

DESIDER

AN INSIDE LOOK INTO LIFE AT DEFENCE EQUIPMENT & SUPPORT



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START

Talking

As 2022 draws to a close it's natural for us all to reflect on the past 12 months – and a lot has happened. We all recognise that the world completely changed in February, with Russia's illegal invasion of Ukraine. It was a defining moment for Europe and NATO, and for wider global security. With our international allies, we remain resolute in standing alongside the Ukrainian people and I'm proud of the leading role that we have played in support of this endeavour.

While Russia may be the most visible and obvious threat to our security we've witnessed this year, it is by no means the only one. Digital threats are accelerating rapidly, and we need to be able to match and exceed our adversaries' capabilities. They are learning quickly from the West's evolving technology to develop their capabilities and reach even further. We can't afford to stand still. We must work with our partners to adapt quickly, adopt and exploit new technology, and create a Defence that's prepared for today, and for tomorrow.

This is why we have to think differently, refreshing and resetting our strategy and approach to acquisition. Our response to the conflict in Ukraine has demonstrated our ability to deliver with agility, extremely rapidly and effectively. But key to our continued success is how we operate in partnership across Defence and with our allies, truly working together as One Defence.

In my role as National Armaments Director I recently met with NATO Allies, as well as our other international partners and industry leaders to discuss our collective response to the current challenges to national and Euro-Atlantic security. Engagements like these give us the opportunity to share insights, collaborate and align our priorities. They are invaluable to our One Defence ethos and I'll be talking more about this in the January edition of Desider.

Another international priority, and threat to global stability, is climate change. And while we continue our mission to equip the UK Armed Forces with everything they need to keep our nation

safe, we have to think responsibly about the lifecycle of that kit, how it's procured and produced, and what happens to it when it reaches the end of its service life. A huge part of that concerns our support programmes and how we manage equipment five, ten, twenty years down the line – all the way to the safe and environmentally conscious disposal.

The future of our planet will be determined by what we all do at every level to protect the environment. We have a major role to play in tackling climate change and moving towards net zero. Not just with the equipment we procure and support, but also across our estates. We are committed to holding our sites to bold carbon-reduction targets, focusing on carbon offsetting and sustainable energy generation.

Looking ahead to 2023, the race to accelerate action in response to climate change will be a key priority for us. DE&S is striving to meet the needs of our clients, communities and the environment we live in, by delivering economic, environmental and social benefits through the contracts we award. You can read more about this and how DE&S is embedding social value and sustainability into our contracts on page 4.

Before we head into the new year, I'd like to say thank you to everyone across our One Defence team for your continued and impressive hard work, playing such a vital part in the delivery of government priorities. DE&S has a critical role to play in keeping our nation safe and secure, and I'm extremely proud to be leading our great team. Enjoy some time off with your friends and families over Christmas and the New Year, and I look forward to what we will achieve together in 2023.

SENIOR LEADER COMMENT

Andrew Forzani

Andrew Forzani, DE&S Director General Commercial, talks to Desider about how DE&S is championing sustainability in the commercial space

Speaking broadly, with each project DE&S has three great opportunities to ensure sustainability and social value are embedded in our commercial processes and those of our partners.

The first is when our teams make sure appropriate consideration is given to environmental and sustainable factors at the requirement-setting stage. Here we can identify the environmental and sustainable priorities that will be carried through the programmes and projects as a golden thread.

The second opportunity is when we determine how much weight and importance to give to those factors. For example, Commercial teams help design the evaluation criteria so we have the opportunity to make it even more important in the way that we set these weightings.

Then, as a final part of contracting, we've got 'social value'. Social value is a mandatory requirement for all procurements and, since 2021, a minimum of 10% of tender evaluation weighting is allocated to social value criteria. This is an important step that is really about setting aside a percentage of the evaluation to deliver wider social, economic and environmental benefits in central government procurement. The model focuses on five themes of Covid recovery: tackling economic inequality, fighting climate change, equal opportunity and well-being. We've now let over 100 contracts with social value criteria that all deliver additional benefits in the performance of the contract, including for some contracts, working towards net zero greenhouse gas emissions.

We are also working with our strategic suppliers to drive the sustainability agenda and have started to measure environment, social and governance (ESG) impact. We are starting to measure our suppliers against these, so we're not just measuring their programme and financial performance, but also their behaviours and commitments to ESG at a corporate level. Engaging with these measures helps us understand what their net zero targets are, and how ambitious they are. This gives us a wider understanding of their goals and means we can hold our suppliers to account on ESG.

For example, at a recent meeting with our partners at BAE Systems, there was a real focus on our sustainability work. DE&S and BAE Systems have been working together in our campaign to deliver a more sustainable business and footprint through



constructive challenge and partnering. The Cabinet Office Annual Review for the supplier also highlighted a number of metrics against which companies are baselined to sector peers, and we have seen a definite change in the approach as a result. This has supported BAE Systems' own drive towards sustainability with noticeable improvements to their targets of hitting net zero by 2030 for the company and 2050 for their whole supply chain.

Our suppliers will make investments in certain areas if we tell them something is important to us. The more that we signal the importance of sustainability – particularly with those big defence companies where we are a very significant customer – we've got a great ability to drive a change in their behaviour.

One of my ambitions for defence procurement is that we only do business with suppliers that meet a certain, sustainable and environmental standard. I think this is the sort of game-changing commitment we need. We're not there yet, but with a really clear net zero agenda, we could ensure that we only operate with companies that are on the same track to becoming carbon neutral as us. I'd like to set a really clear standard on what we expect from suppliers, and I'd like DE&S to take the lead in this.



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PEOPLE

James Clare

James Clare is the UK MOD Director of Climate Change and Sustainability. He is driving the MOD's response to climate change and ensuring that Defence is adapting to the impact of climate change. Here he talks to Desider about the importance of Defence evolving sustainably.



Defence needs to adapt to climate change to assure that we can continue to operate now and in the future. We have to adapt our sites and capabilities to respond to the physical impact of climate change. We must make sure we are resilient to wider global economic changes as the world transitions to a low-carbon economy.

The good news is that sustainability is already a significant part of UK Defence policies and processes, and DE&S already puts sustainability at the heart of its procurement programmes. But we can always be more sustainable and do more to protect or enhance our capabilities, to reap wider benefits

including increased efficiency and reduced carbon emissions. Given the amount of spend that goes through Defence, and DE&S in particular, in terms of platforms and capabilities, there's a number of interventions we can take to consider sustainability.

When doing this, we need to reinforce the 'whole life mindset'. We need to be thinking about how and where our military assets will be deployed in the future? What are they going to be used for? And how will we reuse, redeploy or dispose of them correctly?

We must continue to work with our industry partners. We already share the same problems. Now, we should

come together, share information and approaches, and think about how to incentivise innovation in this space.

It's important that we create a Defence environment where people want to talk about sustainability issues. We need to have an inquisitive and growth mindset. Everyone in Defence should work together to question how will we achieve this. How do we come together to make the most of the opportunities presenting themselves, rather than responding to them as risks? If you view this as an opportunity, you want to do something about it. If you view it as a risk, you won't do something about it until you have to. The time to act is now and if we don't get behind this, it will be too late.

Key to this is ensuring there is a common understanding of sustainability across the whole of Defence. And then amplify this. By amplifying it and raising awareness of it, people will recognise that we need to come together in our approach. We've got to adapt certain policies and processes because without that, the system is always just going to be reactive.

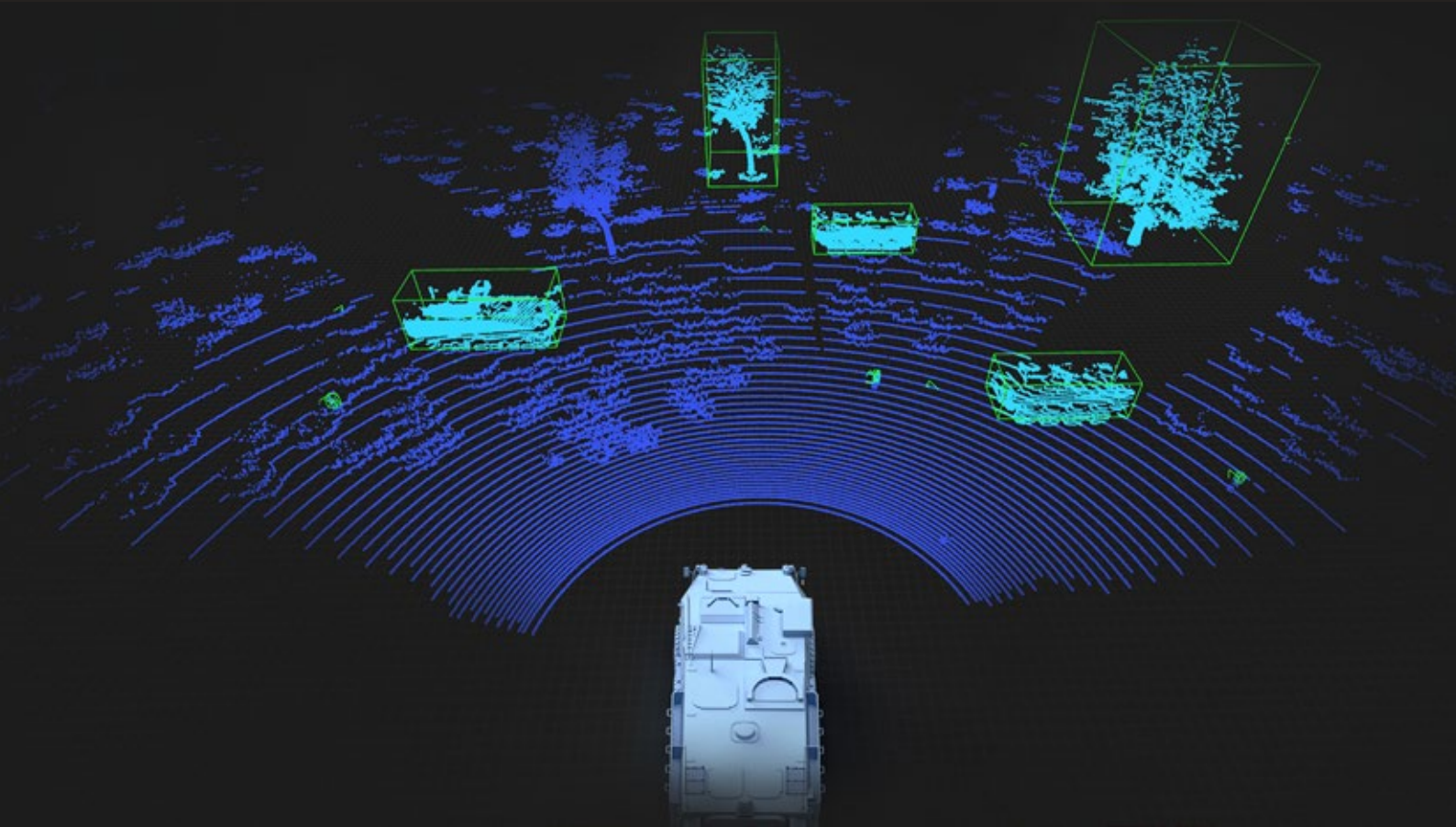
And that's what I want to highlight here – that's the power DE&S has to embed sustainability into their processes. If this is amplified across Defence, we can optimise the value of the guidance and advice, and that is the true value DE&S can bring.

Finally, I want to recognise the work that DE&S is doing to mitigate its own emissions. DE&S is thinking holistically and working alongside industrial partners to lower emissions and enhance its wider environmental management. While other organisations across Defence are setting up their own climate change and sustainability teams, I think DE&S is one of the front-runners.



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NEWS

Contract awarded for final five Type 26 frigates

DE&S has awarded a £4.2 billion contract to BAE Systems to build the second batch of Type 26 frigates for the Royal Navy.

NEWS



Delivering on ambitions laid out in the National Shipbuilding Strategy Refresh earlier this year, the contract, awarded by DE&S to BAE Systems, will support 1,700 British jobs over the next decade at the Govan and Scotstoun sites in Glasgow.

BAE Systems has also committed to invest £1.2 billion in the UK supply chain, supporting over 2,300 jobs at more than 120 suppliers all over the UK.

Leading the Royal Navy's anti-submarine warfare surface fleet, the five new City-class ships – HMS Birmingham, HMS Sheffield, HMS Newcastle, HMS Edinburgh and HMS London – will join the first three Type 26 ships already being built at Govan: HMS Glasgow, HMS Cardiff and HMS Belfast.

Construction of all eight frigates is expected to be completed by the mid-2030s, with the first – HMS Glasgow – entering service by the end of 2028.

Vice Admiral Paul Marshall, DE&S Director General Ships, said: “The award of the Type 26 Batch 2 manufacture contract is another key milestone in the United Kingdom's shipbuilding programme, reaffirming our commitment, alongside our industry partners, to deliver a highly effective anti-submarine frigate fleet for the Royal Navy.”

Replacing the bulk of the retiring Type 23 fleet, the primary purpose of the advanced Type 26 warships will be anti-submarine warfare, protecting the UK's continuous at-sea nuclear deterrent and Maritime Strike Group.

At just under 150m long, with a top speed of more than 26 knots and a range of more than 7,000 nautical

miles, they will also be capable of countering piracy, and delivering humanitarian aid and disaster relief.

The vessels will carry the Sea Ceptor missile defence system, able to destroy airborne and sea surface targets. They will also be fitted with a five-inch medium calibre gun, an embarked helicopter for specific operations, radar and sonar for navigation and tracking, and a Mk.41 vertical launch silo for rapid-fire missile launches.

A flexible mission bay means the vessels can also be adapted to carry specific armed forces and equipment tailored for operations.

In the manufacturing supply chain, £248 million worth of work has been committed to Scotland, with £16 million to Wales and £749 million to England.

Defence Secretary Ben Wallace said: “We are investing in our fleet to ensure our Royal Navy maintains its world-leading capability to protect and defend our nation at sea... supporting thousands of high-skilled jobs in Scotland, and more across the wider UK supply chain, this contract will continue to boost our British shipbuilding industry, galvanising the very best of British engineering, manufacturing and design.”

Improving build efficiency, BAE Systems has submitted a planning application for a new 175m long, 85m wide shipbuilding hall at Govan, which will allow two frigates to be built simultaneously under cover. This investment will be a major factor in the final five City-class ships costing less and being delivered faster than previous vessels.



NEWS

Ukraine Minister visits DE&S

DE&S hosts Ukraine's Deputy Defence Minister, who visited after the organisation secured vital military aid for Ukraine.



Volodymyr Havrylov visited the DE&S Headquarters at Abbey Wood, Bristol, to see first-hand the support the MOD is sending to Ukraine.

The UK was the first European country to secure weapons for Ukraine and has so far provided over £2.3 billion worth of military aid. This includes nearly three million rounds of small arms ammunition, hundreds of armoured vehicles, thousands of anti-tank weapons, and multiple-launch rocket systems that are able to strike targets on the battlefield with pinpoint accuracy.

DE&S manages a vast range of complex projects and programmes to buy, support and supply vital equipment and services for the UK Armed Forces. But throughout 2022, it has also been responsible for procuring much of the UK military support being sent to Ukraine.

This visit followed an earlier announcement that the UK will be providing Ukraine with equipment to support its armed forces through harsh winter conditions, and 1,000 more surface-to-air missiles to counter the threat of Russian attacks on Ukrainian infrastructure.

While in the UK, Mr Havrylov also visited the UK-led programme that is training Ukraine's armed forces and held discussions with UK industry partners.

Andy Start, DE&S Chief Executive Officer, said: "I'm immensely proud of the work the teams at DE&S have done to support our Ukrainian allies to date. This has been a huge team effort involving different parts of government and companies right across our supply chain."

During the visit, the UK's Minister for the Armed Forces, James Heapey, joined a call with counterparts from the US-led Ukraine Defence Contact Group (UDCG). The UDCG is made up of around 50 countries from around the world that are supporting Ukraine.

Mr Heapey said: "The Ukrainian people have no closer friend in their heroic fight than the UK. The military aid we have provided so far has made a real difference on the battlefield. My continued engagement with Volodymyr and with international partners through organisations like the UDCG have allowed us to support Ukraine's requirements for the coming winter and beyond."

NEWS

Greener power for air power

Following successful trials, DE&S will provide the RAF with innovative electric generators that will dramatically reduce harmful emissions and running costs.



Forty new ground power units (GPUs), using the same battery packs found in Nissan Leaf electric cars, will soon power Typhoon aircraft on the ground at RAF Coningsby and RAF Lossiemouth.

The units will replace the current diesel generators, as part of a £4 million contract with Denmark-based company Illinois Tool Works Ground Support Equipment. They will reduce harmful emissions by over 90% and running costs by 80%, resulting in £13 million of savings across the Typhoon fleet over a 10 year period.

As well as providing a more environmentally friendly method for powering the aircraft, the units will also considerably enhance the working environment for ground staff, as they are no louder than a dishwasher or electric shower.

The purchase was made by the DE&S' Typhoon delivery team following successful trials of the innovative generator at RAF Coningsby by their Air Ground Equipment team and colleagues from BAE Systems.

Typhoon delivery team member, Flight Lieutenant Adam Hayler, said:

"DE&S and the RAF committed to finding ways to bring Defence closer to net zero and these units will make a significant contribution towards DE&S' aim to achieve net zero greenhouse gas emissions across our operations and infrastructure by 2040.

"The current in-service diesel GPUs have a high fuel

consumption, are noisy and have high carbon dioxide emissions. In fact, around 42% of the CO2 footprint from seeing off the aircraft comes from these GPUs. In contrast, this new electric GPU is emission free, quieter and, with its battery-powered unit, can be used inside hangars with no need for input cables or ventilation. It means we have a much cleaner and safer working environment."

The units are also more easily transported and can be recharged from any standard plug worldwide, making them invaluable in deployed locations.

Air Vice Marshall Simon Ellard, DE&S Director Combat Air, said: "These new generators are a step forward, both in operational capability and in their green credentials. We are extremely pleased to be a part of the effort towards net zero."

The 40 new units will arrive in March 2023. The diesel-powered units will be stripped for spare parts to power the remaining fleet, as part of a 'reduce to produce' programme.

Nick Sharples, Head of Technology Delivery, Support and Training for BAE Systems' Air sector, said: "Delivering sustainability where we can in fast-jet support is a key goal for both BAE Systems and the RAF. Not only are we able to reduce the environmental impact with the new ground power units, but we are also reducing the cost of running the UK Typhoon fleet."

NEWS

DE&S supports world-first sustainable fuel flight



DE&S, alongside RAF and industry partners, has achieved a military world-first. An RAF Voyager – the military version of an Airbus A330 – took to the skies over Oxfordshire powered completely by 100% sustainable aviation fuel. This is not just a first for a military aircraft of its size, it is a first for any aircraft type in the UK.

Sustainable aviation fuel – made from waste-based sustainable feedstocks, such as used cooking oil – reduces carbon emissions on average by up to 80% compared to conventional jet fuel. It also lessens the RAF's reliance on global supply chains and improves operational resilience.

DE&S played a key enabling role in the trial; securing the use of the Voyager aircraft for the test and putting in place the contractual arrangements to enable procurement of the fuel.

Geoffrey Simpson, DE&S Chief Engineer & Type Airworthiness Authority for the Voyager Platform, was instrumental in organising the trials and the military permit to fly, ultimately signing off the flight as being safe to take place.

“It has been truly exciting to be a part of an initiative that has demonstrated to the world that 100% sustainable fuel can be used safely. There is still a way to go, but I am incredibly proud to have been part of something that represents a major stepping-stone in the sustainability process.”

The 90-minute flight was a joint endeavour between the RAF, DE&S and industry partners Airbus, AirTanker and Rolls-Royce, with the fuel purchased from Air bp. The Voyager, crewed by a combined RAF, Rolls Royce and Airbus flight test team, flew from RAF Brize Norton and replicated an air-to-air

refuelling sortie. It demonstrated the RAF's potential for its future operational capability, ensuring the ability to contribute to UK Defence wherever and whenever required.

Richard Murray, Director Air Support at DE&S, added: “DE&S staff involved in this ground-breaking flight can be rightly proud of their part on this remarkable achievement. It is hoped demonstrating these sustainability benefits will further stimulate the market to continue taking an innovative approach towards future operating capability and help DE&S support Defence and the wider government's climate change ambitions.”

The safe use of sustainable aviation fuel could mark a step-change towards the RAF's goal to be net zero by 2040. As part of the Government's Net Zero 2050 goal and Jet Zero Strategy, the RAF also plans to have its first net zero airbase by 2025.

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Preferred bidder chosen for Royal Navy Fleet Solid Support ships



DE&S has selected a preferred bidder to build new support ships for the Royal Navy, with a contract that intends to create 1,200 UK shipyard jobs, hundreds of graduate and apprentice opportunities, and an expected 800 further jobs across the UK supply chain.

Team Resolute, comprising BMT, Harland & Wolff and Navantia UK, has been appointed as the preferred bidder to deliver three crucial Fleet Solid Support ships to the Royal Fleet Auxiliary (RFA). The ships, which provide munitions, stores and provisions to the Royal Navy's aircraft carriers, destroyers and frigates, will be the second longest UK military vessels behind the two Queen Elizabeth-class aircraft carriers.

The £1.6 billion contract to manufacture the vessels is now subject to HM Treasury and Ministerial approval.

The contract will deliver significant capital investment in the UK. By pledging to invest £77 million in shipyard infrastructure to support the British shipbuilding sector, Team Resolute aim to create one of the most advanced yards in the UK. This will give a significant boost to domestic and future export shipbuilding, and offshore opportunities.

Team Resolute's proposal guarantees that the 216m-long vessels – each the length of two Premier League football pitches – will be built to Bath-based BMT's entirely British design.

Under the contract, the majority of the blocks and modules for the ships will be constructed at Harland & Wolff's facilities in Belfast and Devon, with components manufactured in their Scotland delivery centres in Methil

and Arnish. The entire final assembly for the three ships will be completed at their shipyard in Belfast.

This programme of work, which also supports a significant British-based supply chain, will be undertaken in collaboration with internationally renowned shipbuilder Navantia. Build work will take place at Navantia's shipyard in Cadiz, Spain, in a partnership that allows for key skills and technology transfer from a world-leading auxiliary shipbuilder to UK yards.

Defence Secretary Ben Wallace said: "This news will be a significant boost to the UK shipbuilding industry. By selecting Team Resolute, the Ministry of Defence has chosen a proposal which includes £77 million of investment into the UK shipyards, creating around 2,000 UK jobs and showcasing cutting-edge British design. Building on ambitions laid out in the National Shipbuilding Strategy, this contract will bolster technology transfer and key skills from a world-renowned shipbuilder, crucial in the modernisation of British shipyards."

The contract will support 120 highly skilled jobs at BMT and aims to deliver 200 further education opportunities on graduate placements and apprentice programmes, as well as supporting thousands of jobs throughout the supply chain. Harland & Wolff's UK welding academy is set to train 300 new welders during the contract.

Vice Admiral Paul Marshall, DE&S Director General Ships, said: "Fleet Solid Support will deliver worldwide logistical and operational support to the Royal Navy, including the Maritime Strike Group on deployment. Significant investment in emerging shipyards across the UK will also strengthen and diversify our industrial base."

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FEATURE

Gone, but never forgotten: DE&S remembers

Remembrance Day, 11 November, is a poignant moment for everyone working in Defence, and for the whole country. It's a time to recall the sacrifices made by those who fell protecting the UK and its allies, and to think about the men and women serving right now. Here, DE&S colleagues remember the friends and loved ones who died while serving in the British Armed Forces, and tell us what Remembrance means to them.



Graeme Boyle, Defence Munitions:

"Even though we come together to remember on one day in November, I personally remember every day of the year. During Remembrance, we should reflect on all the men and women serving in hostile places, far removed from their homes and families. I remember my fallen brothers and sisters in arms, and think of the families who lost loved ones and how lonely they must feel at this time of year."

Lieutenant Commander Isha Harvey, Planning Officer:

"As a British Trinidadian, for me Remembrance includes paying thanks to all the members of the Commonwealth who served and sacrificed alongside British forces. I pay tribute to my great-uncle who served as a pilot in the Second World War. The freedoms that we get to enjoy today we owe to them all and Remembrance is an integral part of Britain's shared heritage and history. We will remember them."



Katie Blevins, Establishment Support Manager:

“Remembrance is important to me because of how much it signifies. It’s our chance to remember those that have fallen, but also those who bear mental and physical scars long after they return. It’s imperative we use this opportunity to educate future generations and ensure the memories of those who have made these sacrifices are not forgotten. We will remember them.”

Ebi Cole, Chief of Staff:

“My Great Grandfather served in the First World War as part of a regiment from British West Africa. He served a long way from home, risking everything, often under unbearable conditions. His service and the sacrifices made by those fighting shoulder-to-shoulder with him are only now being talked about. This is why Remembrance is so important. For me, it’s about the forgotten soldiers, sailors and aviators, their bravery and their sacrifice. We must remember them.”

Corporal Chamandeep Singh, Logistics Supply Specialist:

“Remembrance Day is incredibly important to me as an opportunity for us to pay our respects and give gratitude to all those who have made the ultimate sacrifice. As a Sikh, it’s really important and inspiring for me because a lot of Sikh’s fought in the First and Second World Wars with courage and bravery. My father was in the Indian Army, and I learned a lot from him and his service. He was an inspiration for me and the main reason I joined the British Army. Wearing this uniform and a turban makes me proud of the thousands of Sikhs who came before me making sacrifices for us.”

Major (ret’d) Wayne Owers, General Manager:

“We must remember. They died for us, for their homes, their families and friends, for a collection of traditions they cherished and a future they believed in. They died for our United Kingdom. The meaning of their sacrifice rests with our collective national consciousness. Our future is their monument. We will remember them.”



FEATURE



Vice Admiral Paul Marshall, Director General Ships:

“For me I think about my great-grandfather who gave his life in the Staffordshire Regiment in the First World War. But I also think about my grandfather, a Staffordshire farmer during the Second World War. Both men contributed in different ways to a national endeavour. I also think about colleagues in the fleet, some of whom I lost during the years of my service. But thinking to the world today, I also reflect on the role we all play in conflict around the world, particularly Ukraine, and the terrible human cost being felt. Remembrance reminds us of the tragedy of this cost. Lest we forget.”

NEWS

News in Brief

UK provides 1,000 more surface-to-air missiles to Ukraine

Defence Secretary Ben Wallace has announced that the UK will shortly complete the delivery of approximately 1,000 additional surface-to-air missiles to the Ukrainian Armed Forces. This comes in response to Ukrainian requests for greater air-defence capabilities. The missiles will play a vital role in defending Ukraine's airspace and protecting its cities and critical infrastructure, which are being continually targeted by Russia.

The equipment consists of launchers and missiles, and is capable of shooting down air targets, including Russian

drones and cruise missiles. They can be used in conjunction with kit already being used by Ukraine's armed forces.

Defence Secretary Ben Wallace said: "This commitment of hundreds more surface-to-air missiles continues our defensive support for Ukraine against Russian aggression – and will help Ukraine counter the threat from illegal targeting of critical national infrastructure."

The announcement followed the Defence Secretary's visit to two training sites where over 7,400 Ukrainian recruits have been trained by UK forces and

eight partner nations.

After the Ukrainian recruits complete the training, the UK sends them home with essential items including combat clothing, body armour and ear defence, waterproofs and sleeping bags.

They are also issued with a fully stocked individual first-aid kit after learning how to use tourniquets, field dressings and chest seals during training. Recruits leaving the UK now will be provided with extreme cold weather kits. In total, the UK is providing 25,000 sets of extreme cold weather clothing, 20,000 sleeping bags and 150 insulated tents.

First multi-role sensor installed on Wedgetail aircraft

The first of the three Wedgetail E-7A airborne early warning and control aircraft has now received its distinctive multi-role electronically scanned array (MESA) sensor.

Procured by DE&S for the RAF, the Wedgetails will provide the UK with long-range air surveillance and control of an area of operations. The aircraft are being converted by a team of 100 highly skilled engineers at the STS Aviation Services modification facility in Birmingham.

Richard Murray, DE&S Director Air Support, said: "This is a hugely complex programme that is being delivered in a difficult global supply chain environment given the challenges of the last two years. Installation of the world-leading MESA sensor on the first aircraft marks a key milestone in the development of the UK E7 Wedgetail fleet and reflects the hard work of all of the project's partners."

The MESA sensor, developed and manufactured by Northrop Grumman, is housed in a fin on the spine of the aircraft. Fitted to a fuselage section, which has been reinforced as part of the heavy modification process, the sensor will provide 360-degree coverage. It provides mission crews with the tools to accurately



detect, identify and track airborne and maritime targets at long ranges, while maintaining continuous surveillance of the operational area.

Air Commodore Alex Hicks, Assistant Chief of Staff Capability Delivery Intelligence, Surveillance and Reconnaissance, said: "Installation of the MESA sensor is a tangible demonstration of the progress being made toward the phenomenal capability of Wedgetail entering RAF front-line service. This highly complex technology

is undeniably exposed to the challenges facing global supply chains and I am grateful to all involved in the programme for their continued work and dedication."

The Wedgetails will be operated by 8 Squadron at RAF Lossiemouth. Several UK-based suppliers, including Leonardo in Yeovil, Thales UK in Crawley and Hamble Aerostructures in Portsmouth, are also providing UK-developed technology, materials, skills and services for the aircraft conversion process.

RAF aircraft support life-saving Atlantic mission to rescue sailor in distress

Aircraft and emergency equipment provided by the DE&S Air Domain played a starring role in the dramatic rescue of a sailor battling six-metre waves in the Atlantic Ocean.

Two RAF aircraft, a Poseidon P-8A Maritime Patrol Aircraft and an Atlas A400M, successfully rescued a sailor in distress in the Atlantic during a storm 700 nautical miles west of Ireland. The sailor's ship had lost its mast and was struggling in six-metre-high waves.

The Poseidon crew used their advanced surface search capabilities to locate the yacht among the high waves. They then coordinated with the Atlas, enabling it to check the area and find the yacht. After the Poseidon made radio contact with the sailor and confirmed he was uninjured, the Atlas dropped air sea rescue apparatus (ASRA) to the yacht by parachute.

This was the first time an Atlas had used the ASRA equipment in action. The rescue pack was retrieved by the sailor.

The Poseidon then helped two merchant

vessels find the yacht and recover the sailor. They reached him early the next morning and brought the sailor aboard to be treated for minor injuries.

The Atlas' captain, Flt Lt Mainwaring, described his enormous sense of relief at a successful rescue. He said: "I am incredibly proud of Team Atlas, with the whole force helping to deliver emergency equipment at very short notice and under

challenging conditions."

Richard Murray, DE&S Director Air Support, said: "Incidents like this are a testament to the importance of our work – our purpose is to keep the nation safe and DE&S' role in that endeavour has yet again played a crucial role in saving someone's life. We should all feel proud of the part we played in this successful outcome."



DE&S' Mo Bingham wins at the Women in Defence Awards

Mo Bingham, a supply chain manager at DE&S, has been announced as a winner in the Unsung Heroines category at the Women in Defence Awards. Mo was recognised for her work raising awareness of the menopause, from both a wellbeing and business perspective, across the MOD.

Mo chairs the MOD menopause network, which she set up in 2019. On her win she said: "I am thrilled to have won this award as it recognises how important it is to support individuals going through this time in their lives, which can often be lonely and confusing. Our network now has over 1,700 members and continues to go from strength to strength. By talking openly about the menopause and normalising conversations around it, we can all play a part in reducing the misunderstanding attached to it and provide help and support for those experiencing this often life-changing phase of life."

First held in 2016, the Women in Defence UK Awards promote the value of women in the sector and celebrate their incredible achievements.

Jo Osburn-Hughes, DE&S Diversity and Inclusion Co-Champion and Gender Champion, said:

"At DE&S, we have many talented women working to deliver for our Armed Forces, in a variety of roles from engineering, project management and logistics, to finance and human resources.

"As a signatory of the Women in Defence Charter, we are committed to ensuring we attract and retain a diverse workforce and are proud of the commitments DE&S has made in areas such as flexible working policies, an active staff network and a supportive mentoring scheme. In DE&S, we want everyone to feel able to bring their skills and experiences to work and that their contribution is recognised, so it is fantastic to see Mo's efforts in the area of

menopause acknowledged."

Two of Mo's colleagues at DE&S, Gail Thorne and Bethania Coccia, were also shortlisted for awards in the Most Collaborative category.



NEWS

News in Brief

DE&S wins at prestigious project management awards



DE&S has won the Contribution to Project Management: Not-for-Profit Award at the Association of Project Management (APM) Project Management Awards.

The award recognised DE&S' strength and commitment to meeting the challenging needs of the UK Armed Forces through robust project delivery methodologies, tools and people.

Mark Geoghegan, Head of Project Delivery at DE&S, said: "We are delighted to have won this award. It recognises the hard work and dedication that our

teams in project delivery bring every day to ensure the UK Armed Forces have everything they need to operate effectively. We have around 2,500 people working in our project delivery teams and it is their strength and focus that enables us to meet their complex needs."

The APM Project Management Awards recognise individuals and organisations from across the project management profession. This is the fifth time DE&S teams have won APM Project Management Awards since 2015, when they won Programme of

the Year, followed by Young Project Professional of the Year in 2016, Project Professional of the Year in 2017 and Construction Project of the Year in 2020.

Andy Start, DE&S CEO, said: "Our core mission is to deliver and support the equipment needed to deter aggression and keep our nation safe. Our dedicated, specialist teams, who are working on projects to provide some of the best military equipment on the planet, are at the heart of delivering this mission. My congratulations to our project professionals for winning this prestigious award."

Minister for Defence Procurement visits Abbey Wood

Alex Chalk, the new Minister for Defence Procurement (Min DP), visited Abbey Wood to meet DE&S staff, learn more about their work and better understand the vital role the organisation plays in equipping the UK's Armed Forces.

Hosted by Andy Start, DE&S CEO, and members of the Executive Committee, Alex was given a valuable insight into

DE&S' current priorities, including the support being given to Ukraine.

Alex met representatives from across the DE&S Land, Air, Ships and Strategic Enablers domains, and had the opportunity to see first-hand how DE&S procures kit. He was briefed on how DE&S is innovating to develop the technological advances needed to support our colleagues on the front-

line, with a demonstration by the Future Capabilities Group of various kit, including robot dogs and drones.

As well as meeting DE&S staff, Alex also spent time meeting colleagues in the Submarine Delivery Agency.

This was the first of many visits over the coming months, as DE&S continues to build a close and productive relationship with the minister.

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AN INSIGHT INTO THE UK'S DEFENCE EQUIPMENT & SUPPORT

Desider is the monthly corporate magazine for DE&S. It is aimed at readers across the wider MOD, armed forces and defence industry. It covers the work of people at DE&S and its partners, and other corporate news and information.

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FEATURE

Making Acquisition Net Zero

Mick Brown, Team Leader of the DE&S Acquisition Net Zero programme, speaks to Desider about the steps his team are taking to achieve net zero.

To begin with it's worth explaining what 'Acquisition Net Zero' is. The DE&S 2025 Strategy states that we will: "Reduce the carbon footprint of the equipment solutions we deliver to support our clients in achieving their net zero targets by 2050." The 'carbon footprint' of a piece of equipment is the total amount of greenhouse gas emissions created throughout its lifecycle, from concept phase to end-of-life. Increasingly, our clients will want to understand the carbon footprint of different procurement and support options.

Reaching 'net zero' means balancing the carbon that's emitted with an equal amount of carbon that's removed from the atmosphere. To do this, DE&S must offer equipment solutions that reduce greenhouse gas emissions to an absolute minimum, rather than simply relying on carbon offsetting to reach net zero. This will be easier in some cases than others; it's difficult to imagine future combat aircraft being powered by anything other than carbon-based fuel, albeit synthetic. But there are many areas where we can exploit developments in commercial technology for defence purposes without having a negative impact on our military capability. In fact, low-carbon technology and innovation, such as energy-efficient ship designs, can offer operational and support advantages, including increased sustainability, resilience and stealth.

Defence's future energy strategy will be key to achieving net zero. Fossil fuels will become increasingly scarce and expensive, driving-up costs and constraining operations. Acquisition Net Zero is not a 'nice to have'; it is critical to operational effectiveness, as well as supporting the UK's climate change commitments.

The DE&S Acquisition Net Zero team was formed in summer 2022, so it is still early days for us, but we are progressing four areas of work that closely aligned to DE&S' environmental strategy.

First, recognising that acquisition is a defence-wide activity, we are building relationships with key stakeholders across MOD, to agree common approaches and ensure that DE&S' actions are aligned with our counterparts in other areas. We are collaborating with the Climate Change

and Sustainability team in MOD Head Office, who are the policy leads for Defence Net Zero, and with the Defence Support Organisation, in Strategic Command, who recently published the Sustainable Support Strategy to guide the future environmental sustainability of our support activities.

Second, we are working with Front-line Commands to build a shared ambition for net zero equipment solutions. We are aiming to have net zero statements in our future agreements and are exploring how decarbonisation can best be reflected in equipment requirements.

Third, we are engaging our partners in the defence industry to see how, together, we can embed a greater consideration of net zero through the supply chain, and how we can encourage innovation and pull-through of decarbonisation technology. We must also look for opportunities for recycling, reusing or repurposing equipment at the end of its life (known as the circular economy).

Finally, we are identifying opportunities to weave net zero goals through our acquisition policies, processes and tools, and to help DE&S project teams work with their clients and suppliers to develop low-carbon equipment and support solutions.

In five years' time I hope DE&S will be recognised as a global leader in the decarbonisation of defence equipment capability. Achieving net zero will be embedded in our organisational culture and will be a key factor in acquisition decision making. We will understand the whole-life carbon footprint of the equipment solutions we deliver, and our customers will hold us to account for our carbon efficiency. Our suppliers will be proactive in reducing their emissions and will come up with innovative decarbonisation solutions, enabling Defence to be a 'fast follower' of developments in other sectors. We will design equipment with the potential for future carbon-reduction upgrades. Energy and propulsion technology will mature rapidly over coming decades and we need to be ready to make the most of any opportunities with existing, as well as new, equipment, and we will embrace circular economy principles.

Most importantly, we will be proud to work in an organisation that is fighting climate change while delivering world-class military capability.



FEATURE



FEATURE

DE&S estates to become carbon neutral by 2025



DE&S has identified three of its sites – Defence Munitions Plymouth, MOD West Freugh and Defence Munitions Crombie – to become carbon neutral by 2025.

Planned work includes improving the efficiency and insulation of each site's buildings, replacing glazing on the windows, switching to LED lights, installing solar panels and wind turbines, decarbonising heating systems, installing electric vehicle charging points, planting trees, restoring peat land and salt marshes, and investigating carbon capture opportunities.

This is all part of DE&S' environmental strategy, which set a goal of achieving net zero greenhouse gas emissions across its operations and infrastructure by 2040, and to use carbon negative estate to support the offset of the carbon footprint from equipment by 2050.

Other sites, including the DE&S Headquarters in Bristol and the Logistic Support Operating Centre (LSOC) in Bicester, have been looking at ways to improve biodiversity, including installing Mason Bee nests. This is part of a scientific study with the charity Praise Bee to plot the Mason Bee and any

associated species across our estates.

The LSOC site has also successfully secured funding to develop a bee meadow. They will be planting a carefully chosen selection of flowering plants there next spring to encourage wildlife.

Iain McLeod, Net Zero Portfolio Manager at DE&S, said: "DE&S, along with all public sector organisations, is committed to delivering the Government's target to bring all greenhouse gas emissions to net zero by 2050... We have been amazed at the support from staff across DE&S who are really passionate about making a difference to climate change. From small changes, like using refillable drinks cups and switching off monitors at the end of the day, to taking more sustainable transport options to, from and during work, to creating biodiversity projects and seeking ways to improve our estates; it's clear that our people want to make a real difference."

From solar panels to sustainable aviation fuel, DE&S is committed to reducing the environmental impact of its work. We're exploring new green technologies and low-carbon power sources for the vehicles and aircraft we procure. And

we're looking with fresh eyes at all of our sites to see how we can reduce their carbon footprints and encourage new wildlife to thrive throughout them.

Stephen Wilcock, Director for Engineering and Safety at DE&S, said: "The environmental strategy for our operations here at DE&S focuses on three themes: reducing the organisation's carbon footprint, sustainable energies and offsetting. In terms of the military equipment and services we buy and support, we are working with our suppliers to ensure we are providing sustainable and resilient solutions for the UK Armed Forces, for the whole life of that equipment."

Dave Clark is chair of the joint DE&S Net Zero Portfolio Steering Group:

"Defence accounts for 50% of UK central government emissions and, through this strategic partnership with DE&S, we will play a critical part in reducing their emissions and a pivotal role in leading Defence to net zero. Drawing together the best available talent and expertise across industry and academia, we are proud to be working as one team to deliver this strategy."

Green initiative earns offshore patrol vessels environmental award

The green credentials of the Royal Navy's offshore patrol vessels HMS Tamar and HMS Spey, procured and supported by DE&S, have been acknowledged in the MOD's annual environmental awards.

The DE&S Ships Acquisition team has worked with industry partner BAE Systems to provide the Royal Navy with two new River Class offshore patrol vessels (OPVs), which are the 'greenest' in the fleet so far.

HMS Tamar and HMS Spey have been fitted with a pioneering selective catalytic reduction system that ensures impeccable emission credentials. The system reduces nitrogen oxide emissions, which cause damage to the ozone layer and are a key component of acid rain, by up to 97%. It works by converting urea to ammonia, which is then injected into catalysts in the exhaust system where harmful emissions are broken down and converted into nitrogen and water.

The successful initiative earned the team a Sanctuary Award. Now in their 30th year, the Sanctuary Awards showcase military and civilian efforts throughout the Armed Forces to protect the environment and make the MOD more environmentally friendly.

The build of the ships took place at the BAE Systems' shipyards in Glasgow, Scotland. This guaranteed the retention of key skills and safeguarded jobs in the shipbuilding industry. The process of fitting the catalytic converter systems to HMS Tamar and HMS Spey was challenging, but yielded results far greater than anticipated by its designers, going so far as to

allow both vessels to operate in protected waters around the world. This is especially important given their mission patrolling island chains in the Indo-Pacific region. The ships' new system shows its benefit when they come into port as well, as these are often based close to where people live and work.

In the months leading up to the handover, the DE&S delivery team spent a considerable amount of time working with BAE Systems to make certain that the ships' staff had the technical knowledge required. This ensured that personnel could effectively maintain the system while at sea and benefit from them.

The technology developed for HMS Tamar and HMS Spey was designed to be a 'bolt-on part', which means there is potential for it to be retrofitted to other ships in the fleet. This would further enhance the Royal Navy's green credentials and operation capability, future proofing and creating a more sustainable fleet.

The vessels were commissioned into service on 18 June 2021, after five years of hard work and collaboration between the Royal Navy, DE&S, BAE Systems and the MOD. The converter scheme was so successful that it has now been broadened to include the new Type 26 frigates, spearheaded by HMS Glasgow.



PEOPLE

Charli Norman

Name:

Charlie Norman

Job title:

Environmental Protection Culture Manager

What does your role involve?

I lead on improving environmental protection and sustainability culture across DE&S. This involves increasing awareness of these issues by organising events like World Environment Day, implementing key goals from our DE&S environmental strategy, and coming up with initiatives to positively change staff behaviour.

What do you most enjoy about your job?

Environmental protection and sustainability are my passion. I love being able to work in a role that allows me to be actively involved in these. Defence is complex and environmental protection is not always in the forefront of people's minds. I enjoy the challenge that presents and find it rewarding to know that the work I do is contributing to protecting our environment for future generations, as well as ensuring operational capability.

What is your greatest accomplishment (in your role) to date?

Delivering a really successful World Environment Day event. It was my first task in the role. Having it run smoothly on the day, and the great feedback I received afterwards, was so rewarding. World Environment Day is a great opportunity to raise awareness and engagement in the organisation.

What keeps you energised about working at DE&S?

The fast pace at which environmental protection is constantly evolving keeps me driven. I work with a great team and we're always bouncing ideas off each other. This keeps me motivated to achieve my objectives. Senior leaders are always keen to hear my ideas and knowing I play a role in improving environmental protection in DE&S keeps me engaged.

Who or what has shaped who you are?

I played a lot of team sports growing up. I think this taught me to be a team player and to appreciate support from others. It's also given me a competitive side, which drives me to achieve.

What do you enjoy doing in your spare time?

I enjoy running, yoga and being outdoors.

What might surprise people about you?

I represented Great Britain in the first ever GB woman's international American Football game.

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

Focus on the present and appreciate everything you've accomplished so far. We spend too much time looking for the next achievement; it's not always about the destination, sometimes we need to enjoy the journey.





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