

Police Aviation News

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PAR

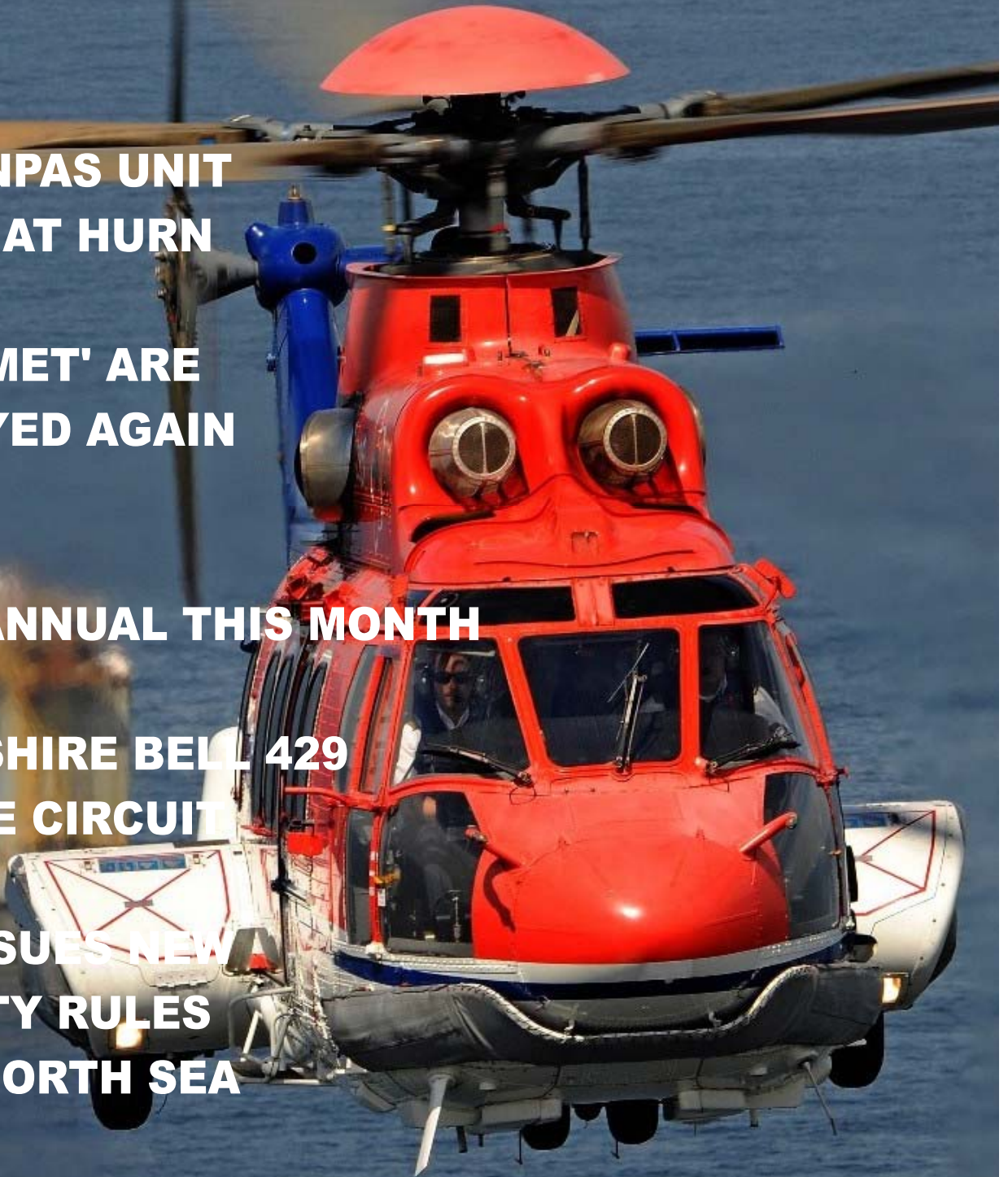
**NEW NPAS UNIT
OPEN AT HURN**

**THE 'MET' ARE
DELAYED AGAIN**

AAA ANNUAL THIS MONTH

**WILTSHIRE BELL 429
IN THE CIRCUIT**

**UK ISSUES NEW
SAFETY RULES
FOR NORTH SEA**



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POLICE AVIATION

SINGAPORE

POLICE: The police in this small but vibrant ex-British Colony do not have police air support as such but, like the people in Malta, they rely upon the military for any aircraft use. They have boats but no planes.

A story in the Straits Times last month did mention them though and its worthy of repeating for its links with illegal migrants.

The Government in Singapore have ordered a radar equipped Aerostat which it intends to fly at 2000 feet above the country.

The tightly packed island is small and has few high features but to provide space for ever more living accommodation there is a need to build high right across the island and those structures are impeding the defence of their shores. The highest point of Singapore is Bukit Timah, with a height of 165 m (538 ft), well below the height of the larger towers in the Downtown area [currently ranging 230-280m].

The official line is that in order to see far, you have to be very high with no buildings to block you. Ground-based radar systems can only provide patchy coverage between the high-rise buildings and to operate conventional aircraft with airborne radars [AEW] around the clock is costly and manpower intensive.

It will be cheaper to launch and operate the aerostat and there is an expectation that the balloon will save about \$29M [£15M] in annual operating costs and more in first cost compared to buying in one or more specialist AEW aircraft.



Operated by the Republic of Singapore Air Force, the aerostat will transmit detailed data to the ground immediately. The information will also be shared with other security agencies such as the Police Coast Guard.

Aerostats have been used by law enforcement agencies around in the world since the 1980s. They include the US Customs and Border Protection Agency which uses aerostats to scan the skies for suspicious aircraft activity. www.straitstimes.com

SWITZERLAND

ZURICH: The Swiss Police based in Zurich began using an unmanned aircraft system (UAS) to take aerial photos of traffic accidents in early September. The police department purchased the UAS in partnership with the Zurich Department of Geomatics and Surveying, which intends to use the device to update its 3-D map of the city.

A Zurich police spokesperson said the department doesn't intend to use the aircraft to monitor citizens or public events. Police in Bern, Switzerland, are also currently operating a UAS mainly to capture overhead images of serious accidents. The Bern police have also used it to photograph fires and aid investigations, and have considered deploying it to investigate environmental crimes by taking land measurements. [Washington Post]

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UNITED KINGDOM

NATIONAL: NPAS launched its first new model air unit on the South Coast in late September.

Since 1999, as Dorset Police Air Support the unit had been based at the police headquarters in Winfrith operating an MD902. The arrival of NPAS envisioned plans to move many air operations away from police sites to new neutral locations with airports preferred. Hurn Airport near Bournemouth was selected for the former Dorset helicopter and announced from the start of the national air support operation in October 2012, it has taken two years to bring about.

The Dorset unit started life operating AS355F and BO105 helicopters and pilots leased in from Police Aviation Services and moved to the MD902 in 1999. The operation was basic and to reduce costs relied upon existing covered space in a transport garage rather than a more costly dedicated aviation facility. At the birth of NPAS it was claimed that a number of existing units were in imminent danger of closure and Dorset was certainly one of the endangered species.

The unit remained at Winfrith but in line with the National model police staffing was reduced to a manager and eight Tactical Flight Officers to undertake two shifts over a 16 hour day. The police officers are mainly drawn from Dorset and Hampshire Police and seconded to the West Yorkshire Police who operate NPAS from a location nearly 260 miles north and are therefore only seen rarely.

The relative remoteness of NPAS and its control room has led the staff of many units to criticise the whole concept but down in Bournemouth they have a different take on the subject. The belief that NPAS was a saviour of the unit results in officers that embrace the concept fully. The Hampshire Police air unit was the first victim of NPAS rationalisation.

Gone are the nominal county boundaries, with others in the national network the unit is now responsible for the provision of air operations across a swathe of southern England. Day to day operations continue to be concentrated around Dorset and Hampshire but as the need arises the aircraft and crew are to be found sitting at Exeter, Bristol or Redhill awaiting the next task that will inevitably take them back to their home base at the end of day.

As operators of the Explorer the unit is no stranger to long periods of scheduled maintenance downtime. Depending upon the robustness of their contracts the individual force based air units regularly found themselves grounded for long and embarrassing periods awaiting spares. Under NPAS the provision of spares has tended to be greatly



View showing the capacious space available and the hangar structure with the inevitable TLC Helilift [©PAR]



At the time of the visit the fuel farm [left] was awaiting final commissioning so the mobile bowser remained in daily use.

improved and often a spare aircraft is available to ensure that scheduled downtime is greatly reduced – in comparison with the past.

Below: The unit fits in amongst the long term aviation residents at Hurn.



As a result of this travelling all of the NPAS Bournemouth TFOs are experienced [to varying degrees] in operating the systems on the EC135 [NPAS Filton and Redhill] and EC145 [NPAS Exeter] as well as their own Explorer.

Selection

The cross aircraft training is a minor positive outcome from a negative event – grounding – but selection and training to join NPAS is very different to that in the past.

Under the police force based system an officer would interact with the local air unit and go and spend a day with them for air experience prior to perhaps getting the nod from them about making an application to join. Often the unit would help the prospective applicant to apply. Whilst the NPAS remains relatively young there is still a chance to visit the unit easily but the badge has changed now and it is no longer like visiting another branch of the same force these are technically strangers and the gulf is likely to grow with time unless someone in the organisation thinks outside the box.

A new person applying for a job in air support now requires an application direct to West Yorkshire Police – and that is a major seed change. NPAS advertises in the police press then selects, interviews and trains its own new staff. For the air unit the first it may know about a new observer or pilot can be when they roll up at the door on their first day. And there is no guarantee about whether they are even a sworn police officer or from a locally based police force.

A Positive Aspect

The arrival of NPAS appears to have had a positive effect on the main spare for the NPAS Explorer fleet, the former Cambridgeshire Constabulary G-CMBS. From delivery this airframe has had a chequered career and significant unscheduled downtime and early in its new role it was little better. From anecdotal evidence it appears that the regular care of PAS has turned its dire past around and its relative youth now perhaps places it the best of the bunch.

New Build

The new unit is a new build on a green field site located on the northern perimeter of Hurn Airport.

The location is alongside Enterprise Way near to Aviation Park West alongside the Honeywell facility with its helipad airside on the field and under airport control giving easy access to transits to the east and west 24 hours a day. Neither the unit or the airport are open on a 24-hour basis but the fuel and facilities will be available to all NPAS operations and there are sufficient lights permanently on to guide the police helicopters of other units in if ever it is needed.

The design of the complex is the first stand alone new build for NPAS and incorporates features not previously used in UK police aviation. Although it is nominally a permanent structure placed on strong foundations and hard standings all the buildings used are temporary structures.

There is nothing new about the design of the accommodation building that is a straightforward portable building as used across the industry but the vast hangar also exhibits a very temporary look that has not been used previously. It looks to be just a large frail tent but those in the know are aware of similar structures used across the world that have shrugged off weather far worse than anything that might be expected in southern England. The only drawback may be the high level of noise when the cover is lashed by rain. At the time of the visit the staff were still unpacking and getting used to their new surroundings, deciding which walls were to get the white boards and the large scale maps that are a common feature of all air units. The fact they have even waited a week before deciding on that detail suggests that maybe they have already decided they do not actually need all of them in this new facility.

Ed: It does come across as all sweetness and light once again but this positive report is an isolated element among many negatives. The 'one and eight' is not resilient and does not provide enough staff for even meagre levels of sickness and training. Crews consisting of a pilot and one observer are all too regularly operating and yet it has long been held that the UK preference remains pilot and two and that was based on long term experience demonstrated by Devon & Cornwall Police who tried with the smaller crew model over a number of years.

Some time ago PAR offered a free training event on PAVCon lines but it was not taken up, it seems clear that they simply could not release anyone to attend such an event so it is unclear how any future training event of many NPAS crew can ever take place.

NPAS may now be a couple of years old but Supt Richard Watson, seconded from Kent Constabulary, probably the longest continuously employed element of the staff and self styled as 'god' has just celebrated 5 years at the national police air service project.

He should know it all and clearly the buck stops at his door on the basis of knowledge of the product, he is arguably the person who knows why any specific element of his creation does not work. After all although he came from a police force with no discernible police aviation background he was at least involved in the spurious South Coast UAV Project and was assumed to have few preconceived ideas about the running of police aviation.

Knowledge is one thing, being able or willing to fight the fight against his cost-cutting political and ACPO masters is another.

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We all know that money talks but for some time now we have believed that the pledge by the owners of the now disused Filton airfield outside Bristol that they wanted and would fund a heliport for the emergency services helicopters was inviolable. Well the veil has now slipped and a new site is to be sought.

The prime building land formerly occupied by the Airbus Industries runways and taxiways is simply too valuable to accommodate mere helicopters.

A pledge has now been given by the owners of Filton Airfield to help find a new home for both the NPAS police helicopter and Great Western Air Ambulance. This follows on from numerous hollow pledges that have regularly filled the content of both local and national media.

Both helicopters, which provide service to the greater Bristol area and beyond, are currently based at the airfield but as always happens in these cases someone has belatedly realised that the yet to be seen occupants of the new build housing are not going to put up with noisy helicopters even if they were there first.

BAE Systems promise might mean buying a suitable site outright or leasing it to them – with a local property company undertaking the search on their behalf.

A spokesman said: "Either way, BAE Systems Ltd will be securing the permanent home for the two services."

The location needs to be between 13 and 19 acres in size, be level and clear of pylons and other obstructions. [Bristol Post/PAR]

CarteNav Solutions Inc., (<http://www.cartenav.com>) the maker of AIMS-ISR®, has been selected to provide the mission software for a third of the UK National Police Air Service (NPAS) EC-135 helicopter fleet. Bond Helicopters Europe, part of the Avincis Group, recently won a multi-million pound contract to design, integrate, certify, and install a next-generation mission system into seven NPAS aircraft, and CarteNav Solutions will provide the software for this upgrade.

The upgraded helicopters will be equipped with a number of sensors, including the Wescam MX-10 camera as well as the mission system technology. The interior of each aircraft will also be redesigned with touch-screen displays and an ergonomic layout, giving the crew more space in which to work.

CarteNav's software will integrate the camera system with a number of other sensors and tools that will improve the operator's situational awareness and provide a highly capable and intuitive operating system.

Editor: Other items recently confirmed for this upgrade include the step and sensor mount from Cal Meeker in Canada.

CarteNav Solutions Inc., founded in 2002, offers proven data integration and display technologies and was mentioned recently in relation to the new Channel Islands Air Search BN Islander completion.

METROPOLITAN: Although there is something of a news blackout on the subject it appears that NPAS is no nearer taking control of the Metropolitan Police Air Support Unit and its three EC145 helicopters.

Editor: The on-off takeover plans have been announced a quietly forgotten several times and the last date of implementation of October 1 2014 passed quietly without an announcement. The latest dates on offer are January 1, 2015, March 2015 and 'never'.... With the latter being by far the most popular option.

Was it the threatened loss of the EC145s and their unique roping/rappelling capability or a lack of belief in the NPAS plan to continue to properly serve both the people of London and yet be expected to provide a new and effort sapping lifeline for the wider population. Or was it simply National Security that stood in the way? This is the nations Capital after all.

It is perhaps apt that the situation at the Met completes a circle. The man who started all this 'trouble' we now call NPAS was Bernard Hogan-Howe, he was the Chief Constable of Merseyside and the ACPO Lead on Police Aviation who created a report that led to the implementation of NPAS. Now Sir Bernard Hogan-Howe QPM the Commissioner of the

Metropolitan Police is somewhere at the centre of this intransigence. Was including the Met simply a step too far?



As this issue closed for publication there were reports that images posted on the Met Police ASU Twitter account of the Poppies at the Tower of London were being sold on e-bay and elsewhere. The unit has successfully fought a battle for recognition of its images in the media [just a simple acknowledgement] but this new move is more sinister and difficult.

UNITED STATES

MISSISSIPPI: Tupelo Police Department has joined the operations that have given up air support after more than 20 years.

In the late 1980s the department acquired a 1967 Hughes TH-55A [N7056B] from the military and operated it spasmodically for a few years before replacing it with an 1969 OH-58A N286MP in recent years.

Although many local tax dollars were spent on the air asset it appears to have been underused. Recent figures suggest that \$50,000 a year was set aside for the Bell to cover costs for fuel, storage, insurance and other requirements in most years. In the last year the Tupelo helicopter budget fell to \$20,000 for maintenance and \$3,600 for professional pilot fees but the machine went through a certification process covering the next three years in August.



The latest news is that the funding has been withdrawn for this year and the helicopter has been turned over to the Mississippi Office of Surplus Property.

Another report suggests that it is likely to find a new home with the Columbus Police Department, led by Tony Carleton. He was Tupelo's police chief for more than three years until moving to Columbus last year and accepting his current job as Chief in June this year. If the helicopter relocates to Columbus, keeping it at the Columbus Air Force base could at least cut the rent paid by Tupelo police, to the Tupelo Regional Airport for storage space.

Tupelo Police are hoping that the town could still sign up a deal with Columbus to allow it to use the Bell OH-58 even when it is no longer city property.

PENNSYLVANIA: Trakka Corp Pty Ltd has announced that the Pennsylvania State Police have selected the Trakka A800 Tactical Helicopter Searchlight for the department's six recently purchased Bell 407GX patrol helicopters.

The Trakka A800 searchlight's advanced optics technology provides superior performance and flexibility complimenting the custom mission equipment selected by the Pennsylvania State Police. The Trakka A800 is the perfect searchlight solution to meet the broad range of operations performed due to its unique multi-mission capabilities. With the highest level of testing and qualification of any searchlight, the optically enhanced edge to edge white light, internal multi-coloured filter system, and fast/smooth slaving system, all combine to give the operator superior helicopter searchlight performance.

Trakka Corp Pty Ltd is a privately held Australian aerospace company primarily focussing on the design, manufacture, marketing and distribution of searchlights for Airborne, Marine and land based operations around the world. [Trakka]

Late in October Pennsylvania State Police started using a device similar to a weather balloon in their search for suspected cop-killer Eric Frein.

The Ohio Department of Transportation donated the use of the large, tethered, unmanned Mylar balloon which was used to provide troopers with a similar level of technology and coverage at a fraction of the cost of traditional aircraft. It's also silent. Use of the balloon is experimental and among several technologies they're using in the search for 31-year-old Eric Frein.

Frein is charged with opening fire outside the Blooming Grove state police barracks on Sept. 12, killing Trooper Bryon Dickson and seriously wounding Trooper Alex Douglass. [media]



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AIR AMBULANCE

GERMANY

BONN: The annual international networking event at the ADAC HEMS Academy at Hangelar, Bonn airport in Germany is now in its third year.

The HEMS Academy provides one of the world's first civilian integrated training centres for EC135 and EC145 helicopter pilots, together with emergency doctors and rescue paramedics and the networking event is part of that.

This year had the largest international attendance to date, with attendees coming from his own organization in Germany, to others from Argentina, Brazil, Finland, the Netherlands, Russia, Switzerland and the UK.

The subject matter primarily related to air ambulance operations and medicine but additional elements were provided by such as an update by the UK NPAS and a presentation on the establishment of dedicated helicopter capability for fire fighting and rescue in Moscow city centre using helicopters ranging from the Kamov 32, through the BK117 and Bell 429, right up to an Mi-26T.

The end of the second day saw discussions on unmanned craft. These focused on the dangers posed by remotely piloted aircraft to other operators in lower airspace.

In Germany a working group has been set up combining commercial, military and police operator inputs to discuss the threat and raise public awareness about the problems that these unmanned aircraft they can cause.

Next year's ADAC conference will once again be held during the first week of September 2015.

NORWAY

NORSK LUFTAMBULANSE: AgustaWestland has announced that Norsk Luftambulanse has signed a contract for one AW169 light twin-engined intermediate helicopter for Emergency Medical Services (EMS) in Norway. The contract was signed at the Helitech 2014 exhibition in Amsterdam. The helicopter will feature an advanced EMS mission configuration including state-of-the-art avionic solutions to enable night and low visibility operations and specific mission equipment such as a unique retractable Soft Terrain Ski solution.

Perfectly suited to both primary and secondary EMS missions, the AW169 can accommodate one or two stretchers, either longitudinally or transversally, which is especially important for operations where in-flight stretcher recovery is required. The large unobstructed cabin can also accommodate wheeled stretchers and can be configured with a full suite of advanced life support equipment. This latest contract for the AW169 continues the success of the aircraft in the EMS market following orders for the type in the UK and Middle East.



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The AW169's avionic suite introduces state-of-the-art technology including a full digital NVG compatible cockpit with three 8" x 10" large area displays (AMLCD) with enhanced graphics capability for maximized situational awareness. A 4-axis digital automatic flight control system (DAFCS) with dual Flight Management System (FMS) minimises crew workload allowing single/dual pilot VFR/IFR operations. The avionics suite also complies with satellite-based navigation, communication and surveillance requirements and has the capability to perform satellite-based IFR LPV (localizer performance with vertical guidance) approaches to maximize round-the-clock utilisation of the helicopter. Safety enhancing avionics such as Terrain Awareness Warning Systems, airborne collision avoidance systems can be added to the standard avionic configuration.

UNITED KINGDOM

HAMPSHIRE & ISLE OF WIGHT: The charity has announced that they will be upgrading to a specially-equipped new Airbus Helicopters EC135T3 helicopter in the summer of next year, it will have full night flying capability.

HIOW is partnered with Thames Valley and Chiltern Air Ambulance and they will also be upgrading to a new helicopter, and as a result, South Central Ambulance Service (SCAS) will then have the benefit of two helicopters with full night flying capability, and a service that will offer the community progressively longer periods of cover, during the hours of daylight and darkness, 365 days of the year.

In May this year HIOW undertook our 5,000th mission.

Figures from University Hospital, Southampton, HIOW's designated Major Trauma Centre, show that a significant number of trauma patients are being transported by the air ambulance – 45 in the past three months alone. Being able to fly after the hours of darkness will make a major difference to patient outcome, particularly during the winter, when the operation will be able to reach those early evening rush hour incidents previously beyond reach.

MIDLANDS: Midlands Air Ambulance Charity has expanded its online presence and is the first air ambulance service in the world to launch a mobile Application containing Augmented Reality.

Developed in partnership with Bronze Software Labs, the App, named A.I.R. Ambulance, (Augmented Interactive Ambulance), is a first of its kind for the air ambulance community. It gives users the chance to see the service's distinctive red helicopters in augmented reality when hovering their smartphone over any British bank note or the Midlands Air Ambulance Charity logo. This technology has been employed very successfully by other Bronze Labs clients for a wide variety of purposes and it will undoubtedly make a significant impact for the charity.

Jason Levy, fundraising and marketing director for Midlands Air Ambulance Charity, says: "At Midlands Air Ambulance we pride ourselves on being innovators in raising awareness of the vital work of our air ambulances, and believe the cutting edge technology used within the new App will allow users to experience our world, without the actual need for the service. We are delighted to have worked with Bronze and by what they have accomplished with the new App. We believe it will raise further awareness online of the life saving work of our air ambulance.



"A.I.R. Ambulance not only gives users on both Apple and Android devices the ability to learn more about our vital life saving service, but they can also see and hear our augmented reality helicopter take flight, thanks to the incredibly advanced technology."

In deciding not to charge users for this App, despite it containing the augmented reality element, Midlands Air Ambulance is hoping the App users will donate to the charity, as it

costs £2,500 every time it undertakes a mission, which is entirely funded by the general public and local businesses.

For the donation element of the App, Midlands Air Ambulance Charity has partnered with Barclays Pingit. Barclays Pingit is a smartphone app-based payments service which allows users to make payments quickly, easily and securely without having to input any account details. Using Barclays Pingit to collect donations provides Midlands Air Ambulance with an innovative alternative to cash, cheques and SMS, and allows them to claim Gift Aid as part of an easy donation process.

Jason adds: "By using the PingIt icon in the App it is a very simple, easy and quick way to donate to our service. As we are wholly reliant on public and local businesses' generosity, To download the App, visit The App Store or Google Play. If you would like to find out more about Midlands Air Ambulance, contact the team on 0800 8 40 20 40, visit www.midlandsairambulance.com and find the on Facebook and Twitter.

WALES: Last month the Welsh Government announced that from next year the wild hills and remote valleys of Wales will be covered by a form of Flying Doctor Service.

The Welsh government claim that the new system is the first of its kind in the UK and will allow teams of National Health Service [NHS] doctors to swiftly reach an injured or sick patient in the most remote areas.

The Labour-led government said it had looked at civilian flying doctor services around the world and worked with military medical experts to design the system, called the Emergency Medical Retrieval and Transfer Service Cymru (EMRTS Cymru).

It estimates EMRTS Cymru could contribute to at least a 40% improvement in survival rates from major trauma in Wales and could reduce transfer times to specialist hospital care by more than 40%.

The introduction of the new service, which will serve all Wales, will mean 95% of the population will be able to access doctor-led care within 30 minutes.

At the moment air ambulance services in the UK are provided by charities and it is they that finance doctors aboard some of their flights. From April, the EMRTS Cymru service will work with the Wales Air Ambulance charity, using its existing three helicopter ambulances. The government will provide a team of NHS doctors from emergency medicine, anaesthesia and intensive care and critical care NHS paramedics to help staff the charity's air ambulances.

The Welsh government has earmarked capital funding of almost £2M in 2014-15 to set up the service, and from 2015-16 will provide almost £3M a year to support it.

Angela Hughes, chief executive of Wales Air Ambulance, said: "To secure NHS consultants on board our flights is a remarkable leap forward in providing one of the most advanced air ambulance services in the world."

Established in 2001, Wales Air Ambulance needs to raise over £6M in charitable donations every year to keep its three helicopters flying. www.walesairambulance.com

Deputy minister for health Vaughan Gething, Wales Air Ambulance paramedic Jason Hughes, pilot Grant Elgar, finance minister Jane Hutt, paramedic Gareth Williams and Dr Kyle Jacques, vice chairman of the Wales Air Ambulance board of trustees and consultant in emergency medicine [WAAT]



WILTSHIRE: Readers of the Helitech Special Edition of PAN will see that the new Bell 429 for the new Wiltshire charity was on display in Amsterdam last month. Straight after that event the aircraft flew to England to continue crew training and undertook some promotional flying in its intended home county prior to entering service next year.

In an exciting chapter in the history of Wiltshire Air Ambulance (WAA), on October 24th the new helicopter flew into the county and landed at Trafalgar Park, near Salisbury, where Mrs Sarah Rose Troughton, Her Majesty's Lord-Lieutenant of Wiltshire, officially welcomed the new Bell. Among the 500 plus guests present were long-standing supporters of WAA from the across the community and business sectors, event sponsors, WAA volunteers, Friends of WAA, Trustees and representatives from Bell Helicopter and Heli Charter, who will operate the new helicopter.

The Mirabel, Canada manufactured Bell 429 is the first to operate as an air ambulance in the UK. It has been fitted out with the most recent Aerolite equipment and a colour scheme described as yellow and Wiltshire green. On the belly of the helicopter is a distinctive 'W' representing Wiltshire.

From January 2015 the operation starts and brings to an end the 24 year partnership with Wiltshire Police as a joint use helicopter police operations from then onward are to be covered by NPAS assets operating from other counties. The MD902 currently flown, G-WPAS, will return to the lessors at Staverton. This was the first to enter service in the UK.



© Alan Norris Norrpress

The charity will need to raise £2.5M a year to keep the helicopter flying – a significant increase in the burden placed on the fundraisers.

The new helicopter will be leased from Heli Charter, Bell's UK agent, based in Manston, Kent. Under the ten-year contract there is the option for a replacement helicopter to be provided after five years.

The crew on the air ambulance will be a pilot and two paramedics. A doctor will fly with a paramedic on occasions. Paramedics will continue to be provided by South Western Ambulance Service NHS Foundation Trust (SWASFT). All of the paramedics have Critical Care Skills and have all worked on Wiltshire Air Ambulance previously.

The air ambulance will fly up to 19 hours a day. Initially it will operate in the daytime with night flying commencing in Spring 2015. This is to allow the pilots to accumulate experience with the aircraft and operating area while at the same time training for night flying.

The air ambulance will continue to operate from a hangar at Wiltshire Police Headquarters, Devizes, until the charity has found a suitable site to build a permanent home and visitor centre. A shortlist of potential sites are being actively considered and it is hoped that a new base could be operational in two to three years.



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UNITED STATES

COLORADO: Kathy Mayer, Program Director for Flight For Life Colorado, has announced the delivery of Airbus AS350 B3e N397LG Emergency Medical Helicopter to Flight For Life Colorado, located at St. Anthony Hospital in Lakewood. The state-of-the-art helicopter was role equipped by United Rotorcraft in Englewood, CO and began service at the end of September.

St. Anthony Health Foundation and Summit Medical Center Foundation led the campaign to raise the money to purchase the helicopter. The foundations recruited influential donors from around the state, and raised \$1M in just one year.

The medical interior of the new craft includes United Rotorcraft's Articulating Litter Loading System (ALLS) to easily load and secure critically injured patients and neonatal isolettes for transport. On board medical systems include liquid oxygen (LOX), compressed air, suction, mounts to accommodate carry-on medical equipment as well as an abundance of AC power. The interior lighting is fully night vision system compatible.

Flight For Life® Colorado provides critical care transport with five helicopters, three ambulances and three airplanes operating out of seven regional bases. Equipped with the industry's most current technology and experienced, knowledgeable team, we transport patients across several states in the Rocky Mountain Region and assist search and rescue agencies with specialized services including aerial search support and our Avalanche Deployment Program.

NORTH DAKOTA: During the first-ever deployment of an unmanned aircraft system (UAS) at night, the Grand Forks (ND) Sheriff's Department apprehended four suspects following a traffic stop and foot chase in late September. Officials believe the night flight was the first of its kind in the country.

Grand Forks' Qube UAS was launched when four occupants of a vehicle stopped for a traffic violation fled the vehicle and a police dog was unable to find them. The UAS located one of the suspects in a cornfield, but the perpetrator escaped before deputies arrived at the location. A second flight revealed the location of another suspect.

The UAS flights eventually led to the arrest of two 20-year-old men who were taken into custody and face charges of reckless driving, minor in consumption, refusing to halt and driving under the influence. A third suspect faces charges of refusing to halt, a Sheriff's Office news release said, and a fourth suspect's identity was not released because of that person's involvement in an ongoing investigation. [Grand Forks Herald]

WEST VIRGINIA: Tyler County Commissioners renewed the county's contract renewal for medical helicopter services with AirEvac Sepylar County Commissioners renewed the county's contract renewal for medical helicopter services with AirEvac Sept. 23.

Greg Jadwin of AirEvac reported the agreement is the same as last year. The cost is \$59,700 and can be made in two instalments. He said there is no cost savings in doing so, but it is available.

Jadwin said individuals who have purchased the national plan will be able to renew at the same cost as last year, \$35. That covers the buyer anywhere in the country. He said residents should be receiving notifications soon to renew.

Under the agreement with AirEvac and the county, Tyler residents receive free medical helicopter transportation from Tyler County or any surrounding county, additionally, flights from the West Virginia counties of Wood and Ohio, as well as the Ohio counties of Washington and Monroe. Tyler County residents receive an annual savings of a quarter million dollars of out of pocket expense through the agreement.

While approving the renewal, the Tyler County Commissioners also renewed the county employees' agreement.



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FIRE

INDONESIA

SABAH: The Sabah Fire and Rescue Department is expected to get its own helicopter hangar next year. The hangar would enable the department to establish a squadron of helicopters to execute operations to locations inaccessible by road.

There are several places (in Sabah) suggested for the hangar. Kota Kinabalu is the most appropriate because it is closer to remote areas like Mount Kinabalu and Crocker Range but no decision has been announced.

The Fire and Rescue Department in Sabah has one helicopter, the Russian-made MI-17, which is being housed at one of the Sabah Air Aviation Sdn Bhd's hangars and has been servicing Sabah and Sarawak for over 10 years. [Borneo Post]

UNITED STATES

LOS ANGELES: New skyscrapers will no longer be required to have rooftop helicopter landing pads under a change in city rules allowing alternative safety measures that will enable architects to design buildings with something other than the flat tops mandated since the 1950s.

A building's alternative safety measures could include an elevator designated solely for the use of firefighters in the event of a fire, enabling them to more quickly access the burning floor instead of making a time-consuming climb up stairs.

The reform of Fire Department "Regulation No. 10" was announced last month during a news conference on the rooftop helipad of the downtown AT&T Center and is not without its critics.

The city's modern high-rises have been built in a variety of shapes from rectangles to cylindrical. But the creativity stops at the top to allow helicopters to safely operate. The world is full of skyscraper designs that are not roof rescue orientated but until now Los Angeles was an exception.

The rule change came about as a follow-up to discussions that led to permission for the new Wilshire Grand Hotel, now under construction, to have a helipad smaller than was previously required. The hotel will be 73 stories and have nearly 900 rooms, office space and retail.



It is mainly low rise in greater Los Angeles

SEARCH & RESCUE

AUSTRALIA

MARITIME SAFETY AUTHORITY: Cobham has secured the Australian Maritime Safety Authority (AMSA) contract to provide an airborne search and rescue capability in Australia for 12 years from 2016, with aircraft modification and mobilisation activity to commence later this year.

AMSA currently utilises Dornier 328 aircraft based in strategic locations across Australia to perform search and rescue tasks such as searching for missing people, locating activated distress beacons, providing communications support at an incident and dropping survival equipment to people in distress.

The contract, secured through open industry competition, has a value including estimated flying charges of AUD \$640M over 12 years. If three additional optional years are exercised by AMSA, the full value would exceed AUD \$700M.

Cobham will acquire, modify, commission and then operate and maintain four Bombardier Challenger CL-604 special mission jet aircraft to provide a search and rescue capability over land and at sea.

These aircraft will be specially modified to Australian requirements and fitted with new generation sensors, high-vision windows and air operable doors for aerial delivery of life saving equipment. Much of the modification work will be undertaken at Cobham's facilities in Adelaide, South Australia.

The aircraft will be based in Cairns, Melbourne and Perth and will build upon Cobham's 30 years of experience in special mission operations around the world, including in Australia.

Cobham will employ five-member air crews, including a Captain, First Officer, Visual Search Officer, Electronic Search Observer and Aircraft Mission Coordinator who will be on permanent standby to enable search and rescue tasking at any time of day or night.

[Cobham/PAR]

EUROPE

MIGRANTS: The problems relating to migrants are growing. The last month has witnessed a number of changes in how the safety of migrants can be assured by all of the European countries. Across the main entry front in the Mediterranean Sea Frontex has changed the way in which it funds operations and that has led the Interior Ministry in Italy to say operations were to stop at the end of October and the Italian Navy to declare its intention to unilaterally undertake rescues of the migrants departing the coast of North Africa despite the smaller funds.

The European Union is to deploy ships and aircraft to the Mediterranean from November to rescue migrants trying to cross from the coasts of North Africa, amid a dramatic increase in the number of people trying to reach Italy in the past year.

Italy launched a search and rescue operation, Mare Nostrum ("Our Sea" in Latin), last November after more than 400 migrants died when two boats capsized in October off Lampedusa, its southernmost island, which is just a few days' sailing from Tunisia or Libya.

Since then, the Italian navy and coast guard have saved more than 150,000 men, women and children attempting the crossing from North Africa – a dramatic increase compared to previous years.

From Saturday, the Italian operation will be bolstered by ships, planes and helicopters provided by Frontex, the EU's border control agency.

Frontex's Operation Triton will involve vessels, aircraft and personnel from France, Spain, Portugal, the Netherlands and other EU nations, but not Britain.

Many politicians across Europe raised their hands in horror when the British Government effectively declared that funding of the rescues should be stopped – a statement that was read as 'let them drown' even if that was not the intended meaning. It is a proven fact that the numbers making the perilous journey appear to have risen in concert with the rescues. The argument is whether or not it is cause and effect or coincidence.

The British are paying attention to the problem simply because masses of those getting across the Mediterranean Sea are turning up on the French coast and doing all they can to get across the narrow seaway in front of them to Britain, a land that is seen as an El Dorado that will pay them weekly what appears to be a princely sum of £36 [\$50] just for arriving. That sum is way less than subsistence to the residents but to a poor migrant it is a massive attraction.

The problems faced by Europe are not new just ask any North American reader, or any from Australia. Each will understand the problems associated with being seen as a land flowing with milk and honey even if it is a warped vision created by the people traffickers who prey on these people.

Drowning in the waters of the Rio Grande, the Mediterranean or the South Seas is still a death to be avoided.

KAZAKHSTAN

ALMATY CITY: Russian Helicopters has delivered a multirole Mi-8AMT helicopter to the Almaty City Rescue Service, Akimat Almaty, Kazakhstan.

Almaty City Rescue Service's Mi-8AMT helicopter was built at Ulan-Ude Aviation Plant (a Russian Helicopters company), under a contract concluded in 2013. It is fitted with additional equipment enabling it to carry out search and rescue operations and transport cargo and passengers. Its search and rescue function is supported by the LPG-150M winch and external sling, which has a hydraulic weighing system. Additional external fuel tanks can be fitted, increasing the helicopter's range to 1,065 km. The improved cabin can comfortably seat up to 12 people. The helicopter is distinguished by its low vibration and noise. It is fitted with the latest navigation and radio communications equipment, ensuring it can operate safely in a wide range of different conditions. This model of helicopter may also prove to be in demand in other states and by commercial helicopter operators in Kazakhstan and Russia.

There are plans to further expand the Rescue Service's helicopter fleet which will be used during events such as the Worldwide Youth Universiade in 2017, and in construction work on the Kok Zhaylau world-class ski resort.

In recent years, Russia-Kazakhstan partnership on helicopter projects has been developing dynamically. In May 2012, Russian Helicopters delivered two new multirole Ka-32A11BC helicopters to the Republic of Kazakhstan's Emergency Situations Ministry. In February 2013, Rosoboronexport handled the delivery of 4 Mi-171Sh helicopters to the Kazakhstan National Security Committee's border guard service. In August, the holding delivered a Mi-171E helicopter to the Interior Ministry. This year, the Kazakhstan National Security Committee's border guard service took delivery of two Mi-171Sh helicopters under a contract with Rosoboronexport. In 2015, Mi-171E helicopters are scheduled to be delivered to Kazakhstan's Emergency Situations Ministry and to the National Guard.

UNITED KINGDOM

BRISTOW SAR: Construction of the new base structure for the Bristow SAR operation out of St Athan in South Wales has commenced next door to the South & East Wales Police Air Support Unit [SAEW]. The building works, currently at an early stage replace an elderly existing structure that was part constructed of asbestos.

Meanwhile with the takeover of the police air unit by NPAS looming the assigned Bond engineers with the adjoining SAEW have given their notice and joined Bristow, commencing training on the new type in preparation for operations. One of the engineers had been with the police air unit from the start.



Trakkacorp Pty Ltd has announced the first Trakkabeam searchlight has now been delivered to Bristow Helicopters Ltd fully installed and integrated on to a new S-92.

This marks the first of 18 new A800 searchlights that will soon be in Bristow's hands to be utilised for the UK's Search and Rescue service. This also marks the first delivery of a new eye catching gloss white version of the A800 searchlight that was specially commissioned by Bristow for these new aircraft.

Samantha Willenbacher, Director of UK Search and Rescue at Bristow Helicopters Ltd, said: "The Trakkabeam searchlight is an important enhancement to our search and rescue helicopters. The technology will be hugely valuable in enabling our crews to conduct effective search operations in all conditions."

Ed: Trakka tell me that the factory will deliver their product in any specialist colour if the order is large enough but that most customers either take the factory finish or repaint the unit to match their airframe locally.

INDUSTRY

It appears that the Editors apparent pre-disposition to blame bad planning of everything to do with police aviation on The **Association of Chief Police Officers** [ACPO] and its members is to be thwarted. The Association are about to create a new body that is designed to make such matters unclear.

The National Police Chiefs' Council will replace ACPO in the New Year following a Chief Constables' Council meeting on 17 October, where Chief Constables took key decisions on the development of a new body that will coordinate operational policing at the national level. Fortunately ACPO will continue to provide national coordination and leadership until the new body is constituted, that may give us time to understand just who is doing what [and to who!]. In what appears to be some sort of Mission Statement the new coordinating body, to be hosted by the Metropolitan Police, will help police cut crime and keep the public safe, by joining up the operational response to the most serious and strategic threats. Focusing on operational delivery and developing national approaches on issues such as finance, technology and human resources, it will work closely with the College of Policing, which is responsible for developing professional standards.

Meanwhile we await to hear when the members of ACPO and their political overseers – the Commissioners – are rescheduling their intended meeting with NPAS. It was supposed to take place on October 22 and promised to be something of a showdown on service delivery. We shall see.

In South Korea the police oversaw the recent **Asian Games** with a new delivery of Sepura TETRA radios. Sepura a second contract to supply TETRA hand-portable radios to the Metropolitan Police Agency of Incheon (IMPA) in South Korea. The IMPA, a Sepura user since 2005, deployed the radios to assist in the security of the 17th Asian Games in the city of *Incheon. The contract was won in conjunction with Winnersystech, Sepura's South Korean channel partner.

IMPA is adding in excess of 500 STP series hand-portable and DMO gateway radios to its existing fleet of more than 3,000 Sepura TETRA terminals and has assigned over 14,000 policemen to police and secure the Games. The Asian Games, September 19th to October 4th, are also officially known as the XVII Asiad and are the largest sporting event in Asia governed by the Olympic Council of Asia (OCA). They will comprise 439 events in 36 sports and disciplines with visitors from more than 45 countries

FLIR Systems, Inc. has released its TG165 Imaging IR Thermometer, a powerful, affordable, compact tool that lets you see invisible heat patterns, measure temperatures accurately, and conveniently store images and measurement data for reporting.

Built around FLIR's exclusive Lepton(R) micro thermal imaging camera core, the TG165's thermal imaging technology provides users the ability to see where problems exist prior to measuring the severity of the problem with its built-in spot temperature capability.

Fast and easy to use, the TG165 lets users get right to work with an intuitive point and shoot capability. Its dual rotating lasers visually mark the size and location of what is being measured, while the on-screen crosshair pinpoints the region on the thermal image. The TG165 is designed to withstand a two-meter drop, making it rugged enough for industrial professionals while offering the simplicity valued by do-it-yourself homeowners.

The TG165 bridges the gap between current generation IR thermometers that offer no imaging capability, and FLIR's market-leading thermal cameras.

The TG165 is priced at \$499 and will be available at popular industrial test equipment retailers in markets around the world starting in early October. For more information, please visit www.flir.com/tg165.

The AR4 Light Ray, conceived by Portuguese TEKEVER Technology Group, is in use with Portuguese NATO forces in Kosovo for ISR missions (Information, Security and Surveillance) to contribute to force protection.

The **AR4 Light Ray** was used in operations in Kosovo for six months (until the end of October). The AR4 has an endurance of 2h and is using electro-optical/infrared payloads for the surveillance missions, operated from some 7.7nm (14.2km) away. Two systems have been deployed in support of KFOR, each comprising several aircraft and ground control equipment.

Last month we reported on the 20th AW139 coming out of the US factory, this month – AgustaWestland announced it handed over two AW139 intermediate twin helicopters to Samsung Techwin Co., Ltd. of the Republic of Korea during a ceremony held at AgustaWestland's Vergiate plant in Italy. These helicopters will be used to perform corporate transport. The delivery includes the 700th AW139 setting a major production milestone coming approximately ten years after its introduction into service in which time it has set the new standard in its category and become the bestselling aircraft in the intermediate twin category.

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The Conservation Drones Asia Team and the Sumatran Orangutan Conservation Programme (SOCP) flew two separate missions over a part of the Gunung Leuser National Park (Indonesia) between two time periods barely a few months apart. In these two drone images you can see clear evidence of illegal logging within the national park. The loggers even left a strip of forest on the river bank to conceal the patch of logged forest from view. These images were given to park officials who subsequently acted to stop the logging activities. [Conservationdrones.org]

The Royal Thai Air Force (RTAF) and **Piaggio Aero Industries** (Piaggio Aero) announced that Piaggio Aero has been selected as the winner bidder by the RTAF Special Procurement Committee to provide a photo reconnaissance aircraft.

The selected platform will be based on the P.180 Avanti II aircraft, customized for territorial multifunctional surveillance, featuring customized photography systems for which the Avanti aircraft is ideally outfitted.

Early in October **GKN Aerospace's** Alabama leadership joined state and local officials to officially break ground on an addition to the company's Tallassee facility that will house an engineering design centre.

U.K.-based GKN Aerospace announced the Alabama engineering design centre at the Farnborough International Airshow in July.

The engineering design centre is now housed in a temporary location at the Elmore County plant, which concentrates on aerostructures made from composite materials for industry partners such as Bell Helicopter, HondaJet, and Airbus. Initial recruiting has begun for the centre, which will have a maximum headcount of 30.

The GKN Aerospace ACS facility, located about 35 miles from Montgomery, has been in operation since 1985 and today employs more than 1,000 people. The Alabama plant boasts 380,000 square feet of manufacturing space, after a 120,000-square-foot expansion announced in 2005. The engineering design centre is expected to be operating in its new home by early next year.

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In 1997, **Metro Aviation** completed its first Airbus Helicopters EC135 for STAT MedEvac, serial number 0009. Since then, the worldwide completion leader has customised many EC135's for air medical, law enforcement, utility and corporate clients. Recently, Metro delivered its 200th EC135 completion to California Shock Trauma Air Rescue (CALSTAR). The 200th EC135 delivery is the eighth and final aircraft for CALSTAR's fleet modernisation, deliveries of which commenced in 2012.

Vector Aerospace Corporation has signed a five year agreement with Orange County Sheriff's Department to conduct maintenance, repair and overhaul on their AS350 and UH-1H helicopters.

"We are pleased to sign this agreement with Vector Aerospace", states Sergeant William Fitzgerald, Aviation Support Unit, Orange County Sheriff's Department. "Over and above the economic requirements, our decision to leverage Vector's maintenance, repair and overhaul services is based on their reputation for superior customer support and high quality service." Vector Aerospace supports Turbomeca, Rolls-Royce, Pratt & Whitney Canada and General Electric engine products (including complete test capability), and is a D-Level certified Airbus Helicopters repair facility that also offers Sikorsky customer support and Bell MRO provision. Airframe capabilities include major inspections, structural repair, dynamic component overhaul and full avionics upgrades including complete aircraft rewire and glass cockpit engineering, development and integration.

The **Marengo** Swiss helicopter AG SKYe SH09 flew for the first time from the airport of Mollis, Switzerland early last month.

The SKYe SH09, the latest generation of high performance light single-engine helicopter has successfully achieved its' First Flight with Chief Test Pilot Dwayne Williams at the controls, manoeuvring the prototype aircraft in hover in five test flights that lasted approximately 20 minutes.



Martin Stucki, Designer, Founder and Chief Executive Officer was pleased to inform that the First flight had confirmed the preliminary flying and handling characteristics of the aircraft: "This is a milestone in the development of our program and this success has followed the extensive component testing-phase and quantity of Ground tests performed in the last weeks and months".

The SKYe SH09 features a full composite airframe as well as all-composite main rotor and tail rotor blades; it is equipped with glass cockpit avionics systems and the powerful HTS-900-2 engine by Honeywell. The SKYe SH09 is scheduled to enter in production within the next 12 to 16 months. Marengo holds over 50 orders and agreements on the aircraft.

Cover Story

Following a **Civil Aviation Authority** (CAA) review of helicopter safety new rules are to be introduced on the size of oil workers travelling to and from offshore installations by helicopter. Passengers with a shoulder width of 22 inches or more will be classed as "extra broad" and will have to sit next to a similarly large helicopter window. Concerns were raised about larger passengers being able to escape from a crashed aircraft quickly.

The changes come after a study revealed the average oil worker had risen in weight by close to 20% over the past 30 years.

Elbit Systems Ltd. announced it received the New Product Innovation Leadership Award" for the Company's Skylens wearable head-up display ("HUD") from the prestigious business research and consulting firm Frost & Sullivan. Each year, Frost & Sullivan presents this award to a company that has developed an innovative element in a product employing leading-edge technologies. The award recognizes the value added features/benefits of the product and the increased return on investment it offers customers, which in turn increases the product's sales potential and overall market penetration.

Skylens, a revolutionary approach to meeting the challenges of today's aviators, is a cutting edge HUD technology packed in a wearable, lightweight, easy-to-install device, similar to a pair of sunglasses. Suitable for day and night operations in all weather conditions, the system provides head-up information while minimizing the dependency on airport instrumentation. Skylens and Elbit Systems' Enhanced Vision Systems ("EVS") combine to form Elbit Systems' Enhanced Flight Vision System ("EFVS"). Equipped with Skylens and EVS, aircraft are capable of take-off and landing in low visibility conditions and in locations that previously non EFVS-equipped aircraft could not access.

According to Frost & Sullivan, while HUDs have been well received in general by the aviation industry, Elbit's Skylens has an edge because its technology is wearable, and this feature facilitates the technology's integration and adoption. Importantly, this HUD increases the efficiency of the customer's operations, thereby saving costs.

Skylens was designed and built for use by commercial aviation customers worldwide. The system provides a unique solution for retrofitting existing platforms, including small cockpit airplanes and helicopters. The system, which is in advanced stages of airworthiness certification, is expected to enter into service by end of 2016.

The high-performance capabilities of the **HAMILTON-C1** with the new Neonatal option include lung protective strategies and adaptive ventilation modes to ensure that each baby receives treatment tailored to its specific needs. Requiring only a minimum of space, the HAMILTON-C1 combines high reliability, ease of use and maximum mobility with optimal performance for your most fragile patients.



With tidal volumes as low as 2 ml, the HAMILTON-C1 provides effective, safe, and lung-protective ventilation for even the smallest preterm infants. The proximal flow sensor, specifically developed for neonates, precisely measures the pressure, volume, and flow directly at the infant's airway opening and, therefore, ensures the required trigger sensitivity. This provides improved synchronization and less work of breathing.

Leaks are one of the biggest problems in the ventilation of neonates, due to the use of uncuffed tubes. The intelligent leak compensation automatically adjusts the inspiratory and expiratory trigger sensitivity to potential leaks. This enables optimal synchronization with the neonate's breathing pattern.

The CPAP modes of the HAMILTON-C1 are designed such that you only need to set the desired CPAP pressure. The flow is subsequently adjusted automatically based on the patient condition and potential leaks. This prevents unintended peak pressures and guarantees highly efficient leak compensation. Flow adjustment occurs very rapidly due to near-patient pressure measurement and the high sensitivity of the measurement.

Russian Helicopters has received an export licence to sell a range of military products outside Russia, including spare parts, components and technical documentation. The company may now also provide a full range of support services (technical maintenance, repairs, upgrades, etc.) and participate in joint ventures with non-Russian clients, and establish and equip service and maintenance facilities in other countries and train up foreign staff. Russian Helicopters has also been granted permission to import military goods needed for its own manufacturing.

The approval was granted by the Federal Service for Military-Technical Cooperation (FSMTC), following Presidential Executive Order no. 232-rp issued on 21 June of this year.

The fourth prototype of the new multirole Mi-38 helicopter has carried out a series of ground runs and completed its first flight at Russian Helicopters' (part of State Corporation Rostec) Kazan Helicopters' test flight centre.

The Mi-38 fourth prototype differs from that of the third prototype in its shock-resistant fuel system and larger windows. As with the third prototype, the fourth prototype of the Mi-38 is equipped with twin TV7-117V turboshaft engines manufactured by Klimov. The engines' power shafts are in a forward position and are located behind the main gearbox, which significantly reduces the level of noise in the cabin.

Kazan Helicopters produces Mi-8/17 series helicopters that are operated in over 100 countries worldwide. A wide range of configurations are produced: transport, passenger, search and rescue, landing and transport, among many others. Preparations are underway to launch production of the Mi-38 passenger transport helicopter.

Mil Moscow Helicopter Plant is a subsidiary of Russian Helicopters. Its key areas of activity are experimental research and design, and the design, construction and testing of prototype helicopters. Since its founding, the Plant has created 12 basic models of helicopter, including the Mi-8/17, Mi-35M, Mi-26, Mi-28, Mi-38 and numerous modifications. Mi-helicopters are in operation in 110 countries worldwide and form the backbone of helicopter aviation in Russia, the CIS, as well as in countries in Asia, Latin America, Africa and the Middle East.

Ed: Extracts from an avalanche of Press Releases from Russian Helicopters that clearly seems to indicate that they have not understood that The West is maintaining sanctions against Russian products. That is why it was so important for REVUE Thommen to distance themselves from the 'sanctions busting' tone of the press release announcing the placing of a searchlight with a US law enforcement operation. It has been noticeable that Russian Helicopters stands at recent Western air shows have been ultra quiet but REVUE Thommen seem busier and are slowly repairing the commercial damage caused by the sanctions busting stor – a story that caught them completely unawares.

The **UK House of Lords** continues its investigation into the civil use of drones. Evidence is being taken from Government officials from the Department of Transport, and the Department for Business, Innovation and Skills on safety, EU regulation, economic benefit and national security. Among the aviation related speakers have been Paul Cremin, Head of UK Aviation Safety, SAFA & Permits Branch, Department for Transport; Andrew Simms, Deputy Director, International Aviation Safety and Environment, Department for Transport; and Andrew Horton, Senior Technical Policy Advisor, Department for Business, Innovation and Skills. Questions on e include:

- Is there a need for EU-wide legislation in the first place?
- How do the EU's ideas for regulation compare to guidelines in other areas such as the US?
- The UK is already adhering to strict regulations – could further regulation end up hampering its future competitiveness?
- How close is the UK to developing the necessary technology which will enable drones to "detect and avoid" collisions automatically?
- How much of a threat to national security does the new breed of lightweight and affordable drones pose?

In a step that seeks to thwart UAV incursions and unauthorized prisoner excursions around its prisons the **State of Ohio** are trialing an unmanned blimp, an aerostat, to monitor what's going on inside of and outside of two of its rehabilitation and correctional facilities. The

Aerostat is equipped with a high definition camera with an infrared device allowing it to 'see through the walls and roofs' of the Lebanon and Warren facilities in the hope that the technology will be helpful while trying to detect when prisoners try smuggling in contraband items or tossing those items over the fence to outsiders.

The Department of Rehabilitation and Corrections are to test the equipment for six months in order to evaluate whether the technology works. [The Blaze]

Ed: The report also reports that the local public rights pressure group says they are not worried. Gary Daniels of the ACLU's Ohio chapter said the idea doesn't raise many concerns for him as they are more concerned about the government using drones to spy on free citizens. Clearly he missed the erroneous bit written by the reporter about the camera being able to look through walls and roofs [which they cannot] and did not consider that a camera above a prison can still look outside its walls. Unfortunately these ACLU types are very noisy but inconsistent in their knowledge.

The latest achievement of **Airborne Technologies** is the VSU (Video Stabilizing Unit) that smoothes the video stream of ISR gimbals suffering from export restricted stabilization problems. This will offer the customers a video image quality beyond that previously achievable.

Wulfgang Grumeth, CEO of Airborne Technologies, said, "It is often the small things that have a great impact on an effective workflow. Our customers value the fact that we understand their needs and requirements.

Further proof of this is that we could emerge as winner of the bid of the German Police Mecklenburg Vorpommern for the replacement purchase of a complete electro optical system and operator workstation for alternate use in two EC135".

The European Aviation Safety Agency (EASA) certified the new **EC135 T3/P3** by Airbus Helicopters, completing a new chapter in the development history of the EC135. This new version, like the previous ones, will offer the most competitive operating costs in this helicopter class. The nearly 1,200 EC135 helicopters delivered as of today have clocked up over three million flight hours world-wide. The EC135 T3/P3 offers more than 200 kg of additional payload in hot & high conditions. Compared to the previous version this helicopter performs better at sea level, allowing up to 70 kg more payload for single engine/CAT performances.

Notable technical improvements in the EC135 T3/P3 include a larger main rotor for more lift, and lateral air inlets for greater efficiency. The new FADEC software provides optimised engine control and the cockpit features the fully integrated navigation, communication and GPS avionics solution GTN 750 from Garmin.

Previous EC135 versions can be fully retrofitted to bring them up to the technical level of the new EC135 T3/P3. Airbus Helicopters offers special retrofit packages that are based on the flight hours of each helicopter.

Newly launched to the market are Refined **Touchscreen Gloves** available via Mujjo.com. Stepping up the game, the gloves feature an updated elegant design that takes knitted gloves to the next level. A leather strap crosses over a notch on the wrist where a sophisticated matt black leather button provides a snap closure. The cuff boards are constructed of matching black leather and the palms feature grip dots to aid in anti-slip capability. A soft layer of integrated fleece lining provides a soft touch.

You can find out more from <http://www.mujjo.com/refined-touchscreen-gloves/>



INCIDENTS & ACCIDENTS

29 August 2014 Bell 407 N911LL. Air ambulance of Air Link at Regional West Medical Center, Scottsbluff, Nebraska, USA. Operated by Med-Trans Corporation. While returning to base following a patient flight, the aircraft

experienced an electrical failure causing the loss of all radio communications. The pilot in command executed a precautionary landing. The aircraft landed safely. The source of the electrical failure was determined to be a faulty generator. [Concern]

21 September 2014 Bell 407GX N955TG. Air ambulance of Aeromed, Tampa General Hospital, Tampa, Florida USA. Operated by Metro Aviation. Bell helicopter departed its base for an inter facility transfer. Shortly after take-off, the crew complained that the helicopter had a noise and vibration that was new. The pilot could not feel the vibration and was comfortable with continuing but accepted the request of the Medical crew and aborted the flight and returned to base. Maintenance discovered very low oil in the transmission, yet the engine oil reservoir was overfilled and leaking out the fill cap. It appears the freewheeling unit failed allowing the passage of transmission oil to mix with the engine oil. It is an internal engine issue and the engine has been shipped back to the manufacturer for examination. [Concern]

21 September 2014 Airbus Helicopter EC145 N184WK Air ambulance of Flight for Life based at Waukesha, Wisconsin, USA, operated by Air Methods. The aircraft was en-route to pick up a patient at a referring hospital. While in flight a thud was heard and the pilot elected to undertake a precautionary landing at a hospital helipad they were near at the time. After inspection it was found that one of the main rotor blades had struck two geese and was slightly damaged. [Concern]

30 September 2014 Airbus Helicopters EC145 N103VU. Air ambulance of Vanderbilt LifeFlight, Nashville, Tennessee operated by Air Methods. LifeFlight 3 encountered a bird strike on the right chin bubble resulting in minor damage to the aircraft. The bird did not enter the cabin but did create a 4" to 6" diameter hole in the Plexiglas. At the time of the event they were cruising at an altitude of 2,000 feet MSL. The pilot diverted to a local airport in McKinnon, Tennessee, some 6 miles distant and performed an uneventful precautionary landing. [Concern]

1 October 2014 MD902 Explorer. Air ambulance of the Kent, Surrey and Sussex air ambulance. An Eastbourne, Sussex couple were reported to be shocked and annoyed after the Kent, Surrey and Sussex Air Ambulance caused damage to their property. The air ambulance helicopter landed in Five Acre Field, Eastbourne but upon taking off, flew so close to a row of houses, it scared residents and left a trail of destruction. Margaret and Rodney, who live in Middleton Drive, reported tiles and guttering pulled away from the roof and a gazebo that was uprooted and found in a neighbour's garden. The metal frame was destroyed. [Media]

4 October 2014 Bell 206 LongRanger N335AE. Air ambulance of Air Evac Lifeteam was taking the patient from Waurika, Oklahoma, to United Regional Health Care in Wichita Falls, Texas about 35 miles to the southwest, when it crashed just before 2 a.m. The helicopter stationed out of Duncan, Oklahoma, was transporting a patient to United Regional Health Care when it crashed as it was on final approach the hospital in Wichita Falls impacting in a parking lot adjacent to the helipad. The patient, a shooting victim, died at the scene. The flight nurse and paramedic were in critical condition at the Parkland Hospital burn unit in Dallas, Texas. The pilot was in serious but stable condition at United. The Flight Nurse Leslie Stewart, subsequently died of injuries. Erasmus J. van der Colff, Flight Paramedic – injured, Zechariah Smith, Pilot – injured. [media]

10 October 2014 Airbus Helicopters AS350 N*LA.** Los Angeles Police Department, helicopters made a precautionary landing at Harvard Park. [CBS]

17 October 2015 Airbus Helicopters AS350 N229LA Los Angeles Police Dept., helicopter made a precautionary landing at Harvard Park in the grounds of Helen Bernstein High School in the 1300 block of North Wilton Place, Hollywood, California. [KTLA/CBS]

21 October 2014 AgustaWestland AW119 Koala N516LF? Air ambulance of the Life Flight Network, Idaho. The helicopter was dispatched to carry a man injured in an ATV accident off a mountain in the Sawn Lake area, but when it landed at Stockton Road near to the patient it wouldn't restart. The patient was taken by land ambulance. [KPVI News Six].

25 October 2014 Eurocopter AS350B2 9N-AKA. Rescue helicopter of Fishtail Air. Crashed in upper Dolpa, Nepal after the tail rotor impacted the surface. The pilot and a support staff, who sustained minor injuries, were airlifted by a Simrik Air helicopter to Dunai, the headquarters of Dolpa district. [Nepal News]

27 October 2014 Airbus Helicopters AS350 N. US Customs and Border Patrol air asset based in Tucson undertook and forced landing near Bisbee, Arizona, whilst on patrol. The pilot, who was flying solo, was taken to a medical centre for evaluation. No other injuries were reported. [media]

FLIGHT SAFETY

Outdated equipment has been found to be the cause of the death of Las Vegas Metropolitan Police Department Officer David VanBuskirk, who fell 25 feet when he became detached from a helicopter hoist during a search and rescue mission on July 22, 2013. The hook, which features a non-locking gate and has been in use for about 50 years, was deemed unsafe and has since been replaced by an auto-locking hook.

Ken Phillips, chief of the National Park Service's search and rescue branch, said most helicopter rescue units have upgraded to the newer hook. "They are so commonplace now in the helicopter rescue industry," he said. Los Angeles County's search and rescue team made the switch more than 15 years ago.

Captain Charles Hank, who oversees the Las Vegas Metropolitan Police Department Aviation Unit, said no one person is to blame for the accident, and Clark County Sheriff Doug Gillespie said he doesn't think Metro failed to supervise the safety of the unit. When meeting with other agencies over the years, including many that used locking hooks, he said no one mentioned Metro's hooks were a problem.

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David Vanbuskirk fronted the Las Vegas Metropolitan PD presentation to the media at the HIA Heli-Expo in Las Vegas shortly before his death.

New aviation technologies can provide a variety of solutions that can directly and indirectly address safety issues related to worldwide civil helicopter operations. In addition, the targeted use of enhanced aviation systems in the cockpit can contribute to accident prevention and an increase in accident survivability.

With this in mind, the European Helicopter Safety Team (EHST) has worked in partnership with the National Aerospace Laboratory in Amsterdam to study the potential of technologies to mitigate helicopter accident factors.

The study analyses accident causes and contributing factors to accidents and links them to technologies that may have prevented the accidents. The “most promising” systems highlighted in the study amount to seven related to warning systems and/or improvements in pilot situational awareness are featured below.

Enhanced Ground Proximity Warning System – Risks can be mitigated by installing technological advances such as Enhanced Ground Proximity Warning Systems (also known as Terrain Awareness and Warning System – TAWS). Such systems can provide a warning of fixed, land-based obstacle hazards such as towers.

Laser radar obstacle and terrain avoidance system – Wire strikes have been a major concern for both civil and military helicopters. In addition to wire strike protection devices, there are a number that warn the pilot about the proximity of wires. This specific system uses an eye-safe laser which is mounted on the fuselage to provide the pilot with the information about the surrounding environment using both optical display and aural warning. By using a laser the system can sense objects as thin as wires.

Passive tower-based Obstacle Collision Avoidance System - The Obstacle Collision Avoidance System (OCAS) consists of units located on utility and power line towers and detects all air traffic entering a predefined warning zone and activates warning lights that illuminate the tower. The fact that the OCAS does not require any installation in the helicopter can make it attractive to helicopter operators.

Digital range image algorithms for flight guidance aids for helicopter low-level flight - Low-altitude and terrain-following flights are needed for both civil and military rotorcraft because carrying out such tasks at low altitude and in poor visibility can be extremely hazardous.

Extensive simulation and flight tests were conducted to develop and test a complete set of algorithms for terrain following or contour flight, and more specifically to improve means of computing a reference Obstacle Contour Line for terrain-following flights. In addition, a wire detection algorithm was designed and simulation tested using real flight test data.

Efficient Numerical Approaches for On-Board Rotorcraft Flight Performance Modelling - Modern flight systems allow aviators to complete performance and mission planning onboard the aircraft during flight. Previously, aviators planned their performance and mission as a pre-mission exercise using either paper charts and pencil, or using specialized software on a personal computer. Onboard flight performance models answer such questions as: what is the available power, what is the power required to hover or cruise, what is the maximum (flight /hover) weight, what is the maximum flight speed, how much fuel is required or what is the best rate-of-climb that can be achieved?

Radar Altimeter for altitude measurement - A radar altimeter used on an aircraft measures the actual altitude of that aircraft above the terrain by timing how long it takes a beam of radio waves to reflect from the ground and return to the plane. As such, the system provides the pilot with real time and accurate information.

Wire Strike Protection System - A U.S. Army study found that fatalities associated with wire strikes decreased by nearly half after helicopters were equipped with a Wire Strike Protection System, wire cutters. The system basically consists of cutters placed on the roof and bottom of the rotorcraft. These can cut through wires in case of collision and thus prevent an accident.

PEOPLE

Alex Lochrane will replace John Perry, who stands down after five years as Chief Executive of the Hampshire and Isle of Wight Air Ambulance [HIOWAA], during which time the charity has grown steadily to the point where it was recently announced that it will be upgrading to a new helicopter with full night flying capacity in 2015.

An experienced leader, Alex Lochrane spent 25 years in the Royal Navy before retiring as a Commander in 2007. He has subsequently translated his significant military experience to achieve the turnaround and growth of two charitable companies in the past seven years.

In 2007 he was appointed director of Chiddingstone Castle in Kent, re-opening the castle to the public after a three year closure.

Answering the call of the sea once more, in 2009 he became Chief Executive Officer of Southampton based charity, the Jubilee Sailing Trust.

John Perry joined Hampshire and Isle of Wight Air Ambulance in July 2009. During his five year term, the charity has significantly expanded its service to the community and has achieved several landmark milestones, including the carrying of blood on board all flights, longer operating hours, and the introduction of regular doctor-led crewing. In May this year the Air Ambulance undertook its 5000th mission.

MOVE ALONG THERE PLEASE

For the last 93 years cars in Britain have paid a national tax to use the roads. The tax will continue but the disc of paper that was in effect the receipt for payment no longer has to be displayed on the windscreen sweeping away an element that traditionally kept thousands of police busy in enforcement duty.

The change is part of the Government's so-called red-tape challenge to cut paperwork and is expected to save £10M a year. Enforcement is now down to an army of roadside ANPR cameras that check out whether the plates on a passing vehicles are taxed, insured and roadworthy in a split second.

But there is a problem it seems, the same media reports announcing the demise of that historical bit of paper gave details out that a Home Office report has revealed that the very system that polices the missing bit of paper, ANPR, has consistently shown a 4% failure rate. In 27% of cases the cameras mistake a number for a letter – the zero and the 'O' are obvious candidates – and 25% of failures are down to screws placed close to the letters, 25% damaged plates and 22% down to dirt. With 500,000 ANPR cameras capturing 30,000,000 images each day that suggests the likelihood of 1.2 million incorrect readings daily in the UK alone.

Those results relate mainly to ground based ANPR but the effect is equally profound for airborne policing. [Mail/Telegraph]

There is the private jet you'll never want to fly. The Gulfstream air ambulance may look like the luxury pleasure liner used by celebrities and moguls to travel the world in style ... but inside it is anything but. For it is the plane used to take U.S. Ebola victims home to America. Most of its cabin space is taken up by the sealed-tight isolation chamber - or aeromedical biological containment system where patients are monitored around the clock.

Beside it is an antechamber where medics put on their protective 'moon suits' before entering the tent to treat their ailing passenger.

Next to the isolation chamber is a specialist toilet for the patient to use.

SHOWTIME

15-17 April 2015 EUROPOLTECH, the International Fair of Technology and Equipment for the Police and National Security Services will take place at the EXPO XXI Warsaw International Exhibition Centre. Poland next April. [Gdansk International Fair Co., 11 Zagłowa str., 80-850 Gdańsk, Poland] Operated by MTG SA Gdańsk International Fair Co. in partnership with the General Headquarters of the Polish Police. EUROPOLTECH is Poland's most important trade event dedicated to law enforcement and special services and includes an Exhibition alongside the 7th International Police Conference on "Protecting the financial interests of Poland and the European Union" organised by the General Headquarters of the Polish Police. www.europoltech.pl This event is a professionals-only exhibition and will be open exclusively to the International Police Conference participants, the executive staff of the European police services, officer corps and experts of the Polish Police and national security services and to the executive staff and experts of Poland's Special Operations Command. The last EUROPOLTECH in 2013 was attended by more than 6,300 trade visitors and over 180 international companies.



PAvCon 2015

The image above is of the site of next year's PAvCon from the air. The reason for the delay in announcing the site was primarily to assure ourselves that it would be completed in time with site visit in the wake of the recent Helitech International in Amsterdam.

The site is about mid distance between Amsterdam and Brussels giving a choice of arrival airports and a good selection of hotels in the nearby Brede as well as within walking distance of the airfield.

The former Seppe Airfield is now renamed Breda International and will be completed by the end of this year in plenty of time for PAvCon to be held there. More information will appear on the website later this month.

DIARY

A comprehensive listing of helicopter specific events in the coming year can be accessed at <http://www.helicopterlinks.com/shows/> but these are the events of greatest likely interest to readers in the next two months.

4-6 November 2014 Dubai Helishow 2014 Grand Stand, Meydan Hotel, Meydan Racecourse, Dubai UAE. To include a Military & Homeland Security Exhibition and an Air Medical and Rescue Show. Operated by The Domus Group, PO Box 5196, Dubai UAE. +971 4 328 5666 info@domusgroup.ae www.dubaihelishow.com

5-8 November 2014 INDO DEFENCE 2014 Expo & Forum in Jakarta, Indonesia. The 4th edition of Indonesia's Official Aviation, Aircraft & Airport Technology Show at JIExpo Kemayoran Jakarta, Indonesia is supported by the Ministry of Transportation, the Ministry of Trade, the Ministry of Industry, Indonesian National Air Carriers Association, Indonesian Aircraft Maintenance Shop Association (IAMSMA) and Indonesian Exhibition Companies Association. Held concurrently with the Expo will be the Indonesian Aerospace Industry Conference an important platform for the regions aerospace industry to share experiences, network and build strategic partnerships. <http://indodefence.com/>

4-6 November 2014 2013 ALEA Regional [Central] Corpus Christie, Texas. www.alea.org

11-16 November 2014 Air Show China 2014, Zhunhai, Guangdong, China

12-13 November 2014 11th Annual Global MDA Coastal Surveillance 2014 Marina Bay Sands, Singapore.

If you have noticed some differences in 'style' for PAN this month it is not surprising. The edition was completed using a whole new set of software on a laptop. Hopefully back to normal next month.