

# Police Aviation News

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SPECIAL EDITION—Heli-Expo2009

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Welcome  
**HELICOPTER**  
ASSOCIATION INTERNATIONAL

Heli-Expo 2009

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## EDITORIAL


Welcome to the now annual report on Heli-Expo the World greatest helicopter related show. Little to do with flying – most of the action is inside a convention hall or halls – the event is about celebrating commercial rotary wing flight, although the military does ease its way into the programme from time to time. This year it was the massive glass fronted palace that is the Anaheim Convention Center and just a stones throw from the original Disney Empire and sort of 'Los Angeles, California' to the unknowledgeable.

With the current credit problems many set off for the west of the USA assuming there would be doom and gloom and not much to see. They were wrong on the first count, everyone was pretty upbeat, and not far out on the second. It was not an event that took your breath away, just an industry marking time until the next big thing in town – and who is to say when that will be?

Still there was a move by some to inject some newness into the programme and it was perhaps the second runner to the credit crunch in terms of boredom.... eco-friendly... that took a bow! Well, maybe it took a bow but no-one paid much heed to it, that's not exactly an exciting line to take. Most people know that the industry has been quietly trying to eke the best and cleanest performance out of our diminishing oil reserves for years, it's just not exciting stuff. We all know that every time we start our cars or fly across the Atlantic, Pacific or whatever other ocean we choose is bad for the environment so we should not even be building aircraft at all ... so let's not even go there in putting it forward as a righteous cause!


In the event this is a report on 'six days' for as the following words will explain the days of a quick three day trip to cover the main event seem lost forever!

*Bryn Elliott*




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# AERIAL FIREFIGHTING CONFERENCE AND EXHIBITION

Only a few years ago it was rare for significant additional events to be added to the week prior to Heli-Expo. In more recent times manufacturers have drawn upon a general migration to the show venue to add in customer specific briefings to the line up in the week before.

This year a relatively new conference company, Tangent Link, brought in a new conference based upon a similar one run in Greece last year. The two day Aerial Firefighting USA Conference took place in the Crowne Plaza Hotel, Anaheim. Supported by UN-ISDR and the Global Fire Monitoring Center, and sponsored by Bombardier, the conference & exhibition incorporated both fixed & rotary wing aircraft as well as unmanned air vehicles so was in many ways distanced from the happenings at Heli-Expo a few days later.

Although aircraft have been used for air attack in the region since at least the 1950's the availability of a conference in the mould of those now being put on across the world by Tangent-Link just do not seem to have taken place. Part of the reason may be the perception [in light of recent events] that wildfires and the clash between burning nature and human habitation is going to get a whole lot worse in years to come.

Under the witty and plummy direction of the Chairman Rear Admiral Terry Loughran FRAeS naturally much of the content was aimed at the domestic firefighter and the speakers locally sourced in the Americas but there was a major injection of input from Russia, Brazil Japan, Europe and Australia.

The latter was a late injection based very much on the ongoing and shocking fatal fires in the State of Victoria, Australia in early February 2009. First hand witness to the wholly unexpected developments that led to hundreds of deaths and massive property loss on Black Saturday [7/2] was given to rapt delegates in a special addition to the programme by the General Manager of Victoria's National Aerial Firefighting Centre Richard Alder.

The co-located exhibition was of a creditable size for what was a new event in this market and included presences from the main sponsor of the event – Bombardier – Air Tractor, Boeing, Con-air, Erickson Air Crane, Evergreen, Fire Boss, Premo and SEI.

Aside from their Bambi bucket SEI was one of a pair of companies promoting equipment to start



fires, seemingly out of place in an event all about dousing them. SEI's Dragon is all about injecting table tennis ball incendiary devices designed to start controlled fires in forest land from the air and thereby to create fire breaks. The other exhibitor of this equipment was Premo.

It may have been in town at the same time as the helicopter show but the main thrust of the exhibition was about fixed wing solutions, primarily variations on the Canadair CL215/415 series but also the Air Tractor single engine fixed wing.

The Air Tractor remains at the core of the World fixed wing fire fighting fleet, a significant fleet migrates between Europe and Australia chasing differing fire seasons.

Underlining this steady demand for the type a week after Heli-Expo was all tucked away for another year it was announced that Macedonia had signed a €10.3M (about \$13M) with a Spanish company to buy three Air Tractor's for fire-fighting.

Saban Saliu, manager of Macedonia's Protection and Rescue Directorate, and Hugo Arceo, representative of the Air Tractor Europe, inked the paper.

The first two of the planes will be delivered to Macedonia in June, followed by the third in August.

Bombardier continues to sell its twin into the market in relatively low numbers, it handed over one of the latest 415 aircraft in late January. Unlike the core of the fire fighting fleet the aircraft is one of two ordered last year modified for the maritime surveillance role with two SLAR arrays a FLIR and additional avionics and communications.

This is a market where unmanned systems are expected to make significant inroads but there was only a single representative from that sector being promoted by Brian Whiteside who handles the Tactical Support and Business Development side of Evergreen Unmanned Systems in Oregon. [www.evergreenaviation.com/EUS/index.html](http://www.evergreenaviation.com/EUS/index.html) Currently employing the Insitu A-20 Insight, Evergreen concentrates on commercial, Unmanned Aerial surveillance with both maritime and land-based applications but remains pretty much low key because of the current regulations in the USA.

Tom Harbour of the US Forest Service summed up the importance of the event to this sector of the industry when he said it was '...very important that we have the opportunity to get together and talk.'

With this in mind the next Tangent-Link foray into a fire fighting conference and exhibition is scheduled to be another Aerial Firefighting Conference in Sydney, Australia on June 17, 2009



## GOODRICH

Regular readers will recall that there have been reports on the annual Goodrich Hoist & Winch Users Conference in previous editions of the Heli-Expo report and in fairness these events are similar year on year, only the attendees and the detail of the event vary year on year. The three day 2009 get-together took place in the shadow of the Heli-Expo Convention at the Sheraton Park Hotel, Anaheim Resort.

The *Goodrich Hoist and Winch Users Conference* focuses on the attending users' operational experience with the company products and for the company to highlight and thank their customers for loyalty to the brand as well as operational and technical forums designed to exchange information, highlight observations, concerns and lessons learned. In addition to the conference, hoist maintenance training will take place on the third day.

The gathered audience was included two 'educational excursions' to enlighten their knowledge of Goodrich and its products; one to the operating base of a user of Goodrich Hoists, Orange County Fire [OCF] and the second to Goodrich's Diamond Bar facility.

Los Angeles is well endowed with airports – the long let down into LAX from the deserts in the east carries arriving delegates past numerous small airports – and the home of OCF, Fullerton Airport, is the only general aviation airport in Orange County adjacent to Interstate 5 and Highway 91. The airport is six miles from Disneyland, which itself sits alongside the Convention Center. Fullerton is the home base for a number of airborne emergency services organisations including CHP, Anaheim PD and of course OCF. For a while it also saw use by some organisations as a base for demonstration flights associated with the HAI Show.



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OCF fly Bell and continue to do so. They took delivery of their latest example of the Bell 412 N241FA at the show – the machine was on the Bell booth – but they were showing off their existing fleet and the most recently delivered 412 N141FA at Fullerton, it arrived last year. Fire officials spent more than \$21.6M for the pair of twin-engine helicopters with night-flying capabilities. The purchase was expedited as part of the OCF's response to recommendations made in the wake of 2007's destructive Santiago fire, which burned more than 28,000 acres and destroyed 42 structures. Fourteen other structures were damaged. It was the Fire Authority's two Vietnam War-era UH-1H helicopters that battled the flames of the Santiago fire in the first crucial hours and helped save fire crews overrun by flames during another fire last November. Parts for the 1966 Huey helicopters have become harder to come by and the helicopters spend four months a year on the ground as the helicopter mechanics tear them to the ground and rebuild them, just to keep them air-worthy. The two



new Bell 412EP helicopters were built by Edwards & Associates. The four-bladed pair take-up more space than the Huey's so next on the list is a \$2.25M hangar to house the helicopters that won't fit in the existing hangar at Fullerton.

From the Goodrich viewpoint the centre of attention was the hoist training rig built utilising an even earlier member of the Bell Huey based fleet 'N3132B.'

Such rigs are not uncommon in the hoist using community in the US and [as long as there is a spare fuselage readily available] the resultant training tool goes a long way in the economy training stakes towards putting that experience 'hands on.'

With the arrival of the second modern 412 helicopter the fleet is giving up the Bell Huey, two 1966 examples of which remained with OCF at the time of the visit. One UH-1H [N4212C] was being used as the focal information point and another N4212Y was inside on maintenance. On February 25 N4212C was transferred to the Forest Service which already owned N4212Y so perhaps it is a paper exercise and both will be remaining at Fullerton.



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*It was the centre of attention during the briefing for the Goodrich visit but Huey N4212C left the Orange County Fire fleet on the post show delivery of the new Bell 412 ©PAN*

HAI coincided with The Oscars and that underlines the fact that this time of year is the big season of awards and back slapping, a wave of self congratulation that does not necessarily relate to performance of a major feat.

From the start the Goodrich awards are more of a thank you for customers successfully using their hoist than specific heroism awards, equally they are not wholly domestic and this year an award was given to one of the more recent customers China Rescue & Salvage. In the event circumstances placed this organisation in the unenviable position of earning the award through sheer hard work. The region has been beset by major storms and rescue efforts making good use of the Goodrich tool. The simple plaque award was collected by Capt Song Jiahui

Not earth shattering stuff but cosy and customer friendly, to maintain the seller - customer link year on year and to ensure that equipment training is undertaken in the best of atmospheres.



*Right: Captain Song Jiahui*

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## HONEYWELL

In a similar vein the day long Honeywell Helicopter Operators Conference is a mix of operators and press PR being held in the Anaheim Marriott, right next to the Convention Center the day before the Heli-Expo started.

Pretty much the full range of Honeywell products were highlighted by an update or overview in the product or project in hand. Perhaps the most poignant was that of the HTS900 powerplant that had been set for the use in Bell products that no longer exist. The first blow had been the commercial decision not to go ahead with the model 417 but that had been turned into near disaster when the military project – ARH – was also switched off. Honeywell had invested much in developing an engine now without an airframe.



Fortunately during the show Honeywell were able to announce that its LTS101-700D-2 engine has been selected by Changhe Aircraft Industries of Jingdezhen, China, to power the [AStar lookalike] Z-11 helicopter.

Honeywell will begin providing new production LTS101 engines to Changhe during the first quarter of 2010. Like the AS350 it is a clone of the Z-11 is a multi-mission, single-engine helicopter with application for police and rescue and border patrol operations. The LTS101 powered version will offer 7% more take off power, up to 10% lower sfc and at least 30% lower operating costs. The engine already features in a retrofit programme for the AStar series.



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A much awaited document this time of year is the Honeywell Aerospace 'Turbine-Powered Civil Helicopter Purchase Outlook' projects this year's new deliveries will match 2008. But this, the 11<sup>th</sup> version of the global survey, says helicopter orders will decline 12% in 2010 and 7% in 2011.

Based on interviews with 1,000 helicopter operators, the outlook forecasts purchase plans for 2009 through 2013.

While orders for new aircraft are expected to decline, the overall delivery of aircraft during 2009-13 will remain relatively unchanged because of pre-existing orders, the survey indicates.

The projections are a sign of mounting challenges for the aerospace industry but it remains very much a game of two halves. The commercial sector may well dry up but the military have some wars to get on with and with the terrorist pressures on the para-public sector in some nations are not noticeably decreasing.

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## FLY TIME

Later, during the show, Honeywell invited PAN along to Fullerton Airport to see their in-house airborne trials helicopter and its high level of equipment – including development edition of the Skyforce mapping systems and the company's latest helicopter Enhanced Ground Proximity Warning Systems (EGPWS), which are Helicopter Terrain Awareness and Warning Systems (HTAWS), are fully compliant with the performance requirements of the FAA's recently released Technical Standard Order TSO-C194.

All of the 'black boxes' associated with this technology is squeezed into the port side baggage lockers of the 1979 Eurocopter AS350BA N350FD that company air tests its products. Naturally it is a model that has undergone conversion to the Honeywell LTS101-600A3A powerplant! The white and red colours suggested that the FD stood for Fire Department but I was assured by my pilot for the sortie, Steven T Kilbourne, that it actually stood for Flight Department - a choice made when the company was in a state of flux and did not know what its name would be the next day never mind beyond.

The systems are tailored for the dynamics of rotary-wing performance and the flight characteristics of helicopters and help prevent collisions with ground, water and obstacles. The systems are designed to provide high quality life-saving information for flight crews, even in changing weather with poor visibility, in rough terrain, or at low altitudes.

Honeywell plans to obtain formal HTAWS TSO approval for its helicopter EGPWS systems this year and is particularly pertinent to the current US Helicopter Emergency Medical Services (HEMS) controversy.

Honeywell announced that its Sentinel™ helicopter avionics system, used widely by UK and European helicopter emergency medical service (HEMS) operators, is now available to pilots in the United States. Sentinel provides a multi-function display and navigation system with high resolution mapping, traffic and XM™ weather, and vertical down track profiling, thereby enhancing situational awareness and flight safety.

The suite includes a radar altimeter, above ground level readout, a night vision goggle option and obstacles database.

It provides HEMS operators with a single avionics package to meet FAA guidance. Recent FAA guidance for HEMS operators in the US requires weather, terrain, obstacle and altitude above ground obstacles awareness to be improved, and night vision goggles to be used for night operations.

Sentinel entered service with European HEMS and executive operators in 2008 and provides spatial awareness and navigational assistance for urgent mission pilots.

The US system offers XM Weather, a satellite weather feed, as an unique add on, in addition to US sectionals, terminals and helicopter route charts to meet the needs of operators in the US conducting medical rescue operations.

The system offers up to 24GB of on-board data storage, allowing Sentinel to provide navigational mapping to high resolution over an entire country. Sentinel is available in several configurations and can operate as a stand-alone, panel mounted MFD/Navigator, remote processor, or as an integrated element of the Honeywell Observer MKIII Mission System.

Sentinel has been priced at \$9,000 for the base unit – an affordable system for US operators. Other user installable upgrades to the Sentinel system are planned for this year including Plates and user configurable databases.

At more than four times the cost the Observer system is the more flexible and readers will have seen it as part of the Skyforce integrated mission systems now favoured by many European police forces. Where Sentinel is a useful stand alone system the more complex Observer feeds up to seven workstations and displays an is integrated with cameras, tracking devices, transponders, radars and ground based systems.





During the flight the display screen clearly highlighted a warning red ring around a near invisible obstruction in the flight path. The base of the tall slender aerials is just visible in the top left of the image but clearer highlighted above. ©PAN



The lockers of the AS350 are crammed with equipment on trial



## EVE OF SHOW – THE PRESS CONFERENCES

HAI is no two-minute event but time is so precious that the press conferences have to start early and tend to swamp the first two days of the event. At the same time as soon as the show opens they are vying with the events on the floor of the Convention Center. The result is that the press conference circus has started earlier and earlier to catch the attention of the scribbling masses. So, even as the show aircraft were still being pushed into position the PR machines dropped into gear.

I have little doubt that many CEO's have little love for the annual 'meet the press' gatherings at HAI. Tales of major rows over errors in reportage have filled these pages before, and although most hacks agree that the MDHI meetings have been particularly special since Lynn Tilton took over, it does not mean that the lady has similar views. For MD if it's not the length of the NOTAR on the aircraft it has become a fashion report on the ladies skirt length. This year was no different I understand but, unfortunately, I missed this years event by being tempted to go fly with Honeywell, it says a lot when flying comes before a bit of skirt. It must be advancing old age....

At the AgustaWestland press conference the company was upbeat and able to report on success in all areas. Sales are strong and increasing with an order backlog in the region of €10 billion [\$12.8 billion].

AW repeated a recent trait displayed at successive editions of HAI in not being 'allowed' to release the final figures of AW performance in the final quarter of 2008. In truth I do not suppose anyone is unduly put out by this omission in fiscal performance. That said the AW CEO Giuseppe Orsi seemed to take great pleasure in deliberately withholding the figures from the largely American audience. As it is two months since the close of last year some might ask why it takes this company so long to do its sums where all others get them to the party on time.

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This party opened well but it seems that Orsi [pictured right] was advised not to go to Anaheim.

*'Don't go to HAI, you will get depressed.'* Was the exact advice and it seemed at times he ought to have taken a little more note of those supportive words.

AgustaWestland is doing well in the industry, it has some really great products and has a massive foot in the US doorway but at times it appears less than sure of its own success despite a production backlog to be proud of. The presentation on the state of the company and its aspirations for the future came across as slick enough and no-one was in doubt that AgustaWestland was healthy, wealthy and in the US market to stay.

But there were strange reactions when it came to question time, when items outside the prepared script were brought out kicking and screaming into the open. Perhaps the stuff for CEO's to get depressed about!

Perhaps the most unfathomable reply to a question was that relating to the A119 Koala currently being built in the USA because some years ago its market was seen as being more US than European. When someone raised a question about the lack-lustre performance of the A119 Orsi seemed to indicate that he accepted that the A119 had not been as good a product as had been hoped when it was developed. Initially produced in Europe its subsequent move to the US was expected to see significant improvements in production rates but, it seems, these have remained elusive.

Perhaps that is why AgustaWestland and Tata Sons have announced the signing of a Memorandum of Understanding (MoU) for the formation of an Indian joint venture company which will establish a final assembly line for the AW119 helicopter in India. If, as his reply suggested, the sales are lower than expected perhaps India is seen as a better production line – giving the US factory more time and space to concentrate on the highly successful AW139. It appeared a matter of awkwardness that all other manufacturers knew the exact breakdown of sales by type but Orsi steadfastly refused to make the effort to provide figures when asked. It appears that even 'later' was off the options. Equally he would not be drawn on the A109 re-



## Reims F406 Land & Sea Surveillance



placement project.

Which brings me on to my question to AW - that also fared badly in the answer stakes.

AW had made a point of mentioning that it was selling 109's to the Italian law enforcement fraternity in its presentation. The primary product is the A109 Nexus.

As regular readers will be aware there has been some 'friction' between European Union lawmakers and Italy over this very fact. Simply the EU state it is illegal to select any civil registered aircraft for a government programme without an open competition. There is a waiver for state aircraft - meant to cover military acquisitions and for plainly obvious reasons of national defence.

It is clearly an area of passionate interest to Mr Orsi. He dismissed the EU competition rules out of hand, after all, he said with deep disdain, the French and the Germans select and fly their own nationally produced helicopter types so the Italians would too. Aside from the Carabinieri, a military derived law enforcement formation, the fleets have not been so considered anything but civil, but now the Italian government has unilaterally declared all to be state aircraft, thereby allowing replacement fleets to be exclusively home grown Agusta sales. With a fleet replacement requirement in three figures this is not to be taken lightly.

*It is 100% politics of course, but is he right or is he playing the home game, simply waving the tricolor and filling the Agusta factories?*

*Setting aside the convenient blurring of the situation created by the multi-national Eurocopter, I say he is wrong to cite the French and German's favouring their own. It really is all about the product. Germany currently displays the least tendency to purchase on nationalistic grounds. Cast your mind back to the FRENCH Sud Alouette's and Aerospatiale Puma's, and even the Italian Partenavia fixed wing of former years, and note the build and design source of current police airframes in Germany. France [Puma and EC155], Germany [EC135 and BK117], Poland [W3A] and of course the USA [Explorer/Cessna].*

*The French may be more guilty of such a sweeping statement in the past but the latest fleet line-up of EC135 and EC145 comes straight off the production lines in Germany even if it is a multi-national ownership company.*

*Most of Europe has chosen a Eurocopter product to be in their line up because they, the customer, believe it undertakes their operational needs so it seems particularly odd that Italy alone has no perceived need of any type without the word Agusta in its identity.*

*The long and painful acquisition of a new police fleet in the Netherlands tends to underline this.*

*Having failed to find a solution to their 'single airframe meets all needs' in France or Germany, the KLPD went off to the USA in what turned out to be a blind alley with the MD902 Explorer.*

*The final answer to that unique problem has been a mix of the E135 with the AW139 - thereby suggesting that the right product will sell regardless of origin or local protectionist measures.*

*The reader should recall that this is the same company that caused a furore when head office found that its UK branch in Yeovil was both hosting and supporting the local charity air ambulance that happened to have chosen to employ a contractor that supplied a Eurocopter on lease.*



The Bell conference was opened by a firm "Bell Helicopter is not for sale" statement from the Bell Helicopter management team that harked back to a Textron statement that either Bell or Cessna were on the line for a sell off.

The five primary Bell products, there were only four on the booth, include the V22 tilt rotor but not the tilt rotor 609. The latter is definitely low key these days and the Israeli flying car that Bell briefly tinkered with a few years ago has now slipped off the horizon without a wish that it will ever be returning to the company menu.



The certification of the 429 has slipped but is nonetheless still scheduled for May this year. Pending customer receipt of 429's it was very much a lack-lustre presentation pepped up by rolling out the fact that Bell has yet again been named Number One in Customer Service for the fifteenth consecutive year by the readers of another magazine. Am I really supposed to report that?

AgustaWestland would not give up the numbers on request but Bell Helicopter did. They received only three orders in January, down sharply from 40 in the same month a year earlier, they attribute this to the global credit crunch. Sales picked up in February but fortunately the company has total orders worth \$6.2 billion and plans to deliver 180 helicopters in 2009. That is a rise on the 167 delivered last year.

For most of us Eurocopter's traditional early morning press breakfast on the opening day was a strange affair. After a hearty all American breakfast of things the doctor always warned us against we all usually had to slope off down the hall to another conference [and another breakfast!] before it was over. But this time there was no later call to duty and as a result we sat through it all and even got to question time. It's the first Eurocopter question time I have encountered in a handful of years. And I dare say it was pretty much a disappointment in content – nearly everything had been laid on the line so there were no awkward questions just the odd repeat or clarification. Once again Eurocopter promised to pep up its not so good customer service and I guess though things will never get so good as to see them getting 15 consecutive awards they will be saying sorry again next year and a few beyond!

The show promised no great revelations this year... last year was the triumph of the EC175 and once again the mock-up of that type was to be the feature of the presentation, it was business as usual.



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## SHOWTIME

And so, finally, to the show. Exhibitor and visitor registration has been open for months but since it opened there had been a downturn in the economy and many making dire predictions but no-one was really sure what the day would bring. Even up to the opening day all indicators pointed to another successful convention and exposition.

And so it turned out to be. The attendees turned their backs on the supposed downturn outside the hall and it was business as usual – Showtime.

In the realms of the new there was not a great deal, in many ways it was consolidation time with many of the exhibits being vaguely familiar from last year in Houston. Certainly the then new black and white LAPD Bell 206 trainer was again present – but this time closer to home, Sagem was marketing its glass cockpit via the Bell, the Carson helicopter was again in the static, lots of familiar scenes. The real news was to be in the detail.

The largest display area was probably that of Sikorsky Aircraft, now encompassing Schweizer the commercial part of the group being rebranded as Sikorsky Global Helicopters. Last year they brought the unflown X2 demonstrator but this year it's only presence was by way of image or words. The demonstrator flew six months ago and current tests are investigating the fly-by-wire pitch control system and the high-speed pusher propeller.

Nothing has been heard of the Schweizer 434 since last year. Back then there was mention of a substantial order from the Interior Ministry for the Kingdom of Saudi Arabia for their Border Guard but since nothing. The latest news is that Sikorsky Global and Aircom SP Z.O.O conducted a ceremonial signing for the first fully certified, commercial S-434™ helicopter at the show.

The aircraft, which is Serial #1 in the model line, is the next iteration of the S-333 helicopter model, incorporating many of the design and performance technologies developed on the Fire Scout VTUAV (Vertical Takeoff Unmanned Aerial Vehicle). The aircraft is scheduled to be delivered in 2011 and will operate in Warsaw, Poland. Aircom currently operates two S-333-series and one S-300C-series helicopters for power line patrol, gas pipe patrol and flight training.



[www.PoliceAviationNews.com](http://www.PoliceAviationNews.com)  
**A wealth of on-line resources**







The first S-434s will still be a militarised version built for Saudi Arabia. The nine aircraft will operate alongside S-92s and S-76s ordered in 2007. The civil aircraft has completed low-altitude testing but could not appear at the show as it was undertaking other trials. Certification is expected next year. Meanwhile a 333 and 300 graced one site of the stand.

Wildcat Helicopters Inc., based in Kelowna, British Columbia, will become the first fleet customer to install and operate the BLR Aerospace FastFin™ System for Bell 212 helicopters. The FastFin™ has been a regular feature of air shows for years now but sales have been unimpressive and therefore the Wildcat contract is important to BLR. The customer has purchased six FastFin Systems to enhance safety and performance for demanding missions that range from aerial fire-fighting, rappelling and rescue hoisting, to heli-skiing and precision external load operations. The FastFin tail rotor enhancement and stability system gives a marked improvement to safety and productivity while reducing workload and fuel burn for helicopter operators. The patented FastFin System modifies the tailboom with two parallel stall strips (Dual Tailboom Strakes) and a re-shaped vertical fin, optimising airflow around the tailboom for dramatically improved handling and performance. Bell 212 helicopters equipped with the FastFin System significantly outperform standard configured Bell 212s and other Bell medium helicopters in OGE, IGE, wind azimuth tolerance, and hover stability. FastFin is available for Bell 212s and a range of UH-1 derivatives and will soon be available for Bell 412s. EASA certification is pending.



Kaman Helicopters is again expanding the firefighting capabilities of K-MAX helicopters.

The company is developing an innovative, powerful water cannon that will deliver water directly to the source of a fire, according to Mark Tattershall, Director of Marketing & Business Development for Kaman Helicopters. The cannon will shoot water from the front of the helicopter, enabling more direct, effective coverage when fighting fires in high rises or private homes, for example.

K-MAX helicopters continue to perform important work, including firefighting, worldwide. The newest K-MAX operator, Skywork Helicopters, flew its inaugural mission using a Bambi Bucket to successfully battle a massive blaze in New Zealand's Torehape Wetland. And although the logging business has slowed worldwide, operators such as Swanson Group Aviation continue work such as the installation of environmentally friendly power lines in California.

The multi-mission K-MAX is a 6,000-pound power lifter that maintains performance in hot/high environments. The K-MAX fleet of helicopters has amassed over 240,000 hours.



Named as the preferred provider for Texas Department of Public Safety, REB TECH has recently completed night vision conversions for the state's new EC145 and five AS350B2's. The EC145 supplemental type certification (STC) was approved by the FAA recently and the aircraft has been placed in service for the state of Texas. Working in conjunction with the completion vendor, Metro Aviation, the company provided the night vision capable equipment and technical support to complete the five new aircraft. The night vision capable aircraft include cockpit and cabin lighting systems, instrumentation, avionics, and mission related equipment for the EC145 and AS350's.

Despite the looming economic crisis around the World, UK based Eastern Atlantic Helicopters had a record breaking year with 22 sales recorded.

Four new single engine helicopters, six used twins and eighteen used single engine helicopters were sold and delivered in 2008 up from 18 in 2007.

Simon Oliphant – Hope, Managing Director and holder of the *World Speed Record for Circumnavigation Of The Globe* in a MD500E helicopter commented that: "By drawing on the very high levels of experience in sales from a very small team we are able to satisfy our clients needs and wishes. This year we have had to increase this small team to five persons due to the high level of deliveries taking place from our new Aviation Showroom at Shoreham in the South of the UK. Our newest member is responsible for the appearance of all delivered helicopters and their maintenance and records".

The new office in Mesa, Arizona is offering additional flexibility for Customers, associated engineering companies and Eastern Atlantic.

Despite all the razzamatazz late last year of a new World Speed Record for Circumnavigation Of The Globe Simon Oliphant – Hope still holds the single pilot, single engine record by a wide margin in his MD500E. A new record is being attempted in April to raise money for charity with a flight from London to Cape Town in the Republic of South Africa, again in the same MD500E used in other record breaking flights.



**PRAGUE 2009 22-24 May**  
incorporating **HELI EXPO EUROPE**



9K-BBD/N9075H MD902 Explorer destined for the Middle East and HEMS work arrives at the Convention Center © Alan Norris

At the MD Helicopters press conference during the show, CEO Lynn Tilton maintained that the company is on track to deliver more than 70 new helicopters this year even if events watered down the predictions of 2008. Ms Tilton appreciates that having the total sales of the 902 still hovering at around 100 is just not good enough and does not reflect the true worth of the type.

Last year MD delivered 52 new helicopters, 10 short of the stated goal but more than its recent best of 38 in 2000. Twelve were twin-engine MD 902s. The cause it is said was supply chain issues and having to take time-out to resolve two parts failure problems on the 902, the control cable to the Notar thruster and adapter tube for the vertical stabiliser control system fins.

It is expected that this month will finally resolve the question whether MDHI's future is to be in or out of Mesa. Any move will not be for at least two years but it may be interesting if the MD company finally cuts those ties with its historical neighbour McDonnell Douglas [now of course a Boeing owned company building Apache helicopters].

Despite missing my personal audience I was all too aware of that Tilton Factor in the halls. Long lines of people reportedly getting signed photographs, rapt attention to her appearance at the OEM forum where she apparently turned what had been a 'sombre gathering' into one where 'waves of laughter' prevailed. The PR is good but in the end the question must be can she sell a lot more aircraft?



*MD Marketing has made a very strong shift towards reliance on the image of its owner and there was a long queue for signatures on the MD stand. ©PAN*

Turbomeca announced it has signed with Russian Helicopters / Kamov and with Helicopter Services Company contracts for the development and serial engine production of the Arrius 2G1 to be installed on the Ka-226T.

Russia is experiencing a need for light helicopters capable of multiple missions such as transport, EMS, aerial work and surveillance.

The new Arrius 2G1 engine has been tailored to perfectly fit the power pack flying the Kamov Ka-226T. This new variant is actually a derivative engine from the existing Arrius 2, which was qualified 10 years ago, has proven its durability and reliability worldwide. As such, it fully complies with the latest and current world-regulation for public transport where in case of one engine is inoperative the remaining engine enables to fly the helicopter.

The certification of the the Ka-226T with the new engine is expected for end 2010. [www.turbomeca.com](http://www.turbomeca.com)

Eurocopter, still the lead helicopter manufacturer in the civil and public services markets, emphasised the broad spectrum of versatility of its helicopters and service in what was a limited display of the aircraft it offers to the market.

There was no sign of the pre-show rumoured EC145/BK117 with a Fenestron, that one turned out to be just one of the annual rumours that gets the crowd hyper-interested.

On the booth the company displayed its EC175 concept for a corporate interior [last year was slanted to the needs of the oil industry], a SAR-configured EC145, an EMS-equipped EC135 and an AS350B2 police variant.

A further highlight at Heli-Expo 2009 is Eurocopter's new EC135 Avionics Trainer, exemplifying the company's significant expansion into full-flight mission simulator, flight training device and training aid offers to enhance flight safety and to offer its customers a broad scope of services.

Despite the denigrators Eurocopter's large family of light single-engine and twin-engine helicopters remains the preferred choice of customers worldwide due the range of mission flexibility they offer. Some manufacturers claim to offer 'just the right airframe' to the customer, but only one actually offers a good choice in-house. The AS350, EC135 and EC145 each offer top performance in their respective classes while up to 50 optional equipment kits for each of these aircraft make them simple to retrofit and suitable for a multitude of mission requirements.

The displayed EC145 comprised some important extras in being displayed in a typical SAR role. The skid system included a step that is the latest offering from Meeker Aviation and one that looks very likely to replace the standard Eurocopter step.

When the Metropolitan Police in the UK took delivery of their new EC145's a couple of years ago they selected a standard role fit for their cameras and searchlights rather than further investigate the BK117 version of the McAlpine role pod fitted





to the BK117C1 of Devon & Cornwall Constabulary. After delivery it was noticed that the L3 Wescam cameras they had moved over from the earlier AS355N's were struggling to overcome the vibration. There remained a tiny buzz in the image but the SX-15 systems were working overtime to achieve the quality and it was feared that the overworked systems would suffer in their MTBF rate. The fault was eventually traced to the level of rigidity in the step system, although suitable for most customers the picky UK police sought something better and more rigid.

Although this was nominally outside the contract the police worked with the OEM to seek an answer to the problem. The resolution was found via the unlikely hands of Cal Meeker. So the UK police look likely to make use of these steps across the new build fleets and the idea may spread.

The other new product on the law enforcement scene, the Trakkabeam searchlight, also got to feature on the displayed EC145. As the hall was being set up Eurocopter – which was located opposite the small Trakka booth suggested that the searchlight might look good on the EC145 and it 'came to pass' that the company spent the show having to refer visitors to the starboard skid on the 145 while their display rig remained starkly empty.



Recent complaints by the US Army operators that a lack of air conditioning was turning their new Eurocopter UH-72 fleet into flying ovens looks set to be rectified shortly. Air Comm Corporation has been selected by American Eurocopter to provide vapour cycle air conditioning systems for the US Army's Light Utility Helicopter (LUH). Deliveries of the units are under way.

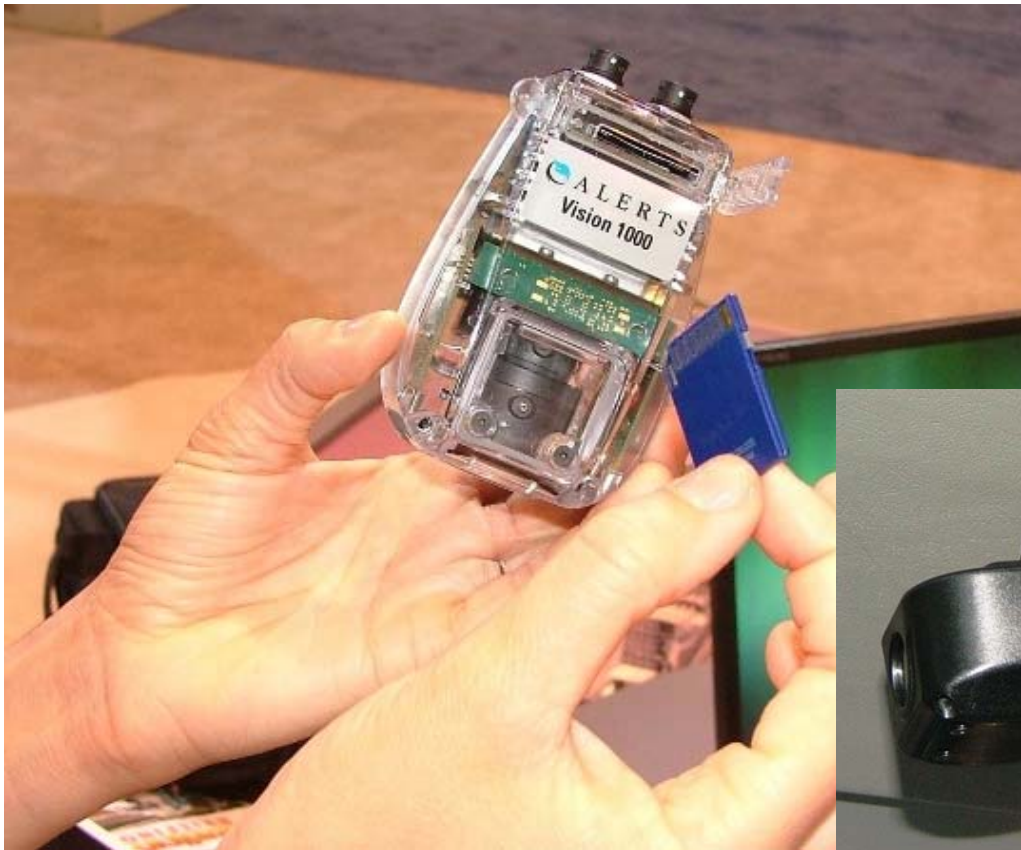
The placement of the two cockpit evaporators forward of the anti-torque pedals provides a large volume of very cold air directly to the pilot and co-pilot. This is critical for effective cooling, especially in extreme environments. The Air Ambulance Detachment at Fort Irwin, California received its full complement of six aircraft in April 2007, becoming the Army's first unit equipped with LUH aircraft. The temperature at Fort Irwin routinely tops 100 degrees (Fahrenheit) in the summer and it was aircraft operating at Fort Irwin that first raised the issue. The cabin evaporator is entirely mounted above the headliner.



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*Appareo ALERT Vision 1000 in a special 'showtime' see through case showing the solid state memory card extracted from the unit. Also shown is the unit fitted into the cabin of the LAPD AS350. ©PAN*



The LAPD AS350 on the booth was fitted with what is probably the most important system any exhibitor was bringing to the industry. Eurocopter has adopted the Appareo Systems ALERTS Vision 1000 - the most recent extension of Appareo's product line. The system was developed to provide operators throughout the helicopter industry with access to a flight data monitoring solution to enhance the management of their operations.

The small unit, designed to be incorporated in the headlining of an aircraft where it is able to visually monitor the activity of the front seat occupants, the instrument readings and the view ahead outside the aircraft records up to two hours of sights and sounds on a solid state memory card. The record can be accessed via a standard PC.

Potential uses include training feedback and accident investigation. The recording chip in the current unit is not in any way sealed, it is designed for easy day-to-day access and interrogation.

ALERTS (Aircraft Logging and Event Recording for Training and Safety) is the first complete Flight Operations Quality Assurance (FOQA) solution for light and legacy aircraft. It allows operators of any size to dramatically improve flight safety and pilot performance through carefully tracking and analysing large volumes of flight data.

The equipment is extremely small and lightweight, making installation possible in nearly any aircraft. Additionally, because the unit requires only aircraft power and earth [ground] to function, mounting the unit in an aircraft is a simple process.

The simple Appareo will be incorporated in Eurocopter helicopters and, in the interests of flight safety, the company is to promote it for industry wide adoption.

The ALERTS Vision 1000 will initially be certified under a Supplemental Type Certificate for the Eurocopter AS350-B2/B3 later this year for installation in early 2010.





At the show American Eurocopter recognised seven airborne first-responder agencies for flying Eurocopter aircraft, and also acknowledged four new customers who have joined the company's growing list of law enforcement and government operators.

The awards were presented at American Eurocopter's annual Law Enforcement Luncheon, which was held during the show in Anaheim. This luncheon is part of American Eurocopter's continued close working relationship with police and government agencies that use Eurocopter rotorcraft from coast to coast, and border to border.

American Eurocopter's Flying Eagle award was presented to the Los Angeles Police Department's Air Support Division and the City of Los Angeles' General Services Department for achieving 175,000 safe flight hours while operating AS350B1/B2 helicopters. This achievement is representative of outstanding performance from flight and maintenance crews working together toward the unified goal of providing air support to ground operations of the LAPD.

US Customs & Border Protection also received a Flying Eagle award for logging 155,000 accident-free flight hours with AS350B2/B3 and EC120 helicopters while maintaining the security of America's homeland. The agency's operations included 1,000 criminal apprehensions and the seizure of over 100,000 pounds of illegal drugs in 2008.

An American Eurocopter Flying Eagle award was issued to the Los Angeles County Sheriff's Department for its 56,000 safe flight hours with AS350B2s in Southern California.

The Baltimore Police Department also received an American Eurocopter Flying Eagle award in recognition of its 28,000 safe flight hours while operating EC120 helicopters. The department has the highest-time EC120 fleet in the United States, including one aircraft with 8,500 flight hours.

American Eurocopter's Winged Handcuff award was presented to the San Diego Police Department for its highly-effective application of AS350B3 helicopters in law enforcement operations, leading to more than 4,000 criminal apprehensions. This agency is known for its efficient use of airborne mission equipment and the close coordination with ground units in successful law enforcement operations.

A Distinguished Service Award plaque was issued to Captain Joseph P. Impellizeri of the Los Angeles County Sheriff's Department in recognition of his leadership as Commander of the Los Angeles County Sheriff's Department Aero Bureau. Under the command of Capt. Impellizeri – who is completing a 32-year career in law enforcement – the Aero Bureau has risen to a high level of excellence in support of the Los Angeles Sheriff's Department and the citizens of Los Angeles County.

A Service Award plaque was issued to Brian Parsons, Director of Maintenance for the Hillsborough County Sheriff's Office, in recognition of his dedicated efforts in the service of the agency's Aviation Unit. This unit has achieved over 5,000 flight hours while operating AS350B2 and EC120 helicopters with a 100% response rate to calls for service, and no calls missed due to maintenance-related items.

American Eurocopter's Law Enforcement Luncheon also included the awarding of new customer plaques to the following agencies that have selected Eurocopter helicopters for their airborne law enforcement operations: Lake County Sheriff's Department (EC120), Miami-Dade Police Department (four AS350B3s), Placer County Sheriff's Department (AS350B3), and the Riverside Police Department (AS350B2).

Becker Avionics announces the introduction of its newest Audio Control Unit (ACU) 6101. Based on the standard ACU6100, the ACU6101 Audio Control Unit is the latest addition to the state-of-the-art Digital Audio Selector and Intercom System DVCS6100. Designed for rotary and fixed-wing aircraft, the ACU6101, is specially optimized for restricted panel size applications and offers up to 5 communication channels, 6 navigation receivers, low power consumption as well as reduced weight and size. The system is superior to any analog system, as it offers crystal-clear voice communication, a proven Man-Machine-Interface (MMI), outstanding reliability, as well as scalability and flexibility as the system is fully software configurable.

#### About ACU6101

The Audio Control Unit (ACU) 6101 is part of the Digital Voice Communication System DVCS 6100. The DVCS6100 has been designed for both, rotary and fixed-wing applications and fully reflects Becker Avionics' proven know-how of more than four decades in intercommunication system development for the aerospace industry. The ACU 6101 controls the Remote Electronic Unit (REU) 6100. Maximum six Audio Control Units can be connected to the Remote Electronic Unit. The Audio Control Unit is designed for installation in cockpit and cabin. The dimensions correspond to the ARINC 601 standard for control units. Installation is by means of four DZUS fasteners. The functional inscriptions of key caps, rotary switch, and increment sensor are finished in white translucent characters. The ACU6101 is offered with White Backlighting or optional in NVIS green compliant according MIL Illumination.

Each one of the max. 6 ACU's transmits the status of the selected switches and rotary controls via a dual redundant CAN-Bus to the REU 6100 and offers:

- 5 TRANSCEIVER
- 6 RECEIVER
- VOX Control
- Voice Filter act.
- CALL/ISOL selection
- IC – Volume
- Main Volume
- Back-Up/Slave mode
- Speaker selection (optional)
- Front PTT (optional)



The item in the March edition of PAN repeating a story about AgustaWestland that first appeared in Flight International was the cause for an e-mail from AgustaWestland within hours of publication. *It said that AgustaWestland is cancelling orders with Poland's PZL Świdnik as it has lost any chance of taking over the firm. AgustaWestland was now said to be looking elsewhere for potential suppliers of fuselages.*

The company states it has not cancelled any orders with PZL Swidnik nor has it lost any chance of taking over the firm. The current situation is that ARP, the owners of the 87% stake in PZL Swidnik, has notified both Aero Vodochody, part of the Penta Group, and AgustaWestland that it will negotiate first with Aero Vodochody while reserving the right to simultaneously or later negotiate with AgustaWestland if it wishes.





## AND FINALLY **OVER TO FRANK'S FOR A PARTY**

Many expected the star of Heli-Expo to be the turbine powered Robinson R66, certified or not, but it was not to be. Fortunately Robinson Helicopter founder Frank Robinson made up for its absence but inviting everyone [yes everyone] around to view his place and his new product. And large numbers simply did not need asking twice.

Although the R66 stayed away from the Convention Center, five of Frank's best selling machines were representing him on site and it is they that are making the pennies at the moment.

The factory is on the way to LAX airport and under an hour from the Anaheim Convention Center so it was an easy option for attendees and their hosts on the last afternoon. They catered for 300 and, although the food was enough for a snack on the day, they could easily have gone for higher numbers or invited everyone to dinner.

Forget the R66, the factory tour was jaw dropping. Think recession then walk into the giant Robinson workspace and ask yourself 'what recession' – the place is wall to wall helicopter building, the R44's are coming out of the place like there is no tomorrow and just about every mechanical part is produced in-house by a massive army of employees. Many of the component manufacturing processes are undertaken by the latest in robot technology but that does not extend to the humanity busy assembly line. No pictures can effectively capture the frenetic atmosphere.

The sheer number of completed helicopters taking up spaces around the manufacturing process was daunting, but it was clear that here was a mix of remanufactured machines returned to the factory for their 2,000 hour rebuild and just a few days production at the rate the new machines were being pumped off the end of the line.

On display in the last room of the tour was R66 No. 2, surrounded by the feast to come and all added to by the arrival of Doug Tompkins in R66 No.1 flying from 'stage right' to land outside. A while later Doug started





the star of the show again and put on a short display.

This is the reason why Bell dropped their 206 JetRanger and it is a wise decision. What appears to be on the face of it an R44 starts with a whistle but by the time it is up and ready to fly you would be hard pressed to know whether it's a 44 or a 66 by the sound. It is bigger, with more interior space for the passengers and their baggage but, barely obvious size apart, it really does not look any different from any of the hundreds of R44's churning out of the factory just yards away - until you notice that there is a jet efflux at the back.

And now for the bad news?

Heli-Expo 2010 is set for a swift return to a Houston that no-one seems to have a good word for. Rumour has it that there is some sort of rift between the organisers [HAI] and the people favourite - Las Vegas - so if it is true it looks like we are set into a cycle of Anaheim, Houston and Orlando for the foreseeable future. Still I guess we can always change our allegiance and go see the ever popular 'The world of concrete' which is the show on in Vegas next February...

Hmmm, maybe not, so its: -

*Heli-Expo 2010 February 20-23, 2010 George R Brown Convention Center, Houston, Texas*

