

All-electric aircraft gets boost from Midlands expertise

TEKDATA'S expertise in specialist interconnects is helping hasten the arrival of all-electric aircraft. The Stoke-on-Trent company has completed development of the wiring harness for GE Aviation's actuation system for the Elgear electrically actuated landing gear, aimed at the Airbus A320 replacement airliner.

The new actuation system features a number of innovations to help minimise size, weight, assembly time and maintenance change-out time.

The harness is fixed to the outside of the landing gear actuator, with connections for three-phase



Tekdata's Elgear harness.

power, earth return, and 12 signal lines. Its proximity sensors operate through the actuator housing.

The design of the mouldings contributes significantly to minimising overall size and weight. It also provides physical and environmental protection for the sensors.

By developing secure, clip-together assembly and interlocking features, Tekdata's design team also addressed aircraft operators' demands for standard 15-minute change-out times.

▲ www.tekdata-interconnect.com

Cluster Forum puts spotlight on downturn

HOW will we get through the credit crunch? What will it mean for aerospace? The annual West Midlands Aerospace Cluster Forum and MAA members meeting on 29 April tackles head-on the question uppermost in everyone's mind.

This timely event, sponsored by Advantage West Midlands and held at the Solihull premises of TRW-Conekt, will bring together expert speakers from industry and government, regional support bodies and the MAA. They will help MAA members define how the credit crunch and recession will affect the aerospace sector globally and in the Midlands, how companies should manage their way through it. The forum will also explore what support they need from government, regional agencies and the MAA, and what support is available now.

Participants will be encouraged to share their thinking and plans and to network with their peers.

AWM's aerospace Cluster Opportunities Group (COG) is looking to this forum to map out a strategy to carry the industry forward. The MAA plans to publish a report of the forum's conclusions for circulation in industry and government.

▲ www.midlandsaerospace.org.uk

▲ www.advantagewm.co.uk

Supply chain firms see future in SC21

Midlands takes lead in support for national programme



WEST Midlands aerospace and defence companies are on track to bring greater added value to global projects, thanks to a support package launched early in the new year as part of the national SC21 programme to

improve supply chain performance in the UK's aerospace and defence industries.

The £1.5 million World Class Supply Chains Initiative, funded by regional development agency Advantage West Midlands (AWM) and the European Regional Development Fund and delivered by the Manufacturing Advisory Service (MAS) in partnership with the MAA, is designed to help firms earn internationally recognised industry accreditations and make step changes to delivery and quality performance.

The scheme offers grants of up to £20,000

Jim Coyle, Aerospace Cluster manager at AWM, said: "The aerospace and defence sectors in the West Midlands include more than 480 companies dedicated to supporting these industries, employing 20,000 people and generating an annual turnover of £3 billion.

"These businesses operate at world-class standards, but there are always improvements to make. This specialist support package will ensure our companies con-

tinue to be the best in the world when it comes to aerospace and defence."

The West Midlands initiative is the biggest regional investment being made in the UK to bring the benefits of SC21 – including the crucial expertise of the major industry leaders working with their suppliers – to local manufacturers. "This reflects the strength of the cluster and in particular the importance placed on helping supply chain firms to benefit," said Coyle.

Cliff Johnson of MAS – West Midlands called the new programme "a win-win situation" that will benefit Midlands companies, their suppliers and customers.

The MAA's Andrew Mair added: "In a volatile economic climate, aerospace and defence markets continue to offer two real opportunities for the UK and the West Midlands. We are delighted to be working hand in hand with MAS to deliver this important support project."

For more on the project's launch, see pages 6-7.

▲ www.mas-wm.org/www/SC21.html

▲ www.sbac.co.uk/sc21

LATE NEWS: The MAA has been invited by the East Midlands Development Agency (*emda*) to submit a funding proposal to support SC21 actions in the East Midlands. Details next issue...



Plane propels aerospace interest in East Midlands

A SECOND-hand aeroplane is sparking young peoples' interest in the aerospace industry in the East Midlands.

The aeroplane has been bought with funding provided by the East Midlands Development Agency (emda) under its Catapulting Kids Further! programme.

Grants of up to £80,000 are being awarded by the East Midlands New Technology Initiative (NTI) to schools and colleges teaching new vocational education diplomas for 14-19 year olds.

The aircraft is part of a 'pilot' project called Reach for the Sky which is designed to help the Bassetlaw consortium of schools in Worksop, Nottinghamshire, to teach the new engineering diploma.

The project involves purchasing a second-hand piston twin aircraft, specialist simulation software and server, and a used car kit to support students' work-based, applied learning and stimulate interest in the subject area. The aeroplane will be based at Gamston Airport in North Nottinghamshire.

Among aerospace companies and MAA members working with the schools on the project are RAF Waddington, Siemens Industrial Turbo Machinery, Kinch Aviation, Diamond Aircraft, AAR International, Jet2.com and LJ Create Ltd. Their objective is to develop a curriculum that reflects the requirements of aerospace engineering.

The NTI is an emda-funded programme, backed by East Midlands colleges and universities, to enable SMEs to invest in new technology and raise employee skills.

Its High Performance Engineering Network supports aerospace by offering advice and access to match-funded grants to buy high-tech equipment and to enrol employees on sector-specific training. Several MAA members have benefited in recent years. Comments MAA chief executive Andrew Mair: "NTI is the kind of regional organisation our members find works for them, as a 'one-stop-shop' offering both funding and direct help in finding the right expertise across the region."

▲ www.eastmidlandsnti.co.uk

MAA project helped companies prepare for future business wins

THE success of the MAA's two-year Aerospace Business Strategy (ABS) project will be measured in the future by the amount of work won and retained by supply chain companies in the Midlands.

ABS, which concluded in January, has provided intensive support for 15 West Midlands companies as well as helping countless others with workshops on special market opportunities. Some companies were also supported in initial 21st Century Supply Chains (SC21) actions.

ABS manager John Burrows says motivating smaller companies into action was the "whole point of this project" and was accomplished with a relatively modest investment.

ABS was developed by the MAA and funded by Advantage West Midlands to help ensure Midlands aerospace supply chain companies have the right business strategies to compete in a rapidly evolving global market environment. Its two main thrusts were a series of specialist aerospace workshops on competitive global strategies and packages of intensive support to help individual companies develop their own business plans.

Burrows said ABS supported 15 companies in a variety of strategic projects. A number of companies did strategic reviews and put strategic plans in place; with others it



ABS aimed to get West Midlands companies ready for global programme supply chains.

was benchmarking their own systems against the SC21 preferred management framework called Determining Excellence.

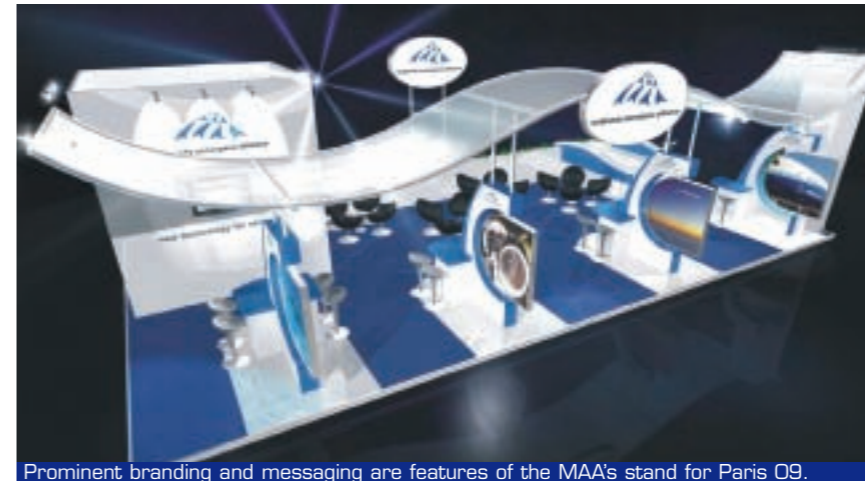
In addition, a variety of workshops have featured guest speakers from major primes coming to share their experience and thoughts about the aerospace supply chain and future market trends. "We've had hundreds of companies benefit through that," says Burrows.

Before the launch of the MAS-West Midlands intensive SC21 programme (see page 1), MAA funding also went toward the cost of independent consultants who helped companies prepare for accreditation to the AS/EN9100 standard, which under SC21 has become the primes' preferred measure

of quality. "This makes AS/EN9100 the threshold to aerospace market entry," says Burrows. "It becomes the baseline and everyone has to move up to it."

One MAA member which did this successfully through ABS was Coventry-based PowerKut Ltd (see case study on page 10).

MAA chief executive Andrew Mair praised the work John Burrows had done for members and the organisation. "John has done a great job leading and delivering this project; we wish him well in his new role helping companies set up Knowledge Transfer Partnerships with universities (www.ktponline.org.uk), Burrows continues to provide strategic support to SMEs and large companies across a variety of sectors.



Prominent branding and messaging are features of the MAA's stand for Paris 09.

Planning for Paris 09? Why not join the MAA delegation

THE Paris airshow at Le Bourget turns 100 this year and promises to celebrate its centenary with its biggest and best show yet.

The show – billed as the world's biggest – opens for a week on 15 June. Organisers report more than 150,000 trade visitors attended the last show in 2007.

The MAA once again will have a stand in the UK section at Paris and invites members to join the team by exhibiting on the MAA stand. "The Paris airshow offers a superb business platform and is an excellent environment in which to take advantage of the opportunities presented by the global aerospace market," says Charlotte Leiper, MAA events and membership coordinator.

The MAA stand's design is based on the successful approach used last summer at Farnborough 2008.

"Once again, this offers an open and styl-

ish exhibiting stand with clean architectural lines that is based around a practical layout to maximize the space available," says Charlotte. Lighting is subtle; branding and messaging prominent.

The design features an informal networking area with literature display, a kitchen and storage area, individual 'pod' stands, a reception desk and graphics promoting aerospace in the Midlands.

As an added feature, the MAA is offering members the opportunity of displaying their company literature on the MAA stand. "Company information packs will be encouraged, providing they meet basic design parameters," says Charlotte.

For information on how you can benefit from the MAA's Paris airshow presence, please contact Charlotte at charlotte.leiper@midlandsaerospace.org.uk

Revamp behind the scenes as MAA plans to step out on own

THE previous issue of AIM carried the exciting news that the MAA Board was planning to move the MAA office out of Pera, which has been home to the body since it was inaugurated in 2003.

Funding for a new suite of support projects to help Midlands aerospace up to 2012 is providing the foundation for the MAA to step out on its own and give members even more influence over the MAA's direction.

While the location of the new offices was still being finalised as we went to press, big changes are afoot behind the scenes, according to MAA chief executive Andrew Mair.

"We're making sure Midlands aerospace doesn't notice the join," he said, "and that we continue to offer the high level of service our growing list of members (see page 11) expect."

But MAA members can expect announcements of a new home for the MAA, and new staff joining the team, over the coming weeks.

"The good news is the Board is confident enough about our long-term sustainability for us to set sail more independently," said Mair. "But there's a fair bit of furious paddling going on beneath the water to ensure all is serene above!"

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MAA chief executive Andrew Mair joined senior representatives of UK aerospace alliances from across the country in Edinburgh on 21 January for a meeting of the SBAC's regional strategy committee. Discussions focused on the impact of the credit crunch on UK aerospace and how best to help members through recession.

MAA partners Semta, NSA in new funding for engineering, manufacturing skills development

MIDLANDS aerospace businesses are looking forward to a new opportunity to access government funding for training and development.

Some £65 million has been allocated to UK engineering and manufacturing skills development across a wide range of functions, including lean manufacturing, technical skills, leadership and management, sales, purchasing and finance.

The MAA has joined forces with Semta – the UK skills council for engineering and manufacturing technologies – and the National Skills Academy for Manufacturing, to help companies access the funding easily via one of two routes:

- Talking to a Semta specialist.
- Attending a skills planning workshop.

Under the first option, a Midlands Semta specialist will visit to assess your business needs for skills and training. They will fit the

funding to your needs and complete all the paperwork so that the training can start quickly. The role of the National Skills Academy for Manufacturing is to ensure companies find the right training provider to meet their needs.

An MAA-Semta-National Skills Academy workshop on 25 March at the University of Warwick will cover assessment of needs and selection of training using a strategic workforce planning tool.

"Developing the skills of your staff is essential to helping you improve the competitiveness of your business and help manage the current economic situation," said MAA chief executive Andrew Mair. "We are going to work closely with our new partners to ensure MAA members can access funding and specialist training provision."

- ▲ www.midlandsaerospace.org.uk
- ▲ www.semta.org.uk

New UKTI support for Midlands aerospace sector

UK Trade and Investment (UKTI) is behind new schemes in both East and West Midlands designed to help the region's aerospace sector spread its wings globally.

In the West Midlands, working in conjunction with the aerospace cluster manager at Advantage West Midlands (AWM) and the MAA, UKTI-WM has identified the specific areas in which it can add value to aerospace companies with new funding.

Leading up the 2009 Paris airshow, aerospace companies will be invited to a free training seminar: an exhibition masterclass to refresh skills for staff new to large international events.

For the Paris airshow itself, £250 travel grants are available for 10 Midlands aerospace companies.

As part of its international remit, UKTI-WM has designed a schedule of country visits to allow aerospace companies to follow up on contacts made at the early March 'Aerospace Opportunities 2009' meet-the-buyer event it sponsored with its East Midlands counterpart and the MAA.

In the East Midlands, Peter Stevenson, International Trade Adviser for Aerospace, said UKTI is promoting a number of initiatives designed to help members of aerospace supply chains establish themselves in low-cost markets, identify potential partners and develop suitable supply chain partners.

He said funding support is currently being developed for qualifying companies.

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More aerospace technology projects to benefit from ATEP second phase

FOUR vital new West Midlands aerospace projects are expected to benefit from funding from the second Aerospace Technology Exploitation Programme (ATEP) organised by the MAA.

Negotiations were in their final stages as this newsletter went to press.

All four technology projects approved in this first funding round will be awarded to West Midlands-based companies working in partnerships with others, with the end users being major aerospace companies located outside the region.

ATEP II is a £1.5 million programme targeted at enhancing the competitiveness of West Midlands aerospace supply chain companies through the exploitation and development of technology. It is jointly funded by the regional development agency Advantage West Midlands (AWM) and the European Regional Development Fund.

Bridget Day, formerly engineering director at HS Marston, has been working closely with MAA Technology Manager Bob Newman to set up the programme. In her view, the quality of the 13 initial applications for this second phase of ATEP had been higher than before. The MAA will be doing additional work with applicants to increase their success rate and others may yet make it through.

The second call for applications under ATEP II is set for 8 April, with a deadline for outline proposals of 29 May. Some 60 per cent of the budget has yet to be allocated.

'Ground-breaking' programme's head retires

BOB NEWMAN (pictured), who is retiring as MAA Technology Manager after three years with the MAA, said the ATEP programme was a ground-breaking way for a regional development agency to fund technology development in a supply chain. Any initial concerns proved unfounded.

"ATEP was more successful than we dared hope, with all five funded collaborative projects delivering good technology advances and exploitation opportunities," said Bob. "Several companies said this was the first time they had ever had any government funding for technology development." The outcomes so impressed Advantage West Midlands that the current second phase of the programme received double the funding.

Bob expressed confidence that his successor in the MAA team will repeat the success of ATEP I. "This is the easiest, if not the only, way for some smaller regional aerospace companies to obtain grant funding to develop or exploit new technology," he said. "I would encourage any technology-orientated aerospace supply chain company to consider involvement and wish the programme well."

MAA chief executive Andrew Mair praised Bob's work in piloting ATEP to a successful conclusion: "It's a challenging job to make a real difference in developing technology whilst meeting the differing requirements of large companies, small companies and funding agencies, a challenge Bob met with characteristic drive and thoroughness."



ATEP funding is available for supply chain technology development projects and feasibility studies. Supply chain projects can qualify for funding of £40,000-£120,000 and run up to 27 months. Feasibility studies would typically receive grants of £10,000-£20,000 for a period of six to nine months.

"The key to proposal acceptance is benefit to the West Midlands region and a clear path to exploitation of the technology via a supply chain, such that the development activity is likely to be at a fairly high technology readiness level," said Bridget.

- ▲ www.midlandsaerospace.org.uk
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Forum speakers (from left): Darren Johnson (Jet Blades), Paul Humphreys (Coventry City Council), Andrew Mair (MAA), Simon Beech (Bulwell) and Wayne Hollinshead (Pattonair).

New local forum gives boost to industry...

MORE than 70 delegates attending the first meeting of the new Coventry and Warwickshire Aerospace Forum heard about some of the key challenges and opportunities for the industry in the Midlands, and learned of support available from a range of partners.

The forum is a joint initiative of Coventry City Council and Warwickshire County Council, with the active involvement of the MAA.

Coventry sector advisor Paul Humphreys, noting the importance of aerospace in the sub-region, said the forum would help ensure that "businesses can learn from each other, share best practice and hopefully establish a bright and growing future for aerospace."

▲ paul.humphreys@coventry.gov.uk

...local governments unite behind aerospace

MIDLANDS communities are at the forefront of a new organisation set up to provide local grassroots support for the UK aerospace industry. The Aerospace Communities Alliance (ACA) is developing from a concept mooted by Derby City Council to give a national, coordinated voice to towns and districts whose residents' lives are affected by the aerospace industry.

Chris Pook, ACA coordinator and Derby's Economic Regeneration Strategy manager, said a January planning meeting in London attracted about 20 representatives of local authorities, industry and aerospace groups.

Andrew Mair, MAA chief executive, commented: "The MAA welcomes local initiatives that raise the profile of the industry and add the support of the local authorities."

Effective supply chain management

Conference speakers encourage Midlands aerospace and defence businesses to sign up for SC21 performance improvement



GOOD supply chain management doesn't happen by itself, not does it arrive overnight like the season's first snow. It takes focus and determination over a long period, but the results are worth every bit of the effort.

That was the message from Annette Oliver, Director, Supply Chain at Aero Engine Controls (AEC), when she described the supply chain transformation undertaken at Goodrich Engine Control Systems (one of

AEC's partners) to nearly 200 Midlands aerospace colleagues at the launch of the new funding package for SC21 (see page 1) at the Cold War Exhibition, Cosford.

"Two and a half years ago, we did not have good supply chain results," she said. The problems were typical of the industry: late delivery, high number of defects, too many suppliers and ineffective measurement of performance.

She set about implementing a three-step improvement programme among suppliers and internally at Goodrich. Key to the programme's success was "buy-in from the top", she said, and the realisation that it would "only work if you work differently".

Goodrich concentrated its efforts on helping 50 key suppliers to improve their processes to a standardised template and in doing so improve their businesses. Tough but realistic targets were set externally and internally, and monitored.

Now in its third year, the programme – which Annette explained is fully aligned to SC21 – has achieved an average OTIF delivery of 92 per cent, up from 37 per cent when it started, while quality has improved to 1,600ppm defects from 22,000ppm, which she said still leaves room for improvement.

As important, 11 suppliers have joined a Profit Through Partnership scheme whose key is taking waste, not cost, out of the system. It was also gratifying to see some suppliers now helping others along the path.

Meanwhile, Iain Low, Supplier Development and Quality manager, Rolls-Royce Submarines, praised the SC21 initiative as the first time UK industry has had a coordinated approach throughout aerospace and defence. "It addresses opportunities, strategy and cultural issues and does so simply," he said.

Participating companies are the most sig-

nificant beneficiaries, he noted, and achieving SC21 accreditation strengthens a supplier's credibility with a range of customers.

David Scrimshire, director of Midlands-based TEC, one of the specialised consultancies supporting SC21, said the fact that one of SC21's pillars – sustainable continuous improvement – has been enshrined in the newly revised AS/EN9100 aerospace standard adds weight to the programme.

He welcomed the new regime. "Standards now mean 'conformance and performance', not box-ticking. This is about solid, well-planned businesses.

The SBAC's Phil Curnock said 416 UK

companies had already signed up to SC21, but this year's challenge was to get the message out to SMEs that "there is funding available to support them."

MAA chief executive Andrew Mair reinforced this message, adding that the SC21 programme meant "support for performance improvement is possible for everyone, large or small."

The MAA works closely with MAS in delivering SC21 support in the Midlands, through its Best Practice group which offers advice, keeping track of participants, coordination nationally, and its work to help develop links between suppliers and buyers.



Speakers at the SC21-MAA event were (from left) Dr David Scrimshire (TEC), Cliff Johnson (MAS-WM), David Bull (TEC), Iain Low (Rolls-Royce Submarines), Annette Oliver (Aero Engine Controls), Karl Smith (Industry Forum), Dr Andrew Mair (MAA), Phil Curnock (SBAC).

SC21 pays off in business success for Tufnol Composites

THE SC21 journey has paid off for Tufnol Composites of Birmingham. After achieving AS9100 accreditation, the company has retained and secured new orders to supply a number of primes and tier 1 suppliers.

In early 2008, Tufnol became part of a Midlands SC21 aerospace cluster led by Gardner Aerospace and GKN Aerospace and funded by the West Midlands Manufacturing Advisory Service (MAS-WM) as a pilot prior to kick-off of the main funding support. Over the next four months, the company undertook SC21 diagnostics with

CASE STUDY

specialist consultancy TEC Concepts.

This exercise identified areas for business improvement, which Tufnol pursued with the help of additional SC21 funding.

Many aspects of the SC21 phase 1, 2 and 3 journey were focused on training, awareness and implementation of practical solutions with the shop floor manufacturing teams. While these have helped transform the workforce's understanding of their processes and priorities, key customer GKN Aerospace has provided clear

voice of the customer (VOC) input.

As part of the ongoing support to Tufnol, customer on-time, in-full (OTIF) delivery performance for min/max stock composites frames have been monitored weekly. Despite GKN ramping up purchased quantities and various part-specific improvement activities, Tufnol achieved an 88 per cent OTIF performance over three months.

This has enabled Tufnol to consider an SC21 exposition submission for Bronze recognition next year.

▲ www.tufnol.com



Rolls-Royce Submarines suppliers in the East Midlands learn about SC21.

Others learn from aerospace experience

THE UK aerospace sector is showing the way to other defence industries with the widespread adoption of the SC21 programme, and Rolls-Royce is emerging as a strong advocate of cross-industry knowledge-sharing.

When a key element of SC21, the AS/EN9100 quality standard, was revised to include defence as well as aerospace, Rolls-Royce Marine needed no prompting to encourage its UK supply chain to get onboard.

Key Midlands strategic suppliers to the company's submarines unit attended an event last November, hosted by the Manufacturing Advisory Service – East Midlands (MAS-EM), where they heard speakers describe benefits that the aerospace sector has seen from signing up to the SC21 programme.

Rolls-Royce, from the vantage point of supplying powerplants for a multitude of uses, saw the advantages in quantifiable performance, manufacturing and business improvement that SC21 could bring to its marine division supply chain.

■ For the latest grant funding for Midlands organisations, visit the MAS websites (www.mas-em.org.uk or www.mas-wm.org.uk).



Model of James Webb Space Telescope for which Tekdata will provide wiring harnesses (Photo: NASA)

Tekdata takes off with NASA space telescope

TEKDATA Interconnections of Stoke-on-Trent has won a major space science contract from Northrop Grumman, working on a replacement for NASA's Hubble Space Telescope.

Tekdata will provide the wiring harnesses for the James Webb Space Telescope (JWST), set to launch in 2013.

JWST will orbit the Earth carrying a mirror seven times larger than the Hubble Telescope's, gathering new data on the origins of galaxies, stars and life.

Tekdata will build a range of test harnesses and pre-flight cables that will ensure instruments on the JWST operate accurately at ultra-low temperatures, before supplying the flight harnesses for integration into the spacecraft.

Northrop Grumman is the prime contractor to NASA, which leads the programme with partners from the European and Canadian Space Agencies.

▲ www.tekdata-interconnect.com

Rolls-Royce wins at home and away

A MULTI-million-pound contract to power a UK fleet of Royal Navy helicopters is bringing work to Rolls-Royce's Ansty plant near Coventry.

The £258-million contract will see Rolls-Royce supply Gnome turboshaft engines for

the Royal Navy and Royal Air Force Sea King helicopters over the next 10 years.

The main repair and overhaul work involved in the contract will be undertaken at Rolls-Royce's Ansty site and in Germany.

Civil engine work at Derby received its own boost from new contracts in the Middle East and China. Rolls-Royce has signed a £400-million contract with Etihad Airways, the national airline of the United Arab Emirates, with the Trent 700EP to power eight Airbus A330s, bringing its Rolls-Royce-powered fleet to 24 aircraft. The contract includes a TotalCare long-term service agreement. The aircraft will be delivered between 2009 and 2011.

Meanwhile, customers in China have filled Rolls-Royce's order book with work worth more than £280 million.

BOC Aviation, a leading Asia-based aircraft leasing company, has selected Trent 700 engines worth £126 million for five Airbus A330 freighters. Rolls-Royce also has a £160-million share of an order for V2500 engines from Sichuan Airlines.

The V2500 engines, produced by the International Aero Engines consortium, of which Rolls-Royce is a major shareholder, will power up to 18 Airbus A320 airliners. The order includes a service contract, which covers the new aircraft and the 15 A320s already in service with the airline.

▲ www.rolls-royce.com

Leicester site shares in Watchkeeper success

A new unmanned air vehicle (UAV), part-designed and manufactured in the Midlands, has completed its first autonomous system flight trial. Thales UK announced the successful trial of the British Army's Watchkeeper UAV in November.

The UAV was flown for the first time fully integrated with its ground control software and ground control station (GCS), which was designed and manufactured in Leicester by UAV Tactical Systems Ltd (U-TacS), a Thales UK and Elbit Systems joint company.

The Watchkeeper will provide the UK armed forces with an essential intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capability, and will be a key component of the UK armed forces network enabled capability (NEC).

The achievement is another step forward in the Watchkeeper programme, following

the first successful flight trials of the UAV in April 2008 and the demonstration of the Watchkeeper automatic take-off and landing (ATOL) capability in August 2008.

Trials this year are intended to validate the capability of the system.

Prime contractor Thales UK is delivering equipment, training and facilities for the UK MoD's Watchkeeper programme. The vehicle is on track to enter army service from 2010.

▲ www.thalesgroup.com

Meggitt electric brake passes flight test

NEW braking technology developed in Coventry by Meggitt Aircraft Braking Systems (MABS) has been given the thumbs up by airframer Bombardier Aerospace after successful flight testing.

Meggitt's electric braking system, known as EBrake, "provided improved braking control in normal and emergency operating modes, resulting in tight centerline control even during maximum brake applications," said Pilot in Command Gary Bruce. Meggitt's system will also remain on the Bombardier Global 5000 test aircraft for an extended period of time to validate the robustness and reliability of its design.

Bombardier is studying the use of electric braking on its new CSeries airliner and although Meggitt has not been confirmed as the supplier, the EBrake is the only system to have been flight-tested.

Electric braking is the next evolution in aerospace braking system technology; it couples brake-by-wire control with electric brake actuation.

▲ www.meggitt-mabs.com



MABS test braking system installed on Global 5000.



Design Q's LJ85 flightdeck.

Design Q puts Learjet in the driving seat

MIDLANDS agency Design Q has fused the region's renowned automotive and motor-sport design expertise with aviation to create a cabin interior like no other.

Learjet commissioned the recently released designs for the LJ85 executive jet from the Worcestershire-based firm.

Emulating the high standard of finish in luxury cars, the LJ85 flightdeck has taken on elements of a sports car, with detail such as a hand stitched black leather glare-shield and simple fluid forms. Design Q has made the galley sophisticated and logical, while the cabin seating delivers movement in every direction, including a full horizontal recline.

Meanwhile, the first Avro RJ70 executive aircraft with a Design Q interior has been delivered to Bulgarian national carrier Bulgaria Air, which will operate it on behalf of its parent TIM group.

Design Q followed a design more often found in larger aircraft, avoiding the 'built-in' look. "Younger and more design-aware customers are looking for a more contemporary and high-quality interior, with a trend toward more open-plan layouts and modern surface finishes," said Design Q's Gary Doy.

▲ www.designq.co.uk

aerospace in the midlands

Goodrich, Rolls-Royce finalise joint venture

A NEW Midlands-based joint venture between Rolls-Royce plc and Goodrich Corporation brings together the expertise of two world-class organisations on engine control systems.

Aero Engine Controls is a 50:50 joint venture combining Goodrich's UK-based engine controls design and manufacturing business with the Full Authority Digital Engine Control (FADEC) engineering expertise of Rolls-Royce in order to develop and supply engine controls for Rolls-Royce engines.

Goodrich retains the aftermarket products and services business associated with the joint venture's products.

The new company employs about 1,330 skilled staff, mainly from the two parent companies, at sites in Derby, Birmingham and Belfast.

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Midlands-built UAV engine flying high

MIDLANDS UAV engine maker Cubewano has successfully flight-tested the latest in its Sonic line of engines, the Sonic35.

The flight aboard a "well-proven aircraft" in



Cubewano's Sonic35 flew successfully in Spain.

Spain has allowed the Birmingham-based company to put the Sonic35 on general release, for purchase or sale, on a 12-week delivery schedule. Demand, says the company, has been "phenomenal".

Cubewano says the Sonic35's "innovative new design" allows for customised power possibilities in an air-cooled, injector-fuelled engine. The model builds on Wankel rotary engine technology by utilising advanced materials to create "the most powerful, light-weight UAV engine to date".

Cubewano is the third UAV engine maker in the Midlands. The region's growing expertise in this niche powerplant market is also demonstrated by Cosworth and UAV Engines Ltd.

▲ www.cubewano.com

Accrofab investment turns up the heat

DERBY-based precision engineering firm Accrofab has invested £250,000 in vacuum heat treatment machinery as a result of winning a five-year contract to supply components for the aerospace industry.

The furnace system can reach temperatures of up to 1,200 degrees centigrade and is among a handful of similar machines in the Midlands. It will be used for hardening and softening materials such as nickel alloys, titanium and nimonic, used in the manufacture of components in jet engines.

Accrofab's measured approach to growth is paying dividends with the company expecting turnover to reach £6 million this year, up 15 per cent on last year.

▲ www.accrofab.co.uk

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CASE STUDY

1

Business takes off with the Midlands Aerospace Alliance

Profile: PowerKut Ltd

PowerKut Ltd is a family-run business which designs and manufactures components and assemblies for aerospace and defence among a host of industrial sectors. It is a small company, with 36 employees over two sites, and prides itself on a culture of 'engineering excellence'. The company is an approved supplier to the MOD, Rolls-Royce, Airbus, AgustaWestland and Meggitt Aerospace, among others and operates a UKAS calibration laboratory.

Market environment

The challenges of the global market have become if anything more acute in the current economic environment. The industry-led 21st Century Supply Chains (SC21) programme is designed to accelerate the competitiveness of the UK aerospace and defence industry by raising the performance of its supply chains. The AS/EN 9100 standard has been selected as the recommended quality system standard. The Aerospace Business Strategy (ABS) programme run by the Midlands Aerospace Alliance (MAA) gave Midlands companies the opportunity to achieve that accreditation.

Challenge and solution

PowerKut, as a signatory to SC21, needed access to specialist AS/EN9100 knowledge and skill to embed in the company's staff and processes. The company is committed to quality, was already certified to ISO9001, and was looking to achieve AS/EN9100 accreditation.

The MAA's ABS programme funded expert support through a third-party provider to



PowerKut's busy and productive shop floor in Coventry.

help PowerKut achieve accreditation.

This support involved four days of workshops with PowerKut's quality manager over a six-month period. A gap analysis helped the company understand where it needed to improve its procedures and processes to pull itself in line with AS/EN9100. The support package then provided help in implementing best practice.

"There was work we needed to do at our end," said managing director Pete Everitt. For example, PowerKut's first article reporting system had to be aligned with standard tools used by AS/EN9100. "We also went down the route of making sure the quality system was accessible to everyone in the company.

"Because we took the approach of redesigning a quality system from scratch instead of making what we had fit, we now have a modern quality system that enables us to understand our own business. It has moved the company forward."

FACT FILE

- > **Company:** Powerkut Ltd
- > **Address:** 15 Paragon Way, Bayton Industrial Estate, Exhall, Coventry CV7 9QS
- > **Activities:** Manufacture of components and assemblies; approved supplier to Ministry of Defence and Rolls-Royce
- > **Accreditation:** AS/EN9100, UKAS
- > **Contact:** Pete Everitt
Managing Director
Pete.everitt@power-kut.co.uk
- > +44 (0)24 7664 4661
- > www.powerkut.co.uk

The benefits of working with the MAA

PowerKut has gained two main benefits, said Pete Everitt. The first is the confidence that its customers in aerospace and other sectors have in PowerKut's quality system which not only conforms but is robust. The second is the competitive edge that this work has given the company. "It's not just a badge," he said.

Working with the MAA has been a positive experience, he said. "The MAA's desire to create opportunities, whether through this programme or any other, for local companies

to engage and improve their business is second to none."

PowerKut received AS/EN9100 accreditation in October 2008 and is now on the OASIS aerospace suppliers database. It is the only UK calibration company with AS/EN9100. As important, says Pete Everitt, is customer feedback. It confirms that "we're doing the right things and that we're the sort of company they want to do business with."

www.midlandsaerospace.org.uk



During a recent visit to the Aero Engine Controls (formerly Goodrich) site in Birmingham, UK Business Secretary Lord Mandelson stopped to chat with AEC employee Nita Kavanagh. Looking on is manufacturing director Andrew Mueller. Lord Mandelson was on a visit to the Midlands to meet business leaders and discuss strategy for weathering the economic storm. (Photo courtesy The Express & Star, Wolverhampton)

Gold award for coating specialist

THE Midlands operation of AkzoNobel Aerospace Coatings (ANAC) plans to build on a recent gold award from airframer Hawker Beechcraft Corporation (HBC).

ANAC was named a Gold Supplier for Performance Excellence at HBC's second annual conference for suppliers.

The award was based on HBC's supplier rating system: to win a gold award, the recipient must achieve a minimum rating of 99 per cent over a 12-month period.

AS Richardson, ANAC regional manager UK, Ireland, Germany and Austria, welcomed the award, saying: "It will help our position as a global company. ANAC in Leicester supplies HBC in Chester and we hope that we can utilise this recognition to build our position with the customer."

▲ www.akzonobel.com

aerospace in the midlands

NEW MEMBERS

The MAA welcomes the following new Full and Associate members

FULL MEMBERS

Acton Finishing Ltd

Coventry
High quality metal finishing

Aerotherm Ltd

Stoke on Trent
Design, manufacture and installation of heating, curing, extraction and emission control systems

Barton Precision Engineers Ltd

Bulwell
Precision components for instrumentation

Central Grinding Services Ltd

Oadby
Precision grinding

CNR Services International Ltd

Nottingham
Engineering design consultancy

Consilium Group

Stourport on Severn
Aerospace and defence recruitment and HR management specialist

Copper & Optic Terminations Ltd

Stoke on Trent
Sub-contract electronic and cable harness assemblies for aero engine components

Copper Alloys Ltd

Stoke on Trent
Manufacturer of copper alloy sections and components

Custom Grind Ltd

Stoke on Trent
Engineering consultants and sub-contracting engineers, centreless grinding technology

Excel Automation Ltd

Worcester
Manufacture of industrial conveyor systems

Faro UK

Coventry
CAD measurement systems and software

Gyrojet Ltd

Ashbourne
Design and manufacture of advanced gyroplanes

Hadley Aerospace

(A division of Hadley Sections)
Smethwick
Producer of cold rolled sections and allied products

Infomill Ltd

Derby
Software and data management services for maintenance operations

KWE (UK) Ltd

Castle Donington
Integrated global logistics services

Laser Process Ltd

Cannock
Subcontract laser cutting and marking

Leap Ahead (LLN)

Derby
Promotion of higher education and skills

LGG Charlesworth Ltd

Malvern
Specialist plastic mouldings

MAG Industrial Automation Systems

Birmingham
Supply of manufacturing systems

Mavitta Division, Morson Projects Ltd

Swadlincote
Technical engineering services, design and manufacture of structures, equipment and tooling

MGR Fluid Power Ltd

Stockton
Hydraulic systems

Micro Spring & Presswork Ltd

Redditch
Manufacture of springs, presswork and assemblies

Network Recruitment Partnership

Wolverhampton
Engineering, manufacturing and supply chain recruitment

Neville Precision Engineering Ltd

Kirkby in Ashfield
Supply and CNC machining of aluminium extrusions

RLE International (UK) Ltd

Coventry
Design and engineering services

RTI International Metals Ltd

Tamworth
Manufacture of titanium mill products, CNC milling and waterjet cutting

Sim-Cast Ltd

Derby
Investment casting

Standard-Metallwerke UK Ltd

Birmingham
Engineering services, components and precision drawn tubes

Voith Industrial Services

Warwick
Preparation of fuselage prior to painting, facility management and production support services

ASSOCIATE MEMBERS

Antistat

Ipswich
Global purchasing and supply chain management, ESD consumables and clean room supplies

DSM Geodata Ltd

Boiness, West Lothian
CAE services and design support, FEA, 3D modelling, 2D detailing

Master Chemical Europe Ltd

Suffolk
Supply of metalworking fluids and coolant equipment

Simpson Patterns Ltd

Sheffield
Manufacture of castings and moulds from composites, patterns and tooling for aerospace

The MAA's
desire to create
opportunities is
second to none

Midlands aerospace in brief...

Warwickshire-based **Umeco plc** has announced the acquisition of one of its suppliers, Industria Plastica Monregalese (IPM), from its private shareholders for about £15 million. IPM manufactures and supplies vacuum bagging films for the composites industry and other markets.

Southco, the Worcester-based fastener and access hardware manufacturer, has achieved the industry quality standard AS/EN9100. Aerospace business development manager David Proctor said the qualification "puts us on the map as a serious aerospace supplier."

Midlands precision component manufacturer **Berck Ltd** has earned its first specialised aerospace accreditation. The company hopes achievement of the AS9100B standard will help it advance its ambitions in the aerospace sector.

Winning the 2008 UKTI-sponsored 'East Midlands International Business of the Year Award' has reinforced Lincoln-based **Castlet Engineering's** ambition to expand its aerospace and defence sector activity. The company provides on-board and ground support equipment for the Eurofighter Typhoon and is involved with Honeywell in the design for life support systems on the F-35 JSF programme.

Meggitt Aircraft Braking Systems (MABS) has won a multi-million-pound fol-

low-on contract from AgustaWestland to develop and produce the differential brake control system components for the Future Lynx helicopter. Work at MABS in Coventry is focused on completing the detail design before production and qualification testing and first flight later this year.

Derbyshire-based **Manthorpe Engineering** has made a bid to expand its premises and create 150 new jobs. New and ongoing contracts with Rolls-Royce, set to continue over the next 20 years, have prompted the firm to plan a new fabrication shop and engineering stores on its 13.5-acre industrial site.

Midlands semiconductor specialist **Dynex** saw revenue rise 21 per cent in the first three-quarters of last year, with orders at an all-time high. Zhuzhou CSR Times Electric of China recently acquired a 75-per-cent share of the company which employs 260 people making power products and assemblies.

Indestructible Paint, the Birmingham-based coatings specialist, has been praised for its innovation and flexibility by Advanced Light Helicopter (ALH) maker Hindustan Aeronautics. IP modified its coatings to achieve acceptable paint appearance and cure density in low temperature application, enabling the Indian army to repaint its ALH fleet at Srinagar base in the Himalayas.

PREVIEW

Aerospace impact at Coventry University

COVENTRY University is looking to build on its aerospace foundations with a modern approach to training aerospace engineers. The Midlands university is the first in the UK to deploy a state-of-the-art flight simulation suite and expects it to transform the learning experience for engineering and aerospace students.

The new simulators, unveiled in 2007, added to the university's laboratory facilities that include wind tunnels, a Westland Scout helicopter and a BAE Harrier T4. The Harrier is linked up to the simulators.

Chris Bland, head of Systems Engineering, said: "Our graduates are particularly respected by industry as they are able to contribute quickly to industrial needs."

▲ www.coventry.ac.uk

In the next issue...

AIM reports on the Midlands **REACH** conference on EU chemical regulations, held in partnership between MAA and SBAC on 3 March.

AIM also reports on **Aerospace Opportunities 2009**, a 4 March 'meet the buyer' event sponsored by UKTI with MAA support, bringing together Midlands aerospace firms with 40 aerospace buyers from around the world.

About the MAA...

The Midlands Aerospace Alliance (MAA) is the voice of companies in the British Midlands supplying global aerospace. It was set up in 2003 to improve wealth creation and employment for companies and people involved in the aerospace industry across the Midlands. The MAA is supported by Advantage West Midlands (AWM) and the East Midlands Development Agency (emda).



For additional copies of AIM, or to add your clients to the distribution database, please contact the MAA Secretariat: info@midlandsaerospace.org.uk.

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midlands aerospace alliance