Police Aviation News

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HAI HELI-EXPO

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THE EDITOR - A BIT UP FRONT

This year's event was a little strange. It marked the demise of Eurocopter in name and the arrival of the re-branded Airbus Helicopters but, in some undefined manner, it failed to be the expected major celebration for the company or the event.

Yes it was almost the same people – except of course that the man at the top had changed, the Airbus Helicopter CEO is now Guillaume Faury and he was ably supported for this his first Heli-Expo by the long term head of its U.S. arm, Marc Paganini but others also noticed they were 'visibly penitent' when discussing the company - there were some signs that the company was injured by recent safety developments with the EC225 and had thereby lost a little of the usual spring in their step.

Yes they are still the deserving holders of the greatest market share in helicopter production but there remained this suggestion that the almost wholly new experience of an aircraft with a significant Achilles Heel added to the lateness of both the EC175 and EC145T2 [due mainly to delays with the Helionix avionics system they have in common] devalued their pre-eminent position in the market somewhat. Perhaps all the circumstances just ganged up on them to take away their usual edge.

Naturally Airbus Helicopter's competitors wish to take over the mantle of the company with the greatest market share so they each brought something to the Anaheim table to interest the customers and the world's media that would spread the word beyond the shores of the US. In that AgustaWestland and Bell surely succeeded, the others less so.

AgustaWestland have made significant inroads on overall market share; no matter how you look at it they offer their potential customers a range of modern fleet options that is starting to make even the new – or should I say many times revised legacy - Airbus products look somewhat lacklustre for all the interest they raise. I am not knocking the Airbus product as such but the company is still very reliant on their legacy products for sales opportunities while they await such as the EC175 and X4 to come on stream, however you look at the product line and regardless of customer demand and overall sales, the Airbus breadwinners remain the 30+ years old AS330, 350 and BK117 derivatives where the AgustaWestland

FRONT COVER: Airbus Helicopters brought their latest edition of the Super Puma, the AS332 L1e, to Anaheim. Flown in to a nearby Convention Center parking lot F-WWOV was captured there by Ian Turner in this impressive nose shot. ©Ian Turner

line is now led by three high selling new builds.
But this is America and sadly things have yet to turn around for US industry. Bell are doing well now but it has been a long struggle for them to get over their own reliance on legacy products of even greater vintage than those from the European manufacturers – Bell's experience has been a warning that the Europeans heeded a long time ago although the truly new Airbus models are still in the pipeline. It is all a matter of timing rather than anything.
Elsewhere in the USA there is little positive to report Sikorsky are still far too dependent on a military that is surely set to disappoint them. They have the excellent S-92 but it has yet to be proven that the latest super revamp of the legacy S-76 will be sufficient to fill the production lines vacated by the military. The pre-Heli-Expo announcement of 600 jobs to go is hardly a promising portent on that front.
MD Helicopters represents a tiny proportion of production – around 2% - but it is surprisingly still counted among the greats in the industry, more based on its past production than the 50 or so airframes that come out of its gates in some years [but not all]. They play this dangerous legacy design game as well as the others but they have a spring in their step again from foreign military sales of the 50 years old 500 and yet more high hopes that may yet again founder.
That is an overview of the show and the state of the industry, perhaps a little dark in conclusion, now for some of the detail. Of an event that was not exactly one to remember for the right reasons.

Bryn Elliott

The 'star' event was when Bell Helicopter revealed the name of their SLS project as the Bell 505 Jet Ranger XTM before hundreds of attendees gathered at their booth to witness the unveiling of something near hardware for the newest generation of Bell helicopters. There was a tendency for those present to groan in disbelief after learning of the 'new' name. Legacy lives on it seems and in this instance I suspect the 505 will actually survive the complete lack of adventure in the name.
The original 206 JetRanger is said to have changed the face of the industry nearly 50 years ago and clearly the manufacturer hopes to repeat that effect on the world despite itself.
Similar launches at HAI have unveiled single examples of the new product – the last being the 525 in mock-up form – but this launch was of no less than three mock-ups, each bringing a different element to the display – including one configured in the law enforcement role.
Bell are sticking to their $1M target price, a level primarily aimed at taking on the Robinson R66. The Robinson is still cheaper but it is significantly smaller than the Bell newcomer. Many of the raw performance points favour neither the Bell or the Robinson, the differences are small and ownership is more about the broader details.
The Bell 505 is competitively priced, offering a combination of features, capabilities and support should provide the Bell with a significant edge but the margin will only become clear when all the final performance figures are proven.
The Bell 505 features the Garmin G1000H avionics suite and switches to Turbomeca for the first time from the 206 JetRanger Rolls-Royce power. The Arrius 2R engine offers a dual channel Full Authority Digital Engine Control (FADEC). Tradition remains with the MRB, the Bell 505 features a high inertia rotor system based on the original and delivering superior auto rotation capabilities. With the ideal combination of speed, range and useful load, the Jet Ranger X is designed to deliver best-in-class performance.
http://www.bell505.com

The law enforcement 505 mock-up ©PAR

The latest news of the Bell 525 Relentless, dubbed the world's first fly-by-wire helicopter was fronted by a full-size mockup configured for search and rescue (SAR) missions. This year the Bell booth was dominated numerically by mockups but it is unlikely to be a situation repeated in the future.

On the 525 Bell are hitting a number of milestones - including extensive testing in their systems integration lab, the production of thousands of parts and the construction of a 525 assembly facility in Amarillo. The first flight is set for late this year with two aircraft already in assembly.

Abu Dhabi Aviation signed for ten Relentless Aircraft at the show; choosing the type for offshore oil and gas, emergency medical support, VIP transport, firefighting and search and rescue. Bell Helicopter has designated Abu Dhabi Aviation as the lead customer for the Middle East, Africa and Eurasia. They are the largest commercial operator in the Middle East, currently operating nearly forty Bell Helicopters – a marque operated by them for more than 30 years, flying more than 750,000 flight hours in Bell 412 and Bell 212 helicopters.

Van Horn Aviation, noted in recent years as manufacturers of pattern Bell rotor blades continues to work with Bell on the design, certification and manufacture of their designs to facilitate Bell Helicopter's adoption of the product as a certified part offering a significant enhancement on the original. Bell acknowledge 'a significant reduction in Direct Maintenance Costs (DMC) of the Bell 206B/L tail rotor blades currently on the market.'
When certified, the Bell 206 main rotor blades along with the Bell 212/412 tail rotor blades will be distributed under Bell Helicopter's Aeronautical Accessories brand. Under that brand, Bell currently serves as the exclusive distributor for the Van Horn composite tail rotor blade for the Bell 206 B/L aircraft.

Also displaying their Model 407 and the wheel equipped version of the 429 Bell Helicopter certainly appear to have enjoyed a great show. Within days of the show closing they reported 200 sales but it did not all go well all the time. A humourous aside from Garrison of Bell at his pre-event press conference fell on very stoney ground.

It seems that lacking the EH101/VH-71 Obama has trial access to the CV-22 VTOL as a bit of modern airlift in his Presidential fleet, grasping this Garrison mentioned that so far only the Presidents dog had been spied aboard one of these craft and he quipped that the sighting might be taken as that it had undertaken 'Presidential Duties.' It was quite funny but this was taken in a wholly negative vein by a press scribe that thereby Obama is not yet trusted aboard the CV-22! Probably quite true for the moment, but hey Mister this was a JOKE! Splutter!

It was not their first show – that was Singapore - but Heli-Expo 2014 marked Airbus Helicopters' first major *rotorcraft industry* event in its new identity, with the company showcasing an evolved product line, diversified service offerings and a strategy that reflects its core changes.

"Under our new name, Airbus Helicopters, we have redefined our priorities. We are committed to new standards with respect to customer satisfaction, quality and safety, and competitiveness," said Airbus Helicopters President Guillaume Faury. "We're implementing these priorities by placing our efforts on product reliability and availability, the reduction of lead times and production costs, and integrating the Airbus Group's standards of quality – all while setting new standards in the helicopter industry in the key domain of aviation safety."

Announced at Anaheim was the upgraded version of its proven EC225 Super Puma: the EC225e. This new variant responds to operators' requirements for extended-range missions – particularly in support of deep-water oil and gas airlift duties.

The EC175, which received European certification in January, was displayed as a full-scale mockup in the corporate configuration. By the time EC175 deliveries begin later this year, the initial pilots will have received training on a flight navigation procedure training (FNPT) and Level D full-flight simulator – both located in Marignane and operational in spring and summer 2014, respectively. As the fleet expands, other EC175 full-flight simulators will be deployed in close proximity to regions where customers are introducing the aircraft into service.

Also exhibited was the new EC145 T2, to be certified and delivered this year. This latest evolution of the EC145 is equipped with a Fenestron® shrouded tail rotor, as well as upgraded main and tail rotor gear boxes. Airbus highlight potential operators 'eagerly' waiting for the type but it goes beyond that with its late delivery greatly hyping up the anticipation. An EC145 T2 full-flight simulator will be deployed at Donäuworth, Germany in 2015.

An example of the best selling EC135 T2 in a law enforcement configuration for the Massachusetts State Police, and an EC130 T2 with a glass cockpit completed the line-up.

As has been highlighted in the wake of recent light helicopter accidents the fitting of flight recorders is not required and virtually unknown in the industry and it is in this vein that Airbus Helicopters announced its intention for all new aircraft produced by the company to be equipped with a cockpit image and flight data recorder.

For several years Airbus Helicopters has equipped all of its AS350 model helicopters with the Vision 1000 as a factory-installed piece of equipment, resulting in more than 200 aircraft each year so equipped. Airbus is advancing the industry standard for safety by committing to this widespread implementation of an innovative solution in their entire product line.

Developed jointly by Airbus Helicopters and Appareo Systems in recent years, the Vision 1000 is a cockpit imaging and flight data monitoring (FDM) device wrapped into one. In addition to capturing audio and high-resolution cockpit imagery, the Vision 1000 records critical flight data, providing a complete picture of what occurred during every moment of each flight. Lightweight and easy to install it is designed to function in any type of aircraft. The data is stored on a crash-hardened memory module and a removable secure digital (SD) card.

The 78 bookings announced by Airbus Helicopters at this week's Heli-Expo cover rotorcraft that range from the EC225 and the AS350 B2 and B3e, to the next-generation EC175, along with the EC145 T2 and the EC225e and AS332 C1e versions.

AgustaWestland again brought the AW609 TiltRotor to the Heli-Expo as a background attraction. In 2012 when the event was in Dallas, the rarely seen type was displayed at its home base in Arlington, Texas, but only to the media.

This year it was flown 1,100nm (2,000km) from its base in Arlington to Long Beach Airport, California to perform the first ever customer demonstration flights at Heli-Expo 2014, highlighting its ca-

pabilities and performance that will soon be available to the commercial marketplace.
During the ferry flight to Long Beach the prototype made a ground breaking flight, taking off vertically from Mesa, Arizona, and completing a vertical landing at Long Beach Airport after flying more than 320nm (580km) in just 1hr and 35mins (with 15-20kt headwind).
The AW609, with its pressurized cabin, can fly above the weather at up to 25,000ft, with comfort levels similar to that provided by today's turboprop fixed wing aircraft, with the advantage of being able to land on any helipad capable of taking a helicopter of the same weight class. With a cruise speed typically twice that of a helicopter, the AW609 can dramatically reduce journey times and fly up to 750 nm and will provide operators with new capabilities and opportunities.
While at Heli-Expo a number of pilots experienced the unique capabilities of the AW609 and tested the handling by the digital fly-by-wire flight control system.
The AW609, the world's first commercial tiltrotor, is on schedule to achieve FAA civil certification in 2017.

Rotorsim, owned equally by CAE and AgustaWestland, announced that it is continuing to expand with the purchase of two CAE 3000 Series Level D helicopter simulators.
Rotorsim will add the world's first-ever AW169 full-flight simulator to the Rotorsim Training Centre, which is part of the AgustaWestland 'A. Marchetti' Training Academy in Sesto Calende, Italy. The CAE 3000 Series AW169 simulator will be ready-for-training in mid-2015.
Rotorsim is also acquiring its second AW189 full-flight simulator and will deploy this simulator to a training centre in Aberdeen, Scotland. This CAE 3000 Series AW189 simulator, designed specifically to support training for search and rescue operations, will be ready-for-training in mid-2015 and be used to support Bristow Helicopters and other North Sea operators.

Both the AW169 and AW189 full-flight simulators will be developed jointly by CAE and AgustaWestland and qualified to Level D, the highest qualification for flight simulators. The CAE 3000 Series helicopter mission simulator features unprecedented realism for helicopter-specific mission training, including offshore oil and gas producer (OGP), search and rescue (SAR), law enforcement and other types of operations. The simulators enable pilots to practice -- without risk -- challenging procedures such as low-level flight, confined area operations, autorotation and landing on platforms at sea.

Both the AW169 and AW189 simulators for Rotorsim will feature AgustaWestland-certified avionics and aircraft software combined with CAE core simulation technologies, including: CAE True six degree-of-freedom (DOF) electric motion system and high-performance vibration platform to replicate vibration cues critical to helicopter pilots; a high-fidelity CAE Medallion-6000 visual system; and a direct projection 210 degree by 80 degree extreme field-of-view dome display system.

A surprise launch was the AW109 Trekker, a legacy design based on the best selling AW109/Grand range of helicopters, but equipped with skid landing gear that at first glance resembles the A119 Koala single.
It offers a state-of-the-art Garmin G1000HTM glass cockpit Power is provided by two FADEC equipped Pratt & Whitney Canada PW207C engines each rated at 608 kW (815 shp) as max contingency power. With the modular five-cell fuel system the Trekker can offer an endurance of up to 4 hours 20 minutes or a range of 445 nm (824 km).
Developed to provide a long overdue utility and aerial work solution maintaining high productivity, excellent flying qualities, high controllability and manoeuvrability, robustness and high inherent safety it brings to market skid landing gear that has long been called for by customers but denied by the manufacturer. It should be popular.

Universal Avionics is currently seeing increased interest from Super Puma operators to a Multi-Mission Management System Retrofit Program and growing interest in the Display Cursor Control Unveiled for Next Generation MD Explorer. This will be the first light-twin helicopter in the market to offer “Point and Click” Display Control from the Collective.
Air Rescue Systems Corp. (ARS) had its MD 902 Explorer, all mission platform sitting centre stage at MDHI’s Heli-Expo booth. The aircraft is equipped as single pilot IFR and NVG. It’s outfitted for medevac, rescue hoist and FAST rope/Heli-Rappel ops but it is an old airframe repainted and not representative of the long awaited new production.

At her equally eagerly awaited annual address to the members of the media CEO Lynn Tilton was very upbeat – something that often proves short lived in this industry. This years positive mood swing was provided by an upturn in foreign military sales of MD 500 scouts rather than civil sales or a massive US military order. The numbers are small but they do provide revenue other than that from spares.
This year there was less Tilton tub thumping about the MD product being ‘American’ perhaps after regular questioning from the media about how American the Mexican production

plant was but there was news that further enhances the 'All American' ideals of MD.
Fuselage production of the MD Explorer is finally being transferred from Turkey to the USA. With the low production rate of the Explorer it has been many years since a fresh fuselage passed down the jigs in Turkey so it is not a product that is central to the survival of the aircraft industry there but it helps the MD ethic as the 'new' Explorer looks like coming over the horizon.
When asked how the inevitable shut down of production capability during the transfer of the jigs might affect the Explorer Ms Tilton made it clear that the effect would be nil and that the company still had some unused fuselages 'in stock' at Mesa.

There are no big sales of the MD500 series in the civil field, individual deliveries are still celebrated, and the former favourite airframe of US law enforcement is still losing out to others.
Nome, Alaska-based Bering Air has taken delivery of a new MD 500E helicopter, which will provide support for the construction of microwave Internet towers and operate charters in the mineral exploration fields, as well as assist in animal survey and capture work for customers such as the Alaska Department of Fish and Game.
According to Bering Air, the new MD 500E will double its hook lifting capacity to 1,200 pounds, while offering decreased cycle time and overall hours flown. The company estimates the new helicopter will fly approximately 500 hours annually. The MD 500E is Bering Air's third MD aircraft.

The Heli-Expo remains mainly a civil event with elements of the military injected where manufacturers are short of true civil news or some veteran group has a restored craft to display to the passing public.

There are areas of crossover where a company sees a need for military equipment in the civil environment. Rotorcraft Services Group, Inc. (RSG), announced the signing of a teaming agreement with RUAG Schweiz AG for the joint promotion, integration and qualification of RUAG's Integrated Self-Protection System (ISSYS) for use in the civil aviation market. The self contained "Plug-on-Device" (POD) EW solution provides effective 360° protection against a wide range of missile threats.

"The ISSYS-POD is the role fit version of the SAAB proven IDAS/CIDAS suite currently in use protecting both civil and military aircraft in sophisticated threat environment around the world" said Fida Waishek, President of RSG AeroDesign,*"When the system detects a MANPADS launch, it tracks the incoming missile, then uses mixed chaff and flares payload to jam and misdirect the missile's guidance system, causing it to miss the target aircraft. The entire process occurs in few seconds and requires no action on the part of the aircraft crew."*

RSG is an approved supplier for leading Aerospace OEMs worldwide including Agusta Aerospace Corporation, Airbus Corporation, Enstrom Helicopter Corporation, Hafei Avia-

©RUAG via R Iten

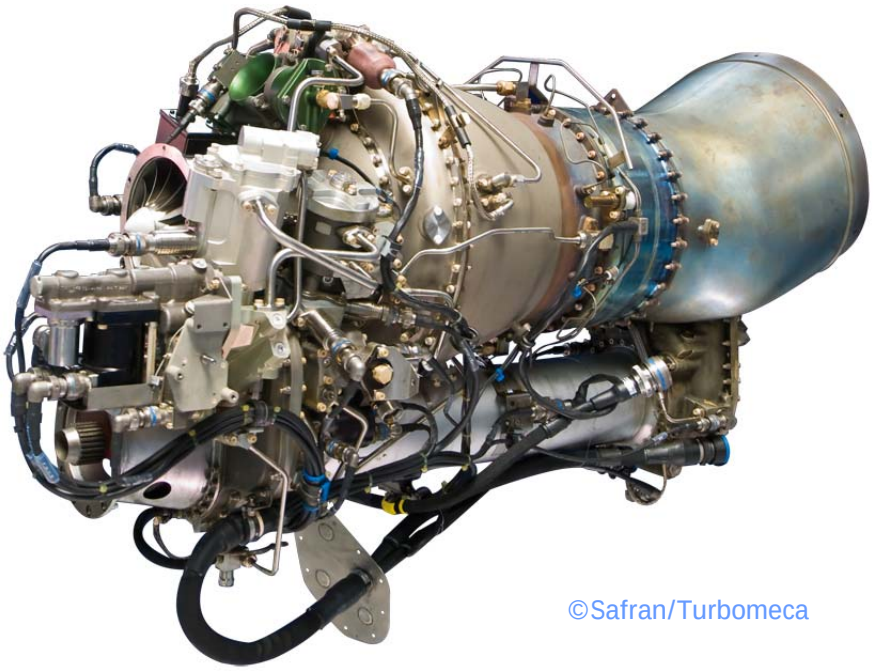
©PAR

tion Industry Co., Helicopter Support Inc., L-3 Communications Ocean Systems, L-3 Communications Wescam, MD Helicopters, Sikorsky Global Helicopters and Sikorsky Aircraft Corporation.

RSG Products, Inc., a Rotorcraft Services Group (RSG) company, announced it is teaming with Heli-One to produce, support and co-market critical Supplemental Type Certificates (STCs) within the Heli-One catalogue.
The two companies also will collaborate on development of new-generation STCs.
Initial available modifications enabled by the agreement include a dual pivoting litter (DPL) system for the AS350 and a rappel system for Bell 412 and 212, items on display as part of the RSG exhibit.
Other modifications that will be made available through this agreement include:
A Medical Interior for EC 135
A structural medical floor for MBB-BK 117
A fold-up attendant seat for AS 350
Installation of the Wescam MX-15 Surveillance System & a universal surveillance gimbal mount for the AS350
Heli-One's modifications portfolio comprises more than 120 STCs available for the AgustaWestland, Bell, Airbus and Sikorsky platforms. The complete, interactive MODs Catalogue is available at: http://heli-one.ca/what-we-do/services/design-modifications-br-and-completions.
RSG Products is the holder of an FAA PMA authority that designs, manufactures and distributes air conditioning and video camera systems for various helicopter models. They are an approved vendor for Garmin, Sagem, Agusta and Airbus installation kits and product lines. Specialty kitting and PMA approval on STC kits can be obtained along with an extensive list of capabilities through in-house processes and an approved vendor network. Heli-One, part of CHC Helicopter, is based in Delta, British Columbia, Canada, and has MRO operations in Delta; Stavanger, Norway; Fort Collins, Colorado; and Rzeszow, Poland.

Turbomeca (Safran) were displaying its principal product lines: Arriel, Arrano, Ardiden 3 and RTM 322. The line-up was completed by the latest Arrius 2R, selected by Bell Helicopter to power its new SLS (Short Light Single) helicopter.
The Arrius 2R is the latest member of a highly popular 3,000-strong engine family – just less than half of the 7,000 or so engines produced by the company. This new engine version delivers performance and power within the 450-550 shp class, while improving safety and lowering pilot workload via a Full Authority Dual-channel Engine Control (FADEC). The twin-module engine configuration is designed to reduce fuel consumption and lower the cost of operation.

The Arriel passes a major milestone at Heli-Expo: 40 million flight hours achieved with over 1,300 customers in 110 countries. The Arriel family, delivering take-off power ranging from 700 to 950 shp, powers 40 different helicopter variants.
The Arrano is a new 1,100 shp engine designed for four to six-ton helicopters. This first variant, the Arrano 1A, will power the Airbus Helicopters X4 — a new-generation, five to six-ton helicopter. The first test run of the Arrano is due any day now.
The Ardiden is designed to provide 1,400 to 2,000 shp, for helicopters in the five to eight-ton class. The Ardiden 1's first application was the Hindustan Aeronautics Dhruv while Ardiden 3 powers the newer Kamov Ka-62 and AVICopter AC352 helicopters.



©Safran/Turbomeca

As reported in an earlier edition of PAN the RTM322 is now 100% Turbomeca. In the 2,100 to 2,600 shp range, it is fitted to the WAH 64 Apache, EH 101 and NH 90 helicopters. The RTM322 has staked its place in aviation history by setting a new world speed record of 255 knots in level flight, installed in the Airbus Helicopters twin-engine X3 hybrid helicopter.
All this variety results in nearly 1,500 engines returning to the widespread dealer network each year for repair or refurbishment.

Turbomeca were also demonstrating their IBM BOOST (Bank Of Online Services and Technologies) system that was first announced at the 2012 PAvCon Police Aviation Conference in Hangelar. This is the companies future range of advanced engine and maintenance management services and it is clear that the roll-out is to be measured thereby allowing the customers time to assimilate with it.It is currently still in the test phase.

In the last couple of years Sikorsky has featured within these pages for its lack of movement in producing the elderly but still popular S300C light helicopter the company bought out from Schweizer partly in order to acquire property in Elmira, New York that has since closed. Now limited production has finally restarted of the S300C the company can perhaps allow

©Sikorsky

itself a sigh of relief but apparently they have thought of other ways to get themselves a bad name in the business. Having finally signed off a highly lucrative $3.5billion deal for producing Blackhawk's in Turkey Sikorsky announced that they have laid off 600 US based workers on the eve of Heli-Expo opening.

They brought along a mock-up of the Raider but the recent statements from the US DoD relating to the retirement of the Bell OH-58D fleet effectively signed the end of the very type the Raider is designed to replace so the prototype in production may well be the only one of its kind unless the US military budgets undertake yet another Volte Face.

Alex Anduze, a Sikorsky test pilot, restored this Sikorsky S-52-3 over a period of eleven years and flew it again in May 2013. The left half of the cabin Perspex folds aside to give easy access to stretchers into the cabin. It was used during the Korean War when the helicopter for casualty evacuation.


©PAR

Airbus Helicopters signed a cooperation agreement with Priority 1 Air Rescue for the delivery of search and rescue (SAR) training.

AgustaWestland announced the certification of its Obstacle Proximity LiDAR System (OPLS™) which will help enhance safety during hovering flight whilst conducting SAR and emergency medical service (EMS) missions. Hovering flight during these type of missions has been identified as one of the most dangerous flight conditions as a result of perceptual judgment errors, wrong decision making, bad crew resource management, poor visibility and self induced pressure.
OPLS™, AgustaWestland's solution to enhance the safety of its helicopters whilst being used for demanding SAR & EMS roles, was being presented for the first time at Heli-Expo. The system is designed to help the crew avoid main and tail rotor strikes against peripheral obstacles which jeopardise the aircraft's safety during low speed hovering manoeuvres in confined spaces.
The OPLS™ consists of three main rotor-head-mounted LiDAR (Laser imaging Detection and Ranging) sensors that generate a 360 degree radial view around the aircraft and a dedicated cockpit control panel. The OPLS™ detects and tracks short range obstacles up to 25 m (80 ft) away by time-of-flight measurement at different angles. Pilots can operate and monitor the system from the control panel while video and audio indications are provided on the Multi-Function Displays (MFDs) and through aircraft's inter communication system (ICS).
The OPLS™ is now an option on the AW139 multirole intermediate twin helicopter and is fully integrated with the type's avionics with information accessible on the cockpit multi function displays, and allows mutual reinforcement with the AW139 hovering mode. The system will also be made available for additional platforms including the AW169, AW189 and AW101 helicopters.

SRT Helicopters, a leading provider of search and rescue training and services, based in Bakersfield, California, worked with Canadian company Great Slave Helicopters, of Yellowknife, NT, to complete a specialised training contract that will enhance hoist operations and human external load (Class D operation) by Great Slave in Peru.
The SRT Helicopters training and certification support for Great Slave Helicopters in Peru included curricula for the company's rescue personnel, hoist operators and pilots. This training, and associated certification support, was pivotal in achieving Class D operational certification by the Peruvian DGAC.
Approximately 40 percent of SRT's specialized training is delivered to international customers. "We generally send an advance team to international sites to assess the client's needs and capabilities, and to identify all challenges prior to any training," stated Christian Gad-

bois, Director of Operations at SRT. "But, because of Great Slave's scheduling constraints, this time we had to rapidly assess all equipment, personnel qualifications and regulatory requirements prior to arrival in-country. "

The SRT team assigned to the Great Slave training requirement included experts in Search and Rescue (SAR), Hoist Operations, Firefighting and Mountain Flying.

The intensive training was conducted over a 14 day period, with all certifications endorsed and certified by the Peruvian DGAC and awarded to Great Slave Helicopters. www.SRTHelo.com.

A new R66 for police operations ©PAR

On the opening day of the show Thales unveiled its Avionics 2020 new-generation helicopter cockpit.

Modeled on the principles behind the ground-breaking Avionics 2020 for fixed wing aircraft presented at the 2013 Paris Air Show, this cockpit represents the new-generation in helicopter avionics.

Avionics 2020 is the result of a number of partnerships, spearheaded by Thales with researchers, scientific institutions and world class experts, aimed at refining knowledge in the field of human machine interface.

These efforts, culminated in a new-generation cockpit founded on natural and direct hands-on interaction, designed to give the pilot all the elements needed to make the right critical decisions at the right time.

The Avionics 2020 concept introduces a modern architecture including multi-touchscreen capabilities, head-down controls, open and customizable systems and a mission-centric approach, putting the pilot at the center of a helicopter operation.

Curtiss-Wright were displaying the latest examples of its broad range of rugged mission LCD displays, mission computer, network switch, video management system, data storage and graphics display and avionics products.


Sikorsky S-76D arrives ©Turner

Pratt & Whitney Canada's (P&WC's) growing helicopter-engine business marked several major milestones in 2013 including reaching 50 million turboshaft flying hours and is gearing up for another busy year. In 2013, the PW210S engine, selected for Sikorsky's S-76D helicopter, received EASA validation in July, and the PT6T-9 engine entered service on the Bell 412EPI in December. P&WC is preparing to mark a number of additional milestones this year, including certification of the PW210A for the AgustaWestland AW169 helicopter, the 30th anniversary of the PT6B-36 and the entry into service of the PT6C-67E powering the Airbus Helicopter EC175. As with just about every segment P&WC serves, a constant dialogue with both helicopter OEMs and operators is key to augmenting the company's formal market research into how the segment will develop in the future. www.pwc.ca

October 1988 marked a new path in the helicopter industry for Pratt & Whitney Canada: the first flight of a PW200 series engine. A twin-engine Bo105LS, powered by the PW205B, from Messerschmitt-Bölkow-Blohm of Germany (MBB), lifted off from Ontario's Niagara Peninsula. Standing nearby, Canadian and German engineers and technicians applauded as the blue-and-white helicopter climbed into the sky. Over the following 25 years, the company's PW200 engine series emerged as the world's leading powerplant for light twin-engine helicopters. With 620- to 735-shaft horsepower takeoff power, it is well suited for utility, emergency medical services (EMS), offshore, corporate, law-enforcement and paramilitary roles. Fully functional and operable in all flight conditions, it features an electronic engine control (EEC) with full hydro-mechanical backup. The simplicity of its modular design, with only three major rotating components, ensures easy maintenance access. And its low specific fuel consumption, lightweight materials and a compact architecture further enhance its impressive thermodynamic performance.

Another view of the new Bell 505 ©PAR


Recording the arrivals ©PAR

Super Puma arrival ©PAR


EC135T2

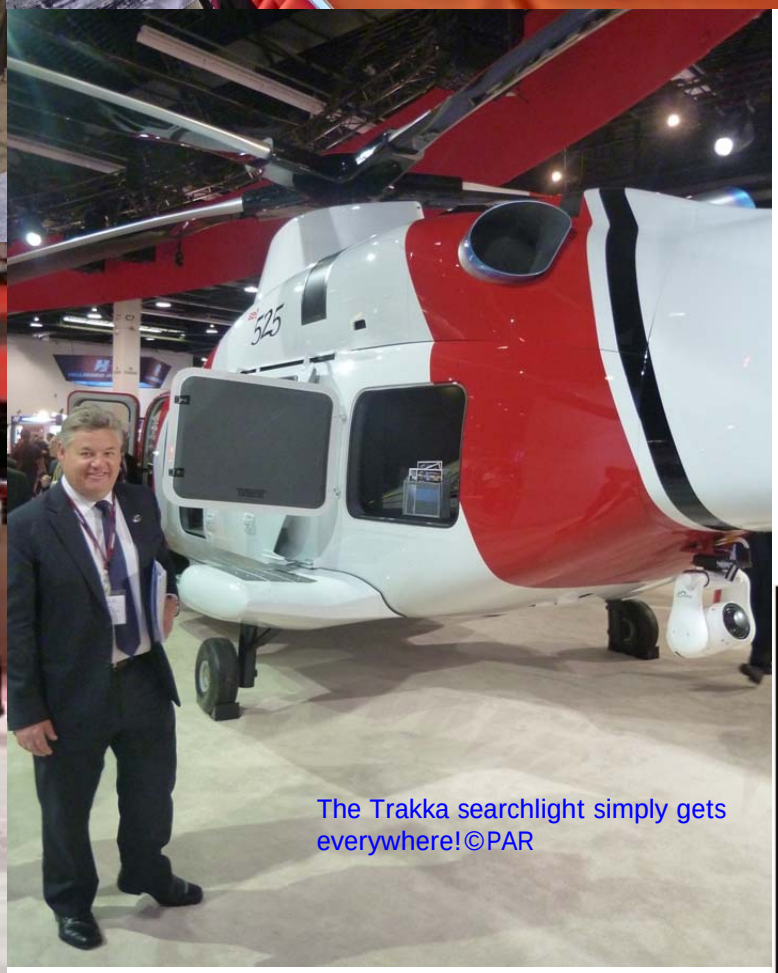

A109 ©PAR

©PAR

Enstrom launched a new light training helicopter this year©PAR


Russia was represented by models this year©PAR

Bell 429 with wheels©PAR


The Trakka searchlight simply gets everywhere!©PAR

A connection between the Heli-Expo in America and the earlier Singapore Air Show was the appearance of a team from Pilatus in Switzerland promoting their new PC-24 twin-jet.

The is not the first time a fixed wing type has appeared within the aisles of Heli-Expo nominally assigned to all things rotary wing—the Optica Scout springs to mind when that was proposed as a revitalised project in Texas— but it is nonetheless unusual marketing.

It was a model only in Anaheim [above] but in Singapore they were showing the real thing in the form of a PC-12 single turbo in the static park and a high quality mock-up of the PC-24 inside a marquee.