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BROADER OUTLOOK 13

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HELITECH International the largest civil rotorcraft show in Europe

OUTLINE

It will never be the HAI Heli-Expo but Helitech is to Europe what Heli-Expo is to America and the world. Many denigrate it – especially after it moved from the lush green fields of Duxford, Cambridgeshire to the stark concrete of Docklands – but it remains the mainstay exhibition of the helicopter industry in the region and moves annually between London and Amsterdam.

The many naysayers are, in the main, not the people who put up the money to finance the event. Most of the big money is derived from those that prefer a venue like ExCel so Helitech remains beside the waters of the former docklands until they change their preferences.

The move has greatly altered the attendance at the event, the footfall is diminished but it is a larger event in many ways, the Duxford venue would easily fit into the ExCel showground twice. What the current event is short of is the museum aircraft and that 'Glamping' theme of yesteryear. Both are pleasant and interesting but not at the leading edge of rotorcraft technology.

If you compare the halls of Helitech with the events co-located with it at ExCel they are quiet. Nonetheless business – the core of the event - is being done and very few of the exhibitors reported that Helitech was poor for them. Whether it can really support three full days is debatable, some believe the third day is too quiet to be worthwhile but some will undoubtedly make full use of it for meetings that make economic sense in that everyone meets at the same venue once a year.

A stark contrast in how busy events at ExCel can be was provided by the other events in nearby halls. Some were bursting at the seams and all were occupied by significantly greater numbers. The other aviation event – located at the other end of ExCel – was a significantly larger MRO event mainly dominated by airline exhibitors. It was busy and well visited. The other events were mainly IT orientated and attracted a significantly younger audience.

EVEN BEFORE THE OPENING

For many years the US based HAI Heli-Expo has been preceded by an event operated by one of the major hoist manufacturers. It has gone through some name changes but the current incumbent is the UTC Goodrich. The very first European edition of the UTC Goodrich Rescue Hoist operators conference was held on the first floor of the ultra-modern Hilton Canary Wharf over two days in the week preceding Helitech.

This highly successful first edition attracting 40 delegates from across the globe and the inaugural commercial support from Axnes the Norwegian 'on the line' radio system manufacturer.



FRONT COVER: Swiss Rotors have been bringing plans, brochures and artists impressions of their extra-vision for the pilot project to HAI and Helitech for some years now. Lately there have been mock-ups to tease the imagination. Now finally one of the first examples of a modified helicopter has appeared at Helitech.



The first day was a mix of presentations on future generations of the Goodrich hoist, maintenance guidelines and updates on the current production model interspersed by visitor presentations. These included a High-Rise Rescue presentation by independent Glenn Daley, and several from industry including Leonardo Helicopters, Cobham and SMA.

Day two was shorter – just a morning – and culminated in the presentation of a plaque for the Rescue of the Year. This year the European prize went to Bristow Helicopters Caernarfon base in Wales for a rescue in the hills of Snowdonia in some of the worst examples of typical Welsh mountains weather. Images and an edited version of the Citation appear at the end of this edition [page 17].

All in all, a very worthy first edition with an international audience. Sadly, although many came from across the world there was no sign of the local people - NPAS.

Pointedly UTC did not attend Helitech. They were however not far away, just down the hall with the MRO event and signed a contract that has a bearing on the Helitech audience.

Satair Group and UTC Aerospace Systems signed a long-term distribution contract for Goodrich® helicopter rescue hoists and winch systems. The contract covers worldwide distribution apart from the Asia-Pacific and Chinese markets. *Satair Group is a stand-alone company and 100% Airbus subsidiary with more than 1.250 employees and 10 locations worldwide.*

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EXCEL

Some of the big names were at the show, Airbus Helicopters, Bell, Kaman and Leonardo, but significantly Robinson and Sikorsky were absent. Enstrom and MD were represented by a UK based agent, Eastern Atlantic. The other smaller manufacturers simply stayed away.

Numerically the main exhibitors among the nearly 200 attending were the equipment and systems suppliers with their wide range of innovative technologies from avionics suites to virtual reality. For once unmanned aerial vehicles (UAVs) were not the overbearing technology.

Bell Helicopter brought a black Bell 429 N429JC in executive trim to its stand, there was another US registered Bell, a 206L4 LongRanger N448EA, but that was over in the static.

Bell signed a purchase agreement for an additional 429 for Air Zermatt. As with its predecessor the aircraft is to be configured to support HEMS and SAR. The aircraft is scheduled to be delivered next spring to celebrate Air Zermatt's 50th anniversary.

Airbus Helicopters brought a full-scale model of its H160 prototype helicopter to the show only for it to be side-lined and placed in a corner of the indoor static display. Pride of place on the lush carpet was afforded to the less recently designed but real EMS-configured H145 and an H125. The H160 is of course the future and those other two the past – the H125 of course being more than 30 years old! Strange choices.

The placing of the H145 in pride of place was quite understandable in that it was there to be formally handed over to, and accepted by, Midland Air Ambulance Charity (MAAC) as their new RAF Cosford based HEMS machine.

This, the first H145 for MAAC will be operated by Babcock Mission Critical Services (MCS) and brought to Helitech senior representatives of Airbus Helicopters, MAAC and Babcock MCS. The aircraft, which has been acquired by MAAC to further extend their HEMS operations, will see Babcock MCS provide the Bucher medical interior as well as operate the aircraft on behalf of the charity. The new addition to MAAC's fleet, which is equipped with Airbus Helicopters' Helionix advanced avionics and autopilot suite, has a maximum range of more than 403 nautical miles and a Maximum Take-Off Weight (MTOW) of 3700kg. Until now, MAAC's fleet has been made up of three EC135 helicopters and the increase in range, payload and space that the H145 brings will help MAAC's increase and extend HEMS operations across a larger region.

The airframe will not enter service for some weeks as the airframe, although fully painted, is in the standard exfactory utility fit.

This will be the tenth H145 to operate in UK HEMS when it enters service with MAAC which, with 25% of the market, makes it the second most popular aircraft for these missions after the EC135. After Yorkshire selected Bucher



The H145 will go to Babcock for completion ©PAR

Below: The Bucher stand was handily placed to exhibit a model of its interior with the real thing as a backdrop.



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Although there were notionally two Static Display areas only one was occupied. The outside static was bare except for the sign that had been prepared for it by the organisers! Inside exhibits included this Airbus Helicopters EC-135T3 military trainer and the MD600N beyond it ©PAR



Helitech Report 2017

as a new supplier of the EMS fit in the H145 some thought that those two aircraft would be unique. In the event the selection and its features have been accepted as the best option and may yet retain that position for many future H145s in the UK market. This will be a Babcock International completion at Staverton where the Yorkshire aircraft were fitted out by Airbus Helicopters in Oxford.

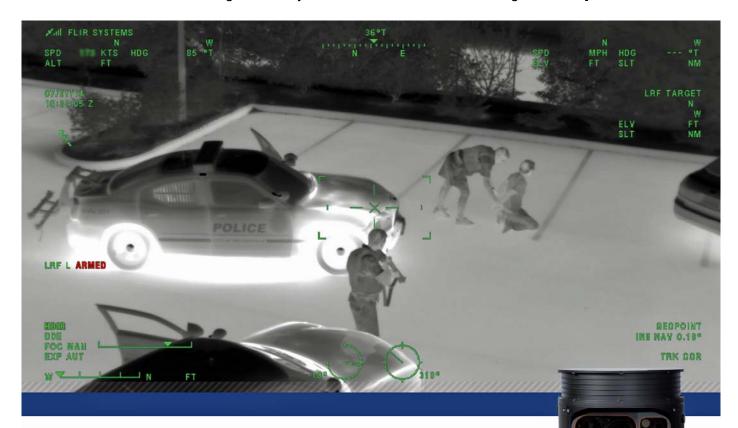
The UK wide gas bottle fit and its refill support has now settled on the Openhouse Products model pioneered, as a necessity, by Yorkshire AA.



The side-lining of the H160 mock-up did at least place the model in in the show. There was little evidence that the H175 even existed despite the show news that the Royal Thai Police had just become the first H175 operator in Asia Pacific



On the opening day of the show Airbus Helicopters announced that the Royal Thai Police has received two H175 helicopters and were also the first operators of the new type in Asia Pacific. The Royal Thai Police currently operates nine Airbus helicopters, comprising five H155, two AS365 N3+ and two H175. The H175 was produced to fill a similar niche to the high selling AW139 but overall sales suffered from the severe downturn in the oil and gas industry. Because of these market changes Airbus [like Bell with their



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525] reconfigured their marketing to include emergency services. Their first success was the yet to be delivered Hong Kong GFS fleet but now there are more than fifteen H175 helicopters flying and thus far they have flown about 15,000 hours globally. With an excellent payload for both short and long-range missions, the H175 has a maximum take-off weight of nearly eight tonnes and is designed to provide unmatched efficiency across a variety of missions, including utility, law enforcement, VIP transport, oil and gas, as well as search and rescue. Equipped with Helionix, Airbus Helicopters' integrated suite of advanced avionics and 4-axis autopilot, the H175 offers enhanced situational awareness and improved operational safety by helping to reduce pilot workload and increasing mission flexibility. With a seating capacity



of up to 12 passengers in an executive/VIP configuration, the H175 ensures a smooth, safe ride at all speeds in a climate controlled cabin, while offering excellent panoramic views.

An early user was NHV who have recently celebrated three years since the introduction of the H175 to the North Sea. NHV was the global launching customer of this platform, whose first two aircraft entered service in December 2014. Since then the NHV fleet has expanded with an increasing number of H175s, with the last helicopter of the first batch of ten aircraft ordered in 2012 having recently been delivered. The deliveries of the remaining six aircraft, following a second batch confirmed by the customer in 2014, will take place in the coming years to broaden NHV's capabilities. The aircraft is currently in operation in NHV North Sea bases of Den Helder (Netherlands), Aberdeen (Scotland) and Esbjerg (Denmark).



Airbus Helicopters continues to face up to problems with the H225 Super Puma and in a publicity move the Airbus CEO, Guillaume Faury, landed at Helitech in an H225 to demonstrate the renewed safety of the helicopter type. The H225s were grounded after a fatal crash in Norway, where 13 people died. Since then, they have been cleared to fly, but operators in the North Sea [and some of the visitors to Helitech] are reluctant to reintroduce flying in them. Faury explained that new safety measure had been put in place to ensure that another crash will not occur. These include a short time before key components need to be replaced, improvements to spalling detection and shock detectors are now attached to outsourced parts that are being transported to the production facility by road.

Waypoint Leasing (Ireland) Limited ("Waypoint"), the largest independent global helicopter leasing company, brought the H225 D-HTPN operating on lease to Global Helicopter Service GmbH, to use as a demonstrator and display aircraft for all three days. Clearly both Airbus Helicopters and Waypoint have a significant investment in getting the type accepted again.



Waypoint's portfolio includes more than 150 aircraft for 32 customers in 30 countries with total assets more than \$1.6 billion. Additionally, Waypoint has firm and option orders with aircraft manufacturers for more than 90 helicopters valued at more than \$1.2 billion, to be delivered over the next five years.

The main rivals to these larger Airbus types in Oil and Gas are from Leonardo and in particularly the AW139 and AW189. The former has had a significant effect on police sales but the AW189 is too large for most law enforcement operators. In the early days Airbus could take the threat from the AW types as little more than a nuisance; the Italian types were often poorly supported and mechanically labour intensive. Recent developments have suggested that Airbus may have been a little too laid back about the threat and are paying a high price in market share.

On the Leonardo stand taking pride of place and attracting more than its fair share of sales announcements was an AW169. The airframe was from Essex & Herts Air Ambulance but the sales announced were for many more of the same. Most sales were by and for Specialist Aviation Services but they took place on the adjacent Leonardo stand for impact.



In Europe the AW169, the first all new helicopter in its class for more than 30 years, has already found great success in Emergency Medical Services markets in the UK, Scandinavia and Italy. Its high performance, cabin space and advanced safety features are also proving attractive to law enforcement agencies, operators serving the wind farm industry as well as ideal characteristics for passenger transport and harbour pilot shuttle. Recently the Norwegian Police ordered the AW169 for law enforcement operations and the aircraft is already operating in the North Sea in support of wind farms, with additional aircraft due to enter service next year.



Helitech Report 2017

Specialist Aviation Services are regularly exhibiting that they are the UK AW169 EMS specialists but so far there is little sign that they are get a great deal of cross border work. Their UK HEMS configuration was hard won and they are clearly reaping the rewards for their application. The latest accolade has been news that they have been selected as the preferred bidder by Cornwall Air Ambulance to provide an AW169 EMS under a ten-year contract starting in 2019. The decision follows a competitive tendering process carried out by Cornwall Air Ambulance Trust ahead of the end of the existing contract with SAS and which will replace the MD902 Explorer operation based at the Charity's Newquay Airport HQ.



Meanwhile SAS and Staverton remain the centre of excellence for the MD type. Ms Tilton neglected to present the mooted revisions to the type to a European audience that must surely be its primary market. We can only assume that MD are distracted by their recent order for potential sales of the MD530F into military markets and the MD902 is yet again of less a priority.

Trakka Systems announced that Leonardo had selected the new TrakkaBeam TLX high-intensity, high power searchlight for the AW169 helicopters chosen by the Norwegian Police Directorate as their new law enforcement helicopter type following the recent tender for their helicopter service modernisation programme. The contract will include three aircraft, with an option for a further three units, and a 10-year maintenance package.

The aircraft will enable the Norwegian Police to enhance its capabilities and readiness to counter threats including terrorism, performing a range of tasks including observation, surveillance, special operations team transport.

The controversial aspect of the sale is that this is the first purchase is of the optional dual sensor TI/CCD camera payload. This unique option supplements the enhanced functionality of the TLX searchlight, by providing multispectral situational awareness and has been designed for simple aircraft installation and operator usage. Integrated High resolution colour CCD camera with excellent sensitivity allows remote viewing and recording of scenes, whether by day or by night (illuminated with the searchlight) Integrated High resolution uncooled LWIR thermal imager provides remote 360° viewing of the scene in the thermal band, whether by day or night in conjunction with illumination or stand alone.

In addition to the AW169, Leonardo Helicopters were promoting its range of modern helicopters including

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the AW139 and AW189 which, with the AW169, make up the family of new generation aircraft. Spanning the 4 to 9 tonne weight range, the family delivers cost savings to operators of more than one type. The best-selling AW139, with sales of almost 1,000 aircraft, and the market leading AW189 offer performance, safety and cost effectiveness for a wide range of roles.

In the background Leonardo has the single engine SW-4 and AW119Kx helicopters and twin engine AW109 Power, AW109 GrandNew and AW109 Trekker helicopters for a wide range of passenger transport and public service missions.

Some of Leonardo's innovative customer support and training systems were available for demonstration, including an AW169 Virtual Interactive Procedural Trainer, the Skyflight mission planning app and Heliwise HUMS analysis services.

The Royal Malaysia Police Air Operations Force (RMPAOF), has procured six AW 139 helicopters to beef up their existing fleet of 29 aircraft to undertake larger scale operational missions. Two of the AW139 helicopters have already been received and the remaining four will be delivered in stages before 2020.



ENGINES

Leonardo has launched a new engine option for the AW189 to be known as the AW189K and to utilise a new engine from Safran Helicopter Engines.

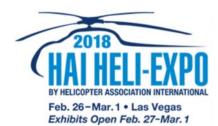
Safran unveiled its brand-new Aneto high power engine family designed for new super-medium and heavy helicopter market. Aneto incorporates ground-breaking technologies, developed as part of the Safran Helicopter Engines R&D roadmap and featuring several models covering 2,500 to over 3,000shp power range.



Bruno Even, Safran Helicopter Engines President said, "Launching the Aneto engine family here in Helitech marks a major milestone for Safran Helicopter Engines. It is the result of a long and sustained strategy of technology acquisition and maturation. Today we are in position to bring to the market a new generation and competitive engine solution for the super-medium and heavy helicopter market, ready to enter service in the fourth quarter of 2018. We are convinced that Aneto will offer a new level of performance coupled with reduced operating costs".

The 2,500shp Aneto-1K, below, selected to power the AW189K has already flown in the type. The first flight took place in March 2017 and entry into service is scheduled for fourth quarter of 2018. Aneto-1K EASA certification will meet that timetable.

The Aneto offers 25% greater power (when compared to existing engines of same volume), contributing to increased mission capabilities especially during demanding missions requiring more power like offshore, search and rescue, fire-fighting or military transport, as well as better performance in "hot and high" conditions.





Pratt & Whitney Canada (P&WC) has introduced a new level of coverage for its PW200 helicopter engines under the Eagle Service[™] Plan (ESP[®]) Program tailored to provide increased peace of mind for customers.

ESP Platinum coverage for PW200 engines includes 1) repair at overhaul for environmental damage, 2) fuel nozzle maintenance parts and labour, 3) all other periodic scheduled maintenance parts and labour as well as technical publications subscriptions. P&WC offers this new tailored service in response to the needs of its customers.

With well over 10,000 engines enrolled in its PpH programmes, P&WC is a leader in the industry of delivering flexible plans with strong value for customers. The ESP Program guarantees long-term engine maintenance costs and ensures a planned and preventative approach to maintenance focused on proactive engine health management. The programme delivers an engine-OEM approach that optimises aircraft availability and performance while protecting the value of the aircraft. The plan is transferable upon resale to subsequent owners or operators enhancing aircraft resale value and increasing the number of potential buyers.

While PWC and Safran were representing themselves Rolls Royce left the task to agents including H+S and Euravia.

H+S Aviation announced the recent approval of Motorflug as a Rolls-Royce M250 Authorised Service Centre under H+S Aviation's current M250 AMROC agreement. Through this agreement, H+S Aviation extends its ability to provide regional support, such as field services, to M250 customers through Motorflug Baden-Baden's OEM-approved capabilities.

H+S Aviation will partner with Motorflug, an independently owned and operated business, to collectively



offer Rolls-Royce M250 operators comprehensive engine services in the region. The new M250 Authorised Service Centre will provide maintenance on M250 engines in line with work scopes set in the M250 Engine Operation and Maintenance Manual, including field maintenance; while H+S Aviation will continue to provide HMIs, heavy maintenance, repair and overhaul, component repair and engine testing services.

This recent approval enables H+S Aviation, as the Rolls-Royce AMROC, to ensure the Authorised Service Centre is operationally-equipped to perform approved work scopes and offers engine maintenance services from OEM-certified technicians.

<u>Euravia</u>, who also provide support for the Rolls Royce M250, were using virtual reality (VR) technology to give visitors the chance to have a 360 tour around its facility in Phoenix, Arizona and to take a VR look around the Airbus H160.

Universal Avionics Systems were displaying their latest retrofit integrated flight deck at Helitech International as it seeks to enhance its presence within the rotorcraft market. InSight, the company's new cockpit display system, has been certified in the fixed-wing marketplace, and is currently being adapted for the helicopter industry. The system is offered in either a two-, three- or four-screen configuration, which will enable it to be installed on a range of helicopter models in the Part 27 and Part 29 market. Image page 14.

The system is the same as that offered to MD for replacing the MD900 IIDS and the displayed 'serving suggestion' is the same in that it uses multiple screens but it can be used singly to upgrade an existing legacy installation if the customer requires.

As for Genesys Aerosystems, the company that was finally selected by MD to supply the systems and displays for future products, they appear to have had a delivery glitch. Their large double space only had furniture and displays for a single space.



FRONT FRONT PAGE IMAGE

GPAR As predicted a fully converted example of the Swiss Rotor Solutions Maximum Pilot View Kit for the AS350/ H125 was at the show. The French registered AS350B3 F-HESB carries a very attractive colour scheme based on the style of artwork once carried by a World War Two bomber. Potentially a strange choice for an airframe aimed at attracting world interest.

F 510

Regardless of the age of the design the H125, as we now call it, exhibits the best performance in its class. One of the numerous drawbacks of its dated specification is that it has limited pilot visibility thanks in part to limited pilot head space. The modifications increase the pilots downward view by a factor of ten – effectively providing a Lama like» view in the H125/Ecureuil/ Squirrel. The better view allows for safer operation in bad weather conditions. It is a modification that is not available across the production run, only on later models.

The modification affects only the profile of the right side of the cabin and does not restrict operational flexibility. The airframe can simply 'revert' to standard passenger carrying operations using a simple blanking plate [right] that fits over the enhanced vision alterations. Will it attract emergency services operators? ©PAR

13



Although it is newly FAA and EASA STC certified Airbus Helicopters have apparently embraced the option for potential offering as a company endorsed conversion and are to promote and demonstrate it at the upcoming Tangent Link Aerial Fire Fighting exhibition and conference at the airport in Nimes, France.

While the Helitech event failed to attract all the aircraft and engine manufacturers it seemed to score a full house with the producers of Inlet Barrier Filters (IBFs) with Aerometals, Donaldson and Pall all present.

Donaldson Aerospace & Defense, a division of Donaldson Company, Inc. was displaying both the oiled and dry filters to protect engines. Donaldson IBF systems keep dirt, dust, salt, snow and foreign objects, from degrading the performance and reliability of helicopter engines, helping operators extend engine life and reduce operating costs. Naturally each of the IBF producers make similar claims so only the operator can make the final choice.

Midland Air Ambulance Hannah Seebright and Airbus Colin James 'deliver' the new H145 at the show. At times the use of background video images can be distracting. This video was showing helicopters flying until this moment when it got down into the grass OPAR #





A new project for Spectrolab is a landing light for the CV22 tilt-rotor.

The higher speed of the type tended to make the deployment of the standard helicopter landing light difficult—the motor in the retractable light was never designed to deploy on a fixed wing type.

Spectrolab have enhanced the mechanics of the retraction mechanism and at the same time changed the light from 'ordinary' halogen to a more modern LED.

The system is due to be tested on a CV-22 shortly and in the wake of that test the final landing light will be offered on the market.

REVIEW

Helitech 2017 was significantly quieter than the last event in ExCel [in 2015] with numerous well known companies missing from the stands in the hall and others declaring that they doubt they would rebook. More than one attendee suggested that it was a one-day event extended over three but I would dispute that assessment.

For the casual or focussed visitor a day is easily enough. For the press pack, such as it was, two days were needed to take in the broader aspects of all the exhibitors and visitors. The third day is an arguable luxury for those doing the whole show but there will be those that chose day three as their only visit.



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There were some points that emerged during the writing of this edition which may bear consideration.

There were fourteen airframes [and mockups] in the show and of these no less than nine were from Airbus Helicopters past, present and future. One of these was a potentially desperate late addition, the H225 Super Puma needed some PR and brave souls who would fly in this still blighted type. Many in the audience saw the move as at best desperate.

This event was in London UK, the next edition is on mainland Europe, so it might perhaps have been acceptable that there might have been a significant UK centric thrust to the theme of the Airbus Helicopters stand. In the event there was little evidence of this which suggests that all the thinking that went into the planning successfully bypassed Oxford.

In the wake of the recent statement by NPAS that they need a replacement for their EC145s sooner rather than later and much evidence of the inexorable growth in the influence of the AW169 in the HEMS arena it could be said the Leonardo and its agents were by far the more focused exhibitors on site—and all with a single airframe of their manufacture present on site.

In view of the NPAS statement and the recent dearth of sales into oil and gas where was the thrust of information and ideas to propose alternative thought processes into the market place? It all might take time to bring to fruition, we already know that the journey from marketing to sale is a long journey.

There was little real evidence of Airbus Helicopters demonstrating a desire to keep its world dominance for much longer. Clearly they have not yet seen fit to see a need to sell themselves.

The next edition of Helitech is to be held in Amsterdam in 2018.

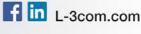


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Helitech Report 2017

On 19 June 2016 at 1757, the Caernarfon SAR helicopter, Rescue 936, was tasked by UK Rescue to assist Ogwen MRT with the rescue of 2 persons injured in a landslide near the summit of Tryfan, Snowdonia. One walker was reported to have been pinned underneath a large 'dinner table sized' boulder and was unconscious with a head injury, a second walker had unknown injuries from rockfall at the same scene. Without mobile phone communication, the third member of the group had left the 2 injured walkers near the summit to raise the alarm. Both casualties were reported as being in cloud. In view of the serious nature of the injuries a full team was mobilised by Ogwen MRT, but would take some time to reach the estimated position given its elevation and the appalling weather on scene and so Rescue 936 was tasked by UK Rescue in support.

Weather conditions at Caernarfon airport were poor, with overcast cloud at 200 feet, visibility of 500 metres and wind speeds of 50 to 60 knots. Launching at 1806, the crew were forced to route low-level up the Menai Straits, using radar and the aircraft ground proximity warning system to assist their safe departure from Caernarfon, whilst attempting to identify a safe route across land to begin the mountain transit. Communications at this low altitude were problematic with many broken radio calls and shifting grid references reported placing the estimated position of the casualties in different local valleys, each necessitating a change in navigation planning.

Throughout this phase, with both pilots clearly working hard simply to keep the aircraft safe, Chris Bradshaw displayed excellent awareness and spare capacity in planning various access routes to the casualty site. After several aborted attempts, a low-level route was eventually found and Bradshaw continued to display exemplary airmanship in assisting with the safe navigation of the aircraft across 200ft AGL power lines and around other hazards, whilst also preparing the role / medical equipment needed.

Rescue 936 embarked four MRT members en-route to deploy them to the scene. Weather conditions and light levels had deteriorated further by this stage and visibility was approximately 200 metres. Liaising closely with the MR team leader on board, the aircraft made a slow transit around the contours of the mountain side and was able to find a site suitable enough for a hard landing, approximately 200 feet beneath the assumed location of the casualty and 2000 ft above sea level.

Rescue 936 took a further group of four MRT to assist on scene and picked up the lesser injured of the two casualties at the landing spot. After refuelling at Caernarfon, Rescue 936 returned to the scene at 1930 after another protracted and difficult low-level route. On the mountainside, the remaining casualty had now been freed from the rock fall and had regained consciousness. Ogwen MRT stabilised the casualty and packaged him ready for winch transfer, but he could not safely be moved from his position given the risk of further landslide. Rescue 936 made a further contour track crawl up the ridge line in and was able to gain visual contact with the casualty and MRT in cloud, close to the summit.

Turbulence was so severe, that it was not deemed safe to attempt to place the winchman alongside the rock face from this point. The aircraft cleared to reassess options. The crew elected to attempt a winch transfer from higher up in an attempt to reduce the effect of the turbulence.

With minimal visual references beneath and with frequent pulses of cloud hindering what references remained, the aircraft was manoeuvred into the only hover position available. With no viable option to use a hi-line, a protracted high winch was the only potential method of rescue

remaining for the casualty. In a selfless act of courage, the winchman agreed to leave the aircraft at 200ft AGL and was skilfully and safely lowered to the side of the mountain, despite the 60kt wind creating significant levels of cable swing and with Bradshaw facing the prospect of an immediate flyaway should the aircraft falter. Conditions on the side of the mountain were little safer, with steeply sloping terrain and further landslides and falling debris a real possibility.

Ogwen MRT handed over the casualty to Bradshaw and he was able to quickly connect to the prepared stretcher and both were recovered to the aircraft. With the casualty safely on board the descent out of cloud was protracted and involved a long descent whilst moving right and back.

Rescue 936 paused in a relatively benign position to await a slight break in the weather. With little improvement evident, and conscious of the need to get the casualty to hospital, an escape route was flown which allowed Rescue 936 to re-enter the main A5 valley and work its way slowly to Bangor Hospital.

Bradshaw is commended for his actions which resulted in the safe recovery of a seriously injured climber from Y Gribin on the evening of 19 June 2016. He was a key member of a crew operating the aircraft to its limits, in the most appalling conditions, and in conjunction with Ogwen MRT, he demonstrated continued exemplary judgement, skill and courage. In particular, he demonstrated selfless bravery in volunteering to be winched out of the aircraft 200 feet above a steeply sloping mountainside in 60kts of wind and severe turbulence.

There was one mildly adverse comment on this award to the crew in that no mention was made of the names of the pilots that undoubtedly made this happen. It was nonetheless a crew award





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ly. New offering from Avalex and Flightcell [All PAR]

