

DESIDER

AN INSIDE LOOK AT DEFENCE EQUIPMENT & SUPPORT



**PROTECTING OUR NATION, OUR TERRITORIES AND OUR ALLIES
TODAY, TOMORROW, TOGETHER**



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START Talking

Following the results of the General Election, I would like to start by welcoming the new Government. At the MOD, Secretary of State for Defence John Healey MP and Maria Eagle MP, Minister for Defence Procurement and Industry, are joined by Luke Pollard MP as Minister for the Armed Forces, Alistair Carns MP as Minister for Defence Veterans and People, and Lord Coaker as Minister for the House of Lords. I'm looking forward to working with them, as we continue to keep the country safe and our citizens protected.

With tensions mounting in many parts of the world, this is a pivotal moment for UK Defence. John Healey clearly set out our mission when he addressed colleagues in MOD Main Building the day after the election, saying:

“Our mission is to make Britain secure at home and strong abroad, with the guiding principle of One Defence... And that means an Armed Forces well-equipped and ready to fight; a skilled, scalable industrial base; a stronger relationship with allies; a more influential MOD; a public that understands and better supports those who are willing to serve.”

The same ethos is driving our strategy and the changes in our organisation. It's why we're striving to move with greater pace, productivity, innovation and collaboration to ensure our Armed Forces have the battlefield edge that comes from having the right kit at the right time.

I'm proud of DE&S' record of delivery and support for our Armed Forces, but there is more we can do to unlock capacity and increase defence outputs. The changes we're making are already reshaping our organisation for the better, empowering us to become the best possible DE&S for our new colleagues in Government, our mission partners in the MOD, Front-line Commands and defence industry, and our allies around the world.

I'm excited to discuss the opportunities and challenges that lie ahead at the Royal International Air Tattoo and the

Farnborough International Airshow in the coming weeks. From delivery of new aircraft to hypersonics and the rapidly evolving world of uncrewed aerial systems, there will be plenty for our defence enterprise to both interrogate and celebrate.

DE&S will have a significant presence at Farnborough this year, reflecting the strategic importance of the event in the Defence calendar. I encourage our allies and industry partners, both UK and international, to visit our stands and speak with my colleagues. We're committed to working with businesses of all shapes and sizes, from innovative SMEs to experienced Primes, and our experts will be on hand to discuss how we can support our Armed Forces together. It is only through a One Defence mindset that we will be able to deliver prosperity and security for the UK and our allies.

This spirit of collaboration is reflected in our ongoing commitment to NATO. As we marked the alliance's 75th anniversary this month with a summit in Washington D.C., NATO has never felt more unified. Our new Government has made it clear that the UK is committed to strengthening the alliance, and DE&S will continue to be a driving force for deeper alignment of defence-industrial strategies and greater interoperability of our platforms and systems.

Across our projects and programmes, DE&S people are working hard to develop, procure and maintain the kit our Armed Forces need. This is why it was so gratifying to see 11 DE&S staff members, and two colleagues from the defence industry, named in His Majesty The King's Birthday Honours. Their honours are well-earned and well-deserved.



SENIOR LEADER COMMENT

“Delivering and maintaining a safe product gives us the fighting edge.”

DE&S' new Director General Air, Keith Bethell, tells Desider about his priorities and what he's expecting from this year's Farnborough International Airshow and Royal International Air Tattoo.

Being appointed Director General Air on 1 June was a great privilege. I've worked in aviation my whole career and, while this is an interim role, I'm hopeful I can bring all of my 40 plus years of experience to bear as we deliver operational excellence to the front-line during a period of significant organisational change.

This month's Farnborough International Airshow and Royal International Air Tattoo are a great showcase for 'UK PLC', where we can demonstrate what the UK has to offer across the aviation sector. They are an opportunity for us to discuss the situation in the Air environment, explore aviation innovations, and look to the near, medium and long-term future to see where we should invest to get the best effect from our available budgets. This is a truly global enterprise and we have a chance to better understand what the aviation sector can do to meet the world's big strategic needs.

For me, given the world we live in and the very real threats we face, the focus of this year must be the shift in mindset that comes with our having moved from a 'post-war' to a 'pre-war' period. In this new phase, how do we best deter potential adversaries from moving against our interests and those of our allies?

Aviation has a significant part to play in that deterrent capability, and our systems must be ready to respond, to deploy and operate in that role. We must commit to increasing defence outputs, getting more out of what we have today and being more ready for tomorrow.

We're here to deliver the support that ensures our armed forces have the equipment they need to succeed. As we work to achieve that, our primary duty must be to ensure, first and foremost, the safety of our people and the delivery of safe, airworthy platforms. At the end of the day, delivering and maintaining a safe product, which our aircrews can rely on and use effectively, is what gives us the fighting edge.

My focus is on the live air operations of today. Those forces deployed in support of operations in Ukraine, the Middle East and around the world. Most fleets within the Air domain are operationally committed at the moment, and DE&S stands behind them all.

Alongside this, we must continue with our transformation programme. We're starting to shift into the new operating model now. This has got to be a priority. Unless we make these changes and introduce new, more efficient ways of working, then we are



not going to be able to provide the sustained, long-term support that the front-line needs. We can see how best to pivot into a new DE&S, while maintaining our outputs. We've got to keep that focus on safety and support to operations, and at the same time complete a complex change programme that reconfigures our operating model.

We have a real once-in-a-generation chance to get this right. The way we've designed the operating model, bottom-up, is a really powerful way of doing it. It gets the people who understand, who are actually delivering our mission, to develop the ways of working themselves, and then puts a supportive governance arrangement around them to help them do it. I'm committed to making sure that, for the period I'm Director General Air, I support my people, so they land well in the new organisation, even as we maintain our operational focus.



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FEATURE

Inspiring the next generation of aviation professionals

David Chinn, DE&S Programme Manager and President of the Royal Aeronautical Society (2024-25), tells Desider about the priorities for his term and his Design Build Fly initiative.

As President of the Royal Aeronautical Society for 2024-25, I have a set of priorities, which reflect specific strategic objectives for the Society and areas where we can engage with our membership.

My first priority is my Design Build Fly initiative, which aims to inspire the next generation of aviation professionals to link good theory with tangible practice by designing, building and flying real aeroplanes. My second priority is to continue the Society's move towards the professionalisation of Space at this exciting moment for UK Space development. My third priority is to ensure that the Society is fully engaged in the sustainable aviation discussion. The Royal Aeronautical Society's role as a respected and neutral organisation enables us to bring together disparate stakeholders to the benefit of all.

My aim with the Design Build Fly initiative is to find and excite the next generation of UK aviators. It is based on the German *Akaflieg*, where student associations gather to design, build and fly real aeroplanes, with the support of the local aviation industry and community, often incorporating truly innovative ideas into their work. These informal networks are something I would love to emulate.

Why do I think this is so important? I have seen numerous studies saying that something needs to be done to ensure we have future generations with the aviation skills our nation will need. Well, as far as I can see, this is the best way to do it. These *Akaflieg* groups have been incredibly successful in getting young people engaged and inspired.

As Royal Aeronautical Society President, I take my inspiration from our Royal Charter, which sets out the aims and objectives of the Society as: "the general advancement of aeronautical Art, Science and Engineering" and "promoting that species of knowledge which distinguishes the profession of Aeronautics."

The best way to understand how to design and build complicated aeroplanes is to start with simple ones. I started my career at the Royal Aircraft Establishment (RAE) Farnborough. Farnborough was the birthplace of British aviation and the RAE was a world leader in aviation research, producing generations of aerospace engineers and scientists with a wealth of practical experience. I hope that Design Build Fly is very much in the ethos that was at the centre of the RAE.

I am also inspired by the Society's first gold medal winners: the Wright brothers. They did not get those gold medals for doing a good PowerPoint presentation. They got them for designing and building the first real aeroplane.



In seeking to build a cohort of people who actually know how to design, build and fly real aeroplanes, we will need to develop strong cross-community engagement. We need to bring together communities from academia and industry, and from across the flying world – both powered aircraft and unpowered gliders – to see what is possible.

This hands-on experience embeds competence and closes the future skills gap. If we succeed in this, we will be directly supporting the aims of DE&S and the wider UK defence enterprise by providing them with future occupants of Type Air Worthiness.

If you want to be involved, then please come to the Royal Aeronautical Society Conference in October or contact me via the Royal Aeronautical Society.

FEATURE

Atlas A400M: 10 Years of delivery

Michelle Østergaard, DE&S A400M Team Leader, gives Desider a run-down on the Atlas A400M aircraft; its journey, its successes and why it is such an important part of the RAF fleet.

In 2023, as civil war broke out in Sudan, the UK enacted Operation Polar Bear, evacuating 1,685 personnel. Atlas aircraft flew 20 sorties in just 12 days from the Wadi Seidna airfield just north of Khartoum.

A year later, 2024 marks 10 years since the first Atlas A400M aircraft entered service with the RAF. Since then, another 21 A400M aircraft have joined the fleet and, over the last decade, they have proven their value to the RAF and the UK time and again. DE&S has been with the A400M programme from the very start and my team continues to support its delivery and maintenance.

Atlas is key to the RAF's global standing and plays an important role in UK and NATO operations. But what makes it such a crucial part of the RAF fleet?

A highly versatile transport aircraft, the Atlas' four propeller engines allow it to carry 37 tonnes of cargo for over 2,000 nautical miles, at high altitudes and speeds of up to 400 knots. Its large hold can accommodate a range of strategic loads, including supplies, troops, vehicles, helicopters and even tanks. What really sets it apart is its ability to take-off and land using short and unstable runways, including those made of sand, loose soil or ice.

These capabilities have allowed Atlas to support UK operations, including across the Middle East, in the Falkland Islands and the Caribbean. During the pandemic, Atlas aircraft contributed to the military response by transporting patients, equipment and vaccines. A 20-hour flight to Guam with air-to-air refuelling from a Voyager aircraft demonstrated the projection potential of the aircraft.

In 2021, they played a pivotal part in the evacuation of personnel from Afghanistan. Flying 31 sorties into and out of Kabul, they successfully evacuated over 3,500 British citizens and many Afghans from an increasingly dangerous environment.

How did DE&S deliver Atlas? The A400M is a product of real collaboration. It combines the expertise of the UK with that of Belgium, France, Germany, Spain and Turkey, coordinated through the Organisation for Joint Armament Co-operation (OCCAR), and working with industry partner Airbus.

International collaboration can come with challenges, as issues of resource, time and communication come into play, and the A400M programme has been no exception. However, these are greatly outweighed by the financial and logistical benefits of working at scale. The international partnership enabled the nations to have an aircraft with a level of interoperability, power, capacity and ability that could not have been achieved individually.



And while we have faced some setbacks, a huge and sustained effort from the DE&S A400M delivery team, and our colleagues throughout the programme, has delivered significant in-service improvements, and ensured a growing and sustainable availability of this important front-line capability.

Our hard work has ensured we continue to meet the high demands of the RAF, and has enhanced the UK's position and reputation with our international partners. As a result, the UK A400M programme continues to deliver an aircraft with a huge amount of potential. DE&S is also supporting UK engagement in export opportunities, providing aircraft for airshows and hosting overseas military personnel at RAF Brize Norton.

We continue to work with the RAF, Airbus, OCCAR and partner nations to ensure the readiness of the aircraft meets the demands of the future.

NEWS

Wildcat completes successful Martlet missile trials



Royal Navy Wildcat helicopters held live firing trials of new Martlet missiles, which will greatly increase their lethality and ability to engage adversaries.

The AW159 Wildcat HMA Mk 2 helicopter has successfully completed live firing trials of Martlet missiles from its Future Air to Surface Guided Weapon (FASGW) wings.

Martlet missiles can intercept surface vessels and airborne targets. They will give the Wildcat Maritime Force increased lethality and enhanced engagement capability, allowing it to provide increased operational support to regular operations and the Carrier Strike Group 25.

During trials, held at industry partner QinetiQ's test range at Aberporth, Wales, the Wildcats flew two sorties. During both sorties, the helicopter's missiles hit their target in the exact same spot. This demonstrated that the Martlet missile can be launched while the helicopter is travelling at a range of speeds, bringing the Wildcat FASGW system a significant step closer to full missile clearance.

Captain Paul Thomson, Wildcat Team Leader at DE&S, said: "It's very exciting to see the Wildcat developing its more lethal capabilities. It has taken a lot of hard work and collaboration with the Royal Navy and industry to get to this stage. This is all about equipping our armed forces with the edge to protect our nation, and a fully capable Wildcat is a key platform for achieving this. The Martlet missile delivers a unique core capability for military helicopters, making them ready to defend our carriers and their strike groups day and night."

This successful test was the result of a close working partnership between the DE&S Wildcat delivery team, the Wildcat

Maritime Force, the Royal Navy and industry partners Leonardo Helicopters, Thales, MBDA and QinetiQ.

Ben Turner, the FASGW Programme Director, said: "Development of Martlet has continued at pace since it was first delivered under extremely testing circumstances to support the sailing of Carrier Strike Group 21. Now the programme has successfully completed two live firings, concluding the formal development flight trials. Thanks to the dedication and hard work of all involved, the Martlet missile and Wildcat platform can now provide increased support to both operations and the sailing of Carrier Strike Group 25."

The next stage of FASGW testing is to assess how Wildcat flies with the combination of one wing carrying two Martlet missile launchers and the other carrying an M3M .50-calibre weapons system. Following this, initial firing trials with the Sea Venom missile, made by MBDA, will begin later in the year. The programme is expected to announce full operating capability by summer 2025.

Lieutenant Scott Sunderland, instructor pilot with 825 Naval Air Squadron and part of the Black Cats display team, which flies Wildcats at air shows, said: "Ultimately our job is to search for, find and sink enemy ships if needs be. Our bread and butter as a force is anti-surface warfare. Now we've got these missiles coming online, it is a really exciting time. It's going to be an absolute game-changer."

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NEWS

DE&S supports NATO Exercise Steadfast Defender

Exercise Steadfast Defender 2024, NATO's largest military exercise since the end of the Cold War, started in January. Before and during the exercise, DE&S teams supported the UK Armed Forces involvement.

Across land, sea and air, Exercise Steadfast Defender 2024 has been an impressive display of NATO's ability to defend every inch of its territory and its commitment to protect the alliance from any threat.

Over the course of five months, Steadfast Defender involved over 90,000 troops from all 32 NATO nations. The exercise was completed over two stages: the first focused on securing the Atlantic and the second on moving forces eastward into Central and Eastern Europe. Throughout, DE&S worked with the UK Armed Forces to ensure they played a central role in the exercise.

The naval stage involved four UK ships: Type 23 frigate HMS Portland, Tide-class tankers RFA Tidesurge and RFA Tidespring, and Queen Elizabeth-class aircraft carrier HMS Prince of Wales – supported by Danish, Spanish and American vessels. They formed part of an allied fleet of 40 vessels, drawn from more than two dozen nations. DE&S teams provided comprehensive support to the four UK ships, ensuring they could carry out their duties during the gruelling exercise.

The DE&S Ships Support team was faced with a serious last-minute challenge before the exercise started, when aircraft carrier HMS Queen Elizabeth had to pull out from its leading role. HMS Prince of Wales was called on to take its place. However, it had just entered the docks at Portsmouth Naval Base for routine maintenance and repairs, which were scheduled to take a month to complete. With a little over a week until the start of Exercise Steadfast Defender, the Ships Support team worked tirelessly with industry partners and the Royal Navy. They were able to get the work done in just seven days, allowing HMS Prince of Wales to take its place leading the NATO exercise.

Lieutenant Commander Chris Barnett, HMS Prince of Wales' Logistics Officer, said: "In less than a week we brought onboard approximately 70,000 sailors' days rations, with 450 pallets of stores and 30,000 toilet rolls; not to mention spare parts for F-35 Lightnings, Merlin and Wildcat helicopters, cold weather kit and medical stores. It has been an amazing effort from all involved."

The land stage of Steadfast Defender saw 16,000 UK personnel and more than 2,000 vehicles mobilised for use in mainland Europe. These included hundreds of protected mobility vehicles, such as Jackal 2, Foxhound and Mastiff, along with Challenger 2 main battle tanks, Warrior armed personnel carriers, M3 amphibious rigs, battlefield ambulances and an array of smaller support vehicles.

This was made possible thanks to the DE&S Vehicle Support team, which, together with the Logistics Support team and industry partner Team Leidos, used detailed planning and modelling to ensure the vehicles' availability. DE&S and Team Leidos delivered 8,200 tonnes of armoured fighting vehicles to enable the land elements of Steadfast Defender in Germany and Poland. They used 10 trains, which travelled through the Eurotunnel into mainland Europe.

DE&S and Team Leidos fulfilled over 15,000 demands to support Steadfast Defender, equating to more than 700,000 individual items, including over 200,000 days of rations and around 24,000 litres of oil and other lubricants.

FEATURE

Arming the Allies and fuelling the front

As the UK marks the 80th anniversary of D-Day and the liberation of Europe, we take a look at the pivotal, but often unsung, role that the Ministry of Supply played in their success.

FEATURE

From almost the moment initial plans for the allied invasion of north-west Europe were agreed in late-1943, it was clear that it would be like nothing ever undertaken in the history of warfare. Not only would hundreds of thousands of vehicles, tanks and servicemen need to cross the English Channel, breach enemy-occupied Europe and drive their forces back to Germany, the Allies would need millions of tonnes of supplies to sustain them for months to come. Enter the Ministry of Supply.

Formed in 1939, the Ministry of Supply, forerunner to today's DE&S, was responsible for building and running Royal Ordnance Factories, producing explosives and propellants, constructing guns and rifles, and supplying the myriad other materiel that an army requires on a daily basis. Their remit even covered tanks and other armoured fighting vehicles, and the fuel required to operate them.

The question of supply was at the forefront of allied planners' minds as D-Day approached. In planning for D-Day, the British Government and the Ministry of Supply knew that to deliver the required volume of supplies to Normandy and continue to do so after the invasion had begun, a deep-water port would be required. The closest viable ports to Normandy's invasion beaches were at Le Havre and Cherbourg, but even the most optimistic projections said that neither could be captured until at least eight days after D-Day. The solution was for the Allies to take their own harbours with them. The Mulberry Harbours' as they came to be known, were effectively DIY ports, built from hundreds of components and a staggering amount of material, all sourced by the Ministry of Supply and assembled off the Normandy coast.

Overall, 2.5 million men, 500,000 vehicles and more than four million tonnes of materials would be moved through the Mulberries. By the end of July 1944, the Mulberry Harbour at Arromanches was landing an incredible 20,000 tonnes of supplies a day, making it one of the busiest ports in the world.

Despite many ongoing political difficulties and an ever-present need for resources on all fronts, the Ministry of Supply was ultimately able to manage and make a number of major contributions to the fighting on the Normandy front. Not only was sufficient ammunition sourced from the Ministry's own factories, but artillery, rifles and tanks, either through British production or the Ministry's acquisition of US-built Shermans, were also found. This ensured that the required materiel to support an enormous force in Continental Europe was available.

Of all the soldiers, sailors and airmen involved in the Battle of Normandy, 44 percent were not on the front-lines, but in logistics, supply and support. Without them, the war could not have been fought. And without organisations like the Ministry of Supply supporting them, vital resources would not have reached the critical place at the crucial time.

The story of the Ministry of Supply in supporting D-Day and sustaining the vast allied armies as they battled through Western Europe is truly an epic; in its proportions, in the resources required, and in the effort made by the Ministry of Supply to perform an under-sung duty. Eighty years on, that story in many ways is still untold, but it's certainly one that history should not overlook.

FEATURE

DE&S' AI-powered approach to Typhoon maintenance

FEATURE

DE&S is harnessing the power of AI to revolutionise maintenance scheduling for the RAF's Typhoon fleet. The project is set to enhance aircraft availability and reduce operational costs.

DE&S is at the forefront of an innovative project to transform aircraft maintenance scheduling for the RAF's Typhoon fleet.

The project, part of Typhoon's SMART Maintenance portfolio, is using Large Language Model (LLM) technology to optimise maintenance procedures, enhance aircraft availability and reduce operational costs.

DE&S engineers at RAF Coningsby had faced a challenge in how to identify areas of over-maintenance within the Typhoon's preventative maintenance schedule. Traditional reliability-centred maintenance focused on components with high rates of failure, and analysing instances where checks did not reveal any faults was labour-intensive and time-consuming. On top of this, manual analysis of maintenance records, which were spread across systems and often recorded as free text, proved a significant task.

To address this, DE&S Digital's Apps and AI team developed an LLM-based solution, using an OpenAI GPT 3.5 model hosted on secure MOD Azure servers. The LMM was designed to analyse free text maintenance entries, categorise outcomes (as either pass, fail or uncertain) and track task types. It was then trained on data from a previous manual review conducted by industry partner BAE Systems. The system was built to be able to follow paper trails across different work orders, identifying repairs triggered by earlier inspections. After analysing the records, the LMM could then highlight which maintenance checks rarely found issues and how much maintenance effort was being expended on them.

The LLM's performance was highly effective. In a validation exercise, it replicated the results of a previous manual survey, which took six weeks, in just 30 minutes, with an accuracy often exceeding 90 percent. The LLM quickly identified checks that consistently did not uncover faults, highlighting areas where maintenance could be safely reduced.

DE&S is now using the LLM to continuously assess scheduled maintenance tasks and help engineers extend intervals between inspections of non-critical systems and components with low failure rates. This approach represents a shift towards a more data-driven and adaptable maintenance strategy. The model enables real-time monitoring of the impact of these changes, allowing the team to make adjustments based on operational conditions and geographic locations, enabling a more tailored maintenance programme for specific environments.

Initial results have been promising. The first round of analysis identified 2,500 hours of potential maintenance savings per year, which are now being implemented. A second round is underway, with an estimated 4,000 hours of annual savings projected.

Air Vice-Marshal Phil Brooker, DE&S Director Combat Air, said: "This AI-powered maintenance initiative exemplifies DE&S commitment to innovation and efficiency. By harnessing cutting-edge technology, we are not only optimising the Typhoon's operational readiness but also paving the way for similar advancements across the Combat Air portfolio."

This is just the beginning, as DE&S envisions ongoing optimisation throughout the Typhoon's service life, leveraging the LLM's ability to unlock hidden patterns in maintenance data. However, while AI is a powerful tool, human expertise remains essential. The LLM serves as an analytical aid, empowering engineers to make informed decisions about maintenance intervals based on robust data analysis.

By striking the right balance between preventative and reactive maintenance, DE&S is ensuring the Typhoon fleet remains mission-ready, while minimising unnecessary maintenance burdens and creating leaner, more agile operations.

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FEATURE

Making the most of every nut and bolt

David Herschell, Air Deactivation and Disposal Team Leader, shares how DE&S is saving money and resources through innovative end-of-life management of aircraft.

The disposal of an aircraft can be incredibly complex and challenging. However, when done well, it can provide much-needed components and resources to support newer capabilities for our mission partners.

The disposal of aircraft needs to be suitably planned throughout their time in service. This might seem counter-intuitive, but it means we can reuse or recycle as many parts as possible once it is no longer in use.

Based at MOD Donnington and across various RAF units, the DE&S Air Deactivation and Disposal team brings together over a decade of experience across multiple aircraft and asset disposal and recycling projects. We are accountable for achieving disposal targets and augmenting delivery teams in deactivation and disposal delivery, as well as supporting RAF Heritage, NATO, our front-line mission partners and other government agencies. We also manage the disposal of aircraft and inventory that have been out of service for many years, but were retained for other defence uses, for example as training aids.

As a result of our work on disposal projects, we've reduced DE&S' inventory of out-of-service aircraft by more than 70 percent.

The first stage of aircraft disposal is a detailed inventory analysis to identify which parts are classified or subject to special controls or regulations, such as the International Traffic in Arms Regulations. All these elements are removed and securely disposed of or sold off with the correct approvals. After that, the aircraft might be sold by the Defence Equipment Sales Authority (DESA), used for parts or recycled.

A great example of this process in action was our 2023 Sentry E-3D early-warning and control aircraft deactivation and disposal project, which was

decommissioned after over 30 years of use by the RAF. Two Sentry aircraft and their associated inventory were sold to a South American defence partner. The remaining five and their inventory consisted of more than 67,000 types of component and over two million individual parts.

After anything classified was removed, we were able to reuse many of the parts on other platforms. Our Rivet Joint team at RAF Waddington was able to reuse Sentry components in the RC-135W electronic surveillance aircraft, saving £10 million on the cost of buying new and satisfying a number of long-term orders. After every reusable part was removed and redeployed, we worked with DESA to dismantle and recycle the remaining airframes.

Our innovative approach to executing disposal of the aircraft and inventory utilised talent and expertise drawn from multiple functional areas of DE&S

and DESA. This was a break from the traditional way of executing disposal through contracting industrial partners. We were able to complete the majority of the inventory disposal in five months rather than the two years it might previously have taken. It released components to other delivery teams, swiftly realised cost savings, supported DESA sales opportunities, freed up people to work on other high-priority projects, and delivered £2.1 million of efficiency savings.

In September 2023, the Air Deactivation and Disposal team took over management of the Aircraft Maintenance and Storage Unit at RAF Shawbury. As a result, we can now direct a Babcock engineering team to harvest components from aircraft stored there and reuse them in their respective fleets. This means fewer raw materials used in new component production, creating further savings.



NEWS

Meet DE&S' "future capability innovation service"



NEWS

Futures Lab, part of the new DE&S Gateway, is providing Defence teams with expert guidance from across industry and academia.

Successfully providing the UK Armed Forces with the edge is often about identifying potential solutions to complex problems. This is why exploiting Futures Lab's access to bespoke teams of industry and academic experts can make a real difference.

As the organisation responsible for equipping and supporting our Armed Forces, DE&S is working more efficiently to explore and exploit technology that gives the UK and our allies an edge over our adversaries. To do so, DE&S' new Gateway is engaging stakeholders – our front-line mission partners, industry, academia, wider MOD and beyond – at the earliest stages, allowing us to plan for the future of Defence while delivering in the present.

Futures Lab, part of the Gateway's Future Capability Innovation team, allows people from across the MOD to access and avail themselves of bespoke teams of highly experienced industry and academic experts.

"Futures Lab is essentially a future capability innovation service that explores new technology being delivered into

operations," explained James Gavin, Head of Future Capability Innovation.

"We take problems or questions, go out to academia and industry, and pull together a bespoke team of expert knowledge that can investigate and then create a training plan that can spell out how the technology could be used and who it is most likely to benefit.

"They look at how it would be purchased, maintained and used, and even how it would be disposed of. Having the ability to bring together people with the niche skills, qualifications and experience, which may not already exist in the MOD, drives significant efficiencies both in terms of time and money."

Futures Lab works mainly in the pre-concept space, but can be utilised at any point in a project's lifecycle. Its teams are able to generate outcomes to reduce risk and improve decision-making. They can create road maps for programmes all the way to concept demonstrators and, equally importantly, identify issues that may mean a change of direction or focus is needed.

An open provider network of 230 suppliers provides a diverse range of perspectives. This is supplemented by a 'networks of networks' whose specialists can be called on for further insight and support. These include the Met Office, the Catapult Network, the South West Regional Defence and Security Cluster, Make UK, techUK and ADS. Any knowledge and information gathered remains MOD-owned and is shared for exploitation across all areas of Defence.

"It's a crucial process as our bespoke teams can ensure that we avoid retreading old ground and can help us procure the right kit," said Futures Lab Manager Rachel Crease. "For example, Futures Lab has engaged with clients who want to understand more about how to gain the advantage in future urban operations and through applications of novel technology. Being part of the Gateway allows us to explain to our mission partner colleagues what is possible in terms of meeting their needs, and in turn ensures we can deliver more of what matters and increase the outputs Defence needs."

NEWS

DE&S delivers Archer mobile howitzers to the British Army

The British Army has now received its full complement of Archer artillery systems, procured from Sweden by DE&S, as an interim replacement for the AS90 guns gifted to Ukraine.

The British Army has begun training on UK soil with the Archer mobile howitzer artillery systems, after DE&S accepted delivery of 10 more from Sweden, along with 13 ammunition resupply vehicles.

Last year DE&S delivered the first Archer systems as a rapid procurement, to provide an interim solution following the UK's commitment to grant-in-kind 32 AS90 self-propelled guns to Ukraine. With this delivery, the Royal Artillery now has 14 of these guns, fulfilling the Army's artillery capability requirement until the incoming 155mm Remote Controlled Howitzer arrives.

Mark Bunyan, DE&S Fires, Infrastructure and Manoeuvre Support Team Leader, said: "Striking the balance between power and mobility with long-range precision, fast deployment time and a protected environment for the crew, the Archer provides the British Army with a highly capable artillery system that ensures we minimise any capability gap between gifting our AS90s and acquiring our long-term Boxer-based artillery solution."

The Archers were bought under a government-to-government agreement with the Swedish Defence Materiel Administration and have been upgraded to a UK specification by BAE Bofors and GD Mission Systems. Archer is based on the Bofors FH77 field howitzer and consists of a 155mm 52-calibre gun mounted on a 6x6 articulated hauler.

It is fully automated, self-propelled and designed for rapid deployment, with a firing range of over 50 km. Loading, laying and firing is handled from inside the armoured cabin, which offers

full protection at all times. With less than 20 seconds in and out of action for a crew of three or four, the Archer artillery system provides powerful and swift support.

The British Army has been in Sweden in recent months, taking part in live-firing tests. Following that, non-firing training and testing has begun in the UK to help Royal Artillery AS90 operators transfer to the Archer system.

DE&S' International and Industry Cooperation team supported negotiations of the initial deal with Sweden. They were able to reach an agreement in just two months, demonstrating DE&S' agility and its ability to procure at pace and rapidly deliver the Army's requirements.

Colonel Stu Nassé, Assistant Head Military Capability Delivery in Army HQ, said: "This acceptance marks the completion of the initial acquisition of 14 Archers and is a significant milestone. The essential – but challenging – work to turn this into a full capability continues at pace with proactive collaboration between the Royal Artillery, Army HQ and DE&S."

Colonel Stephan Sjöberg, Artillery Inspector of the Swedish Armed Forces, said: "The UK and Sweden are working together with Archer regarding support and best use of the system. In addition, there are ongoing preparations for further activities together, such as the Exercise Dynamic Front in Finland."

Exercise Dynamic Front will take place in November this year and will provide an opportunity for the Royal Artillery to live-fire and put Archer through its paces.



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NEWS

DE&S staff recognised for services to Defence

DE&S civilian and military staff have been honoured for their services to Defence in the 2024 King's Birthday Honours list.

Eight military and five civilian DE&S staff have been honoured for their outstanding work, including crucial contributions made in the areas of operations, logistics and ships support. The King's Birthday Honours list recognises people who have made significant achievements in public life or shown a commitment to serving and helping the UK.

In response to the announcement DE&S CEO Andy Start said: "It is always an incredibly proud moment to see our people in DE&S, and our colleagues across the military and industry, receive recognition for their accomplishments, commitment and service in keeping the nation safe and helping it prosper. My congratulations to everyone who has been recognised with these honours."



Major General Anna-Lee Reilly, DE&S Head of Strategic Capability, Engagement and Operations, was awarded the Companion of the Order of the Bath (CB). On receiving the honour, she said: "I am truly humbled to be made a Companion of the Order of the Bath in His Majesty the King's Birthday Honours List 2024. This award represents the hard work and professionalism of everyone who has supported recent operations, delivering vital equipment and support to our Armed Forces as we protect the nation and help it prosper. The last two years have been particularly challenging for Defence as we have faced increased global tensions that have manifested themselves most recently in Ukraine and the Middle East. However, the selfless commitment and dedication of everyone in DE&S has meant that the UK has been able to stand by its allies, and will continue to do so, today, tomorrow and together."

David Russell, DE&S Team Leader for the Boxer programme, received the Order of the British Empire (OBE) for services to Defence. He said: "It is truly a surprise and one that I am most grateful and thankful for to be recognised by His Majesty with this award. I owe thanks to the many inspiring and amazing people who, throughout my career, I have worked with, who have supported me and helped me to deliver for and support our armed forces in their daily mission of protecting the nation."



Katherine Bavington, Lead Finance Business Partner in the DE&S Weapons Operating Centre, also received an OBE. She said: "I am incredibly honoured to be recognised by His Majesty for this prestigious award. Equally I'm truly humbled to have even been nominated by my colleagues. I'm still in shock; it hasn't really sunk in yet. I've worked in the Weapons Operating Centre as their Lead Finance Business Partner for nearly three years. In that time we've delivered some incredible displays of service excellence and effective capability, supporting both Ukrainian and UK forces around the world. I love what I do and I'm beyond proud of the part I've played in this and the work we continue to do, to build resilience and capability for Defence. None of this is possible without the unwavering dedication and commitment of all of the teams that I work alongside."

A third OBE was awarded to **Wing Commander Arthur McGuire**, Commanding Officer in the Joint Services Administration Unit. He said: "I am hugely honoured and grateful to have been recognised on the King's Birthday Honours List. I feel truly humbled to have been recognised for my work at DE&S and in supporting our people from all three Services. All of our service personnel strive tirelessly to do their very best for their country at all times and to be able to support them in that is something I will always love."

The full list of defence recipients from among His Majesty The King's Birthday Honours:



Companion of Order of the Bath (CB)

Major General Anna-Lee Reilly CB British Army,
DE&S Strategic Capability, Engagement and Operations

Officer of the Order of the British Empire (OBE)

Wing Commander Arthur McGuire OBE RAF,
DE&S Joint Service Administration Unit

Katherine Bavington OBE,
DE&S Weapons Operating Centre

David Russell OBE,
DE&S Mechanised Infantry Vehicle Team

Member of the Order of the British Empire (MBE)

Squadron Leader Howard Fielder MBE, RAF,
DE&S Air Intelligence Surveillance Targeting Acquisition and
Reconnaissance Airseeker Team

Simon Dunn MBE,
Airbus Defence and Space

British Empire Medal (BEM)

Kirsteen Macdonald BEM,
DE&S Air Integrated Logistics Technical Through Life
Support Team

Christopher Boyle BEM,
BAE Systems

Meritorious Service Medal (MSM)

Sergeant Barry Maclean, RAF,
DE&S C17 Team

Flight Sergeant Hailey Hulme, RAF,
DE&S Typhoon Team

Warrant Officer Class One Mark Griffiths, Royal Navy,
DE&S Naval Ships Support Team

Commander Field Army Commendation (3* Army Commendation)

Major Gregory Treasure, British Army,
DE&S Artillery Systems Team

Land Component Commander Commendation (3* Army Commendation)

Captain Elliot Baker, British Army,
DE&S Land Combat Vehicle Challenger 3 Team



NEWS

Putting land equipment capability in the hands of military and defence personnel

Bringing together DE&S, industry, the British Army and the wider Defence community, DVD2024 is the year's most important land equipment exhibition. This is the second time that DE&S' Lt Col Martin Hickie has taken the helm as DVD Programme Manager. Desider met with Martin to find out more.

Why is DVD so important to Defence?

It is difficult to overstate the importance of bringing our mission and industry partners, delivery agents and international allies together at UTAC Millbrook to discuss the collective challenges facing UK Defence. The British Army has plans to become a more modern, lethal force, while strengthening UK prosperity. We can only deliver that vision through collaboration across multiple organisations.

Setting clear goals and working together, with a common understanding, is key to meeting our objectives. DVD provides us with an important opportunity to discuss those goals and objectives, update our industry partners, see first-hand the

remarkable innovations that industry has to offer, and be challenged by alternative viewpoints.

Jointly sponsored by DE&S and Army Headquarters, DVD has evolved and today we bring our international partners and allies along with us, as we face up to global security challenges. DVD is further raising its profile by supporting our international export campaigns to assist with Defence's contribution to UK prosperity.

What challenges do you face in delivering DVD and how do you manage them?

For the DE&S Land Equipment Operating Centre (LEOC), planning and delivering an event on this scale can feel quite

daunting. We will have around 200 industry exhibitors alongside stands from DE&S, the Army and other MOD stakeholders, and we're expecting in the region of 6,000 visitors this year. This is all delivered by a relatively small team from DE&S, Army and UTAC – our delivery partner for DVD. The task is, however, made simpler by the professionalism and enthusiasm of that small team, who are committed to DVD's success and see the value that their efforts make within UK Defence.

What do you hope people will gain from DVD2024?

What people gain will depend on where they are coming from and what they want to get from the event. There is value to be found at DVD for everyone who attends.

For service personnel, it is the opportunity to see the impressive kit that the Army and DE&S are bringing into service now. They can get 'hands-on', experience the ride-and-drive facility in the off-road area, and leave with a sense that industry is listening and delivering on everyone's behalf.

For industry, I want them to have an opportunity to connect directly with their customers in Defence, allowing them to have both formal and informal discussions about how we can help one another going forward, as well as providing the opportunity to engage with other industry suppliers at the event. This is particularly important for Small and Medium Enterprises, who have a unique opportunity to get in front of the Army and DE&S at DVD.

For those of us in capability and acquisition roles, I hope we get to see what's on offer and catch a glimpse of where industry is driving the innovation that will assist us in the future, as well as getting a chance to engage on the joint programmes we're delivering today.

Staged at UTAC Millbrook in Bedfordshire, DVD takes place on 18 and 19 September.



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PEOPLE

Harriet Rushton

Job title

Salvage and Marine Operations (SALMO) Wrecks Environmental Manager

What does your role involve?

My colleagues and I manage the inventory of around 5,700 MOD shipwrecks worldwide. We assess the risk of them polluting the marine environment by releasing oil and chemicals from fuel and ammunition. I bring environmental management expertise to the team, having worked in marine environmental assessment throughout my career.

What do you most enjoy about your job?

I love the variety of this role, from marine biology to archaeology and history, and the eclectic mix of subjects that pass through my inbox every day! For example, a request from the US Navy to recover the bell from a US destroyer sunk off the coast of the Scilly Isles (kudos to the SALMO ROV team for executing that mission). Another time I was asked to deep-dive into the engineering of minesweeping equipment to determine whether mercury may still present; researching corrosion, chemical contamination and marine protected areas. Working closely with academics is fascinating, and I enjoy presenting to international forums and engaging with subject matter experts to share knowledge.

What is your greatest accomplishment to date?

I cycled Colombia's Alto de Letras, almost unintentionally, more to avoid bailing, turning around and subjecting myself to the baking heat of the starting point again.

What keeps you energised about working at DE&S?

The people I work with and the work itself! The MOD is unique in its wreck management methods, and as the experts we're trusted to manage the programme how we determine is most appropriate. I'm also given free rein to be myself and play to my strengths, and I feel valued and supported. I've always felt like this in my roles in Defence, and I'm very lucky to have had the managers and team I've had.

Who or what has shaped who you are?

As a teenager, I was shaped by my parents supporting me to do triple science at school, instead of the arts, and then having to work hard for my grades. Later, working on fishing boats in the Falklands and being the only woman on board, and then solo-trekking up the Patagonian Andes was really formative. And also, getting my speedy road bike and the freedom that enabled. I've been very lucky with the bosses I've had in the Civil Service; they have been intelligent, logical, knowledgeable, fun, supportive mentors, and I'm so grateful for that.

What do you enjoy doing in your spare time?

I very much enjoy keeping fit and having adventures! I cycle, run, climb, kayak, dive and ski, and row with the Royal Navy Portsmouth Gig Club. I draw, paint and love reading history books too. Like many locked-down people during the pandemic, I began what is now an obsession with my garden. It's wild and floral and I love it!

What might surprise people about you?

I speak passable Spanish, learned while working on the fishing boats and then travelling in Patagonia. I can competently complain about there being no fish left in the sea and ask for directions to the nearest BBQ.

What's the best advice you've ever been given?

Be yourself.





Jets from the RAF Aerobatic Team, the Red Arrows, perform a flypast above London to celebrate His Majesty The King's Official Birthday Parade.

EDITOR'S CHOICE

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A RAF Typhoon Display Team jet takes off from RAF Coningsby. The aircraft is painted in a 1944-era 'Day Fighter' scheme to commemorate the 80th anniversary of D-Day.

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