The show was beset by the euphoria surrounding the selection of the US101 as the next helicopter for the US President. Although only a model and an unrepresentative interior mock-up represented the type, for the Europeans this was a largely unexpected eve of show bonus announcement.

Last year the show review published by PAN [in April 2004] conceded that it was Bell that was the headline grabber and once again the HAI Heli-Expo could be said to be Bell's. Unfortunately reflecting the worth of the goodies showcased last year; aspects of presentation were again lacklustre.

Amid great ballyhoo last year Bell pulled the IFR Model 427i out of the hat and hoped to sell it to the masses. One year on a clearly shell-shocked Bell dropped this variant of the 427 [from a very great height] and pulled out the Model 429 – a markedly different animal but aimed at a similar market. Bell state this is the first of their MAPL [Modular Affordable Product Line]. The shape is familiar, more of that later.

In one example of appearing to know what they are doing Bell have retained their Vietnam era Huey version the 210 – it recently flew.
Unfortunately the apparent aura of purposefulness stops there. They have reportedly walked away from their version of the fan in tail Fenestron, already test flown on the Bell 407, allegedly because customers saw it as a copycat technology.

In its place an exciting new technology will be developed – presumably for an otherwise lightly promoted MAPL for the future. The new system using exhaust gases has great technical risks. Meanwhile the company is staying with the tail rotor.

The only light on the manufacturer’s horizon appears to be that it will have the US President’s US101 to build – under licence!

Among the US manufacturers only Robinson consistently displays the appearance of knowing what it is doing. Frank Robinson refuses to be drawn on industry speculation on whether he should build bigger airframes and embrace alternatives to the piston that has successfully powered his aircraft for over 20 years. It seems clear that he has looked at Diesel’s and turbines, but he maintains his own counsel on future choices.

With mixed fortunes Sikorsky continues to plug its S-92 with mixed success and has launched a promising new development of the venerable and well-respected S-76.

Over all this activity hang the shadows of the European manufacturers. Increasingly they move elements of production to the USA – both the A119 Koala and the AStar are now seen as primarily US market machines.

The Americans should by now be frantically looking to their products aware that ‘The Europeans’ might well become the US industry of the future. Are they?

**HAI**

In his address to the press the President of the Helicopter Association International, Roy Ravasage, highlighted a number of issues including a growing area of concern relating to accidents occurring within the air ambulance community. The subject is being looked at.

Whilst accepting that there were issues being addressed Roy did point out that the industry is itself huge. Discounting fixed wing elements, some 658 helicopters are involved in an industry that moves some 300,000 patients annually. It is claimed that 95,000 people owe their lives to the service each year.

As regular readers of *Police Aviation News* will be well aware there are many EMS accidents reported each year. Notwithstanding those numbers Ravasage and HAI currently consider that resultant patient deaths are low and in general the industry exhibits a lower than average accident rate.

**BELL HELICOPTER RECOGNITION**

In what was described as a ‘… fantastic recognition…’ their customers voted Bell number one provider of customer service 11 years in a row.

The ProPilot Annual Survey results was conducted on what is primarily a US base and represents the level of home market customer service Bell Helicopter strives for every day of every year.

**PAST SALES**

Bucking a falling trend in sales 2004 was reported as a great year for Bell. Sales orders were up approximately 80% over 2003, a backlog was built-up in all models with the growth of sales trend likely to continue in 2005. A doubling of business is predicted by the end of the decade.

FUTURE PROSPECTS

Leading the fight back to eminence in selling to the market are new aircraft projects. During the show, Bell introduced the newest entry to its leading line-up of commercial helicopters: the Bell 429 GlobalRanger at a high profile unveiling ceremony led by the company CEO.

At a spectacular unveiling Bell Helicopter chief executive officer Michael Redenbaugh introduced the all-new light twin helicopter. In ceremonies before a large crowd Mr. Redenbaugh presented two complete mock-ups of the new aircraft. First was the wheeled corporate version followed by Emergency Medical Service version with a cavernous patient area.

Speaking of the 429, Mr. Redenbaugh said, ‘The new Bell 429 represents many things to the market place. First it is simply the benchmark for the light twin segment. Second it epitomises the new Bell's dedication to listening to our customers. Third it is the first of many Bell products that will begin incorporating new technologies we have been developing the last several years.’

He continued, ‘The Bell 429 contains nine new MAPL technologies. The most visible is the MAPL cabin. It is huge! It will provide our customers a tremendous range of options. We are able to do this because we accelerated the introduction of some of our MAPL technology by three years. It is the basis of our responding to our customer requirements for now and the future.'
With the Bell 429 we are accelerating the introduction of the next generation product line by incorporating the MAPL cabin with the 427i announced last year.

Plans call for the first Bell 429 deliveries in first half of 2007, three years earlier than any MAPL [Modular Affordable Product Line] design was expected to appear in service. This light twin will surpass all competitive light twins by offering a cabin volume 220 cu ft, more than 70% larger than the 427, a useful load of 2,700lb with a SPIFIR configuration and a range of 365nm with full payload.

The large cabin area seeks to offer a wide open cabin capable of carrying crew members wearing a helmet with NVG stowed and a best in class volume in cabin for comfort and improved patient access in the EMS configuration.

The large flat floor cabin also offers EMS operators 2-patient capability with both attendants at the patients head and rear clam shell doors to accommodate roll-on, roll-off, one-man litter loading systems and maximum utility flexibility.

Integrated sliding doors with an opening wide enough will facilitate the side loading of patients favoured by some operators.

The 429 is a light twin. Incorporating a variety of new technologies from Bell's MAPL. Included are cabin and cockpit features and new high performance rotor technology placing the Bell 429 in a position that offers a significant advancement for the light twin segment and will offer customers a wide range of affordable options. With orders taken at the show, there are currently 110 orders for the new aircraft. First deliveries are anticipated during the first half of 2007.

Bell has reached multi-national agreements with Korea Aerospace Industries, Ltd. (KAI) and Mitsui Bussan Aerospace Company, Ltd. for a collaboration to develop, certify, produce and market the new Bell 429 for the world market. [Bell]

Ed: Looking at the airframe in the hall after that high publicity unveiling it looked vaguely familiar. Many of the features of the fuselage look similar to the Bell 400 'Ringtail' prototype. That was the original JetRanger twin but along with the new tail rotor it was dropped after testing had started. It may be that Bell has included elements of the basic structure, thus injecting some commercial safety into the development.

Although the aircraft on show in Anaheim were mock-ups the cabins certainly looked roomy and well presented. One was fitted out in a corporate style and the other as an EMS ship. Details of cabin dimensions and performance have yet to be released so it was all about giving the audience a flavour of the product.

The EMS ship used an Air Methods interior [Air Methods have signed up for the type] and showed off its rear clamshell doors well. They have a hinging system that allows them to slide out of the way along the side of the rear fuselage offering the flight crew additional room to load a patient from the rear. Unfortunately rear of those doors things become messy.

Bell advertises high skids but unfortunately they chose not to include them in the mock-up. As a result most potential customers were forced down into a low crouched position to enable them to view the interior from the rear. The tail boom was far too low. It was a few steps from there for them to notice that not only was the boom too low but the tail rotor was too.

Many a visitor could be seen standing and either staring or gesticulating at the tail rotor. As presented the centre boss of what appears to be two 407 tail rotors is at head height. That is no worse than the 109/Grand but when seeking to entice flight crews to a rear door it would have been better avoided in a new design.

Perhaps in the future Bell intend to replace this lethal scythe with its new technology PATS jet efflux system, in the meantime they would probably have been better served by leaving the tail off that mock-up. It tended to devalue the superb interior.

Industry sources suggest that the failure of the earlier 427 was related to weight growth and it may be that similar considerations resulted in the stretched 427 of last year not being viable. As a result a change in the basic airframe was inevitable. Perhaps more risky in the case of the new 429 is the announcement that the airframe is being aimed at a higher MGW to start with. Although it is designed to JAR/FAR27 at a design weight of 7,000 pounds it is very close to the JAR29 limits and cannot afford to be overweight this time. JAR29 may just be a number but the specification also represents quite different sets of standards.
Superb interior by Air Methods in a spacious interior accessible via some apparently useful doors at the rear and sides.

... but the proximity of that tail boom and rotor attracted more than its fair share of attention from these Europeans...
The existing VFR Bell 427 is to remain in production and on offer to customers. ChevronTexaco has ordered a third Bell 427 for its offshore fleet. ChevronTexaco currently operates a fleet of 30 helicopters; 21 of which are Bell aircraft, including Bell 430s, 206L's and 206B's in addition to the 427 models.

Bell is to integrate the Honeywell HTS900 engine into the Bell 407 commercial product line, replacing the current Rolls Royce 250-C47B engine. This move is expected to yield a 15 percent improvement in installed power that will significantly enhance the performance capability and reliability of the aircraft. The HTS900 integration program is expected to be complete in late 2006 as part of a continual Improvement for an existing product. The HTS900 incorporates and features new compressor technology for improved performance, producing more than 925 Shaft horsepower at Takeoff Power rating at sea level on a standard day. The engine is expected to deliver Specific Fuel Consumption levels of .54 lb. per shaft horsepower or a 5% decrease from earlier Honeywell helicopter engines.

Including the strong initial sales of its new Bell 429 GlobalRanger (many of them transfers from the 427i list) and popular 407, 412, and 210 models, Bell Helicopter booked 34 total orders across its commercial helicopter line.

Petroleum Helicopters, Inc., (PHI), reported to have been on a spending spree across the manufacturers at this years show, placed an order for 6 Bell 407 helicopters to be delivered by the end of the first quarter 2005. This order will bring the total number of 407s operated by PHI to 45.

The Bell 210, which made its first flight in December, at the Bell subsidiary Edwards & Associates is continuing its successful flight test programme with officials reporting that the aircraft should receive FAA Certification in March 2005. Although it is now moving towards a new life as a civil certified machine Bell see the 210 as able to satisfy the Army’s requirement for a Light Utility Helicopter (LUH). There are many missions now supported by the US Army with assets that are marked for reduction in the coming years that the Bell 210 could more economically perform. The projected LUH utility missions include drug interdiction efforts (RAID), MEDEVAC, and Homeland Defense (HLD) missions.

Bell and Aeronautical Accessories Inc. (AAI) and Intelligent Automation Corporation (IAC), has developed an advanced Helicopter Vibration Monitoring (HVM) system for the Bell 412. The Bell HVM is a high performance, lightweight, and low cost system certified to FAA and CAA requirements. The new Bell HVM system is derived from the proven IAC Modern Signal Processing Unit (MSPU) – Health and Usage Management System (HUMS) that currently has over 100 systems flying including many on U.S. Army models. The HVM kit for the 412 will be available through AAI in the first quarter of 2005. Systems for the Bell 210 and 212 will follow as the customer requirements become better defined. As a system from Bell/AAI, the operators of this HVM will enjoy all of the benefits of the support offered by Bell's #1 rated Customer Service Department.
ALEA
The initial draft of the Airborne Law Enforcement Association’s recommended industry standards was recently published on their website www.alea.org and were one of the major talking points of their Heli-Expo booth. They were drafted by the Airborne Law Enforcement Accreditation Commission (ALEAC), a separate non-profit organisation and are actively seeking criticism. ALEAC is made up of nine commissioners with extensive airborne law enforcement experience. The commissioners are all ALEA members who have worked in the industry as unit managers at all levels and/or as instructors, pilots and TFOs with thousands of hours of airborne law enforcement experience. The primary categories are ADMINISTRATIVE STANDARDS, OPERATIONAL STANDARDS, SAFETY STANDARDS, TRAINING STANDARDS AND MAINTENANCE STANDARDS.
Now it is for members to give an opinion of what would work better, an opportunity that will expire on March 31. The ALEAC commissioners will meet in April to review the input. Compliance with the standards is voluntary but when an accreditation programme commences, compliance will be required for an aviation unit to become accredited. It is hoped that the benefits to the individual agency will include safer and more effective operations and potentially financial insurance incentives.
Already there are relatively heated exchanges between the few units who fly and observe single crew helicopter flights and the majority to whom such operations are dangerous. The proposed standard requires a minimum crew of two [pilot and observer/TFO].

AGUSTA WESTLAND
In the wake of the terrific announcement that the US101 had been selected as the future Presidential Helicopter anything AgustaWestland announced at the show was going to be overshadowed and effectively devalued. However there was much else for the audience to be reminded of. The recent FAA certification of the AB139 [naturally also repeated on the Agusta Bell Booth] and the delivery of the first EH101 for Portugal – on time and to contract – were not matters to be trifled with even if the latter was a European story. Foreign to the US market were also the questions raised in hope of an answer about supposed impending sales of a range of helicopters to bolster the UK military [including the COMR options]. Such lines of questioning did not survive long. Closer to home and therefore more likely to be lapped up were tales of the success of the Agusta 109s operating with the US Coast Guard in the anti-drug HITRON role. These few machines MH-58 Stingray’s have been returning creditable 90% availability and are credited with recovering 85 tons of drugs worth billions of dollars [see page 23]. AgustaWestland’s share of the US market is climbing. Although lag some way behind Eurocopter the group continue to eat into market share and, like the other Europeans, have moved production – or at least assembly – into the USA. Last year they were able to place 136 units into the US market, 11% into the law enforcement market and 14% into EMS – the latter both performing and expected to be their strongest suite. Although not yet delivered the Grand development of the 109 is turning in all signs of success with 30 firm orders, 30% into the EMS market. The Koala, now being moved to a US production base is eventually expected to sell at around 30 per year – eight this year - with EMS again being seen as the primary public services area. New York Police now have two of their Koala helicopters; these operate alongside a sole remaining Bell 206 and the larger Bell 412. Two more Koala’s are awaiting delivery.
TURBOMECA
The European manufacturers may each be moving west into the USA to ensure greater acceptance of their product but there are cost pressures behind the moves. Driven by the continuing disparity in values between the Dollar and the Euro Turbomeca are still considered expensive in spite of cutting costs yet again.
As costs are an issue service is another area where the company can attract business. As a relative newcomer to the region the company has had some growth pains and continues to catch up on some glaring shortfalls in service capability. With the customer firmly in mind the number of field representatives has been further boosted and a new distribution centre added in Dallas, Texas. The pool of rental engines is now 600 with a further 600 modules available. Service turnaround is regularly hit by parts shortages that can affect the 60-90 days turnaround time on such as the Arriel engine. An improvement in TBO from 3,000 to 3,500 hours later this year will help matters but the company has measures in place to further improve a situation it sees as unacceptable. Increasing moves of some production to the USA should improve availability and margins. Last year production reached 137 units and the size of the facility will more than double. The company has been quoted as seeking to be more American than an American industry that draws its own parts from across the World. Meanwhile moving support work to the Canadian facility will help but there are export/import issues to iron out before that will work smoothly.
In spite of the negative news Turbomeca continue to see growth in the North American market. Boosted by the commencement of the contract supplying re-engining kits to the US Coast Guard for their HH-65 Dolphins the company claims growth is running at 30% in the US market, a figure that further exacerbates the rate support measures are being improved. Improvements, a form of customisation, in its existing SBH [Support By the Hour] arrangement are likely to further increase the pressure on competitors.

MD HELICOPTERS
MD Helicopters were displaying two helicopters on their Booth. In addition to the Huntingdon Beach MD520N N522HB the company showed a newly refurbished MD900 Explorer N368PA.
In October 2003 the Grand Canyon National Park Police Explorer [operated under contract since 1997 by Papillon Helicopters] was lost in an accident and the customer was so happy with the type that they sought its replacement with a similar type. That original Explorer [N179PA] was an early model [c/n 00021] and the replacement is a refurbished early model rather than a more up to date '902.' That said the machine displayed was up-to-the minute and incorporating a number improvements. Aerospace giant Boeing – who were not at the show in their own right – has agreed to provide a multimillion dollar cash injection to financially troubled MD Helicopters Inc [MDHI]. The money is strongly tied into Boeing’s own bid for the US Army armed reconnaissance helicopter [ARH] based on the MD sourced Little Bird rather than one of the recently mooted industry rescues. MD continues to explore a deal with other companies and Nations. All of the options remain open except it seems Sikorsky. The earlier report relating to Keystone Ranger Holdings is understood to be a wholly spurious identification of one of the major players. Although the order book remains relatively full, faced with such on-going uncertainties customers are unsure what to do and deliveries in 2004 again fell so that MD now have just 1% of the US market, down from 5% last year.

EUROCOPTER
As ever Eurocopter have reported a good business year in 2004. A considerably expanded order book is a reflection of customer satisfaction leading to the company again being able to claim a strengthening of its No 1 position in the helicopter industry. Eurocopter secured its position with orders for 332 new helicopters and a turnover up by 7%, while leading the way once again in the civil and Parapublic sectors, and strengthening the export prospects of the NH90. At his HeliExpo press conference in Anaheim on February 6, Eurocopter President Fabrice Brégier noted that 'These improvements are the result of the strategies adopted by the Group and the firm intent of Eurocopter to become the world reference for helicopters.' Mr. Brégier added: ‘We will spare no effort to stay in the lead in our sector and to sustain our development.'
In 2004, Eurocopter's long standing efforts to improve customer satisfaction were largely successful and the company now claims to have now matched the capabilities of other leaders in its category. The quality of the aircraft delivered now tend to exhibit zero defects whilst meeting delivery lead times. The shipping of spare parts has improved and AOG times are as a result very low.

The drive for improvement will be continued in 2005, with the assistance of 3 logistic hubs located in Hong Kong, Dallas and Roissy.

**GROWTH**

The strategy for growth adopted by Eurocopter is founded on the excellence of its products and services, combined with an ambitious industrial deployment strategy. In the USA, the inauguration of American Eurocopter's new site in Columbus, Mississippi will strengthen the concept of an US-based venture. The plant will assemble AS350 AStar’s and complete EC120’s. American Eurocopter is prepared to meet the needs of the Homeland Security Department (Border Patrol, US Cost Guard), and the FAA has initiated the industrial certification of the Ecureuil/AStar light helicopter.

Reinforcing its grip on the World market EADS/Eurocopter is now looking for US military contracts as a home producer in the same way as it has set up agreements and assembly lines in such as China. Eurocopter’s success in the market is not all about its new products. They are mainly marketing a range of upgrades to some fairly elderly designs such as the AS 350B3 AStar/Ecureuil. That type first flew over 25 years ago and both the AS 365 N3 Dauphin and EC 225 both with discernible roots in the 1970s meet market needs.

**RECENT US ORDERS**

**PHOENIX**

With 32 years of service under its belt, the Phoenix Police Air Support Unit is one of the most experienced police aviation units in the USA. Starting with a pair of two-seater Hughes 300C helicopters and a fixed wing Cessna 172 in 1973, the Phoenix Police Air Support Unit has consistently improved its technology and capabilities since then. The unit now flies about 8,000 hours a year - on call 24/7 – using a fleet of seven MD520N NOTAR turbine helicopters and a brand new Eurocopter AStar AS350B3. The 6-7 seat, high performance aircraft with a FADEC-equipped 847 shp Turbomeca ARRIEL 2B engine has a fast cruising speed of 140 Kt., a maximum weight capacity of 2,250 kgs/4,960 lbs., and a no-reserve maximum range of 357 nm, the most capable, user friendly helicopter in its class.

The City of Phoenix’s decision to buy the B3 occurred after the City conducted an extensive evaluation process setting the type against the Agusta A-119 and the Bell 407. They scored out in that order. The final choice was based on price; performance (critical in a hot desert climate); adaptability to patrol missions; DOC’s and product support. The City of Phoenix required all three bidders to supply audited financial statements proving their long-term financial stability, and wanted the helicopters to be delivered within 180 days of the contract being awarded.

**ORANGE COUNTY CALIFORNIA**

With the existing pair of MD helicopters in the Orange County Sheriff’s Department (OCSD) starting to show their age the unit recently purchased a new AStar B2 helicopter N183SD for its fleet. ‘I was asked to put together a ‘Wish List’ of all the capabilities the Department wanted in a new helicopter,’ says Sgt. Manuel Pacheco, the OCSD Air Support Bureau’s Chief Pilot. ‘Once we had the list, we went out and evaluated three aircraft against this criteria. The AStar B2 was the only one of the three to fulfil our Wish List.’

‘What sets the AStar B2 apart from our existing helicopters is its capacity,’ Sgt. Pacheco says. ‘For instance, we can load all the equipment we need and still carry a minimum of two crew and two passengers. The AStar B2's interior is roomy enough to carry a stretcher or backboard during SAR/MedEvac operations, and can hoist our 200 gallon ‘Bambi Bucket’ for water bombing runs.’
The OCSD’s AStar B2 has been fitted with some options to make it more mission-capable. They replaced the standard panel with a Geneva law enforcement half panel, to provide more visibility. Even with this panel’s lower profile, it still has enough space to hold all the required avionics displays; eliminating the need for a supplemental rear panel.

The B2 is fitted with a Wescam 12D200 with video downlinking; Nightsun, moving map system, air conditioning and a wire strike protection kit.

ANAHEIM
For years, the Anaheim Police Department Air Support Unit has been operating MD500E helicopters. It has flown MD for more than a decade. However, when it came time to refresh the Department’s fleet, the APD decided to switch manufacturers and buy a new Eurocopter AS350B2 instead.

Anaheim PD is buying the AStar B2 equipped with a full law enforcement package, including a standard FLIR camera package with low-light and infrared imaging, night vision goggles, moving map, and video downlink.

Now that most other law enforcement agencies on the West Coast are flying Eurocopter means that by adopting the AStar B2, we have access to a much larger and more varied parts pool.

SAN BERNARDINO, CALIFORNIA
With a jurisdiction that runs from the Los Angeles County line eastwards to the Arizona and Nevada borders, the San Bernardino County Sheriff’s Department patrols the largest county in the continental United States. ‘We have to keep an eye on about 20,000 square miles,’ says Captain Toby Tyler; Commander of the Sheriff’s Aviation Division. ‘Much of this territory is desert; some of it contains mountain ranges that stand as high as 11,400.’ Throw in scorchingly hot summer temperatures at altitude, wild fires, and the occasional desert monsoon rain (yes; monsoons in California!) and San Bernardino County is a tough environment for any helicopter to work.

Currently, the Sheriff’s Aviation Division flies a varied fleet of nine helicopters to provide patrol, Search and Rescue, EMS, and fire suppression duties; everything from Eurocopter EC120s to MD600N NOTAR’s and Bell UH-1H Huey. However, in an effort to extend its flight capabilities in hot, high-density air while fully loaded the San Bernardino County Sheriff’s Department has purchased 3 AS350B3’s, and hopes to purchase 3 more in the next fiscal year.

‘We have monsoons in part of our jurisdiction; they hit about the same time as hurricanes are pounding the East Coast,’ Captain Tyler adds. ‘Motorists often get stranded in or on top of their cars when the washes that cross the roads get flooded. Currently these people are rescued by the fire department’s swift-water rescue units, which are very high-risk events. When the AStar B3s are in service, we’ll be able to station one of them close to the monsoon area. After the rains have stopped – they come and go quite quickly – this helicopter will be able to patrol for stranded motorists and hoist them out of danger within minutes.’

HIGH TIME
LOS ANGELES POLICE DEPT
The Los Angeles Police Department (LAPD) Air Support Division has 17 aircraft in its fleet: ten of which are AStar B2s that log about 90 to 95% of the unit flight time. Collectively this fleet of B2’s has logged over 53,000 accident-free hours.
The LAPD Air Support Division stays accident-free through a combination of talented, well-trained pilots and in-house safety programmes, including regular safety briefs. Whenever anything occurs in flight that could be a source of problems later it is investigated thoroughly and then remedied. All pilots are encouraged to acquire CFI ratings and put through regular ‘check rides’ with the Department’s chief pilot or deputy examiner every 90 days. The City maintains a FAA-Certified repair station at Van Nuys Airport and employs 27 A&P mechanics and they play a major role in the overall safety programme. The operation is still flying some older Bell JetRanger’s, but with some of them dating back to 1986-87 with over 22,000 hours to their credit they are due for retirement. The intentions to standardise the fleet will probably result in more AStar’s being acquired.

**EC135**

Continuous development of the EC 135 over the past decade ensured it continues to meet the changing requirements of the EMS and police market sectors, where it is proving to be a best seller. Recently it bowed to pressure and will be seeking to certify the type at 3,000kg [7,000lbs].

Eurocopter has implemented 116 certified innovations on the EC 135 during the past year. About 50 percent of these are drawn from the company’s experience with the operational fleet, while the other 50 percent are the result of specific customer demands. Increasing TBO times and therefore costs have led to a programme seeking to increase the main rotor gearbox TBO to 4,000 hours – that should be finished this year. The TBO of the tail rotor gearbox (currently 3,000 hours) is also being moved upwards. On the basis of the fleet experience, 50 and 100-hour inspections were totally eliminated and the workload at 400-hour and 800-hour inspections reduced in the past year. Today, an EC 135 is required to have its first inspection at 400 flight hours – unrivalled in its class. During the show Petroleum Helicopters signed up for ten EC135P2s [and ten options] for operation in the oil and EMS industries and CJ Systems, a major EMS operator ordered four more of the EC135T2 variant taking its total buy to 36 airframes. Sales are now over the 400 mark and over 382 have now been delivered.
Eurocopter delivered 60 EC 135s and four EC 635s in 2004. Forty of these aircraft went into the EMS market. Due to high customer demand, the company is increasing its annual production of the type by 20 percent to 72 units in 2005. This means that one EC 135 will be delivered every third working day of the year.

EC145
Largely due to the effect of that large order from the French Authorities [Securite Civile and the Gendarmerie] at the time of its launch the EC145 twin has yet to gain any major expansion in its sales.

The service introduction of the EC 145 in the United States at last year’s HeliExpo, Eurocopter has launched a highly promising new aircraft in the world market that excels in terms of cabin space and versatility. The company has however delivered 59 EC 145s to date, including to a growing number of American operators.

Lee County who took delivery of the first US-registered EC145 at HeliExpo 2004 and others have followed it across the Atlantic for EMS operations.

Perhaps because twins are required for operations in the area its natural growth area is in the home market of Europe. After the French deliveries came sales to REGA Swiss Air Rescue and a crop of German operators including ADAC Air Rescue, DRF Air Rescue and police helicopter operators. In the course of 2005, several more EC 145s will enter into service for police operations in Europe.

EC155
The higher up the size scale the lower the numbers. As of the beginning of 2005, 63 EC155s were delivered, having chalked up 54,000 flight hours. Eurocopter has learned from operational feedback and incorporated several upgrades to what is now a mature variant with its roots in the AS365. Recent weight reduction modifications to the EC 155 have made it possible to expand the operating envelope and to improve flight preparation and maintenance.

The MTOW is now increased to 4,920 kg.

Again some key TBO’s have been increased on dynamic components. The tail rotor blades have had their service life tripled.

EC175
Eurocopter President Fabrice Bregier quietly announced that they are to jointly develop a new 22,000 gross helicopter with China. The new type will be positioned in between the EC155 and Super Puma and is clearly some way from finalisation.

ENSTROM
Enstrom continue to crusade against the situation that led to Eurocopter rather than his own company being selected to supply more expensive aircraft to the US Border Patrol but it is now history. The last of the current batch of Indonesian Police helicopters has now been delivered. There are prospects of follow on orders into that area but these appear to be far from a decision point at the moment.

Meanwhile the company was displaying two aircraft on Booth 1201. The pair are a 480B and the 280FX. Neither of them was displayed as emergency equipped but future developments may change that.

The company is finalising the litter kit installation for the 480B working with Lifeport, an STC is predicted within 3 months. It is dependent upon orders received. They are also working on a better FLIR mount for the 480B that will move the camera out of the skid area for visibility purposes. Other new changes include a rotor brake system, WSPS, barrier filter, and other amenities that will add to the capabilities of both the piston and turbine line.

ERICKSON
Amid a great deal of ballyhoo the second Erickson Air-Crane for the Italian Forestry Corps was handed over at the show.

Each of the current airframes is a rebuild of an old Sikorsky design but there are reports that the increasing interest in the type for the heavy lift and fire-fighting roles might eventually lead to a new build programme.
ROLLS-ROYCE
The 29,000th Model 250-turboshaft engine was announced as being delivered by Rolls-Royce to Bell for installation in a Bell 407. Meanwhile, even as Bell were stating that they are to move the 407 on to using the Honeywell HTS900, Rolls has said that it is in the preliminary design stage for a development 950-shp 250-C3X engine.

LIFEPOR
LifePort, Inc. has recently completed an air medical interior contract to design, manufacture, certify and install a fully self-contained Patient Loading Utility System (PLUS), 4-drawer Medical Cabinet and LifeGard MedFloor into a BK-117B3 for multi-mission flights by Kangwon Fire Department in South Korea.

This is the fifth complete air medical system LifePort has delivered into South Korea. Other air medical aircraft systems LifePort has delivered to LG International include Eurocopter AS365N3 Dauphin, Eurocopter AS350 numerous Russian built KAMOV KA-32s. LifePort also won a multi-aircraft contract to deliver air medical aircraft for use by the United Nations in the Philippines. The aircraft are Bell 214ST’s and a Bell 212 configured for multi-mission support. The systems, two patient MedDeck’s, two Advance Life Support (ALS) MedPak’s, 10-passenger/medical crew seating and a LifeGard MedFloor are designed to allow rapid reconfiguration of the aircraft to meet other mission requirements. 
For more information, contact Frank Graham, Vice President, Sales by phone at +1 360 225-1212 or email frank@lifeport.com, or visit www.lifeport.com.

GROUND POWER
The number of vendors offering ground power units appears to have settled down to a handful and in the end as they are all offering the same basic product. No matter what the salesman states a battery is just a battery and most come out of the same factory. Sales tend to rely upon a mixture of how the product looks, its features, price and availability. Further sales depend as ever on the after sales service.
Whilst the depressed state of the dollar tends to place Europeans at a financial disadvantage they were there vying with local suppliers. And there were rewards to be reaped.
Powervamp reported that it was able to sell American Eurocopter USA three PS80 28 VDC power supplies and as ever lending units to aircraft displays paid off with Erickson Skycrane buying one such loaned unit at the end of the show.

**METEORLOGIX**

Minneapolis-based Meteorlogix launched a new version of MxVision AviationSentry Helicopter Edition, an advanced weather system offering helicopter professionals fast, accurate and comprehensive weather briefings designed to protect employees, customers and business assets. Meteorlogix is now one of only three other commercial weather providers to receive FAA certification.

With the latest version pilots are able to check weather conditions fast, easy and anywhere with single-click access to real-time, high-resolution radar and key aviation weather graphics. The new future radar capability provides a 90-minute forward loop of radar imagery that allows pilots to see where dangerous storms will potentially impact their flight plan. Since pilots are always on the go, the product can be delivered via Internet or satellite. The online solution allows access for mobile users. Pilots can check radar and aviation graphics wherever they have access to the Internet, allowing them to stay on top of changing weather conditions.

[www.meteorlogix.com](http://www.meteorlogix.com)

**PRICING**

HeliValue Inc was giving HeliExpo attendees a sneak preview of their development site, a web-based version of The Official Helicopter Blue Book®. HeliValue’s Blue Book is the premier value guide for the helicopter industry.

The plan is for subscribers to transition out of their paper and CD-ROM editions of the Blue Book into the web edition, which is expected to go live in the second quarter of 2005.

Initially, [www.helivalues.com](http://www.helivalues.com) will offer complete, reliable, and current helicopter information available with all the conveniences of Web delivery. Later improvements will offer increased access for subscribers, including historical market trend graphs for each model, account management, important information, and industry articles.

Subscribers will be able to print out any page from any model individually, or they can download Acrobat® files of the entire current Official Helicopter Blue Book® onto their hard drives.

Subscriptions are available at three pricing levels, with the differences between them being only the different amounts of no-cost value consultations given. They range from $750. “Corporate” subscriptions down to Executive subscriptions, limited to two free consultations, at $550.

Subscribers can order a single copy of a Blue Book edition on CD-ROM with Acrobat® PDFs for US $100. A fully printed edition of The Official Helicopter Blue Book® in a custom case-made binder can be provided to a current subscriber for US $125. For a non-subscriber the cost of a fully printed version is US $500.

For further information contact HeliValue at PO Box 575 • Wauconda, IL 60084-1487 • Email helivalues@helivalues.com [www.helivalues.com](http://www.helivalues.com) +1 847-487-8258

**SENSOR TECHNOLOGY**

In last November’s edition of PAN I reported that a fourth potential sensor for your overloaded turret was about to appear on the scene. The Electron Multiplier CCD [EMCCD]. This new kit is a low light colour TV that should begin to seriously challenge the monochrome light of image intensifiers if not the FLIR. The availability of what is currently a sought after covert tool is expected to break out into the general market within months.

The new low light camera offers a 1,000 x 1,000-pixel monochrome or a 640 x 480 colour option. Operationally this might provide users with a capability of seeking a target with the FLIR and flicking over to see whether the body heat image is wearing a yellow shirt or a red one as stated by an eyewitness. A potentially important capability. As this is a single chip camera option it may be that it will supplement rather than replace preferred three-chip broadcast quality cameras.

Texas Instruments are making the EMCCD available to a range of vendors so it should be widely available for incorporation in any sensor pod soon.
L3/Wescam are now offering this sensor option in its MX-15 sensor. Preliminary information suggests that far from being an additional sensor fit the night camera with its dual channel spotter capability is incorporated into the existing 3 chip camera and [in the Wescam instance] offers low light monochrome images.

The Night Spotter is an additional camera that fits in the MX-15 behind the spotter scope; this requires a slightly different variant of the spotter scope to accommodate 2 cameras.

**AIRCCELL**

Aircell announced the addition of an automated flight tracking capability to its suite of airborne telecommunication systems.

With equipment installed in the aircraft, users on the ground can utilise Flight Explorer software to track the position of their aircraft in real time and tap a wealth of additional tracking features and functionality. The system uses any one of Aircell’s Iridium-based satcom systems, which means equipped aircraft can be tracked anywhere in the world, at any altitude – not just those on IFR flight plans within ATC radar coverage. The system gives operators a simple, inexpensive and reliable way to track their aircraft in real time. [www.flightexplorer.com](http://www.flightexplorer.com) [www.iridium.com](http://www.iridium.com)

**SKY CONNECT**

Since deploying satellite-based aircraft tracking and communication systems early last year, air ambulance operator EagleMed has realised important gains in productivity, reliability, safety and customer service, according to the company’s director of operations, Allen Zon.

EagleMed installed the Sky Connect TRACKER systems on its fleet of medevac helicopters and fixed-wing aircraft in early 2004. The TRACKER systems also use the Iridium satellite network to transmit flight tracking data and voice calls between the aircraft and dispatch centre. The compact TRACKER hardware weighs less than seven pounds and uses a very small flat patch antenna.

The aircraft satellite communication systems were a part of a major reorganisation of dispatch operations for EagleMed. The company operates a fleet of seven Eurocopter AS350B2 AStars, one Eurocopter AS355N TwinStar and five Beech King Air C90s from ten air bases in Kansas, Oklahoma and Missouri, flying more than 400 missions per month across a six-state region.

Sky Connect LLC offers a range of tracking and satellite telephone systems for helicopters, fixed-wing aircraft, ships and boats, in both the commercial and government markets. The Sky Connect TRACKER is the world’s first seamless global flight tracking system, providing 100-percent worldwide pole-to-pole coverage. Sky Connect uses the Iridium satellite network for best-in-class coverage and effectiveness.

**SIKORSKY**

Sikorsky Aircraft, now including Schweizer, announced a series of engine, air vehicle, interior and avionics upgrades available for order immediately on the new S-76C++ helicopter and a set of additional product improvements that will lead to the launch of the new S-76D model in 2008.

The extensive product upgrades should ensure that the S-76 would remain best-in-class in the corporate VIP, offshore oil, airline, EMS/SAR and law enforcement segments.

‘The S-76’s success has been built by meeting the needs of the customer. We continue that tradition with a series of product upgrades that will provide more power, range, operating efficiencies, reliability and comfort. An aircraft with a proud history has an even greater future’, said Jeff Pino, Sikorsky’s Senior Vice President for Sales and Commercial Programs.
Product improvements available immediately on the S-76C++ include the Turbomeca Arriel 2S2 engine upgrade. This offers a 5-6% increase in engine ratings, reading out as a 350 to 450lb increase in Category A takeoff gross weight at sea level 90F. A barrier filter will provide superior protection against FOD and contamination, resulting in longer TBO, fewer removals and lower costs.

A new HUMS (Health and Usage Monitoring System), the Honeywell VXP has 25,000 flight hours proven capability.

A new VIP interior is coupled with an improved soundproofing system using Keystone’s SILENCER™ technology and Sikorsky's proprietary Quiet Gearbox technology will enable significant interior noise level reductions without weight penalty.

Besides featuring new PW210 engines and glass cockpit the S-76D will build upon the upgrades slated immediately for the C++ by additionally offering new composite main rotor blades designed to increase hover and cruise efficiency increasing lift and range. A new tail rotor will add comfort and lower noise levels.

On their own Booth Keystone Helicopter were promoting their SILENCER™ technology as a product available to virtually all manufacturers as a means of providing significant noise suppression inside the cabin and improved structural integrity, with no loss in fuel efficiency.

The system uses an advanced carbon fibre skeletal structure that incorporates AC ductwork as structural cross members and attaches to the airframe with isolators. The outer framework supports the interior for improved rigidity and reduced vibration, while permitting easy access for airframe inspections and allowing room for an acoustic blanket.

Sikorsky also announced sales to PHI. Six new Sikorsky helicopters are being added to the company’s expanding fleet.

PHI signed for two further Sikorsky S-92 helicopters – taking the fleet up to six - for use in the Gulf of Mexico offshore oil market. In addition four S-76C+ are being added to a current fleet of 15 S-76s as part of the company’s fleet upgrade initiative. Deliveries will begin mid-year.

SIMPLEX

Simplex issued a long list of sales of its various Fire Attack Systems at the show.

A 2,000-gallon Model 314 for the CH-54 helicopter has gone to Siller Brothers Aviation of Yuba City, California, for use in fire fighting operations this season with the US Forest Service and other fire fighting agencies.

Japan Aerospace of Tokyo recently placed an order for two 237-gallon Model 301 systems for Eurocopter AS365N3 helicopters. The helicopters were purchased through Euroheli and will be delivered to Kyoto and Osaka City Fire Bureau. Both units are being delivered in the first quarter this year. With this order, Simplex has delivered a total of 14 Model 301 Fire Attacks within Asia.

Long-term product improvement plans for the Model 304 include a change from fibreglass to carbon graphite materials and updated manufacturing processes. The reduced overall weight and faster fill times with the newly developed 4” DC Electric hover refill pump and new turbo flow water drop technology greatly enhance the effectiveness of the system. The launch customer is San Diego County Sheriff's Department who recently purchased two Bell 205A-1 helicopters from Eagle Copters of Calgary, Canada. The first delivery of the Model 304A is expected in mid April.

The development of a Fire Attack System for the EC130 helicopter is pending. The system will be based on the proven success of the Model 310 Fire Attack System for other examples of the AS350 series of helicopters. The EC130 Fire Attack System is being pursued as a result of requests worldwide for a tank specifically designed for this helicopter.

LG International of Seoul, South Korea has requested the Model 328, an upgrade to the existing Model 10900-050Ka-32. The improvements include the replacement of the hydraulic hover pumps by two 6” AC electric hover pumps with a refill rate of 1,000 GPM each. Removing the hydraulic pumps eliminates the hydraulic power pack in the cabin and installs a lightweight modular hydraulic power pack increasing useable floor space. The Model 328 will be designed to accept two additional exterior saddlebag style tanks that would increase the system capacity. Delivery is expected in August 2005.
SAAB
Saab TransponderTech displayed its airborne automatic identification systems (AIS) at the show. The Saab R4A AIS provides automatic tracking of the helicopters using a unique self-organising time division multiple access (SOTDMA) protocol that uses the precise timing data in GPS satellite signals to synchronise multiple data transmissions on a single narrowband channel. Saab has been a pioneer in the development and deployment of AIS technology in the maritime and aviation industries. The airborne AIS transponders are being used to broadcast the helicopters’ position, heading, speed and performance data to ground monitoring and control stations.
The AIS installations provide an important margin of safety for aircraft flying long distances over open water. It is a second-generation product that can be used for a variety of applications, such as coastal surveillance of shipping, vessel traffic control, environmental monitoring and search and rescue operations.
Saab has recently completed installation of its AIS on 17 oil industry Bell 412 helicopters operating in Mexico.

AVIALL
Aviall Services, Inc. the largest independent provider of new helicopter parts, rolled out its LIFT (Logistics and Inventory Flight Team) programme. Aviall LIFT provides unique inventory and logistics solutions tailor-made to meet individual helicopter operators' needs. First announced late last year the programme is designed to continue the provision of increasing value to customers and suppliers alike. The program’s goal is to assess an individual customer's needs, inject efficiencies and lower direct operating-costs. Flagship customers like Air Methods, Keystone Helicopter Corporation and Rotorcraft Leasing are already experiencing noticeable benefits. Aviall Services business unit markets and distributes products for approximately 220 manufacturers and offers approximately 400,000 catalogue items from customer service centres located in North America, Europe, and Asia-Pacific.
For more information about LIFT call Aviall on +1 972-586-1910 http://www.aviall.com/

SENSORS
Other than the appearance of the new EMCCD sensor option – an item still not widely available – the number of major sensor advances being exhibited at the show was low. What was evident though was the number of contenders for sales of complete systems into the market. It appears that there is a sense that some customers are dissatisfied with the existing offerings – either on cost or service – and that others might do better. As this industry largely uses exactly the same equipment and is effectively selling just the sensor casing as the branded product the customer choice options are wider than some would care to admit.
Cineflex, LLC were demonstrating a high-definition aerial camera platform at the show. The Helinet/Cineflex HiDEF is built around Sony's HDC-950 and HDC-F950 cameras and is the latest in their line of gyro-stabilised aerial camera systems. Users can broadcast live high-definition images via an encrypted microwave downlink system.
The Helinet/Cineflex HiDEF was on display at the company Booth and on the Eurocopter Booth mounted on one of Helinet's EC-130 helicopters. The 5 axis gyro stabilised model HiDEF V14 is a flexible gyro-stabilised camera system offering a wide range of key benefits including its small size [14.5 inches] and light weight [67lbs/30kg].
Another major contender, particularly in the US market, is GyroCam. The company has already achieved some success in the law enforcement field offering a range of twin and triple sensor turrets that suit customer needs. Perhaps a more important product in the wider market though is the GyroLight V700, a 20 million candlepower searchlight system housed in a fully gyrostabilised sensor style pod. One of the major features of this searchlight is its promise of providing a cool light. Current operators aware of having paint blistered and of having to re-slave lights that swing too close to heat vulnerable skid mounted floatation bags may be particularly interested in reviewing the product. Included within the unit are UV, blue, green, amber and infrared filters. Originating from the Antipodes the GyroLight is not completely new. It was on display at Helitech in the UK some years ago on the Patria stand and have continued with its development.

The light offers a fully self contained 360° rotation and slaving capability unit operated by a hand controller and is suitable for use in helicopters and fixed wing aircraft as well as marine vessels and motor vehicles.

Taking market share away from the majors with their wide ranging complete system capabilities can in many ways enhance the prospects of independent downlink suppliers and a number were to be found exhibiting in the hall.

**ISOLAIR/KAMAN**

Isolair Incorporated of Troutdale, Oregon announced a partnership with Rainier Heli-Lift to design, manufacture, and certify the Eliminator II fixed tank fire fighting system for the Kaman K-MAX K-1200. The carbon fibre tank will have a 700-gallon capacity with a hydraulic hover refill system that will fill the tank in less than one minute.

The Eliminator II will deliver all of the capabilities of the cost-effective K-MAX helicopter while incorporating Isolair’s proven fire fighting system design. The system will meet Interagency Airtanker Board requirements and be FAA certified by June 1, 2005.

Kaman Aerospace displayed one of the two new fire-fighting systems for the K-MAX helicopter on its Booth.

Kaman Aerospace announced the delivery of a K-MAX helicopter to Lucky Air Co. LTD of South Korea. It will be the first K-MAX to operate in South Korea. The previously leased helicopter will be used in support of power line construction and for aerial firefighting missions. Korean Type certification and completion of the sale is expected in February.

Lucky Air Co. LTD is a newly formed division of Samsung Electric Power that will provide aerial lifting services throughout South Korea, according to Kyung Hwan, Jung, president of Samsung Electric Power. “The K-MAX will play a key role for us in several important missions,” Jung said. “It will provide an increased firefighting capability and effectiveness in...”
Korea, and its lifting abilities will add a new dimension to our overall capabilities.”
“We continue to see opportunities for K-MAX sales around the world due to the aircraft’s high reliability rate and cost-effective lifting capabilities,” said Roger Wassmuth, director of K-MAX marketing and business development for Kaman Aerospace. “This is the first K-MAX delivery to South Korea, and we look forward to a long and mutually beneficial relationship with this important new customer.”
K-MAX is specifically designed for vertical reference flight, an important feature for external load work. It has a 5,000-pound (2,268kg) on-the-hook lift capacity at 8,000 feet of altitude (2,446 metres) and 6,000 pounds (2,772 kg) on the hook at lower altitudes. K-MAX is capable of precisely placing critical supplies, equipment or water in confined or inaccessible areas.

The K-MAX is called "FIRE MAX" when a fixed tank system is installed. The systems will soon be undergoing testing by its manufacturers and is expected to be available for the 2005 fire season. Roger Wassmuth, director of K-MAX marketing and business development, said, "Once the fixed tank systems are available, we look forward to seeing it in field operations. Existing operators can work directly with Kawak or Isolair to obtain the system for their aircraft."
K-MAX is specifically designed for vertical reference flight, an important feature for external load work. It has a 5,000-pound (2268kg) on-the-hook lift capacity at 8,000 feet of altitude (2446 meters) and 6,000 pounds (2772-kg) on the hook at lower altitudes. K-MAX is capable of precisely placing critical supplies, equipment or water in confined or inaccessible areas.

**FILTRATION**

Aerospace Filtration Systems (AFS) has plans for new commercial products and continued product growth. AFS announced plans to expand its product line; the company has physically expanded — into a brand-new 22,000-square foot facility in Missouri. ISO 9001:200 registration is pending, with registration expected in early 2005, moving AFS into the company of some of the foremost aerospace companies in the US. AFS produces filter systems for the Bell OH-58D Kiowa Warrior, Bell 407 and 206L3/4, the MD Helicopters AH/MH-6 Little Bird and MD 500, Boeing CH-47 Chinook APU and AH-64 Apache APU and the Sikorsky UH-60 Blackhawk main engine and APU. Several new commercial filter systems are slated for introduction in 2005.

Plans for 2005 include the introduction of two new Inlet Barrier Filtration (IBF) systems. These new IBF systems, for the Bell Jet Ranger 206B/206B/206B and the Bell 205/210/210/210 helicopters, will enable operators to maximise engine protection while enjoying a wide range of performance and cost benefits associated with these unique, high-performance filtration systems.

Heli-Expo is not just about aircraft on static display, flight demonstrations and exhibits in a massive hall. Mostly behind the scenes there are instructional classes, discussion groups, product and legislation briefings.

The Helicopter Association International has its Salute to Excellence awards programme, now in its 44th year, which recognises outstanding achievement performed by individuals or companies in the helicopter industry. The winners of a range of different awards are formally recognised during the annual HAI Salute to Excellence banquet and awards ceremony – this year held on February 7.

The Law Enforcement Award - sponsored by MD Helicopters – went to US Coast Guard Lieutenant Craig Neubecker, pilot, Lieutenant Shawn Koch, co-pilot and Avionics Electronics Technician First Class William Greer, aviation gunner.

They had successfully completed the first night airborne use of go-fast interdiction under extremely daunting conditions, ultimately stopping over 6,083 pounds of pure, uncut cocaine with a street value of over $194M from reaching the United States.
Flying on a night with zero moon illumination, low visibility, rain and confused seas, the crew manoeuvred their armed AgustaWestland MH-68A Stingray helicopter to track the go-fast boat as it sped toward US shores with its illicit cargo. After firing warning shots and then disabling the go-fast boat’s engines with shots from the helicopter’s .50cal rifle, the boat, its crew and cargo were all captured.

The mission occurred in early 2003 while aboard the US Coast Guard cutter Diligence on patrol in the Eastern Pacific between Colombia and the United States. The same crew was presented the 2003-04 Captain 'Gus' Crawford Memorial Air Crew of the Year Award by the ALEA last year. This is the first time that any Coast Guard crew has ever received either of these two prestigious awards. The crew serves with the Coast Guard’s Helicopter Interdiction Tactical Squadron (HITRON) in Jacksonville, Florida.

Whirly-Girls International will celebrate its 50th anniversary this April in a three-day event in Washington, D.C. honouring half a century of female helicopter aviators. The April 28-30 event will feature a dedication at the Mayflower Hotel where the first Whirly-Girls meeting took place, a commemorative banquet, and a tour of the Smithsonian’s Steven F. Udvar-Hazy Center, which will house a special exhibit featuring memorabilia of the first 118 members of the Whirly-Girls that weekend.

The anniversary is made possible in part by generous donations from American Eurocopter, Bell Helicopter Textron, Coastal Helicopters, Communiquet, Haverfield Corp., Curves, Inc., Robinson Helicopter Company, Security Solutions, and Turbomeca USA.

The celebration will kick off with a reception at the Mayflower Hotel at which a permanent plaque will be installed on the hotel mezzanine denoting the historical significance of the hotel to this organisation.

Frank Lewis Jensen [1928 to 2005]
Just days after the end of this year’s event came news of the death of Frank Jensen, former President of the Helicopter Association International.

Frank L. Jensen, Jr. joined the U.S. Navy in 1943 while still 15 years of age and became a combat radioman/gunner on dive bombers and patrol bombers. After WWII he joined the U.S. Army and served as parachutist in the Korean War with the 187th Airborne Regimental Combat Team. His subsequent Army service included flight school and assignments in Japan, Europe, and two tours in Vietnam. He retired from the US Army as Colonel, Master Aviator, with a number of awards and decorations.

He received a Master’s Degree in Aerospace Operations Management and held certificates from the FAA as commercial pilot, fixed and rotary-wing, single and multi-engine. He was trained and experienced as an aircraft maintenance supervisor.
Jensen served as Executive Director and then President of the Helicopter Association International (HAI) from 1982-1998, during which time he was named Elder Statesman of Aviation by the National Aeronautics Association and was designated a Fellow of the American Helicopter Society. He received the Lawrence Bell Award from HAI and the Paul Tissandier Diploma from the Federation Aeronautique Internationale. In 2005, he was honored and grateful to receive the Eagle Award from HAI along with Tim Biddle and Ted Dumont.