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PAR



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EDITORIAL

According to all the commercial sales industry projections the skies outside this January morning should be black with small [and not so small] unmanned craft. These craft that present a 'clear and present danger' to manned aircraft if not [as some suggest] the survival of humanity are with us for better or worse.

The numbers were expected to grow by 400,000 just over the holiday period and the negative predictions suggest that around now they will all be out there and every one of them will be straying into the flight paths of an airliner near you.

Fortunately, like Global Warming, this might just be an over generous statement of rate of growth. The prediction is unlikely to have taken notice of the vast number of these potentially dangerous toys that have already come to grief in the week since Christmas Day... struck the tree, hit the wall or put Grandma back in hospital. Then there is of course boredom and flat batteries. Why do we never buy in enough batteries for these things before the shops shut?

Then even as the predictions were posted in the media along comes the nasty aviation authorities to set about making ownership of these craft [and a deal more] both difficult and embroiled in red tape. Just how successfully the FAA will regulate its own vast backyard remains to be seen.

So here we are in yet another New Year and who among us will be correct in our predictions?

Very few I guess so, if there is a black overcast outside your door just now, it may just be the usual reason – rain, sleet, snow or a plague of locusts [depending upon where you are] rather than these feared new aerial craft.

Bryn Elliott

LAW ENFORCEMENT BRAZIL

RIO DE JANEIRO: Brazilian helicopter manufacturer Helibras sourced videomanagement technology for the EC145 helicopters being provided to the Policia Militar de Rio de Janeiro for public security video surveillance missions from Curtiss Wright Corp. Defense Solutions Division in Ashburn, Virginia.

Curtiss-Wright are to provide an integrated video management system (VMS) suited to public security surveillance.

FRONT COVER: Dateline 12 December 2015 MD902 Explorer of the Essex and Herts Air Ambulance in the grounds of the Parish Church, Waltham Abbey, Essex. The church is all that remains of the former Abbey—the last monastic entity that King Henry VIII dissolved during his reign in 1540. PAN has its office in the town.

January 2016

Curtiss-Wright video management systems include mission displays, video distribution, video recording, switching and streaming technology for police, customs, coast guard, border patrol, military, search & rescue, air ambulance, and government agency aircraft and ground law enforcement applications.

The police operator will use their helicopters during the Olympic Games 2016 in Rio De Janeiro. <u>www.cwcdefense.com</u> [cwc]

CHILE

NAVY: The Vulcanair's P68 Observer 2 aircraft destined for the Navy in Chile are to be equipped UTC Aerospace Systems Cloud Cap Technology TASE500 imaging systems in support of maritime search and rescue role undertaken by the Chilean Navy.

The TASE500 imaging system will be installed on the twin–engine aircraft to provide an all-HD imaging solution giving operators improved situational awareness, an all-digital imaging chain for maximized processing capability and an optimized lens design for enhanced object recognition. All TASE cameras offer a continuous zoom functionality which provides optimal field of view across all zoom levels.

The Chilean Navy provides security for the country's more than 4,300km of Pacific coastline, as well as the extensive coastline of the Chilean Antarctic Territory, which extends to the South Pole. This requires a long endurance aircraft equipped with high performance optics to aid in the detection of distressed vessels and to provide timely and efficient assistance throughout the broad Chilean maritime region. [www.utcaerospacesystems.com]

CHINA

HONG KONG: Bombardier has delivered the first of two specialised Challenger 605 aircraft ordered by the Hong Kong Government Flying Service.

This multi-role aircraft can be used for search and rescue, VIP transportation, medical evacuation, as well as other special missions. The Challenger multi-role aircraft will replace the two existing BAE Jetstream 41 twin turboprop search and rescue aircraft delivered late in 1998 [B-HRT and B-HRU].

Several Challenger aircraft are currently deployed in multirole service in Canada, Denmark, Switzerland and the Republic of Korea (South Korea). It is also used as a head of state aircraft in several countries. [Bombardier]



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CONGO

DEMOCRATIC REPUBLIC OF

GAME PARKS: When rangers found the rotting carcasses of eight dead elephants under a tree, they recognised the signs. It was the fourth time since 2012 that they had found a large family group corralled together and killed.

Elephants tend to scatter if they are shot by poachers on foot so the absence of human tracks and carcasses with bullet holes in the top of the head suggest that helicopters are being used by the poachers.

A family of 22 elephants were killed in the first incident of helicopter poaching, in March 2012, and 12 more were discovered in similar circumstances the following month.

Rangers track poachers covertly on the ground and have limited access to the use of AS350 helicopters so the news that the poachers are also using aircraft and able to arrive and leave the vast parks quickly is ominous.

Flight operations against poachers on the ground have brought their own problems and Frank Molteno the pilot of the AS350 reported bullets zipping past the helicopter as he swooped over the forest looking for some of his wounded comrades.

The grass was so tall between the trees that he could not see the poachers shooting at him but he heard the sound of their gunfire over that of the engine and rotors. On that occasion he found the wildlife rangers from Garamba National Park and managed to help them. [The Times]

SWITZERLAND

AIR POLICE: It looked like a very likely story for PAN but it was clear that there was more to the story than police air support as we now know it!

Nearly 100 years ago there was a concept of an armed Air Police that was embraced by many including the Germans [who wanted it to provide them with a core air arm after the war in 1919] and the British who thought it would be a 'Jolly good idea' in a similar time frame. Neither happened for different reasons. Strict reparations sank the German effort and the Brits just forgot all about the idea when they assessed the cost.

In more recent years the Swiss police have been obliged to hitch rides with the Swiss Air Force in their helicopters for air support so the *Air Police* is not strictly related to them.

It has been announced that by 2020, the Swiss army will have two F/A-18 jets ready to take off, fully armed, within 15 minutes at any time of the day or night. The initiative follows a 2009 Senate motion to guarantee the availability of air police services.

The Swiss defence ministry announced last month that the new project, dubbed PA24, is expected to create 100 new jobs and cost 30M Swiss Francs (\$29M) mostly in salaries. The main air base will be the Payerne Airfield in the canton of Vaud.

The ministry stated that the air police service will have two main charges: to intercept aircraft that violate traffic laws or the sovereignty of Swiss airspace, and to monitor 'diplomatic clearance' of foreign aircraft.

PA24 will be launched in four stages beginning this year, when the two jets will be made available on weekdays from 8:00am to 6:00pm, 50 weeks of the year. By 2017, the planes will be available every day of the year, and by 2019, their standby window will be extended to 6:00am to 10:00pm. Finally, in 2020, the air policing service will be at the ready 24 hours



a day, seven days a week, 365 days a year.

The plans do have a tenuous link to 'real' policing in that the organisation is designed to meet a need for 24/7/365 policing of the skies of Switzerland originally mooted in 2009. The lack of action in the project was highlighted in February 2014 when the Swiss Air Force failed to intervene in an incident that culminated in a hijacked plane landing in Geneva at 6:02am. In short it was simply 'outside of office hours'. Embarrassingly the need was met by jets from the French and Italian air arms and they escorted the jet that had been diverted from its original course from Addis Ababa to Rome by an Ethiopian Airlines pilot attempting to seek political asylum in Switzerland.

UNITED KINGDOM

NPAS: Last month L-3 WESCAM confirmed the sale of four MX-10 EO/IR turrets to Austrian-based Airborne Technologies GmbH for the initial batch of P-68R fixed wing aircraft for the NPAS contract.

As the prime contractor and integrator for the NPAS fixed-wing project, Airborne Technologies will procure and integrate L-3's MX-10 with displays, a moving map and a digital video recorder, and will downlink the integrated solution into its own Airborne LINX mission system. MX-10 deliveries to Airborne Technologies will begin in March 2016.

Operating throughout England and Wales, L-3's MX-10s will be configured with 4-axis stabilization and a suite of advanced sensors, including a four field-of-view thermal imager, daylight continuous zoom TV, low-light continuous zoom TV and a 300 mm spotter. In addition, the system's suite of MX-GEO technologies will provide accurate geographical data and advanced tracking assistance.

L-3 WESCAM's MX-10 underwent extensive NPAS flight trials from both fixed- and rotarywing platforms in 2014, which led to its selection in October 2014 for the high-profile NPAS EC135T2 helicopter upgrade by Bond.

L-3 WESCAM announced last month that a combined fleet of its MX[™]-Series electrooptical and infrared (EO/IR) imaging and targeting systems has successfully logged close to one million flight hours on board various U.S. Department of Defense (DoD) aircraft.

The 184 systems continue to actively support three key programs, with the initial turrets having been fielded in 2005. Currently, 27 of these turrets have logged over 10,000 flight hours each while requiring only minimal in-field servicing. L-3 WESCAM has delivered over 1,700 MXSeries systems to the U.S. DoD in support of a variety of different programs. www.wescam.com.

It seems that certain factions in Dyfed-Powys have not accepted the best deal result signed by PCC Salmon in recent weeks. Just before Christmas these politically motivated factions delivered a signed petition to the Home Office calling for a rethink.

Carmarthen East and Dinefwr MP Jonathan Edwards and AM Rhodri Glyn Thomas delivered the document, after their staunch criticism of the decision to centralise police air support since plans were announced last year to close the base at Pembrey [pictured last month].

Mr Edwards has described the move as the base becoming a 'glorified petrol station'. Delivering his petition, Mr Edwards said the loss of a dedicated helicopter would be a huge blow to the communities of Dyfed-Powys for whom the helicopter has played a pivotal role in their protection.

Requesting that the Policing Minister personally intervene in the issue, Mr Edwards said the safety and security of Dyfed Powys residents would be compromised without a dedicated helicopter.

The new service, which starts on January 1, will provide 24-hour cover instead of the existing 12 hours, 365 days a year regardless of maintenance downtime. [Media]

To further complicate the situation, a few days later there were reports that rental fees at the Pembrey helicopter base "could increase" when NPAS takes over this month. It was said that the managers at Pembrey Racing Circuit, NPAS, and the Dyfed PCC Christopher Salmon were in talks over the rent payable.



Since 2009 Dyfed-Powys Police were able to agree a lower rent with the land-owners Pembrey Racing Circuit, in exchange for an ongoing police presence, some use of additional land, and greatly enhanced free security for the landowner. The NPAS plans for the site significantly lower the police presence element and the owners are looking to increase the rent

– not a scenario that NPAS might have expected. Although the Pembrey facility is on the edge of an airfield it was the landowner that seems to have laid down some strict rules that led to the helicopter facility being located in a manner that would preclude easy access by fixed wing aircraft. Although the hangar is a short distance from a substantial taxiway it deliberately faces the 'wrong' direction and is not connected to the runway system. Although the ab-



sence of landing aids would stop it being a main fixed-wing base it might have enhanced NPAS interest as a subsidiary base.

January 2016

The other south Wales police air base, St Athan near Cardiff, offers NPAS far better facilities including a 6,000 feet runway with ILS and it is also the home base for the helicopters of UK Coastguard. Pembrey is therefore of little real use to the national police air operator as anything more than token use to meet a political expedient. In terms of forward refueling it will take far longer to open up than flying a further two minutes east to the ready to go services St. Athan offers. [Llanelli Star/PAR]

UNITED STATES

ALABAMA: Shelby County deputies in Alabama started patrolling in their recently acquired ex-military surplus Bell TH-67 Creek helicopter N501JS last month. Two deputies – a pilot and an observer – will bring a new dimension to this part of Alabama in creating an aviation division.

Since delivery from the military the helicopter has been re-registered and has a new colour scheme reflecting that found on the local patrol cars.

Captain Jeff Hartley is the Shelby County Sheriff's Office primary pilot. Captain Hartley retired from Tuscaloosa Police Depart-



ment where he served as one of their Law Enforcement Helicopter Pilots for five years flying similar Bell OH-58s. Captain Hartley also served twenty-four years in the U.S. Air Force. [Helihub/Facebook/PAR]

ARIZONA: The Cochise County Sheriff's Office has not used a helicopter since a fatal crash just a year ago on 31 December. Before that a helicopter used by them was involved in a hard landing on September 12 that left two people unhurt. Both of these airframes were Bell's leased from contractors and using their pilots.

In a new development a black AS350B2 helicopter is being leased from a Phoenix video production company to fly for Cochise County Sheriff financed by a grant of roughly \$1.5M from the Howard G. Buffet Foundation to cover expenses and operations for one year's use. County leaders approved the new equipment in November.



CALIFORNIA: The Modesto Police Department in Modesto is looking to operate a fixed wing type. Back in 1998 the unit was flying two OH58's for patrol support on an as budget allows basis. Typically they were doing some marijuana flying with drug agents and flown under public use rather than FAA air worthiness certificates. As often happened at the time that operation petered out and Modesto currently receives air support through the Stanislaus County Sheriff's Department. That department's helicopter being in the air 25 to 30 hours a week, primarily Fridays through Sundays covers Modesto which is not charged for the limited service.

As of last month Modesto was investigating the purchase of a fixed-wing aircraft to bring its air support in-house. Police Chief Galen Carroll has sought as much as \$660,000 for a light sport aircraft that seats two and is equipped with a spotlight and high-definition camera that volunteer pilots and police officers would operate. It is envisaged that it would be in the sky five to six hours a day, five days a week, patrolling the city, conducting traffic enforcement and helping with crimes in progress and special operations. [ALEA/PAR]

The Fresno County Sheriff's Office is to acquire a new helicopter, due to be delivered late next year at a cost of \$3.5M.

The MD helicopter will replace one of the two existing county helicopters, Eagle One and Eagle Two.

It will be paid for with savings from last year's budget, federal asset forfeiture funds and state Proposition 172 monies.

A new helicopter was among the sheriff's office's top priorities because the two current MD500E helicopters N921SD and N922SD are 24 years old. They were pre-owned when the county acquired them in 1997, currently Eagle One has 16,000 flight hours and Eagle Two has about 14,000 flight hours.

The annual cost to operate and maintain the older helicopters totals \$425,000. Despite being an enhanced capability model the Sheriff was able to demonstrate that the new helicopter will be less costly to maintain in its initial years of service at \$17,000. [Fresho Bee]



FLORIDA: Lee County Sheriff's Office in Fort Myers on the Gulf Coast of southern Florida has accepted delivery of a 'green' Airbus Helicopters H125 AStar for police role completion by Hangar One Avionics in Carlsbad, California. The delivery increases the number of AStar's in the fleet to three.

Lee County performs a wide variety of missions including law enforcement patrol and searches for lost and missing persons. The agency will have a hoist installed on their new H125 in order perform additional search and rescue missions in the coastal area around Ft. Myers.

Lee County recently picked up one of its older 1990s



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AStar N73LC after it underwent a second 12-year inspection at Airbus Helicopters Inc.'s maintenance and repair facility in Grand Prairie. The thorough 12-year inspection, which includes new enhancements, Federal Aviation Administration mandated upgrades and a factory paint job resets FAA maintenance cycle times.

The H125 (formerly AS350 B3e) is the latest version of Airbus Helicopters long-running AStar series of helicopters and is built at the company's Columbus Assembly plant.

OHIO: Airbus Helicopters delivered the first H125 AStar helicopter produced on its new US final assembly line to the Ohio State Highway Patrol.

The new aircraft was the first fully assembled on the final assembly line at the company's US helicopter production plant in Columbus. The completion work, including a state-of-theart law enforcement communications and surveillance package, was performed in Grand Prairie, Texas.

The H125 is equipped with a high-tech law enforcement equipment package including a Wescam MX-10 thermal imager and Spectrolab SX-16 searchlight. Its navigation and communications system include the Garmin G500H glass cockpit and Aerocomputers moving map system.

TEXAS: Few long standing air support units continue to fly and undertake the law-enforcement role without employing a camera of some sort. Even if they take delivery of a bare airframe it is not long before there is a clamour for role equipment to enhance the capability of the unit. They might start with a searchlight because it is relatively cheap but soon there is a need for some sort of camera.

There are a surprising number of units across the USA that will make do with the most basic of systems - there are a fair number of very ancient FLIR 2000 units out there providing a night image that is way better than having none and is seems there is even one FLIR 1000 out there.



Getting spares for the older units remains a problem and getting them fac-

tory refurbished is either impossible or prohibitively costly. Fortunately there are a few back yard wizards that can bring the apparently dead unit back to operational service.

The same does not apply to the Dallas Police it seems. In mid-December the local TV news media were reporting that the Dallas police helicopter unit is effectively going blind. One camera is broken and the other works only sometimes.

The cameras, identified as being L3 Wescam Model 12s are obsolete and parts for them are no longer in production.

"We can only put so many Band-Aids on before we can no longer stop the bleeding," said Helicopter Unit Sqt. Todd Limerick in an email obtained by News 8 through open records.

The cost to replace the cameras and its associated navigation system exceeds \$1M, according to memos obtained by News 8. Dallas police have not identified a funding source to pay for the replacement of the cameras.

It is the age old story of non-flying management buying into air support and then failing to assure the ongoing finance of it. In this instance the operational officers feel they are about to be cast back into the air support version of the Stone Age. It was not long ago that that same management was selling the units most capable aircraft, a Bell 407, leaving them reliant on a pair of far less capable Bell 206.

L3Wescam say that the equipment operated by the DPD is a Model 12 and it has been in service since 2002. It is not an "MX Series" product therefore it can't be economically refurbished in the factory as the technology is older.

The Model 12 was launched into the market in the early 1990s so it is no spring chicken even if the Dallas units are only 12 years old. Technology has moved on a long way since then and even turrets with a nominally less advanced specification offer better value overall. The immediate options for Dallas are to buy a new sensor package or find another used unit that can be used as a substitute or for parts. There are plenty out there it is a case of finding them and hoping they still work. The other real option for the management is to get their act together and plan ahead for equipment upgrades to keep their airborne resources leading

edge. [News 8/PAR]

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AIR AMBULANCE

ONTARIO: Only weeks after the story broke in the media Ornge, Ontario's air ambulance agency has abandoned a proposed sell-off of its costly AW139 helicopters after the market for used helicopters collapsed with the drop in oil prices.

The decision follows a review that began back in 2013 as officials looked at alternatives to the AgustaWestland helicopters, which were claimed as high users of fuel and expensive to maintain.

Ornge sold two AW139s in 2013 for \$10M each. Today, they would be worth just over \$6M, making the replacement scheme unworkable.

Another factor was the "staggering" cost of retraining pilots and maintenance staff to fly and maintain a new aircraft.

The helicopters are a reminder of a troubled time at the agency. ORNGE bought 12 AW139s in 2008 for \$148M, later selling off two of them.

INDIA

MUMBAI: Lots of talk of air ambulance services for all but very little to show for the rhetoric – and even then most are way beyond the finances of the majority.

The latest option being proposed is that in a year from now organ transplants and patient transfer may get easier, with online booking of air ambulance services for any kind of treatment, as well as for organ transplants that need to be transported from one city to the other. Baron Aviation, a private jets brokering service provider, is set to have air ambulances for purposes of organ donation, and any kind of medical emergencies as soon as the infrastructure is added to their current charter booking services – launched last month as book-mycharters, which allows any passenger to book private jets.

JAPAN

DR HELI: With demand increasing for "Dr. Helicopter" aircraft that fly to the scene of accidents with doctors and nurses on board and fears of a pending shortage of pilots to operate them on the other, the Ministry of Land, Infrastructure, Transport and Tourism is aiming to revise piloting qualifications.

The shortage of pilots is attributable to lower opportunities for fledgling pilots to secure the necessary number of pilot hours required in the field, as well as to the large number of veteran pilots who are set to retire.

The Dr. Heli initiative has its roots in the 1995 Great Hanshin Earthquake, when road networks were destroyed, preventing the administration of emergency medical services. Learning from this experience, authorities put in place the air ambulance system, Dr. Heli, 2001.

A nationwide survey conducted by a Ministry of Health, Labor and Welfare research team in 2003 revealed that in comparison with traditional forms of emergency medical services, the rate of successful rescues had increased by at least 30%, and the number of patients who were completely reintegrated into society increased 1.5 times.

As of April last year, there were a total of 46 Dr. Heli aircraft located across 39 prefectures. The helicopters responded to a total of 2,302 incidents nationwide in fiscal 2002. By fiscal 2014, the figure had increased dramatically to 22,643. Five more helicopters are set to be added in the 2016 fiscal year, and demand for their services are expected to increase.

In 2003 pilots have been required to have in excess of 2,000 hours, and at least 50 hours' experience flying the same type of aircraft that they would be piloting. A year ago there were a total of 148 pilots participating in the Dr. Heli program, including those who also worked other jobs. Two-thirds of these were veteran pilots aged 50 or older, and none of them were under 35. [Mainici]







JORDAN

AIR AMBULANCE CENTRE: By Royal directive of His Majesty King Abdullah, a new Air Ambulance Centre (AAC) is established in Jordan. The King donated two Royal Squadron VIP AW139s to the AAC. Both helicopters are modified to carry intensive care units and state-of-the-art medical equipment. The AAC will not only supply emergency medical service within Jordan but also perform transfer of injured people from remote locations to medical centres within Jordan and abroad.

The AW139s are registered as EMS-1 and EMS-2 and are based at Amman-Marka Air Base [Tristar Aviation]

NEW ZEALAND

WELLINGTON: On the ninth floor of the Clinical Services Block of Wellington Regional Hospital a new \$280,000 full-motion simulator is set to change the face of training for flight medics in New Zealand.



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Although there have been full-motion helicopter air ambulance simulators before this fixed wing air ambulance simulator is thought to be a world first.

The equipment is designed to introduce medical staff to a hostile environment without leaving the ground. In the real world of patient transfers it's often dark, turbulent and noisy. It is hard to prepare people for that environment unless you actually experience it and this simulator does replicate that.

The replica air ambulance, based at Wellington Regional Hospital, can recreate numerous emergency scenarios, all controlled and monitored by technical specialists next door.

The project to recreate the Jetstream based simulator cost \$280,000. The money was raised by the Wellington Hospitals Foundation, and they're pretty excited about it.

Previously, training meant taking real flights. Now medics from around the country will now be able to train without leaving the ground.

Operated by the Capital & Coast District Health Board since 1997 the Simulation & Skills Centre is a purpose-designed facility suitable for the simulation needs of a wide range of healthcare professionals, with the ability to provide outreach activities at clinical sites.

AFRICA

UGANDA: As the tourism industry becomes highly competitive, Uganda National Chamber of Commerce and Industry (UNCCI) in partnership with AMREF flying doctors have introduced an air ambulance insurance cover in Uganda at a charge to an individual will range from \$30 to \$110.

According to Ezra Rubanda, the acting secretary general UNCCI, the insurance cover code named Maisha air ambulance scheme will bring professional and affordable air ambulance service to individuals, corporates and the tourist industry.

In the past big companies have visited Uganda, noted the lack of air evacuation services, and as a result they have backed out.

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The World's Sixth Sense*

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The new measures is predicted to boost tourism in the country, perhaps by 15% in the first year and more in the future as Maisha provides quality and affordable medical evacuation services in the Eastern Africa region including Burundi, Ethiopia Kenya, Rwanda, South Sudan, Tanzania, Uganda and Zanzibar.

UNITED KINGDOM

EAST ANGLIA: The East Anglian Air Ambulance [EAAA] currently has two helicopters which are based at Cambridge and Norwich. The Cambridgebased helicopter is an example of the H145, where the original base at Norwich us the smaller EC135. When these aircraft were ordered it was assumed that this was the only model that the EAAA could finance – developments since, including the availability of Libor money have modified that thinking and a second 145 was therefore ordered to standardise. [Archant/PAR]



HAMPSHIRE & ISLE OF WIGHT: New CEO of the organisation Alex Lochrane says volunteer pilots and medics are currently being trained for night missions.

The charity acquired a new night-flying helicopter this year, which will allow the firm to operate until 2am.

It's hoped the organisation will be able to carry out operations at night in the new year, once all staff are fully trained.

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LONDON: The operation is trialing a new hand held brain scanner device that has so far, after over 60 uses, provided a 90% accurate assessment of the inside of the patient's head. Early diagnosis of brain bleeds and other trauma can guide the on-scene doctor's actions and speed up a patient's access to any further treatment they may need once they arrive at the hospital.

The charity began the trial in Spring 2015 and will end this Spring 2016, the idea behind the device is not new, a similar but larger Infrascanner device was trialed in India eight years ago.

The new Infrascanner uses near infra-red light beams to detect possible blood clots, taking less than two minutes to operate and better informs surgeons of life threatening bleeding on the brain so they can set up operating theatres



accordingly and be ready for the next stage of treatment. The device can be used while the patient is being transferred to hospital, saving critical time, and also means medical teams know when not to carry out certain treatments too. The National Institute for Health Research (NIHR) Brain Injury Healthcare Technology Cooperative (HTC) has provided the seed funding through its 'Innovation Small Funding Competition 2014-5' to initiate this 'Pre Hospital Brain Imaging' pilot study. [West London/BBC] Ed: The growth of this technology has raised a great deal of interest in both the UK and USA.

NORTHERN IRELAND: The pressure to get an air ambulance operation in place by this time next year continues. No significant fund raising is yet in place but the latest projections are that it will be based on a charity model and they are already talking about a multi-airframe operation based on the charity funded Wales Air Ambulance model. [Media]





WALES: A new purpose-built state-of-the-art base including offices, a hangar and helipad and pilot welfare facilities, is under construction in Llanelli for Wales Air Ambulance service. The two-phase project is being funded by the European Regional Development Fund, Welsh Government and Carmarthenshire County Council.

Developers and main contractors are Hacer Property Development, with Powell Dobson as project architects and Kevin Doherty Building Contractors as project managers.

The site at Llanelli Gate will be home to the charity's South Wales based helicopter and fundraising headquarters, which are currently split between two separate premises in Swansea.

It will be the first time Wales Air Ambulance has owned its premises, and this will save the charity tens of thousands of pounds annually in reduced costs, including in rent and fuel supply. It will also be the first time that the charity's head office will be located together with the aircraft.

The extremely fast track project is being carried out in two phases, with the first phase, involving the construction of a shell office building of 650m2 and a hangar building of 600m2 to house helicopters and ancillary support services, as well as external works, due to be completed in November 2015. This will be followed by a second phase, including the provision of the landing pad and pilot welfare facilities, as well as the fit out of the premises.

Under construction on a brownfield site, the two storey main office building is structured around a steel frame with external elevations in rendered blockwork with elements of timber cladding, incorporating aluminium framed windows and large areas of curtain walling to ensure high levels of natural light internally. The building will have a flat roof concealed behind a parapet and high levels of insulation.

Internally, the Phase I works include the provision of open plan ground and first floors, toilets, a staircase with steel and glass balustrading and a lift.

This phase also includes the construction of the hangar, which is a steel portal framed building with a shallow pitched profiled metal cladding roof and external elevations in profiled metal cladding, incorporating glazing and special doors for aviation use. The concrete slab for the building was laid by Hacer Developments, with the building construction being carried out by Shufflebottom.

External works include the installation of attenuation ponds, laying a path around the building, further paving, the formation of a car park, laying topsoil ready for landscaping and the formation of a new access road to the site.

Phase 2 includes the installation of internal partitioning to form the main building's offices and meeting rooms, plus mechanical and electrical installation, the installation of suspended ceilings and floor finishes, and decoration. This phase also involves the construction of pilot welfare facilities including offices, storage areas, bedrooms and mess rooms.

Other elements of the works include construction of the concrete helicopter landing pad and flight strip, as well as the erection of secure perimeter fencing. The project is scheduled for completion in March 2016. [Premier Construction News]

UNITED STATES

VIRGINIA: A new helicopter crammed with the latest technology, a brand new Airbus Helicopters H-130 T-2 supplied by Air Methods is based at the Blue Ridge Regional Airport and replaces an earlier example of the EC130.

The new helicopter operates for Wake Forest Baptist Health in Winston-Salem, North Carolina and is stationed at Blue Ridge Airport in Martinsville. It's dedicated to giving patients critical care and rapid transportation to regional hospitals in an emergency.

The H130 N130WF, also known as Air Care 3, will change patient care in the Martinsville area in emergency situations. The new airframe is equipped with the latest cardiac monitor, ventilator and all the medications needed to provide critical care for a patient.



In three years, the programme has responded to 1200 medical calls in the Southern Virginia region and continues an air ambulance service that started nearly 30 years ago. The last helicopter delivery was an EC130 delivered as AirCare 2 in 2011.

January 2016

FIRE AUSTRALIA

MICROFLITE HELICOPTER: The 14th Airbus helicopter to enter the fleet of Microflite Helicopter Services is an H125.The company has again placed its trust in the performance, versatility and safety credentials of the Airbus Helicopters' H125 (formerly AS350 B3e), destined to help safeguard thousands of lives, providing enhanced capability to the company's front-line emergency response work, ranging from aerial firefighting to search and rescue and disaster recovery.

The timing was critical in the lead-up to Australia's fire season.

Announced in October, the news takes Microflite's firefighting contracts with Victoria's Department of Environment, Land, Water and Planning from two to five, utilising a line-up of five aircraft from the versatile Squirrel (Écureuil) family. The company also provides "callwhen-needed" firefighting services in New South Wales, South Australia and Tasmania, and proudly operates Life Saving Victoria's two Westpac Lifesaver Rescue Helicopters (an AS350 B2 and an EC120).

GREECE

Erickson Incorporated has announced a two-year service contract extension with the NSPA (NATO Support & Procurement Agency) and the Hellenic Fire Department (HFD) in Athens, Greece for aerial firefighting services.

The contract extension, commencing in May of 2016, is the continuation of a contract signed by Erickson in May 2012; previously managed by the NATO Maintenance and Supply Agency (NAMSA). The extension will mark five years of Erickson's contracted work in co-operation with NATO. An additional option year is also included in the new extension.

The contract requires three S64 Aircranes to perform aerial fire suppression in support of the HFD and includes a scope of work to protect all regions of mainland Greece and its outer islands from the threat of wildfire.

The S-64 Aircrane helicopter, powered by twin jet engines, is a highly specialized, heavy-lift helicopter capable of carrying up to 20,000 pounds. The helicopter offers a versatile platform which can be equipped for multiple utility purposes. Often adapted with a snorkel and 2,600 gallon tank, the Aircrane is used to fight wildfires all over the world. Increasingly, the helicopter is contracted by oil and gas, telecom and other companies to construct vital infrastructure. Erickson holds the type certificate for the S-64 and currently has 20 in its commercial fleet.

SOUTH KOREA

South Korea's national forestry service has ordered a firefighting version of Korea Aerospace Industries Ltd.'s twin-engine utility Surion, the manufacturer said, adding that the order is worth \$17.6M (20.5 billion won). With a fleet 45, the Korea Forest Service is reported to have the most civil governmental helicopters in the country. Most of those include Kamov Ka-32s. The service's Surion will be delivered by the end of 2017 and fitted with a 528-gal (2,000-I) water tank and a rescue hoist. KAI developed the Surion with Eurocopter to provide an indigenous option for replacing the South Korean army's MD-500s and Bell UH-1s as well as meeting other national vertical-lift requirements.

The police in South Korea recently took delivery of the first of four locally made variants of the Surion named the "Chamsuri" takes responsibility for even safety of the residents of Baekryeong-do Island

KAI clinched a deal with PPS to additionally provide more improved copters. The copter can play their mission in the marine, long-haul flight, bad weather and mountainous area environment. aft

UNITED STATES

TEXAS: Austin Fire Department has been displaying one of their new unmanned aerial vehicle—the most recent operational use was during the floods on the Memorial Day weekend.

The display was to highlight their use and the difficulties presented by civilian also operating craft around emergency scenes.

Firefighter Coitt Kessler says, "Our helicopters cannot make entry into areas where the unmanned aerial systems are operating – where they're flying. It's just too dangerous. That is certainly a problem. We have individuals who are flying these things into emergency scenes that create distractions for us. That is terribly dangerous. We cannot be distracted. We need to be focused on the people that we're going out to save."

The AFD drone team has eight personnel, including pilots. [UASV]

SEARCH AND RESCUE BANGLADESH

AIR FORCE: Bangladesh's Prime Minister Sheikh Hasina paid a visit to Air Force's Bangabandhu Base in Dhaka in Dhaka on Sunday 6th December to induct two new aircraft types. Aside from the Yak-140 jet trainer (they have 24 on order), the more important part of the day was to launch the AW139 into military service in this Asian country.

It was back in July 2014 when AgustaWestland announced this order for two aircraft, saying the pair will perform maritime search and rescue (SAR) and other utility missions. The contract, which also includes a comprehensive support and training package, marks the establishment of the first dedicated maritime SAR helicopter fleet in the country. The Bangladesh Air Force's AW139s feature an advanced mission configuration including a search/weather radar, FLIR, search light, rescue hoist, emergency floats and a state-of-the-art 4-axis dual digital AFCS with hover and SAR modes. [Helihub]

IRELAND

COASTGUARD: It has been reported that the Search and rescue helicopters operated by the Irish Coastguard will not be able to use the helipad planned for the new national children's hospital.

This is because the Sikorsky S92 helicopters used by the Coastguard as an air ambulance service are not licensed to land at elevated helipads, such as the one planned for the site at St James's hospital, but the restriction will not affect the AW139 air ambulances operated by the Air corps. The helipad will be located above a fourth floor roof garden at the south edge of the new development.

The helipad is the subject of a wide range of concerns and objections to An Bord Pleanala,

relating to safety, noise, fire risk, location, light pollution and alleged risks to the operation of medical equipment.

With the ongoing lack of HEMS helicopters across Ireland the Coastguard helicopters are being increasingly called upon to undertake the role, an uneconomic use of the large S-92s. In excess of 1,000 missions were flown in 2015, the Shannon Helicopter Rescue 115 having completed 330 missions, Dublin Rescue 116 completed 148, Waterford Rescue 117 179 and Sligo Rescue 118 343. The helicopters based on the west coast saw a busy year assisting the National ambulance Services - in particular transporting patients from rural areas to hospitals in Cork and Galway.

UNITED KINGDOM

COASTGUARD: From January 1 2016, the Maritime and Coastguard Agency [MCA] took responsibility for all national civilian helicopter search and rescue operations throughout the UK, 24 hours a day.

The UK SAR helicopter service will be delivered by Bristow Helicopters Ltd and CHC Helicopters, on behalf of HM Coastguard.

From January, all search and rescue helicopters operating in the UK will be red and white HM Coastguard ones and replace the SAR helicopter flights of the Royal Air Force (RAF) and the Royal Navy.

The National Maritime Operations Centre (NMOC) in Fareham and nine Coastguard Operations Centres (CGOC) located from Falmouth to Shetland, now enable HM Coastguard to manage incidents more effectively than ever before.

Over the past 12 months, HM Coastguard has opened seven new helicopter bases. Each one has state-of-the-art helicopters equipped with the latest SAR technology which can operate in all weathers and rescue people from anywhere in the UK, even in the most difficult of conditions.

It is noteworthy that despite the imminent final handover of SAR from the military to Bristow the recent severe flooding in the north of the UK resulted in the, perhaps final, attendance of at least one Royal Navy Sea King to help the civil population.



OFFSHORE: Bond Offshore Helicopters has launched a new service that allows sick or injured passengers, including those who can't wear a lifejacket or survival suit, to be brought back to shore by helicopter.

Previously people who were too ill to fly either had to wait offshore until they were better or their condition deteriorated enough to warrant an airlift from the Search and Rescue service, or they had to be transferred by boat. Under the new clearance Bond can now provide specialist support to these passengers to bring them back to shore safely and swiftly on a helicopter.

Bond's Director of Operations, Captain Rob Dyas, said: "This new service provides an important middle ground for those passengers who may be injured or unwell but who do not qualify for the Search and Rescue services reserved for those with life-threatening conditions.

"With the expert help of our Clinical Advisor and with our experienced crews acting as escorts we can now transfer these passengers back to shore, providing a simple set of requirements can be met."

The new service received clearance from the CAA early last month, applicable to all UK operators, and is available for offshore flights immediately from all Bond's UK bases.



INDUSTRY

Last month **Onboard Systems International,** Inc., a leading provider of innovative helicopter cargo hook equipment, announced that its non-rotating cargo hook kits for the Bell 204, 205, 212 and 412 aircraft have been STC certified by the FAA. Onboard will also submit these systems to Transport Canada and EASA for certification in Canada and Europe, respectively.

The robust, sleek and lightweight suspension systems are manufactured using stainless steel and aluminium components and feature the reliable and user-friendly TALON® MC Keeperless Cargo Hook. They are also the first cargo hook kits to feature Onboard's new Surefire™ cargo hook release technology option. The Surefire circuit requires a purposeful, half-second press against the hook release button to guard against inadvertent releases caused by accidental contact with the release button during flight.

The new cargo hook systems are designed specifically for operators whose external load missions require non-rotating loads, such as back burning, fertilizer spreading, and fire-fighting, to name a few. Between the simplified design, reduced total part count, and extended service intervals, Onboard are confident that the non-rotating cargo hook kits will be well-received by external load operators of these Bell aircraft.

Onboard's non-rotating cargo hook systems are designed to reduce ongoing maintenance expenses and lifetime cost of ownership as compared to previous designs. The cargo hook kits feature stainless steel tension straps instead of the cables used on other non-rotating cargo systems. The straps are easier to inspect than cables, which tend to fail in fatigue from the inside out under torsion. The stainless steel straps share the load equally, regardless of the amount of twist in the suspension system, increasing load safety and product longevity. In addition, the manual and electrical release cables are routed within a rugged conduit for maximum protection, and the low-friction bumper ring results in less twisting as the bumper contacts the airframe, reducing torque inputs to the hardpoint.

In addition to the Surefire option, there are also kit options for an integrated Onboard Weighing System, which allows pilots to instantly know the weight of the cargo on the hook, reducing the risk of overload airframe stress and helps the pilot make more informed aircraft loading decisions. An optional NVG backlighting system for the cockpit indicator is available as well.

Robinson's 700th R66 Turbine rolled off the production line on December 18, 2015, five years after the 5-place helicopter was FAA certificated.

Serial Number 700 is an R66 *Turbine Marine,* which is an R66 equipped with pop-out floats, and will be delivered to Robinson Dealer Air Technology Belgium. This will be the first *Turbine Marine* delivered to Europe since EASA approved the float option in October and one of the more than fifty R66s sold to Europe.

Robinson recently added the Garmin G500H Flight Display, and the Genesys HeliSAS Autopilot to the R66 options list. Currently in development are an R66 auxiliary fuel tank and an R66 cargo hook. Both options are projected for release in 2016.

In mid-November in Spray Lakes, Canada, Robinson's R66 Turbine passed the FAA's and Transport Canada's test to allow flight in snow conditions. The stringent test requires extended flight in weather conditions that are difficult to find even in Canada. When alerted by Canadian based dealer Eric Gould of Aerial Recon that the right combination of visibility, temperature and storm duration was finally on the way, Robinson responded swiftly.

The test was conducted during a heavy snow storm with low visibility at freezing temperatures,

conditions that have been shown to produce worst-case snow accumulation at the helicopter turbine engine intakes. The test consisted of a 100% engine ground run for 20 minutes, IGE hover for 5 minutes, and 60 minutes of cruise flight. Performance was monitored using pressure instruments and a live video feed from a camera mounted near the engine air filter.

The test requires that snow build-up not block the engine air intake or adversely affect engine operation. Despite the extreme weather conditions, no snow build-up occurred in the



engine intake area and no decrease in engine performance was detected. Passing the test is significant as it allows Robinson to eliminate the existing limitation in the R66 Pilot's Operating Handbook which prohibits flight in falling or blowing snow. www.robinsonheli.com.

All Metal MS has delivered its Model 400 custom "Safety First" Maintenance stand to the City of Pasadena Helicopter Section's fleet of Bell 206 aircraft.

All Metal focuses on working with customers such as the City of Pasadena Helicopter Section to design customized products that enhance and improve aircraft maintenance. All Metal's Model 400 stand was designed to support the Bell 206, Bell 407, Bell 429, and OH-58, has been sought after and tested by aircraft mechanics worldwide.

All Metal MS has also delivered its custom "Safety First" Maintenance Stand, Cowling Racks and Blade Racks to The United States Border Protection San Diego, CA fleet of AS350 aircraft. These All Metal products were designed to support the Airbus AS350, EC120, EC130, EC135, EC145, and AS355.

All Metal will be exhibiting at this years HAI Heli-Expo in Kentucky during the first week of March.



Swiss Rotor Solutions Maximum Pilot View Kit project is currently behind schedule due to some design changes including a more dynamic shape geometry of door window, an increased VNE to 145 kts, and the unforeseen absences of key people.

Due to these issues it is expected that the will now be granted in early 2016 closely followed by FAA and TC Validation (already in preparation).

Despite those problems the prototype is finished and ready for test flights and awaiting the permit to fly from the EASA to start the test flights in the coming month.

Swiss Rotor Solutions have various confirmed orders from operators like Air Zermatt, Heli Austria, Air-Glaciers and Chamonix Mont Blanc Helicopters. <u>www.swissrotorsolutions.ch</u>

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January 2016

Avlite's new obstruction light is a flashing, medium intensity LED obstruction light designed to comply with ICAO MIOL Type A and Type B requirements for day/ night marking of obstacles. The model can be used for marking obstacles or aviation hazards at airports or other tall structures located outside the airport or aerodrome. These lights visually identify obstacles to approaching pilots and are vital to preventing collisions in poor and low visibility conditions or at night to identify telecommunication towers, wind turbines, buildings and other tall structures.

Avlite's ICAO Certified Type A and Type B LED medium intensity obstruction light is available in universal AC or DC and will accept voltages between 110–240VAC and



20

24–48VDC. Avlite's MIOL is fully self-contained, unlike other obstruction lights, and requires no external control and monitoring enclosure.

The PA100 PUREair air filtration system is ready for in-flight missions in falling and blowing snow conditions after successfully completing falling and blowing snow flight testing. The PA100 is now fully approved by TCCA, FAA and ANAC with no operational limitations. The PA100 continuously removes falling and blowing snow and will not clog during flight. Harsh operating environments can now be faced head on with confidence and security, and snowy and severe conditions are longer a hindrance for a safe and successful flight or mission.

DART and **Pall Aerospace** co-developed the PA100 PUREair engine protection system for the H125/ AS350 as well as the H130 helicopters and have been working on obtaining this important approval for the past year. Operators can now install the PA100 PUREair System in markets where the TCCA, FAA, and ANAC approval is recognised and falling and blowing snow clearance is needed. EASA STC approval is also expected imminently and will include the falling and blowing snow approval.

The system, is a totally redesigned, reengineered, and retested air filtration system that is virtually self-cleaning and maintenance free. This 4th generation system brings to market the latest advances in Pall Aerospace technology. <u>www.dartaerospace.com</u>.

The first fruits of the wish for the US Government to regulate the unmanned aircraft industry in its own skies were put in place last month. Generally welcomed as something where there was previously nothing the measures have picked up a swathe of the previously unregulated model aircraft industry and that will not be popular.

Following input from a joint industry/government task force, which included participation from NBAA, late last month the U.S. Department of Transportation and **FAA** issued regulations governing the registration of many small, unmanned aircraft systems operated in US national airspace system.

Under the interim final rule published December 15, non-commercial operators of UAS weighing between 0.55 pounds (250 grams) and less than 55 pounds (approx. 25 kilograms) will be required to pay a triennial \$5 fee to register their systems. Any UAS purchased before December 21, 2015 must be registered by February 19, 2016, while UAS purchased after December 21 must be registered prior to their first flight outdoors. The regulations are in fact stronger than those controlling firearms. In the USA.

Non-commercial small UAS users, including operators of radio-controlled aircraft, will be issued a single registration number, which may then be applied to all small UAS they operate. The newly announced registration requirements don't apply to commercial operators, which must continue to utilize the Section 333 exemption process as the FAA works on de-

fined regulations for the segment. A name, address and email are required for registration, and an owner must be 13 years of age or older.

Owners may register through a web-based system at: <u>www.faa.gov/uas/registration</u>. Information is available at <u>knowbeforeyoufly.org</u>

A few days later the **European Aviation Safety Agency** (EASA) published a Technical Opinion on the safe use of drones in Europe's civil airspace. The EASA Technical Opinion sets the direction to be followed for all future work to be done to ensure unmanned aircraft are operated safely and interact safely with other airspace users. The aim is to provide a framework that is proportionate to the activity, ensuring safety and at the same time enabling this innovative industry to continue to grow.

The opinion also serves as guidance for the European Union Member States that have no rules for small unmanned aircraft or plan to modify their existing ones, to ensure consistency as much as possible with the intent of the future EU rules. It also provides a roadmap presenting the steps to be taken in the future.

For more information on the EASA Opinion and to watch the safety video on the use of drones please visit <u>www.easa.europa.eu/drones</u>

Adding to the onslaught on drones was an incident where the world's best Alpine skier was involved in a 'near miss' after a professional camera drone plummeted from the sky and crashed in his wake in the middle of a slalom race.

Austrian Marcel Hirscher, a four-time world champion, was about 10 seconds into his race in Madonna di Campiglio in Italy when



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the drone smashed on the snow and broke apart.

Although he did not appear fazed at the time or injured by the debris of the crash he was subsequently quoted as saying 'This is horrible. This can never happen again.

That was of course a mishap at the hands of a professional camera crew – what of the real amateurs that are taking to the skies after the holiday gift season?

In the following days insurance underwriters is the UK have been seen to have significant worries about the risk of drones falling into the hands of 'amateurs, fools and children'

Home insurers are rushing to exclude drones from their policies as experts warn that even those who buy them as gifts for others could be liable for privacy and personal injury claims. Provisions to exclude "aircrafts" and "remote controlled vehicles" have been hastily added to policies, as underwriters refuse to risk footing the bill of potentially huge legal bills arising from the gadgets.

A simple malfunction, poor flight control or a flat battery could turn someone's wellintentioned gift into an airborne weapon and unwanted intruder on private property.

FLIR Systems, Inc. announced a new technology collaboration with drone industry leader DJI Innovations. Under the strategic arrangement, the companies also announced plans to develop their first joint product, the DJI Zenmuse XT stabilized camera featuring FLIR's thermal imaging technology for DJI's Inspire 1 and Matrice aerial platforms.

Combining DJI's Zenmuse stabilised microgimbal technology, which has become a common platform for demanding aerial cinematography, with FLIR's popular Tau 2 thermal imaging camera core, the Zenmuse XT will expand the possibilities for commercial drone operators and infrastructure inspectors. Using FLIR thermal imaging on small drones brings new capabilities to dozens of commercial applications, including search and rescue, firefighting, agriculture, wildlife protection, and the inspection of energy infrastructure, bridges, and buildings.

The addition of thermal imaging provides users the ability to see in complete darkness, measure temperature remotely, and see through obscurants like smoke, dust, and light fog. Zenmuse



© DJI/FLIR

XT users will have the unique ability to see minute temperature variances – normally invisible to the naked eye – that can signify potential problems in buildings, detect the presence of people or animals, and monitor the health of mechanical and electrical equipment remotely. Its integration with DJI's Lightbridge live video downlink system and the DJI GO app will also give drone operators real-time control and recording during flight.

DJI's popular Inspire 1 and Matrice quad-copter airframes provide industry-leading aerial cinematography and development platforms with stable flight performance, predictable flight execution, and integration with the popular DJI Go app – also make them ideal thermal imaging platforms.

The Zenmuse XT will be available in early 2016 at both DJI and FLIR dealers. Please visit <u>http://www.dji.com/product/zenmuse-xt</u> to learn more.



Last month the UK **Home Office** announced that EE and Motorola would join Kellogg, Brown and Root to provide the emergency services with a more affordable and capable Emergency Services Network (ESN). Offering more flexibility than the old system, the new services will replace the existing system from mid-2017 as the current contracts expire.

Motorola Solutions will now be responsible for the delivery of the user services contract (Lot 2), providing systems integration and public safety functionality.

EE, winner of the mobile services contract (Lot 3), will be required to provide an enhanced radio access service with nationwide coverage.

Signing of the final contracts follows the announcement in the Spending Review that the Government has committed an additional £1bn to overhaul the emergency services network. The new network is expected to save the taxpayer £1m a day.

ESN will support a network based on 4G public safety LTE technology with voice and broadband data services, such as the ability to send photos and video, for Great Britain's police, fire, rescue, ambulance and other public services.

In order to deliver the mission critical Emergency Services Network (ESN), EE will: build a new, highly resilient dedicated core network for the emergency services; build more than 500 new sites, expanding coverage in rural areas; switch on low frequency 800MHz spectrum on more than 3800 sites to enhance rural and indoor coverage; implement the capability to afford network access priority to emergency services when required; implement VoL-TE (calls over 4G), and new LTE voice capabilities including 'push to talk'; deploy a fleet of rapid response vehicles to ensure maximum service availability; and implement satellite backhaul for Britain's most hard-to-reach areas.

Work to enhance and expand the EE network has already commenced in order to be ready in time for the first transitions, and existing consumer, business and public sector customers will benefit from this. The dedicated EE Emergency Services team will work closely with the current provider, Airwave, the Lot 2 service provider, Motorola, and Lot 1 delivery partner KBR, as well as all 300,000 end users to manage a smooth transition to the new 4G network.

Turbomeca has received EASA engine type certification for its Arrius 2R engine that powers the Bell 505 Jet Ranger X.

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Turbomeca is celebrating the achievement of one million hours flown by U.S. Coast Guard MH-65 Dolphins fitted with the Arriel 2C2-CG engine. Operating a fleet of over 200 Arriel's, the Coast Guard is one of Turbomeca's major US customers.

As part of the Deepwater programme, the USCG decided in 2004 to re-engine its entire fleet of MH-65 Dolphins from the troublesome Textron/Honeywell LTS101-750B-2 to the Arriel 2C2-CG. The first flight of an Arriel-powered MH-65 took place in June 2003, and Turbomeca delivered the first production 2C2-CG in May 2004. A total of 225 engines were delivered, the last one handed over in April 2007.

The Arriel 2C2-CG has provided better safety, reliability, power and performance margins to the MH-65. The helicopters are used for critical missions including search and rescue, law enforcement, environmental response and maritime surveillance.

The MH-65 was originally ordered 35 years ago and fitted with the US engines as a sop to 'Americanisation' that displaced the original French Arriel engines.



January 2016

In late November **Celier Aviation** a small autogyro manufacturer based in Poland flew the latest variant of its General Aviation light Gyroplane family, the C-44 Medevac a variant of the 2-3 seat Xenon produced in partnership with Bellcomm of Spain that took two years to bring to first flight.

Celier Aviation has been producing gyros in Poland for nearly a decade now and has regularly attempted to interest the airborne emergency services in them as an economical airborne platform. They have had some success with small operators in Africa but have not interested the major European players in their regulated industry that requires twin-engines and IFR.

The C-44 Medevac Gyroplane is designed to carry a





stretcher case within the cabin to the right of the pilot – a capability facilitated by having a wide opening forward door.

In the weeks since the first flight social media has been bombarded with words, images and videos of the first flight promoting Celier's answer to injecting an element of economy into medical repatriation. A similar 'low-cost' promotion has been ongoing with law enforcement. *Ed: Having studied the material presented though I think there may be a continuing flaw in the marketing of the Celier concept at a time when the size of all first world medevac helicopters is increasing. The potentially more receptive markets in the Third World might have problems with sourcing fuel for the Rotax engine.*

All the published images suggest that there is only room for the stretchered patient and the pilot. It seems that there is, at best, restricted space for a full size medical attendant seated behind the pilot. This would significantly reduce the type of patient the C-44 could carry to those not needing attention in flight or not likely to suffer from such as seizures. There is more to medical evacuation than simply pushing a body in.



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ACCIDENTS & INCIDENTS

24 October 2015 MDHI MD902 N902LC Air ambulance of Cox Air Care, Springfield, Missouri operated by Air Methods Corporation. Flight team transporting a patient from Cox Medical Center to a receiving facility in St. Louis. Shortly before landing at the St. Louis facility, crew felt a thump as if something had struck the aircraft. No alterations occurred in the aircraft's performance. Due to being on final approach, the pilot elected to continue to execute the landing at the receiving helipad. After landing and inspecting the aircraft, it was noted that the aircraft had suffered a bird strike with damage to the pilot's side chin bubble. A small bird was removed from the chin bubble and an approximate 12" crack was noted to the plexiglass. [Concern – this is an update on a report in the November 2015 edition]

11 November 2015 Beechcraft B200GT Air ambulance of Sanford AirMed Sioux Falls, South Dakota, USA. The aircraft was flying from Joe Foss Field in Sioux Falls to Aberdeen Regional Airport at the to pick up a patient. An ELT was activated on board and the US Air Force contacted the operator to check on it. Multiple radio and satellite phone calls from the AirMed Com Center to the aircraft went unanswered for approximately 10 minutes. Eventually contact was made and the situation was resolved. It was found that the pilot sitting in the left seat inadvertently bumped and switched on the ELT toggle switch and it went unnoticed by both pilots. [Concern]

15 November 2015 Sikorsky SK-76 C-GHHJ. Air Ambulance operated by Helijet for the British Columbia AA. An investigation is underway behind closed doors after an S-76 suffered one or more incidents during a night flight in clear conditions near Tofino Airport, Canada. Two pilots and an air medical crew were on-board when the helicopter suffered what is said to be two instances of rapid descent where dynamic component exceedances took place. According to a Transportation Safety Board source "Below 600 feet there were some excursions in heading and evidence of a high rate of descent, as much as 2,500 feet a minute for a very short time" said Bill Yearwood of the Transportation Safety Board on Monday.

Initially, Helijet played down the incident and the damage caused but subsequent investigations apparently using the CVR and FDR led to the company changing major components of the drive train and letting both pilots go. [Global]

1 December 2015 Aero Commander 690A N162AL. Air ambulance of Airlift Northwest of Seattle, Washington. Operated by Aero Air. Shortly after take-off from Wrangell Airport in Wrangell, Alaska the left engine fire indicator briefly illuminated. No visible sign of fire from within the aircraft. Soon thereafter while the crew was discussing the indication, the fire indicator light briefly illuminated again. The crew decided to return. Both engines remained operative and the landing was uneventful. There was never any physical or secondary indication of fire. On post-flight inspection the crew noticed discolouring on the left engine cowling. The cause was found to be a cracked exhaust duct attachment, which allowed hot exhaust gas to blow onto the fire warning temperature sensor as well as onto the inside of the cowling. [concem]

6 December 2015 Sikorsky S-92 Irish Coast Guard. A teenage girl died after falling from a coastguard helicopter while being rescued from 15 foot waves. Aoife Winterlich, 14, was on a venture scout trip when she was thrown into the Irish Sea at Hook Head. Two others who ended up in the water managed to swim to safety while a teenage boy held on to Miss Winterlich and kept her afloat until a rescue helicopter arrived. It is said that the situation was so dangerous for the two in the water that an attempt was made to rescue both of the teenagers in the same triple lift but it is believed the unconscious girl accidentally slipped back into the sea. She died in hospital. [Media]

10 December 2015 Bell 407 N408FC Air ambulance of Skylife. The SkyLife helicopter took off out of Porterville in poor weather, rain and thick fog, crashed killing four people on board near Sherwood and Highway 65 in Kern County, California. They were flying a criti-

cal patient to San Joaquin Community Hospital in Bakersfield. On board was the helicopter pilot, a flight nurse, a flight paramedic and a female patient.

The pilot was Thomas Hampl, 49, an employee of Rogers Helicopters for three years. The critical-care nurse on the aircraft was Marco Lopez, 42, a three-year SkyLife veteran. And the paramedic on the flight was Kyle Juarez, 37, a nine-year veteran at American Ambulance who spent the last three years on the SkyLife team. Both of the medical staff were from Fresno. [Media]

15 December 2015 Eurocopter AS350B3 N74317 Air ambulance of Native Air operated by Air Methods. Crashed in rugged terrain 20 miles east of Apache Junction in the Superstition Mountains near the Pinal and Gila County line [55 miles east of Phoenix], Arizona, USA while returning to its base at Globe with three aboard. Two died at site one survived and taken to hospital in critical condition. The pilot David Schneider, 51, of Gilbert, and flight nurse Chad Frary, 38, of Mesa, died at the site of the crash and Flight paramedic Derek Boehm, 38, of Gilbert, was taken to a trauma center with two broken femurs, fractured scapula, ribs and ankle. He provided aid and support to his partner until he died. He then used a flashlight to signal a search aircraft as he lay covered in snow and jet fuel. AirEvac landed about a quarter-mile away but Boehm was removed from the scene by an Air Force helicopter. He was later reported to be in a fair condition. [Media]

22 December 2015 Beech B200 King Air VT-BSA Border Security Force [BSF] crashed killing ten and injuring others on the ground. The chartered King Air came down after hitting a wall in Dwarka district and burst into flames. It crashed shortly after take-off hitting the airport security wall and crashed into a sewage treatment plant as the pilot was attempting to return because of technical difficulties. The passengers included maintenance technicians on way to Ranchi to service a BSF Dhruv helicopter based in the Jharkhand state. [Media]

23 December 2015 helicopter. A helicopter battling a fire in northern Spain crashed killing the pilot in a forest in a rural area of Parres in the north-western region of Asturias. The pilot -- the sole occupant of the helicopter -- was already dead when rescuers arrived at the scene. [Media]

28 December 2015 Bell helicopter of the Venezuela National Police. Both occupants were injured when the helicopter crashed in a car park in the village of Paraguachon, just across the border in the northern Colombian province of La Guajira due to a mechanical issue. The crew members were taken to medical centers in Venezuela.

The crash was some 10 metres (33 feet) from the border and the wreck therefore remains with Colombia as a potential political issue but Colombia does not appear to be treating the matter as a violation of Colombian sovereignty. Relations between the two countries have been reported as tense since August, when Venezuelan President Nicolas Maduro ordered a long stretch of their common border to be closed as a means, he said, of stepping up the fight against contraband and paramilitaries. [Media]

FLIGHT SAFETY

An avoidable Air Asia airline accident has highlighted safety lessons still not being learned. The accident highlights that the industry as a whole has learnt nothing from two previous tragic airline accidents. The investigations into the "Spanair" and "Turkish Airlines" accidents (2008, 2009) highlighted almost identical causal factors.

Non reporting of defects.

Inadequacies in the maintenance system allowing a repetitive low key fault, culminate in an avoidable accident.

Crew training issues.

Ineffectiveness of the current regulatory oversight system which consistently fails to detect safety issues prior to an accident whilst the same issues are detected immediately post-accident.

January 2016

This month the ALEA is conducting a safety survey. They are seeking member input to help them understand safety needs. The information with assist in directing the organisation's



Safety First programme in coming years. All responses are anonymous and will be retained only by ALEA. If you have any queries or comments contact Bryan Smith at safety@alea.org The survey is through the website at accessed www.alea.org

PEOPLE

Honeywell UK Ltd - Skyforce Division has now left the long standing address in Boxgrove, Chichester and moved to Marlowe House, Chaucer Business Park, Whitstable, Kent CT5 3FE the dialling codes for Whitstable are +44 (0)1227 ******



Peter Sunderland , Chairman of the Yorkshire Air Ambulance at the signlitech in London. © PAR

The Yorkshire Air Ambulance Chairman, Peter Sunderland DL, has been named in the Queen's New Year Honours list, and will receive an MBE at a ceremony at Buckingham Palace later in the year. His MBE is being awarded for 'Voluntary service to the Yorkshire Air Ambulance and the community in West Yorkshire'

Mr Sunderland, 73, has been a Trustee of the life-saving Charity for over 12 years, with just over 9 of those as its Chairman, and has been responsible for some momentous changes at the YAA in recent years.

Mr Sunderland commented "I am overwhelmed to have received this honour from Her Majesty The Queen – it really is one of the proudest moments of my life. When I joined as a Trustee of the YAA, I could never have imagined the journey I would embark on, but here we are over 12 years later with a remarkable Charity doing some amazing work across Yorkshire. It truly is an honour to be its Chairman and I am touched to have been nominated for my MBE."

Mr Sunderland joined the YAA after retiring from his role at the RMC Group PLC, where he worked for over 27 years as one of their UK Directors, bringing with him a wealth of experience in senior management, monitoring & delivering of business taring ceremony held at last year's He- gets, workshops, strategic development, financial & budgetary control and project implementation.

After spending an initial 3 years as a Trustee for the YAA, he then became Chairman in November 2006, and continues to hold the position today, supported by his Vice-Chairman, Trustees and a strong senior management team.

In 2007 he was appointed a Deputy Lieutenant of West Yorkshire by the Lord-Lieutenant, Dr Ingrid Roscoe.

In his time at the YAA, Mr Sunderland has always had a 'hands-on approach' to management and has overseen many key milestones for the Charity. These include the purchase of the two MD 902 Explorer helicopters in 2006 and 2008, the acquisition of its Head Quarters in Elland near Halifax, the relocation of its Northern Airbase to RAF Topcliffe near Thirsk, and the development of its flagship airbase on the Nostell Estate near Wakefield. And 2016 will see the delivery of a brand new Airbus H145 helicopter to the Charity.



January 2016

Christopher and Regina Catrambone have been mentioned in the Foreign Policy list of 100 Global Thinkers.

Mr and Mrs Catrambone founded MOAS (Migrant Offshore Aid Station) to mitigate loss of life at sea in response to the ongoing refugee crisis. Since 2014, the organisation helped rescue almost 12,000 refugees from unseaworthy boats in the Mediterranean Sea. MOAS (<u>www.moas.eu</u>) is now expanding its mission to the Aegean Sea between Turkey and Greece (it was to be launched in December) as well as to the Andaman Sea in South East Asia. They use UAVs to search beyond the horizon.

"It is an honour for us to be listed among Global Thinkers. The real heroes, however, are the thousands of people who have contributed to our cause to help save lives. We are now a completely crowdfunded global charity and we take pride in the fact that we have inspired so many people to be the change they wish to see in the world instead of leaving the work to others," said Mr Catrambone who received the award in Washington D.C.

Each year, Foreign Policy selects the 100 Leading Global Thinkers whose contributions and work are changing minds and shaping the world.





Aerial Firefighting Asia Pacific 5 – 6 September 2016 Adelaide | Australia

Chief Executive **Alex Marshall** the man that brought to fruition the controversial NPAS centralized airborne law enforcement operations in the UK now works at the College of Policing. He is now proposing that all police officers should have degree level qualifications in policing before they join the police. This is not unusual among law enforcers worldwide but in the UK most degree standard entrants have tended to have degrees in anything but law. It is easy to see why many decry the whole idea of degrees when the applicant arrives complete with a BA in Philosophy or Bricklaying. Yes they can think but can they face a punch-up in a public house on Saturday night when totally alone?

A degree is perhaps a great basis for future leaders but does not necessarily stand as an important addition when the vast majority of the law enforcement army spend the whole of their career in the lowest rank. Even the Police federation agrees that in excess of 60% of officers never seek promotion – but it seems that even there no-one has seen a need to even research the subject. That is a 'guesstimate' of the situation.

Notwithstanding that the NPAS he launched in 2012 bears little resemblance to the upcoming 2017 model and that he seems to have pretty much dismantled the College of Policing in the period since he started there. So perhaps this idea will also be stillborn.



© WAPHC

International Civil and Military Helicopter Technology & Operations Exhibition

DIIRA





As this issue was being put together even as Dubai was celebrating its New Year it was good to see that the helicopter operating Civil Defence Authorities were so laid back that while dealing with a major-catastrophic-fire in a hotel the Dubai Authorities allowed the scheduled fireworks to be let off in relatively close proximity to the conflagration beside the nearby Burj Khalifa even as the sky was largely blotted out by dense smoke and glowing embers

rules in the UAE!

from the Towering Inferno. It is nice to see that health and safety **IOVE**

From Japan comes a story about a new police unit that sets out to halt the illegal flying of any unmanned craft in cities. Needless to say they fly a UAV [with an attached net] to halt the use of UAVs. You could not make it up. http://www.techinsider.io/tokyo-japan-policedrones-net-2015-12

Politicians will inevitably turn events to their own advantage whatever the cause. So it was last year when the PCC for Dyfed-Powys claimed for himself the pyric victory of keeping the helicopter base at the recently built Pembrey in operation as a 'refuelling base' for an undisclosed period. The fact that Pembrey is so far west that it is on the road to no-where and cannot provide the upcoming NPAS fixed wing a hangar space because it is deliberately not attached to the runway is neither here or there.

The same applies in Teesside in the North East. Operating out of a new facility at the airport it was due to close around now under the most recent NPAS plans but received a stay because of the delays in fixed wing delivery. The provided story that local newspapers carried was that the closure has been delayed following an intervention by the Police and Crime Commissioner for Cleveland, Barry Coppinger. Unless some further spanners get in the planning spokes at NPAS Wakefield closure will now take place in April 2017. The fixed wing base will be a Doncaster Robin Hood Airport.

2015 staff pep talk from Lynn Tilton the CEO of a number of her companies including MDHI: You are not here to imitate. You are not here to follow along. We must lead with product that has not yet been seen. A bit like the new 'MD969' then?

HISTORY

The Helicopter Museum in Locking Moor Road recruited a group of young people from Weston College to help restore the run-down pilot block on the old airfield.

College students, lecturer Steve Harris and curriculum manager Shaun Canniford offered to plaster the 1930s building, which has been in a derelict state since 1993.

The renovation is being funded by the Coastal Communities Fund, which has earmarked £138,000 for the development.

The museum, a registered charity, launched an appeal to businesses to donate materials for the makeover.

The plaster was donated by CRS Building Suppliers, a business based next to the museum in a building which was once part of the airfield complex.

The development will finish in 2016 and open to the public as Weston Aviation Museum.

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The Udvar-Hazy Center in Chantilly, Virginia is to receive its first US Coast Guard helicopter exhibit to join representative aircraft from every U.S. military branch. The companion facility to the Smithsonian National Air and Space Museum in Washington is soon to take delivery of a Coast Guard HH-52A Seaguard tail number 1426.

Like many of its soon-to-be museum counterparts, the 1426 was an aircraft piloted in the performance of famous feats. What makes it so special, like the service it represents, is the missions it performed saving peoples' lives.

The helicopter is scheduled to become a permanent exhibit at the museum in the spring of 2016 – a highly-anticipated event for both the Coast Guard and the Smithsonian, which coincides with the centennial anniversary of Coast Guard aviation this spring.

The aircraft was previously at the North Valley Occupational Center in Van Nuys, California, donated by the Coast Guard and flown to the school in 1989 where it served as a classroom aircraft where students learned and practiced aviation maintenance for 25 years. The school now has a more recently retired Coast Guard HU-25 Falcon jet. The helicopter was transported to Elizabeth City. North Carolina, restored to Smithsonian display standards by contractor Vector CSP and volunteers over nine months to its new 1975 condition.

EVENTS

LATER THIS YEAR

The 2016 HRRA Rescue Summit, held in conjunction with HAI HELI-EXPO, is just a few weeks away.

Plan to attend the summit in Louisville, Kentucky on February 29 in the same Convention Center as the HAI event 8:00 am - 5:00 pm 937 Phillips Lane, Louisville, KY 40209 USA

Registration will open shortly. It is free to all of our members (agency members can send five people to the summit free of charge). The 2016 Rescue Summit will include various presentations pertaining to helicopter rescue operations including, but not limited to: Tactics and Equipment, Lessons Learned/ Near Miss Incidents, Operational Considera-



tions, Clinical Studies, and Regulations. Ample time for round table discussions and networking will also be factored in the day's agenda. Presentations are still being solicited for the Summit. Please see the website for more information. helirescueassociation.org and check out the Facebook page at facebook.com/helirescueassociation.

The Rescue Summit is made possible in a large part due to the generosity of existing corporate sponsors.

13 June 2016 PAvCon Classes and 14-15 June 2016 PAvCon Police Aviation Conference 2016. Basic details of the event, how to travel there and book your hotels are now on-line at www.pavcon.org

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

The additional day [13 June] set aside this year will feature Officer Jack Schonely from California leading an ALEA style class on the use of FLIR. At the US based ALEA classes this is seen as a three day teaching session which has been condensed to fit with European needs and is aimed at both the newcomer and the old hand in handling the tactics of FLIR use. The event is sponsored by the FLIR industry as a whole – each on an equal basis – and will be 'badged' as such.

7-9 November 2016 Dubai Helishow 2016. The Domus Group is presenting the 7th Edition of the Dubai Helishow 2016. It will be at The Grand Stand, Meydan Hotel, Meydan Racecourse, Dubai – United Arab Emirates. www.dubaihelishow.com Dubai Helishow represents a unique opportunity for the International Helicopter community to showcase their products, services and technologies covering the Commercial, Civil and Military Helicopter including sub sectors like Air Medical Rescue & Military



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and Homeland Security. The exhibition will incorporate hall exhibits and outdoor static displays and two sub-events Air Medical & Rescue sector of the show and a Military & Homeland Security event with the inclusion of Unmanned Ground Vehicles (UGVs), Unmanned Surface Vehicles (USV), Unmanned Aerial Vehicles (UAVs) alongside Armoured Vehicles and other products and services.

COMING THIS MONTH

27-28 January 2016 SkyTech 2016, organised in collaboration with SUAS Global, RUSTA and Flightpath Consulting, at the Business Design Centre, London. After the success of the first SkyTech event in April 2015, the organisers have launched SkyTech 2016 to take place at the Business Design Centre, Upper Street, London N1. <u>https://skytech2016.eventbrite.co.uk</u>

The 40 speaker line up for this event includes International experts who consider key developments from across the unmanned aviation industry, alongside discussion of UAS applications for a range of niche business markets and industry applications. SkyTech's Industry Conference will consider investment trends, privacy, risk management and regulatory development across the UAS industry including key elements of interest to PAN readers such as Disaster Response, Security, Public Protection and Accident Investigation.

A packed workshop programme aimed at new UAS users will run alongside the conferences. Breakout workshops provide the ideal opportunity to get to grips with UAS technology from speakers covering areas including Risks associated with UAS operations in civil airspace and Commercial Pilot Training. <u>www.skytechevent.com</u>



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

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

Please visit www.aviationleadershipsummit.com for more conference programme updates.

16-21 February 2016 Singapore Air Show. Changi Exhibition Centre, Singapore. Singapore Airshow 2014 wrapped up the trade segment of the six-day event with deals announced worth US\$32 billion, surpassing the value of deals announced in 2012. Major announcements include contracts for Airbus, Embraer, Boeing and Rolls-Royce. This reinforces Singapore Airshow's standing as one of the most important aerospace and defence exhibitions in the world. Singapore Airshow 2014 played host to over 1,000 exhibitors from 47 countries and 279 delegations from 72 countries. In all, over 40,000 trade visitors from 125 countries visited the show during the first three trade days, compared to some 38,000 in 2012.

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