

MIDLANDS EROSPACE

ISSUE 43. SPRING 2017

MAGAZINE

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END-USERS PRAISE NATEP INNOVATION

Projects pay off for suppliers and customers alike - pages 12-13



ONLINE: WWW.MIDLANDSAEROSPACE.ORG.UK/NEWS

→ David Danger is managing director of Marston Aerospace, a UTC Aerospace Systems company.

→ Peter Smith is chief executive and chairman of Nasmyth Group.

→ Clive Snowdon is a director of the Luxfer Group and a trustee of Stratford Town Trust.



WHAT DOES THE FUTURE HOLD?

I wish to thank the board for its confidence in selecting me to succeed Clive Snowdon as chairman. Clive has done an outstanding job in that role over the last eight years. He takes with him into semiretirement the thanks and best wishes of all the board.

Our industry faces challenging times in an unsettled environment. Now more than ever we need to be clear on our strategy and direction. That's why my first task as chairman will be to work with the MAA board and management team to work out in detail how we see the next five years unfolding.

The MAA exists to serve all its members. Whether it's technical support, marketing information, business development opportunities, airshows, market intelligence, changes in regulations or anything else, we need to take this opportunity to define what it is our membership values, and make sure we provide it.

Our mission is to help the Midlands aerospace industry develop and thrive. One area where the MAA has excelled for more than a decade is in supporting member companies to develop their own technology and IP – as NATEP did.

Now we need to start thinking about innovative new ways to support members to develop new technologies and IP – along with the other capabilities they need to compete in today's global economy. As always, we welcome feedback from members to learn what your MAA can do for you. We encourage you to participate in events and to network to get the most out of your membership.

DAVID DANGER, CHAIRMAN

I thank the MAA board for electing me vicechairman and look forward to working with my fellow directors and the MAA management team to support our members by maximising their business and growth opportunities.

The MAA ensures that the Midlands voice is heard throughout the aerospace industry. We welcome feedback and suggestions from members to help us fulfil this important function.

PETER SMITH, VICE-CHAIRMAN

David Danger

Peter Smith

MAA IS 'RESILIENT AND IN GOOD SHAPE'

My chairmanship of the MAA has been a very interesting and rewarding eight years. During that time, behind the scenes the board has steered the organisation through various challenges – the spin-off from PERA, the demise of the RDAs, an ERDF funding dispute.

The transition to generating our own income was always going to be a challenge. Among new commercial activities, our annual conference has been a welcome success, and we have our loyal membership to thank for their continued support.

The technology programmes ATEP and NATEP have been a large part of the MAA's focus for a number of years. The challenge for my successor will be working with the MAA board and management team on refashioning the MAA strategy yet again.

I got involved in the MAA in the first place because I felt it was important and I saw areas where I could help. I'm proud of what we achieved during my chairmanship and I would encourage others to consider how they can help too.

> CLIVE SNOWDON, PAST CHAIRMAN





Meeting of minds: delegates gather for the European Aerospace Cluster Partnership annual congress in Portugal.

aerospace clusters are members of the EACP

15 European and non-European countries are represented in the EACP network The MAA has become the latest member of the European Aerospace Cluster Partnership (EACP), an organisation focused on strategic collaboration and exchange.

The partnership's 40 members include aerospace cluster bodies in 15 EU and non-EU countries. The MAA is among the biggest organisations in the network.

Network coordinator Anna Maassen said one of the drivers behind EACP, which grew out of a European project to encourage industry clusters, was to create a focal point for the European aerospace supply chain.

"The aerospace community is compact," she said. "We have only a few OEMs. It makes sense to team up to share ideas, solutions and how to better support your own members.

"A nice thing about EACP is we're meeting as equals. There is a level of trust that underpins the organisation; everyone understands the common challenges facing clusters. That gives members the confidence to share and collaborate." Participation is what makes the EACP work, says Anna. "We don't want silent or invisible clusters. The more they put in, the more they benefit."

An important role of EACP is "old-fashioned networking" – introducing individual companies via their cluster organisations to the entire community.

Thilo Schoenfeld, Deputy Director of International Affairs for the Toulouse-based Aerospace Valley cluster, the world's biggest, said the MAA's joining was "good news for the entire network" of aerospace clusters. "From the European side, I'm pleased that the British are increasingly interested in the EACP initiative. They have a lot to contribute."

MAA Chief Executive Dr Andrew Mair said the MAA board is "keen that we continue to play our part in Europe's aerospace industry notwithstanding the referendum result for the UK to leave the European Union.

"We are looking forward to developing new relationships through EACP that can benefit our cluster and our region."

♦ NEWS ON THE WEB

CLICK THROUGH TO THE MAA WEBSITE FOR CURRENT NEWS ON MEMBERS' ACTIVITIES:

→ Rolls-Royce has won an order from Singapore Airlines worth \$1.7bn for Trent 1000 engines.

→ Demand for the etching services of Shropshire-based ACE is driving investment in equipment and staff.

→ MAA member and spring specialist **Advanex Europe** has been named UK national champion in the European Business Awards.

→ West Midlandsbased **AHT** has invested in its largest oven for aluminium heat treatment for work on the Bombardier C Series.

→ MSP has won Pattonair's supplier of the year award.



www.midlands aerospace.org.uk/news

MOOG'S MIDLANDS SITES SUPPORT BELL 525



Above and front cover: Bell 525 main rotor actuator designed and manufactured by Moog in the Midlands.

Midlands expertise from the Moog plant in Wolverhampton supports the world's first fly-bywire commercial helicopter, the Bell 525 Relentless.

Our sheer breadth of involvement in aero engine and control technology influenced the decision to stage the Aero Engine Forum in Birmingham in April (see page 7 for details).

Moog supplies triplex hydraulic main rotor servoactuators controlled by three

separate servovalves. The actuators are connected to the helicopter's swashplate, which controls the pitch of the main rotor blades, thus providing the aircraft with directional control in all three axes.

The actuators are designed and manufactured in Wolverhampton.

Another MAA member, Comar, designed and built two test rigs for qualification and production acceptance of the actuation system.





Picture courtesy Arrowsmith Engineering

OPPORTUNITY KNOCKS

1 JUNE IS THE SWITCHOVER DATE FOR AS9100. EVERY QUALITY MANAGEMENT (QM) AUDIT AFTER THAT WILL BE CONDUCTED IN ACCORDANCE WITH THE NEW STANDARD, REVISION D. KNOWING WHAT IT ENTAILS IS A MAJOR STEP TO KEEPING YOUR ACCREDITATION.

The MAA is holding regular workshops to give members easy and affordable access to specialists who will be able to explain what will be updated.

The consequences of not updating accreditation will be immediate and significant – Rolls-Royce and most other primes mandate that you have AS9100, said MAA manufacturing specialist Michael Cunliffe. "After June, you can no longer re-certify to the old specification.

"The majority of points they've introduced or clarified are things that most likely have been cascaded down from contracts with primes. In that regard, it's industry best practice.

"If you've kept current, AS9100 won't be a big step. If you had AS9100 only because a customer demanded it and you were trying to do the minimum to keep your AS9100:2016 continues the trend towards meeting customers' increasing expectations of quality and reliability.

DEADLINES

- 1 March from this date, all certified organisations should have provided their certification bodies with their intention to transition
- **1 June** from this date, all future audits must be to the 2016 standard.

certification, you'll probably have a lot to do now."

Cunliffe added: "We try to make sure members understand what 'current' is, and we feed back to various bodies about how the specifications impact on the lower tiers.

"People can lose sight of what it's trying to achieve, especially if they haven't embedded AS into their processes."

Auditors also have to behave differently under the new standard. "There's a lot more onus on them to understand your company," said Cunliffe. "Context is a lot more important."

Over the next year, the MAA plans to present a workshop on AS9100 every quarter to help make sure those who need to understand the standard have an opportunity to do so. "The better your level of understanding, the better the quality of conversation you'll have when you go to your quality certification body or work with a consultant."

The MAA seminars are designed to give members a neutral environment where they can talk to a certification body such as Kiwa about any concerns they may have.

Kiwa, an internationally recognised certification body, is supporting fellow MAA members by providing the resources for this training.

"Engineers need to constantly stay on top of new regulations, industry practice, efficiency models and safety systems," said Dr David Scrimshire, director of MAA member TEC Transnational, which offers courses on AS9100. Organisations can now define their own business context, operational processes,



policy and objectives to meet the requirements of their identified interested parties – and of course their owners and shareholders.

Tim Holmes (*below right*), Pattonair's director of Quality Eu Hub, said Revision D "empowers an organisation even further" in its use of process effectiveness measures to ensure customer satisfaction.

"The removal of the six mandated documentary procedures, even the quality manual, lets an organisation use its modern electronic systems to manage its business and meet its stakeholder requirements.

"This revision, with its focus on risk and project management, is a progressive move. For any organisation that had a modern process-based approach that passed Rev C, this is leaving the guardrails in place but finally removing the handcuffs.

"It unlocks things and empowers an organisation while focusing clearly on satisfying stakeholder requirements." 23

years since civil aerospace started using a standardised QM system with ISO 9001 (1994)



AS9100 AT A GLANCE

The industry has embraced AS9100 as a key tool for improving quality and on-time delivery within supply chains. Most of the major aircraft manufacturers require AS9100 certification for their suppliers.

The benefits of certification include a qualification to supply major manufacturers, easy integration into existing QM systems, access to best practices, enhanced marketability and access to global markets.

All standards go through regular updates to bring them in line with industry changes and developments in technology. Areas of focus for AS9100 include:

- \rightarrow Product safety
- \rightarrow Counterfeit parts prevention
- → Risk
- \rightarrow Configuration management
- → Awareness
- \rightarrow Human factors
- → Product realisation and planning
- \rightarrow Post-delivery support
- \rightarrow Project management
- → Design development and supplier management
- ightarrow Quality manual
- → Management representative requirement

Additional standards based on AS9100 include AS9110, which adds requirements for MRO, and AS9120, which adds requirements for stockists and distributors, including chain of custody, traceability, control and availability of records.





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THE HUMAN FACTOR

MANY BUSINESSES CLAIM THEIR PEOPLE ARE THEIR GREATEST STRENGTH. TO SUSTAIN THIS, THEY ATTRACT TOP TALENT FROM ALL CORNERS OF THE WORLD. WITH BREXIT POISED TO TIGHTEN IMMIGRATION FROM THE EUROPEAN UNION, HOW WILL COMPANIES AND THEIR EMPLOYEES COPE?

Commentators agree that uncertainty is the worst aspect of the months before negotiations on an exit deal start. Nowhere is that uncertainty felt more than in human resources (HR) as employers and employees face up to the possibility of losing freedom of movement.

ADS Group chief executive Paul Everitt said the industry needs a relationship with Europe that "retains access to the customers, suppliers, skills, R&D and influence that underpins the ability of aerospace to win in tough global markets."

"The UK needs to remain attractive and flexible to the best researchers and engineers in order to stay at the leading edge of innovation, which is why retaining freedom of movement is so important.

"From an operational perspective, problems are often solved by mobile teams operating at sites across Europe including the UK. Curtailing this through increased administration would prove costly and onerous."

MAA director Tony Tinley is East Midlands regional officer of Unite the Union. His main concern is the possibility that hard negotiating positions will cost jobs.

"It's a challenge for us," he said. "We're trying to make sure politicians of all parties understand what impact different results will have, to make sure some of the concerns we have for our members' jobs are addressed."



Many large aerospace companies rely on the flexibility afforded by free movement of labour, especially between France, Germany and the UK, to maintain their competitiveness. Others draw well-qualified engineers to the UK from Eastern Europe.

Additionally, Tinley said, there are "real concerns" around workers' rights contained in legislation such as the Working Time Directive (WTD) and Agency Workers Directive (AWD). Though European rules, they are effectively UK legislation and could be rescinded, leaving workers exposed. "It's not such a problem with the primes," he said, "but further down the food chain, where financial pressures become stronger, it could become a real issue."

Industries such as aerospace deal with long timelines in virtually every aspect of their commercial lives, and that perspective can be useful in the present situation. In the longer term, said Everitt, "industry needs to help and support government in achieving the best deal from Brexit negotiations."

KEEP POSITIVE, KEEP ENGAGED

What can employers do to reassure their employees? Plenty, writes Neil Cayley.

Communication with staff is vital to retention in these uncertain times. Acknowledge any fears they may have, get them engaged in plans for the future and celebrate success.

The psychological contract between employer and employee hinges on trust and mutual obligation; if you look after them, they will do the same.

Give prospective employees a positive candidate experience. The impression they get can dramatically influence their decision to join. Outsourcing the expertise to deliver this experience can be a real differentiator in a candidate-led marketplace.

Many businesses will need to adapt their operations to overcome challenges presented by Brexit. Contract staffing and interim management expertise can offer the flexible resource you might need without the risk associated with hiring on a more permanent basis.

Neil Cayley is aerospace, defence and aviation consultant with Jonathan Lee Recruitment.

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CONFERENCE THE MAA ANNUAL EVENT IN REVIEW

Main photo: Rolls-Royce's Rosie Toogood addresses the 2016 MAA conference in Coventry. Inset left: Keynote speaker Geoff Hunt, UTC Aerospace Systems, at the 2014 conference in Wolverhampton. Below right: the capacity audience at the inaugural MAA conference in 2012 in Derby.

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FUTURE BURECTIONS

The future of aero engines and systems: what the supply chain needs to know

This year's MAA Annual Conference focuses squarely on the future of aircraft engine and associated technologies. It moves to Birmingham for the first time, and becomes Day One of the world's first big Aero Engine Forum event.

The conference takes a 360° view of the aero engine, from the perspective of the aircraft makers, the engine makers and the suppliers of associated mechanical, hydraulic, electrical and electronic systems. The programme features prominent industry executives from companies such as Europe's Airbus, Rolls-Royce and Meggitt, as well as US companies Boeing, UTC and Moog.

Industry experts will present their views on the technologies the sector requires for the future and the capabilities suppliers need if they are to benefit from the projected 20-year doubling in size of the civil airline market.

Meet our keynote speakers:





Robert Hupfer, General Manager Actuation Systems, UTC Aerospace Systems

Robert is General Manager, Wolverhampton Actuation Systems, the UTC Aerospace Systems strategic business unit which specialises in flight control actuation for aerospace and defense.

Before being appointed to his current position, Robert held leadership positions in Electronic Operations and Electric Systems at UTC Aerospace Systems in the US. Robert has 25 years of experience in the international aerospace and automotive industry in various leadership positions, has strong programme and engineering management capability, a clear focus on customers, and experience in the successful deployment of LEAN initiatives and disciplined profit and loss management.



Denzil Lawrence, Industry Collaboration Representative, Supplier Management, Boeing Commercial Airplanes

Denzil has a broad engineering background, with more than 25 years' experience in large and small organisations in aerospace, defence, marine, petrochemical and energy sectors. More recently he has been active in supply chain collaborations between industry, academia and government helping UK companies access, develop and make sense of emerging manufacturing technologies.

In his current role, Denzil works throughout the UK high value manufacturing supply chain, seeking out current and emerging capabilities, technologies and techniques that will improve the performance of The Boeing Company's UK and global supply chains.



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MIDLANDS AEROSPACE 09

CONFERENCE MEET OUR KEYNOTE SPEAKERS



Jonathan Murday, Director of Business Development and Programmes, Moog Aircraft Group

Jonathan Murday built a broad experience in the aerospace and defence manufacturing business at Roll-Royce, Smiths Aerospace (now GE), General Dynamics and Ultra Electrics before joining Moog more than five years ago.

In his current position. he balances the business and programme execution for a market segment of Moog Aircraft Group, working with many of the prime and Tier 1 Aerospace OEMs in engine and flight control. A firm advocate of the industry, Jonathan has been involved in the development of a number of STEM programmes within Moog and is widely engaged as an elected director of WEAF.



Steve Parker, Director of Engineering, Meggitt PLC

After completing a degree in electrical and electronic engineering, Steve spent 10 years as a design engineer and project leader at GEC Avionics, working on inertial systems.

He joined Meggitt Avionics in 1993 as product manager for the Meggitt Secondary Flight Display (SFD). He subsequently fulfilled senior technical management roles within Meggitt Avionics, including chief engineer and, from 2003, engineering director. He has been in his current role since 2011.

Steve has been engaged with many UK and European technology research programmes, and represents Meggitt in industry forums, committees and working groups within ADS, ASD, NATEP, IMG4, and the ATI.



Mark Scully, Head of Technology – Advanced Systems and Propulsion, Aerospace Technology Institute

Mark brings more than 30 years of experience gained in the aerospace sector to his role as head of technology - Advanced Systems and Propulsion at the Aerospace Technology Institute (ATI). He has previously worked for Rolls-Rovce in aero engine engineering and senior management roles. Before that, he worked for an airframer in a key propulsion engineering role to support development and certification of a family of regional jets.

Mark is a Fellow of the Institution of Engineering and Technology and a Chartered Engineer.



Colin Turner, Technical Exploitation Manager, Leonardo Helicopters Yeovil

A trained material scientist. Colin has wide experience in aerospace and engineering from roles with British Nuclear Fuels. Bodycote PLC and Leonardo Helicopters (LH). In his current role, he works on technology scouting, developing supply partnerships in experimental and innovation projects. Colin is also LH's SC21 leads manager and represents LH on the SC21 steering group and the supply chain working groups of the Aerospace and Defence Growth Partnership (AGP/ DGP) initiatives.

He is a director of the West of England Aerospace Forum (WEAF) and an active supporter of the iAero supply chain cluster project.



Mike Whitehead, Chief Engineer and Head of Programme – UltraFan™ Technologies, Rolls-Royce

Mike Whitehead joined Rolls-Royce in 1997 and has had numerous roles including engineering manager at Rolls-Laval Heat Exchangers, chief engineer for RR Naval Marine, and chief engineer for the Tidal Generation business.

He joined Rolls-Royce Aerospace as engineering executive for Structures and Transmissions Supply Chain Unit. responsible for component engineering of major gas turbine engine structures and the gas turbine power transmission components and gearboxes. In his current role, he leads development of a geared gas turbine design based on technology that could be ready for service from 2025.



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IEW FROM THE WESTMINSTER LOBBY

"Our ambition is to see more of the wealth we create more widely shared"

Sir John Peace, chairman of the Midlands Engine, welcomes the government's commitment to supporting a regional growth strategy.

Advanced manufacturing expertise is the bedrock of the Midlands economy. It is the driving force behind the Midlands Engine, a government-led initiative launched in 2015 which I am proud to lead.

Our region has 11.5 million people and a £200 billion economy – the largest outside London – that has expanded by 30 per cent since the recession. It is home to one of the world's major aerospace clusters with big companies including Rolls-Royce, Meggitt, Moog and UTC Aerospace Systems at its heart.

We are working harder than ever, together with organisations like the Midlands Aerospace Alliance (MAA), to build our collective identity, to develop our competitive offer, to promote the Midlands to the world and to attract people to join us here – to invest, to trade, to study, to work, to live. This effort has the backing of all nine of the region's Local Enterprise Partnerships (LEPs).

We welcome the government's Green Paper on a Modern Industrial Strategy. It underlines Westminster's commitment to the regions playing their full part in driving up growth and productivity.

Britain often has great ideas, but too often others have made more of them, creating more jobs and generating more wealth, profit and other revenues. Now is the time to start putting that right. The focus on the importance of international trade, playing to our strengths and enabling new sectors in all parts of the



country will deliver the high wage, high skill economy of the future.

We particularly welcome the strategy's emphasis on the value of a significant investment in an overhaul of technical education, which could have a big impact on reducing the severe skills shortages many employers are facing today.

A strategy that enables the regions to use their assets to better effect will make for a more balanced UK economy.

The government is soon to announce its Midlands Engine Strategy and associated funding, reaffirming its commitment to the region and how, with the Midlands Engine partnership, it sees the Midlands delivering growth and increased productivity. The government has already committed to investing in HS2 which presents a oncein-a-lifetime opportunity for growth and "Alongside plans to improve infrastructure, there is also a £250 million Midlands Engine investment fund for small businesses, using EU money."

regeneration and will form an important part of a Midlands-wide transport strategy.

Alongside plans to improve infrastructure, there is also a £250 million Midlands Engine investment fund for small businesses, using EU money, and six of our universities have formed an innovation partnership.

Attempts to attract inward investment have had some success. Foreign investment in the Midlands grew 130 per cent between 2011 and 2015.

Our ambition is to see more of the wealth we create more widely shared, giving more people the opportunity to get good jobs, to make the most of their talents and to improve their personal circumstances.

Now is a great time to amplify the ability of the Midlands to contribute to UK plc and to champion our industrial, commercial, economic and cultural assets.

We look forward to engaging with the government's consultation process in the coming months.



www.midlandsengine.org



The National Aerospace Technology Exploitation Programme (NATEP) has had the active support of all the major players in UK aerospace. Spokesmen for big companies explain why it is such a valuable programme for the health of the industry.



"We need to develop a lot of technology across a wide range of fields," said Robin Hill, Global Sub-function Head of Controls at **Rolls-Royce**. "Obviously we can't possibly do it all in-house.

"NATEP was a good construct to enable us to inform and guide the supply chain, and benefit from the results of their development."

Hill cited the programme's reach into the supply chain via the regional aerospace alliances as crucial, and their employment of technology managers as particularly valuable by taking on the detailed management of technology projects. That left companies such as Rolls-Royce, acting as end-user, to "steer the formation of the project to the requirements that we needed the supply-chain to satisfy." **Airbus**, through its various divisions, is the designated end-user in 20 NATEP projects, the most of any company.

Simon Wadey, R&T Partnerships Manager at Airbus, said one of the key factors in the company's strong support of the current NATEP organisation and funding model is that "it has enabled Airbus to work closer with UK SMEs of all sizes and support the development of their great talents."

NATEP, he said, helps Airbus to steer and direct SME projects with a "light touch". This is only possible due to the strong collaboration between NATEP's management team, technology managers and the regional aerospace alliances such as the MAA.

"The regional aerospace alliances' involvement in NATEP also gives Airbus visibility of the UK capabilities in greater detail, highlighting opportunities with companies we would perhaps otherwise not be aware of," he added.

Wadey credited NATEP with helping build relationships with SMEs. "In the short term, [NATEP] allows us to give SMEs visibility of the real challenges we are presented with in their areas of expertise. It also allows us in the short term to assess an SME's performance and capabilities in an environment that allows them to continue to be creative.

"In the long term, if a NATEP project is successful, it gives us the confidence to build the companies into our larger research projects that will deliver technologies to our future products."

Hill expected to see the benefits flowing directly from the 12 projects supported by Rolls-Royce as they conclude. As an internal champion of individual technologies, he would "absolutely" support further NATEP projects.

Part of NATEP's value, he said, has been in demonstrating what's achievable in terms of SME innovation. "Right now I'm interested in understanding how we continue to stimulate the supply chain."



Experts from a broad range of customers support projects to ensure there is a route to market for bottom-up innovations



Toby Hutton, manager of Friction and Structural Materials at **Meggitt**, traces his involvement to the MAA's original ATEP, the precursor to NATEP, when he managed a small project researching ways to increase brake life on aircraft. "The experience left me in no doubt that we would be back with other project proposals," he said.

Hutton was invited to join the Regional Advisory Panel (RAP) for NATEP in the Midlands area and found the role quickly developing into

a rewarding part of his job. "Meeting about once per quarter, we assess a wide variety of projects from the Midlands area, which in global terms is a large hub for aerospace industrial activity. Of course when our company is involved in a project I have to leave the meeting room to avoid conflicts of interest.

"NATEP is excellent at drawing in SMEs and sometimes larger organisations that might have not considered aerospace before," said Hutton. "The expertise that NATEP and the MAA supplies gives these firms confidence and a vehicle through which to drive their R&D.

"NATEP brings impactful benefits to the aerospace sector in the UK as well as to the wider UK economy."

NATEP has been a very exciting activity. My role as chairman of the South-West Regional Advisory Panel (RAP) is hopefully to corral some of these key businesses and others and the people who come in with new ideas. We've

been very successful but it's only the start of the journey. We need to continue.

Jim Godman, GKN Aerospace Global Head of Engineering Integration



1 wi

www.natep.org.uk

PROFILE VIEW FROM THE MAA BOARDROOM

66 Aerospace is reticent to talk about itself. I'd like to see that change.

The aerospace industry and its many achievements are the best possible advertisement for new young talent, says Tony Tinley, East Midlands regional officer of Unite the Union.

HOW DID YOU GET WHERE YOU ARE TODAY?

It's strange as a trade unionist to think about yourself and not the collective. I did my apprenticeship as an instrument mechanic at Rolls-Royce, became a shop steward at 22 – which is quite young – and chair of the shop stewards' committee at 34. I started full-time with the union in 1998 as an organiser and from there became an industrial officer, which got me involved in negotiations and with organisations like the MAA.

WHAT'S BEEN YOUR MOST MEMORABLE ADVICE?

I had one colleague who advised me to always keep biscuits in the car – probably not the best of advice but we travelled all the time so it served a purpose. More important was what a senior steward told me. "Always listen to your members and make sure you keep in step with them," he said.

WHAT HAS EXPERIENCE TAUGHT YOU THAT YOU WOULDN'T GET FROM A BOOK?

Most of my education has been through trade unions. One thing I learned is the deal's not done until it's completed. In our case, that's with the membership ballot. I found out the hard way you can get sucked into negotiating and forget the core principles your membership sent you in with. It's an easy trap to fall into: focusing on getting a resolution, sometimes you forget your 'red line'.

WHO IS TODAY'S TYPICAL UNION MEMBER?

People have a certain perception, and it's a myth: a bloke in a boiler suit and hard hat holding a spanner. Nothing could be further from the truth. Today women outnumber men in union membership. They typically are educated to GCSE level and above



"People have a certain perception [about trade unionists], and it's a myth: a bloke in a boiler suit and hard hat holding a spanner. Nothing could be further from the truth. Today women outnumber men in union membership "

and work in technology or a professional environment.

The other significant change was the legislation in 1998 that gave individuals the right to be represented in the workplace without a collective agreement. Now 30 per cent of the union's time is dedicated to working with people where there is no formal union recognition.

HOW DOES THE AEROSPACE INDUSTRY STACK UP FROM A UNION PERSPECTIVE?

Pretty well. It's heavily unionised. I think there's a clear link between that and being one of the most successful sectors in the economy because people with an engineering mindset are constantly looking for practical solutions.

WHERE COULD AEROSPACE IMPROVE?

The general public tends not to see how big and important to the economy the aerospace sector is. There's a natural reticence to talk about itself. I'd like to see that change.

Many of the projects I've seen going on within the MAA membership are impressive. If people had a better understanding of the kind of work these companies do, they would have a better chance of bringing women and minorities into the sector.

WHAT KEEPS YOU AWAKE AT NIGHT?

After 20 years in this job, deadlines still keep me awake, as do the possibilities of big redundancies because of their potential impact on individuals, families and communities. It's not as much of a problem in aerospace as in some other sectors. Usually you can see what's coming and deal with it.

WHAT DO YOU BRING TO YOUR ROLE AS AN MAA DIRECTOR?

I think my perspective is slightly wider than that of most of my fellow directors who naturally have a point of view based on where their company fits in the sector. Since I'm not affiliated to a single company or group, I see the improvement and security of the sector in more general terms. And because we're constantly engaging with government at all levels, that's a tool we can help the organisation with.

I've been on the MAA board a few years and keep expecting to walk into a company meeting and see a fellow MAA director on the other side of the table. It hasn't happened yet.



FOR YOUR DIARY

ONLINE: WWW.MIDLANDSAEROSPACE.ORG.UK/EVENTS

CALENDAR

THE MAA ANNUAL CONFERENCE 2017

ICC, Birmingham, 18 April Prominent engine makers and first-tier companies will be putting forward the technologies and capabilities they need from their suppliers today and tomorrow.

AS9100:2016 WORKSHOP MAA offices, Coventry, June TBC

Learn about implementing AS9100:2016 which continues the trend towards meeting customers' expectations of quality and reliability within the aerospace and defence sector.

FIRST MAA ANNUAL DINNER

October/November Coming soon: look out for this exciting new event.

SECURING THE FUTURE OF AEROSPACE ACROSS THE UK Woodland Grange.

Leamington Spa, 25 May

A conference on working together for the benefit of UK aerospace priorities at a national and local level.

PARIS INTERNATIONAL AIRSHOW 2017 Le Bourget, Paris, 19-25 June

The largest airshow in the world once again will bring together all the players in this global industry around the latest technological innovations.

For further information and to book your place at an MAA event, please scan the QR code or visit www.midlandsaerospace. org.uk/events



ABOUT THE MAA...

The Midlands Aerospace Alliance (MAA) is the voice of companies in the British Midlands supplying global aerospace. Its 300 member organisations range from global aerospace players to SMEs. The MAA board comprises senior managers from Meggitt, Moog Aircraft Group, Rolls-Royce and UTAS Actuation Systems, elected



supply chain representatives and key regional partner bodies.

For additional copies of *Midlands Aerospace*, or to add your colleagues to the distribution database, please contact the MAA by any of the means below.

NEW MEMBERS

The MAA welcomes the following new members

FULL MEMBERS

ARTTIC Derby Management consultancy.

ASH & LACY

PERFORATORS Warley, West Midlands Manufacture of perforated, expanded and pressurised products.

BROMFORD

INDUSTRIES Birmingham Supply of precisionmachined components, fabrications and assemblies.

BUSCH UK

Telford Manufacture and supply of vacuum and lowpressure solutions.

DESTEC ENGINEERING Washingborough,

Engineering products

Viasningborough, Lincolnshire

EMS-CHEMIE (UK)

and services.

Stafford Manufacture of high performance polyamides. MEDLEY PRECISION ENGINEERS Mansfield Precision machining disciplines.

OPTIMA-UK *Leicester* Specialist recruitment.

ORSCHELN EUROP

Rugby Manufacture of motion control systems.

PAUL KIRK FORMING

Lincoln Solutions for manufacturing and product development.

PRECISION TECHNOLOGIES

INTERNATIONAL Tamworth Specialist CAD/CAM toolroom.

ESOURCE GROUP

Worcester Resourcing solutions supporting OEMs, operators and support businesses.

THE ACCESS GROUP UK

Lockington, Derby Production software for UK SME manufacturing and logistics. WMH UK Bromsgrove Solutions in aluminium.

ASSOCIATE MEMBERS

ADVANTAGE RESOURCING Basingstoke Specialised recruitment consultancy.

BEADLIGH

Witney, Oxfordshire LED lighting.

ED FAGAN EUROPE

Kingsbridge, Devon Supply of speciality metals, alloys and hardto-locate materials.

GMT RUBBER-METAL-TECHNIC

Leeds Supply of structure stabilising tie rods, antivibration mounts and shock control solutions.

INVESTMENT & PRECISION CAS

PRECISION CASTINGS *Gujarat, India* Manufacture and supply of investment castings.

Become a member of the MAA and join the 300+ other companies and organisations who are already enjoying the benefits of belonging to one of Europe's largest aerospace industry trade groups. It costs your company only £520 per year if you are in the Midlands or £725 if not.



www.midlandsaerospace.org.uk/join

If you have a query or suggestion that you would like to make, please contact the MAA. T: +44 (0) 2476 430250 F: +44 (0) 2476 430251 E: info@midlandsaerospace.org.uk





OVER 50 YEARS' EXPERIENCE IN **PACKAGING**

Wincanton designs, manufactures and supplies specialised protective packaging for the safe transit of equipment into the harshest of environments. Our in - house packaging manufacturing centres specialise in the production of containers that withstand the most extreme temperatures and rough handling. Our teams manage the complete packaging lifecycle, from the initial design and manufacture through to assembly, transport, offloading, packing, reloading and refurbishment.

To find out how Wincanton's packaging team can help you meet your packaging requirements, please contact us:

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