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# **POLICE AVIATION**

### **CANADA**

RCMP: The Royal Canadian Mounted Police continues to underline its faith in flying single engine aircraft types across the uninhabited wastes of Canada with the PC-12 being the primary type in service. In January the force took delivery of a new PC-12NG C-FMPW c/n 1336 s part of a fleet renewal process. The type was introduced in 1995 and has been in Canadian police service since 1997, there being another 1999 PC-12 delivery c/n 274 carrying the same marks in the intervening period.

The upgraded NG reflected a number of improvements including a more powerful engine from 2008. Pilatus is



introducing five new features in the 2014 model in an effort to keep demand high for the popular single engine turboprop. The first delivery of the PC-12 was 20 years ago, and the manufacturer has added a host of new features to enhance the 2014 PC-12NG.

The new 2014 PC-12NG includes six new BMW DesignworksUSA executive interior options, a new electric landing gear system, external LED lighting, a wireless Connected Flight Deck™ system, and a Wi-Fi passenger entertainment system.

By replacing the PC-12's original hydraulic landing gear with a new electric system, PC-12 operators realize both weight and maintenance cost savings. The electric landing gear provides a 13 lb (5.9 kg) weight savings over the previous hydraulic system, and reduces the landing gear maintenance and inspection costs.

The 2014 PC-12 NG is equipped with light emitting diode (LED) landing, taxi, recognition, navigation, and strobe lights. The tail-mounted strobe light has been eliminated by incorporating its function into the two wingtip strobes. The LED lights are even more reliable due to their solid state design, and produce more light than the incandescent bulbs employed in previous models of the aircraft.

The base price for the 2014 PC-12 NG is \$3,850,000 with a typically equipped executive configuration priced at \$4,642,000. [Pilatus]

COVER STORY: As reported later there has been a small resurgence in the law enforcement prospects of the AS355N. Europe may have thought that the Twin Squirrel/Twinstar/Ecureuil had had its day as a police platform but one operator is still more than keen on the type.

Airbus Helicopters has signed a contract with the Spanish Traffic Department [DG Trafico] to supply four AS355NP Ecureuil in coming months. FULL STORY PAGE 5

### **KENYA**

**POLICE AIR WING:** There are reports from the country that state that rotary wing air support is currently at a halt. The police have eight helicopters in their fleet but all are unavailable for a variety of reasons. Leaving them reliant on two fixed wing transport fixed wing craft.

Four Russian Mi-17 helicopters are grounded at the Police Air Wing hangar. Three of them require total overhaul while the other one has not been repaired since it was involved in an accident in Kapsabet. Other aircraft, including a Bell 407 and a Bell 47 have been damaged in accidents and the newest type, an AS350B3e, was lost in another accident in 2012.

The police have started a tender process for the supply of one new helicopter and the overhaul of the four Mi-17 helicopters. Another helicopter, a Bell 206 L4, has an engine problem, as does the emergency helicopter, believed to be a BO105, for the Kenyatta National Hospital which is kept by the police. The first was supposed mishandled while the other suffered ingestion damage. Another Bell 206L1 is reportedly undergoing repair at Kenya Wildlife Services for an undisclosed problem. Three examples of the Cessna Caravan are reportedly for disposal.

Not for the first time Air Wing Commandant Rogers Mbithi said the unit was understaffed. He said there has been a high turnover of experienced pilots and engineers who were lured by better salaries and benefits elsewhere. [Nation]

### **RUSSIA**

**WINTER OLYMPICS/SOCHI:** Although some of the news media primarily displayed examples of the Eurocopter/Airbus Helicopters AS350 operated by local UT Air rather than locally produced helicopters it was Russian Helicopters that placed on record the broad aims of security air operations planned over last month's Olympic event ahead of the event. It was not to be the only instance where the positive spin of the Winter Olympics in Russia was overtaken by reality, the fighting in Ukraine blotted out pretty much everything newsworthy—and even the retreating President of that country chose to depart in his Western AW139 helicopter rather than something local. Details like that tend to mess with the intended PR message!

Helicopters manufactured by Russian Helicopters, of State Corporation Rostec, were set to play an active role in providing security at the XXII Olympic Winter Games in Sochi, which ran from 7-23 February, and at the 2014 XI Paralympic Winter Games due this month from 7-16 March. The helicopters are used by the Russian Interior Ministry, the Federal Security Service, and the Russian Emergencies Ministry for monitoring, patrolling, and providing security at the Games with back up roles of medevac and SAR operations.

Russian-made helicopters were used by virtually all state agencies involved in the event. The Emergencies Ministry's medical module-equipped medium Ka-32A11BC helicopter has





been standing by at Sochi Olympic venues since October last year. The Ka-32 and the Mi-8/17 series helicopters operated by the Emergencies Ministry chief directorate for the Krasnodar Territory, were on standby at Sochi, and if needed will be used to fight fires, monitor areas of the ski-slope at risk of avalanche, as well as SAR and medevac. The helicopters are based at Sochi airport and Krasnaya Polyana's helipad.

The Ministry of Internal Affairs of the Russian Southern Federal District is using Mi-8/17 and Ka-226 helicopters to support police operations such as patrols and surveillance.

The Federal Security Service of the Russian Southern Federal District, tasked with ensuring security at the games, is using specially-equipped Ka-226 helicopters fitted with additional surveillance and observation equipment, as well as Mi-8/17 helicopters.

In the run up to the event multirole Mi-8/17 helicopters, primarily intended for cargo and passenger transport, were used by commercial operators, including UTair, involved in the support of Olympic facility construction in Krasnaya Polyana. Mi-8AMT and Ka-32 helicopters with external slings have been used to transport loads, in various kinds of construction work on the cableways and other ski resort infrastructure, and also in work to assemble special cannons for use in areas at risk of avalanche.

The Mi-26T heavy transport helicopter was used by PANH Helicopters on complex construction and assembly work in difficult-to-access areas. It transported heavy cargo and equipment to high altitudes, carried bulky loads weighing up to 20 tonnes, including electric transformers and generators.

As one major international fixed wing operator will tell you, Sochi was not just about helicopters. Volga Dnepr Group completed its role in helping the 2014 Winter Olympic Games get off to a flying start by delivering over 1,800 tons of air cargo to the Russian city over the last 12 months, carrying broadcast, lighting and sports equipment.

Volga-Dnepr's customers took advantage of the Group's 'cargo supermarket' service offering, combining the most suitable and cost efficient aircraft and logistics solutions for each

delivery, using either Volga-Dnepr Group's air charter or scheduled cargo services.

AirBridgeCargo Airlines (ABC) is the only Russian-appointed air cargo carrier on the Europe -to-Sochi route and this, together with Volga-Dnepr's 'cargo supermarket' concept, has enabled the Group to step in to meet the increased demand for cargo capacity and provide

customers with direct access by air to Sochi. Overall, by the beginning of 2014, Volga Dnepr Group had performed over 30 charter flights to Sochi onboard Boeing 747, Boeing 737, AN-124-100, IL-76TD-90VD and AN-12 freighters. This included transporting the Olympic Flame in December on-board a AN-124-100.

Volga-Dnepr Group's participation in the Sochi Games dates back to July 2007, when the International Olympic Committee gathered in Guatemala to decide which city would be chosen to host the 22nd Winter Olympic Games in 2014. Volga-Dnepr Airlines transported a 63-ton ice rink which featured in Sochi's final bid presentation.



Transportation of this unique equipment is held to have contributed significantly to the success of Sochi's bid for the Olympics.

### **SPAIN**

**MADRID:** With the EC135 being so popular in the region police aviation in Europe may have thought that the Twin Squirrel/Twinstar/Ecureuil had had its day as a police platform but one operator is still more than keen on the type.

Airbus Helicopters has signed a contract with the Spanish Traffic Department [DG Trafico] to supply a total of seven helicopters: four AS355NP Ecureuil and three EC135s, with the latter aircraft to be operated by Spain's National Police Force. Delivery will begin this year with one EC135 and one AS355NP and will be completed in 2016.

Spain's Traffic Department (DGT) has been operating helicopters built by Airbus Helicopters since 1970 (under the previous company names Aerospatiale and Eurocopter), and was the first unit of the Spanish Ministry of the Interior to work with these aircraft. Its fleet of 18 helicopters is used for surveillance, traffic regulation and highway patrol from its central head-



quarters in Madrid and peripheral patrols throughout Spanish territory (excluding Catalonia and the Basque Country).

Airbus Helicopters España CEO Francisco Vergé expressed his great pride in winning the contract, as for him it "constitutes a further vote of confidence by the Spanish Ministry of the Interior in our helicopters, which make up their entire fleet and have proven their worth on a range of different missions."

With the addition of these four twin-engine AS355NP Ecureuil helicopters, the DGT will become one of the largest fleet operators of this model in the world, continuing its commitment to this reliable, safe and sturdy helicopter, which boasts excellent handling and ease of maintenance.

Meanwhile, the fleet of EC135 helicopters operated by the Police's Aerial Services will be increased to 16 aircraft. This will reinforce the presence of this aircraft in Spain, where it has consolidated its role in recent years as a multi-purpose vehicle for law enforcement forces and agencies (including the Guardia Civil, Police and Traffic Department). As well as being the Spanish helicopter of choice for MEDEVAC services, the recent contract signed with the Spanish Ministry of Defence also proves that the EC135 is perfect for military [AH]

Ed: One of the most popular police aircraft across the world is the single engine variant [AS350] and many still hold the opinion that the 6-7 seat AS355 remains the perfect size for the ideal two or three place police role except that it can no longer offer sufficient range and endurance. The result is that such as the 'oversize' EC135 is selected for the role.



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DG Trafico also uses the Eurocopter EC120 as part of its traffic control fleet © File

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### UNITED KINGDOM

NPAS: West Yorkshire Police issued a new tender for the Provision of Rotary-Wing Maintenance, Continuing Airworthiness Management and Spare Parts early last month. The Police and Crime Commissioner for West Yorkshire has invited potential suppliers to bid for the provision of Rotary-Wing Aircraft Maintenance, Continuing Airworthiness Management and Spare Parts. This will be smaller than originally intended because of the current position relating to South Wales and London.

It is intended that the tender will be split into three Lots as follows: - LOT 1 – EC135 & EC145 Aircraft (currently 19 aircraft); LOT 2 – MD 902 Explorer (currently 6 aircraft); LOT 3 – EC135, EC145 and MD 902 Explorer (25 aircraft - Combination of LOT 1 & LOT 2). Those interested will need to contact Mrs Charlotte Daynes Email Address: <a href="mailto:charlotte.daynes@westyorkshire.pnn.police.uk">charlotte.daynes@westyorkshire.pnn.police.uk</a> Telephone: 01609 789696 Mobile: 07827 252030 or write to PO Box 9, Laburnum Road, Wakefield, West Yorkshire, WF1 3QP.

It is expected the contract will start in October and end five years later in 2019. Expression of interest started on February 1 and need to be in by March 28. On the after-

In house maintenance is a task of the past and the new tender is to formalise future arrangements with industry [PAR]

noon of March 3 there is a Supplier Conference in Wakefield, West Yorkshire.

The Comet newspaper continued its assault on the value of the new NPAS system in Hertfordshire and Bedfordshire early in February.

An unidentified police helicopter pilot has criticised the air support given to officers since a national scheme was introduced as "a total joke".

The Comet reported last month how the number of incidents given air support in Comet country has fallen by 85% since the Herts and Beds police helicopter was axed and replaced by a national scheme in October 2012.

The National Police Air Service (NPAS) scheme means 11 police force areas in the south east region – including Hertfordshire and Bedfordshire – are covered by four police helicopter bases in Essex, Suffolk, Surrey and Oxfordshire.

The pilot is also said to have said: "The service has been totally downgraded all around the country. Officers are just not bothering to ask for the helicopter, as they know they won't get one, or the aircraft is too far away to be of any use.

"There are simply not enough aircraft, and the 24-hour coverage is a total joke. The transit times of the helicopters are far too much to be of any use to officers on the ground. Police helicopters are like air ambulances in that the response time is critical."

He said three police forces across the country – including the Metropolitan Police – have refused to join NPAS. But the Herts and Beds police authorities signed up to NPAS on the understanding air support would be provided by the Met Police.

The police pilot added: "The Met Police have turned the takeover down as NPAS had no business plan whatsoever and could not provide a guarantee of service for the money being paid. The taxpayer loses out at every turn and NPAS just employs more desk workers.

"This is a country-wide problem and it's starting to cost the taxpayer more and more for a service that is far less capable and productive than the original service."

Superintendent Richard Watson, from NPAS, said: "NPAS continues to deliver a cost-effective service, balancing the need to save money against the requirement of a quickly

deployable asset. It is anticipated NPAS will save up to £15 million a year compared to previous arrangements for police air support.

"Plans remain in place for the transition of further forces into NPAS and work is ongoing to secure their involvement. As we provide a borderless service, we are able to make use of the nearest aircraft and in many cases our response time is enhanced.

"We recognise there are areas of improvement and we have been working hard alongside local commanders to resolve any issues identified. On average, we attend incidents within 20 minutes and NPAS remains a functional service which offers the best possible value to taxpayers." [Comet]

A newer storyline is a similar complaint to come out of Hampshire, the county along the central south coast of England.

Long term readers may recall a storyline current at the birth of NPAS. The first 'victim' of the cull to come was the fixed wing air unit in Hampshire and it was made kind of easy because the Chief Constable of the time, one Alex Marshall, was also nominated as the ACPO Lead on Police Aviation in England and Wales and thereby the nominated boss of NPAS. In Hampshire he had a perhaps unwitting helper, one John Apter, the Chairman of the Hampshire Police Federation.

Now let *Portsmouth co.uk* take over the latest twist in the tale.



Hampshire officers have raised concerns about coverage in the area via NPAS, according to Hampshire Police Federation Chairman John Apter.

According to the new story, Hampshire has been served by three helicopters based in other counties since October 2012.

Mr Apter said the Hampshire federation's calls for the force's fixed-winged aircraft to be retained went unheeded by the now defunct Hampshire Police Authority and claims the new service in the area is suffering as a result, with officers saying that they ask for aircraft less because they know they can't get it. Officers have lost confidence.

Chief Supt Ian Whitehouse of NPAS said: 'The Air Support Unit in Hampshire was closed before the area joined NPAS and that was a decision made by the Chief Constable at the time in conjunction with the Hampshire Police Authority.' [Portsmouth.co.uk]

Ed: The story now being peddled appears to rely on suitably short memories, disinformation and a little hindsight. Yes the Hampshire aircraft went before NPAS but its demise in the summer of 2010 as a joint project under the Chief Constable Alex Marshall is widely accepted as the first round of the reorganisation and, despite complaints from all around at the time, it simply was not questioned let alone fought by either the local or national Police Federation as it evolved. They simply failed to understand air support, officer safety or real police work — to a man. And it was not just Hampshire or recent times, they have never grasped an understanding of air support.

In September 2010 PAN carried news that the county was to be one among a number of police forces slated to lose their own air support. The loss of the operation had not gone down well with the local branch of the Police Federation and Hampshire Police were to share two helicopters with Surrey and Sussex forces, rather than use its own plane. Members serving in the more remote areas of New Forest and on the Isle of Wight had been the main complainants although the Chairman of the Hampshire branch of the Police Federation (John Apter) somewhat undermined their protests by soon agreeing that he was "convinced" by the financial reasons for the decision.

Six months later the aircraft, a Britten Norman BN2T-4S Defender 4000 was being advertised for sale, six months after that Chief Constable Alex Marshall officially launched the project in his ACPO role.

And even those early moves involved a degree of disinformation for the number of helicopters now covering that original area of Hampshire, Surrey and Sussex is now just one and as a rule it is the one based in Dorset that covers Hampshire. It is of course much more complex than that 'one helicopter' but in a nutshell that is what has happened and arguably what is holding back southern Wales and London from committing to NPAS. They, it seems, do not believe the detail of the NPAS game plan.

So why do some people think we who have been out here for 30 years have not been watching and noting? The last statement does not include the Police Federation of course, since allegations of corruption hit the national newspapers they are somewhat distracted by bigger things than air support.

**SCOTLAND:** A report to go before the Scottish Police Authority (SPA) meeting as PAN closed for publication asks members to approve proposals to continue the current police helicopter lease with Bond Air Services. In turn the SPA would have to ask the Scottish Government to authorise the extension to the current contract with the operators. It is scheduled to expire in September this year and will be proposed as an extension for two more years.

The contract, which has its origins some 23 years ago with Clyde Helicopters, was originally agreed with Glasgow based Strathclyde Police before all forces in Scotland became one single service.

The report highlights alternative options including the purchase of a helicopter at a cost of around £6.3M plus maintenance. Police Scotland would pay Bond £2.4M a year to lease the helicopter. [STV]

### **UNITED STATES**

**ALEA:** During its biannual meeting last month, the ALEA Board of Directors voted to create the ALEA Unmanned Aerial Systems (UAS) award to be presented annually in conjunction with the Association's conference and exhibition. This award will recognise an individual or group of individuals whose efforts or actions have promoted and/or furthered the development and/or use of UAS in the performance of public safety aviation missions. Likewise, this award may recognise an individual or agency whose safe and effective use of a UAS resulted in the successful completion of a public safety mission. The efforts or actions may be a single event or span over a period of time.

Although this area of expertise is small in world terms, and minute in the USA the inaugural presentation of this award will take place during ALEA EXPO 2014 this July in Phoenix, Arizona. More information about this and the six other awards ALEA presents annually, along with 18 scholarships are now available in the Awards & Scholarships section of the ALEA website.



Pockets of resistance to unmanned remain. An Indiana House of Representatives committee is considering a bill that would limit police use of unmanned aircraft systems (UAS) and electronic surveillance equipment. The bill would strictly regulate police use of UAS to conduct surveillance without a court warrant. It would also seek to regulate the placement of cameras or other electronic surveillance equipment on private property. <a href="https://www.news-sentinel.com">www.news-sentinel.com</a>

**MARYLAND:** A key state politician has sent a lengthy letter to the Maryland State Police seeking details about air support and specifically the roll out of the new AW139 medevac helicopters amid concerns over rising costs and delays.



John Astle says he wants more details about a spate of recent emergency repairs on the older Dauphin helicopters and the apparent slow introduction to service of the new AW-139s. He also questions pilot training procedures and maintenance records.

Police confirmed that they have received the letter and say they are working on a response. [Fox]

**NEW YORK:** It has been confirmed that the purchase of twin-engine Bell 429 helicopters by the NYPD is a replacement for the current primary patrol helicopter the single-engine Agusta 119 Koala. Original information was that there were five 429s but at HAI it was confirmed that it is four of the twins and a single Bell 407 to act as the trainer. The Bell 412 will continue in its rescue role.

The Koala fleet will be sold to offset the cost. Although the Koala was not universally popular with all the officers of the NYPD when they were introduced they will have served for a decade, arguably a normal span for most types.

The main detrimental feature for the Koala was auto rotate characteristics that contrasted sharply with the former mount the Bell 206. The 206 was benign and had an early recovery where the four rotor exhibited what was initially seen as a horrendous drop of around 400 feet before recovery. A new generation of pilots has grown used to flying within the restrictions and operating at higher levels, heights that are increasingly seen as those police operations should be undertaken, it was simply that for New York the impetus was partly supplied by the new aircraft.

**OHIO:** The City of Columbus may well be wishing they kept a more watchful eye on its police air support after an appeal judge confirmed that Columbus must pay more to a Canadian businessman who claims the city sold him a defective helicopter. The US District Judge ruled that the city must pay \$379,791 to Scott Baker, owner of Versatile Helicopters. He had claimed the 12-year-old police helicopter he bought in 2009 for \$510,000 had numerous mechanical problems that cost more than \$200,000 to repair. A jury found in favour of Baker in September. An appeals court later ruled that Frost erred in ordering the city to pay \$250,000. The city had used a broker to sell the helicopter and claimed that Baker had bought the helicopter from the broker, not the city. <a href="https://www.dispatch.com">www.dispatch.com</a>



# **AIR AMBULANCE**

### **GERMANY**

**ADAC:** Media reports continue to make mention of ADAC being 'troubled' - they are under fire from a number directions. The latest row brewing is over alleged use of the ADAC emergency rescue helicopters for transporting senior members of the executive to business meetings.

ADAC has confirmed a story in Stern Magazine that members of its executive committee had used rescue helicopters over the last ten years, but said it happened on "fewer than 30 occasions." [Stern]

In another controversy a sports team in Braunschweig, or Brunswick, in Lower Saxony got one of the ADAC rescue helicopter's to dry their pitch after a deluge of rain at the club's home ground.

Instead of the more traditional methods of garden tools or even a steam roller to sort out the soaked turf, the Bundesliga soccer club have been accused of using a helicopter as a giant 'hair dryer' to blow the water onto the touchlines.

The news emerged as part of a probe into corruption at the world's second largest automobile club which owns the emergency aircraft. [Stern]



**DRF LUFTRETTUNG:** The air ambulance operator released annual performance figures to show that it flew an average of 95 missions per day in 2013, 38,180 missions in all. The number was marginally down on the previous year. In 2012 its crews flew a total of 38,748 from its 31 HEMS bases in Germany, Austria and Denmark and through worldwide repatriations with its ambulance aircraft. Approximately 700 emergency physicians, 300 paramedics, 160 pilots and 80 technicians are on duty for DRF Luftrettung. To date the non-profit air rescue organization has flown a total of over 700,000 missions.

Within Germany DRF Luftrettung flew a total of 34,832 HEMS missions. About one third of all emergency missions at its 28 German HEMS bases comprised traffic as well as work or leisure accidents. In addition the crews provided medical care to patients suffering from heart attack or apoplexies (altogether 10% of all emergency missions). The chances of survival especially for patients with the latter disease patterns are greatest if they receive care within the golden hour, the important period of time after a patient's severe injury and its arrival in a clinic. Across Germany, clinics are increasingly specializing in treating specific types of illnesses. Since the distances between the patients and clinics are becoming larger, the use of helicopters has a crucial advantage: The helicopters are not only the fastest way to bring an emergency physician to the site, they are also unbeatably fast in transporting emergency patients to specialized hospitals.

Apart from emergency rescue alerts, 24% of German-wide missions involved intensive care transports between clinics, e.g. caring for patients with respiratory distress syndrome or patients suffering from specific heart illnesses.

At its two HEMS bases in Austria ARA Flugrettung, which belongs to DRF Luftrettung, flew 1,858 missions: Especially in the touristic high seasons in summer and winter, operations in mountaineous areas were frequent. The helicopters based in Tyrol and Carinthia are the only ones in Austria equipped with an installed cable winch which is essential for rescue operations in alpine terrain.

The Danish HEMS base, which had been operated by Falck DRF Luftrambulance A/S (a joint venture of DRF Luftrettung and the Danish ambulance operator Falck A/S) until the end of 2013, was alerted to 813 missions. At the beginning of 2014 DRF Luftrettung's withdrawal from Denmark was complete, after having laid the groundwork for Danish air rescue. Denmark will now further develop air rescue under its own auspices. The cooperation with Falck A/S at the HEMS base of Niebüll in Northern Germany will remain unaffected. "Christoph Europa 5" will continue flying cross-border missions to Denmark (69 missions were undertaken in 2013).

### **UAE**

**QATAR:** The air ambulance service at the Hamad Medical Corporation (HMC), formerly the operators of a bright green MD902 fleet, has taken delivery of three new helicopters for its LifeFlight operations.

The introduction of the new AgustaWestland AW139 helicopters will increase access to safe and effective emergency healthcare while ensuring air ambulance coverage even in the remotest areas of the country.







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Two of the helicopters, will be in operation round-the-clock, the third helicopter will act as the standby as a back-up for the two in service.

The pilots of the helicopters are from the Qatar Emiri Air Force (QEAF) and the launch of the air ambulances signified a new working relationship between HMC and QEAF. They will be based in Al Udeid Air Force base in order to access their engineering maintenance.

The helicopter service will be backed up by fully equipped Mercedes Benz Sprinter ambulances and Toyota Landcruiser GX's that are primarily employed to enable paramedics to access patients in the desert. [Gulf Times]

### UNITED KINGDOM

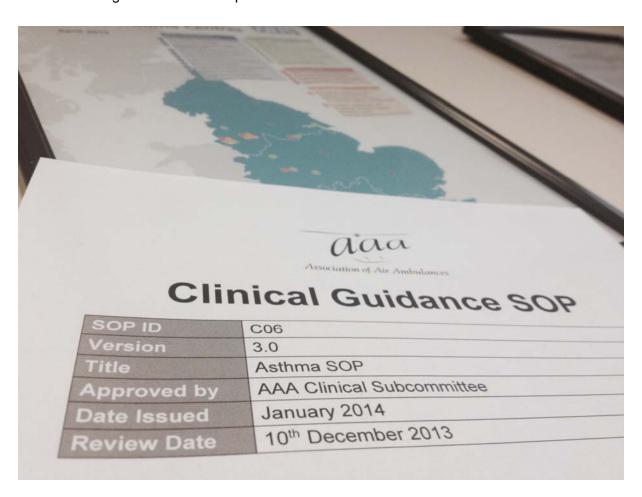
**AAA:** Two important Clinical Guidance Standard Operating Procedures (SOPs) have been issued by the Association of Air Ambulances.

Titled 'Hypothermia in Major Trauma' and 'Management of Pre-Hospital Asthma', both SOPs were published by the AAA's Clinical sub-committee in January. These will be added to the extensive list of Guidance SOPs already in place, which amongst others include: Caldicott, Photography and Video Imagery, Management of Major Haemorrhage, Post Return of Spontaneous Circulation and Traumatic Cardiac Arrest.

Clive Dickin, National Director of the Association of Air Ambulances said:

"These SOPs provide an introduction, guidance and treatment recommendations for air ambulances and ambulance services, enabling them to adopt best practice in the topics they cover. Each one is reviewed and if necessary updated on an annual basis ensuring the best possible patient care for those suffering with any of the respective conditions. During 2014 the AAA will issue a further seven guidance SOPs along with maintaining those which already exist."

The process of continual improvement through collaboration is key to the on-going success of air ambulances. The Association encourages all air ambulances and ambulance services to be cognisant of these important documents.



National Air Ambulance Week (NAAW) celebrates the work of local Air Ambulances across the country and takes place between: Monday 22<sup>nd</sup> to Sunday 28<sup>th</sup> September 2014.

**ESSEX & HERTS:** The Air Ambulance Trust is again to host an Airmedical Conference. The event is scheduled for April 30, 2014 at the Ceme Conference Centre, Marsh Way, Rainham, Essex RM13 8EU. This national event, sponsored by Medical Aviation Services, in pre-hospital care brings together delegates from all over the UK and Europe giving a unique insight into the Aeromedical world. The free event includes an option to attend an evening reception at The Manor Hotel which is a short drive away. The venue is just outside London, directly off the A13, 8 miles from City airport is just 8 miles away and there are train services from Fenchurch Street, London taking approximately 20 minutes followed by a five minute taxi ride to the venue.

Spaces for the conference are limited and have to be registered no later than 16 April 2014.

**WARWICKSHIRE & NORTHAMPTONSHIRE:** In what was seen as a fairly controversial move the Coventry based Air Ambulance charity operating two air ambulances and the Children's Air Ambulance ordered two new AgustaWestland AW169 helicopters. The order was seen as highly speculative and not affordable by pundits and largely dismissed as a publicity exercise. The deposit required at that time would have been very small. With the type now approaching certification and delivering the manufacturer is calling in these arrangements and we can shortly expect to see this particular 'order' either bloom or whither away. [PAR]

**WILTSHIRE:** A matter of weeks ago there was an expectation that the air ambulance would be able to remain in the facility at the rear of the police headquarters after the charity and the Wiltshire Police parted company at the end of this year. The situation has changed but no-one is letting on what precipitated the change.

The Trustees have now launched a full scale search for a new base location for the county's aeromedical helicopter.

The long standing partnership with Wiltshire Police finishes as they embrace the National Police Air Service and take air support from the base at Filton near Bristol.

The charity are still in discussions with the Police and Crime Commissioner to see if they can get an extension on tenure, but issues said to relate to health, safety and security means that this is looking increasingly unlikely. The charity is now looking for a suitable location to build an airbase, somewhere in Central Wiltshire.

Already a team have identified up to a dozen commercial, military or private airfields or landing strips within 7 nautical miles of Devizes, but they may still select a non-aeronautical option.



### YORKSHIRE:

The Air Ambulance has benefitted from an £8,000 grant from The People's Postcode Trust. The money has been used to acquire a TLC Helilift to help for the YAA's new air base at Nostell Estate near Wakefield. The previous base at Leeds Bradford Airport relied upon existing on site equipment.

The Heli-lift is a vital piece of equipment allowing the air ambulance crews to easily move the 3

The air ambulance crew are able to move their own aircraft with little effort using the TLC Helilift. © YAA

tonne [6500lbs] helicopter from the landing pad to the hangar each evening and morning. The majority of emergency services aircraft in the UK use a TLC they either own outright or include as a part of their leasing arrangements. This effectively is the charity playing 'catch up' simply because they own their own aircraft and have relocated.

The People's Postcode Trust is a grant-giving charity funded entirely by players of People's Postcode Lottery. [YAA/PAR]



### **UNITED STATES**

**FLORIDA:** Dallas Avionics has completed training of the pilots flying the Tampa General Bell 407 helicopter now equipped with the new TDFM 7000 radio system.

The Dallas Avionics TDFM 7000 transceiver offers the most up-to-date, FM communications technology including P25 CAI, P25 Trunking and AES with P25 OTAR from Dallas Avionics.

The new transceiver features include up to four bands customised to meet end user requirements; a P25 CAI that allows digital communications with backward compatibility to both narrow and wide band analogue operation; flash upgradeable architecture that allows new features and options to be subsequently implemented on the existing transceiver platform; and built-in audio switching capability that allows operation of multiple RF modules in either "combined" or "separate" transceiver configuration.

Each transceiver can store 1050 channels per band and is capable of simultaneous operation on all available bands. The TDFM- 7000 must be programmed with a laptop utilising the Motorola Customer Programming Software (CPS), which ensures total compatibility with existing fleet deployment.

### **FIRE**

### **CHINA**

Last month Bell Helicopter announced the sale of two Bell 412EPI and two 407GX aircraft to Chongqing General Aviation Co., Ltd.

The signing marks the first Bell aircraft to be used in China for parapublic missions, including fire fighting and search and rescue (SAR). The four aircraft are the first Bell Helicopters purchased by Chongqing General Aviation Co. Ltd., and will serve the Chongqing Fire Fighting Department. [BHT]

# **KOREA**

**CHUNGNAM:** AgustaWestland announced an order by the Republic of Korea's Public Procurement Service and Chungnam Fire Fighting Department, for one AW139 intermediate twin engine helicopter. This helicopter will perform fire fighting, search and rescue, Emergency Medical Services (EMS) and utility mission in support of the Chungnam community. The helicopter is scheduled to be delivered in the second half of 2015.

Chungnam Province's AW139 will be fitted with a wide range of role equipment including a four axis auto pilot, Bambi bucket, search light, dedicated EMS suite, fast roping fittings, rescue hoist. The four screen glass cockpit will also be equipped for Night Vision Goggle (NVG) operations. [AW]



# **INDUSTRY**

It goes without saying that helicopters are really loud. What's trickier is explaining why, and finding a way to make the explanation visible to the naked eye.

Researchers from the German Aerospace Center (DLR) say they are the first to provide a visual explanation of the cause for all that noise.

Researchers from the German Aerospace Centre (Deutsches Zentrum für Luft- und Raumfahrt; DLR) based at Göttingen and Braunschweig (Brunswick) have succeeded for the first time in visualising the main cause of what makes helicopters so noisy while in the air.

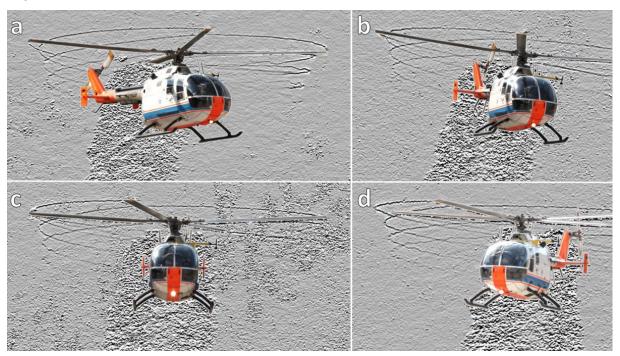
Helicopters can perform vertical take-offs and landings thanks to their main rotor, but this is also the reason why they are so noisy in flight. "Almost everything heard from a helicopter is aerodynamic noise. A large proportion of that is caused by what are known as blade tip vortices," says Markus Raffel, Head of the Helicopter Department at DLR Göttingen. Blade tip vortices form at the outermost end of a rotor blade; a zone of reduced pressure forms above the blade and a region of increased pressure forms below the blade.

As the air flows around the blade tip to reduce the pressure difference, a concentrated vortex is created behind the blade tip. The noise comes from the vortex behind a rotor blade interacting with the following rotor blade. These vortices are not just responsible for the typically 'carpet beater' noise; they also produce vibration within the helicopter and make the ride less comfortable for passengers.

The researchers employed a well-known phenomenon to conduct their tests. On hot summer days, the air above some sections of a road starts to shimmer. This is due to fluctuations in the air density causing refraction of light, which is visible as striations when perceived against a suitable background.

During one test, a Swiss Air Force Cougar helicopter manoeuvred in front of a rocky background in the Alps. This yielded images of a helicopter in flight showing a sufficiently precise visualisation of rotor blade vortices to enable the acquisition of scientific knowledge. During other tests, the DLR BO 105 research helicopter flew over fields and meadows while researchers in a microlight aircraft flying above the helicopter acquired images.

The latest experiment saw the BO 105 descend into a limestone quarry in the Harz region – a hazardous environment for a helicopter with confined spaces and requiring manoeuvres close to the ground that tested the skill of the pilots. Ten cameras set up at various angles yielded images of such quality that, for the very first time, a substantial proportion of an inflight helicopter's rotor blade vortices could be visualised in three dimensions.



The next round of flight tests will involve fitting helicopters with measurement equipment, enabling a direct comparison between the vortices recorded and the control inputs from the pilot. It is already evident that the DLR measurement technology has the potential to become an important tool for industry. Altering the blade shape or modifying the rotor controls could enable a reduction in blade tip vortices and their interaction with the blades trailing behind. This would help helicopter manufacturers to compare various rotor blades under realistic conditions and to select the quieter option. [DLR]

Robinson Helicopter Company is introducing a new line of instrument panels and avionics for the R22, R44, and R66. The new line includes, as optional equipment, Garmin's GTN 600/700 touch-screen navigators, as well as Aspen Avionics' Primary Flight Display (PFD) and Multifunction Display (MFD) systems. Garmin's GTR 225B COM radio, GMA 350H audio panel, GDL 88 universal access transceiver (UAT), and GTX 330ES transponder are also available. Robinson completed FAA flight tests and received approval for most of the new equipment and is in the final stages of certification for a few remaining combinations.

To accommodate the new glass-style avionics, Robinson replaced its 7-, 9-, and 10-hole instrument panels with 6- and 8-hole instrument panels. The 6-hole panel is standard on the R22 and R44 Raven I while the 8-hole panel is standard on the R44 Raven II and R66. The 8-hole panel is also an option on the R44 Raven I. Both panels allow for glass avionics or traditional instrument configurations.

The GTR 225B is now the standard COM radio on all models, replacing the Bendix/King KY 196A/197A. The GTR 225B and the GTN 635, 650, and 750 COMs all offer 8.33 kHz channel spacing, which satisfies impending new regulations.

The GMA 350H audio panel replaces the existing AEM AA12S for dual-COM installations. The GTX 330ES (Extended Squitter) transponder meets ADS-B Out equipment requirements when paired with a GTN series navigator, and the GDL 88 UAT provides dual-band ADS-B In. The GTN series navigators are installed in Robinson's pilot side console (PSC), placing the equipment directly in front of the pilot to minimize head-down time.

The new avionics and instrument panels were displayed at this year's Helicopter Association International convention, at Anaheim <a href="https://www.robinsonheli.com">www.robinsonheli.com</a>.



**DART Aerospace** has received the FAA STC approval for its Emergency Float System for the Robinson R66.

The new float system designed and manufactured by DART is the only emergency float system currently available on the market and it will allow R66 operators to safely perform over-water operations. The system can be easily retrofitted on in-service R66 aircraft and the float bags can be removed in just a few minutes for missions that do not require floats.

The market has been very responsive so far for this new



product and DART has already received close to 20 launch orders from various customers around the world commencing at the end of January. [DA]

AgustaWestland have selected **Revue Thommen** AG AC32 digital air data computers and CM20 digital chronometers in a dual installation - for serial production in the AW189.

ADAC, the major air rescue and air ambulance operator in Europe, has ordered fourteen EC145T2 helicopters to replace the aging BK117 B2s in its fleet. The **ADAC HEMS Academy** based in Hangelar near Bonn will adapt the training curriculum for all international customers to reflect the new fleet mix.

The ADAC HEMS Academy counts most of the important European HEMS organizations and many international law enforcement and off-shore operators from Argentina to Japan, from Brazil to Australia, as clients for the current training regime based upon EC135 and EC145 full flight simulator training and a new EC145T2 simulator will be acquired in coming years.

**EagleMed LLC** has contracted with Yingling Aviation, located in Wichita, to convert a Beechcraft King Air B200 to critical care air medical configuration for dedicated emergency and inter-facility flights. When delivered to EagleMed late last month, the additional airplane will become EagleMed's 16<sup>th</sup> King Air fixed wing critical care air medical transport aircraft. Yingling removed the executive interior and installing Spectrum dual bed modular air ambulance advanced life support systems approved for medical operations. Modifications include: vinyl covered headliner, lower sidewalls, rubber flooring, and sidewall insulation. There will also be a new forward cabinet for medical supplies, aft cabinet for stretcher storage and supplies, side facing passenger seats, LED lighting, a SkyConnect and EagleMed



tracking system, and a custom designed cabin intercom system.

The dual Spectrum brand stretchers are custom made and specifically designed for patient comfort with expandable armrests and a pneumatically assisted fully adjustable backrest. Stretcher fabric is bacteriostatic and antistatic.

Scott's - Bell 47, Inc. (SB47) has selected the **Sagem Avionics** ICDS-8A Glass Cockpit suite as part of the standard avionics/instrument package for their new 47GT-6 helicopter.

The ICDS 8A Primary Flight Display & Engine Monitoring System increases situational awareness through custom engine displays with intuitive LED interfaces. It incorporates many features including a fully configurable user defined checklist, display of primary flight and navigational information, engine management data, pop-up engines with display in split map/engine screen mode, display of external mount camera & VGA inputs, and custom user databases (operators can supply data points for moving map). The ICDS 8A will also record all displayed data for later review and analysis.

Thierry Derrien, President & CEO of Sagem Avionics, LLC. stated "We are excited about the opportunity to work with Scott's-Bell 47 on the avionics package for the 47GT-6. Sagem is committed to ensuring success on this platform through a mutually beneficial relationship."

German company ESG is the product support partner of **Cassidian Optronics** South Africa and is continuously expanding its range of services as a hardware-independent partner for mission equipment.

In December 2013, the Product Support Centre (PSC) at **ESG Elektroniksystem- und Logistik-GmbH** was authorised by Cassidian Optronics South Africa to offer and perform maintenance, repair and overhaul as a certified and authorised product support for the LEO-II and LEO-III-HD electro optical infrared systems (EO/IR-systems) from Fürstenfeldbruck, Germany with the support of Cassidian Optronics in Oberkochen, Germany.

ESG continues to expand its range of services further as a support partner for mission equipment. The PSC is already an authorised service partner for the EO/IR systems from FLIR Systems, for search lights from Trakka Corp and for the ESG Police PTA- and MTA-Mission Management Systems.

To ensure the operational reliability of mission equipment, the Product Support Centre offers extensive support services within and beyond the scope of the warranty thereby fulfilling customer-specific requirements. As part of servicing and maintenance, the PSC team at ESG ensures short lead times and the provision of loaner systems to guarantee availability. www.esg.de

In Australia the **AUSTHIA** has highlighted some of the issues facing aeroplane and helicopter industries with upcoming certification issues with the ongoing transfer to the EASA rules. One issue is the ageing workforce, probably around 55 years, caused by the lack of young people showing an interest in working as a LAME (or similar). It is hard supporting the world sixth largest helicopter fleet growing over the past decade at 6%; when the number of technicians is not growing at the same rate. <a href="https://www.austhia.com">www.austhia.com</a>



# The Caribbean Basin Coastal Surveillance and Maritime Security Summit for 2014

11 - 13 March, 2014

Hilton Barbados Resort, Bridgetown, Barbados

The recently launched airborne surveillance training firm **Aerotraining** is offering customers a new modular approach to instruction. Comprehensive, structured and targeted, the new training programme covers all aspects of operating airborne EO/IR surveillance systems and is available for both rotary and fixed wing assets. This new approach allows each course to be tailored to the unique requirements of individual customers with training modules available for all aspects of operations – from the basic camera theory to the operational employment of the asset.

Courses are available for numerous systems and operational mission types and are delivered by experienced operators with either Military or Police backgrounds. To familiarise students with the system, training is delivered using the ground-based Aerosimulators GIST. The mission dependant training scenarios are custom built by Aero Training for each customer and company can provide a GIST for the duration of the course. The training is also flexible enough to be delivered using alternative live systems.

The courses have been developed by Ian McCallum, a qualified course designer with a 15-year track record with UK MOD and the Royal Norwegian Air Force (RNoAF). All of Aero Training's staff are either qualified ex-military sensor operators — from both UAV and manned surveillance platforms — or experienced Police or civil sensor operators. Each trainer provides their unique insight into how to operate the systems required for many different types of operational missions. In addition, all of Aero Training's operators have a working knowledge of current EO systems and are available to cover shortfall in a unit's operator staff.

Currently engaged in training programmes in both Europe and Australia, Aero Training delivers comprehensive support, from initial setup through to the ongoing development of operators and control staff. The company's aim is the assurance of a successful mission outcome through the creation of an intelligent operator capable of confident interaction with informed mission control staff.

Based in Belgium, Aero Training will consult with any interested party and can supply the training at their location or at the Aero Training headquarters, through residential courses complete with accommodation. Training courses comply with UK DSAT convention and the company has members with DV security clearance, should this be a requirement

Current course availability and course content outline is available on request and following customer consultation will be tailored to their needs.

For more information, contact Ian Mccallum Cell: +44 7932089375 info@AeroTraining.be

The majority of unmanned craft may still struggle for acceptance but one or two seem to sit above the mainstream. The Italian Navy has selected the **Schiebel Camcopter® S-100** UAS (Unmanned Air System) to provide support for its fleet, making it the first European Navy that has S-100 in operational use.

The S-100 was the first UAS ever to fly from an Italian ship, the ITS Bersagliere a Soldati Class frigate in April 2012. The signed contract includes a system, training, integration and spare parts.

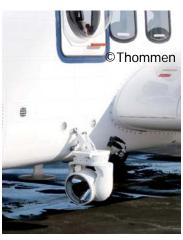
The system will provide unique degrees of flexibility, versatility and persistence on board Italian Navy ships employed in anti-piracy missions.

Mounted with a Wescam MX-10 and a Shine Micro AIS (Automatic Identification System), the S-100 has the capability to collect time-critical data during sorties lasting up to 6 hours. Additionally, the S-100 will be mounted with a Schiebel-designed harpoon system, which supports takeoff and landing in conditions up to Sea State 5. [S]



Last month **Revue Thommen**, **AG** signed a Memorandum of Understanding with Sikorsky Aircraft Corporation for the design and supply of high-performance Helicopter Searchlight Systems (HSL1600 series) for use in Sikorsky's S-92® helicopters. As a result of this agreement, Thommen will offer the latest airborne searchlight systems innovation in a single LRU, high intensity, and high resolution ruggedized searchlight system with detection ranges exceeding 1600 metres.

This agreement with Sikorsky, highlighted at the Heli-Expo in Anaheim, enables Thommen to better serve customers looking to obtain high-quality, high-performance searchlight systems, aircraft instruments, and special mission equipment. <a href="https://www.thommen.aero">www.thommen.aero</a>



**AirSatOne** has introduced Flightstream SA, a free service that allows the aircraft operator to speed up their SatCom internet and save on data usage. FlightStream SA offers a full set of web filtering, compression and management features that can be turned on or off and changed at any time without having to gain access to the aircraft. Changes can be made to single aircraft or wholesale to an entire fleet or groups of aircraft in the fleet. Flightstream SA is ground based, does not require hardware or software to be installed on the aircraft and allows flight departments to get their highly mobile network under control.

"Our competition charges its customers for a similar service that has fewer features and operates on a limited network which means your data will have to take more hops which increases latency and slows down your internet. AirSatOne's FlightStream SA is deployed worldwide on internet point-of-presence located at or near satellite earth stations allowing the most efficient handling of data going to and from the aircraft. Our internet point-of-presence are located in New York City (USA), London (UK), Amsterdam (NL), Aussaguel (FR), Oslo (NO) and Hong Kong (CN). It costs more to do this but it gives AirSatOne a competitive edge," said Jo Kremsreiter, president of AirSatOne.

Flightstream SA is designed to simplify management of inflight internet services and is accessible remotely with an internet connected PC. Operators have the ability to create an aircraft network and to control their network using AirSatOne support or their own IT department. Fleet operators have the option of creating virtual groups of aircraft for simple and quick account management and to administer internet policies to the group. The service also allows the ability to analyse traffic usage, both near real-time and historical, and instantly block high bandwidth sites that are causing excessive data usage.

A single device connecting to iCloud can use up to 200 megabytes (MB) of data or more, which results in typical airtime charges around \$1,200. With FlightStream SA these updates can be blocked on a single aircraft or a group of aircraft while allowing the user(s) to have internet connectivity for normal activities.

The service is operational now and available to all AirSatOne customers.

Customised airtime packages and hardware solutions are offered to Aviation, Electronic News Gathering (ENG), Search and Rescue (SAR), Emergency Response and Government Agencies backed by 24/7 support. More details can be found at <a href="https://www.airsatone.com">www.airsatone.com</a>



# **INCIDENTS & ACCIDENTS**

**6 February 2014 Bell 412 AN-137** Operated by SENAN [Servicio Nacional Aeronaval]. Aircraft reported to have been involved in an offshore anti-drug smuggling operation at Guna Yala when it crashed near Mansukom killing one person and injuring at least eight. One of the injured was Belsio González Sánchez, general director of Senan, who was piloting the helicopter. At the time of the crash the helicopter was pursuing a boat suspected of drug trafficking over Caribbean waters. The boat was later found with six bags of cocaine on board, but those aboard the vessel have not been captured. Officials have not said what caused the crash. It was working with USS Halyburton (FFG 40) conducting operations in support of Operation Martillo in the US 4<sup>th</sup> Fleet. [AP/HH]

**12 February 2014 Eurocopter helicopter** Air ambulance of Life Flight Gesinger helicopter was forced to make an emergency landing at the Wilkes-Barre/Scranton International Airport in Pittston Township, Avoca Pennsylvania USA after an engine problem occurred while it was transferring a patient. The helicopter safely landed and medics were able to transfer the patient to another helicopter for transfer to Geisinger Medical Center in Danville. [CitizenVoice]

# **SAFETY**

The US Customs and Border Protection (CBP) Agency temporarily grounded its fleet of nine remaining Predator Bs after the crash reported in these pages last month.

The CBP flight crew intentionally ditched the long-endurance unmanned air vehicle in the Pacific Ocean off the coast of San Diego. The mechanical failure of the type used to detect smugglers is reported to have been related to the UAV's electrical power system.

The US NTSB has joined the CBP's investigation of the mishap, which is the second involving one of its Predator Bs.

An initial report from the UK Air Accident Investigation Branch has reported that the police helicopter which crashed into a busy Glasgow pub killing 10 people suffered a double engine failure.

They say that both engines "flamed out" but its report does not pinpoint the cause. Some commentators have suggested a problem with the fuel supply.

The Eurocopter EC 135 came down on the Clutha Bar on Friday 29 November. All three people on board and seven others in the pub were killed. In its report, the AAIB said that its investigation into the crash was still ongoing.

Investigators are still trying to establish why both engines "flamed out" when there was 76kg of fuel remaining. Examination of the engines showed "no evidence of foreign object damage or intake or exhaust blockage in either engine".

Also, the report said no faults were found with the transmission or rotor system, there was no evidence of structural failure or in-flight fire and no evidence of damage caused by bird strike or a foreign object hitting the aircraft in flight.

The AAIB is also investigating why there was no Mayday call and why the aircraft was not able to make a controlled landing.

The recent report does not offer an explanation as to why both engines failed. It notes that there was no blockage on the fuel lines, both fuel pumps were in working condition and there was no leakage from the fuel tanks either before or after the accident occurred.

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### **PEOPLE**

On February 1, Aurelien Blanc, previously head of Turbomeca Asia Pacific Front Office took over as the company's Managing Director.

The troubled PremiAir International Group based in the UK has announced that Keith Marshall is its new Chief Executive and Trevor Jenkins has been promoted to lead the newly formed PremiAir Aerospace team as Managing Director.

Captain Kevin R Caffery of Erie County Sheriff's Office in the State of New York has retired from the service aged 66 years. In law enforcement some 45 years Caffery has headed the Sheriff's Aviation Unit for 27 years. During that period he has been engaged in dozens of well publicised and often hair raising rescues that have brought him personal recognition that has also served to promote the worthy of the tiny air unit at times when finance was under review. These rescues were highlights in lengthy service primarily involved with day to day minutiae of police search and patrol. The highlight events which received international recognition were a 1999 event when he and Deputy Chet Krupszyk rescued two children stranded on ice at Lake Erie and then a March 2003 rescue of a man from the brink of the Horseshoe Falls in Niagara Falls



undertaken with fellow pilot Detective Arthur Litzinger Jr. In that case the rescue was of 47-years-old man intent on suicide that had changed his mind once immersed in the waters and on the brink of a 180 feet drop.

At the time Kevin told PAN "...the rescue was unreal.... I thought for sure the poor guy was going over the brink. At one point when we were within feet of him, the rotor wash caused him to slip and the current pushed him back to within a foot of the edge... he grabbed onto a underwater rock at the last second... as he laid there his feet were over the brink... we knew we had only one last chance to get him.... I tried to get the aircraft as close to him as possible and my partner dropped the rescue ring to him... We were screaming with joy when he was able to grab it and the firemen and police officers pulled him to safety. This guy had a guardian angel sitting on his shoulder"

Further enhancing the status of both man and unit were Caffrey's activities within the membership of the ALEA, at the time of the Niagara Falls rescue he was the Vice President of the ALEA but has held several positions over the years.

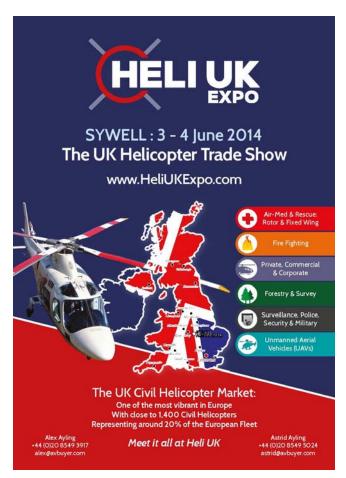
Despite his retirement he expects to continue to serve his AS350 operating unit in the role of part-time pilot for about two more years working on an as needed basis.

The small unit is now being commanded by Arthur Litzinger.



**EVENT:** 7-9 April 2014 Search & Rescue Europe, Radisson Blu Scandinavia Hotel, Copenhagen, Denmark. Better integration is the key to more effective SAR operations. In 2014, Search and Rescue Europe brings together leading SAR practitioners to discuss how we can move towards better integration between different SAR agencies. Building on the success of 2013's iteration, the 2014 event features over 90% new speakers and briefings to reflect just how much the SAR world has evolved over the past year. Tackling issues ranging from the latest requirements for airborne SAR assets through to the latest in innovative life-saving training and techniques. SAR Europe will bring you Insights into the diverse problems facing SAR operations in diverse regions – from **the Arctic wilderness** to the vast **migration across the Mediterranean into Europe, the latest information** 

on requirements and future plans for enhancing aerial SAR capabilities from Canada, Norway and the United Kingdom, case studies from SAR agencies in emergent Europe nations and from outside of Europe. It will also examine the importance of social media to Search and Rescue. <a href="https://www.searchandrescueeurope.com">www.searchandrescueeurope.com</a>









This edition is being finalised in the middle of California, in a period of severe drought and far from the rain soaked shores of England—so there are distractions that will shortly bring forth a new Special Edition on the HAI Heli Expo; but first news from a surprisingly attractive air event in Asia.



Deputy Prime Minister, Coordinating Minister for National Security and Minister for Home Affairs Teo Chee Hean opened the fourth edition of the Singapore Airshow, set to be the biggest to date, at an opening ceremony set at a city centre location miles away from the showground at the plush Sands Grand Ballroom, Marina Bay Sands on the eve of the show.

The return of this biennial event, Asia's largest airshow and one of the more important aerospace and defence exhibitions in the world, and under scoring Singapore's role as a global aviation hub and highlights Asia's rising importance in the global aviation landscape.

Already tiny Singapore is an aviation hub attracting most of the worlds major manufacturers to set up operations, the airport, Changi International has a throughput of 50 million passenger – significant when you consider that the population is just 5 million including some 750,000 ex-pats. On the military side the aviation capabilities of the armed forces make even the RAF a pale imitation.

It is against this background that the whole theme of the show should be set, like Farnborough and Paris it is very airline and military orientated and attracts Asian airlines and military for the first few days before giving way to two public days when much of the expo element goes home.

### Scene setting

Singapore Airshow 2014 took place from 11 to 16 February at Changi Exhibition Centre, a sideline to the airport it takes its name from. It seems that the very site is under threat from the airport itself expanding but that is for future editions; meanwhile the airport has to close when the show operates its tightly packed non-stop air display of just 60 minutes each trade day and 90 minutes on the weekend. Not a sustainable situation if flying is to continue.

In theory, with a small population the show should have been quiet on Trade Days, but it was not. There were signs that someone in the office of the organiser equated numbers with quality. It is more likely that it was simply an income stream and the exhibitors were tasked with sifting the good prospects from the bad. This did cause havoc with the security and travel arrangements though. Getting in was a dire experience, one quote was 90 minutes and I personally timed 45 minutes but at least it was air conditioned. Getting away was mainly reliant upon taxis and there were never enough to meet demand. The queues in the searing heat were far too long.

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



### **Training for the future**

Airline business remains at the core of the aerospace business. According to details supplied by Lufthansa Technik [LT] January this year is not only the centenary of police aviation it is also 100 years since a man in Tampa Florida dug deep into his pockets for \$400 for a paid for flight – although we do not know where to. LT are now staking their claim to a slice of what is currently assessed to be \$750billion turnover industry – although they reckon that a mere \$20 billion of that is seen as profit. Perhaps the future expansion from a current 20,000 aircraft to 32,000 aircraft by 2018 will increase profits somewhat.

Another pointer highlighted by LT was the availability of pilots and engineers – and that affects all industries including law enforcement and air ambulances – although many in the industry are wringing their hands worrying where new talent is coming from LT claim to have few worries. It trains its own engineers and particularly in the Asian region has 1,000 places set aside to turn out the local raw talent for its own use. Even the low level of wastage to others in the field is sustainable but clearly there is an underlying criticism of others in the market failing to invest in the future.

The pressure on sheer numbers of engineers may be eased by the lower maintenance requirements of really modern airliner types [just as it is with some modern small airframes] but no-one really knows whether these plastic aircraft like the 787 and 350 will prove to have a lifetime of low maintenance or be simply storing up troubles for later.

### Roll Out of a new ATC

In keeping with the location Thales Chairman & CEO Jean-Bernard Lévy attended the New Singapore Air Traffic Control Centre inauguration ceremony on the eve of the show, where Mr Lui Tuck Yew, Minister for Transport, and Mr Yap Ong Heng, Director- General of the Civil Aviation Authority of Singapore (CAAS), inaugurated the New Singapore Air Traffic Control Centre (SATCC). LORADS III is a key system of the new SATCC.

The system was handed over to CAAS in May 2013 and has now assumed full control of Singapore's airspace following a successful deployment programme.

The system is ideally suited for Singapore and the region, as not only is Changi Airport the busiest hub in South East Asia, but Singapore is also at a strategic geographic junction, making its airspace one of the busiest in the world for long range air traffic en-route to hundreds of destinations.

#### **Exhibitor Growth**

The Air show attracted a growing number of exhibiting companies, including more than 60 of the world's top 100 aerospace companies, and an impressive static and aerial display line-up. Over 1,000 participating companies from 47 countries/regions, 70% returning exhibitors, bearing testimony to the value the show brings to them. Indoor space was limited by the size of the permanent exhibition hall but others operated out of temporary structures in the heat of the static area.

The 'star' of the show was undoubtedly the Airbus A350XWB, which marked its first full display at an international air show – albeit for a limited time. The A350XWB performed only on the 11 and 12 February in the air and in the static. It was not fitted out to airline standard so no one was getting cabin tours. The back up display included performances by three aerobatic teams from Singapore, the Republic of Korea and Indonesia, the largest number of aerobatic teams ever at Singapore Airshow. The participation of Singapore's very own RSAF Black Knights, flying six F-16C Fighting Falcons in Singapore's traditional white and red colours, is also part of the RSAF's 45<sup>th</sup> anniversary celebrations at Singapore Airshow. In addition, there were solo performances by the Royal Australian Air Force (RAAF F-18), the United States (Marines V-22) and the Yak-130.

Mr Jimmy Lau, Managing Director of Experia Events, organiser of Singapore Airshow, said: "... as with previous editions, we have sold out all our exhibition space. This year, we have seen an increased number of exhibitors such as Pilatus, UAC, Airbus, Embraer and Bombardier taking up outdoor spaces and customising them to their needs. Exhibitors such as



SAAB, Rolls-Royce and United Technologies Corporation are building double-storey exhibition booths indoors to maximise their floor space."

Bell Helicopter had a strong presence as an, with a Bell 407FX, and a 429 on static display in an EMS role fit. On the military side the event saw the debut of a AH-1Z 'Zulu' attack helicopter cockpit demonstrator and the US Marine Corps debut appearance of two examples of the Bell Boeing MV-22 Osprey in the static and flying display.

The displays were over he stretch of water separating Singapore from Malaysia. and that highlighted the strong downdraft of the MV-22 in the hover during the display slot.

Two years ago Singapore clashed head on with the dates of the HAI Heli-Expo and although this year was different [by a little over a week] there are limits to what staff could be assigned to this show for all 'airborne emergency services' purposes [there is no police aviation presence in Singapore]. Probing questions were effectively deferred to the floor of HAI as usual by a natural inclination to meet the more likely questions from utility and defence customers.

Bell Helicopter's presence in the region was further enhanced by the opening of the Bell Helicopter Service Centre at Singapore's Seletar Aerospace Park (SAP) in 2012. The 160,500 sq. ft. facility houses Bell Helicopter and Cessna hangars, a paint booth, warehouse, overhaul and maintenance shops, training, office areas and a 77,000 sq. ft. ramp.

Bell Helicopter has had a presence in Singapore for more than 30 years the move to SAP was simply following a trend among the other MROs to enhance the service on offer in the region.

### ST Aerospace

The major players in Singapore are Singapore Airlines and Singapore Technologies Aerospace Ltd [ST Aerospace] and just before the show date the latter officially opened its new aviation centre at SAP, in the presence Singapore's Senior Minister of State for Ministry of Finance and Ministry of Transport, Mrs Josephine Teo. With an expanded Seletar footprint occupying over 75,000 sqm, ST Aerospace becomes the second largest tenant and the only integrated aviation service provider in SAP.

The company offers a full suite of airline, business aviation and helicopter airframe maintenance and modification, pilot and technical crew training, VIP air charter, special operations and air ambulance services. ST Aerospace's footprint in SAP includes hangars and facilities that can handle up to 11 narrow-body aircraft and 24 general aviation aircraft simultaneously.

As the primary source for domestic marine, aerospace and military development ST brings a vast range of in-house products to the show ranging from unmanned aircraft to tanks via weapons and ammunition. Fortunately the many marine products were exhibited via models—if ST had been able they surely would have brought them as well!

The range of product from ST was amazing there are ventures in manned and unmanned including a ground vehicle that is capable of performing autonomous security patrolling, the Terraton featuring a modular design that allows the platform and payload to be highly configured to match the demands of different applications.



Viking the Canadian company now manufacturing legacy de Havilland Canada [DHC] airframes and spares were able to announce a further airline sale of their Viking Twin Otter Series 400 to Japan at the show but unfortunately did not bring I an example of the recently delivered Vietnamese Navy order to the event. The type continues to demonstrate a strong presence throughout South East Asia, with nine countries throughout the region taking Series 400 sales, with an additional seven countries participating in active sales campaigns. Topping the list with a six aircraft order announced in 2010. the Vietnam Navy have now received their first fixed wing aircraft with the arrival late last year of their initial Series 400 Twin Otter in-country. In addition to the on-going flight and maintenance training programs being conducted at Viking's corporate headquarters in Victoria, BC, Viking customer service representatives and flight training delegates will be onsite at the Navy Air Wing Base in Nha Trang to assist with the integration of the aircraft into current Navy operations which will include law enforcement operations.



#### Surveillance

Airborne Technologies from Austria is pretty familiar in these pages thanks to appearances at every major air show in recent times and several high profile contract law enforcement wins in Europe.

At the show they introduced their newest development – the S.C.A.R. (Self Contained Aerial Reconnaissance) Pod.

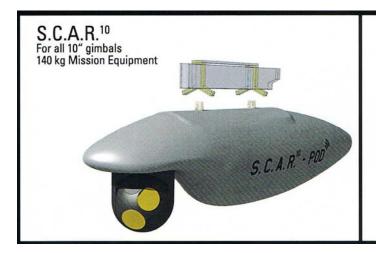
This Pod is completely self-sufficient and allows wireless operation. Data connection from pod to operator station is done via WiFi and needs no external cabling.

The use of an internal - easy changeable - battery pack grants power supply for up to 10 hours.

The S.C.A.R.-Pod does not require any airframe modifications on your aircraft. The lug suspensions enable immediate use on every aircraft with NATO hard points. The light weight carbon fibre pod carries a complete surveillance mission package which upgrades any aircraft to an ISR platform within a very short period of time. It offers room for an EO/IR Gimbal, Downlink, Uplink, Moving Map, Augmented Reality System and COMINT/SIGINT equipment. The S.C.A.R.- Pod is available in two versions for 10" and 15" EO/IR cameras.

Not what it seems—the UK NPAS P68 airframe is the Photoshop demonstrator of the SCAR pod installed on a fixed wing carrier aircraft. ©Airborne Technologies

This edition of PAN was created in the USA at Heli-Expo in less than ideal conditions. One outcome was that most of the unique PAR Singapore Air Show images remain inaccessible in the UK! My apologies for this—hopefully the words are enough.





### **Local Demand**

Cessna Aircraft Company is anticipating heightened demand for business aviation in southeast Asia. Long-term forecasts for the economies of Indonesia, Malaysia, the Philippines, Singapore, Thailand, Myanmar and Vietnam are positive, which is extremely encouraging for aviation in general and Cessna hope to ride that wave of confidence.

There are more than 60 Caravans operating in Indonesia and nearly 20 Caravans in Thailand, the type having a strong following in the emergency services arena and the launch of the Grand Caravan EX will hopefully bring about further demand.

Cessna's Grand Caravan EX is engineered for challenging, rugged missions with high payloads and short, rough runways. This high and hot workhorse delivers 28% more horse-power than the original Grand Caravan, a 38% increase in rate of climb, a 106 metre (340 ft) reduction in takeoff distance and a 13-knot cruise speed improvement.

Cessna operates a joint service facility with sister company Bell Helicopter at Seletar Aerospace Park in Singapore. The facility covers 160,500 square feet in total and is equipped with facilities including a warehouse, overhaul and maintenance shops and offices.

Actual contact signatures were few—with Heli-Expo so close behind does tend to cramp the style of such as Singapore. That said AgustaWestland and Weststar Aviation Services announced the signing of a contract for ten AW139 intermediate twin helicopters at the show. This additional order by one of the major oil & gas operators in the area confirms the incredible success of the AW139 and of AgustaWestland for offshore missions with a 56% market share in the intermediate category in the last 5 years.

AgustaWestland Malaysia Sdn Bhd, a wholly owned subsidiary of AgustaWestland, continues to play a major role in the Malaysian helicopter market expanding its presence and increasing its capabilities through a continued programme of investment. The Company's headquarters, maintenance, support and training facilities are located at Kuala Lumpur's Sultan Abdul Aziz Shah Airport.

#### Wrap Up

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.

After the public days Singapore Airshow 2014 was able to claim the attraction of close to 146,000 visitors over all segments of the event. In addition to the 80,000 public day tickets that were completely sold out, the Airshow also welcomed getting on for 20,000 guests for the Republic of Singapore Air Force's 45<sup>th</sup> anniversary celebrations at Singapore Airshow, exhibiting personnel, student groups and concession ticket holders over the two days.

Visitors over the four trade days from 11-14 February stood at almost 46,000 visitors from 129 countries/regions, with 31% coming from overseas. Singapore Airshow 2014 also played host to 279 delegations from 72 countries.

Singapore Airshow 2016 will be held from 16 to 21 February at Changi Exhibition Centre. Once again these dates will avoid a direct clash with the scheduled dates of the 2016 Heli-Expo.



## **UPCOMING EVENTS**

In Australia Rotortech 2014 to be held over two days on 24-25 May 2014 at Twin Waters on the Sunshine Coast, Queensland will be at the popular beach front Novotel Twin Waters Resort, Sunshine Coast. The venue is only a short taxi trip from Sunshine Coast Airport (and about one hour's drive from the Brisbane International Airport). There will be room to park at least 20 small and maybe 15 medium helicopters. AHIA members are invited to apply for a helicopter landing site at the venue. There will be 25 standard display booths in the main conference centre and free entry to displays and exhibition booths. Delegates attending the speakers' presentations will need to purchase entry passes. Fees include teas and lunches and other sponsored meals if available.

Current Booth bookings include Heliflite; Helicopter Association International; Australian Helicopter Industry Association; AvinCorp; SimFlight Pty Ltd; L-3 Wescam; Precision Heliparts Australia; Red Baron ALSE; Eco2000; DAC International; Aviall Australia Pty Ltd; Hawker Pacific; and Aviation Trader.

The AHIA AGM will take place on 24 May 14 after the conference programme.

Contact Rob Rich, AHIA Events Coordinator, Australian Helicopter Industry Association Limited, PO Box 1796, CARINDALE QLD 4152 Australia Mob: +61 (0) 415 641 774 Email: secretary@austhia.com

27-29 May 2014 IQPC Civil ISR Conference. Kensington Close Hotel, Wright's Lane, London, W8 5SP United Kingdom. Gain an in-depth knowledge of the civil ISR sector with leading briefings from a variety of agencies including police aviation, border security agencies and environment protection. Understand the difficulties faced by civil agencies in delivering an effective ISR capability and apply the lessons learned to your own operations and developments. The speaker line-up is something of a prequel to the following week's PAvCon. Superintendent Steve Furnham, Command Team, South Wales Police, Inspector Richard Brandon, Unit Executive Officer and Accountable Manager, Air Support Unit, Zdravko Kolev, Capacity Building Division FRONTEX, Superintendent Bengt Gronlund, Accountable Manager, Air Support Unit, Swedish Federal Police, Sebastiaan Jansen, Chief Pilot EC135 Netherlands Police and Joseba Mendizabal, pilot Basque Police Air Unit, Spain. www.civilisr.com

3-4 June 2014 PAvCon Police Aviation Conference 2014 Brussels. The 2014 PAvCon Police Aviation Conference will be held in cooperation with the State Police in Belgium. The location of the conference and commercial exhibition is the Air Support Unit of the State Police in Belgium, Haachtsesteenweg 138, 1820 Melsbroek, Brussels, Belgium located on the north side of Brussels International Airport within the secure military area. The event set up is on June 2 and exhibits will be dismantled on the afternoon of June 4. +44 1992 714162 <a href="mailto:admin@pavcon.org">admin@pavcon.org</a> <a href="mailto:www.pavcon.org">www.pavcon.org</a> <a href="mailto:www.pavcon.org">www.pavcon.org</a> <a href="mailto:www.pavcon.org">www.pavcon.org</a>

#### DIARY

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



25-27 March 2014 2013 ALEA Regional [Eastern] Columbus, Ohio. Check out <a href="https://www.alea.org">www.alea.org</a> for details on this event.