

PLANE TALK

SPRING 2022

The new dawn

Watchtower programme to support AEM sector in Lancashire as new chair begins.



PLUS: Members' news | NATEP Spring 2022 Call

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NWAA Chairman's spring statement

By Prof Andy Schofield

First of all, I am delighted to have the opportunity to provide my first input to the Plane Talk magazine.

I have to say that it is a great privilege and an honour to succeed Neil McKay as the new Chair of the North West Aerospace Alliance and I am thrilled to have been given the opportunity to be part of this influential and forward thinking organisation.

At this point, I would like to thank Neil for his contribution to the aerospace industry over the last 50 years, and particularly his 25 year association with the NWAA, the last 15 years as the Chair. Together with the Board of Directors and the membership, the NWAA has become an energetic force in the UK aerospace sector, something that provides solid foundations to build upon.

I would also like to announce that our CEO, Sharon McDonald, has decided to retire at the end of April this year. On behalf of the NWAA. I would like to thank Sharon for the leadership she has provided to the North West Aerospace Alliance. Over the last two years, she has led the organisation through extremely challenging times and provided the stability we see today.

The work the alliance does in supporting its members has made a significant impact on the success and prominence of our region as an industrial force in the UK's aerospace sector. We have a very strong industrial heritage here in the North West, one that I am extremely keen to see develop and grow well into the future.

We had some positive news at the end of last year with notification that the NWAA, in partnership with Aerospace Consulting Ltd,

had been successful with our bid to lead a significant part of the Lancashire Advanced Engineering and Manufacturing (AEM) Watchtower Programme. This is a fantastic opportunity to contribute to making Lancashire the most attractive location in the UK.

Businesses, academia and local government will have the opportunity to work together to provide the best location for AEM investment that generates high value employment and delivers sustainable growth contributing to net zero taraets.

We all recognise the impact the alobal pandemic has had over the last two years and the difficult times we have all faced. I believe the future provides us with some great challenges and fantastic opportunities and we need to ensure we are developing the skills and technical expertise in our workforce that will enable us to remain at the forefront of aerospace innovation.

My focus in the short term is to understand more about the alliance and its networks as well as work with the Board to set a strategy for the future. I will be able to share more on this in the next publication of Plane Talk. I am also really keen to listen to the voice of the membership and also the many stakeholders involved so I would welcome the opportunity to engage with you all at some point.

I am really looking forward to working with you all to help drive the aerospace industry in the North West forward and, hopefully, we can uncover some fantastic innovation and talent along the way.



I am sure all NWAA members are excited that the global civil aerospace industry is at last seeing the signs of recovery, with many commentators talking about a return to prepandemic levels of production. However, it is interesting to note that even prior to the pandemic, the industry had already experienced a 23 per cent fall in production from the 1,606 aircraft delivered almost equally by both Airbus and Boeing in 2018 to the 1,243 aircraft, mostly delivered by Airbus, in 2019

This was, of course, related to the worldwide grounding of the Boeing 737 MAX aircraft after 346 people died in two crashes. As the Covid-19 pandemic hit the world in 2020, this resulted in a further 42 per cent fall in aircraft deliveries with Airbus delivering 566 aircraft and Boeing just 157 aircraft, their lowest number of deliveries since 1984. Fortunately, global deliveries rose 32 per cent to 951 aircraft last year, while 1,680 new aircraft orders were placed in 2021, the most since 2018

Despite the first signs of the recovery in global deliveries. UK aerospace manufacturina remains more than 40 per cent down on the record 1,606 deliveries achieved in 2018, impacting on all parts of the supply chain.

During the pandemic the Lancashire Aerospace Task Force, on behalf of the Lancashire Enterprise Partnership, produced a recovery plan to help companies in the region to recover and grow.

The recovery plan, developed by the industry, identified opportunities to support companies through access to innovation, diversification, skills, and promotion support services. I am delighted to announce that NWAA will be working with aerospace consulting and community and business partners to deliver this exciting new Lancashire Advanced Engineering and Manufacturing Watchtower programme funded by Lancashire County Council.

The partners will watch out for those AEM companies of all sizes with the ambition and drive to diversify and access new customers markets, and to develop long-term relationships with Lancashire's extensive innovation eco-system, and to find and develop the new skills and talent to support their return to growth.

The Watchtower programme will also support the promotion of Lancashire's AEM sector both nationally and internationally by developing the provenance of the strengths and unique capabilities retained in the region. The partners will develop a new and comprehensive set of communications assets describing the strengths and capabilities of Lancashire's AEM Sector, and the aerospace sector in particular, which will be used to support a campaign for Lancashire manufacturing.

This is an exciting time for the NWAA team, and I am delighted that the organisation has been successful in winning this new two year programme. The Watchtower programme is an opportunity for NWAA to demonstrate its value to an AEM Sector at the heart of the North West.

Whilst I have been especially pleased to support the NWAA team to implement this new programme, it has also been a suitable time for me to reflect on my future. Some of you may know that I have had some issues with my health in recent months and I have decided to retire at the end of April and spend more time with friends and family. Over the last nine years I have thoroughly enjoyed my time working with NWAA and it has been my honour to represent this fantastic aerospace and defence industry in the North West of England. However, the timing is right for me and my family, and also for NWAA, with the Watchtower programme providing the next Chief Executive with the opportunity to make a huge contribution to our industry.

YOUR CONTENT

Please forward all content for future editions of Plane Talk to our editor at Freshfield, Paul Tustin.

⋈ nwaa@freshfield.com

01772 888400



OUR STAKEHOLDERS



Department for Levelling Up,

www.aerospace.co.uk

NWAA Chief Executive's spring statement

By Sharon McDonald

I would like to thank the chairs, Neil McKay and Andy Schofield, who have guided me and the NWAA's board of directors for their advice and backing. So many NWAA members have helped and supported me and, whilst I could not name them all, I am incredibly grateful to all of them. I feel confident that Andy and the board will appoint an excellent new Chief Executive and. together with the NWAA team, they will drive NWAA to another level.

I think the next two years will be an exciting time for the North West's aerospace and defence sector. I hope to see a recovery and strengthening of aerospace manufacturing in NWAA members that will enable our region to build international repute as a leader in this high value global industry.

The NWAA welcomes the following new members...

API Design & Build Burnley, Lancashire

www.apidb.co.uk

Beverston Engineering Prescot, Merseyside www.beverston.co.uk

Blue Sky Industries Derby, Derbyshire blueskyindustries.com

Kyal Machine Tools Market Harborough, Leicestershire www.kyalmachinetoo<u>ls.co.uk</u>

Satellite Couriers Colne, Lancashire www.satellitecouriers.co.uk

Technologies transforming Typhoon production



The Typhoon production line is being transformed through the introduction of new technology, an innovative spirit and effective collaborations across BAE Systems teams and key supply chain businesses.

Teams working on the project demonstrate the value of collaborative approach by driving forward change; sharing thoughts and ideas to create innovative, transformative techbased solutions to manufacturing problems.

The goal? To work together to explore and develop technological solutions which improve efficiency, reduce costs, enable our skilled workforce to add value and keep our region at the forefront of aerospace innovation.

The result? 3D animated work instructions, augmented reality, projected work instructions and the use of headsets. These innovative solutions are just some of the technologies being harnessed to help drive further efficiencies on Typhoon.

Each gantry is equipped with projectors that can live-track the build of avionic trays for the Typhoon aircraft, helping to guide the operator in the process they are carrying out. Designed for larger parts in the Typhoon aircraft assembly process, the gantry builds on the successful introduction of the intelligent workstation developed with the University of Sheffield's Advanced Manufacturing Research Centre (AMRC) and extends the team's ability to use technology on larger scale components and assemblies.

The gantry projector system puts the right information in front of the operator, actually on the part, it may also be colour coded, all to provide clear point of use instructions.

Just like the Typhoon aircraft, the gantry design has been future proofed to enable upgrading, ensuring further developments can be easily incorporated in the future.

The use of tablets that provide augmented reality information is also making things clearer for the production line worker and more intuitive to understand. When it comes to working in confined spaces on the airframe, newly developed headsets allow the fitter or electrician to work hands free, with the information they need projected in front of them or overlayed onto the 'real world'.

Much of this innovation is being born on the shop floor, with apprentices and time-served operators working together in developing, testing and also getting feedback which can be used to further hone the technology.



Neelofar Ansari, Senior Manufacturing Engineer helped to introduce the technology and said: "The labels they need to put in place as part of the process are overlayed, so the operator doesn't need to keep continually referring back to drawings. Here they can see it all in front of them."

The development of this technology originated from a challenge set by the operators to provide a solution to this traditionally difficult activity.

She says: "When operators start using the technology and we begin to get the feedback, that's when the project becomes really exciting, you find out how best to improve the technology to work for the operators and the job at hand."

The project has its roots in BAE System's Factory of the Future initiative where technologies are developed and often implemented in other areas of the business.

Key supply chain partners involved in the smart gantry system include UK-based Systems Integration specialists Fairfield Control Systems, Chorley based Lyndhurst Precision Engineering Ltd and French company Diota, a leading software provider in augmented reality solutions and the developers of the projection systems being used.





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Brookhouse Aerospace Invests in 3D Printing Capability

Brookhouse Aerospace is pleased to announce its first significant investment in 3D printing with the purchase of a Fortus 450mc from Stratasys, the global leader in 3D printing and additive solutions, materials and services.

The Fortus 450mc is a mid-range machine that is capable of printing a variety of complex components from a wide range of materials that meet the requirements of a number of applications. The range of materials includes Ultem 9085 which is approved for use within the aerospace and defence industry, and ideal for use with carbon fibre composites. The new machine has been provided by Stratasys' Derby-based platinum partner SYS-UK

The investment allows Brookhouse Aerospace to support the requirements from its aerospace and defence customers for low volume R&D projects.

Often, the challenge is to take a concept or idea to prototype phase in short lead-times and with often-fast changing designs. The 3D printing capability allows for a quick solution for the manufacture of low volume tooling and fixtures that would traditionally take weeks to design and manufacture. This allows a much guicker route for the manufacture of composite prototypes.

Brookhouse Aerospace CEO, Christopher Morris said: "We are very pleased to be able to offer this new capability. Our new Stratasys 3D printing machine provides the versatility we need when working with customers on new projects.

"We now have the ability to take a customer's idea and place a real part in their hands in days rather than weeks. This capability is a real step forward in supporting our customers' needs and again demonstrates Brookhouse Aerospace's commitment to supporting its current and future requirements"

Ian Pilkington, Brookhouse Aerospace Engineering Manager added: "We see this system as a means of providing solutions to our manufacturing challenges and requirements both internally and for our customers. The machine allows us to provide fixtures, intensifiers, press brake tooling, trim

tools and even high temperature mould tools. Being able to turn around our customer's requirements far quicker than going out to the supply chain and also provide a more cost effective solution is a massive tool in our arsenal. The possibilities for its use are endless."

Brookhouse Aerospace is an independent UK engineering and manufacturing business formed following an MBO from the US based Kaman Corporation in February 2021.

Originally founded in 1951 as a family business supplying metallics and tooling for foundries, Brookhouse Aerospace is a key supplier of composite components, structurers and assemblies to all major OEM is including Airbus and BAE Systems.

The UK facility has grown its focus from manufacturing purely composite components, structures and assemblies, to offer a complete manufacturing solution covering a broader range of capabilities.

Brookhouse Aerospace can now offer a wide range of capabilities which includes composite components and structures, metallics, sheet metalwork, fabrication, machining, metal and composite bonding and assembly. The facility has on-site a fully NADCAP, Airbus and BAE Systems approved automate treatment capability to support customer needs. Additionally, the business also offers a range of ground support equipment to MRO customers.



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Bowers Group Launch New Baty R400 Model

The longest-standing profile projector manufacturer in the UK, Bowers Group, has launched a new and improved version of the popular Baty R400.

The Baty R400 bench mount profile projector combines high accuracy non-contact measurement and in-depth inspection. Its robust design makes it ideal for both the shop floor and the standards room, something that has proven immensely popular with many in the manufacturing and engineering sectors.

The new model offers a range of improvements, including positive adaptations to the lighting system and focal length that make it an ideal tool for a wide range of parts.

UK Sales Manager, Ryan Kingswell, said: "We're pleased to be able to introduce the new model of the Baty R400 to the market. And, after what has been a difficult year for

many businesses, we're proud to have been able to stand firm amid the pandemic and continue innovating new products. The new model offers significant improvements on the current Baty R400 that I'm positive will prove to be extremely popular."

One of the most impressive changes to the current R400 model is the integration of an LED lighting system. The new system replaces the existing Halogen profile lighting, reducing annual service costs and eliminating potential downtime due to lamp failure. The LED system still incorporates helix adjustment for thread measurement and runs at much lower temperatures than the traditional halogen setup.



Other improvements include changes to the lens' focal lengths which now facilitate larger components. With lenses available in 10x, 20x, 50x and 100x magnification, and with an increased distance between the lens and object, there is more space to measure bigger and more complex parts quickly and efficiently. The use of a common, spring loaded detent lens-mount enables fast and easy lens changes with no need for tools.

The new model comes with the screen mounted optical edge sensor now mounted in a fixed arm so that the screen can be rotated independently of the probe itself, maintaining the cross-hair / probe offset which is stored within the FT2-E sw. An internally mounted edge sensor option is also available if required, leaving the projector screen completely unobscured. The feet of the machine are in the same position, meaning the footprint of the new R400 is the same, and remains compatible with the existing cabinet stand

Bowers Group's Mobile Metrology Centre is now back on the road, offering on-site COVID safe demos throughout the country.

For more information or to book an appointment, contact the team at sales@bowersgroup.co.uk.

CGTech Announces a Trio of Changes



CGTech UK starts 2022 with some staff promotion news. Effective 1 January 2022, Gavin Powell will assume the role of Managing Director, Gavin Bridger will become Technical Support Manager and Scott Ravenscroft will become UK Sales Manager.

Gavin Powell has been appointed as Managing Director taking over from Tony Shrewsbury. He said: "Everyone at CGTech is pleased to wish Tony a long and happy retirement after around five years at the helm, and he leaves the company in a strong position for us to go forward. I can say it has been a pleasure for me working with him over my years at CGTech".

Having been with CGTech for 21 years this year, Gavin Powell has a wealth of experience specifically garnered over the past 13 years in charge of the technical team though also caretaking sales roles as needed.

Gavin Bridger will become Technical Support Manager looking after the current team of nine technical support engineers as well as one apprentice.

He said: "I know the technical team will be in good hands, Gavin Bridger has more

than 15 years' service and is familiar to most customers, resellers and partners.

"Along with the promotion of Scott Ravenscroft to UK Sales Manager these are positive changes that are good for customers and the business as a whole."

CGTech's plans for further growth within the UK customer base as well as the overseas markets supported by the team is underpinned by its current search to recruit a Sales Engineer for the Swedish market, and the imminent appointment of another Technical Support Engineer.

"The company is in a great position with plans for growth in terms of more customers and investment in the team to support this," states Gavin Powell. "Future product development plans will open the door to further optimisation processes and the move to hardware graphics has been phenomenal for VERICUT, bringing speed improvements with further enhancements to come. Key for many businesses are the reporting tools which are now far better than they have ever been, meeting the needs of the connected digital world ^{*}

The ability of the customers to get the most from VERICUT CNC simulation and optimisation software without making the process overly complex is fundamental to its success. "Keeping any machine shop competitive is vital and cycle times are there to be improved upon using the Force module. It is a areat tool for any workshop looking for an almost instant fix. The gains offered are good for all manufacturing industries in terms of business improvements and savings," says Gavin Powell.

As he points out: "We have a great team in place and our open approach to customers will remain, with the globally popular VERICUT User Events (VUE) still being held. However, the various lockdowns caused by the global COVID pandemic during the past couple of years highlighted just how popular our virtual VUE was. Although we had in-person events we also hosted a virtual version with around 80 attendees. Both these formats will be adopted once again for 2022, incorporating experience gained from past few years.

"And, of course, we hope UK exhibitions such as Southern Manufacturing and MACH will go ahead, providing us with the opportunity to meet face-to-face with existing and potential new customers, as well as our global team of resellers."

He concludes: "My overall message is it is business as usual and it is great to announce that, following the purchase of the business by Sandvik Coromant a year ago, CGTech has promoted knowledgeable and experienced staff members from within to these key positions."

R&D tax credits statistics 2021 everything you need to know

HMRC's latest statistics detail the number of companies claiming R&D tax credits up to the year ending March 2020, the amounts paid out in R&D support as well as the number of claims by industry sector, plus much more.

The statistics show that the total number of R&D tax credit claims increased by 16 per cent. with first-time SME claimants increasing by 25 per cent.

The government had made it clear that they continue to be eager to support companies who are prioritising and investing in innovation in order to boost the economy.

What do these statistics mean for UK businesses?

Increasing number of R&D tax credit claims made

The year ending March 2020 saw a 16 per cent increase in the total number of R&D tax credit claims made - over 85,900. The increase is said to be primarily driven by a 16 per cent rise in the number of small and medium sized businesses (SMEs) making R&D claims to a total of 76,225 – highlighting that SMEs continue to make R&D projects a priority, driving forward innovation.

How much R&D tax relief was paid out by the government?

Over £7.4 billion in tax relief was paid out by the government in the year ending March 2020 – up 19 per cent from the previous year. Again, SMEs received the most support, with £4.4 billion worth of funding compared to larger companies, who claimed payments of £3.1 billion.

Which industry claimed the most R&D tax credits?

Accounting for 64 per cent of all claims made, the industries which claimed the most R&D tax credits were

- Manufacturing (22%)
- Professional, Scientific and Technical (19%)

Best year yet for **Satellite Couriers**

Satellite Couriers is excited to join the North West Aerospace Alliance this spring.

The bespoke ground transportation supply chain company has grown rapidly since it started the family run business back in 2017.

Satellite Couriers believe their ethos and ambition to provide the highest quality service in the industry has been the cornerstone to their success so far. They began by delivering anything and everything and have continued this last three years to deliver aerospace equipment and parts to military, distribution

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and manufacturing/processing plants across the UK. They deliver 24/7 aerospace and defence solutions including high urgency AOG services with their dedicated team of drivers and service personnel.

Some of the benefits of using Satellite **Couriers include:**

- Highly responsive 24/7 service
 - Highly trained drivers (some advanced drivers)
 - and transporting anything from large individual items to other smaller fragile and sensitive components.
 - 24/7/365 days a year nationwide delivery.
 - transport needs are met, quickly, efficiently and with care and professionalism.



• Information and Communication (22%)

Although 49 per cent of all claims were made by companies with registered offices in London and the South East, the North West was not far behind - positive news for the region.

To summarise, the latest statistics from $\ensuremath{\mathsf{HMRC}}$ are very encouraging – proving that R&D is still very much a priority for many SMEs and large companies. Additionally, the number of R&D claimants is expected to grow year on year, as the need for further innovation to boost the economy grows.

If you are unsure if you are eligible for R&D tax credits, or would like our assistance to submit a claim, get in touch with PM+M's corporate tax director

Claire Astley via claire.astley@pmm.co.uk

• Experts in loading/tying down/securing

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• Satellite couriers help aerospace industries to achieve quicker return to revenue by decreasing AOG times and getting industries back on schedule faster.

Satellite couriers is always learning and growing and recognises the importance of adopting green logistics strategies and practices in its supply chains. As a result, the company is currently exploring storage distribution for first, middle and last mile logistics, ULEZ compliancy for all vehicles, increasing efficiency with timings for return loads and multidrop logistics and digitalisation of all processes.



Member News



NATEP

Aerospace R&D funding for UK SMEs

NATEP Spring 2022 call now open.

aerospace.co.uk/technical

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BSI: The future of aerospace through the lens of sustainability

Sustainability in Aerospace By Rebecca Constable

As we enter a new way of normal and a changing world, evaluating the future of the aerospace sector through the lens of both innovation and sustainability is paramount, BSI explores how collaboration and integration, design, manufacturing, and data, can shape a new and sustainable future.

As consumers' social consciousness increases, the aerospace sector must encompass transparency and accountability as it evolves. Pushing forward into a new landscape, the industry must be purpose-led and driven by objectives to go beyond shareholder value. Companies need to proactively answer difficult questions asked by a much broader and more informed stakeholder group coupled with effective and sustainable solutions.

Borne of the pandemic, increased collaboration both in and out of the sector is proving a signifier of growth and corporate maturity, with cooperation and data integration looking to enable a fullyautomated value chain.

With growth comes responsibility. New technology and materials must adhere to principles of sustainability and circularity, which are part of the design and management of the impacts on the industry. As global

passenger numbers are set to reflect lower than projected growth, we are looking to the continuation of design evolution aircraft maintenance. With less travel will come smaller margins and a drive for higher efficiency, centring on materials and systems, including the shape and nature of aircraft themselves

Similarly, the rapid evolution of alternative battery technologies and advances in electrification is set to change the future of aircraft propulsion. Opportunities are ripe; sustainability, transparency, and greater collaboration will all be significant drivers towards resilience, and in securing the future of our sector.

Digitisation will increase, including the use of VR to problem solve on flights in real-time. Likewise, a comprehensive evaluation of vast amounts of data from multiple sources will allow for real-time decision making and connected assets.

Another area of opportunity is in design for adaptability, using the principles of life-cycle assessment to ensure that the right materials are used for the service life of the product or environment in which they are placed and designed for adaptability.



For aerospace, we need to ensure changing passenger demands – driven by the fast pace of development in consumer technology.

The ongoing battle for efficiency and innovation using advanced materials will have a significant advantage in the reduction in fuel consumption. To counter the more linear way of thinking: 'extract, make, use, and dispose of' the industry now looks to a circular system to 'reuse, share, repair, refurbish, remanufacture'. This approach also reduces the creation of waste, pollution, and carbon emissions.

Read BSI's full paper on the future of aerospace through the lens of sustainability for more insight.

Download the white paper at: https://page.bsigroup.com/ 1/73472/2022-02-14/24v4tr9

Whatever the application, Ceratizit has something for everyone at MACH 2022



Whether you are looking for the latest in turning, milling, drilling, threading tooling technology or, workholding - a visit to Ceratizit UK & Ireland on stand 18-210 at MACH 2022 will cover all your requirements.

With its four competence brands of Ceratizit, WNT, Komet and Klenk, there is never a shortage of new developments from Ceratizit UK & Ireland.

MACH 2022 provides the ideal opportunity to showcase a selection of the cutting tool and workholding advances that have taken place recently. The following is a small selection of the productivity boosting products that will be on show.

Turning

If turning inserts can be described as intelligent then the new CTCP115 CTCP125-P and CTCP115-P grades developed for the machining of ISO-P grade steel are that. At the end of its life the performance of an insert deteriorates and if not spotted can fail with expensive consequences. Therefore, being able to identify when end-of life is being reached is a major advantage. At Ceratizit, they have integrated a new indicator layer into the special multi-layer Dragonskin tool coating, which highlights when the tool life is close to its limit. Something that with the Tin, Al203, Ti(C,N) coating can be extended by up to 20 per cent.

The three new grades also simplify the selection of the right insert for what can be a wide array of materials falling within the ISO-P steel designation. In their design, these inserts have had every element rethought, from the substrate to the geometries and through to the coating to provide just three choices for the optimum machining experience and enhanced tool life. The choice now is simply CTCP115-P (ISO P15) specially for smooth cuts with stable cutting conditions and continuous cuts; for general roughing and finishing of ISO

P25 steels the choice is CTCP125-P; whereas for those difficult conditions such as unstable interrupted cutting in the ISO P35 range CTCP135-P is the grade of choice.

Milling

Silverline is a range of solid carbide end mill in a variety of styles including Torus-style cutters, end mills with corner radius and standard end mill forms. The latest developments in the range come with the latest Dragonskin coating, advanced cutting geometries that help to deliver even more exceptional performance in terms of metal removal, enhanced cutting data and tool life.

Key to Silverline's success is the optimised core geometry of the cutters which when combined with the carbide substrate and Dragonskin coating brings with it, among other things, improved process security, reduced vibration (even with high angles of contact), greater stability through improved chip clearance, smoother processing and lower cutting forces. With increased choice of flute options, shank styles and cutters for rough, rough and finish and full slot milling, there will be a Silverline cutter suitable for most applications.

The proof of Silverline's improvements come from customers who are experiencing the benefits of these new developments. In one example milling stainless steel polygon shafts the customer stated the following: "The amazing results that we have achieved with the upgrade have far exceeded our expectations..." In numbers the new Silverline, compared to the older variant, achieved between 20 and 40 per cent higher cutting speeds with tool life increasing by up to 40 per cent.

Threading

The new SGF solid carbide thread milling cutters from WNT are now a standard item from the Ceratizit catalogue with next day guaranteed delivery. The SGF thread mills are available in a range of sizes with most conventional thread forms, including metric, UNC, UNF, NPT and Whitworth, across sizes starting at M3 or ¹/₄ UN and up to M20 or equivalent. In metric forms larger diameters up to M64 can be produced on special request. The SGF series of thread mills is an addition to the already extensive thread milling range available from Ceratizit, such as the Micro Mill that can cut threads as small as M1.6 and the various indexable insert-style cutters available with inserts in full or partial profile to suit most popular thread types.

Drilling

For those with a requirement to drill holes up to 96 mm diameter, the latest Komet KUB Pentron CS (Cartridge System) indexable insert drill provides the ideal result. This latest addition to the KUB Pentron range adds to the already well-regarded range covering diameters from 14 to 46 mm, with the new CS variant offering cutting lengths of 3x diameter.

The KUB Pentron CS is suitable for universal use as well as many special applications and is now part of the standard Ceratizit Group portfolio. The modular design consists of a burnished, wear-resistant KUB Pentron base holder, along with two high-precision cartridge seats. The inner cartridge can cover a specific diameter range, while the outer cartridge determines the bore diameter, with each housing two SOGX indexable inserts from the CERATIZIT standard portfolio including a range of grades and geometries to maximise tool life and chip control.

Location is via the proven KOMET ABS system that offers significant advantages compared to other interfaces, especially for large diameter bores thanks to its higher clamping force and torsional stiffness as well as better values with regard to force transmission, accuracy and machining performance.

Clamping

Workpiece clamping is vital yet often overlooked, especially for when looking at straightforward round workpieces. However, having the right workholding system can prove to be a game changer and it is here that the new SBF-3 stationary 3-jaw chuck from the WNT Performance range will make a difference.

The SBF-3 3-jaw chuck is compatible with both the MNG (mechanical) and PNG (pneumatic) zero point clamping systems, a feature that reduces set-up and non-productive time to a minimum. These reductions are enhanced by the innovative guick jaw change system that allows jaws to be changed in under a minute – at the touch of a button with very high repeatability. Process security is optimised by the consistent high clamping forces of 100 kN or 180 kN depending on the size of vice selected, with the choice being 200 mm or 300 mm diameter chuck, this is enabled by the standard wedge bar drive system. The longevity of the vice is also improved with all the functional components being hardened and ground with optimised lubrication

In addition, the SBF-3 vices offer many other standard features that will simplify and facilitate easier machining of round parts, these include: large through hole for machining all common bar material diameters; mounting threads for workpiece stops or cover plates; quick jaw change system, meaning extremely short setup times; base jaws with angled teeth (SFG); locking mechanism guaranteeing secure engagement of the base jaw teeth with the wedge bar teeth; engagement pin for pre-positioning the base jaw; and actuation via hex connection for easier operation.







Blackpool's AFD is Scaling Up

Blackpool-based Airframe Designs Limited (AFD) has recently moved into a larger office at the Pavilions, overlooking the airport, as it continues its growth journey and executes plans to scale the business.



Airframe Designs delivers engineering design services into the aerospace, defence and space sectors, providing agile and efficient CAD design and stress analysis solutions to customers.

More recently, AFD has entered the additive manufacturing (AM) supply chain following the acquisition of a new FDM printer and is now securing contracts within the North West aerospace sector for the production of 3-D printed parts.

Furthermore, ADF's printing services are being complemented by the capability to scan parts using a portable 3-D scanner. This enables AFD to validate printed part geometry and also reverse engineer parts and assemblies for design projects, by capturing a digital twin and importing the geometry into our CAD system.

Throughout the pandemic AFD has witnessed market shifts with the focus pivoting away from the civil aerospace sector (owing to the fall in demand of passenger traffic) towards defence and intelligence, surveillance, reconnaissance (ISR) markets.

By pivoting with our clients, the business has been able to maintain revenue and also be better prepared as we exit the pandemic.

Part of this preparation is about having enough engineers and floor space to scale the business by at least 50 per cent over the next three years, increasing the team from nine staff currently to at least 12 engineers by 2025.

AFD's new facility offers a higher level of security infrastructure and an enhanced IT network, bolstered and accredited with Cyber Essentials Plus, JOSCAR (the Joint Supply Chain Accreditation Register), and AS9100 (the Aerospace Quality Management System).

Jerrod Hartley remarked: "These are exciting times as we have recently added new revenue streams to the business to sit alongside the existing and successful stress analysis cost centre.

"Embracing new and innovative technologies such as additive manufacturing and 3D scanning is enabling AFD to grow the business in new directions and enter a wider array of sectors and markets."

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Meet the board







Andy Schofield NWAA Chairman 01772 648800

Sharon McDonald NWAA **Chief Executive** 01772 648822

Keith Harrison Silcoms Deputy Chairman 01204 466070







Anthony Hammond Hyde Group Director 0161 3435844

Syd Carson **Morson Projects** Director 0161 7071516

BAE Systems Director



Safran Nacelles

Strategy, Progress and Site

Infrastructure Director

James Milligan

MBDA

Director



Paul Burns

Sarah Mallo **Rolls Royce** Director



ste@kyocera-unimerco.com

Save the date



Wednesday, June 22, 2022 NWAA Supply Chain Workshop

Thursday, September 29, 2022 NWAA Annual Conference

Friday, November 18, 2022 NWAA Annual Aerospace Ball

If you would like to register for any of our events, please contact claire.lambert@aerospace.co.uk for further details.

Please regularly check our website www.aerospace.co.uk, LinkedIn (@North West Aerospace Alliance) and Twitter (@NWAerospace) pages for the latest upcoming events and networking opportunities.

Copy deadlines

Express News

Copy deadlines for members wanting to share news

March 24 April 21 **May 19**

Plane Talk

Copy deadline for members wanting to share news in the next edition of Plane Talk

Summer 2022 May 16, 2022

Autumn 2022 August 15, 2022

Winter 2022 November 7, 2022

> Please send all information to nwaa@freshfield.com

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Give Your Farnborough Investment Impact

Did you know that \$192billion worth of orders and commitments were announced at the last Farnborough International Air Show? But with 1,500 exhibitors from 96 countries, how do you make sure your voice is heard amid the crowd?

It's about getting Farnborough ready.

Viva is a multi-award-winning PR and communication agency based in Lancashire. We've spent the last 10 years working with some of the industry's leading brands and helping them make the most out their air show presence.

Here are five priorities to sort out today which will help make sure you add to the Farnborough deal statistics. What's your end goal: What do you want to achieve? Awareness, leads, info, partners, web visitors. If you know what good looks like you can plan your marketing activity accordingly.

Deal Strategy: Work out your offer. Walk in the shoes of potential customers and be clear about the problems you can solve for them.

Plan ahead: Make sure you maximise your time by pre-planning as many appointments as possible. Make LinkedIn your friend.

Ask for Help: Bodies like the DiT and NWAA have great resources, insights, and networks. Tap into them as much as you can.

Great collateral takes time: Websites, brochures, videos, all need planning, and all need to be professionally produced. Start today.

If in doubt, speak to an expert on:

01706 214340

Give us a call for a free review of your Farnborough marketing plan and make sure the 2022 show delivers real impact for your business.



Support Lancashire's Careers Hub and become an Enterprise Adviser

Enterprise Advisers are volunteers from business who work directly with an individual school or college to support their careers leader and senior leadership team to drive improvements in careers provision and help increase connections to local employers to ensure a strong connection to the world of work.

Enterprise Advisers are individuals who represent our wide and diverse economy and range from chief executives, senior leaders, managers, business owners and consultants from both private and public sector who collectively share a passion to help every young person find their best next step.

By volunteering some of your time, you can help support pathways into your industry by using existing contacts to support career activities and contribute to shaping young people's futures.

Enterprise Advisers act as a critical friend and provide an external voice giving strategic input, evaluation of their careers programme and advice on how to measure impact and outcomes.



If you would like to give back to your community and help build Lancashire's future workforce then pledge to be an Enterprise Advisors now at

www.lancashireskillshub.co.uk/ lancashire-skills-pledge

For more information, please follow the link below or contact

Michelle.fox@inspira.org.uk

Our Partners:





Pendle Business Centre, Commercial Road, Nelson, Lancashire, BB9 9BT





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midlands aerospace alliance