

# Police Aviation News

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Special Edition HELITECH 2013

PAR



# HELITECH 2013

*and other recent events*

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The Old Helitech venue ©PAR 2011

## OVERVIEW

It was a controversial new start for Helitech, a new venue and a new 'International' concept to mark 21 years of the bi-annual event. Many hated the revamp idea from the start and it seemed there was enough venom out there to sink the whole project before it started. Nonetheless, despite all, it went ahead, "bigger, slicker and arguably better" I say arguably because not many agreed with that claim.

The organiser's promised visitors to Helitech International that they would have a unique opportunity to view and explore over twenty helicopters during their visit to the new-look exhibition at ExCeL, London which is unfortunate because last time there were over thirty exhibits and fifty fly-in visitors.

For those unfamiliar with the history of Helitech, and there may be a few, suffice to say that

**COVER IMAGE:** The outside static park at this years Helitech 2013 event was for many very uninspiring. It was not that the aircraft themselves were not of interest it was more how they were presented and the lack of numbers. With just seventeen airframes at the event this was compared negatively with over thirty at Helitech 2011—even though many of them were simply 'For Sale' rather than representing the latest technology. From the left G-LNCT MD900 Explorer of the Lincolnshire and Nottinghamshire Air Ambulance, G-PERF Eurocopter EC120, G-JESP Eurocopter EC145 and (ZR339) AgustaWestland EH101.

the event commenced as a tented event set in an often muddy field called Redhill Airport two decades ago. Although much loved for its rustic appeal a subsequent move to the Imperial War Museum facility at Duxford, Cambridgeshire was welcomed from 2000. Both venues were in relatively remote locations and both suffered a lack of nearby hotels and significant transportation difficulties – especially for visitors from outside the UK. Ultimately Duxford was forgiven its massive logistic problems because of the undoubted attractions presented by the resident Warbirds operating from the museum. The first night drinks reception on the exhibition floor at ExCel was never going to equal the atmosphere generated within the American Hall at Duxford within an area literally dripping with nostalgic aerospace artefacts even with endless beer [see opposite].

Aircraft highlights at this year's event included the AgustaWestland's AW101, displayed in a civil VVIP configuration in the outside static park alongside two Eurocopter's and an MD Explorer. AgustaWestland also displayed examples of the AW139 and AW189 on the stand. *[Ed: Stand in the UK, Booth in the USA, both very much the same only the words differ by location!]*. Mainly because there were no new type appearances at the show there were no real stars – show stealers – at this year's Helitech but each of the major manufacturers could claim its own bright star making a first appearance..... Bell with its first UK registered Bell 429, Eurocopter with the T2 and AgustaWestland with the real 189 even though it remained Italian registered.

The number of aircraft actually on display was significantly down on normal attendee expectations formed at the former location in Duxford but the means by which they arrived was significantly more difficult and expensive. To add to the logistics of carting them in the nearby London City Airport [LCY] imposed a very narrow arrivals window for both flying in and demonstration flights. The organizers spoke of 'over twenty' airframes on site but that target was not met. The final number was seventeen – including the Bell 429 demonstrator I never did see. There lay the contrast, it was supremely easier for the humans to attend ExCel but harder for the exhibits. As was the case with the earlier editions the moving of the helicopters on site was left to the deft hands of Tony Hancock of TLC Helilift. The skid equipped exhibits arrived by air, were picked up in the car park landing site and trundled effortlessly up the fairly steep slope into the hall and placed precisely in position in a matter of minutes.



The latest version of the TLC Helilift on display in the static park at Helitech ©PAR

The event was held in association with the European Helicopter Association [EHA] – a link up that some subsequently suggested had not worked that well. The conference held in association with the event [of which more later] varied from brilliant to dour and if reports received are correct it was the EHA element that disappointed.

As this is an Airborne Emergency Services journal it is worth noting that there was a low key buzz in the hall related to the recent activities of both the UK police and SAR sectors. The former led by expectations fed by recent low key announcements of tenders from NPAS and the latter from the presence of the AW189 and Bristow.

Among the smaller exhibitors there was much talk – speculation – about how the recently announced NPAS request for bids to rebuild the EC135T2 fleet would work out. Everyone has high hopes and clearly industry is talking to each other about creating temporary consortia to undertake the bids in the hope that they will be in the winning team. At the same time it might be said that they know that most players will be disappointed and a chosen few will win regardless but it is a good exercise in the wider industry networking together to a common end. Also in the wings of NPAS decision making are tenders for a common downlink, maintenance and fixed wing trials. At the moment NPAS controls only police rotary wing.



No sign of NPAS or its aircraft at ExCel but they were at Eurocopter Oxford for the EC145T2 flight demonstrations a few days earlier ©PAR

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The Eurocopter stand from the Enterprise Control Systems desk with a military spec Soft Case Receiver System [for HD downlink] on display ©PAR

## EUROCOPTER

Like it or not Eurocopter is all pervading and it at least has appeared to back Helitech International's strategic move to become a more international exhibition, indeed some in Eurocopter were suggesting a 'professional' venue somewhere like ExCel ten years ago when it opened – even as the popular tented Duxford was brought on line.

Eurocopter brought some important airframes to the Docklands venue but overall numbers were down as they concentrated on the 'important' products. The array of rotorcraft on display include the EC130 T2, the latest iteration in the AS350 Ecureuil light single-engine helicopter family. This EC130 includes all the latest technology and the spacious cabin that can accommodate one pilot and up to seven passengers. On the opposite side of the stand was the EC145 T2 is the newest version of the BK117 line of 4-ton class twin engine, multi-purpose helicopters started by MBB long before the Eurocopter Group came into being. Both push the undoubted marketing and developmental advantages of *Grandfather Rights* up to the hilt.

From the new design product line Eurocopter brought a mock-up of the EC175, along with the EC120, the former in the indoor static and the 120 outside in the seasonal mix of fog and sunshine.

The new location did cause some alterations in activities normally associated with Helitech. Flight demonstrations were severely curtailed and in the event only Bell operated a 429 from the car park outside. Some of the critics of the relocation of the event cited the lack of flying in and the lack of demonstration flights as negatives but Duxford had also halted

flights because of a perception that the ‘wrong’ people [as in anybody] were being flown.

Eurocopter’s way around the curtailed flights was to undertake them prior to the event from their base in Oxford. A series of demonstrations with the examples of the EC130 T2 and EC145 T2 provided first-hand experience for around 100 people at Oxford over two days [see front cover of this month’s standard edition of PAN].

It appears likely that the next time the Eurocopter product line appears at a major public exhibition event it will be known as Airbus Helicopters.

## TURBOMECA

At the opposite end of the vast hall Turbomeca (Safran) were displaying mock-ups of its turbo-shaft engines and concentrating on raising the public perception of their Arrius 2R, the variant recently selected by Bell Helicopter for their new light helicopter, the larger Makila and of course the RTM 322, an engine now marketed as a 100% Turbomeca engine. The latest engine, the Arrano was promoted in a 3D presentation and there were displays on their value-added services: the new range of integrated on-line services, BOOST.

The UK is a major market for Turbomeca with sales to the Ministry of Defence, its largest single customer, and to civil operators who fly a variety of missions covering offshore, EMS, Police support, corporate and VIPs. The UK fleet of Turbomeca engines now amounts to more than 750 in service on nearly 500 helicopters; as well as 400 RTM 322 engines in operational use



The Bell light helicopter still remains at the model stage ©PAR



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with all three British Armed Forces. Effectively the hardware promoting their place in the market was partially concealed under the cowlings of most of the exhibits previously mentioned.

## BELL

The appearance of the British registered Bell 429 on the company stand was poignant. True it represented a victory for the company in that it was the first of its kind in the face of a very strong pressure against accepting the certification of the higher weights requested by the manufacturer but it also represented the quiet battle that still wages in the corridors of the certification authorities. The trouble is that the request for a 500 pound rise is that the 429 is too capable and everyone knows that the type would be back again asking for another rise, and maybe yet another. That initial rejected request for 500 pounds drives a massive wedge through the requirements of JAR 27 and the type faces a hostile industry that understandably fears a type that clearly outperforms existing legacy types in the JAR 27 and JAR 29 categories.

Meanwhile the National Grid Bell 429 will retain its acceptable JAR 27 performance parameters to undertake primary operations in the power-line inspection sector utilising a high quality sensor turret – the L3 Wescam MX-10. The displayed Bell showed off to best advantage its rear cabin operator workstation featuring a Curtiss-Wright Sky-Quest 20" HD display, MX-10 control unit, HD Nano Flash recorder, USB hub ports and keyboard. The operator has access to a large sliding tray table that stows clear of his seat without at the same time obscuring the displays.

The 429 will normally operate with a pilot and operator – leaving masses of cabin space unused and the need for the extra 500 pounds irrelevant in this instance. National Grid has been using helicopters

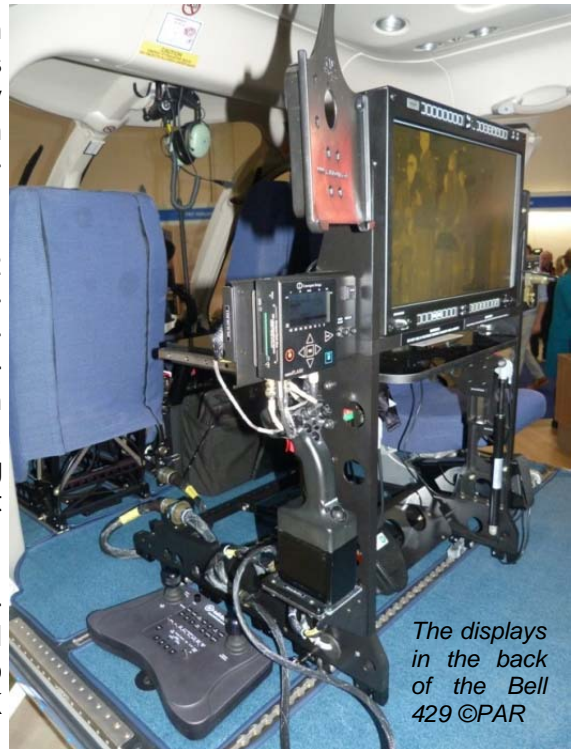


*The first UKregistered Bell 429 attracted a great deal of attention*  
©PAR

since the mid 1980s and they play an important role in enabling timely refurbishment of the system. Inspections from the air can be carried out much quicker than by linesmen climbing the towers. It takes three linesmen one day to inspect three pylons, while the airborne observer can inspect six pylons in one hour.

The operator undertakes two styles of inspection during 2-3 hour flying sorties. The first is a slow speed visual inspection of the component parts of the HT power transmission gantry, requiring an acutely trained eye supplemented by the probing zoom of the daylight camera in the MX-10 to seek out faults and wear in the equipment. The second technique is a significant faster fly-by utilising the IR image captured by the camera and capturing hot spots and flare emitted by faulty lines and connections.

The National Grid 429 will operate in an existing helicopter fleet covering the electricity network in England and Wales – and is the first in the world to be equipped to work for a utility company as well as the first with a UK registration



The displays in the back of the Bell 429 ©PAR

That may be the first Bell 429 in Britain but more are on the way. In a confusing announcement Bell announced a signed agreement with Heli-Charter Ltd for the first Bell 429 configured for Helicopter Air Ambulance (HAA) operations in the United Kingdom. The spacious cabin with a flat floor, wide 157 cm (62 in.) side doors and optional rear clam-shell doors is a clear enticement for patient loading and unloading but despite the suggestion, there is no one buying the 429 for HAA in the UK. The UK role is HEMS, the role fit is HAA – smoke and mirrors. That is not to say that they will not succeed in converting one of the UK HEMS operators to buying the 429, just not yet.

The recently appointed Bell Helicopter Customer Support Facility and Independent Representative held the grand opening of its new facility adjacent to Manston International Airport in Kent a few days before Helitech on September 21.

In a direct sale Bell announced a signed agreement with Avincis Group for the sale of up to 20 helicopters comprised of the Bell 429, Bell 412 and Bell 412EPI aircraft, largely for use in Life & Rescue operations but, despite many suspecting they might be, there were no indications that any of the 429s are destined for Bond Air Services the UK air ambulance operator.

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The other Bell projects, the 525 and the Short Light Single [SLS], remained very much in the background with just an unobtrusive model and some brochures sufficing to state their presence. In truth neither has advanced far enough for Bell to more than indicate their status.

The Light Helicopter market is Bell going head to head with the Robinson R-66 with a type that sits somewhere in the class of the EC120 but with a projected price point of \$1M and therefore way below that type and they hope likely to trounce the R-66. Assuming that certification goes well and they can keep to their challenging price target the type should do well in Europe where the R-66 faces major certification problems way beyond those encountered by the 429.

The new Bell SLS powered by the 450-550shp Turbomeca Arrius 2R engine will feature a high visibility cockpit and a fully flat, 22 square foot cabin floor with five forward-facing seats. It is designed to meet performance targets recommended by the customer advisory council, including a speed of 125 knots (232 km), a range of 360 to 420 nautical miles (667 km) and a useful load of 1,500 pounds (608 kg). It also includes a baggage compartment volume of 18 ft3.



Additional safety enhancing design features will further reduce pilot workload, improve situational awareness and deliver superior auto rotation capabilities. The combination of capabilities, performance characteristics and value will be backed by Bell Helicopter's industry-leading service and support. The SLS is expected to fly next year, it is unlikely to ever see police service due to its single engine but could still be the preferred trainer of the future.

Bell announced their tie-up with Garmin for installing the G1000H Integrated Avionics Suite for the SLS project. The all-glass avionics system digitally presents critical flight information to the pilot via high-resolution LCD displays and reduces overall pilot workload. The selection is said to be customer led and apparently a spin off from their encounters with the same package in the now venerable Bell 407GX. There was little evidence of the 407 at Helitech, the manufacturers perhaps seeing it as challenged in a European market place increasingly dominated by light twins.

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*The AgustaWestland stand with the Bristow AW189 left and the colourful South African AW139 right ©Helitech*

## AGUSTA WESTLAND

AgustaWestland brought three helicopters to Helitech, the VVIP AW101 [actually a quick repaint of one of the aircraft destined for the Indian Air Force], an AW139 and an AW189.

AW signed a number of contracts including a handful of aircraft across the displayed 139 and 189. The aircraft will be operated by subsidiaries of the Avincis Group for various applications. In particular, Bond Aviation will operate the two AW189s for offshore transport missions in UK in the North Sea, while the AW139 and the two AW169s will be used for emergency medical operations in Sicily (Italy). These contracts are part of a Framework Agreement with Avincis Group which could see the purchase of a total of 16 helicopters comprising all three models from the Family of new generation helicopters, namely the AW169/AW139/AW189, for a range of applications including offshore transport, EMS/SAR and utility, primarily focusing on the UK and Italian EMS markets for the AW169.

The twin engine AW189 helicopter is optimized for the long range offshore transport and SAR missions. The spacious cabin is configured with 16 seats as standard with the option for a high density 18 seat layout or a long range 12 seat configuration. More than 80 AW189s have already been sold to customers worldwide.

These two models, together with the AW169 4.5 ton class light intermediate helicopter, are part of the AgustaWestland family of new generation helicopters which possess the same high performance flight characteristics and safety features as well as sharing a common cockpit layout, design philosophy and maintenance concept. This commonality will allow more effective operations for customers operating helicopter fleets across the 4 to 8.5 tonne categories.

The Avincis Group which includes locally based Bond and Inaer in Spain is a leading provider of aerial services for mission-critical operations such as medical emergency, civil protection, search and rescue, coast and city surveillance, fire-fighting and energy support services.

One of the displayed airframes was a second AW139 featuring a highly customized exterior painting scheme to a South African private customer. This aircraft is also the 600th AW139 delivered by AgustaWestland to the global market and it will be used to perform corporate and passenger transport in South Africa and Emergency Medical Services utilizing a quick convertible EMS pod. In addition it will be utilized to perform the unconventional mission of performing aerial game counting to monitor the populations of wild animals typically found in African game reserves.

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Because it featured a pristine white leather and carpeted interior the manufacturer was not too enthusiastic about letting too many people into the AW101 VVIP, but some achieved entry. For the masses there was but a glimpse of the interior through the rear ramp door and that revealed a fabulous sight with the lucky entrants being ushered around in stocking feet. The AW101 clearly is a VVIP craft and AgustaWestland can be truly proud of it. The question is though one aimed at the customer, why would the Indian Air Force want ten such craft with sparkling white interiors?

## CONFERENCE

Police Aviation News has a vested interest in conferences through its own PAvCon and can hopefully see a winning conference subject when presented with it.

Having sat in on the day two air ambulance module I can say that it really worked in being a leading edge, informative and beautifully present subject that deserves repeating at the earliest opportunity – perhaps the AAA Conference next month. That said I do not intend to repeat it verbatim.



The Conference room was crowded for the Night HEMS presentations ©Helitech

The two hour module brought together by Gerry Hermer late of Sterling Helicopters but now the Aviation Consultant to the East Anglia Air Ambulance presented the case for the brand new UK night HEMS in a concise manner through speakers from air ambulance operators from the UK, Spain, Germany and Norway. Some of the content was known but it emerged from the whole that UK HEMS is not as far behind the European pack as I had thought and through learning from others and the hard work of UK CAA and Bond Air Services it is clear that what will emerge will surpass all that has gone before. The sort of message that a good conference is supposed to be pushing out!



## NEW EXHIBITORS

There were a number of new exhibitors at the event and a significant number clearly missing. Whether the latter was a statement by disaffected of some reviewing their options for the future is unclear. If this year at ExCel was difficult for the organisers, next year in the Netherlands will be doubly so.

The smaller US companies often find entering the market across the Atlantic less than satisfying. They find themselves faced with stiffer regulation and products slipped through on an arguably easier US FAA STC system that is unacceptable in Europe. Many have griped about an unfriendly certification system holding them back but often as not it is differing market conditions that cause the most difficulties.

The decision is often whether to simply attend and soak up the atmosphere and the business options in the new market place – ‘walk the floor’ – or to exhibit straight off at relatively high cost. This year there was a mix of those exhibiting for the first time and others walking. Having to wait two years until the next Helitech in the UK must militate against those taking the cautious approach.

New US players Within the PAN sector include Florida based AVALEX Technologies who are bringing their highly regarded display screens, recorders and mapping systems into a crowded market. Crowded market or not round the corner you will find Tom Churchill holding in thrall those lovers of his mapping systems that are increasingly being seen as his disciples. The aircraft market needs a certain amount of luck and a lot of that is personality based.



In terms of ultimate acceptability there have been notable success stories including Cal Meeker who filled a niche requirement with his steps for police EC135s and then found that that opened the door for other products including the upcoming stable camera/searchlight mount for the AW119/AW109. He was in town and exhibiting this year but was one of a couple of exhibitors less than enamoured with their freight carrier failing to deliver the contents of the stand on time.



This was not a first time of exhibiting for Meeker but for them the early days in the market were a notable mix of exhibit pointlessly [because he was an unknown entity despite his very high profile in the USA and Canada], walk the floor as the product was being accepted and then exhibit again as his name became more widely known. Industry – even the MRO’s – go to him now for cost-effective engineering solutions but it was a tough path to such wide acceptability.

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Among the exhibitors this year was Airwolf Aerospace from Ohio. Their product is a little on the boring side but very much a leader in their field – TT Straps for Bell and Enstrom Helicopters. Last year Airwolf Aerospace’s Tension-Torsion (TT) straps for Bell 206 helicopters received FAA approval for a 36-month/1,200 hour calendar life extension. TT straps for the Bell 206 Jet Ranger, 206L Long Ranger and OH-58 helicopters, previously had a 24-month/1,200-hour life limit. Airwolf’s 36-month TT straps are a significantly better value than the OEM’s straps, so much so that Bell later improved their own after the jolt from Airwolf. There are significant numbers of these helicopters and Airwolf have EASA approvals as well as those from the FAA so the prospects are good but that might not be enough in an EASA land that has taken many scalps before.

Airwolf TT Straps ©PAR



So luck, charisma and engineering have a place in this market place, but so does local preference. I held a long discussion on airborne Public Address Systems with one visiting vendor who was keen to sell into the UK the ‘best PA system in the World.’ We concluded that while PA Systems sell well in the USA because they are regularly used there seems to be a problem in the UK. Although all the UK police aircraft carry them I cannot remember the last time I was aware of any aerial PA system being used in the UK. So perhaps there is not a strong market for them here simply because there is less inclination by the operators to shout from the sky so the ultimate quality of the instrument is less of a governing factor. Another culture difference.

## BACK FROM THE BRINK

PremiAir Aviation International, under new ownership since December last year, were primarily at the show to promote their business after the black days when they had to relinquish their positions at London Battersea Heliport and Denham to concentrate on a single base at Blackbushe Airport in Surrey – to be known as *The West London Heliport*.

They have a history of supplying police helicopter pilots and will be seeking to retain that position into the future and hopefully expanding their business into police engineering in the through the ongoing requests for bids.

Also clawing their way back into favour and hoping to regain police engineering contracts are Gama – they have taken over the former Alan Mann Engineering [AME] facilities at Fairoaks. In the past AME produced BK117B-2 upgrades in cooperation with Elektroniksystem- und Logistik-GmbH [ESG] for the German Police of Nordfhein-Westfalen. ESG were also exhibiting their capabilities within the Helitech halls this year showing that their appetite for more work has not diminished a decade on.



## MD HELICOPTERS

As has often been stated within PAN little is happening with the MD Helicopters Inc. (MDHI), product line. Production is ticking over and sales are being clawed back within the US law enforcement community but each step forward has not yet resulted in the slow walk back to health breaking into a jog, let alone a run. The 500 and 600 lines appear the healthiest but the 902 still awaits the new version with avionics by Universal Avionics of Tucson that might be still two years away in certification terms.

The hoped for large military orders for 500 derivatives continue to drift into the background – not being greatly assisted by the parlous state of the US Government economy. Some MD530s of what was hoped would be a large order have been delivered to the Afghanistan military for training and a replacement for one wrecked by an IED is in the offing but still no large US funded orders have been forthcoming. The fact that one replacement airframe is 'significant' in order terms underlines the slow pace of recovery. Meanwhile an existing 902 airframe stock is providing for a trickle of orders pending the new avionics fit.

The show appears to have relied on stockpiled order announcements from every manufacturer and the same is thought about the Lynn Tilton/Patriarch company announcing 'new' orders from the Kurdistan Regional Government (KRG) for two 902 Explorer helicopters and a number of MD530s. The 902 helicopters will provide VIP transport support to senior government officials and are scheduled for delivery before year end, thereby underlining that they have been in the system for a while.



*UK Night HEMS is expanding across the country and a number of charities are equipping their aircraft to cope with the new situation.*

*The Trakka searchlight is proving a popular addition to the role fit to illuminate the landing sites for survey before landing ©PAR*

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## RUSSIAN HELICOPTERS

Many were disappointed by the Russian Helicopters display. The pre-event press releases from the organisers gave the impression that they were bringing hardware to Helitech for the first time in years. In truth it was a couple of models and promotion material for the Ka-62 and Ka-32A11BC.

The coaxial Ka-32A11BC was to be 'presented' in its fire-fighting version and many recalling that the ill-fated Helitech Portugal events regularly featured the type expected the arrival of something other than a model in London.

## PRINT IT

Among the exhibitors was a chance for the visitor to see and get their hands on the output of a 3D printer. Most of us are aware of printing in plastic but have often only seen one or two items produced by such printers.

Replicate IT from West Horndon in Essex – just a few miles from ExCel – brought a printer [far smaller than I assumed] and a veritable tray full of its output. All sorts of shapes and sizes, mostly pretty bland but including the adjustable wrench that was printed so that the adjustment wheel worked straight off the printer – how do they do that?

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No doubt they are just one of dozens of companies with this advanced prototype modelling capability but it was interesting to get the opportunity to see it first hand at the show and it may pay off for them. I remain unsure why they chose Helitech to promote themselves though, in the same week came a separate announcement that the printer technology can now be bought as a home printer for under £1,500! Why not applies I guess!  
[www.replicateit.co.uk](http://www.replicateit.co.uk)

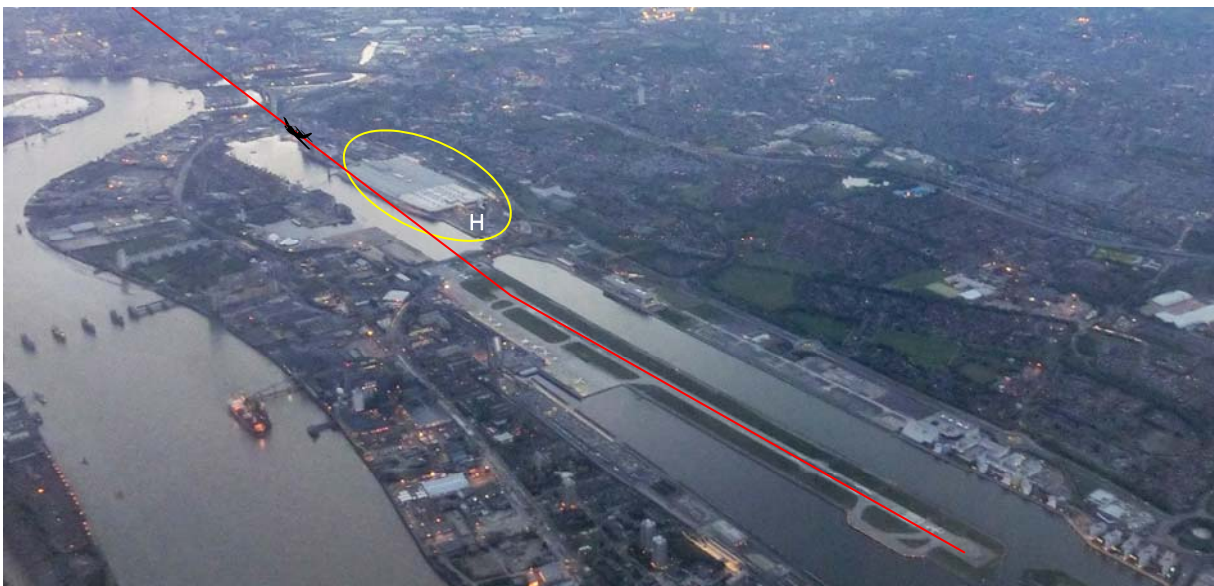


## CONNECTIONS

London City Airport (LCY) the doorstep airport linked to Europe and East Coast USA was one of those background positive elements when Helitech was planned. Not planned was the weather.

LCY was supposed to deliver executives quickly and easily to the show. The weather on days 1 and 2 – fog - resulted in certain important figures, including the CEO for Eurocopter being unable to arrive and make the short cab journey to Helitech. You cannot plan everything.

LCY has submitted a planning application for permission to expand its current infrastructure to accommodate up to 120,000 flight movements (take offs and landings) per year, a level already permitted under an application granted in 2009. The proposals will also allow the airport to double its passenger numbers to 6m over the next 10 years, in view of this year's reduction in flights into ExCel we can expect it to get worse. [BTN]



Above: Not the clearest of images—just a stolen shot on an inbound flight to LHR—but it shows the relationship between the single runway that serves LCY and the ExCel facility. Very positive in its closeness for arriving visitors [in good weather] but also suggesting that any helicopter flight demonstration activity [H] so close to the end of the runway must impinge on flight safety ©PAR

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The floor of about 50% of the Helitech Event from the conference suite. ©PAR

## PREDICTIONS

Helitech should be a successful event no matter where it is held and to underline that fact there are predators sitting in the wings waiting for failure at ExCel.

Perhaps the expectations of many were a little higher than they should be but delivery was much as predicted except for the shortfall in the number of airframes compared with 2011 and the absence of company chalets that provided a 'Holy of Holies' for only the selected few to hide in. That may not be the organisers fault – it was the exhibitors that held back on their display funding. The question must be 'why did they feel a need to?'

If the Teal Group analysts predictions that 16,126 rotorcraft worth \$193.1 billion will be produced between 2013 and 2022 hold true, it would seem that there is plenty of business for all and business funds events such as Helitech—if *the exhibitors feel inclined*.

The Teal 10-year forecast numbers include production of 10,308 rotorcraft for civil users, worth \$60.3 billion, and 5,818 military machines worth \$132.8 billion (all in 2013 dollars) and covers all turbine-powered machines, including helicopters and tilt rotors. The numbers cover all models built in Western Producer countries, including remanufactured machines. The five main manufacturers are expected hold over 96% of the market by value during the Teal forecast period but some are still announcing small numbers of staff being released due to military cuts. US military cutbacks have led to US industry cuts and also led to such as Eurocopter shifting production of the AS350 to fill gaps caused by military EC145 roll-backs.

Down the central hall of the massive ExCel another group was running an exhibition mainly aimed at airline maintenance industry, the Aviation Week MRO Europe, and it was evident that a significant number of exhibitors and visitors were migrating there as visitors. The exercise offered was good as the two relatively small events were in diametrically opposite halls of the large facility.



It was a strange set up that two similar shows with the same dates were placed so far apart, but it became clear that money may have been the driver. The distance was such that some exhibitors had to have a presence in both halls to meet a different section of customers and others you may have expected in one hall were absent in the other. That explained some of the downsized presences in the Helitech Hall. Relatively small players like *Adams Aviation* must have struggled to support both events both financially and with manpower, but they did so.

Overall I think Helitech International worked very well but many disagree with my view. Perhaps in two or four years time the contra view will soften as a growing number will have no experience of a show under canvas in a muddy field as represented by Redhill and Duxford.



*Duckboards and wellies - 'Wellitech 1999'*

From past experience of DSEi and other domestic exhibitions ExCel is, as noted above, a very attendee friendly venue. Clean airy and not [for the current events] too overcrowded and with good facilities all round that do not seek to fleece you. Remember the restaurant service at the Duxford? One option *take it or leave it at a high price* .... ExCel has a dozen or more options and a variety of prices to suit all pockets. For the foreign visitor flights flying into Heathrow [about 60 miles from Duxford, around 20 to ExCel] or a regional airport Duxford was always as remote as it was enjoyable but life now is much easier if slightly more expensive using the plentiful hotels and better transport links offered. For the UK locals it was a way of getting into Duxford every

two years without paying the significant entry charge.

There has been much said about the lack of customer demonstrations at this year's event..... but the feedback I get is that the manufacturers did what they needed to on site or did it before or after..... [i.e. almost nothing] and in any case Duxford had halted most demo flights because someone identified that they, like the entry fee, were a 'jolly' ...

True to form it seems those that said they were not going because they could not fly in did not turn out [Damyns Farm their fly in point was all but deserted] - or they came by car or public transport.

The initial proof of success will be in the next six months sales record, longer term the concept needs to survive next October in the Netherlands and then a new UK event at ExCel in 2015. The original 'next year' event at Berlin was always a bit unlikely as it clashed with the Berlin Air Show but the question that must be asked is whether Amsterdam is in any way considered a centre of helicopter excellence?

The organisers did a good job this year but it was they and others who destroyed a certain other upstart Helicopter Show in the UK Midlands with a [hollow?] claim that industry neither wanted nor could afford an annual helicopter show in Europe — that does not fit with Amsterdam 2014 one bit.

If that claim holds any shred of truth they may indeed be hoist on their own Petard a year from now.



The exhibits

**ON STANDS**

- D-HADW Eurocopter EC 145T2
- F-WGYP Eurocopter EC130T2
- ZS-EOS AgustaWestland AW139
- I-PTFF AgustaWestland AW189
- G-RIDB Bell 429
- G-IRDM Robinson R-22
- G-MRRR MD Helicopters MD500

**INDOOR STATIC**

- SE-HJR CABRI E2
- Eurocopter EC175 Mock-up
- G-NIPL Eurocopter AS350
- G-JPAL Eurocopter AS355
- G-XOIL Eurocopter AS355
- N66UK Robinson R66
- G-CHWJ Cabri G2

**OUTSIDE STATIC**

- G-JESP Eurocopter EC145
- G-LNCT MD Helicopters MD902
- G-PERF Eurocopter EC120
- (ZR339) AgustaWestland EH101

**OUTSIDE FLYING**

- M-YMCM Bell 429



RDDM displays  
©PAR



Flightline 429  
©Helitech

ALSO SHOWING...

EMERGENCY SERVICES SHOW

The Emergency Services Show [ESS] clashed head on with the Helitech event which was unfortunate. It is a good event with a broad base of interest but its own move from its wet and windy former home to the warmth of an indoor hall militated a change in date from November to September. A great pity and no doubt robbing it of many potential aerospace exhibitors but one of those things. PAN was unable to attend but correspondents have fed back some useful guides to the event that suggest that the move was good for the event overall and next year it should not have to go head to head with another like event.



The AAA managed to attend both Helitech and the ESS thanks to some dilution of resources and press conferences were held that attracted the attention of a membership more likely to attend ESS than Helitech.

Similarly the ESS went very well for the Civil Air Patrol this year and, as in 2012, there was a lot of interest in the use of 'drones', unmanned aerial systems, in Northern Ireland. New this year was a lighter than air craft designed for persistent surveillance [right].



The move from Stoneleigh Park to the NEC at Birmingham places the event right next door to Birmingham Airport with good rail and motorway connections and more than sufficient hotels on the site and in the local area but the previous location was also reasonably placed even though set in the countryside. As tends to be the case with this event the large crowds were more orientated towards the fire and ambulance fraternity rather than the police. Any move towards a greater aeronautical input will have taken a knock this year.

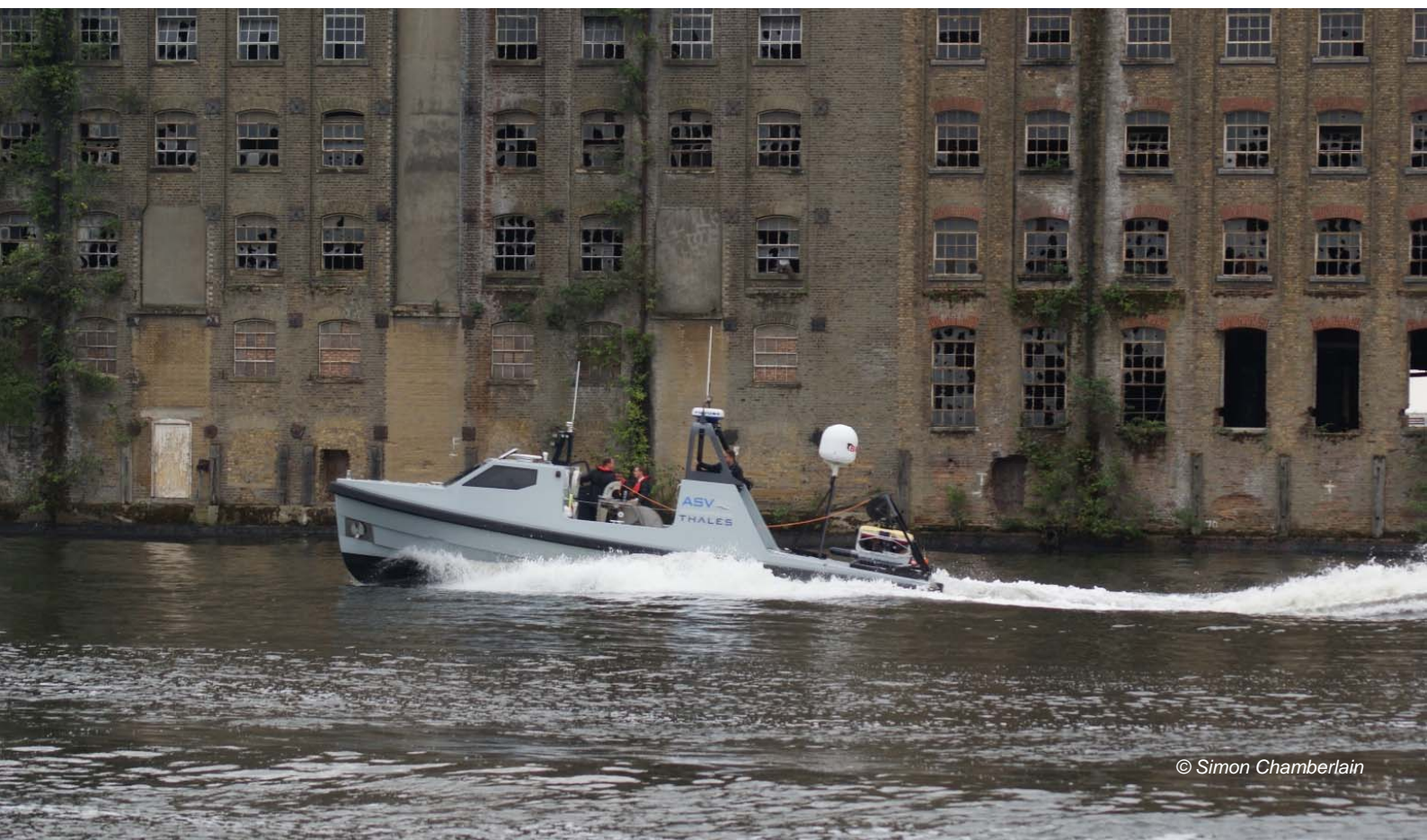
## DEFENCE & SECURITY EQUIPMENT INTERNATIONAL [DSEi]

DSEi is billed as the world's largest land, sea and air biennial defence and security exhibition which earns it lovers from the 'Ban the Bomb' brigade if nothing else.

Like Helitech DSEi is a biennial event and unlike Helitech it has been held within the cosy if giant structure of ExCel in London for years. Also unlike Helitech it is of a size that does not become overpowered by the vastness of the ExCel facility. The 40 international pavilions and 1,400 exhibitors is typical and dwarfs Helitech on all counts. [www.dsei.co.uk](http://www.dsei.co.uk)



*Below: The Thales Halcyon was typical of the light security craft on display in the dock alongside ExCel during DSEi. Aeronautical content was restricted in the main to unmanned craft large and small and sensors and systems.*



## Russia - air ambulance and rescue industry

A guest article by Eugene Gerden in Russia

Through an order by the Ministry of Health and Social Development the Russian government is considering a massive reform of the national air ambulance and air rescue industry and the creation of positive conditions for its development.

The current situation in the Russian air ambulance remains difficult, due to lack of attention to its problems by the state in recent years. This is reflected by the absence of legal frameworks by which the air ambulance industry might be regulated and inconsistencies in the activities of medical and rescue services. The fragmentation remains the main problem of the industry, which hampers its development.

Under Russian legislation the national rescue service is currently subordinated to the Ministry of Emergency Situations (MES) while medical services fall under the regulation of the Ministry of Health. Their activities remains largely uncoordinated and unlikely to change in the short-term.

The annual number of air ambulance and rescue flights in Russia is currently estimated at 15,000 a year, this compared to 100,000 in 1970s, a small number taking into account the vast territory and past performance.

The current level of development of air ambulance technology remains low, with only a few regions having dedicated aircraft for medical and rescue purposes. The available aircraft do not fully comply with the modern requirements, being ill equipped with the necessary medical equipment and suffering a lack of trained staff.

During the Soviet times most regions of the USSR had their own fleet of air ambulance helicopters and planes, at present these are mostly concentrated in the larger cities, particularly Moscow and St.Petersburg, Siberia, the Far East and in some areas of Far North.

The air ambulance and rescue industry was officially established in the USSR in 1925, by the Soviet Red Cross. In 1963 it became part of the Ministry of Health, mainly established in the emergency departments in many hospitals and using the doctors of these departments as crew members. By 1968 there were 164 hospitals had their own fleet of air ambulance aircraft including the Antonov An-2 and An-28, the Let L-410 and Tupelov Tu-104 and the Mil Mi-2 helicopter.

The collapse of the USSR resulted in the destruction of the established industry and the establishment of the first specialist Russian squadron in March 1992. This first central air-mobile rescue team became part of the MES mainly operating in the Moscow region.

The organisation of flights, remains one of the major problems of the industry. The priority given to military aviation and the presence of many exclusion zones make getting permission for an air ambulance flight difficult.

A shortfall in funding hampers operations and maintenance, a situation aggravated by the lack of infrastructure including the absence of landing sites, fuel stations and maintenance sites. In large cities the use of helicopters is hampered by high-rise buildings and restrictive rules prohibiting the landing of an air ambulance less than 100 metres from the nearest structure.

Yevgeny Matveyev, a teacher at the Zhukovsky Air Force Engineering Academy, a military engineer training establishment, and a leading Russian expert in the field of air ambulance, comments:

*"There is a need to revive the Russian air ambulance and rescue industry. However there is no need for absolute copying, or, in contrast, simple denial of foreign experience. There is a need for a serious study of the problems of the Russian air ambulance, while one of the ways for its recovery is the implementation of state programs in the field of medical technologies and aero-medical aircrafts, on the basis of health insurance, and, with the use of the already accumulated experience."*

### **Planned state measures**

The new working group is expected to focus on the formulation of a regulatory framework for the industry and harmonisation of general aviation regulations with the specifics of work of health care services by the end of this year.

In the short-term the state plans to solve the most acute problems including the lack of specialist aircraft. Under these plans Russian Helicopters are scheduled to supply 185 helicopters to MES against a perceived need estimated at 350-400 aircraft.

Priority in purchase will be given to Russian models but the MES is considering the possibility of the purchase of foreign helicopters including the MD902 Explorer, AgustaWestland AW109E and Eurocopter EC 145.

The Russian government also plans to follow the EU recommendations for medical equipment; again there are plans to use imported and domestic medical equipment, the quality of the latter remains generally good but has been criticised as heavy.

According to Sergei Suvorov, a senior researcher of the Department of Anesthesiology and Critical Conditions Treatment at the Moscow Institute of Pediatrics and Pediatric Surgery, one of the most experienced institutions in the field of air ambulance, the rapid development of the industry is restricted by legal problems including the lack of a definition of 'air ambulance crew' in legislation.

### **Suvorov comments:**

"Unfortunately, we have not yet formed understanding of what is a medical personnel, working in the air ambulance. Russia currently has an official range of specialties of health workers, which specifies a list of medical specialties in the country, however there is no mention

There is some use of modern aircraft from the West

Authors Collection



about doctors, working in the air ambulance. During the USSR, the Soviet legislation contained such specialties, among which were "board-doctor", "board-resuscitation," "board-paramedic" and some others. Lack of legal base results in the fact that currently doctors, which involve in the provision of air ambulance and rescue services do not have their own legal status, along with the special programs for their training."

**Easing the path**

*In addition to the planned improvement of the industry's technical equipment, the government plans to accelerate efforts for the expansion of industry infrastructure, as well as to abolish some of the existing flight restrictions.*

*According to some media reports, Vladimir Putin, Russia's President has already ordered the national Ministry of Defence to establish bases close to medical facilities with a view to making their aircraft available for emergency operations.*



PAR File image of Kamov Ka-226 air ambulance proposal

Foreign military expertise in this field may be sought – the Israeli military undertake the functions of air ambulance in their country – but the lack of role suitable airframes in an equally underfunded Russian army remains a clear difficulty. Practically the same orders were given by the President to RZD, Russia's state-owned railway monopoly and the Ministry of Transport to create conditions for landing helicopters and aircraft close to railways and highways. [Eugene Gerden]



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