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Special Edition Heli-Expo 2008

IPAR

HAI HELLEXPO



Alan Norris

PAN – <u>POLICE AVIATION NEWS</u> is published monthly by INTERNATIONAL POLICE AVIATION RESEARCH 7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK **Main:** +44 1992 714162 **Cell:** +44 7778 296650 **Skype:** Bryn.Elliott Bryn Elliott **E-mail:** editor@policeaviationnews.com

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Heli-Expo 2008 - Houston Texas

Another great show where the great and the good [and the not so great or good] all come together to talk helicopters. It, more than any other venue, is where deals are talked through and finally sealed or just simply announced.

As a reporter of the event there is some sifting to be done of course – with so many international programmes these days there is a tendency for helicopters and dollar earnings to be counted once, twice or even three times over in announcement!

One thing is starkly clear though – the aviation industry is growing at a tremendous pace and no less so in the helicopter sector.

Grip hard on your seats and hold onto your hats we have lift off....!!

The Setting

Nominally Heli-Expo is a three day event running from February 24 to 26, but those three dates are about the all important exhibition, either side of that there are dozens of classes, committee meetings and workshops that fit in with what can be seen as an American culture to promulgate information and learning.

I know that countless superlatives are heaped on the various HAI shows and many who have never been there quite likely tend to dismiss it as over hype of the product, but they are wrong to. If your interests lie elsewhere than in rotary wing flying – knitting or gardening perhaps – there may be no real interest but if you are in helicopters you will love Heli-Expo for all the right reasons. Other shows strive to up their game but none is ever likely to match even the least interesting edition Heli-Expo – the show itself excels year on year.

This year it was Houston for what I believe was the first time. Brilliant venue [the building in the business heart of the City of Houston], tremendous content [the show] but oh dear what is Downtown Houston? The show started on Sunday but the days before are about feverish preparation. When you arrive in the business heart of any city late on a Friday you quickly notice that you have arrived on a building site fit only for Charlton Heston's *'Omega Man'* [well OK, perhaps Will Smith's *'I am Legend'* is a tad more up to date but I have not seen that yet!]. Concrete canyons and deserted car parks devoid only of the tumble weed. It was pretty daunting for those without their own transport and it was Monday before the return of the workers brought an improvement.

Fortunately the show is pretty all consuming and self supporting and the return to a business week made it clear that there were inhabitants outside the George R Brown Convention Center.

Cover Image: Not at the show but not far away! One of the Houston Police Department MD500's captured in flight a couple of days prior to the Heli-Expo by Alan Norris <u>www.norrpress.co.uk</u>

Preamble

Goodrich Hoist and Winch again preceded the main event with a user conference held off site – this year at the Hyatt Regency Houston, in Louisiana Street, just a few blocks from the conference venue. Topics for the event included technical briefings, forums and maintenance training.

Last year PAN was in town for the whole of this event [in Orlando, Florida] but this year only the last day of the Houston event was covered – effectively the maintenance training.



lems highlighted at the Godrich maintenance workshop... unacceptable wear on the cable guide wheel of the 'crowder' tensioner.

Right: The audience this year was larger than last.

These events are also a talking shop of real or perceived problems where 'education' extends to how to train on winches without having to spend too many valuable flight hours. That topic brought to the surface the somewhat 'rustic' solution used by some US operations including Los Angeles using Huey hulks on top of tall towers to the more high-tech option favoured by a significant number of UK customers for the virtual solution offered by Virtalis [see http://www.virtalis.com/content/view/204/340/ for some ideas]. The latest update on this should come out of the SAR Conference in Bournemouth report next month. Virtalis are there with a Goodrich system plumbed in. Houston attracted a far larger audience to the 'hands on' introduction to inspecting, cleaning and maintaining the valuable life acting devices.

valuable life saving devices. Although there have been similar events across the world they are generally held in a lower profile location than is the case with the annual HAI migration. The company has found that adding a day or two prior to the opening of the attractive show makes the numbers interested increase in number. www.hoistandwinch.com www.goodrich.com



Honeywell chose the same location to hold their own two-day meeting of the corporate entity with customers under the working title of the Helicopter Operators Conference. There were doubtless other meetings undiscovered elsewhere in the city.

The sideshows to the booth display in the main hall are the press calls and the technical

briefings. In the main they are numerous and usually more important to the manufacturers than the main event. One Honeywell presentation at the Hyatt Regency was on the HTS900 turboshaft engine - the development of the LTS101 that usefully loses sight of the name of its less illustrious forebear. That is a widely used but occasionally troubled engine. The 900 is a 'new' engine but tellingly most of the established LTS101 tooling reads straight across to the new.

Airframes using the 900 include the Bell ARH but there are projects to fit it to the AS350, AW139 and Huey. Famously Bell cancelled another project [the 417] that was to use it because it would be too expensive.

Much is expected of the HTS900 and Honeywell were offering a great deal of the positive in their lacklustre presentation. The trouble with Powerpoint is that it is pointless if the presenter just reads what the audience can read for themselves.

The Phoenix built 950shp engine has been around for a couple of years now and should see the final certification hurdles passed this year. Inspection and overhaul times promise to include some high numbers for a new engine.

HTS900 has already completed nearly 500 hours of flight testing on the Bell ARH-70A Armed Reconnaissance Helicopter successfully.

Honeywell's highly durable engine utilises mature, next generation, technology including a dual centrifugal compressor, effusion cooled combustor, cooled gas turbine blades and full authority digital electronic control (FADEC) to increase engine reliability and power output while reducing fuel consumption.

Bell

Press conferences [and much of what I write is about the material and impressions given over at these largely closed door events] started on the Saturday before the Sunday show day with Bell Helicopter and Turbomeca. The givers of these events seek to control the output but they are not always successful in their mission and poor old Bell Helicopter have a history of failing to live up to the hype that they have themselves created. Long term readers of these pages may recall the regular output from the Bell campus on projects created with great ballyhoo that have just not survived 12 months. It was clear that Bell were genuinely hurt when the audience of hacks smiled knowingly at the Model 210 Huey when it arrived on scene a few years ago and equally they continue to be uncomprehending about a lack of belief in what is left.



often the right question popped in can extract either total silence of some important gem. Weeks after they announced the dropping of the overall poor sellers, the 210 [2 sold], 430 and 427 [under 100 each] and the 'high selling' Bell 206B leaving just the 206L4, the similar sized 407 and the large 412. It was learned that the 206B and 206L were selling in near

equal numbers last year [28 206B and 25 206L]. So the dropping of one was not necessarily as sensible as it seemed. An answer to another, awkwardly accepted, question suggests that the 206B may have been sacrificed on the altar called the 'Robinson R66' - this suggests that Frank's 5 seater faces no contest from the tried and tested Bell five seater.





Still, with Bell claiming the industry is growing by at least 10% annually the company cuts its staff back by 5% and sits on its haunches awaiting the magical turn around to be brought about by the 429.

For the umpteenth year Bell have been able to point to a magazine survey that places them at the top of the *Customer Satisfaction* rating, the spares are flowing and fast it seems where other manufacturers actually build new aircraft from their spares stock... or am I being too cruel?

On the stand was a Bell 412 and a pre-production 429, complete with test flight wiring and an unfitted interior. The numbers of buyers for the 429 continue to climb but the fact remains that this is still two years away from service leaving the company very much marking time. The MAPL system upon which the 429 was built promises much and there were suggestions that a stretch and a shortening of the airframe were on the horizon but each will take years from announcement to appear. For now there remains that period of nothing. From being such a large player in the US and world markets Bell are now presenting new technology production mainly based on twin-engine designs in a home market that remains firmly geared to single-engine flying.

Overall though Bell gave an impression they might be getting themselves together – they certainly mean well – but we will have to wait another year to see what else may unravel! Meanwhile they can dine out on that repeat award.

I never did ask what happened to the much vaunted Bell promoted tie up with the Israeli company Urban Aeronautics Limited and their X-Hawk[™] Fancraft[™]. That was the flying rescue car promoted at the 2006 Farnborough Air Show along side the Bell 417. I think we know where that flimsy idea has gone.



Turbomeca

By contrast the pre-event press call for Turbomeca represented far less controversy. North America is a major market for Turbomeca with sales to civil operators flying a variety of missions covering offshore, EMS, Tourism and police support. In addition, Turbomeca provides Arriel 1E2 engines to power the UH-72A Lakota of the US Army and Arriel 2C2CG engines for the US Coast Guard's HH-65. Very much a success story, though not without the sort of support blips that all companies have to admit to.

To cope with growing demand and to offer in country support, Turbomeca USA, Turbomeca Canada, six TurboSupport Centers and over 15 Field Representatives allow the engine maker to support a fleet of over 2,400 Turbomeca engines in service on nearly 2,000 helicopters.

Turbomeca see throwing additional trained people at any problems as the best way to improve responsiveness to the customer operator.

The local 'branch' is Turbomeca USA based in Dallas, Texas, this has grown from just 5 to over 360 employees since 1980 and clearly reflects the European invasion that is the US helicopter business of today. Add Turbomeca Canada in Quebec and Turbomeca Manufacturing newly established in Monroe, North Carolina to increase production capacity and American content of the on-going Eurocopter's UH-72A Lakota build. It seems it will not be long before the North American entities will dwarf the French originals.



The Show Proper

The 60th Meeting of the Helicopter Association International 'HELI-EXPO 2008' got off to a great start in the halls of the George R Brown Convention Center on Sunday, February 24 with events that included the opening ceremony, meetings, classes, and a crowd of attendees swarming into a convention building which showcased exhibits and static displays. The first day saw a record setting number of attendees; 15,557 people and, although the numbers waned the records continued to stack up to the end. Texas is a shrewd place to hold HAI, lots of helicopter people there.

Sikorsky

Within minutes of the show being declared open the major players were holding high profile product launches. Sikorsky had their X-place research craft to unveil – although most knew its form and later the latest development of the Schweizer 330 based on researches into the Northrop Grumman RQ-8 Fire Scout UAV, the Schweizer 434. Improvements include a Rolls-Royce 250-C20W engine with 320shp MTO power giving it a useful load of 1,855 pounds some 600 pounds more than the earlier 333.

At least this craft shows signs of selling beyond the poor performance of previous versions. The company announced that it had sold nine to the Saudi Arabian Border Guard for training.



Sikorsky had their own projects to promote, the S-92 being perhaps the most prominent and successful. Beyond that their booth was the scene of an announcement with Norrlandsflyg AB relating to the Swedish helicopter operator agreeing to delivery position agreements for eight S-76D helicopters, the next generation model of the now long standing Sikorsky S-76 helicopter. Norrlandsflyg currently operates a fleet of nine S-76 helicopters in Sweden for air ambulance and SAR duty and has leading expertise in around-the-clock SAR duty. This spring, another two S-76C++ helicopters will be added to the fleet. Norrlandsflyg is under contract with the Swedish Maritime Administration's SAR division and performs all the Swedish maritime SAR mis-

sions, from five bases, with crews on 15-minute, 24/7 response time.



The S-76D helicopter offers more than a 1,000-lbs increase in useful load and extended range performance over the S-76C++ aircraft currently fielded. <u>www.sikorsky.com</u>



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Eurocopter

At Eurocopter a well shrouded 'new aircraft' launch was in the offing. Before the day there were many guesses at its identity but long before the curtain went up the secret was out. All the guesses were well astray mainly led astray because it was a known airframe and the guesses were aimed at unknown visions.

At 11.30am on the opening day Eurocopter lifted the veil off a brand-new member of its helicopter family: the EC175, a project previously announced as a China cooperation project. The full-scale mock-up was highlighted on the company's booth. The 16-passenger civil product is primarily of interest to the oil market and a flush of sales announcements reflected that but it would suit some Homeland Security missions, police, EMS and SAR. Two first launch partners are: Bristow Group (USA) and VIH Aviation Group (Canada). Eurocopter announced further customers during the show and by the end of the show the new type had around 100 orders.

The development of the EC175 is on schedule. In a two-year timeframe, starting from the contract signature on December 5, 2005, followed by the approval of the Preliminary Designed Review on December 5, 2006 and the acceptance of Critical Design Review on December 5, 2007 the design has been frozen. Production of the first prototype is launched. The maiden flight is scheduled for 2009, EASA (European Aviation Safety Agency) type certification is expected for 2011.

Unlike previous years Eurocopter was not exhibiting a police aircraft line-up on their stand – the airframes were the first EC225 in the US for ERA and a sightseeing EC130.

There were no shortages of Eurocopter airframes on display elsewhere or sales announcements though. The Los Angeles Police Department (LAPD) has purchased a 14th AS350B2



helicopter from American Eurocopter. Destined to serve in the LAPD's Air Support Division (ASD), the new B2 will join a mixed fleet of rotary and fixed wing aircraft. The LAPD's ASD provides backup to the city's patrol officers, conducts high altitude surveillance missions, and serves as transport for SWAT insertions and dog search teams.

'The Department wants to standardize our airframes, which is why the LAPD has purchased this B2,' says Sergeant Jorge Gonzalez, the officer in charge of the ASD's support section. 'Over the years, we have found the B2 to be highly reliable, dependable, and safe to operate. This matters, because the ASD spends a lot of time in the air. We log anywhere between 17,000 to 20,000 hours annually.'

The LAPD began flying helicopters in 1956, starting with a single Hiller 12J assigned to traffic patrol duties. A second helicopter was added in 1963, and a third in 1968. A major expansion occurred in 1974. Today, the LAPD's ASD has 77 sworn personnel with 18 helicopters and a King Air Super 200 in its fleet.

They still operate the Bell 206B on training roles though and were exhibiting their latest acquisition at the show.

AgustaWestland

Although AgustaWestland overall and US market share sits some distance behind Eurocopter the company is growing in the US day on day. This is the same market that has proven stagnant for all the established US companies except Robinson and product aside there is no clear reason why. The AW139 that Bell rejected a part in is now such a world market leader that production is building up in the USA and only the HAI launched EC175 looks likely to ever challenge it.

There is some law enforcement interest in the A119 Koala and 109 Power/Grand but it is muted where in the EMS field they are clearly stronger. The police market prefers single engine which means that it is primarily the Koala that has to make headway against the Bell 407 and AS350 for market share and overall it is clearly not first choice.

Naturally AW were cock-a-hoop at their successes in the world market and rounded off their

press conference with a series of three customer presentation. The first by Swiss Air Rescue REGA produced some brilliant insights, the second by an AW139 operator good but they should have stopped at that point when they introduced a potential AW139 operator from China that turned out to be a brilliant advertorial for the Sikorsky S-76 fleet they currently operate.

Back to the REGA presentation. Readers will recall that a few years ago REGA the independent and privately operated notfor-profit air rescue foundation flew a fleet of highly successful Agusta A109K2 helicopters on rescue missions in the Alpine Region. Then, with the short production run Agusta no longer available they bought into the Eurocopter EC145 – a factor that really lifted the French team that produced it. It was not long before it was clear that the altitude performance of the 145 could not match that of its venerable A109K2 forebear and REGA found that it has a serious capability gap.

On paper there were no other helicopters that could match the performance of the K2 so REGA went to a range of manufacturers seeking to get a special performance machine developed for their use.

In a scenario that looked to be a repeat of the Dutch police request that defeated MD Helicopters Eurocopter, the company that put an AS350B3 on top of Everest, looked at the requirement and declined to meet it. The EC145 was giving all it could and there was insufficient leeway to lose enough weight and enhance the power output to make a meaningful attempt.

The Heli-Expo presentation at the AgustaWestland press and customer gathering was about the special performance AW109 Grand solution AgustaWestland are promising REGA shown against their existing type - quaintly called Helicopter X in the slides.

As yet the special performance version of the 109 Grand has not been delivered to REGA – indeed they have only just announced an order with Aerolite for eleven AgustaWestland A109 Grand EMS Interiors for 2009 delivery.







Rolls Royce

Rolls-Royce, which claims to offer the broadest range of turboshaft engines for helicopters in the world, are forecasting an increase in the civil helicopter business.

Meanwhile at the show they were celebrating two more milestones for their long established RR250 series engine that powers a large number of the world's helicopter fleet. The company [formerly Allison] has now manufactured and delivered 30,000 RR250 over 4 decades and just a few months ago certified the latest in the line – the RR300 a development of the original destined for the Robinson R66. The 30,000th engine went to MD Helicopters for use in a new MD530F helicopter.



PWC

Pratt & Whitney Canada, a company making increasing inroads into the UK police helicopter market with recent successes in the EC135 sector continue to ride high in the US market and are effectively the main competitor for Turbomeca.

They launched an all-new Fleet Management Program designed to meet the wide-ranging engine maintenance needs of helicopter customers around the world.

The new Fleet Management Program (FMP®) offers a range of plans that guarantees a customer's operating costs over the long term. The result is a cost-effective, "no surprise" maintenance environment. Moreover, maintenance is performed to high quality standards at P&WC-owned or designated maintenance, repair and overhaul facilities.

Pratt & Whitney Canada, based in Longueuil, Quebec, is a world leader in the design, manufacture and service of aircraft engines powering business, general aviation and regional aircraft, and helicopters. The company also offers auxiliary power units and industrial gas turbines. United Technologies, based in Hartford, Connecticut, is a diversified company providing high technology products and services to the global aerospace and building industries.

MD Helicopters

The long climb out from the abyss that MD Helicopters sank into continues and there are clear signs that the recovery is more or less on schedule. But at what financial cost to Patriarch Partners and CEO Lynn Tilton?

A couple of years ago PAN wrote up a 'State of the Nation' appreciation of MDH based partly on an interview with MD's David Oglesbee at the Berlin air show [June 2006 edition]. The recovery time scale, hopes and aspirations he put out then have so far held pretty firm and much of what he told me is coming to pass. That placed 2008 as the year that MD could expect to be seen as recovered sufficiently to trade near normally. Which is more than former airborne law enforcement officer David Oglesbee has – he was discarded in one of CEO Lynn Tilton's many reshuffles long, long ago.

So the press conference given by CEO Lynn Tilton on the Monday morning was not an event to be missed. The lady who has fired many is not one to mince words and she was gunning for the media who she blamed for many of her troubles.

Tilton defended the company that she assumed control of in 2005 and at the same time

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lambasted the critics and in particular one called James T McKenna from Rotor & Wing. Jim is her favourite enemy and she has special measures in place at her press conferences just for him. Video and sound are all plumbed in to record every word she spouts and unfortunately a couple of years ago Jim wrote an item without recourse to a recording and he got some of it wrong. The result was that to this day a full recording of that past HAI press conference remains on the MD web site in sound or video and the camera and audio set up this year was shall we sav 'comprehensive' - dare I venture further?

Jim arrived late this time – and was clearly a marked man as Tilton switched from lambasting all the media present to him alone. He took it like a man – smiles all around the room.



Her wider issue was that the media criticised her for buying the company, and the lady not only dislikes criticism from within but from without also. And it shows. She said the critics do not hurt her but '...you hurt my company and you hurt my customers...'

In fairness staff and customer turnover may well reflect something but whether it is the critics or the ultra-high expectations of the CEO I do not know.

And its not just the media that is in her somewhat vengeful sights. Many in industry have let MD down over various issues. A failure to meet her expectations on parts delivery is just one area of her disquiet that is leading her to dismiss the previous plans related to outsource. On the grounds of simplicity the previous reliance on 500 sources of parts will plummet to just 50 tried and trusted suppliers. That leaves 490 out in the cold.

The most recent irksome supplier was Honeywell – six months production was lost when they pulled a vital instrumentation component from production – but in the next breath there was a hint of conciliation as it seems Honeywell worked with MD to solve the problem. News of a tie up with Garmin for instrumentation relates to the smaller 500/600 craft.

Buoyed up by the improving situation Lynn Tilton came to lambast and dressed to kill - the

clothes she wore are not those consistent of many CEO's in this industry. But in the end it does not matter as long as MD survives as I believe it now will. She savs it. she believes it and apparently still has the money to make it happen over the next year or so. The company has launched the new 'MD Power' programme, а comprehensive support plan covering parts for overhaul as well as and scheduled nonscheduled events. It is transferable to a new



owner and is designed to effectively maintain the aircraft as new 'in perpetuity.' Everything has a price of course but this extension of the 'Power by the hour' principle could be a pressure sore on other manufacturers. MD has created a separate department within its material support organisation specifically for MD Power customers.

In a very PR orientated move MD are giving customers 'Free' wire strike protection [WSPS]. Tilton proposes this as an 'opt out' option designed to save the lives of MD's customers and it is clearly an item that has cost implications – tangible money saving for the customers and a debit item for MD.

Signs of recovery may be fogged by the 6 months production lost over that Honeywell deletion – ten Explorer's - but recent successes include an order by California Shock Trauma Air Rescue (Calstar) for five new Explorer's in EMS role and that deal could expand to an additional ten over the next seven years. MD delivered 32 helicopters last year but plans to deliver more than 60 helicopters this year, and that production will reach 10 aircraft a month in 2009 and deliveries should reach 100.

Another Tilton battleground is the move from Falcon Field, Mesa, Arizona. Its all about the locals trying to ramp up the rent. The move remains in the plans with choices being narrowed down to elsewhere in Arizona, Florida, Oklahoma and Texas. The resolution of that battle is predicted to be within 45 days.

As if MD is not enough on the Tilton plate there is apparently a hunt on for two new acquisitions to the Patriarch Partners empire - a composites company that might be producing panels for revisions to the existing production line-up and very-light jet manufacturer. The audience probably thought the latter may be Adam but their continued failure to find a backer has not clarified the situation. It may be that being dead for a few weeks more will drive down the price for Patriarch. It is currently \$10M. Whichever companies are selected they are to be co-located together in the new home 'somewhere'...

MDHI is working with Rolls Royce to provide a new engine, most likely for the MD530F, to boost speed, payload and range. That will bring a wry smile to some in Long Beach. The Los Angeles County Sheriff were regularly beating down the door of the old MD to try and get an uprated engine for its all MD fleet, but were told it was not possible. They reluctantly went to American Eurocopter but once moved a return seems very unlikely now.

MD kept the Columbus, Ohio, Police Helicopter Unit though and the tenth example of their favoured MD500E® helicopter was on display in the MD Helicopters, Inc. booth at the Heli-Expo in Houston.

The new aircraft are part of a planned fleet replacement program that will help the Columbus Police Department maintain low operating costs across its fleet of six aircraft currently patrolling the city of 216 square miles in Central Ohio. The fleet is airborne 16 hours a day, seven days a week.

Underlining the popularity of this former Hughes helicopter line in the law enforcement patrol role Columbus has accumulated over 40,000 hours flight time operating the 500E and a

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Visit our new web site at ... WWW.Mrcsecurity.com number of existing customers may just be caught and tempted to stay within the MD fold. But so many have left.

MD also announced the re-launch of its legacy Main Rotor Blade. The new 525 M/R Blade shares the qualities and characteristics of the proven 523 M/R Blade. The newly designed 525 M/R Blade will have Titanium Root Fittings and an enhanced paint scheme to improve field inspections. It is manufactured by Phlight of Phancy (IAC) in Haslet, Texas and is based upon the platform of the MD Helicopters, Inc. original highly successful 523 design that was discontinued in 2000. Lynn Tilton presented this as '... one of the many upgrades and improvements to our product offering scheduled for 2008. We have asked our customers what improvements they seek ---what they need most--- and we are responding accordingly. Last year at Heli-Expo, many of our operators asserted the desire for a return to the flight characteristics of the 523 blade; the new 525 M/R Blade is designed and carefully constructed to closely match those characteristics.'

And finally, to bring to an end what seems to be this bumper report on the condition of MD, being at Houston allows the asking of questions and has brought to an end the little



mystery that surrounded the ultra-fast delivery of a replacement MD902 Explorer to the Hannover based Police of Niedersachsen [Lower Saxony] air unit in Germany in December. The police wrote off the seven year old D-HPNB c/n 0061 in November 2007.

It seems that one of the airframes assigned to the defunct Netherlands Police contract in 2003 and therefore already pretty much converted for the law enforcement role was available and therefore delivered post-haste to meet a financial deadline via Action Aviation in the UK. Originally assigned PH-PXB c/n 00087 it was N7037J for sale with Action Aviation, UK with a total time of 205 hours and 700 landings and is now D-HPND.

It will join the two other remaining Explorers in Hannover D-HPNA c/n 0059 and D-HPNC c/n 0064.



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Turbomeca—revisited



The Bond Aviation Group has reached an agreement with Turbomeca with regard to SBH® (Support By the Hour) contracts. The contracts concern the Arrius 2B2 engine for Bond's fleet of 18 EC135T2 helicopters and Makila 1A and 2A engines for the Bond Offshore Helicopter's fleet of 10 Super Pumas.

The agreement represents renewed business resulting in a five year extension to the current contracts which is a clear demonstration of the strong relationship between the two companies. Bond Air Service's fleet of EC 135T2 aircraft are used to support a wide diversity of high demand operations including Air Ambulance and Police operations throughout the United Kingdom.

Bond Offshore Helicopter's fleet of Eurocopter AS332L2 and EC225 helicopters are utilised to transport personnel in support of the offshore oil and gas industry with further aircraft specially equipped for the support of 24 hour search and rescue operations.



DART Helicopter Services has released its 350 page 2008 catalogue of aftermarket parts and accessories for the most popular makes of helicopters in hard copy and CD form.





ACROHELIPRO Global Services Inc. officially took the name of its parent company on February 25, 2008 - Day 2 of Heli-Expo 2008. Mr. Donald Jackson, Donald K. Jackson, Chairman, President and Chief Executive Officer of **Vector Aerospace** made the official announcement during a customer / industry media event at the Vector Aerospace booth, in front of an audience of more than 150 interested customers, media and helicopter operators from across the industry.

This announcement initiates the first phase of a Vector-wide initiative to transition all maintenance, repair and overhaul (MRO) assets; including ACROHELIPRO, Atlantic Turbines International, Sigma Aerospace and the newly-acquired Defence Aviation Repair Agency (DARA), to the Vector Aerospace brand in 2008.

There was only a single rotary wing unmanned air vehicle at the show and as such it was attracting some interest—including that of the show film unit.

CybAero, based in Stamford, Connecticut brought their Vantage unmanned system pretty fresh from a first flight on February 7. By showtime it had logged 12 hours powered by a 42hp rotary engine. It is quite a complex craft and perhaps not one that will be within the budget of most police operators.

Currently the developers of the craft see that it is most likely see its first use with the Department of Defense carrying the DRS Technologies GS207 IR camera it was displayed with at the show.



There were plenty of happy exhibitors at Heli-Expo this year – few words of complaint were heard anywhere in the hall – but for UK based Powervamp good business was something of a double edged sword. Their good name had preceded them. This is the company with a reputation for providing wall to wall ground support at many air shows including Geneva, Paris, Farnborough and Helitech.

The company had sent its customary large stock of equipment, portable pumps, generators, transformers and powerpacks in the main, to Houston to fill its stand and allow for the loan of some items out for unscheduled requests after they arrived. The trick in all such cases is to not take too much additional equipment that has to be shipped back home with them at the end of the show. But no sooner had they arrived than they faced a trickle then a queue of other exhibitors seeking to buy or rent the transformers and power packs for use in supporting their own exhibits. A couple of hours into day one of the show and Powervamp had to call a halt to the traffic they were running out of equipment to demonstrate to other customers, the booth was decidedly Spartan.



They kept back just enough equipment to demonstrate including many of the now standard lines and the new 30amp PS30M lightweight multi -function power supply and charger complete with its over the shoulder carrying strap option and a multitude of plug options that ensure the owner always has access to local power supplies – be they 110 or 240v. The target market for that is the smaller helicopter. Also new is the larger PS120M that offers up to 120amps of continuous power.

Left PS100AU with multiple connectors.

Sagem Avionics, Inc. and Vector Aerospace have delivered on their promise to make the SAGEM industry-leading glass cockpit display system (ICDS) more widely available to helicopter operators. And they just about took the show over—even going to the lengths of providing a separate visitor guide to the booths and airframes where they could find examples.

Since the launch of the system at HAI 2007 the product has offered enhanced performance and reliability, superior quality and reduced operating costs available on a variety of platforms including the Bell 205/206/212 and 407, the Sikorsky S61, Eurocopter AS350, Robinson R44 and the MD500.

Thanks to 'the guide' show visitors were able to view a variety of installations located in aircraft at the Vector Aerospace booth including the brandnew glass-cockpit fitted to the new LAPD Bell 206 [right]. Additionally, an interactive cockpit simulator/



display featuring glass installations for the Sikorsky S61, Bell 205 and Bell 212 models were available. Adding to this impressive showing, a variety of different booths hosted other examples of the Sagem glass cockpit including two AS350B2s with dual glass installation, one being the new LAPD example, a Bell 407, Bell 212, and a six panel installation on the Carson Helicopters booth

Aerospace Filtration Systems, Inc. (AFS) marked an important milestone in helicopter engine protection with the delivery of more than 3,000 Inlet Barrier Filter (IBF) systems worldwide. The company manufactures industry-leading filtration solutions for a variety of commercial and military helicopter applications. The wealth of product knowledge now runs to 1,000,000 flight hours.

New development IBF systems for the Eurocopter EC 130, Bell 430 and AgustaWestland AW139 will achieve US FAA certification in 2008. AFS anticipates additional EASA certifications in 2008 as well, including the AgustaWestland AW119, Bell 205 and Eurocopter AS350.





Heli-Expo March 2008

The transmission of camera images from air to ground was a strong theme running through the exhibition hall and each of the exhibitors was showing their latest updated equipment options.. The range of equipment available to the emergency services these days borders on the breathtaking and it is mainly driven by a mix of military requirements in the war zones and the needs of the movie and television industries. Certainly the needs and drive of humble law enforcers would never get the industry racing ahead at the current pace. That said, where money is available the number of operations taking advantage of the HD quality and capabilities is growing.

A lot of it is black box work though and it is often difficult for the salesmen at shows to promote mere technology into new markets – as often as not they follow the camera manufacturers down the path.

Broadcast Microwave Services, Inc [BMS] based in Poway in California but with representation across the world were displaying and promoting their latest Carry -Viewer III hand held Diversity Receiver [CVIII] alongside a number of older equipment options. The CVIII is a COFDM hand held receiver with 2-way diversity for a range of applications and utilises a 6.5 inch LCD colour monitor with excellent daylight viewing. It replaces the earlier model.

Currently the European sensor turret [camera] market is pretty evenly split between L3 Wescam and FSI and from time to time other companies will try and make their mark there – so far without any significant success. Often the failure to move forward related to an unwillingness to put in place the costly support infrastructure, good engineering and spare cameras or with pressures from other quarters ... including the odd war or civil unrest back home.

At the show **Axsys Technologies** makers of the HD range of Cineflex Cameras gave notice that they intend to widen their market penetration in the law enforcement market after finding a high level of acceptance in US police air units. Axsys has been designing and delivering accurate and reliable optical and motion control solutions to the US government for more than 40 years.

Axsys optical systems are found in demanding applications such as airborne thermal targeting, missile tracking and space-borne surveillance. The group has a wide technology base beyond airborne camera systems including a range of optical applications such as thermal weapons systems, night time surveillance cameras, and highly precise medical imagers.

The main law enforcement camera is likely to be based on the Cineflex® V14MS II, an ideal 24-hour surveillance system that can be configured to accommodate multiple payload instruments in a compact package. The Cineflex® V14HD is optimized for high-definition TV and movie production, setting new standards in image stability, with full gyro-stabilisation in azimuth, elevation, and roll axes.

Addressing the support issues the company have promised a 24/7 support system that will provide telephone connections to engineering support at a human level rather than just the type of remote answering service generally available. <u>http://www.axsys.com/p-scs.php</u>

BLR Aerospace seems to have been around the Heli-Expo for years as one of those small companies with a lot to say about nothing much. Certainly they had to bang their own drum for Bell whose products they regularly sought to improve were not in the business of endorsing them.

BLR recently completed a flight test programme that shows that Bell 212 helicopters equipped with the BLR patented FastFin System can carry an amazing 1,000 pounds or more beyond current WAT (Weight Altitude and Temperature) chart limits than standard Bell 212s, depending on density altitude.

The testing clears the way for a supplemental type certificate (STC), expected to be issued by the Federal Aviation Administration (FAA) this spring. After the STC is issued, operators of modified 212s will receive an Aircraft Flight Manual Supplement with new FAA-certified HIGE, HOGE, and WAT charts. Similar testing, now under way on Bell 412s, promises even greater gains in lifting capability.

FastFin incorporates BLR's proven Dual Tailboom Strakes with a vertical fin modification that improves airflow to make tail rotor management easier, safer, more efficient and more productive. More than 600 BLR strake-equipped aircraft have flown more than 1 million flight hours.

Bell's UH-1 was the first helicopter modified with the FastFin system, and the strakes are available on the 205, 206, 212 and 412 models as well. The 412 FastFin system should be certified in October. BLR is also testing the FastFin on a U.S. Army OH-58 and may consider offering the system for the civil 206 models once test results are available. Buyers



were being quoted under \$50,000 for BLR's 212 FastFin at the show but the precertification list price is \$54,950. FAA certification is expected in May.



Local businessman Bobby Joe Spearman of Medivac Vehicle Sales from Mount Pleasant, Texas took mobile his multipurpose AC/Heat unit to the show and demonstrated a simple air conditioning solution. A high capacity portable air conditioning

unit is connected to the aircraft by 10 inch trunking and Velcro fittings that will allow quick disconnection – a feature especially important in supporting a pad parked EMS helicopter carrying temperature sensitive medical supplies in summer heat. Bobby can be contacted on bjsmvs@aol.com





The Los Angeles Police Department took delivery of a training system from Aerosimulators during the show. Pictured are Sgt. Mark Williams and Officer Pat McNamara of LAPD and Aerosimulators Mr. Luc Stremersch, Product Manger and Mr. Mike Coligny, CEO.

Another apparently small but regular presence at the Heli-Expo is **Meeker Aviation** based in Canada and California. Something of a well kept secret in the ALE industry – a significant number of US law enforcement aircraft are partially outfitted by Cal Meeker's team with equipment and camera mounts offering substantial improvements over the OEM's. Although Meeker is not greatly appreciated outside the US he has a light but broad international footprint as the pages of PAN have regularly testified. The main market is providing high quality equipment mounts – in many cases the new mounts answer many of the problems that the original manufacturer [OEM] never quite found the answer to, primarily vibration, others are mounts with additional features – including Quick Disconnect features [QDD]. Among the OEMs using Meekers skills in the past year have been AgustaWestland [for the A109, A119 and A139], Pilatus [PC-6], Spectrolab [for a marine application] and Sikorsky [UH-60/S-70] Mil [Mi-8 & 17].

Only if you know him do you realise that the slight figure of Cal Meeker is to be seen at every major air event plying his trade.

Company development and production highlights from last year included eight Sea King downlink and flir camera mounts for undisclosed Middle East customer.



The largest law enforcement and public safety agencies in the U.S. are using AeroComputers tactical mission management systems to fight crime, battle fires, and save lives. AeroComputers unveiled its Dual Screen Displays for the AC line of Ultra High-Resolution Display-Monitors at HAI.



BAE Systems now own the former Simula company and continue to offer their seating solutions, including this harness system, to the market.

The company continues to develop the in-helicopter safety air-bag system but currently only as a military product. At the moment there are no signs of interest in the commercial market.

READER OFFER

Skyquest Aviation are offering PAN readers free copies of a new DVD displaying high quality images of their Mission System on the high-tech London Metropolitan Police Eurocopter EC145 helicopters.

You can preview the DVD in reduced quality at

www.skyquest.co.uk/vmsdemo.html

E-mail a request for the DVD to: -

anna.mason@skyquest.co.uk



Air Comm Corporation achieved record sales last year, increasing total sales by nearly 50%, from \$7.4M in 2006 to \$11M in 2007. Air Comm attributes the strong performance to a combination of strategic product positioning, a fundamental shift in how the industry views helicopter heaters and air conditioners, and a thriving rotorcraft market.

The company's decision to diversify and expand its product offerings for a greater number of helicopter models and manufacturers has proven to be a wise investment.

An industry that once viewed climate control equipment as optional increasingly sees it as mission-critical. At one time, quality heating and air conditioning systems were primarily found on VIP aircraft, but today operators of all types – EMS, offshore, utility, police – are demanding more capable climate control systems. Air Comm Corp. is a privately held company that designs, manufactures, and supports more than 20 heating and air conditioning systems for a range of helicopters, including Agusta, Bell, Eurocopter, MD, and Sikorsky. www.aircommcorp.com





Enstrom Helicopter Corporation handed over the keys to N480PD c/n 5080 a 2005 law enforcement

configured 480B Guardian law enforcement helicopter to the Sheriff's office of Plaquemines Parish, Louisiana. The turbine powered aircraft will be used in their airborne law enforcement unit. Plaquemines Parish's 480B Guardian is equipped with a cargo hook, a Spectrolab SX-5 searchlight, and a Gyrocam DS infrared camera system. This aircraft is the first new OEM helicopter delivered with a Chelton Flight System 3D Synthetic Vision EFIS 6.0B glass cockpit.

In addition to purchasing the aircraft, the Sheriff's Office will also be receiving extensive flight training, as well as management and consulting services, from their Enstrom dealer, Tomlinson Aviation of Ormond Beach, FL

The Enstrom 480B Guardian has found a strong niche in the law enforcement market, with over 20 sales worldwide since it was introduced. Pilots appreciate the 480B's stability and easy handling characteristics, along with its legendary ability to fly in windy conditions that would ground other helicopters. For new departments, and those on a budget, the Guardian's low acquisition and operating costs make it a real contender. Especially for units flying older Army and National Guard machines, the savings in operating costs can be substantial. As part of the New Orleans metropolitan area, Plaquemines is Louisiana's southernmost parish. Geographically located where the Mississippi River meets the Gulf of Mexico, it is the operational center for the offshore oil and gas industry and boasts a thriving seafood industry. The Sheriff's Office serves 27,000 citizens of the parish. Plaquemines acquired a Bell 206 helicopter years ago but passed it on to the Georgia State Patrol over ten years ago.

Away from their engine programme **Honeywell** announced the availability of a search and rescue management package for helicopters – the Observer III Mission Management System – which integrates flight data, cameras and other critical maritime sensors to generate a geo-referenced map of assets, targets and sensor locations for platform tasking.

'As a multi-work-station task management system, the Observer III System has been designed to operate as the helicopter mission hub for command and control: the system is capable of interfacing with multiple onboard displays and sensors and providing high resolution graphical mapping of the tactical situation,' said Mel White, Fellow in the Royal Aeronautical Society (FRAeS) and Director of Honeywell's U.K.-based Mission Systems business. 'By utilizing the inbuilt growth capabilities of the system Honeywell has added a fully



integrated search and rescue capability to the Observer system.'

The Observer III task management system offers search and rescue, emergency medical services, corporate and paramilitary helicopter operators' mission critical data. That includes moving maps, charts, camera control and point-of-impact information, SATCOM data, Automatic Identification System (AIS) maritime transponder interface, Direction Finding (DF) interface and Search Radar Target display, plus terrain data and user waypoints in multiple user database configurations.

Flight crews typically operate in a data-rich environment, concurrently managing mission requirements and adjusting to constantly changing information as they fly the helicopter. Observer III has addressed the potential for data overload with an intuitive menu system that allows pilots to utilize pertinent information on the display whilst maintaining situational awareness at all times.



HELI-EXPO 2008 came to a close breaking all attendance and exhibitor records. A record setting 17,373 visitors attended and five-hundred and twenty-three exhibitors showcased their products and services. Sixty-five helicopters were displayed on the showroom floor.

Hands up

There was one other plus associated with the Houston trip – we foreign persons were threatened with a long drawn out entry process involving the taking of 'ten fingerprints' [well two of mine are thumbs actually, I hope that is not a problem]. Well it seems they were ready for it but something must have gone wrong and I left only 'the usual two' this time. Cannot last of course. So what is next chaps? Shoes off and toe prints or winking into iris scanners? I do have ten toes and two eyes.

See you again

Next time out in Houston is the 2008 ALEA in July... at least I know where everything is and thankfully its being held over weekdays!



Heli-Expo 2009

The images left and below are Houston this year—just a few more roadworks than were really wanted and from the Hilton Hotel.

Back to familiar territory next year with Anaheim California – just across the road from Disney and little chance of a boring weekend in a concrete canyon there. *I* already have an order for a Mickey Mouse key ring.

