

Police Aviation News

© Police Aviation Research

SPECIAL SHOWS EDITION—July 2013

PAR

**A.L.E.A. Conference
and Exposition**
Orange County Convention Center
Orlando, Florida, USA

2013

PARIS AIR SHOW



PAN—Police Aviation News is published monthly by POLICE AVIATION RESEARCH, 7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK. Contacts: **Main:** +44 1992 714162 **Cell:** +44 7778 296650 **Skype:** BrynElliott **E-mail:** editor@policeaviationnews.com

SPONSORS

Broadcast Microwave
Enterprise Control Systems
Honeywell [Skyforce] Mapping
L3 Wescam
Excellence in avionics
Powervamp
RDDS Displays
Trakka Searchlight
Troll Systems Corporation

www.bms-inc.com
www.enterprisecontrol.co.uk
www.skyforce.co.uk
www.wescam.com
www.phoenixavionics.com
www.powervamp.com
www.rdds.co.uk
www.trakkacorp.com
www.trollsystems.com

Airborne Law Enforcement Association
European Law Enforcement Association

www.alea.org
www.pacenet.info

PARIS AIR SHOW

The 50th Paris Air Show at Le Bourget was held from the 17th June 2013. As befits the venue and the time of year the weather insisted on making its mark on the event. It was either blazing hot or raining hard – the gaps between being marked by a steamy haze as the ground and the exhibits dried out at high speed – similar weather conditions were to be experienced at the ALEA event a report on which follows this.

Within the airborne emergency services market there were just a handful of important news stories and perhaps the most important of these was a joint announcement from Bell Helicopter and SAFRAN/Turbomeca relating to a new aircraft that is to replace the venerable Bell 206 on the production lines. The 206 has been out of production for some time now although the LongRanger remains available.

In the morning of Day 1 of the show Bell Helicopter announced its return to the short light single (SLS) engine helicopter market with a new product designed in the Model 206 replacement sector. The terminology they used was a little more obscure mind you.... ‘to specifications based on the input of a customer advisory council’ almost suggests it was designed by committee! We hope not.

Bell Helicopter's new, five-seat entry-level aircraft is expected to complete its first flight next year with certification to follow as quickly as possible. The announced plan suggests that the seven-seat LongRanger will need to remain in production to meet the customer needs for a slightly larger version that a stretch of the new type will presumably eventually address.

For the moment the images released have been ‘fuzzy’ [right] and no a great change from the earlier JRX concept images [below right], all of which will allow the concept to evolve as the prototype takes shape.

The Bell 206 was in the short light single market. It was developed nearly 50 years ago and almost 7,400 were built from 1967 with over 4,400 remaining in service. In the days since the announcement the new machine – which currently has no identity – has been compared to the EC120 rather than the AS350.

Bell Helicopter's new helicopter will feature a high visibility, fully flat cabin floor with five forward-facing seats. It is designed to



Image ©Bell



Image ©Bell

meet performance targets recommended by the customer advisory council, including a speed of 125 knots (232 km), a range of 360 to 420 nautical miles (667 km) and a useful load of 1,500 pounds (608 kg). The image currently on release gives away very little detail so pundits are having a field day guessing the good points and the bad. Comment has been made that the new type has a two blade MRB where earlier illustrations suggested a 'more modern' four bladed main rotor set-up. The main cabin breaks away from the dated two cabin set up of the 206 range with an apparent set up of two forward seats and a line of three forward facing passenger seats in one cabin. Other than the reference to the flat floor there is no indication whether the space will be friendlier to HEMS than the basic 206 was.

The new aircraft will be powered by the Turbomeca Arrius 2R engine, which will offer the benchmark for performance and power in the 450-550 shp class, while improving safety and lowering pilot workload with Full Authority Digital Engine Control (FADEC). It will also meet IATA Stage 4 noise targets. This is a landmark event for Turbomeca – the new project is the first Bell helicopter to have a Turbomeca engine.

Additional safety enhancing design features will reduce pilot workload, improve situational awareness and deliver superior auto rotation capabilities. The combination of capabilities, performance characteristics and value will be backed by Bell Helicopter's industry-leading service and support.

Later in the day Turbomeca had its own unveiling ceremony for the engine to be used in the new helicopter and that was attended by John Garrison the Bell CEO.

The Safran Group Company, unveiled the Arrius 2R engine selected to power the new Bell helicopter on its stand. The twin-module engine configuration is designed to reduce fuel consumption and lower the cost of operation. The Arrius 2R boasts proven reliability and 3,000 hours tbo at service entry as well as Turbomeca's service and support.

Olivier Andriès, Chairman & CEO at Turbomeca, said, "This is the very first time in 75 years of commitment to the helicopter industry that Turbomeca has entered a long-term collaboration with Bell Helicopter; a company with the highest reputation for product quality and support. We are very proud to offer the newest member of our Arrius family, the Arrius 2R, to power Bell's new Short Light Single Engine Aircraft. The entire Turbomeca team will strive to earn the confidence both of Bell and its worldwide customers".

Since 1981, more than 3,000 Arrius engines have been sold by Turbomeca, accumulating over six million flight hours for 430 customers in 60 countries.



Olivier Andriès [left] and John Garrison unveil the new engine variant on the SAFRAN stand on Day 1 of the Paris Air Show ©PAR

Operational success at a fraction of the cost

The most economical aircraft in its class, coupled with big payload ability and a spacious cabin Airvan is the new choice for mission critical situations.

Our fully certified air surveillance package includes:

- Operator work stations
- Equipment racks
- Retractable sensor system
- Dedicated electrical system for special mission payloads
- Many other features.

GA8 Airvan™



A Mahindra Aerospace Company



Call us now on Ph: +61 (0) 4 6749 1295 to speak with our Special Mission representative about your specific requirements

GippsAero Pty Ltd, A Mahindra Aerospace Company | Latrobe Regional Airport, Traralgon VIC 3844, Australia
 sales@gippsaero.com | +61 3 5172 1200 | www.gippsaero.com

Last year at the PAVCon Conference in Bonn Turbomeca (Safran) gave an early presentation on its forthcoming BOOST (Bank Of Online Services and Technologies) facility. At Paris the company signed collaboration agreements with the first customers for the tests of BOOST.

BOOST answers essential helicopter operator needs: addressing aircraft safety, increasing operational availability and optimising maintenance and operations costs. BOOST offers operators more visibility and expertise, to get the most out of their engines.

With BOOST, Turbomeca's current engine support services will broaden and develop into real proactive actions and practices.

Milestone Aviation Group, Helijet, Advanced Helicopters, CHC Helicopter, Héli-Union and Helicopters Italia agreed to participate in the test phase of BOOST services, including the web-based Technical Publications (web-IETP), the electronic logbook, alerts and configuration modules in preparation for the official launch in 2014.

Bell displayed examples of the Model 429 and 407 at Paris and provided updates on both craft and the 525 Relentless programme which continues to pull in customer input in its detail design. Also on show were Bell 525's cockpit and flight control system. The Bell 525 cockpit simulator highlighted the capabilities of the Bell 525 ARC Horizon flight deck allowing pilots to operate in specific mission conditions, including Category A takeoffs and landings, and fly-by-wire augmentation.

Air Zermatt's Bell 429, the first emergency medical services (EMS) configured Bell 429 to be operated in Europe, and former star at PAVCon 2013 in Austria took part in Bell Helicopter's aircraft display at the Paris Air Show. The Bell 429 is the world's newest and most advanced light twin-engine helicopter with excellent flight performance and passenger/cargo capacity setting the standard for light twins with 155 knot speed, a fully-integrated glass cockpit with single pilot IFR and WAAS precision approach capability, and extra large 60-in. side doors for ease of loading and unloading.

The New HD Transmitter from BMS!

Heli-Coder 4 Features...



- HD or SD video transmission
- Smallest and lightest of its kind: 5" W x 9" D x 6" H (127 x 229 x 153 mm); 6 lbs. (2.7 kg)
- H.264 or MPEG-2 compression, backward-compatible with existing receive site equipment
- Ethernet port for transmitting streaming IP data
- GPS receiver and data interface for tracking and mapping purposes
- 10 W output power
- Geo-Point, BMS' proprietary receive site software that uses metadata from the aircraft video camera to display the bearing and distance of the camera video location (requires compatible receiver)
- Operation across multiple mobile platforms and with any BMS receive solutions—including the handheld Carry-Viewer III

Transmit real-time HD video to your Response Teams! Give them a real-time picture of the tactical situation!

The Downlink Experts™ Learn more at our website or call today!

www.bms-inc.com/hc4.html • sales@bms-inc.com • 800-669-9667 (US) • 858-391-3050



The Bell 407GT, the new armed version of the Bell 407GX, was displayed in Bell Helicopter's booth. The commercially qualified helicopter features a fully-integrated Garmin G1000H™ flight deck and armament options ranging from light munitions to laser guided weapon systems. The Bell 407GT offers exceptional value for Parapublic and military operators by combining superior payload and range capabilities with Bell Helicopter's industry-leading training and product support.

FLIR Systems Inc., [FSI] have rebranded all its HD sensor turrets as Star Safire. The range includes the original Star Safire but now also embraces equipment ranges previously marketed under the Talon [Inframetrics] and Polytech brands. The existing range is now the 380HD, 380HLD, 230HD and 260HLD. Across the range FSI offer a single wiring specification and hand control unit designed to allow the customer the option of having a fully interchangeable payload option – as long as it is FSI sourced of course! The mix of available sensor packages embraces both the



Image ©PAR

ITAR restricted US built equipment and the wider market Swedish [Polytech] sensor. Arriving at that capability caused FSI some difficulties as according to the ITAR rules any component is restricted which nominally barred the common controller. That difficulty was overcome.

The FSI range continues to offer both analogue and digital options although the former are now less important. QWIP, not so many years ago the leading edge technology remains available but now less important in the face of customer preference for HD.

FSI have been looking to its extensive product range in the wake of the market penetration of competing compact sensors such as the MX-10. The Wescam product has proven very popular as a compact MX-15 suitable for manned and unmanned aircraft use, being lighter and smaller but offering a similar capability, albeit requiring some lowering of operating altitude to match its ability.

It may have been easy enough to design a similar specification sensor to compete directly but FSI decided to offer a product that provided a true alternative to customers.

The Milspec all-digital high definition 380HD system provides superior image stabilisation, ultra long range imaging performance, and true metadata embedded in the digital video and the company did not want to give up that high level of capability in producing its new 'lighter/smaller' alternative.

Rather than follow the customary response by downsizing the overall size of the pod casing [i.e. 15inch to 10inch] FSI retained the 15inch casing but reduced its depth and weight to produce the 380HDc. The reduction in depth removed weight and uniquely offered greater ground clearance for nose and ventral installations. As FSI make a point in stressing, this system provides all the performance of a full size system at half the weight and also offering a better ground clearance than a 10" gimbal.

The 380HDc offers a capability to carry the same range of highly capable sensors as the original 380 but the actual number carried at any one time is reduced.

FSI assure PAN that the 'price point' of the 380HDc is designed to be highly competitive with the smaller competition, meeting customer needs in both weight and first cost.

L-3 WESCAM, the 'target market' that FSI was addressing was also launching new product lines at Paris. They announced the launch of two new products that directly reduce the costs associated with development testing and the sustainment of fielded electro-optical/infrared (EO/IR) surveillance and targeting systems. The new MX™-Emulator and MX™-RAid products support L-3 WESCAM's portfolio of MX™-Series systems for military, homeland security and airborne law enforcement use. There are large numbers of Wescam sensors in the hands of customers, L3 Wescam claim to have sold 2,500 of their MX series sensor turrets to just one customer - the US Navy - over the years.

The MX-Emulator, or simulator, was a star at this year's PAvCon – on the Insys exhibition space. Paris was the major launch of the system. The equipment enables system integrators and OEMs to dramatically reduce the System Integration Lab (SIL) development costs associated with critical integration activities. Engineered to replicate the exact functionality of airborne and ground-based MX range of sensor systems, the MX-Emulator provides connectivity to all standard control systems, including hand controllers, operator control units, joysticks and mission grips.

"The MX-Emulator provides a rapid return on investment by reducing SIL development costs and by mitigating the risk of issues that can arise during the critical system integration phase of a program," said Rod Till, vice president of customer service for L-3 WESCAM. "Furthermore, it enables MX systems and associated aircraft to be freed from the SIL testing environment and available to support operational missions." <http://youtu.be/ps07bXe8LOI> http://youtu.be/7Dsv_JIPqr8

L-3's concurrent launch of the MX-RAid, Internet version, provides a remote diagnostic capability for the evaluation of fielded MX-Series EO/IR systems. This exclusive capability gives customers immediate access to an in-house factory technician who can diagnose in-service system issues from afar.

Originally conducted over a satellite connection, this new Internet-based connection option provides a data link between an L-3 WESCAM technician and the fielded MX-Series system, enabling live video, voice or text chat capability, and the streaming of live system video. The MX-RAid technology returns some systems to operational status from the field and reduces the number of systems being sent to service facilities with "No Fault Found" (NFF) systems issues. www.wescam.com <http://youtu.be/6PLa-0wn6j0>

COOLSPPOOL

The latest 28.5 volt GPU range

Faster, cooler starts. Perfect for shaft or free turbines. Essential for FADEC aircraft.

NEW Mini 17 A/Hr portable GPU.
Built-in charger, digital voltmeter, protective padded jacket.

Massive performance, true portability, amazingly low weight.

Models from Mini 17 A/Hr to 260 A/Hr Ramp Cart



CALL NOW!

+44 (0)1934 643000

email: info@powervamp.com



Powervamp Ltd, Weston-Super-Mare, England

www.powervamp.com

As has been the case with earlier editions of the Paris Air Show the Weston-super-Mare, based company – and long term supporter of PAN – Powervamp was in charge of supporting the aircraft on the ground.

With the Paris show alternating each year with the Farnborough air show; this is the fifth year in ten years in which Powervamp has provided ground support at the Paris event. At the same time it is the first year in which Powervamp will be participating in the show under a new guise, operating through a joint venture with Flywell Power.

Last year the two companies joined together to create a new company, Flywell Powervamp Ltd, to provide an enhanced range of turnkey air show support services worldwide. As part of the deal, Powervamp also took over sole responsibility for manufacturing and supporting the Flywell range of ground power systems.

At Paris, Powervamp drew on the resources of its frequency converter division, Effekta UK – another Powervamp group company, which produces the solid-state converters used to power the larger aircraft.

Three 38-tonne truckloads of equipment were despatched by Powervamp to Le Bourget – two from its main factory in Weston-super-Mare, near Bristol, and one from the Effekta UK factory at Luton, north of London. The Powervamp-led team, which includes eight engineers with two support vehicles, prepared for the event for months.

The company's air show division supplies, installs and manages a wide range of equipment, including 28v DC and 115v 400Hz ground power units, air coolers, and 115 volt AC 40 120 Kva frequency converters, along with all the cabling required.

Powervamp provided the ground power for key exhibits at Paris, including British Airways' first Airbus A380 and the Boeing 787 of Qatar Airways, plus a large number of other aircraft. In total, the company is responsible for powering virtually all the aircraft in the static display area.

Powervamp founder and director Richard Roller comments: "Supplying ground power to the big players in the aviation world can be a stressful and highly demanding operation. It requires a lot of planning, and demands an exceptionally close working relationship with the French organisers and their team. The complexity of the issues should not be underestimated."

He adds: "An upside of the contract is that it's a boost for UK aviation as a whole, and a reminder that this country has a major contribution to make in supporting the world's aviation industry."

A further plus for the company, he says, is that its highly visible presence at the event provides an unmatched opportunity to promote the Powervamp brand. "We don't exhibit at the show ourselves," Roller says, "but we achieve extensive exposure for our products through their high-profile use each day. It's an invaluable opportunity to reinforce the brand recognition that we have already built up in the aviation community worldwide."

The event will also provide a focal point for many of Powervamp's agents and distributors, who will be gathering from Japan, South America, the Middle East, India, Russia, the US and the rest of Europe.

Powervamp also has a flourishing automotive division, which manufactures a wide range of engine starting systems, battery packs and related products for operators of cars, trucks, buses and plant equipment; and a racing division, which supplies compact sealed high-performance racing batteries, along with a range of chargers, lights, tools and ancillary equipment. Powervamp is based at Weston-super-Mare in south-west England. This year the company celebrates its twentieth anniversary. www.powervamp.com





Aeros based in California, USA were displaying a scale demonstrator craft at Paris. The company recently announced its initial fleet development plans and dialogue with suppliers in regards to participating in the development of the new vertical lift cargo air vehicle, the Aeroscraft.

The air vehicle is designed for point-to-point delivery of heavy/oversize cargo to anywhere in the world, including remote and austere locations. It is a rigid-shelled aircraft offering one-third the fuel consumption of a regular cargo aircraft and does not require any infrastructure or ground support personnel to dis-

charge tons of cargo even in hover mode.

Aeros have been explaining the capabilities of the Aeroscraft model ML866 (66-ton payload) and ML868 (250-ton payload) airlift cargo vehicle configurations, which feature true vertical takeoff and landing (VTOL) capability using an innovative internal ballast control system.

The Aeroscraft is a new type of rigid variable buoyancy air vehicle, designed to control lift in all stages of air or ground operations, including the ability to off-load heavy payloads without the need for external ballast exchange, infrastructure or support equipment.

The craft is being put forward as an aircraft designed to control and adjust buoyant and dynamic lift, without reference being made of the word 'airship'. An initial commercial fleet of 24 vehicles is to be formed in 2016. Customers are said to be moving fast to negotiate exclusive rights to Aeroscraft within their industries but no names of signed up customers have been released. www.aeroscraft.com or www.aeroscorp.com.

Russian Helicopters continue their difficult and unlikely quest for world acceptance on an equal footing for their range of rotary craft.

The Russian's brought a line up of commercial and military helicopters to Paris including the latest Ka-62 and Mi-171A2 for the commercial market and demonstrated the latest version of the Kamov Ka-52 Alligator reconnaissance and attack helicopter in the flying programme.

The Ka-62, a programme with a long history that includes some input from Eurocopter, is fitted with two of Turbomeca's latest Ardiden 3G engines, while the gearbox and transmission are supplied by Austria's Zoerkler elements which it is hoped will smooth Western certification, a development planned for completion by the end of 2014, and the helicopter is scheduled for commercial launch in 2015. In the late 1990s the Kamov was being developed to replace the Mil Mi-8, a type that simply continues to thrive as its replacements falter.

The medium Mi-8/17 series continues as the world's most popular helicopter, widely operated around the world with a justified reputation for reliability and ease of use. The new updated Mi-171A2 combines the best qualities of its predecessors with the latest technologies, introduced based on these helicopters' operational experience across various regions and in different climactic conditions. Completion of work on the Mi-171A2 and certification are expected in 2014, with serial production scheduled to launch in 2015. Even as the show was underway an announcement was made of a significant US order on behalf of Afghanistan. The U.S. Department of Defense and Rosoboronexport have inked a contract for 30 Mi-17V5 helicopters for the Afghan Army, with an option for a further 12 helicopter.

A similar long gestation period surrounds the 'new' Ka-52 Alligator a type that showed much

promise and many false starts, local home sales, but no positive outcome in the form of international orders. The Alligator was demonstrated for the first time at an international exhibition.



Daher-Socata was displaying their TBM850 multi-mission aircraft F-HBGB in the static park. The company is in discussions with two potential customers for a new multimission derivative of its business single turboprop. A number of sensor options for intelligence, surveillance and reconnaissance (ISR) tasks were displayed with the aircraft.

The aircraft on display showed an EO/IR sensor turret installed beneath its rear fuselage, a typical operator's console was fitted in the cabin. Current retractable payload options include the FSI Star Safire 380HD and L-3 Wescam's MX-10 and MX-15 systems, and the company is also now offering to add the Thales I-Master sensor under the forward fuselage.

Weighing 30kg (66lb), the latter provides synthetic ap-



erture radar and ground moving target indication imagery to support the monitoring of ground vehicle movements. The sensor's output will be integrated with the same console already certificated for use in the aircraft.

Pierre Garcia, Daher-Socata's multimission aircraft development and sales manager claims that two nations in Africa and Europe look to be good prospects for aircraft fitted with the MX-15 and the Thales radar.

The TBM 850 offers 6h flight endurance and 320kt (590km/h) cruise speed, a first cost of \$5M and a \$700 an hour operating cost as the selling points of the type. Daher-Socata has already delivered 40 TBM 850 special mission aircraft to military and other operators around the world. [Flight]



Viking Air Limited and affiliate Pacific Sky Aviation Inc. of Victoria, BC, Canada confirm flight training is nearing completion for the first contingent of Vietnam Navy pilot delegates as part of the Viking Guardian 400 multi-aircraft purchase contract announced in May 2010. The pilot trainees have travelled from Vietnam to Canada to receive English language, flight and technical training over the past twenty months, and will be officially graduating from the programme in early July.

The flight and maintenance training programme provided by Viking's sister organization, Pacific Sky Aviation, encompassed English Second Language (ESL), ab-initio, private and commercial pilot licensing, multi-engine, night, and amphibious float training. Other partners on the program included Camosun College (Victoria, BC) and FlightSafety International (Toronto, Ontario).

The Guardian 400 aircraft training was carried out on the Navy's new aircraft over the course of four months, clocking approximately 500 flight hours and 350 cycles on runway, soft field, and water based operations, instructed by established Twin Otter pilots with over 15,000 hours of combined experience on the type.

The maintenance portion of the programme included six weeks of mechanical training for the technicians who will be responsible for maintaining the aircraft at the Navy's base of operations in Vietnam. Further support will be provided by Viking Series 400 Twin Otter pilot and Field Service Representatives based in Vietnam to support the aircraft as they enter into service and to assist in developing on-going operational procedures.

The Vietnam multi-aircraft purchase announced in May 2010 stages the Viking Twin Otter Series 400 as the first Western-based manufactured aircraft purchased by Vietnam's Ministry of Defence, and the first ever fixed wing aircraft initiated by the Vietnamese Navy. The contract includes six new Guardian 400 Twin Otters to be utilized for transport, resupply, maritime surveillance and search and rescue operations throughout Vietnam's coastal regions. The aircraft are being delivered in a variety of configurations, equipped for both land-based and amphibious operations with convertible interiors including VIP, commuter, and utility layouts.

Viking Air and Pacific Sky Aviation held a special event on July 10 to mark the latest stage in the Vietnam Navy training contract. The training involved a 20 month program at Viking and Pacific Sky (a sister company of Viking specializing in flight training programs for the Twin Otter Series 400), and comprised 6 months of English language training coordinated through Camosun College and 14 months of basic through advanced flight training. This program is unique and the only one of its kind in Canada.

There are currently 38 Vietnamese students in the system, the event was to mark the graduation for the first 8 students who have completed the flight training at the Viking Air Limited facility at Victoria International Airport, Sidney, British Columbia.



Police Eurocopter Puma

Despite probably being one of the richer nations Switzerland does not have police air support. Although some aircraft have been leased most capability has been supplied by the military—Alouette's, EC635's and Puma's. Therefore the new TH06 ISR Super Puma upgrade is relatively important in police terms and it made its first appearance at Le Bourget.

Designed and upgraded by RUAG Aviation, the TH06 ISR showcases the company's comprehensive engineering capabilities and ability to provide fully integrated solutions.

In 2006, the Swiss Air Force awarded RUAG Aviation the task of upgrading 15 TH89 Super Puma helicopters to meet and exceed the advanced standards of the TH98 Cougar fleet. The programme is fully on track. It is scheduled for completion by the end of 2014, with 9 aircraft already delivered and the 10th due in July.

The primary improvements to the Swiss Super Puma include a glass cockpit with an integrated flight management system, two global positioning systems (GPS), an inertial navigation system and a modern digital map display. The TH06 also incorporates new radio systems that provide police, encrypted radio and satellite transmissions. Flight-data recorders, an anti-collision warning system, a Trakka searchlight coupled with Forward Looking Infrared (FLIR) cameras and helmet-mounted displays (HMD) for day and night operations have also been added.



RUAG has delivered the first of two Dornier 228 New Generation aircraft to the Bangladesh Navy. The second unit is scheduled to be delivered at the end of June.

The Bangladesh Navy's Dornier 228 NG will be deployed for maritime air patrol and rescue missions along the country's 580 km coastline. To ensure that the aircraft fulfil their missions effectively, they have been highly customised with special mission sensor equipment. This includes a 360° surveillance radar, Telephonics RDR-1700B radar and operator console as well as HF, VHF/UHF and VHF FM radios. A search-and-rescue (SAR) direction finder, 6 observer seats and 2 bubble windows – one on either side – further enhance the aircraft's search and patrol capabilities.

The Bangladesh Navy's Dornier 228 NG also come equipped with a door that can be opened in flight, as well as a marine marker and life raft. This enables the active engagement of the aircraft in SAR operations.

UNMANNED AVANTI

Although the shape and look of the Piaggio Aero P.1HH HammerHead is known to many thanks to a press story the company released a few months ago the company went ahead with a day 2 unveiling of their technological demonstrator on site. It was designed and built in less than one year and it has already successfully completed low speed taxi tests demonstrating Piaggio Aero's ability to deliver an efficient UAV platform integrating the state of the art Selex ES SkySTAR Mission Management system.

After the first engine start and the runway taxi that took place on February 14 2013 at an Italian Air Force base, the programme has now entered the final phase of test where, the aircraft systems in flight configuration will be tested at all levels in accordance with the build-up approach taken on the UAS.

The design of the P.1HH HammerHead aims to be a unique ISR platform, able to climb up to 45.000 feet, loitering quietly at low speed (135 KTAS) with an endurance of up to 16 flight hours and capable of deploying at very high speed - up to 395 KTAS - to targets. Its capabilities include being able to host several payload combinations and to perform multiple missions: aerial, land, coastal, maritime and offshore security, COMINT/ELINT, electronic warfare as well as other roles.



Heli-One, the world's largest independent provider of helicopter maintenance, repair and overhaul services, has added a new accreditation to its helicopter modification and upgrade capabilities.

Spectrolab Inc., a subsidiary of Boeing, has accredited Heli-One's Norway workshop as a repair and overhaul centre for searchlight systems and their components

Among its growing list of accreditations, Heli-One's Norway workshop is an authorised AgustaWestland Service Centre, Bell Helicopter Customer Facility, Eurocopter Repair Centre, and Turbomeca Accredited Repair Centre.

Heli-One is based in Delta, British Columbia, Canada, and has MRO operations in Delta; Stavanger, Norway; Fort Collins, Colorado; and Rzeszow, Poland. Heli-One is part of CHC Helicopter, the world's largest helicopter services company, which, in addition to MRO services, provides transportation to offshore oil and gas platforms and ships and search-and-rescue agencies. CHC is headquartered in Vancouver, British Columbia, Canada, and operates more than 250 aircraft in about 30 countries around the world.

COMPACT LIGHTWEIGHT HIGH PERFORMANCE

TRACKING ANTENNA



- Easy to Install
- Simple to Operate
- L Band to Ka Band
- Antenna Gains from 8 to 23dBi
- Azimuth and Elevation Steered
- Multiple Antenna Options
- DO-160 Tested
- Rated to 300 Knots

manned and unmanned
LAND | SEA | AIR

**SKYLINK
MI**



LONG RANGE HIGH-GAIN COMPLETE AIR TO GROUND DATA LINK SYSTEMS



When the final business day of the 50th Paris Air Show drew to a close in Le Bourget it was reckoned that the aviation companies present had announced deals for about 1,460 aircraft over the show's first four days, notwithstanding that many of the deals were saved up for the event those numbers do suggest a healthy global aerospace industry.

All images PAR





©PAR

The Airborne Law Enforcement Association [ALEA] is by default the only International organisation representing the hopes and aspirations of the average airborne police person.

Throughout the year the organisation holds a number of small shows on the USA mainland and Canada and an annual mix of conference, education classes, networking and commercial exhibition. This year the main event, the 43rd Annual Conference & Exposition was held in hotels and the Orange County Convention Center [OCCC] off International Drive, Orlando in mid-July.

As with all of these events the local air support unit takes a hand in the organisation and security – the event providing sufficient kudos to defray the inevitable manpower costs. This year the hosts were Orange County Sheriff based in Orlando and Hillsborough County Sheriff from the west side of Florida in Tampa. Hillsborough featured their AS350 N792JD on the exhibition floor.

Although the organisers insist that attendee numbers were up on last year this year's show showed signs of the times – the floor space used was lower than in recent years; whether this is due to vendors downsizing or some other reason is unclear certainly



©PAR

ORLA
Annual Conference & Exposition

ORLA
Annual Conference & Exposition

Welcome to the Annual Conference & Exposition

EXHIBITOR REGISTRATION
Orange County Convention Center

July 14
July 15
July 16
July 17
July 18
July 19
July 20

EXHIBITOR REGISTRATION
Orange County Convention Center

July 16
July 17

SHOW HOURS
Orange County Convention Center

July 17
July 18
July 19

HANGAR STORE
Orange County Convention Center

there were major absences including Robinson and the number of airframes exhibited was less varied and reduced in number. Certainly compared with Reno last year the giant exhibit space offered by the OCCC dwarfed the event. Many in industry have complained that there are too many shows for them to attend in any given year and that is quite understandable but—prior to this years turn-out— I would have expected that the ALEA event seemed one of those least likely to suffer from cost cutting.

Fortunately the event is mainly about learning and classes and that aspect remained largely undiminished

The number of news stories circulating at this show was fairly low but the event was buzzing for many and there were good reports of Networking – new first time attendees seeking to meet prospective future customers and the ‘old timers’ – although a minority were clearly disappointed by their failure to make the expected future business connections.

American Eurocopter

The U.S. affiliate of Eurocopter has teamed up with the Los Angeles Police Department Air Support Division in a training program to enhance the safety and efficiency of the LAPD flight operations.

In December 2012 the LAPD began sending its 50-plus pilots to American Eurocopter in Grand Prairie for intensive training in the company’s AS350 flight simulator. The simulator training has provided LAPD with low cost, highly realistic training.

The curriculum focuses heavily on safety of flight operations including the sudden onset of bad weather (Inadvertent Instrument Meteorological Conditions - IIMC) and controlled flight into terrain. Training in the simulators enables pilots to recognise potentially hazardous flight situations and respond to them appropriately.

“This training has changed the way we do business,” said Sgt. Jorge Gonzalez of the LAPD Air Support Division.

The LAPD Air Support Division is also using American Eurocopter’s Online Recurrency Course that allows its pilots to perform their ground school work from the convenience of a computer. This course is available to all operators the fly the AS350B2 and the simulator has the added advantage of allowing complete crews to work together as there are simulator spaces for ‘passenger’ crew including TFOs.

Thanks in the main to their continued high level of sales in the market place American Eurocopter was able to announce a few LE market orders at the show including the purchase of two Eurocopter EC120 helicopters by the San Antonio Police Department as part of an upgrade to their fleet of patrol helicopters.

Long associated with the Schweizer 330/333 line the agency currently operates one Euro-



Safety just got faster...

The advertisement features a split image. On the left, a flight simulator's instrument panel is shown, displaying various flight parameters such as altitude (97), heading (007), temperature (TEMP003), speed (9.7), and fuel (013). A map is visible in the background of the simulator. On the right, a yellow Eurocopter AS350 helicopter with the registration 'LG-HEMZ' and 'lance' on its side is shown. A person in an orange safety vest is standing near the helicopter's open cabin door. The Honeywell logo and 'SENTINEL' are in the bottom left, and contact information for Honeywell UK Limited (Skyforce) is in the bottom right.

Honeywell
SENTINEL

Honeywell UK Limited (Skyforce)
Enquiries: mission.systems@honeywell.com - Website: www.skyforce.co.uk

copter AS350B3 for use in fire-fighting, search and rescue and other special missions. The agency is eventually moving to an all-Eurocopter fleet with both new helicopters being delivered to the San Antonio Police Department in early 2014.

The decision to acquire the EC120s was reached after an extensive selection process. "We were looking for a quality product that will support our missions to serve and protect the city's residents," said Sgt. David Torres of the San Antonio Police Department Blue Eagle Helicopter Unit. "We have good experience with the AS350B3 we have had since 2007. American Eurocopter has supported us very well."

Sikorsky, who were absent from the show, continue to dismantle the Schweizer product line, they have already declared the death knell of the 434 – the natural replacement for the 333 previously favoured by San Antonio – and are still tinkering with the popular S300C. Their excuse continues to be that they are readying it for production but there seems little doubt that the venerable former Hughes design is never going to fit well in a hi-tech Sikorsky factory. It is a 'cottage industry' design and is unlikely to break out of that mould easily at a price that customers are going to pay.

In continued difficult times American Eurocopter still leads in sales of new helicopters to federal, state and local law enforcement agencies, maintaining a 56% market share over the last decade with a product line that has become the industry standard. Operators cite reliability, versatility and cost effectiveness as key factors in choosing Eurocopter helicopters although many still claim poor support in comparison with Bell.

Another sales success announced at the show was the previously reported sale and delivery of an AS350B3e to the Alaska Department of Public Safety but added to the expected further order for a second of the type to replace the earlier model AStar lost recently. The newly ordered replacement aircraft is to be delivered in early 2014.

CREATE AN UNFAIR ADVANTAGE.



HD IR Image



EO/IR Image Blended






MX-10
MX-15

Operate with the most capable technologies available:

- All digital, full 1080p HD EO/IR imaging
- High-Magnification, Large-Aperture Optics – Superior range performance
- Image Blending – Uncover more detail from one image stream
- Single LRU systems, common electronics and common interfaces simplifies integration and swapping amongst the fleet

For more information on these technologies visit WESCAM.com or call +1-905-633-4000

WESCAM

wescam.com

The AStar Helo 2 N49FA was delivered in a July 2 ceremony to a crew headed by Lt. Tory Oleck of the Alaska Wildlife Troopers, which operates more than 40 aircraft for the Alaska DPS. It will be an important addition to the fleet that provides aerial support to both the Alaska Wildlife Troopers and the Alaska State Troopers. The new AS350B3e will be permanently based in Fairbanks after the replacement machine arrives. Eurocopter AS350-series helicopters remain the leading choice of US law enforcement agencies. There are currently more than 200 AS350s in law enforcement service, outselling the nearest competitor by nearly a three-to-one margin.



The Austin Police Department Air Support Division is also looking forward to putting the added capabilities of the AS350B3e to work for a variety of missions in central Texas. "It will have enough guts we can put several fully equipped tactical officers in the back if we need to do a tactical insertion," said Lt. Kurt Rothert. "We're going to have a hook with a Bambi bucket for fire response."

Across the aviation industry it is recognised that companies do not necessarily need to sell aircraft in the short-term to keep the banks happy – although too long with a dearth of orders will eventually lead to the demise of the company. With that in mind it is not surprising that AEC was promoting its training and maintenance services. On this occasion they were highlighting the Eurocopter AS350

multi-facing multi-sensing multi-linking

Evenlode. The multi-application solution.

Evenlode is tested to DO - 160F EMC and environmental test requirements.

Enterprise Control Systems Ltd (ECS) recent acquisition of Phoenix Aerospace Ltd creates a unique partnership that offers a lot more than just equipment and software. Our combined strengths are in providing systems which are technically advanced, high quality, flexible, configurable and turn-key.

Evenlode is a lightweight data terminal designed specifically to meet the demanding requirements of airborne, ground and maritime applications.

Acting as a bi-directional network repeater, Evenlode provides innovative solutions for any information exchange requirement.

Our team of experienced professionals work with customers to deliver leading edge capability. Our consultative approach enables us to converge legacy and next generation technologies.

The ECS turn-key solution includes:

- An extremely flexible COFDM transceiver system
- The ability to interface with multiple sensors
- An open architecture delivering data over IP
- The ability to control the terminal and sensor remotely
- EASA Part 21 design services
- EASA Part 145 for avionics maintenance
- GCAA (Gulf CAA) design approval

ECS delivers capability ranging from interfacing simple navigation and communications through to complex and demanding police or special forces mission equipment.



To see is to believe. For a live demonstration contact ECS or Phoenix Aerospace.



PHOENIX

Enterprise Control Systems Ltd
ECS Technology Park,
Wappenham, Northants.
NN12 8WJ United Kingdom
T: +44 (0) 1327 860050
F: +44 (0) 1327 860058
E: sales@enterprisecontrol.co.uk
www.enterprisecontrol.co.uk

Phoenix Aerospace Ltd
Phoenix House, Rutherford Way,
Manor Royal, Crawley.
RH10 9RU United Kingdom
T: +44 (0) 1327 860050
F: +44 (0) 1327 860058
E: sales@enterprisecontrol.co.uk
www.phoenixavionics.com

series 12-Year Inspection – a task that the factory tend to lose to outside contractors along with the completion work.

The 12-Year Inspection effectively resets the inspection cycles to zero (0) and allows the aircraft to be completely updated by incorporating all existing factory configuration changes and Federal Aviation Administration requirements. Engine work and parts are available at the adjacent Turbomeca USA facility.

“The reason we chose American Eurocopter over other bidders was because we felt if we had the factory doing the work we get back a real high quality product,” said Brian Parsons, Director of Maintenance for the Hillsborough County Sheriff’s Office Aviation Section in Tampa, Fla. American Eurocopter recently delivered one of the agency’s AS350B2’s after completing the 12-year Inspection. “Their turn-around time was faster than they quoted. We’re very satisfied with the end product we have after the inspection.”

As part of the inspection, American Eurocopter can refinish with aircraft a state-of-the-art custom paint job in the two-bay paint shop. The result is an aircraft returned to service efficiently and ready for many years of continued safe, effective and cost-efficient operations.

American Eurocopter was displaying a single EC135 aircraft on its booth although the close proximity of Metro Aviation next door with another near identical Eurocopter model provided a welcome boost in numbers.

IDGA
Institute for Defense and
Government Advancement

OCTOBER 15 – 18, 2013
WASHINGTON D.C., USA

**HOMELAND
SECURITY 2013**

Delivering Strategic Technologies to
America's First Responders

NEW FOR 2013!
Two Lunch Keynotes in the Exhibit Hall

High Profile Speakers include:

- Daniel Gerstein Ph.D, Deputy Undersecretary for Science & Technology, **DEPARTMENT OF HOMELAND SECURITY**
- Michael Fisher Chief, **U.S BORDER PATROL**
- A.T. Smith, Deputy Director, **U.S. SECRET SERVICE**
- Randolph Alles, Assistant Commissioner, Office of Air and Marine, **U.S. CUSTOMS AND BORDER PROTECTION**
- Robert Moczny, Director, Office of Biometric Identity Management, **NATIONAL PROTECTION AND PROGRAMS DIRECTORATE**

4 days, 45+ High Profile Speakers, 45 Sessions & 6 Keynotes

Homeland Security 2013 will bring together all personnel from CBP, TSA, USCG, FEMA and more to discuss the most pressing issues facing the homeland defense community. In-depth sessions will cover **Land & Maritime Border Security, Cybersecurity & Critical Infrastructure Protection and Disaster Preparedness & Response.**

FOR MORE INFORMATION OR TO REGISTER FOR YOUR FREE PASS, VISIT:
WWW.HOMELANDSECURITYEXPO.COM



Above and left: The unusual fixture for the Spectrolab SX-16 Searchlight

©PAR



Above: The downlink aerial.

Massachusetts State Police

The Metro Aviation completion of the EC135T2 c/n 1020 N824AH for the MSP is the latest example of a steady fleet renewal of the fleet of AS355N machines completed by McAlpine Helicopters, in the UK long before they were taken over completely by Eurocopter.

Compared to the example on the Eurocopter booth, nominally pretty standard, the airframe exhibited a number of unusual role equipment features including unusual location points for the equipment. On the right side the downlink transmitter sits on the front edge of the forward end of the Meeker Step and the Spectrolab SX-16 searchlight is located on a beam projecting out of the rear clamshell doors. The location of the light means that the right hand door becomes inoperative but the left door can be opened to reach equipment, there being no general operational requirement to use the rear loading doors for stretchers etc. The position of the downlink sender has proved good for the operator and few difficulties have been experienced in transmitting from what is a higher position than normal. The State has not yet achieved complete ground station availability. The sensor turret, the State was the first to introduce high specification sensors like the FLIR Systems Star Safire III and the MRC Digital Downlink equipment in 2004, is located on the left side forward on the Meeker Mount step.

Below: The rear workstation of the MSP EC135. The keyboard is Aerocomputers and the red label on the side of the monitor announces that the item was purchased using a Department of Homeland Security funding.

The Broward County Sheriff's Office EC135 [N257BC] exhibited a more conventional layout with the searchlight fitted forward right with the FLIR sensor cameras rear right and the retractable downlink aerial in the centre of the lower skid. The rear doors on this machine were both retained as opening.



Two EC135s are now in service with MSP and a third is in the completions process working towards the day that all the AS355Ns are withdrawn, leaving just an AS350 to continue the Ecureuil line in the MSP.

Each of the EC135s is taking over the original registrations of the existing AS355N fleet as the aircraft depart. One is likely to be sold and leased back until replaced as funds permit. Those original registrations were based on the initials of the deceased killed in an accident when an MSP AS350 crashed and brought about a massive review of the whole air support provision for Massachusetts including the move to twin engine aircraft.

In February 1995 the AS350 was en-route with two passengers from a heliport bound for the MSP station at Norwood. Some six minutes after receiving clearance from Boston ATC it crashed into the Harvard Sailing Pavilion on the Cambridge side of the Charles River next to the MIT Sloan School. The fatalities were the two crew, Troopers James Mattaliano and Paul A Perry, and two civilian passengers from AT&T, Arthur T Howell and Michael McCarthy. A subsequent investigation suggested that the helicopter had suffered from poor fuel maintenance practises and inadequate formal pilot training. Since that time the unit has upped its game and retains the memorial registrations to remind themselves of the type of disaster that can take place if you let standards slip.

AgustaWestland

The AW stand footprint may have been large – potentially as large as last year – but there was not a great deal happening there. The booth sported a basic AW169 mock-up which served to present the airframe well but it is not yet proven to be a type within the pockets of even the richest ALE members. In addition the company was showcasing the Virtual Interactive Procedure Trainer (VIPT) for the GrandNew helicopter within its booth and was inviting delegates to test the VIPT, which features a full cockpit replica and allows users to practice flight procedures and learn to use the advanced avionics systems.

The AW169 is on schedule to achieve civil certification in mid-2014 with production also commencing in 2014. The AW169 is the latest AgustaWestland aircraft to be manufactured in the United States, at the Philadelphia assembly facility. AgustaWestland's facilities in Vergiate (Italy) and Yeovil (UK) will also play major roles in the manufacturing activities for the AW169 program.

AgustaWestland Philadelphia operates a 275,000 square foot facility, on a 39-acre site at Northeast Philadelphia Airport in Pennsylvania, providing employment for over 560 people. The facility includes final assembly lines for the AW119Kx and AW139 helicopters, a parts supply depot for the Americas and a fully approved FAA and JAA repair station. AgustaWestland Philadelphia also performs helicopter customization, has a delivery centre for AW109 Power and GrandNew aircraft, and provides maintenance services for customer aircraft based throughout the Americas.

There was news from AW during the week but that related to the sale of AW139s to Malta – and although a law enforcement sale the customer was the Armed Forces of Malta and not readily identifiable with ALE.



MD Helicopters

MD continues a relatively low key presence as the company still struggles to regain its previous modest market share. As mentioned earlier spares are a life-saver and the company is one of those ticking over by pulling in a large spares operation while selling few new airframes. Many spares sales are related to the large number of Vietnam era Hughes OH-6 still operated by US law enforcement.

Occasionally there are announcements of sales successes in selling the venerable 500 line into the US police but that is still not a battle won and former customers bleed to the competitors – mainly AEC.

MD was celebrating 50-years of the OH-6/500 line at the show. It continues to have its supporters but even though extensively re-engineered it remains a design of its time and it is perhaps only the US helicopter community that sees no shame in flying something so elderly. Perhaps that lies at the root of the troubles faced by US industry – it is being consistently outsold by younger designs.

On the stand were two modern examples of the venerable beast in police service, one MD520N and one MD600N. The latter is now the last 600N in US police service – having been picked up for little cost from the former Border Patrol fleet via the Department of Defense.

Not really relating to law enforcement is the news that private-equity sponsor and boss Lynn Tilton prevailed in a legal skirmish with Boeing Co. after the aerospace giant allegedly tried to block one of her companies from pursuing a helicopter contract with the U.S. Army. A Phoenix arbitration panel earlier ruled against Boeing, clearing the way for Ms. Tilton's company, MD Helicopters Inc., to try and sell their 500 derived MD540 in direct competition with the Boeing 500 [Little Bird].

The result comes after weeks of arbitration that had the potential to put MD Helicopters out of business.



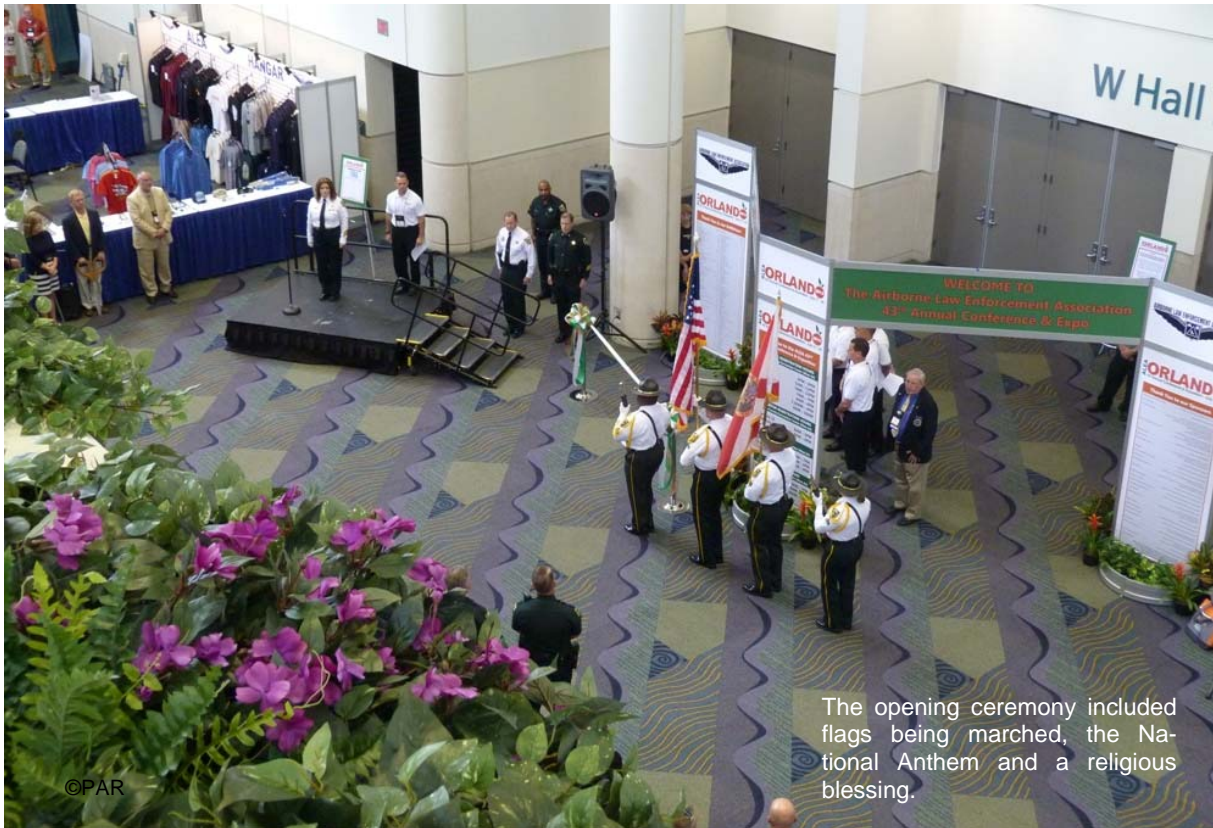
**It's what you don't see
that makes the difference**

Trakka A800 Searchlight

Advanced engineering delivers enhanced operational capabilities

- Superior, Clear, Uniform beam profile with sharp edges
- Internal multi-spectral filtering. RED, AMBER, NVG
- Aerodynamic design
- Seamless Integrated Camera Slaving
- NVG compatible Pilot Control Unit
- Tested and Certified to DO-160F
- Over 1 million flight hours on leading aviation programs

www.trakkacorp.com



The opening ceremony included flags being marched, the National Anthem and a religious blessing.

Rebtech

The Texas-based night vision technology lighting installer has recently completed a contract to modify four Robinson R44 helicopters for the Estonian Air Force. The installation included the modification of all aircraft lighting, which is based on the company NVG Supplemental Type Certificated (STC), was provided by technicians on location at the Estonian Air Force Base near Amari, Estonia. The addition of night vision capability will allow for comprehensive NVG training of the country's military rotor wing aviators.

The use of night vision technology has allowed the Estonia Air Force to expand their night operations with improved safety and operational readiness using cockpit and cabin lighting equipment. Two of the aircraft are equipped with external load provisions used for training. The four aircraft will be supported by Rebtech from their main offices located in the Dallas/Fort Worth area.

Rebtech has also undertaken an initial night vision goggle (NVG) compatible conversion of an AS350B3e recently acquired by the City of Austin Police Department, allowing them to expand critical support roles such as external load fire suppression, night vision goggle operations, increased passenger and payload capabilities, and other safety enhanced missions. APD Air Support Unit expects to receive their new AS350B3e next month.





There were a significant number of large format simulator's this year—it was as if every other exhibitor suddenly thought it was a good idea! This one being tried out by Officer Jon Goldin was on the Elite Booth.

©PAR



As the rest of the world is always saying—everything is so BIG in the USA and the area outside the exhibition hall fitted that bill exactly.

©PAR

Bell Helicopter

Like MD Bell brought two airframes to the ALEA show, the 407GX and a 429, but the background story was the new model light helicopter that is designed to replace the Model 206 JetRanger and at the same time challenge the Robinson R66 with a price point that is still expected to be \$1M in its basic form. It is early days for the new project – launched at the Paris Air Show – and details remain sparse but during the next few months PAN hopes to bring more information.

The Bell Helicopter booth also hosted a Bell Training Academy (BTA) flight simulator, demonstrating the BTA's industry-leading helicopter training solutions, as well as representatives from Bell Helicopter's #1 ranked Customer Support and Service team.

Eagle Product Development

The Bell 407 remains a popular type although there remain calls for improvements. At one stage Bell had a 'hot' version of the type slated for production as the Bell 417. The 417 was launched by Bell at Heli-Expo 2006 but quickly dropped despite significant interest in the concept on the grounds that the improvements in performance were insignificant – potentially to be read as not cost-effective compared with the expected development costs.

The Rolls-Royce Model 250-C47B turboshaft used on the 407 is a Fadedec-equipped engine that produces 650 shp at takeoff. The 417 was to use Honeywell's HTS900 engine, slated to produce 925 shp at takeoff (sea level). The project mirrored a military project for an armed reconnaissance helicopter that was ultimately cancelled.

Next year the market should be offered a version of the type that Bell once called the 417 as a conversion project based on new or used examples of the 407. The prototype is already flying as the 407HP and certification is at hand.

When Bell cancelled the 417 they made a number of detrimental statements about the capability of the proposed Honeywell powered type and yet Eagle claims some significant numbers in performance enhancement. At low level it can offer an 11% increase in load lift-

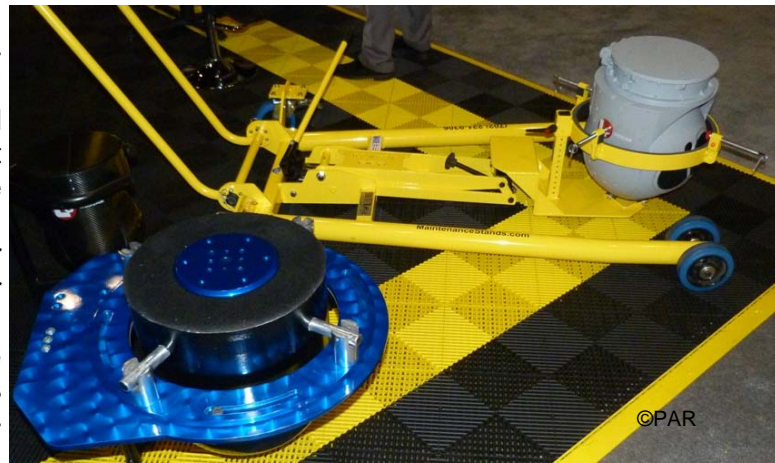
ing and this grows progressively with altitude so that at 12,000 feet the enhancement is some 40%. It also offers an 8 to 10% reduction in sfc.

Ground Support

All Metal, a leader in the design and manufacturing of solution driven custom "safety first" maintenance stands, hangar equipment and specialty tooling, unveiled its newest product last month, a lightweight portable maintenance ladder designed for field use.

At the show they displayed a range of their products including a range of wheeled sensor turret carriages. www.allmetalm.com

Other first timers included Ocean Software from Australia; they had a good first show as they investigate whether the market might support their product offerings.



Unmanned

There were a handful of unmanned technology information points in the exhibit hall promoting the manner in which unmanned will integrate itself into the US ALE community and largely promoting the idea that it will be 'tomorrow.' But a few searching questions make it clear that there is still a significant time lag in these developments – it is all well and good to fly an unmanned craft in the vast prairies of Wyoming or the scrubland in Texas but when it comes to built up areas the US has all the same problems [maybe more] than are evident in Europe. Effectively everyone is awaiting 'Sense and Avoid' and a system that has proven itself to work. Sense and avoid is not yet available as a proven system even though many claim to be on the cusp of achieving it.

The US Federal Aviation Administration expects to formulate a standard by 2016 that will permit unmanned aircraft systems (UAS) to interoperate with manned aircraft using an "electronic means" to see and avoid potential collisions, according to the executive leading the FAA's effort to introduce UAS into the airspace system. [Ed: So that is at least three years].

James Williams, manager of the agency's UAS integration office, said an aviation rulemaking committee the FAA formed is looking into amending Part 91.113, the federal aviation regulation that prescribes aircraft right-of-way rules, to allow for an electronic sensing system that would enable UAS to steer clear of potential collisions with other aircraft. A committee set to develop the technological requirements for a UAS "sense-and-avoid" system, and will meet for the first time on July 30.

At present, the FAA limits UAS operations to restricted, or segregated, airspace that is not available to normal air traffic. A private company that seeks to fly an unmanned aircraft in unrestricted airspace must obtain a special airworthiness certificate from the agency; military services and public agencies require a certificate of authorization.

In the 2012 FAA reauthorization act, the US Congress mandates the "safe integration" of craft in the National Airspace System beginning in September 2015 but that was a political decision not one put forward by engineers.



Copyright Notice: The content of this publication includes items that are the copyright of others. The source of words and images will usually be indicated together with the source of additional information that seeks to enhance the original information.

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



Award Night

There were four distinct award ceremonies during the ALEA event. The first was at the first morning breakfast sponsored by AgustaWestland, the morning went on to hold an Annual General Meeting where Scholarship's were awarded to youngsters – mainly the children of members - the second the Night Vision Awards relating to NVGs [see below], another relating to cameras at the Rosen Centre sponsored by FLIR Systems and Cobham and finally a roundup lunch meeting on the final Saturday in the Hilton. You needed to be fit to get around them all as each was around a half mile walk from the other and you could spend a fortune on taxis or car parking.

The Night Vision Awards for 2013 Airborne Law Enforcement Association Annual Convention included a 5-Year Service Award, 10-Year Service Award, Community Awareness Award, and the Mark of Excellence Award for presentation to recipients at an afternoon event on July 18, at the Peabody Hotel, across from the OCCC, in front of an audience numbering 200.

"The receptiveness of ALEA attendees and exhibitors continues to grow each year and everyone at ASU is happy to be a part of and co-sponsor the Night Vision Awards," said Co-Sponsor Aviation Specialties Unlimited Director of Marketing and Sales for co-sponsor, Hannah Gordon. "The goal for the Night Vision Awards was always to bring recognition and notoriety to the units using NVGs. All the recipients are well deserved and we appreciate the increase support of attendees."

The DeKalb County Police Department, Kern County Sheriff's Office, Minnesota State Patrol Aviation, and the Sarasota County Sheriffs Aviation unit were presented with a 5- year service award.

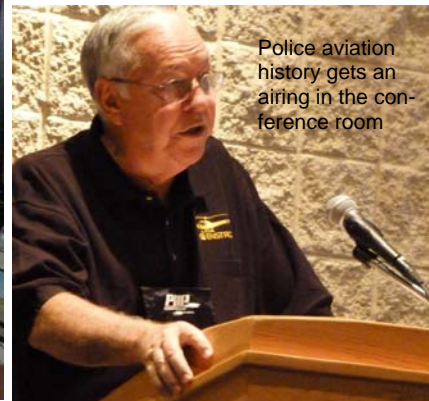
"The use of night vision goggle technology has been invaluable to help our unit safely meet the demanding nature of airborne law enforcement operations," said Sergeant of the Kern County Sheriff's Office, Mauricio Marquez.

The City of Albuquerque Police Department Air Support Unit, Martin County Sheriff's Office, and Tucson Police Air support Unit were all presented with a 10- year service award.

"We are honoured to receive this award. Night Vision Goggles are an invaluable tool to our unit. Albuquerque has a unique flying environment at night. Outside of the city we can find ourselves responding to calls into the darkness of the desert, or the 10,000 feet Sandia Mountains. Without the use of Night Vision Goggles we simply could not consider flying in these environments. Numerous people are home safe today because we were able to find them with the aid of Night Vision Goggles. Simply stated, our unit is safer and more efficient because of Night Vision Goggles, said Office John Skinner of the Albuquerque Police Department, Air Support Unit.

"As a unit manager and supervisor of the Tucson Police Air Unit, it is always an honour to be recognized for the accomplishments of our air crews. In the law enforcement community, the expectation is to be professional and to provide the best service possible. This award solidifies the efforts of our air crews' day in and day out," said Sergeant of the Tucson Police Air Support Unit, Garry Arnold.

In addition to the 5-year and 10-year service awards, The Community Awareness award was also presented. The Community Awareness Award was awarded to the Minnesota



State Aviation Patrol for an inspiring story in which a man who was lost and trapped in quicksand in May of 2012 was saved by flight officers using night vision goggles thanks to them highlighting the light from the victim's cell phone. The Mark of Excellence Award was presented to the DeKalb County Police Department, who show a dedication to quality and excellence in their operation with NVGs. The next Night Vision Awards will be held at NightCon in Dallas September 18-20. The Mark of Excellence Award will be given out in addition to the NightCon Lifetime Achievement Award that is given to an individual who helped pioneer the use of Night Vision Goggles.

As is still all too evident these awards are very much restricted to US based operators but perhaps in time that will change and we outsiders from across the ocean have only been saying such things for only the last 18 years so there is plenty of time yet! The sponsors are already looking to the future with an 'offshore' award sitting awaiting a proposer and then a recipient. The International Advancement Award is to be given to a Unit/Company that champions the need for Night Vision Goggles and systems outside of North America.

The Night Vision Award Sponsors, Aviation Specialties Unlimited, Night Flight Concepts, Vertical Magazine, and RotorCraft Pro. <http://www.nightvisionawards.com>

Although ALEA remains an US Institution, perhaps time to cross the water for a few seconds to take what the US has and the Brits are potentially looking forward to..... 4G mobile technology.

At a time when the British are trying to get all their aviation assets talking on the same radios and sending their downlinked images in the same format [the tetchy negotiations continue as you read this] Vislink were displaying a number of 4G solutions on their booth. All this suggests that the US aviators are streets ahead of everyone else but that is simply not true. Although some few may be ahead of the game there are so many systems around that virtually no-one can talk to each other let alone beam images across the county or state line.

In Britain few understand 4G and fewer have it so it has a little way to go yet before this Vislink gear will find favour there [if allowed]. The current plan is to get the NPAS fleet all-digital and able to operate anywhere within the UK—it may take some time.

The unit on the right has four cellphone units plugged into it, the idea being that they are from different suppliers and therefore assuring coverage. Although the technology costs more initially the data transfer rate is faster and that results in the cost margin being narrower. More details available from your local Vislink stockist!

So to round up I can say that the ALEA event remains a must have slot in your calendar but immediately must ask what is exactly going on? It seems clear that significant elements of industry have in some way temporarily lost their enthusiasm for the ALEA. True they mostly still put up their money for the long line of events including evening entertainments [Bell], breakfasts [AW], pig picking [FLIR/Cobham], Piano Madness [MD/Becker] and an evening reception [AEC] and most turn out to appear in the exhibition hall but they are dwindling in numbers and in the effort they inject. Sikorsky has effectively rubbed out long term supporter Schweizer from the market and there have been other losses from mergers but that does not explain why such as Robinson gave up on this year's event.

I have no answer.

