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# aim

## aerospace in the midlands

The quarterly newsletter of the Midlands Aerospace Alliance

Issue 19 Summer 2009

# Midlands on board future programmes

## Aerospace companies large and small see the benefit

GOODRICH Actuation Systems is leading a wave of success among Midlands aerospace companies whose recent contract wins on prestigious global programmes highlight the region's world-class strengths.

Despite gloom in some parts of the sector generally, Goodrich can look forward to working on Bombardier's new CSeries of commercial



CSeries work will run over 20 years for Goodrich Actuation Systems.

PHOTO © BOMBARDIER

**NEWS FLASH – MAA awarded contracts to help members under new East Midlands innovation network (iNet) for transport sector. Details at MAA members meeting 1 July.**

([www.midlandsaerospace.org.uk](http://www.midlandsaerospace.org.uk))

aircraft and the Lockheed Martin F-35 Lightning II programmes at its Wolverhampton factory.

Elsewhere in the region, Derbyshire-based supply chain company Atlas Composites has retained its Lockheed Martin UK INSYS Bronze award and status as

the only UK preferred supplier of composite components to the defence contractor.

Further evidence of expanding Midlands capabilities comes from two significant UK Ministry of Defence (MoD) contracts awarded to BAE Systems for fast jet availability support services, to be carried out in conjunction with the RAF and Royal Navy at key aircraft bases in the Midlands.

"New contract wins, new invest-

ment and employment growth at Midlands aerospace companies highlight how global economic conditions are affecting different sectors of aerospace and defence in different ways" said MAA chief executive Andrew Mair. "Some are undoubtedly starting to suffer, but in others optimism prevails."

Goodrich's selection for the CSeries wing's high-lift secondary flight controls system is expected

**Continued on page 2**

## MAA renews commitment for future

THE Midlands Aerospace Alliance has a new chairman, new staff, new offices and new funding – and is ready to offer an even higher level of support to its 250 member companies.



At its recent board meeting, **Clive Snowden** (above), chief executive of leading composites and logistics provider UMECO, was appointed to the MAA chair, succeeding Ged Leahy.

Other new appointments:

- **Simon Beech** – vice-chair for East Midlands;
- **Mark Day** – vice-chair for West Midlands;
- **Annette Oliver** – SC21 group chair (formerly best practice group).

**Mark Johnson** remains chair of the MAA business development group; **Neil Rawlinson** remains chair of the MAA innovation and technology group; and **Leahy** remains chair of the MAA skills group.

"This is an exciting period of change," said MAA chief executive Andrew Mair. "The new team will inject its own ideas so we can offer even better service to the Midlands aerospace cluster."

- *New staff, offices and Board appointees, p3*
- *SC21 projects, p11*



midlands aerospace alliance

## Awards recognise excellence of MAA member companies

A SUCCESSION of recent awards to members of the Midlands Aerospace Alliance highlights the broad excellence of companies in the region. The winners include:

- **Winbro Group Technologies**
- **Hampson Industries**
- **Castlet Ltd**
- **Tekdata**

East Midlands-based Winbro won the coveted Queen's Award for Enterprise for its achievements in international trade.

The company has driven its growth through exporting British innovation and technology across the world. Producing systems used for machining critical industrial turbine and aero engine components, Winbro's impressive export record to 15 countries is the result of a huge investment in engineering R&D.

Winbro technology is being used in all the major economies across the world to aid the design and manufacture of cleaner jet engines and power station

**Continued on page 2**

## news from the maa

### Midlands on board future aerospace programmes

Continued from page 1

to generate more than £500 million in original equipment and aftermarket revenue over 20 years. Its team in Wolverhampton will also provide the thrust reverser actuation system for the Pratt & Whitney PurePower PW1000G engine that will power the CSeries.

The Bombardier award comes as Goodrich's Wolverhampton plant is undergoing a multi-million upgrade to plant and equipment and expanding employment to support the production ramp-up for the F-35. The upgrade is supported by a grant of £1.9 million from Advantage West Midlands, the regional development agency.

Atlas Composites managing director Shaun Moloney says the award to his company underlines the Midlands' reputation for excellence and is a result of hard work by

the firm to satisfy demanding aerospace criteria. "This is a top award and a recognised benchmark for quality that can open doors when seeking business worldwide."

Atlas has increased its work force by over a third within the last twelve months and plans further expansion.

The MoD platform availability contracts awarded to BAE Systems for the RAF's Harrier and Eurofighter Typhoon fleets are worth more than £1 billion over five and nine years. Work on the UK's Harrier fleet under a new £574 million contract will be carried out at RAF Cottesmore in Rutland. The Eurofighter work, worth about £450 million, will be carried out at RAF Coningsby in Lincolnshire.

▲ [www.goodrich.com](http://www.goodrich.com)

▲ [www.atlascomps.co.uk](http://www.atlascomps.co.uk)

▲ [www.baesystems.co.uk](http://www.baesystems.co.uk)

### Awards recognise excellence in Midlands

Continued from page 1

turbines resulting in lower noise and emissions pollution.

Hampson Industries won the *Birmingham Post* newspaper's Deal of the Year 2008 for its £158 million acquisition of US companies Odyssey Industries and Global Tooling Systems. Judges said the accolade is recognition of how far the company has come in the last decade.

Castlet, meanwhile, walked off with the East Midlands International Business of the Year 2008 award, presented by UK Trade and Investment (UKTI).

Castlet specialises in providing engineering solutions for the aerospace and defence sector. It designs, manufactures, tests and commissions ESP power supplies, micro-

processor controls and auxiliary equipment.

Stoke-on-Trent-based Tekdata Interconnections was presented with the first-ever Company of the Year for Innovation award by Northern Defence Industries (NDI), an association of more than 200 leading British SMEs working in the defence sector and a sister body to the MAA.

The association recognised Tekdata, a leading wiring systems specialist, for the wide range of technologies and innovative solutions it has applied to technically challenging problems, including NASA's James Webb Space Telescope (JWST).

▲ [www.winbrogroup.com](http://www.winbrogroup.com)

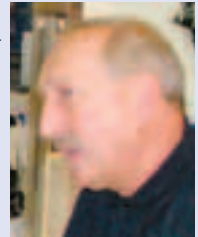
▲ [www.hampsongroup.com](http://www.hampsongroup.com)

▲ [www.castletltd.com](http://www.castletltd.com)

▲ [www.tekdata.co.uk](http://www.tekdata.co.uk)

### Coyle – 'fantastic servant to Midlands aerospace industry'

MAA members have joined in tributes to Jim Coyle who has retired after four years as aerospace cluster manager at regional agency Advantage West Midlands (AWM).



Following a successful career in the industry, Jim joined UK Trade and Investment to work with aerospace suppliers in the East Midlands before becoming cluster manager at AWM.

"Jim has been a fantastic servant to the Midlands aerospace industry throughout his career," said MAA chairman Clive Snowdon. "In recent years, many MAA members have benefited directly from AWM support under his able guidance – the whole industry has a lot to thank him for."

His successor is Pauline Pinney.

Meanwhile, Alan Duffield has stepped down as industry chairman of the AWM advisory cluster opportunity group (COG) following his departure from the Midlands to join Magnesium Electron in Manchester. He will be leaving the MAA Board in September, when his elected term finishes.

"Alan has been a bedrock of support over the last few years and we will all miss his contribution," said MAA chief executive Andrew Mair.

▲ [www.advantagewm.co.uk](http://www.advantagewm.co.uk)

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# aerospace in the midlands

## MAA positioned for growth with new team, new home

THE MAA offices have moved from their previous location within Pera in Leicestershire to the Business Innovation Centre at Binley in Coventry. Anne Esterson has joined the team as the new MAA office manager, while Claire Abbott and Charlotte Leiper



Anne (left) and Bridget.

decided to accept new positions at Pera; Charlotte has been seconded until June to run the MAA's Paris Airshow exhibition.

Bridget Day, formerly engineering director at United Technologies subsidiary HS Marston in Wolverhampton, has been appointed MAA Innovation and Technology Manager succeeding Bob Newman, whose retirement was announced in the spring issue of AIM.

"I know I can speak for all our members who appreciate how much work was put in by Claire, Charlotte and Bob to take us to

this stage," said chief executive Andrew Mair.

Significant changes have been made to the MAA's structure with the creation of new vice-chair roles.

Simon Beech, managing director, Bulwell Precision Engineers, was appointed vice-chair for East Midlands with special responsibility for the relationship with the East Midlands Development Agency (*emda*).

Mark Day, plant manager of Eaton Aerospace and former chairman of the AWM Cluster Opportunity Group, was appointed vice-chair for the West Midlands with special responsibility for the relationship with Advantage West Midlands (AWM).

Ged Leahy, former director of strategic workforce planning at Rolls-Royce, who as chairman guided the MAA through its recent

changes, remains on the Board to chair the MAA skills group.

Annette Oliver, Supply Chain Director at Aero Engine Controls, the Rolls-Royce Goodrich joint venture, was appointed to chair the MAA's new SC21 group (formerly the best practice group).

Mark Johnson, managing director of Avingtrans Aerospace, remains chair of the MAA business development group and Neil Rawlinson of Aero Engine Controls, remains chair of the MAA innovation and technology group and joins the Board.



The MAA's new location in Coventry.

## Last chance to sign up for technology funding

MIDLANDS aerospace companies have until 26 June to sign up for the second round of the successful Aerospace Technology Exploitation Programme (ATEP), run by the MAA. That date is the deadline for receipt of outline proposals to receive funding.

"This is our second call for ATEP II, funded jointly by Advantage West Midlands and the European Regional Development Agency, and will support the exploitation of technology in West Midlands supply chain companies in line with regional and national strategy for aerospace," said Bridget Day, the MAA's Innovation and Technology Manager.

Successful applicants will be invited to submit full proposals by 28 August, leading to detailed appraisal and funding in October.

ATEP II builds on the solid achievements of the original ATEP, which ran from 2006-9 and supported five successful projects. Four new projects have already been launched under ATEP II, which runs until 2012.

For supply chain companies, the programme could provide grant funding for development of a material, a new process or new technology in a supply chain partnership involving a customer or end user to

ensure the likely future exploitation of the development. "This sort of supply chain based funding would be difficult to obtain by any other means," said Day.

"If you have a project idea that does not meet all criteria, please get in touch as funding may still be possible."

■ *Details can be found on the MAA website [www.midlandsaerospace.org.uk](http://www.midlandsaerospace.org.uk), or by contacting Bridget Day at [bridget.day@midlandsaerospace.org.uk](mailto:bridget.day@midlandsaerospace.org.uk)*

## Keeping out of harm's REACH

MIDLANDS aerospace industry representatives learned how to manage the impact of the new European regulations on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) at a joint MAA-SBAC workshop held at Rolls-Royce in Derby.

These EU regulations, which cover a diversity of products such as alloys, paints and powders, including those bought outside the EU, are already affecting the aviation industry. More impact may be expected as some essential chemicals may become restricted and even removed from the market.

## MAA support projects earn plaudits

THE MAA has earned praise from independent reviews for its work in support of the aerospace industry in the Midlands.

The Aerospace Business Strategy (ABS) project run by the MAA was confirmed as an outstanding success by its participants. An independent evaluation survey after the project's conclusion found 95 per cent of participants had obtained significant benefits from ABS.

The survey highlighted unanimous satisfaction with how the MAA had delivered the two-year project, which wound up at the end of 2008, among the small and medium sized aerospace supplier participants.

Meanwhile, the MAA's work to support the aerospace cluster received further praise in an independent analysis of AWM's support for all its regional clusters, with the aerospace sector highlighted as a case of successful partnership between industry and government.

▲ [www.midlandsaerospace.org.uk](http://www.midlandsaerospace.org.uk)

## news from the maa

# Plan now for upturn, speakers urge industry

AEROSPACE is a cyclical industry so no-one should be surprised by finding themselves in another downturn. "We've been here before – in '81, '91, 2001," Robert Nuttall, Rolls-Royce vice-president, strategic marketing, told an audience of Midlands aerospace executives.

"Historically events suggest a quick bounce follows a quick drop," he said. "Global traffic follows economic trends, not events, so it's a good guess the industry will be back to zero in the autumn or year-end."

He was speaking to about 120 members of the MAA and West Midlands aerospace Cluster Opportunities Group (COG) at a joint meeting at TRW Conekt in Solihull.

Nuttall said many indicators – cargo, corporate aircraft sales and movements for example – may have bottomed out, giving rise for optimism. But he cautioned that the industry still had a long road to recovery. Now was the time to invest in readiness for the upturn.

His message was echoed by other speakers at the one-day seminar entitled *Managing through the coming aerospace downturn*.

Nick Miller business director, industrial strategy for Thales UK, who encouraged investment in R&D and innovation, predicted



(From left) Jim Coyle, AWM aerospace cluster manager; Prof Andrew Walker, Manchester University; MAA chief executive Andrew Mair; Aerospace COG chair Alan Duffield; Mike Southwell, general manager Conekt; Nick Miller, business director, industrial strategy, Thales; Robert Nuttall, VP strategic marketing Rolls-Royce; Cliff Johnson, SC21 project manager MAS-WM.

that "global transport will come back stronger than before."

He noted the importance of military contracts in support of the Afghanistan theatre and urged supply chain companies to appraise their capabilities to compete for urgent operations requirement (UOR) orders,

especially in force protection and IED counter-measures.

Prof Andrew Walker of Manchester University and the Northwest Composites Centre said business success in the coming years will depend on growth in value, not volume, because fewer aircraft will be built in the next decade than in the last.

Increased payload will be a critical factor in new aircraft programmes. Composite technology has much to contribute, he said, reminding the audience that new technologies inspire a raft of supporting innovations. With an expected increase in use of composite materials, good business opportunities will be found in design, materials (especially carbon fibre), fabrication, assembly and systems, he said.

MAA chief executive Andrew Mair drew attention to the diverse support programmes administered by the MAA and others, and urged members to consider projects that would qualify for the funding available. These included the UK-wide 21st Century Supply Chains (SC21) programme, presented by MAS-West Midlands' Cliff Johnson and the regionally focused work of Business Link West Midlands, whose chief executive, Alison White, encouraged Midlands aerospace businesses to take advantage of what it has to offer.

■ MAA prepares five-point plan to help industry through downturn, page 11

## Midlands expertise impresses global buyers

THIS year's Aerospace Opportunities event in March gave 60 Midlands aerospace businesses the chance to showcase their capabilities and make international contacts potentially worth millions of pounds.

More than 40 buyers from major international aerospace companies, based in the US, Spain, Brazil, Germany, France, China, India, Switzerland, Ireland and the UK, attended the event funded by UK Trade & Investment, Advantage West Midlands and East Midlands Development Agency and supported by the MAA. It was held at Rolls-Royce in Derby.

Mark Johnson, managing director of Avingtrans Aerospace and chair of the MAA's business development group, said: "The MAA helps the organisers select buyers from around the world that are best suited for the capabilities of Midlands companies. Members tell us it was an excellent opportunity to promote their wares and many have had a number of successful meetings."

Companies in attendance included Warwickshire-based Ricardo UK. The company, which provides transmission products and engineering solutions, met with 17 buyers on the day. Precision parts supplier Edwards Precision Engineering, based in Birmingham, was pleased to see buyers follow up appointments with requests for information.

Coventry's Premier Group only recently expanded into the world of aerospace. Key accounts manager Paul Smith said: "It's a unique chance to tell many influential organisations about your company, which would ordinarily take six months. If you get one request for a quote then it's been worth every penny, and I'll certainly be returning."

▲ [www.uktradeinvest.gov.uk](http://www.uktradeinvest.gov.uk)

# aerospace in the midlands

## Career Chain initiative aims to keep key skills in Midlands

THE East Midlands Development Agency (*emda*) has relaunched a scheme to help the local aerospace industry hold on to key skills, despite redundancies caused by the economic downturn.

Career Chain is the new name for the three-year, £1.9 million programme, now being run by the NE Group. Originally launched as the Midlands Engineering Industries Redeployment Group (MEIRG) as a response to the post-9/11 downturn in the aerospace and engineering supply chain industries, the scheme aimed to help those made redundant in the East Midlands find work, ensuring their skills will not be lost.

Now, as Career Chain, support is being renewed and expanded to help the region's engineering industry through the current recession, as well as assist the local construction sector, which has also been hit.

The service will allow engineering and construction industry companies considering redundancies to call in advisers who can

point staff in the direction of new jobs or training opportunities.

Specialist careers advice and guidance will be provided, as well as interview skills support and redeployment services – including job search and job matching.

Andrew Morgan, skills director at *emda*, says the service could prove vital in making sure the region's key industries are ready to take advantage of the upturn when it comes.

▲ [www.emcbe.com/career-chain.htm](http://www.emcbe.com/career-chain.htm)

### ON THE SURFACE

IMFair09, the UK's largest and most in-depth surface coating and technology conference and exhibition aimed at the aerospace industry, takes place on 10-11 June at RAF Museum Cosford. The event is organised by the Institute of Metal Finishing, which has extended the special members' rate to MAA members.

▲ [www.uk-finishing.org.uk](http://www.uk-finishing.org.uk)

## UK skills academy puts training in new light

TRAINING has taken on a new importance for MAA member G&O Springs, thanks to the National Skills Academy for Manufacturing (NSA-M). Not only has the Redditch-based manufacturer boosted skills but it can put a figure on the business benefit of doing so.

Now the company is encouraging other MAA members to take advantage of the programme under a new partnership arrangement between the MAA and NSA-M.

With NSA-M help, G&O managing director Steve Boyd worked with his local training provider to design and develop appropriate training, ensuring it achieved the targeted business benefit.

Rita Davey, Skills Academy regional manager, says the NSA-M's Learning Engine process will help calculate G&O's return on investment for its training in relation to value added per person and on-time delivery.

"The experience has changed our attitude toward training," says Boyd. "We now know that training can help us grow and evolve."

▲ [www.nsa-m.co.uk](http://www.nsa-m.co.uk)



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## European support for innovative partnerships

MIDLANDS aerospace companies interested in innovative partnerships need look no further than the Enterprise Europe Network (EEN) in Coventry.

The Midlands bureau is part of Europe's largest network of support organisations for small business, created to help companies reach their full market potential. It offers a broad range of services and has partner organisations in more than 40 countries.

Among technologies in EEN's business partnering catalogue are flying components and systems, micro and mini aerial vehicles, software, composites and materials, an anti-gravity mechanism and an amphibious sea-plane. Estelle Colmerauer, the regional aerospace contact, invites enquiries to [E.Colmerauer@cad.coventry.ac.uk](mailto:E.Colmerauer@cad.coventry.ac.uk)

■ *EEN is teaming up with UK Trade and Investment and the French Chamber of Commerce in Great Britain at the Paris airshow to provide a comprehensive package of support.*

▲ [www.b2match.com/parisairshow2009](http://www.b2match.com/parisairshow2009)



Dr Jon Moore of Intelligent Energy with Gordon Brown, John Denham (Secretary of State, DIUS), Andy Reed MP and Business Secretary Lord Mandelson.

## Prime Minister praises Midlands' innovation

MIDLANDS company Intelligent Energy (IE) has been cited by UK government ministers as an example of how innovation in clean technology could aid economic recovery in the UK.

On a visit to IE's facilities in the Innovation Centre at Loughborough University, Prime Minister Gordon Brown was briefed on the company's breakthrough role in providing the power system for the world's first manned fuel cell-powered aircraft in 2008.

Intelligent Energy is focused on providing low carbon technologies – one of the areas identified as having potential to generate new jobs and economic growth. The prime minister praised the way in which IE had "broken new ground" in low carbon innovation.

▲ [www.intelligent-energy.com](http://www.intelligent-energy.com)

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## aerospace in the midlands

# Paris 2009



**T**his year's International Paris Air Show – Le Bourget has plenty to celebrate, and the Midlands Aerospace Alliance is once again joining in the occasion. In spite of the global economic environment, the world's biggest airshow has been able to announce it is fully booked with more than 2,000 exhibitors.

We are joined on our stand by MAA members representing the excellence and expertise for which the Midlands is renowned. In addition, visitors can pick up literature detailing the capabilities of more than 250 aerospace specialist companies based in the heart of England.

The MAA – the voice of companies in the Midlands region supplying global aerospace – looks forward to welcoming you to our stand at Le Bourget.

Visit us on Stand F101, Hall 2B:

- > **Air & Ground**
- > **Atlas Composites**
- > **Cooper Antennas**
- > **Cosworth**
- > **G&O Springs**
- > **Paul Fabrications**



# Paris 2009

## Total stock solution from Air and Ground

MIDLANDS-based Air and Ground backs up its claim to being an effective integrated solution business by providing quality aerospace products and logistics services in support of a variety of types, equipment and tooling.

Air and Ground's fresh approach to aviation support is geared to meeting its customers needs, and includes obsolescence

support, buy, store, supply or distribution, all backed up by an inventory exceeding one million lines and managed with the latest computer stock control system.

From bases in the UK, USA and Saudi Arabia, the company offers support to types including Lockheed Martin C-130 Hercules and P-3 Orion; Boeing CH-47 Chinook; BAE Systems Harrier and Hawk; Panavia

Tornado; Eurofighter Typhoon; Westland S-61 Sea King and Lynx; and AgustaWestland EH101 Merlin.

Air and Ground has approved suppliers including Bell, Rolls-Royce, MTU, Jenoptik, Beaver, Kidde, Barnbrook, EADS, Triumph, GKN, Boeing, MHD, Hale Hamilton, GKN Aerospace, BAE Systems, FFC and many more.

An OEM approved and accredited parts solution company, Air and Ground can offer through-life solutions to your programme. It is accredited to ISO9001:2000 and AS9120.

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## Atlas Composites flexes aerospace muscle

MIDLANDS firm Atlas Composites has plenty to shout about at Paris 2009. It is expanding on the back of new contracts and prestigious supplier approvals.

The Derbyshire-based manufacturer of carbon/glass/aramid fibre composite components and tooling for aerospace recently won new orders worth in excess of

£750,000 and is on course to beat last year's £2.8 million turnover.

In addition to its preferred supplier status with Lockheed Martin UK INSYS, the company is an approved supplier to Bombardier, MBDA, BAE Systems, Nordam and Meggitt Thermal Systems.

Managing Director Shaun Moloney said gaining the prestigious Lockheed Martin UK INSYS accreditation would add stability to Atlas and allow for more forward planning and subsequent growth.

But he isn't resting. Atlas continues to invest in plant and equipment with the acquisition of its second five-axis and third three-axis machines, increasing its capability as a composite component manufacturer.

Concept to construction capability is further supported by in-house CAD/CAM technology with the ability to receive any format of data, autoclaves, a clean room facility, CNC materials preparation and final inspection, all



Longbow radome tool.



Atlas staff loading the autoclave.

in accordance with AS9100 and ISO 9001.

The company has a well established and respected apprenticeship scheme and believes strongly in developing staff skills. The recent addition of three composite trainees takes its total workforce to 62, a year-on-year increase of more than one-third.

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# aerospace in the midlands

## Cooper Antennas on right wave length for military

SIGNIFICANT supply contracts with NATO and the US, British, Canadian and Norwegian military mark Cooper Antennas Ltd as a young company to watch.

Founded in 2005, Cooper Antennas is a rapidly expanding company

21-50-43 series dual and tri-band VHF/UHF blade antenna suitable for sub-sonic and supersonic aircraft.



rooted in innovation and reliability. It designs, develops and manufactures antennas and anti-static dischargers for the civil and defence aerospace industries.

Through close customer liaison, Cooper Antennas has gained a reputation for developing standard and custom solutions. "Our speed of solution, short lead time and manufacturing quality is underpinned by a team of internationally respected antenna professionals and our own 80ft antenna test range," said managing director Geoff Cooper. "In addition, we've just upgraded our accreditation to ISO 9001:2008, which shows our commitment to continuous quality and improvement."

The company has established itself as a significant supplier to the US Air Force, Army and Marines. Achievements include winning separately contested NATO, Canadian and Norwegian requirements for UHF satcom

antennas, lo-profile lo-band VHF airborne antennas for the UK Royal Navy, VOR/ILS antennas for Mach 2+ aircraft platform and static dischargers for the Lockheed Martin F-16. Recent awards include multi-platform CSAR UHF DF and blade antennas and a conformal VHF/UHF LOS and UHF satcom antenna for a USAF supersonic fighter.

Increasing demand for Cooper Antennas products necessitated its recent move into a 10,000sq ft modern custom-configured facility in Marlow, bringing together engineering laboratories, prototyping workshop, manufacturing and bonded store areas as well as programme management and sales administration functions.

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## Tradition of excellence drives Cosworth

COSWORTH is using its successful motor sport pedigree, performance technology expertise and globally recognised brand to provide high quality engineered solutions for a growing customer base in aerospace and across diverse industries.

The company's head office in Northampton is home to leading edge engineering, world class manufacturing and comprehensive test facilities which have enabled it to not only produce its own two-stroke diesel UAV engine programme, but also to offer its first rate, highly competitive, short lead time manufacturing facility to the outside world.

Its business is geared to delivering smart solutions and exceptional service to customers around the world.

Over the years Cosworth has developed in-depth knowledge of engines, engine components and engine management systems. "Our unprecedented success in the perform-

ance market has fuelled customer demand from diverse market sectors," the company says. In addition to the traditional markets, Cosworth is engaged in designing and developing engines and components for aerospace, marine and locomotive applications.

Quality engineering is embedded in Cosworth's processes, procedures and team ethic. Its dedicated workforce is focused on

providing high quality products and solutions to meet ever demanding customer needs.

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Issue

# Paris 2009

## G&O Springs throws down champagne challenge

G&O Springs is confident it knows its business – so confident in fact that the Midlands-based company is throwing down a challenge to Paris airshow visitors: if G&O can't solve your spring-related problem on the spot, they'll give you a bottle of champagne.

Managing director Steve Boyd says G&O



has worked closely with its customers at every stage of the design and manufacturing process for more than 30 years. "Our core competence lies with aerospace and other safety critical or precision applications. We pride ourselves on keeping our customers one step ahead of the competition."

If proof were needed, G&O recently won a 'best supplier' award from Aero Engine Controls in the hardware category.

Among G&O's customers are Aero Engine Controls, Goodrich, GE Aviation, Meggitt Aircraft Braking Systems, Meggitt Equipment and Ultra Electronics.

The company produces compression, extension, conical and torsion springs, as well as wave washers, manufacturing in sizes from 0.15mm to 14mm. It holds AS9100:B Quality Systems certification together with NADCAP accreditation for heat treatment.

"The services we offer are varied but they



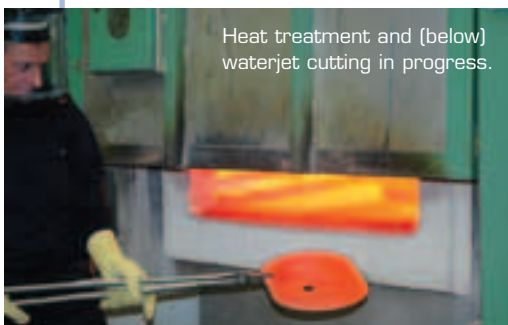
Heat treatment and (left) testing.

also constantly evolve as we seek better ways to service our customers and improve our product," said Steve. "As a general rule, if it's a spring we can make it!"

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## Expansion on track at Paul Fabrications



Heat treatment and (below) waterjet cutting in progress.

time, which greatly exceeds industry standards. This, together with its 37 manufacturing processes in-house and five NADCAP approvals, has helped Paul Fabrications in securing a £20 million contract over five years with Rolls-Royce, supplying a variety of components in numerous Rolls-Royce engines manufactured in Derby, Germany and the USA.

Paul Fabrications managing director Ingard Sagstad said: "This contract shows that by investing in innovation technologies, facilities and work practices, we can compete with low cost economies. It is a clear indication that our investment has paid dividends."

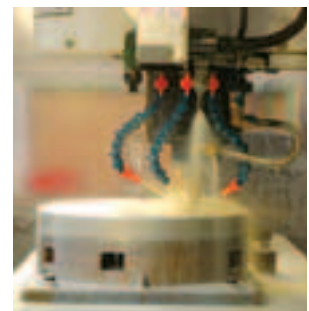
Precision Laser Processing has continued to increase its aerospace business. A new twin head waterjet cutting machine complements its CO2 and Yag 5 axis laser cutting machines and it has also added folding capacity.

The group continues to work towards

environmental goals (ISO 14001) and has already demonstrated dramatic reduction in its carbon footprint since 2004. Paul Fabrications was shortlisted as one of the 60 best 'green' companies in the Sunday Times Green List 2009.

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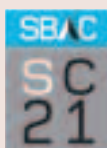


FOLLOWING the successful showing at the Farnborough airshow in 2008, Paul Fabrications and Precision Laser Processing – both Midlands-based divisions of the Paul Holdings Ltd group – are continuing with their expansion plans in 2009.

Paul Fabrications has continued to expand its capabilities with the latest CNC machinery and production management control systems, which has culminated in components being delivered on time consistently, averaging better than 97 per cent on-

# aerospace in the midlands

## MAA awarded new contract for SC21 support in East Midlands



THE MAA has been awarded a significant new contract by *emda*, the East Midlands Development Agency, to ensure that aerospace and defence suppliers in the region benefit fully from the national 21st Century Supply Chains (SC21) programme. More

details will be available when the project is launched in the summer.

"We are delighted that *emda* is putting its resources into this support project," said Annette Oliver, supply chain director at Aero Engine Controls and chair of the MAA's own SC21 group.

"This is one of the most important national industry initiatives in many years, and now the MAA will be able to work closely with the Manufacturing Advisory Service (MAS) and other partners in the East Midlands to help many more companies participate and reap the rewards."

The MAA will also ensure that SC21 support is coordinated across the East and West Midlands, and is working under a another contract with MAS-West Midlands.

▲ [www.emda.org.uk](http://www.emda.org.uk)

## Maximising Midlands resources to reduce impact of downturn

OVER recent months the MAA Board has been readying plans to support the Midlands aerospace cluster through the economic downturn. The MAA's five-point plan is designed to maximise use of the region's collective resources:

- **Provide forecasts**
- **Help members share experience**
- **Re-focus existing support projects: diversify markets, retain people, reduce costs, access finance**
- **Clarify where companies can get help**
- **Measure the effect of the downturn and inform government**

The recent West Midlands aerospace cluster forum and MAA members meeting (*see page 4*) saw the plan in action with forecasts from Rolls-Royce, Thales and Professor Andrew Walker, networking and discussion to share experience, and presentations on support from the MAA, MAS and Business Link. The group is already working with individual members to help them access finance where required. The MAA's weekly electronic newsletter, sent out to the entire MAA database, will keep members abreast of latest developments.

▲ [www.midlandsaerospace.org.uk](http://www.midlandsaerospace.org.uk)



The Arrowsmith team and advisors.

## Arrowsmith investment tees up strong future



PLANS for a £1.85 million expansion have been announced by Coventry-based Arrowsmith Engineering.

Arrowsmith says the expansion, in partnership with the Manufacturing Advisory Service – West Midlands (MAS-WM), Coventry City Council and Advantage West Midlands (AWM), will improve its productivity and competitiveness.

The investment is supported by a £98,000 Selective Finance for Investment (SFIE) grant from AWM, the regional development agency. It is also working with MAS-WM and the SC21 programme, which provides a package of support for manufacturers.

MAS-WM commissioned a study that analysed Arrowsmith's requirements and then matched the results to the machines and equipment in the market.

The expansion is part of a five-year investment plan, which has seen Arrowsmith's spending reach more than £520,000 in the past three years. Improvements have already been made in the grinding section and inspection laboratories.

▲ [www.arrowsmitheng.co.uk](http://www.arrowsmitheng.co.uk)

## Submarines take SC21 tip from aerospace



THE success of the SC21 programme for UK aerospace and defence has inspired a spinoff in the maritime defence sector, led by Rolls-Royce Submarines.

The Midlands-based engine maker, whose powerplants dominate the UK submarine flotilla, has been instrumental in creating the sector's own SC21 Supplier Engagement Programme, which was launched for more than 20 of its suppliers at a recent conference in Coventry sponsored by the MAA together with the Manufacturing Advisory Service and consultants TEC, who are SC21 strategic partners. Speakers from Rolls-Royce, Ultra, BAE Systems and the MoD extolled the virtues of SC21 as a system to improve business performance to the benefit of all parties. Speakers from the MAA and MAS reviewed funding support available,

and TEC's lead practitioners explained what SC21 means to suppliers.

"This is the first time that UK industry has had a co-ordinated supplier-driven approach throughout aerospace and defence," said Iain Low, Rolls-Royce Submarines supplier development and quality manager. "[SC21] is a well-structured programme which addresses operational, strategic and cultural issues."

He said participating companies stood to gain the most from this "intelligently constructed" programme which has demonstrated that it strengthens supplier credibility with a wide range of customers.

MAA chief executive Andrew Mair commented: "We look forward to working closely with key customers in the submarines business to implement the programme successfully."

▲ [www.rolls-royce.com/marine](http://www.rolls-royce.com/marine)

## Rolls-Royce wins first Saudi airline contract

ROLLS-ROYCE is to supply Trent 700 engines to Saudi Arabian Airlines in a contract worth more than £600 million – the first time that the airline has selected Trent engines. The contract begins early next year and will see Rolls-Royce power eight aircraft (with an optional further four).

The Derby-based company has also signed a long-term TotalCare engine service agreement worth more than \$350 million (£231 million) with Mexicana Group. The agreement covers 25 newly leased Boeing 717-200s, powered by Rolls-Royce BR715 engines, and operated by Mexicana Group's low-cost subsidiary, MexicanaClick.

In another boost for Rolls-Royce's defence engine work, the GE Rolls-Royce Fighter Engine Team has completed its recommendations to the Joint Strike Fighter Program Office and the Australian Department of Defence for maintenance and repair of F136 engines for future F-35 Lightning II aircraft.

▲ [www.rolls-royce.com](http://www.rolls-royce.com)

## Black Country firm defies downturn

A MIDLANDS firm is leading the charge against the economic downturn after racking up record global sales for its hi-tech machines last year.

Indentec Hardness Testing Machines designs and makes devices to test the hardness of metal. Among its customers are GE Aircraft Engines, which uses an Indentec-built low-load system for testing jet engine turbine discs.



From left: Dean Doherty, global purchasing executive for Rolls-Royce, with Paul Fabrications finance director Alan Turner and managing director Ingard Sagstad.

PHOTO: DERBY TELEGRAPH

## Paul Fabrications nets major components deal

DERBYSHIRE company Paul Fabrications has agreed a £20 million contract to supply engine components to Rolls-Royce. The five-year deal is likely to be worth between £3.5 million and £4 million each year until 2014.

As part of Rolls-Royce's service agreements with airlines, Paul Fabrications will manufacture replacement parts for engines already in service.

The deal has secured the long-term future of Paul Fabrications' 130-strong workforce.

Managing director Ingard Sagstad said: "Highly-skilled work will be involved in producing the parts, which is what differentiates us from competitors in the Far East and Eastern Europe."

▲ [www.paulfabs.co.uk](http://www.paulfabs.co.uk)

Building on a record year, which saw the company sell more than 275 machines in 2008, Indentec is hoping for a £2.5 million turnover this year.

▲ [www.indentec.com](http://www.indentec.com)

## Airbus approvals give boost to manufacturers

MIDLANDS expertise has received international recognition with two manufacturing and engineering businesses achieving a host of Airbus approvals.

Nottinghamshire-based Bulwell Precision Engineering Ltd supplies the global aero-

space industry with machining, assembly, surface treatments, testing, repair and overhaul.

The business's recent Airbus approvals cover machining, non-destructive testing, protective treatment, testing, assembly, miscellaneous manufacture and processes and material control.

Meanwhile, Coventry-based Colledge and Morley, specialists in the manufacture of precision gears, achieved approval for all Airbus SAS sites for build to print, screw thread, gear and spline cutting, grinding, NC machining, CNC machining and broaching.

▲ [www.bulwell.co.uk](http://www.bulwell.co.uk)

▲ [www.colledgeandmorley.com](http://www.colledgeandmorley.com)

### TECHNOTES

COMPONENTS manufacturer **Precision Micro** is using high precision etching instead of the conventional stamping to produce custom laminations and stacks for use in high-end aerospace electric motors. The digital tooling used in the process enables prototypes to be produced in hours rather than the months it could take to manufacture a press tool, and at much lower cost.

▲ [www.precisionmicro.com](http://www.precisionmicro.com)

NORTHAMPTONSHIRE-based ceramic aerospace component manufacturer **Morgan Technical Ceramics Certech** (MTC Certech) has introduced a new core material, designed for core stability and lower casting costs. MTC Certech developed the material, P52, to

maintain rigidity and provide tight dimensional and geometric control during the casting of turbine blades with high temperature super alloys.

▲ [www.morgantechnicalceramics.com](http://www.morgantechnicalceramics.com)

**Diamond Hard Surfaces** has opened a site in Northamptonshire to offer a rapid coating service with its innovative new carbon coating for engineering components used in extreme, arduous environments. The company describes its patented coating, Adamant, as a thick, hard, amorphous, diamond-like carbon coating that possesses a unique combination of surface properties. The company is currently working on test programmes for aerospace components.

▲ [www.diamonddhardsurfaces.com](http://www.diamonddhardsurfaces.com)

# aerospace in the midlands

## Conekt lands role in SATURN development

SOLIHULL-based TRW Conekt's technological capabilities has won it a role on a 100-day development contract with the UK Ministry of Defence (MoD) to further enhance the autonomous reconnaissance system, SATURN.

SATURN comprises unmanned air and ground vehicles linked to a ground control station, which successfully headed off competition in the 2008 MoD Grand Challenge. The innovative solution employs optical, thermal and radar sensors to identify and classify a range of threats within complex environments.

The team behind SATURN is led by Stellar Research Services and includes Blue Bear Systems Research, Cranfield University, Marshall SDG and Selex Galileo.

TRW Conekt's work involved extending the capability of the radar threat sensor, which is unique to the Stellar team.

▲ [www.conekt.net](http://www.conekt.net)

## Coventry firm to supply Mideast chemical plant

A COVENTRY-based company has secured a £4 million contract to supply an aerospace process facility for Saudi Arabia.

Plasticraft, part of the Chemical Engineering Division of Norman Hay plc and one of the UK's top suppliers of surface treatment equipment to the aerospace sector, was awarded the contract by Messier Services UK.

The new chemical processing shop is for the repair and overhaul of landing gear for both narrow and wide-bodied aircraft.

This turnkey project includes all process tanks, overhead crane systems for component

handling and transfer, process solution conditioning equipment, DC electroplating supplies, water and effluent treatment, fume extraction and abatement and all interconnecting electrical and pipe work services.

Plasticraft personnel will carry out the plant installation, commissioning, and operator training, along with ongoing service support at the end user facility in Jeddah.

Paul Clifford, managing director of Messier Services UK, said Plasticraft's package "was comprehensive and met all our expectations."

For Plasticraft, managing director Mike Priddle said: "This contract, along with other major aerospace projects, provides a healthy order book well into 2010."

▲ [www.plasticraft.co.uk](http://www.plasticraft.co.uk)

## Redditch firm eases pressure on Hawk

NEWBOW Aerospace of Redditch, Worcestershire, has designed a specialist landing gear strut inflation and deflation tool for the BAE Systems Hawk jet trainer.

Newbow says the tool will enable operators of the Hawk, which runs very low strut pressures, to set the correct pressure to within one per cent accuracy, ensuring smoother takeoffs and landings and longer tyre life.

▲ [www.newbowaerospace.com](http://www.newbowaerospace.com)

## Novel way of attracting young Midlands talent

MORE than 500 Midlands students got the chance to test-drive Boeing CH-47 Chinook helicopter and Eurofighter Typhoon flight simulators as part of a revolutionary open day designed to promote careers in aerospace.

RAF Museum Cosford's Engineering and Information and Communication Technology (ICT) Excellence Day in March was aimed at students aged between 14 and 24.

The event gave students from schools and universities in Shropshire and throughout the West Midlands the chance to meet members of the vari-



Technology for enquiring minds: engaging students at RAF Cosford Museum.

ous training squadrons based at Cosford, including airframe, propulsion and communications technicians.

Equipment on display also included the cockpit of state-of-the-art aircraft, the latest jet engines, radio/radar equipment and computer systems.

Flight Lieutenant Ross Clarke, who organised the event, said: "This has been a marvellous opportunity for students to see how science and technology are influencing engineering today. Staff from Cosford and two other defence colleges have worked hard to get the message across that working in the varied fields of engineering and technology provides an exciting, interesting and rewarding career".

▲ [www.raf.mod.uk/dcaecosford/](http://www.raf.mod.uk/dcaecosford/)

## Training takes off at Pattonair

DERBYSHIRE-based Pattonair, a distributor of aerospace parts, has appointed Corporate College – the business arm of Derby College – to improve its employees' IT skills.

Following a successful pilot scheme, 30 Pattonair staff will undergo the training, which leads to an NVQ qualification.

Corporate College's work with Pattonair is part of a UK government-funded support package to help businesses survive the economic downturn.

Pardip Dhanjal, customer logistics analyst, said: "We have seen increased efficiency and are confident the training programme will reap further improvements for the company."

▲ [www.pattonair.com](http://www.pattonair.com)



Full spec: Plasticraft chemical processing shop.

## NEW MEMBERS...

The MAA welcomes the following new Full and Associate members:

### FULL MEMBERS

#### **Aerotherm** – Stoke on Trent

Curing, drying, heat treatment oven/dryer systems.

#### **Alloy Wire International** – Brierley Hill

Manufacturer of wire (round, shaped and flat) in nickel alloys.

#### **Bauer Springs Ltd** – Redditch

Springs from wide range of exotic materials.

#### **Chinn Ltd** – Coventry

Low volume high variety complex components, machined and sheet metal.

#### **Colledge & Morley Ltd** – Coventry

Manufacturer of high precision gear and spline related products.

#### **Doughty Precision Engineering Ltd** – Nottingham

Sub-contract machined parts.

#### **Edwards Precision Engineering Ltd** – Birmingham

Precision engineering.

#### **Hockley Pattern & Tool Co Ltd** – Halesowen

Toolmakers.

#### **JJX Small Haul** – Stourbridge

Logistics specialists including same day courier service.

#### **Longwear Products** – West Bromwich

Stainless, nickel and cobalt alloys for investment casting.

#### **Matched Resource** – Holbeach

Matching of suppliers to customer requirements.

#### **Pro-Tek Engineering** – Bidford on Avon

Precision components, assembly and rapid prototyping.

#### **S & J Precision Ltd** – Barwell

CNC component manufacturing and jig/fixture production.

#### **Samuel, Son & Co UK Ltd** – Brierley Hill

Wide range of metal processing services

#### **W.G. Eaton Ltd** – Birmingham

Heat resistant products and heat protection problems.

#### **Winbro** – Coalville

Machining systems for gas turbine manufacturing.

### ASSOCIATE MEMBERS

#### **BHR Group Ltd** – Cranfield

Research, test and development for fluid dynamics.

#### **Sorby UK Ltd** – Sheffield

Manufacture of cutting tools.

## IN BRIEF

**Mettis Aerospace** of Redditch has joined the £25 million Advanced Forming Research Centre in partnership with the University of Strathclyde, the Scottish Executive, Boeing and **Rolls-Royce** to develop forming and forging technologies to support new products in aerospace, energy, marine and automotive industries. ■ Midlands-based **Delcam** has been chosen to manage a £1 million project called RECLAIM to develop improved methods for remanufacturing high-value engineering components. ■ Derbyshire-based **NDT Services**, a provider of non-destructive testing and inspection, has completed a successful NADCAP audit with zero findings. ■ Coventry-based manufacturer **PowerKut** has acquired a new length calibration machine, described as the most accurate available, for its UKAS-accredited calibration laboratory. ■ Worcestershire firm **Micro Spring and Presswork** has attained AS9100 and NADCAP accreditations. ■ **Applied Group**, the Leicestershire supplier of product lifecycle management (PLM) solutions, is Dassault Systèmes top performing reseller for 2008. ■ Coventry-based **Hitex UK Ltd** has developed a high-performance processor module capable of continuous running at 150°C. ■ **Bodycote Testing Group's** metallurgy laboratory in the Midlands has received NADCAP approval for a range of tests including tensile, stress rupture, hardness, impact, specimen machining, metallography, intergranular attack (IGA) and intergranular oxidation (IGO). ■ MAA member **MGR Fluid Power** has boosted its capabilities to include the design and manufacture of hydraulics systems.

## 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](mailto:info@midlandsaerospace.org.uk).

## Contact the MAA

If you have a query or suggestion that you wish to make, please contact the MAA by any of the means below:

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F: +44 (0) 845 225 0504

E: [info@midlandsaerospace.org.uk](mailto:info@midlandsaerospace.org.uk)



midlands aerospace alliance

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**G/O** SPRINGS LTD are exhibiting at The Paris Airshow 2009

As part of this we are inviting you to bring along any spring design or technical problems you may have to stand F101 where our technical team will be on site to help solve any issues you may have.

This is a once in a lifetime chance to have your spring designs checked with **no obligation**.

On site we will have the capability to design compression, torsion, extension and conical springs, as well as being able to give advice on all aspects of spring production and supply.

If you bring along a problem we cannot solve on site you will receive a **FREE BOTTLE OF CHAMPAGNE!**

We look forward to meeting you at The Paris Airshow 2009



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midlands aerospace alliance

# ATLAS

COMPOSITES



## Atlas Composites... reinforces position with Lockheed Martin UK INSYS.

East Midlands firm Atlas Composites has plenty to shout about at Paris 2009. It is expanding on the back of new contracts and prestigious supplier approvals.

Derbyshire-based Atlas Composites has retained for the second year its Lockheed Martin UK INSYS Bronze award, and status as **the only UK preferred supplier of composite components to the defence contractor.**

Managing Director Shaun Moloney said "Gaining the prestigious Lockheed Martin UK INSYS accreditation would add stability to Atlas and allow for more forward planning and subsequent growth".

Atlas has increased its work force by over a third within the last twelve months and plans further expansion.

In addition to its preferred supplier status with Lockheed Martin UK INSYS, the company is an approved supplier to Bombardier, MBDA, BAE Systems, Nordam and Meggitt Thermal Systems.



**48<sup>th</sup> International Paris  
Air Show - Le Bourget  
JUNE 15<sup>th</sup> - 19<sup>th</sup> . 2009**



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**Our stand is LOCATED IN HALL 2B in the UK PAVILLION  
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