

Bell announced the delivery of two Bell 505 Jet Ranger X helicopters to Nautilus Aviation. These are the first Bell 505 Jet Ranger X helicopters delivered into the Asia Pacific region, where Bell expects to see the highest demand globally for the new 505s.

"The Australian helicopter market is one of the largest and most important segments globally for Bell. We are pleased that the first 505s delivered into the region are with Nautilus Aviation, and are confident that both helicopters will deliver exceptional value to Nautilus in its endeavor to provide customers an unparalleled experience," said Sameer A. Rehman, managing director of Bell Helicopter Asia Pacific. "We look forward to working closely with Nautilus to bring these aircraft into service and supporting Nautilus' preparation of the aircraft for charter and utility operations."

Nautilus Aviation first accepted delivery of both 505 Jet Ranger X helicopters at Bell's Mirabel, Canada, facility in October 2017. The aircraft were then shipped to Australia and will be used for tourism charter and utility flights in the North Queensland and the Great Barrier Reef region.

The static park Bell 505 Jet Ranger X was one of two of this model of helicopters sold to Asian Aviation Resources Pte. Ltd. in Cambodia.

One of the pair will be operated by Helicopters Cambodia, will be used to facilitate the United States DoD POW/MIA Accounting Agency (DPAA) in their efforts to find missing US military personnel in Southeast Asia. The other helicopter will be used for tourism related charters.

"We are proud to play a role in the US DPAA's noble mission to reunite missing United States military personnel with their families and to give an account to the nation. Once again, our thoughts and gratitude go

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out to all the families who have made the ultimate sacrifice for the freedom we as Americans enjoy today," said Sameer A. Rehman, managing director of Bell Helicopter Asia Pacific. "We look forward to working with the DPAA and Helicopters Cambodia to ensure the success of both the DPAA and Helicopters Cambodia's missions throughout Southeast Asia and beyond."

The number of airliners on displays was well down this year, that was mainly a downsize on the Airbus camp Last time out assisted by Qatar Airlines who brought two of their fleet.

Embraer, one of the world's largest aircraft manufacturers, with offices across the world including Singapore, were presenting its products and solutions for the commercial aviation, business aviation and defense & security sector. Embraer's presence at the Show included a pavilion located at the Exhibition Hall featuring the full-scale cabin interior mock-up of the latest E-Jets E2 commercial aircraft family displaying the various seating configurations and a Virtual Reality booth where you can pilot the E-Jets E2 aircraft. The Embraer E190-E2 was making its first appearance at the Singapore Airshow sporting a striking Tiger's face spraypainted on its nose – a specially commissioned painting as a mark of respect to Asia. The E190-E2 is due to enter into service in April 2018.



Also on display and easily accessible were some business jets including the Legacy 500, Legacy 650 and Phenom 300.

The relative cool of the large Exhibition Hall was a refuge for all after a while. It was crammed with representative companies from across the world – most dwarfed by the footprint of major on-island local companies like the Singapore owned ST and others with major support and production plants at the Seletar area in the north of the island. There were plenty of familiar faces to encounter within the nomadic aviation community.

Confusingly Australia and Austria had adjacent zones in the Exhibition Hall but that does not appear to have unduly affected either as much as an area where all the nations were mixed up together with small first timer booth spaces. What was confusing in the latter was that one exhibitor carried a prominent sign declaring that they were the British Zone. They were not, but perhaps they were promised a space there and would not fit?

Back to Austria, my old friends from Airborne Technologies were promoting their wares, surveillance aircraft and equipment, to the local military. From recent experience they have decided to hold back on further actively promoting themselves to the ALE community in the USA. The situation may change in time but for now there are plenty of potential customers across the rest of the world in among military interests.

Scheibel continue to promote their S-100 in the region, again it is military interest rather than ALE as it is only the former that could ever hope to afford such a machine.



Unmanned featured a fair amount this year...with an armed Stinger UAV, the new centre of excellence mentioned earlier and even a tentative first flight demonstration of the Airbus Skyways delivery system that is expected to be many years off fruition

This inaugural flight demonstration follows the launch of the experimental project with the Civil Aviation Authority of Singapore two years ago to develop an urban unmanned air system to address the issues surrounding air delivery of parcels. Last year Singapore Post (SingPost) became the local logistics partner to the project.

Two China-built UAVs—the Wing Loong I pictured right and the visually similar Wing Loong II—made their Southeast Asian debut. It was the first time a Chinese military product is being shown at the Singapore Airshow.

The aircraft are produced by the Chengdu Aircraft Design Institute (CADI), a division of Aviation Industry Corporation of China (AVIC) and marketed by the China National Aero -Technology Import & Export Corporation (CATIC), the export arm of AVIC. The Wing Loong II has been ordered by, and delivered to, the United Arab Emirates.





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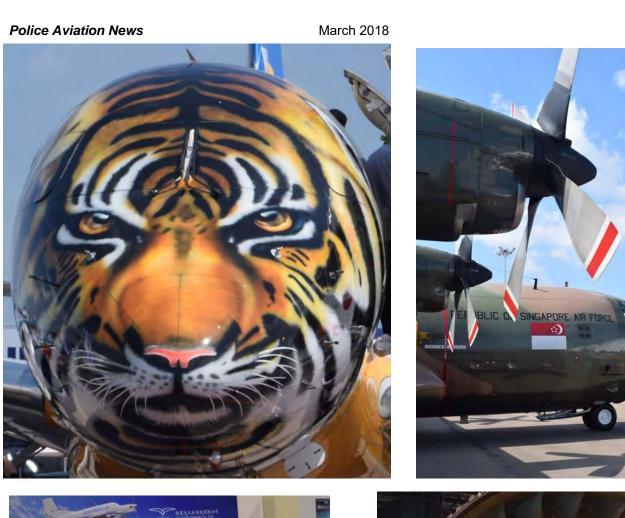
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Images from Singapore. Likely to be the most reproduced viewpoint is this head on shot of an Embraer airliner with special artwork. The air force in Singapore is ultra-modern although this early model C-130 belies that, You can make a UAV out of anything it seems. The Chinese bought into a New Zealand utility airframe to produce the AT200. Ultimate in civil airline power is the RR Trent. Meanwhile below an in-service example of the F-35 was in town to tempt the Singaporeans to buy into the programme. [PAR] I SVIELO



PAvCon 2018

Warsaw, Poland May 21 – 23, 2018

The Networking continues

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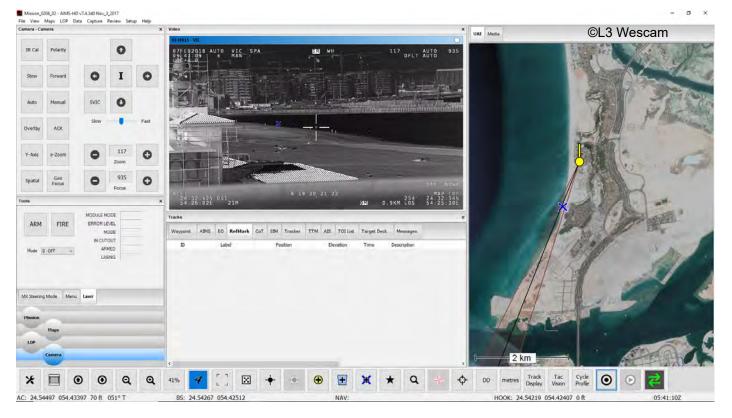
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Public Safety Drone Expo 2018 will offer a combination of interactive public safety specific UAS courses, classes and general sessions focusing on law enforcement, fire and SAR applications. Attendees will learn from top experts and public safety operators offering their insights into best practices, fundamentals and integration. The Expo Hall will be teaming with industry service providers, manufacturers, advocates and thought leaders who bring together cutting-edge technology and applications.



RENO, NV October 1-4, 2018 Public Safety Drone Expo is produced by the Airborne Public Safety Association, Inc. For more information or to register today, visit www.publicsafetyavation.org.



For most companies attending show after show it can be difficult to pull the attention getting 'bunny out of the hat' for their customers. And whatever that attention grabber is must be relevant and not a sheer gimmick. This year, this show, L3 Wescam were able to exhibit the ease by which they had control of an MX-15 located in Abu Dhabi from Singapore for several hours at a time. The only period when control deferred to a team in Abu Dhabi was when their opposite numbers needed to undertake local training tasks. The operational functionality is of course the same as controllers in the US with their prowling long range UAS but it remained a very valid presentation.

FLIR were not seeking to attract customers in quite the same manner, they, like the other major airborne sensor manufacturers remain confident that the quality of their product is the great attraction. That and the knowledge that they have the equipment and the support infrastructure is as much as they really need to know.

In contrast Controp, the Israeli sensor manufacturer, struggles to penetrate the market in the face of the 'big two.' At the show they were telling of their recent success in selling a system into Africa but were hampered by not being able to state who the customer was.

The other companies face the same problems of course but the numbers sold tend to mask the odd 'secret' delivery.

Their main promotional product was a short wave infra red (SWIR) and HD TI capability that offers improved surveillance in adverse visibility conditions in daylight and twilight both on-land and in the maritime environment. They see it as a greatly improved border surveillance tool in harsh environments – especially those affected by very heavy rainfall and high humidity as in Asia – and it performs particularly well in sandstorms.

Also for promotion at the Singapore Air Show they had put together an affordable integrated surveillance solution for maritime air patrol and EEZ protection. The system, which includes the integration of a Churchill System resolves the usual ITAR problems





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and a variant has been supplied to that unknown African country aboard a Diamond DA-42 platform. Controp have had their successes of course, the most recent being the re-equipment of the Israeli police with a mix of new and refurbished turrets for the new fleet of Airbus Helicopters.

Past sales forays into the emergency services markets in the USA and Europe have tended to founder quite quickly on the grounds of support. One US sheriff operation bought a Controp a few years ago and that sale made several column inches of positive text in the US media but it was soon clear that the cost of supporting the turret was prohibitive. It was all very well making the sale but it virtually required the seller having to keep a second gimbal in country to cover any maintenance downtime. No customer was going to relish a wait while their property was transported halfway across the world for repair.

The company is rethinking its sales and support strategies and may well concentrate on part of the US rather than all of it, to start with. This will allow greater flexibility in the support process.

Traffic management was much improved this year but the hour or more wait simply to leave is simply not good enough. Farnborough uses a multitude of double decker buses nose to tail to get everyone off site but the few coaches interspersed with the multitude of taxis that can only move 1-2 offsite at a time does not work well. The trouble is that the coaches go the wrong way to a rail station location that simply makes the journey longer and then takes ages to get there. Oddly as the week progressed, and the commercial event shut down, there were signs that large bendy buses were being used to siphon off the crowds and head into town. Maybe next year they will appear earlier?

Still the dripping crowds snaking their way to the elusive taxis were kept cool by a handful of ancient fans clearly snatched from a 1940s film set! Some sign of positive thought but not enough.

The commentary on the air show was somewhat risky as well. It is not possible to rerun the words used exactly but we are sure that during the display of the Sukoi SU-30 MKM by the Royal Malaysian Air Force (RMAF) we heard the commentator say something like 'not a lot of people like flying in dives with Malaysians these days.' It certainly came across as something detrimental alluding to the loss off MH370. Surprisingly, no row ensued.

ORGANISERS ROUND-UP WORDS

In their round-up on the event the organisers stated that the event had attracted nearly 80,000 visitors for the public day weekend on 10 - 11 February.

They mentioned the flying displays included the Indonesia Air Force (TNI-AU) Jupiter Aerobatic Team's KT-1B, the U.S. Air Force (USAF)'s F-16 and B-52 Stratofortress, the Sukhoi Su-30MKM from the Royal Malaysian Air Force (RMAF), and Royal Thai Air Force (RTAF)'s JAS-39 C/D Gripen, which made their first appearances in Singapore. Of the hapless Korean air display team – nothing. Probably too negative to report or commiserate on.

Key highlights they pointed out were the F-35B Lightning II, the world's first supersonic short takeoff/ vertical landing (STOVL) stealth aircraft, making an appearance at an Airshow in Asia for the first time alongside a couple of F-22s. Other military aircraft making an appearance at an Airshow for the first time in Asia, were Royal Australian Air Force E-7A Wedgetail Airborne Early Warning aircraft, the Royal Thai Air Force's Gripen jet and the United States Air Force RQ-4B Global Hawk unmanned aircraft system (UAS). That was flown into Changi International from Guam in the middle of the night in order not to worry the local airliners. The pilot was of course somewhere else in the USA.

Other first attendees among the range of business and commercial aircraft which appeared for the first time at an Airshow in Asia were the Gulfstream G500 and G600 aircraft, Textron Aviation Cessna Citation Longitude, and Embraer's fourth prototype of a next-generation narrow-body jet – the E-190 E2 prototype. (the tiger's face) and the diminutive HondaJet.

Even Flight International, in its ten page report, pointed out that the show was lacklustre insofar as orders were concerned. They produced three large format Show Daily magazines so clearly had to glean a large number of positive stories. Their reports contained lots of good soundbites and images but no reports of real sales other than a handful of ATR airliners and 150 Piper trainers for China. In the wider market I expect [or perhaps hope] that the helicopter companies are hanging on to their so far meagre sales news for this month in Las Vegas.

Singapore Airshow 2020 will be held from 11 to 16 February at Changi Exhibition Centre.

EVENTS NEXT MONTH

The eagerly awaited HAI Heli-Expo is upon us. HAI has announced the winners of the 2018 ROTOR Photo and Video Contest. Every year, photographers submit photos in a variety of categories that represent the helicopter industry. This year, HAI expanded the contest to also include video entries.

In addition to cash prizes, the winning photos and videos will be on display in Las Vegas. Winning photos will also be published in the Winter 2018 issue of ROTOR Magazine.

Of hundreds of excellent entries submitted in every category, the winners were: -

Grand Prize Winner: Matthew Herberg, Virginia, Minnesota, USA

· Helicopters at Work Category Winner: Steve Lewis, Mojave, California, USA

· Helicopters in the Military Category Winner: Ryan Mattson, Puyallup, Washington, USA

 Helicopters Serving the Community Category Winner: Michael Stone, Fort Lauderdale, Florida, USA

• People and Their Helicopters Category Winner: Scott Moak, Chesapeake, Virginia, USA

· Digitally Enhanced Photos Category Winner: Jacob Straube, Honolulu, Hawaii, USA [image right]

ADAC HEMS Academy based in Hangelar, Bonn, Germany is at the show promoting its State-of-the-Art training facility for Airbus EC135, EC145 or H145 pilots. Booth #N3330 is Vegas is the perfect location to meet and exchange ideas about next level training and checking.

In cooperation with our partner <u>Reiser Simulation and Training</u> ADAC will demonstrate training options for the H145 Cockpit and present a new EASA certified H145 (BK117 D2) Level D Full Flight Simulator, available now for training at the Academy.

Video Winners

This new addition to the contest brought dynamic helicopter footage. However, because of the low number of entries received, HAI chose to name two co-winners instead of a Grand Prize Winner and a Category Winner. They were Bryan Dudas, Lynden, Washington, USA and Peter Balciunas, Melbourne, Florida, USA

AND BEYOND

6-7 March 2018 AAMS Spring Conference. AAMC Learning Center, Washington DC. This conference is held each spring in the Washington, D.C. area. The focus is on legislative, regulatory and reimbursement issues. Members are encouraged to participate in our grassroots efforts and visit their Congressional representatives on behalf of the community. In addition to the grassroots lobbying, we also offer the highest quality educational content that consistently receives rave reviews! Attendees learn about what regulations are affecting them, how to speak out locally on issues affecting them, billing and reimbursement insights, leadership and management issues, and much more! AAMS offers a variety of educational opportunities throughout the year. www.aams.org

6-8 March 2018 Home Office Security and Policing Exhibition. Farnborough, Hampshire. This official Government event is an opportunity to meet, network and discuss the latest advances in delivering national security and resilience with UK suppliers, colleagues and government officials. The event brings together Government selected visitors, mainly from the UK, who have specific operational needs with any exhibitor able or willing to pay the entry price who have the relevant solutions, all within a secure environment. The unique three-day event also incorporates live demonstrations providing a setting for testing and collaborative showcasing. All in all, the sort of exhibitor that you might encounter at DSEi or many other open access security events meeting up with visitors that have been severely reduced by the organisers making arbitrary decisions on who is right to attend. www.securityandpolicing.co.uk

7-8 March 2018 U.T.SEC - Unmanned Technologies & Security Expo & Conference. The second edition of this drone event will take place at the Exhibition Centre Nuremberg in cooperation with the NurembergMesse GmbH and Enforce Tac, the special exhibition for police equipment. The focus of the trade fair is on drones and unmanned systems. Marketed by Butter and Salt tech marketing GmbH, Berlin. ts@butter-and-salt.de www.butter-and-salt.de www.facebook.com/marketingforb2b

8 March 2018 The BBGA Annual Conference to be held at the Warren Weir, Luton Hoo Hotel, Golf & Spa, The Mansion House Luton, Bedfordshire LU1 3TQ. Less than a mile from M1 Junction 10 and nestled within the stunning 1,065-acre grounds of Luton Hoo Hotel, Golf & Spa, Warren Weir is an events village offering a range of luxurious bedrooms & Suites, five meeting rooms, a hospitality lounge, private leisure and conference facilities, all of which finished to the highest standards. The following day [Friday March 9] there will be a Golf Day on the Luton Hoo Golf Club course. BBGA Annual Conference online booking system will be live from January 2018 so book early to take advantage of the Early Bird Rate. BBGA are looking for conference sponsors, please contact Rachael Paskin to discuss our sponsorship packages. All packages include delegate passes, a trade stand, half page colour advert in the conference programme and extensive exposure prior to and during the event. www.bbga.aero rachael.paskin@bbga.aero

12-14 March 2018 Aerial Firefighting North America 2018. On its 10th anniversary this event will address the core issues affecting aerial firefighting operations in North America, with further contributions from South America and worldwide. Staging over three days in Sacramento, California it will provide the only dedicated platform to discuss the national, state, regional, local and international aerial firefighting. Tangent Link event.

20-22 March 2018 World Border Security Congress in Madrid, Spain. Covering a broad spectrum of border security subjects including the global migration crisis, illegal economic immigration from Africa and elsewhere and international terrorism. Contact: Neil Walker, Event Director. neilw@world-border-congress.com www.world-border-congress.com

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10-12 April Commercial UAV Expo Europe, Amsterdam, Netherlands. Last year's launch in Brussels underscored the need for a pan-European drone event at which industry, universities and government could come together to advance drone technology and use across numerous industries throughout Europe.

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11-12 April 2018 5th China Civil Helicopter Operation & Development Forum operated by the Oppland Media Group in Beijing. The Great China general aviation market is growing very rapidly, and many investors consider the market, there are

more than 400 CAAC registered general aviation operators in service. The Chinese industry management and local government issue many good policies to develop the market, you can see there be a very big opportunity here from the history period. In China, civil helicopter is priority to the development in the market and Chinese civil helicopter fleet grows at an amazing rate of 20% every year. Right now, more than 200 Chinese general aviation operators have helicopter in service and the fleet will be more than 1000 in 2018. They are used for industry, agriculture, forest and oil & gas transportation, also, the new hot market in HEMS service, low altitude tourism and private consumption.

Erratum: In some early editions of last months Police Aviation News page 17 carried a statement that was based on a belief that the USA still had Conscription. Later editions had this removed [replaced by a white "breathing space"]. Apologies to those who noticed and became agitated by a foreigners lack of attention to detail. Conscription in the USA ceased in 1973 and it is now an all-volunteer force.

China Civil Helicopter Operation & Development Forum is the biggest civil helicopter forum in China and in its 5th year.

17-18 April 2018 LETA Thermographers Training. Hosted by the Florida Office of Agriculture Law Enforcement, 2758 County Road 136, PO Box 136, White Springs, Florida Cost \$300per person training. <u>www.leta.org</u>

ATTRACTIVE OPTIONS

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The Singapore Air Show included growing evidence of an almost unhealthy focus on small unmanned aircraft and how to knock them out of the sky.

Perhaps unfortunately, the focus has been on finding, tracking, intercepting, disabling or damaging individual craft. Most systems will do that although there are restrictions on the use of disabling by the use of interfering radio waves—in the civil sector.

The latest information is that numerous entities are developing means by which drones can be flown in groups or swarms of ever increasing numbers.

There are no signs yet that that an acceptable non-milspec drone swarm defence system is in development.

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