

Police Aviation News

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Paris Air Show Special 2009

IPAR



*Not so good for the big airliner manufacturers
but unexpected orders are announced*

PARIS AIR SHOW

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Another year another show.

As with Farnborough the numbers of elements of this giant show that truly fit into the 'airborne emergency services' mould represented by PAN is few, this is the display arena of big airliners and heavy metal military but with a flexible attitude there is enough to highlight some aspects of the PAN market.

Paris this year was over shadowed by a battle between the giant airliner manufacturers Boeing and Airbus, both are losing orders as their new build programmes falter and, as we were to find out after the show, things could only get worse for Boeing as their 787 Dreamliner again hit the buffers and found its flight test programme disintegrating. Oh how they laughed when Airbus hit problems with the A380, and I guess Airbus are returning the compliment—but ever mindful of the mess that the A400 military freighter is in..

So as the big boys faltered it was a small chance for the lesser manufacturers to announce modest orders and take centre stage for once.

Under the banner of EADS Eurocopter brought its EC175 to Europe for the first time at the 48th Paris Air Show. Having seen it at two successive HAI Heli-Expo's Americans and others must be getting pretty blasé about this particular full-scale mock-up but not Parisians. The 16-seat civil helicopter appeared in its corporate version on the EADS stand. The EC175 program is jointly managed by Eurocopter and HAIG, Eurocopter's Chinese partner. The EC175 programme remains on time, with the maiden flight scheduled for the end of this year.

Amplly exhibiting the breadth of its helicopter range Eurocopter was displaying six helicopters on static display on the tarmac (in front of Hall 2A) at Le Bourget Airport:

Enigma: Many years ago the Reims F406 was a Cessna design and it has not sold that well—around one hundred so far. But the 406 is a niche machine quietly undertaking an important and largely covert surveillance role across the world. Now the new owners of Reims are predicting a further 75 sales.

In PAN terms the most important exhibit was an EC135T2+ JDH [c/n 806] shortly due to enter service with the French Gendarmerie. The Gendarmerie has just begun operating this type of light twin engine helicopter and the example shown has yet to be delivered, remaining on the German register and on delivery to the show area carried a German flag – a detail removed by the time PAN arrived to record the apparent oversight.

For the Gendarmerie the EC135 is a step up from the simply equipped AS350 fleet and an opportunity to widen the tools of the airborne law enforcement trade. Not so long ago this military based policing formation was operating without any role equipment. Night and weekend flying was rare – as indeed it was for UK police forces 15 years ago – but slowly night eyes arrived to alter operational profiles. The arrival of the simple Spectrolab SX-16 searchlight



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was presented as elevating the still simply equipped AS350 to that of a high-tech crime-fighting tool. There were no daylight cameras or FLIRs, they were hired in as needed and tended to be fitted to the craft of the commercial supplier. The acquisition of owned camera equipment has had to await the new fleet.

After an open competition that sorted the best from the rest Gendarmerie EC135s are equipped with the L3 Wescam MX-15 fitted forward to the starboard skids, the SX-16 located port in the classic role fit. Ahead are many months of the crews assimilating with a new aircraft and a seed change in technology and tactical flight.

As has been amply demonstrated over the years the EC135 can perform a range of parapublic missions, such as law enforcement duties for police departments, border control, coast guard operations and EMS.

Also a major emergency services type, the EC145 appeared in its latest Stylenze version. This corporate configuration promotes the type as a passenger transport rather than the more utility configuration. This area can be difficult to break into at times – the products of other manufacturers being traditionally associated with this market sector.

Also being exhibited was an AS565MB Panther, the military version of the Dauphin and similarly able to perform SAR missions and maritime surveillance duties as well as more militaristic attack duties. After recent involvement of the type in the Gulf Eurocopter naturally highlighted its suitability for use in the fight against piracy. The aircraft presented at the Paris Air Show is destined for Bulgaria, which recently chose the AS565 Panther to modernise its fleet and comply with NATO standards.

The latest version of the venerable AS350 series was presented in its military guise as an AS550 Fennec armed version of the Ecureuil/AStar [below]. As in the commercial and parapublic arenas the type is often used for pilot training, as well as reconnaissance and light utility transport missions. It is again seeking to gain the acceptance of the Indian military market as a replacement for the Alou-



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ette helicopters used by the military and police. On the last occasion the winning AS350 was disqualified because Eurocopter used a standard commercial model. This time EC will not be making the same mistake again. Whichever type is successful can be expected to take over the police task in due course.

The EC225 on show represented a type used to transport passengers and equipment to and from oil & gas platforms. The type's performance of SAR missions both within the civil oil industry and military has been underscored by its selection by one of the bidders for the UK SAR-H competition. The example on static display at the show will be operated in the oil & gas industry in Vietnam.

In view of the recent attacks on police aircraft at commercial airports in the UK PAN sought out leads for an existing solution within the exhibitors and as a result it seemed that the Thales offer to join them to discuss the latest trends and challenges in airport security solutions seemed promising.

Along with a number of companies Thales is offering to bring in new technologies and solutions that enable airport operators to tighten their security but in practical terms these solutions relate to access and perimeter control. An alarm may be raised but there is no magic 'goalkeeper' solution to fending off the intruder once in. As we have known for longer than we may care to admit this situation is not new. This is exactly the experience encountered by the West Midlands Police last month and Surrey the month before.

On the positive side the matter is now being raised with industry and they may yet offer a credible solution that does not necessarily include retiring vulnerable aircraft to operating from a bunker.

The product stream that Thales was promoting in Paris was the design and implementation of control systems that manage employee and user access control whilst maintaining maximum fluidity at entrance and exit points. These solutions also offer biometric capability, such as biometric fingerprint readers or face recognition for access to critical areas. This negates the insider threat but not the immediate terror threat.

Two shows ago there was a clear commitment to fly UAV's in the show and break through a long standing taboo, but it never happened. Similar wishes were expressed for the Farnborough Air Show but in the event the certification authorities were even less inclined towards the new frontier than the French had been.

This year the Camcopter S-100 was heralded as the first-ever Unmanned Aircraft System (UAS) to fly as part of the official flight displays at this the 100 year anniversary of "Salon du Bourget". Schiebel, of Austria, developer and manufacturer of the Camcopter S-100, took



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the honour with its VTOL (Vertical Take Off and Landing) UAV.

Approval for the history-making flights was granted on the basis of the S-100's existing EASA certification and a series of test flights conducted in April at the Flight Test Centre (CEV) in Istres, France. Schiebel's Air Services Team was able to comprehensively demonstrate the Camcopter S-100's planned flight manoeuvres and emergency procedures, proving its ability to fly safely at the Paris Air Show.

The CEV validated the system's performance and the organisers of the air show and the French certification authority, DGAC (Direction Générale d'Aviation Civile), observed and assisted with the tests. The DGAC issued the final flight permission.

The fully autonomous Camcopter S-100 offers a maximum takeoff weight of 200 kg and an endurance of over 6 hours, and has a flight profile reflecting manned aircraft as closely as possible. Over 100 of the type have been produced and the pages of PAN have on occasion reported its operations in military and parapublic roles. The most prominent in the latter arena was the trial use of the S-100 in demonstrating patrolling of the Schengen borders over Austria.

The daily flight displays within visual range of the audience were something of a disappointment in that the necessary flight line safety margins left the tiny S-100 a mere speck in the distance – an important enough attribute for a surveillance tool.

During the flights, real time high resolution daylight and infrared video were fed to the Paris Air Show's own TV station and displayed on large screens for the audience. The video images used a French-made Thales Agile II gimbal EO/IR camera system, mounted in the S-100's main payload bay.



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Cranfield, Bedfordshire based Bob and Tony Crowe, better known for their UK Cessna and Reims agencies are now moving forward with the SK-105 Skylander a new economical and cost effective turboprop utility transport to add to their existing Reims F406 agency.

Sky Aircraft SAS featured a roomy cabin mock up of the SK-105 on the GECI International Group Pavilion static park. The type offers the largest cabin volume in CS23/FAR23 category (28 cu m / 989 cu ft), is easily convertible from 19 passenger (31" pitch) to combi and cargo configurations. The latter includes up to three LD3 containers. The ample cabin height also allows a tall person the chance to board without recourse to being bent double – an important enough marketing factor even if only associated with a small number of potential passengers. For this same class of fare-paying customer the box like fuselage removes the inward sloping walls on some examples of this class of airframe. The SK105 offers a range up to 1,100 nm / 2,000 km and a top speed of 212kt @ FL100 or an endurance of 8 hr. Sky Aircraft plans to deliver the first planes in 2012, with total production of 1,500 planes by 2028.

GECI International Group: www.geci.net dates from 1979 and has focused its principle activity in aircraft engineering, design and development; their engineers have contributed to over 50 aeronautical projects including Dassault F7X and Airbus 380.

GECI recently acquired the majority shareholding in Reims Aviation Industries manufacturers of the F406 twin turboprop and this is therefore a marrying of the two aircraft manufacturing lines. One of the recently delivered Scottish Fisheries airframes represented the F406. Although not a high seller the type continues to find favour in the twin engine surveillance market. Currently the numbers built remain under 100 but this magic number is now within reach. Even examples of the F406 displaced by re-orders in this niche surveillance market – typically those recently delivered to Scottish Fisheries – remain in operation use further down the ‘food chain.’ The small fleet operated in Australia on coastal surveillance



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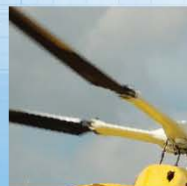
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and nominally replaced by a fleet of Dornier 328s remains operational and simply displaced to operate on other tasks.

GECI announced new orders for 10 aircraft, worth a total of more than \$60M. The orders cover four Skylander SK-105s and six F406s:

A Memorandum of Understanding was signed with a private Malaysian aviation group for the delivery of four F406s for a maritime surveillance role, with initial delivery in the second quarter of 2010 and four cargo and commuter versions of the SK105 with deliveries planned for 2012.

One F406 in its cartography configuration has been chosen by the Ministry of Defence of the Republic of Tunisia, to help map its country. Delivery of the aircraft is expected to take place by the end of 2009.

A further Memorandum of Understanding was signed with Bob Crowe Aircraft Sales, covering a Commuter/Cargo F406 and two unspecified options for the same type.

The signature of these ten orders and two options is the fruit of the intense efforts made by the marketing teams over several months. The company is now suggesting that the period of slow sales may be about to change. On-going negotiations (covering 180 planes, including 70 F406s and 110 Skylander's) suggest that there is real potential in the light turboprop plane market.

Some of the stories circulating in the halls are barely news, but the result – or in this case the lack of an outcome – becomes news. In December 2007 the US Army signed an unusual procurement contract for 22 Russian Mil Mi-17 helicopters in December 2007. The \$322M order was set up through a US company with an end user in Iraq. The rush order, designed to quickly reequip the Iraqi air force and allow it to perform counterinsurgency operations remains unfilled. Not a single helicopter has been delivered, despite full payment. Such are the continued perils of buying Russian equipment. Buying Mi-17s, and other Rus-

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sian equipment, for the Iraqi military seems logical. The Iraqis flew and maintained similar aircraft in the Saddam Hussein era and Russian rotorcraft are significantly cheaper than US helicopters, at least in theory.

The Mi-17/Mi-8 airframe remains a brisk seller after 40 years. The aircraft can display new orders from India, China, Pakistan and Colombia, among others. The major Western nations have a handful operating in distant territories purely because they are less complex than the equivalent US and European craft. Great news for Ulan Ude and Kazan the builders. Just a few years ago, work at the plants had almost halted, now even getting a slot in the production line can be a challenge.

The US see the aircraft destined for Iraq as counterterrorism helicopters designed for use by special forces and whilst having the rugged basics also featuring Western-style cockpits and modifications that include FLIR Systems StarSafire sensor turrets and a range of other systems and radios.

Where previously Mil purchases had been refurbishments costing around \$1.5M [2001] rather than the \$3M for a new factory fresh machine the cost has since risen to around \$7.5M. But the Mi-17s for Iraq are now being quoted as between \$13 and \$16M.

The helicopters were supposed to be delivered starting in February, but the latest date for first delivery has slipped to 2010. None of the helicopters has even left the Ulan Ude plant. [Aviation Week]

The recent activity at Diamond whereby the airborne sensing sector of their business has taken on a new identity has not split the general air of cooperation within the companies until now associated with sales and operation of the DA42 series.

The setting up of Airborne Technologies as a rising star in the world of surveillance and remote sensing applications is being headed up by Wolfgang Grumeth, Marcus Gurtner and Mario Rathmanner

The company now has three DA42MPP [Multi Purpose Platform] in service and more on order. The company is sufficiently capitalised to conduct data acquisition and surveillance business at an international level.

Airborne Technologies stretches to the provision of complete airborne/sensor platforms for all possible airborne surveillance and sensing applications, including crew and post-processing training. The preferred platform remains the DA42 MPP, but by separating the sector from the Diamond campus they are able to propose other sensor carriers if demanded by the mission.

Diamond Aircraft Industries received EASA certification for the DA42 NG powered by 168hp (Austro Engine AE 300 engines on 12th March 2009. Diamond Aircraft Industries works intensely on the certification of the new MPP using the increased-power of the AE 300 en-

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gines and expects the European certification of that variant this year. It will be launched under the new name DA42 MNG to highlight the differences between it and the DA42 MPP which remains in production. Later this year upgrade to the AE 300 engine will be offered.

Sikorsky Aircraft announced that the Search and Rescue (SAR) S-92® helicopter operating in the United Kingdom had reached the operational milestone of 1,000 flight hours as the SAR services provided by the Maritime and Coastguard Agency (MCA) and under the operation of CHC Helicopter Corp. continue to operate at availability levels of 98%.

For nearly two years CHC has operated four SAR S-92 helicopters from two bases covering territory in the North Atlantic and the North Sea. In Stornoway, Western Isles, Scotland, the fleet has conducted 244 rescue missions, while missions flown out of Sumburgh, Shetland Isles, Scotland, have totalled 150 to date.

The S-92 G-SARB reached and surpassed the 1,000-hour milestone in May 2009. The aircraft is one of two deployed at the Stornoway base for the MCA. G-SARB and G-CGMU, (the second Stornoway aircraft), completed 172 SAR missions in 2008 - the base's busiest year since operations began there in 1987.

In the first full year of SAR services at the two bases, the SAR S-92 helicopters completed 172 and 109 missions at Stornoway and Sumburgh, respectively. The MCA contract began in 2007.

The Tata Group and Sikorsky Aircraft Corp. have completed an agreement for Tata Advanced Systems Limited (TASL) to manufacture Sikorsky S-92® helicopter cabins in India.

The first cabin is scheduled for delivery in late 2010 from a new green field facility that TASL will construct at Hyderabad in the state of Andhra Pradesh. Tata Advanced Systems is a wholly owned subsidiary of Tata Sons and is a lead company for providing integrated solutions for aerospace, defence, homeland security and disaster management.

The S-92 helicopter is the first helicopter in its class certified by the U.S. Federal Aviation Administration to the most rigorous standards. The aircraft also is certified by the European Aviation Safety Agency to its stringent safety standards. Nearly 100 S-92 helicopters have

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been produced to date, and the worldwide operating fleet has accumulated more than 150,000 flight hours. The aircraft perform a variety of missions including search and rescue off the U.K. coast, and Head of State transport for the leaders of several nations. The S-92 helicopter also has become the helicopter of choice for transporting oil workers to offshore platforms

Although at the show they still awaited the much delayed certification of the Bell 429 the media were talking openly of new developments based on its MAPL technology. A single more suited to the US market will probably come first and then a larger challenger to the JAR29 sector such as the EC145. Both of these developments are a way off but once this basic 429 technology is certified we can expect the developments to be far less troublesome.

The 429 currently has roughly 300 letters of intent, which will be converted to firm orders once the helicopter certifies. With over 60% of these orders coming from international customers, this helicopter is intended to re-establish Bell in the global marketplace.

Neil Marshall, programme director for the 429 said, "Everyone who comes in contact with the helicopter comments on the size of the cabin and its flexibility. And those who have been fortunate to fly in it talk about its power, smooth quiet ride and the ergonomic modern cockpit that reduces pilot workload."

In its current form the type offers the interior space of a medium-class helicopter, but with direct operating costs of a light twin. The long gestation period and the dead end that was the 427 has put the airframe ten years ahead of its main modern competitors [the EC135 and MD900] and more like 25 years on the Agusta A109. Fitzpatrick also said, "We really listened to what the customer wanted in a helicopter and I believe they won't be disappointed with the 429. Its performance is even better than we had promised."

Since the show the Bell 429 has received Canadian and US FAA certification. EASA certification – which should effectively be a 'rubber stamp' clerical action should follow within weeks.

The 429 can be expected to place a great deal of pressure on the UK police aviation market in the next year or so. Reflecting back to the recent attacks on police aircraft there remains that still unconfirmed sizeable order for Bell 429s with Bond [BASL]. Were it a leased airframe that was destroyed at Birmingham it would be the lessor's problem to bring in a suitable replacement and not the police. It can cost more to lease but recent history now under-





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lines some of the positive aspects of leasing. Thus far BASL have long dangled that unique selling point of assured replacement in front of the UK police market to little effect perhaps that will change. Conversely there have been moves within the mainly leased UK air ambulance market to buy airframes so ownership still has its positive aspects.

Chief Officers of police like to own their aircraft and the history of police aviation worldwide has provided plenty of examples of this vanity promoting aircraft acquisition. It remains to be seen whether the recently promoted regionalisation of resources increasingly marginalises that feel good factor and lead to vanity having less effect.

It may be some time before a real 429 again flies in Europe. Paris was again accepting an indoor mock up and a flight demonstrator. Certification will temporarily make matters worse as the development aircraft now flying will have to be rebuilt to meet the agreed certification standard before they can again be available for demonstration use. As a result important upcoming shows including ALEA in July and Helitech in September are unlikely to see anything other than one of the now familiar mock-ups.

The Bell Helicopter static display featured examples of the 407 and 412 helicopters adjacent to the Bell pavilion. A flight-worthy 429 operated out of the Bell Heliport chalet on customer demonstrations.

At the show AgustaWestland were displaying as part of the Finmeccanica organisation and their helicopters took up a large proportion of the group static in front of the lines of chalets. They announced that the Maritime Safety Administration (MSA) of China has signed a contract for two Grand light twin helicopters, with an option for an additional two to be exercised next year. Acceptance for the two purchased aircraft is expected to be performed later this year. The MSA is responsible for monitoring all inland and coastal waters and these two helicopters will be dedicated to controlling and fighting water pollution.

The Grand helicopter was selected following the evaluation of the responses to an international tender issued by the Ministry of Telecommunications of China, to whom the MSA reports. The Grand was chosen for its class leading operational capabilities and performance in the maritime role. The Grand's will be used by the MSA for pollution control and they will operate aboard the MSA's new large vessels operating in the Guangdong province, Southern China.

The MSA's activities are planned to be further expanded to cover all regions in the next few years. With the completion of additional vessels already ordered by the MSA, the number of helicopters needed by the MSA is expected to grow significantly, further strengthening the success of AgustaWestland in China.

Other elements of Finmeccanica included a range of unmanned airframes currently considered to be too large for ALE operations in civilian airspace and that regular attendee the Italian patrol twin ATR42.

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As predicted in the June issue of Police Aviation News L-3 WESCAM, a wholly owned subsidiary of L-3 Communications, announced the launch of its MX-10 EO/IR turret in Paris. The flight-proven MX-10 incorporates the company's multi-spectral MX-Series technology into a smaller turret to give defence, homeland security, and airborne law enforcement customers a modern option for a lighter, lower clearance EO/IR product. The MX-10 weighs only 37 pounds [16.8kgs], stands less than 14 inches tall and is engineered without a separate control electronics box or an external vibration isolator. Furthermore, the turret is capable of simultaneous HD digital video, NTSC or PAL analogue video outputs, and is compatible with all existing MX-Series command and control, moving map, SLASS and radar interfaces. This commonality promotes a faster transition period, and ease-of-use for customers who decide to switch current MX fitted fleets over to the smaller MX-10 turret offering. Similar to larger MX-Series products, the MX-10 can incorporate up to six sensors. Infra-red, colour and electron-multiplied CCD imaging sensors can be combined with a laser range-finder, pointer and illuminator for maximum mission performance. Further advancing visual performance, real-time image enhancement on all MX-10 sensors is done simultaneously, including haze penetration and imaging fusion – both of which lead to improved feature detection and recognition. Like the larger MX-Series turrets, the MX-10 also comes equipped with an internal IMU that is mounted directly on the optical bench. This mounting position allows the turret to determine the absolute pointing direction of the systems cameras, without needing to collect further information from “relative” sensors, mounting alignment calibration data, or the aircraft's Inertial Navigation System. The turret's MX-GEO package works directly with the integrated IMU to achieve higher target location accuracy.

Offering the onlooker a fair sense of the proportions of the new MX-10 sensor compared with the MX-15 the L3 chalet at Paris had examples of both of the turrets hung side-by-side. Whether the smaller weight and dimensions of the MX-10 will attract airborne law enforcers used to the capabilities of such as the MX-15 remains to be seen.





Although launched and now being promoted at a range of events customer deliveries of the MX-10 are not scheduled to commence until the summer of 2010.

L-3 Wescam announced that the company has received AS9100 certification. AS9100 expands on the ISO 9100:2000 quality management system and incorporates more demanding requirements that are necessary in the aerospace industry to ensure quality processes. The scope of AS9100 addresses all aspects of the design, development, production, installation and service of Wescam's products. Earning the certification underscores the company's commitment to ensuring quality processes for their defence, homeland security and airborne law enforcement customers. www.L-3com.com





Two views on 'heavy metal' surveillance the armed Eurocopter Panther in the static park carried a heavy gun on the port side and a FLIR on the starboard [above]. Bombardier continue to promote their 'quietly successful' series of turboprop twins in the surveillance role. Recent news is that the Q400 is now being promoted as a suitable patroller. [PAN]

Israeli sensor manufacturer Controp launched several new products at the show. The line up reads as a somewhat complex offering that seems to somehow miss the clear marketing message in the airborne law enforcement community.

The Israeli company has long favoured gaining the interest of the market but after a poor record in the UK it only found limited success in the USA.

See if you can follow this edit.... At least 50% of the original text has been removed.

The T-Stamp is a new camera payload system and is promoted as the first of its kind on the market, due to its three sensors providing superb performance in such a low weight payload. Weighing less than 6 pounds [3 kg], the unique T-Stamp includes a TI camera with a continuous zoom lens, a CCD TV camera with continuous optical zoom lens and a laser pointer. All three sensors are included in a compact 7 inch [178mm] diameter payload weighing only 2.8 kg. This three axis stabilised gimbal uses a mechanical gyro, providing high quality day and night image capability that Controp claim is 'unknown' in such a small payload.

D-Stamp is a lightweight daytime payload which is gyro stabilised, weighing only 750 grams and using a high resolution colour CCD camera with x10 continuous optical zoom lens for daylight observation.

U-Stamp is an uncooled IR mini gyro stabilised payload with single FOV for night time applications and weighing only 2.2 pounds [1kg]. The payloads operate in Observation Mode, providing real time live video. These new revolutionary and state-of-the-art payloads are now flying on several different SUAVs worldwide. This range of payloads is easily interchangeable, providing round-the-clock protection in a small compact package!

The A-View is a breakthrough lightweight, Day TV CCD or Infrared electro optical gyro stabilised payload which can be installed on aerial vehicles and is perfect for pilot's mission support activities. This lightweight 3.2 kg extremely cost effective camera payload is easy to mount and to operate and provides solutions which no other helicopter camera system can provide at such an affordable price. The A-View is already in use onboard small Police Helicopters.

SHAPO is a lightweight EO / IR observation system weighing only 10 kg which was designed for day and night operations including adverse weather mission conditions. Already

in use on Police Helicopters, the SHAPO's light weight makes it ideal for small helicopters where weight is an issue and a high quality day / night camera is required. This stabilised system includes an IR camera with a continuous zoom lens, a CCD camera and an optional laser range finder/pointer, providing a high resolution image from a lightweight compact 24 cm diameter payload. The SHAPO can be carried on board UAVs, Helicopters, Light Aircraft, Aerostats, Armoured Vehicles, High Masts and more.

The SPEED-A was designed to answer a unique field requirement for a stabilised high performance camera payload which can provide very long range observation on this most unique moving platform – the tactical mobile balloon system.

DSP-1 is a high resolution, high performance EO/IR dual sensor stabilised payload. This compact observation system especially configured for use on UAVs, light reconnaissance aircraft and helicopters is a four axis system, stabilised in azimuth and elevation allowing the EO sensors' line of sight (LOS) to be aimed and maintained stabilised. The system uses two camera channels: a TI camera with continuous x36 zoom lens and a high resolution colour CCD daylight camera with x20 zoom lens. The DSP-1 weighs only 22.5 kg and is easily integrated onto a wide variety of carrying vehicles through a flexible configuration suitable to any specific application.

Becker Avionics announced a plan to establish manufacturing capabilities for their state-of-the-art Digital Audio and Intercom System DVCS 6100 at its North American Subsidiary, Becker Avionics, Inc. in Miramar, Florida.

"The decision for establishing a US production line is monumental for the Becker Avionics Group, as we strengthen our presence in the US and take an important step towards becoming a fully recognized source for US Manufacturers and Operators when it comes to avionics equipment," said Mr. Roland Becker, President and CEO of the Becker Avionics Group. "We are committed long-term to strengthening our US presence as well as to serve the North and South American aviation markets more closely. "

The DVCS 6100 has been designed for both rotary and fixed-wing applications, and fully reflects Becker Avionics' proven know-how of more than four decades in audio system development for the aerospace industry. Since the market introduction of the 1st DVCS generation, over 300 systems have been placed into service and have achieved outstanding field reliability. The result of a continuous product improvement program has made the DVCS6100 a success.

The DVCS' has been installed in a diverse mix of rotary and fixed wing platforms, including the BO105, EC135, EC145, MD900, Bell412, S-70A, DO228 and King Air.

A couple of years ago PAN ran a story on a new Italian light aircraft project, the Oma Sud Skycar, designed as a general purpose light utility twin but also likely to offer the market an easy to load light air ambulance. Currently powered by piston engines the developers are already looking at Diesel power rather than turbine to enable access to those areas of the world where AvGas is scarce.





Back Door ...



Front Door ...

The Skycar is a low slung light pusher twin and its cabin is relatively compact. The acceptance of the type in the ambulance role revolves around a unique rear loading system that echoes the rear clamshell doors favoured by a number of helicopter designs. Whether the availability of this unique feature will in fact attract air ambulance operators remains to be seen. From inspection of the craft at Paris it would seem that only the rear loading system offers good access to the interior for stretcher patients. Side access is limited. Only an operator can judge whether there remains sufficient cabin room for an emergency team to work on the patient being carried.

Subject to unexpected difficulties arising, the type should be certified later this year. Meanwhile the craft has attracted its first orders from freight and passenger operators in Florida and may yet be built there.

As they had promised Air tractor Europe brought to Paris a float equipped fire bomber and added an armed AT-802 to increase the level of interest.

The introduction of the armed craft provides a wider market to a variant that has been operating in an ad-hoc form in the Drug Wars in the Americas for a considerable time.





In the EADS static a Guardia Civil CASA 235 provides a backdrop for one of the UAV concept models being developed by EADS. The CASA is the only fixed wing type operated by this Spanish law enforcement agency. Inset, the operators position from the open rear clamshell doors.



IN THE STATIC:

An increasing number of high end surveillance solutions make use of business aircraft. Some like the King Air [upper left] leave little doubt as to their purpose by having their sensors on show, others hide their talents to spy.

Above right A small corner of the 'exclusive' AgustaWestland static.[PAN]

Left: Give me an aircraft and someone will always declare that it is 'ideal' for the airborne emergency services. Here is another example.

I never did find out [or really care] what this contra rotating mini-copter had to offer beyond its seemingly flimsy pilots seat but the designers clearly had designs beyond the mere experience of making this mini- Kamov fly. Placed behind the pilot is a stretcher complete with 'patient'. I think most potential patients would rather die at the scene! [PAN]

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