

# DESIDER An inside look at defence equipment & support



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

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The UK passed two poignant milestones in November that really brought home the significance of what Defence does, and how important it is that we continue to support it, both here in the UK and with our allies around the world.

On 11 November, DE&S sites across the UK joined the nation in marking Remembrance Day; a moment to pause, reflect and thank all the people who have made the ultimate sacrifice defending our nation and our values.

A week later, our allies in Ukraine passed the thousandth day of their fight against Russia's brutal invasion. I feel deep admiration for the courage Ukraine's Armed Forces have shown since February 2022, and immense pride at the support we have given them, from Operation Interflex's training programme to the fast-tracked delivery of essential equipment. We must ensure Ukraine triumphs and we must help them rebuild.

The need to maintain a military force that deters our adversaries and effectively protects our nation and allies is the driving force behind the widespread changes taking place across UK Defence. With the launch of the MOD's Defence Reform programme, the Government is taking dramatic, far-reaching action to improve how our defence enterprise operates.

Defence Secretary John Healey has identified that UK Defence needs a stronger centre, with clear responsibilities and single points of accountability, which can draw together its many parts, direct a future-focused balance of investment and support the Government's 'One Defence' drive.

And the UK needs a robust, sustained Defence that will continue to be one of our country's most important drivers of growth and prosperity – something Chancellor Rachel Reeves recognised in her first Budget. This is what Defence Reform will deliver. By rethinking the structures at the heart of the MOD, it will provide the Department and our Armed Forces with clear prioritisation and strategic direction. It will unlock the wider changes needed to help us drive operational excellence in equipping our Armed Forces.

As part of the Defence Reform programme, a new National Armaments Director (NAD) position will be created, for the first time separate from that of DE&S CEO, which I wholly support and welcome. With oversight of the end-to-end defence acquisition system, the NAD will be the lynchpin in our relationship with the UK and international defence sectors, and will play a key role in forging NATO's future defence industrial strategy.

This couldn't come at a more important moment. With rising tensions in the Indo-Pacific and conflicts in Europe and the Middle East, the UK has a duty to modernise, systematise and industrialise its defence.

Our new DE&S is built to be responsive and agile, and stands ready to support the new NAD and the wider modernising changes taking place across Defence. Almost 7,000 of our people will be working in our new operating model by the end of November, bringing us closer to completing the first major phase of our transformation process.

The changes we're making to our ways of working have already reduced waste, increased insight across our equipment portfolio to support faster requirement setting, and improved our ability to focus our resources on Defence priorities.

They will also make us a more effective, responsive partner to our allies in NATO. I recently travelled to Brussels for the autumn session of the NATO Conference of National Armaments Directors (CNAD). Through the CNAD, NATO is becoming a more integrated and capable alliance. But we still have an enormous job to do to address the dangerous world we live in.

I found it a timely reminder of how important the new fully fledged NAD role is. By building this out, Defence Reform puts the UK in the best position to support and guide NATO's industrial strategy, and to implement the recommendations of the ongoing Strategic Defence Review. It's crucial that NATO leverages the skills and strengths of its members to their fullest extent through strategic planning, coordination and investment that bolsters the entire alliance.

Finally, I would like to congratulate the winners of the Defence Quality Awards and the Women in Defence UK Awards, and give a special mention to my colleagues at DE&S whose hard work secured us Public Sector Organisation of the Year at the Association for Project Management Awards. The judges praised our 'sophisticated project environment', 'robust training' and 'effective partnerships', and I couldn't agree more.

#### SENIOR LEADER COMMENT

# The Why, What, When, Who and How of project delivery

Richard Smart, Director Project Delivery in DE&S System Integration, shares some thoughts on successful project delivery and explains how the new DE&S is supporting that.

#### When my grown-up kids ask, 'How hard can it be to buy and support stuff for the UK's Armed Forces?', my consistent reply is that sometimes it can be very hard.

What we do is often risky, complex and linked with long horizons. What's needed to counter today and tomorrow's threats is a fast-changing picture that's open to debate. Few other sectors contend with the same level of variability and uncertainty, including an array of potential operating environments ranging from extreme cold to hot and dusty, or challenging logistics that can be disrupted by enemy attack. Success requires us to be at the top of our game. And so much is at stake when it comes to what we do. The lives of the people we serve and ultimately global security depend on our delivery.

A simple framework I use for project delivery is the four Ws and the H: Why, What, When, Who and How.

We need to be clear about what we're doing, when it's happening and, above all, why we're doing it. In short: who for, what for and why now? If we're not clear on that, we won't do a good job.

We need to have a clear idea of our objectives and an overarching, unifying purpose to guide how we plan and run a project.

If we're really good at working as one team, we're more likely to succeed. Imagine the extended team are rowers in a boat. They have to work in synch, pulling in the same direction, or they aren't going to get anywhere. If we haven't got the same view of the What and the Why, we'll be doing things in different ways and for different reasons. Best case that means we'll be duplicating effort; worst case, it means increasing miscommunication, misunderstanding and a blame game that's a slippery slope to ruin. In contrast, transparent, constructive conversations, acknowledging shared faults, without pointing fingers at one another, allow us to keep the project moving forwards.

Next comes Who, the people we deliver with and for. This reaches beyond our immediate teams, extending across the whole defence ecosystem to cover other MOD delivery agencies, our mission and industry partners, and wider Government and international counterparts. We know that working as one team is critical to delivery success. It's important to be clear about respective roles and responsibilities, and play to each other's strengths.



The How is our skills, our processes, our tools; how we get stuff done. Improvements in these areas are going to give us more control over scope, schedule and cost, and help us manage the issues, opportunities and risks we face. This is what we'll be working on as DE&S moves towards operational excellence and I'm excited to be back in DE&S, rejoining the journey having been on loan to MOD Head Office and then the Army.

A lot has happened while I've been away. DE&S is now better able to support and deliver for the UK's Armed Forces. We're an organisation built around our people and a stronger focus on skills will help us gain the right mix of experience and knowledge. Within our new operating model, I'm working with teams across the organisation to help DE&S deliver in a more effective, more joined-up and less burdensome way.

## Atlas A400M celebrates 10 years of service and capability

The Atlas transport aircraft, which celebrated its tenth anniversary on 17 November, has redefined strategic and tactical airlifts worldwide.

Since the first of the 22-strong A400M Atlas fleet was delivered to the Brize Norton RAF base in November 2014, this multi-role military transport aircraft has repeatedly proven itself on a range of operations.

Atlas has become a vital asset for the UK and its allies across the globe, demonstrating unprecedented performance, adaptability and resilience in support of military and humanitarian missions.

Atlas has excelled during relief operations and contributed to the military response to the pandemic by transporting patients, equipment and vaccines. It played a pivotal role in the evacuation of personnel from Afghanistan and Sudan, and most recently delivered essential supplies by air drop to Palestinians in Gaza.

The A400M is a product of a successful international partnership, combining expertise from the UK, Belgium, France, Germany, Spain and Turkey, coordinated through the Organisation for Joint Armament Co-operation (OCCAR), and working with industry partner Airbus.

Marking the anniversary, Michelle Østergaard, A400M Team Leader and Head of Programme Delivery, said: "The A400M has been an excellent demonstration of multinational collaboration, with DE&S working in partnership with OCCAR and five other nations for the success of this European procurement project. Throughout the last 10 years DE&S has provided support for the aircraft's global operations and we continue to work closely with OCCAR, nations and industry to procure equipment and support services for the A400M fleet."

Four Atlas squadrons are based at RAF Brize Norton, with an Atlas also operating



in the Falkland Islands. The latter provides maritime reconnaissance, search and rescue, and medical evacuation cover in the South Atlantic. With the benefit of airto-air refuelling this Atlas can also airdrop supplies in Antarctica.

Group Captain McIntyre, Commander Air Wing at RAF Brize Norton, said: "The Atlas has consistently demonstrated superior strategic capabilities and versatility for the many challenging missions faced by the RAF. Its range, altitude, speed, payload and tactical performance have proven invaluable in humanitarian missions over the past 10 years, including in the Caribbean, Afghanistan, Sudan and across the Middle East, not to mention protecting Europe's Eastern flank."

The Atlas A400M is a four-engine turboprop aircraft that can deliver 37

tonnes of cargo over long distances. Its large hold can accommodate a range of strategic loads, including supplies, troops, vehicles, helicopters and tanks. It has advanced avionics, fly-by-wire controls and a fully digital cockpit, allowing for efficient operations, precision navigation and reduced pilot workload. It can reach challenging, remote locations, and operate from short, unpaved runways. As a result, it has proven indispensable in critical operations in diverse environments.

To date, the fleet has logged 60,000 flight hours, underscoring its reliability and indispensability in missions ranging from combat support to disaster relief. Last year, an Atlas carried out the longest-ever flight of this type of aircraft, flying non-stop for 22 hours from RAF Brize Norton to Guam in the Pacific. baesystems.com/tempest

# Tempest

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# The Type 31 roadmap to success

Following HMS Formidable's steel cut ceremony, Helga Kitney, DE&S Type 31 Team Leader, and Commodore Stephen Roberts, the Royal Navy's Senior Responsible Owner, explain what is making the Type 31 programme a success.

**Helga Kitney:** "I am delighted that work on HMS Formidable, the third ship in the Type 31 programme, is underway. From maritime security patrols and disaster relief to intelligence gathering and defence engagement, these ships will be at the heart of the Royal Navy's surface fleet. The Type 31s are being designed and built at an incredible pace, considerably faster than comparable international warship programmes."

**Cdre Stephen Roberts:** "This is a momentous occasion for all involved. The cutting of steel is an important ship-building tradition that marks the start of construction. Type 31 is a Government Major Programme. When complete it will deliver a fleet of generalpurpose frigates and act as the pathfinder for the National Shipbuilding Strategy."

**Helga Kitney:** "Each Type 31 frigate will be fitted with a worldleading missile system, designed and manufactured in the UK, and a range of highly advanced weapons and sensor systems. They are being built following a modular design that makes them easier to upgrade and their systems and equipment easier to update. We have a dedicated team based in Rosyth made up of civilians and Royal Navy personnel overseeing the build, ensuring the quality of the end product and preparing for Type 31 entry into service. "

**Cdre Stephen Roberts:** "From the late-2020s, HMS Formidable and her sister ships will work alongside our allies to deliver a credible UK warship presence; deterring aggression, keeping essential maritime trading routes open, intercepting and disrupting those using the sea for unlawful purposes, and maintaining the security of the UK's interests". **Helga Kitney:** "Key to the programme's success so far has been our focus on a coherent, aligned approach and the strong bonds between DE&S and Naval Command HQ. We present a joined-up approach to stakeholders, aligning our priorities and speaking with one voice. And our effective working relationships with industry are equally important.

"The programme got off to a great start, awarding the contract in late-2019. We were in the process of setting up and developing the all-important relationships and ways of working when the pandemic hit. Like many others, we had to adapt to the new environment and get on with it. To address areas for focus and improvement in our agreement with prime contractor Babcock and subcontractor and mission systems integrator Thales UK, we adopted the Government's Strategic Partnering Programme workstream approach. This encourages achieving outcomes through collaborations that goes beyond the black and white of a contract. It proved to be a success and we continue to make use of it.

**Cdre Stephen Roberts:** "The Type 31 programme is an important driver of growth and prosperity, both in the region around Rosyth in Scotland and across the UK. Babcock has invested £31.5 million in a new assembly hall, as part of a £60 million investment in Rosyth's shipbuilding facilities. This is on top of around £100 million invested over the last decade to ensure Rosyth's capability and capacity is optimised to support further opportunities. The Type 31 frigate is based on Babcock's Arrowhead 140 design and can be tailored to meet the specific requirements of export customers, further supporting the UK economy."



# **DE&S** activity highlights

### A digest of some of DE&S' work from the past month.



#### DE&S awards Frazer-Nash Consultancy contract for Naval Design Partnering

DE&S has awarded a Naval Design Partnering (NDP) contract to Frazer-Nash Consultancy, who will establish and manage a framework to deliver technical design services for the Royal Navy.

The four-year contract builds on the success of the previous NDP contract, which ran from 2018 until April 2024. The NDP framework will deliver design studies that inform new projects, as part of the pipeline for future maritime capabilities. The combined MOD and industry design service teams are geared towards finding innovative solutions to naval challenges.

As part of delivering the contract, a number of highly skilled roles, central to the programme, will be created. The framework's membership will be drawn predominately from UK companies, directly supporting the UK's Defence industry.

In particular, the participation of small and medium-size enterprises is an important part of the framework and will be monitored by DE&S to identify opportunities for continuous improvement. The social value benefits associated with supply chain diversity and collaboration will also be a key consideration, along with support for innovative technology.

#### New portable mine clearance capabilities for Ukrainian soldiers

Ukraine is the most heavily mined country in the world and the provision of mine clearance capabilities is a high-priority for the Armed Forces of Ukraine. Now, with funding from the UK and international partners through the International Fund for Ukraine (IFU), new portable mine-clearing equipment has been procured and delivered by DE&S.

Under a contract, worth over £23 million and signed in just three months, with Ensign-Bickford Aerospace & Defense (EBAD), Ukrainian soldiers have access to the Man-Portable Tactical Line Charges (MPLC) capability. EBAD is a US company specialising in innovative explosive, non-explosive and electromechanical solutions for Defence. DE&S' Rapid Procurement Team worked at pace to secure a significant number of MPLC.

Designed for ease of transport and access in a self-contained backpack, the system can be rapidly deployed by a single soldier, without additional tools or equipment. Once in place, the shock tube firing system launches a rocket and then detonates a line charge, clearing a specific area of mines, while minimising collateral impact on non-combatant personnel, structures and property. One of its key features is its ability to be operated from concealed positions, enhancing mobility and protection for soldiers.

Major General Anna-Lee Reilly CB FREng, Director of Strategic Capability, Engagement and Operations at DE&S, said: "The IFU continues to be a lifeline for urgent capability, providing a funding mechanism to procure priority military equipment for Ukraine and we thank our international partners. These MPLC will help in providing an essential capability in conducting clearing operations in urban and complex environments from a covered or concealed position."

### More than 500 MOD Military Working Dogs protected thanks to Canine Support Solution

DE&S Specialist Explosive Ordnance Disposal and Search (EOD&S), Exploitation and Countermeasures team has awarded a new contract for a 'canine catalogue' to support and train more than 500 military working dogs. From German, Belgian and Dutch Shepherds to Springer Spaniels and Labradors, the Canine Support Solution contract will support the hundreds of dogs currently serving at home and overseas.

Surrey based Von Wolf K9 Sport & Service Dog Equipment Limited has been awarded the contract for five years, with the option to extend it by two more years. The contract has an estimated overall value of £3.1 million for the full term. Von Wolf currently employs four members of staff and this contract will create an additional role within their business.

The Canine Support Solution provides a range of essential training and welfare items for the dogs, including goggles, hearing protection, safety boots, cool vests and flotation devices.



### Landmark UK-Germany defence agreement strengthens security and prosperity

UK Defence Secretary John Healey and German Defence Minister Boris Pistorius have signed a landmark defence agreement in a major moment for NATO, and European security and prosperity. The signing of the Trinity House Agreement marks a fundamental shift in UK – Germany relations.

The agreement will see the UK and Germany collaborate on a range of defence projects. This includes rapidly developing extended deep-strike weapons and exploring off-board undersea surveillance capabilities to protect critical underwater infrastructure in the North Sea.

It will bring the two nation's defence industries closer together, with a long-term commitment to manufacture Boxer armoured vehicles, and to support complex weapons development in the UK.

The new partnership will drive investment into the UK, paving the way for a new Rheinmetall artillery gun barrel factory, supporting over 400 jobs and boosting the British economy by nearly half a billion pounds. The opening of the factory will see the UK manufacture artillery gun barrels for the first time in 10 years, using British steel produced by Sheffield Forgemasters.

Defence Secretary Healey said: "The Trinity House Agreement is a milestone moment in our relationship with Germany and a major strengthening of Europe's security. It secures unprecedented levels of new cooperation with the German Armed Forces and industry, bringing benefits to our shared security and prosperity, protecting our shared values and boosting our defence industrial bases."

#### DE&S CEO attends Conference of National Armaments Directors meeting

Alongside NATO allies and international partners, DE&S CEO and UK National Armaments Director (NAD) Andy Start attended the Conference of National Armaments Directors (CNAD) Autumn Plenary Session at NATO Headquarters in Brussels on 23 and 24 October.

The CNAD plays a vital role in delivering the interoperable capabilities needed for the Alliance's deterrence and defence. The NADs discussed the pressing challenges facing national and global defence sectors. These included the need for greater cooperation between allies, partners and industry, as well as joint procurement and standardisation of platforms and equipment. They also spoke about how to strengthen engagement, in critical areas such as supply chain security.

At the end of the session, Andy Start said: "Working with our NATO allies and international partners, the UK is pursuing stronger collaboration in capability development, engagement with industry and support for Ukraine. We've had a series of bilateral meetings with different countries. We've had multilateral meetings, including jointly with the US, Italy, France and Germany, and we've had a trilateral meeting of the AUKUS national armaments directors."

# The case for early market engagement

Julie Brettell, Defence Commercial Director Supply Chain, and Major General Phil Prosser, Director Joint Support, introduce the Defence Supply Chain Capability Programme.

#### A team drawn from across the defence enterprise, including civil servants, military and industry representatives, have launched the delivery phase of the Defence Supply Chain Capability Programme (DSCCP).

The programme will deliver a significant improvement in how we understand, design and manage our industrial ecosystem and supply chains. It will challenge people across the enterprise to think differently about how they can collaborate as 'One Defence'.

The Government has identified that a strong defence industrial base and a resilient supply chain are vital to securing our nation, deterring aggression and driving economic growth. More than anything, our war-fighters need a robust, resilient system that enables them to deliver lethal effect where and when we choose. These have also been identified as priorities in Defence Reform, which will ensure a resilient end-to-end supply chain and the required readiness of the national 'arsenal'.

The DSCCP will help to deliver this resilience and readiness by developing departmental capability across four inter-related areas: managing supply chain risk; supply chain architecture, collaborating with industry; and understanding and shaping markets.

Last month, as part of our ongoing collaboration with industry, we launched the joint MOD-Industry Task and Finish Group (TFG), which will deliver our shared goal of improving and cohering early market engagement (EME) approaches across the defence enterprise. As a crucial strand of the DSCCP, EME seeks to bring industry into the capability development and acquisition lifecycle much earlier than has previously been the case. This can help the MOD gain insights from industry on 'the art of the possible', including current and emerging technical solutions to military requirements. It can also give potential suppliers an understanding of the Department's future intentions and the confidence to develop technical capabilities and industrial capacity in-line with anticipated military requirements.

The TFG will develop thinking around EME and support events, groups and individuals that engage the market earlier, more collaboratively and more efficiently – all with the aim of providing our war-fighters with the best capabilities possible, at the point of need. To achieve this, we aim to develop better tools, frameworks and guidance, including finalising our framework Enabling Agreement, which facilitates openness and transparency between the MOD and our industry partners, and allows us to maximise our collective contribution to UK Defence.

EME is as much a mindset as it is tools and processes; sharing ideas about emerging opportunities and capability challenges, and the threats to our collective progress. Joined-up thinking and action at the earliest possible juncture are the best ways to unlock

our collective potential, delivering procurement strategies that are better informed and aligned to the market.

Initiatives such as the MOD Industry Study Days and the DE&S Gateway are key to building a culture and a network that is collaborative and complimentary by design. Our collaborative approach and inputs from across the defence sector will build on these efforts and accelerate this new way of thinking and working. Getting this right, together, will deliver faster, more efficient procurement; better engagement with industry experts; more opportunities to exploit new technology; a more resilient and sustainable supply chain; and ultimately lower risks and improved procurement outcomes.





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# New Defence Reform programme launches

The most widespread reform of UK Defence in over 50 years aims to bring about far-reaching changes to create a more robust, efficient UK Defence.

Amid increasing global threats, Defence Secretary John Healey has launched a programme to create a stronger defence centre, to secure better value for money, better outcomes for the UK's Armed Forces and better implement the recommendations of the ongoing Strategic Defence Review.

DE&S CEO Andy Start welcomed the launch of the programme saying: "Defence Reform is a major move forward and a declaration of intent to profoundly improve the way Defence works. It will create a simpler Defence, laser-focused on warfighting and deterrence."

The Defence Reform programme will provide clearer responsibilities and single points of accountability through its three most senior roles and their headquarters.

A newly created National Armaments Director (NAD) – now separate from the role of DE&S CEO – will be responsible for working with industry to deliver the capabilities needed to execute defence plans and operations. They will have oversight of the end-to-end defence acquisition system, delivering a resilient supply chain and an enterprise that is as integrated and lean as possible.

The NAD will ensure the required readiness of the national 'arsenal', harmonise procurement and work closely with wider government, industry, academia and international partners to deploy best practice and investment.

Andy Start said: "This fully fledged NAD role is an important step towards transforming defence acquisition and the industrial base in the UK. This new role will have the levers needed to ensure our Armed Forces have the right kit and to deliver the defence industrial strategy we need for growth."

Alongside this, the MOD's Permanent Secretary will lead a stronger department of state, which will have a greater role and policy voice across government. And the Chief of the Defence Staff, as the professional head of the UK's Armed Forces and senior military adviser to the Prime Minister, will oversee a new Military Strategic Headquarters (MSHQ), where he will formally command the individual Service Chiefs for the first time. The MSHQ is due to be fully functional by the end of 2024.

The reforms will ensure faster delivery and clearer accountability across Defence, to support the Government's 'One Defence' drive. Prioritisation will flow from Defence Ministers to the Permanent Secretary, Chief of the Defence Staff and NAD, who will set a clear strategic direction.

Defence Reform is informed by lessons learned during the MOD's highly praised support to Ukraine. The National Audit Office recently highlighted the speed and scale of the Operation Interflex training programme for Ukrainian recruits, and the fast-tracked procurement and distribution of essential equipment, much of which was led by DE&S.

Defence Secretary John Healey said: "Our Government is delivering the change we promised: cracking down on waste and boosting Britain's defence industry. We will forge a 'One Defence', which is clear in its goals and consistent in its methods, to make Britain secure at home and strong abroad. These vital reforms will make UK military decision-making faster, keep the country safer and achieve best value for taxpayers. This Government will strengthen UK Defence to respond to increasing threats."



Secretary of State for Defence John Healey stands with the Chief of Defence Staff Admiral Sir Tony Radakin and Permanent Secretary David Williams outside the MOD headquarters in London.

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# Fleet Solid Support programme passes Preliminary Design Review milestone

# Royal Fleet Auxiliary's new support ships reach an important milestone on their way to supporting the Royal Navy's future operations.

#### The Fleet Solid Support (FSS) programme for the Royal Fleet Auxiliary has successfully completed its Preliminary Design Review (PDR), marking a major milestone.

The major government programme now enters a new phase, focusing on detailed design and heading towards the start of the construction phase, which is scheduled for 2025.

The successful PDR completion is the result of close collaboration between DE&S, Navantia UK and British designer BMT, with the latter leading the functional design phase.

Ian Randles, FSS Chief Engineer at DE&S, said: "We are delighted to see completion of this important milestone on schedule. We would like to acknowledge Navantia UK and BMT's strong commitment to delivering an innovative and capable design, as well as their collaboration with DE&S. The Fleet Solid Support programme is on track to deliver highly capable ships for the Royal Fleet Auxiliary. We look forward to the continued successful delivery as we work towards production milestones in 2025."

BMT's approach to the FSS functional design phase integrates new technologies, such as energy-saving systems, emissionreducing solutions and provisions for future fuels, aligning it with the UK's broader carbon reduction objectives. In its design for FSS ships, BMT has delivered a state-of-the-art solution, meeting the evolving demands of modern naval operations and ensures their reliability, ease of maintenance and operational readiness.

Catriona Savage, Programme Director at BMT, said: "The successful completion of the PDR is a testament to the collaborative efforts within the partnership, driving the FSS programme forward. This milestone paves the way for delivering advanced, efficient support ships for the Royal Fleet Auxiliary, enhancing the Royal Navy's operational readiness for global missions and contributing to the UK's industrial and economic growth. Our collaboration and shared commitment to innovation are setting the stage for a new era in UK maritime capabilities."

As prime contractor, Navantia UK has overseen this work, contributing its programme management expertise to ensure the integration of all facets of the programme, including scheduling, procurement and production engineering.

José Luis Viguera, Navantia UK FSS Programme Liaison, said: "Industrial collaboration is at the core of Navantia UK's mission. Shipbuilding is a complex industry that requires the combined expertise of leading companies. The achievement of this significant milestone underscores Navantia UK's excellence in programme management, showcasing our ability to lead and innovate within the industry."

Following completion of the design phase and the PDR, BMT will continue to be involved in the FSS programme. It will monitor changes that impact the functional design, develop through-life support and training packages, deliver comprehensive safety and environmental case reports, and support Navantia UK with the ships' security accreditation.

FSS ships will be the Royal Fleet Auxiliary's modern solid store replenishment ships, delivering crucial munitions, supplies and provisions to the Royal Navy while at sea. They will be an essential supporting element to the delivery of the Maritime Carrier Strike Group. They will also be central to logistical and operational support, including counter-piracy and counter-terrorism missions, and will collaborate with allies on operations around the world.

## British soldiers to get new advanced rifle system

## DE&S places order for up to 10,000 advanced rifle sights to upgrade night-fighting capabilities for British troops.

The British Army's close combat soldiers will soon be equipped with advanced night-fighting kit. This is thanks to a contract worth up to £120 million placed by the DE&S Dismounted Close Combat Portfolio, which will deliver up to 10,000 Talon Fused Weapon Sights for high-precision rifles.

The contract will provide the latest optical technology for the SA80 A3 and Hunter rifles, with improved low-light visibility and thermal-recognition capabilities.

The Talon sight fits seamlessly on to SA80 A3 and Hunter rifles, providing the capability to clearly identify and deliver a more accurate and lethal effect from an increased distance in low- and zero-light conditions, unlocking the maximum effective range of the weapon systems.

The contract continues the procurement of the Talon as part of the Assault Rifle In-Line Low Light Sight (ARILLS) capability, under a seven-year framework agreement with Qioptiq. Based in North Wales, this agreement will sustain 650 skilled jobs at Qioptiq.

Steve Morgan, DE&S Surveillance and Target Acquisition Project Manager, said: "This new framework agreement represents a great opportunity for Defence to continue to improve and increase the night-fighting capabilities of our Dismounted Close Combat soldiers and builds on the existing relationship between DE&S and Qioptiq."

Soldiers in the Enhanced Light Force Battalion, 2 Royal Yorkshire Regiment, were tasked with trialling the rifle night-sight systems and provided glowing feedback. Corporal Brandon Allan said:

"The ARILLS sight system for the SA80 A3 fits to the picatinny rail, but you can also use it as a slung sight system. The thermal imaging is a lot clearer and more accurate. You can see and actively engage targets at a greater range than previous systems. It's a lot more effective and a further improvement of a soldier's capability. You can tune the ARILLS to meet your individual needs, to locate and target the enemy from much further away. It gives the sense of being one step ahead of everyone else."

An initial  $\pounds 26$  million order for ARILLS sights was agreed under the framework agreement for delivery to soldiers in Dismounted Close Combat units over the next two years.

Minister for Defence Procurement and Industry Maria Eagle said: "We are committed to investing in the most advanced rifle capability equipment that delivers tactical advantage for our troops on the battlefield over our adversaries. The rifle night sights are tried and tested, proving highly effective for our British troops so they will be better protected in difficult environments."

Brigadier Nick Serle, Head Military Capability Delivery in the British Army Headquarters Programmes Directorate, said: "This contract results from true collaboration between the user community, our trials and development teams, DSTL, DE&S and Qioptiq. We expect the sight to continue to spirally develop and remain truly world-leading. This is the Land Industrial Strategy in action, a collaborative and iterative journey that started in 2016." Critical in-service support for the sights will be managed through the Surveillance and Target Acquisition support contract delivered by Excelitas, which owns Qioptiq.

Peter White, Managing Director of Excelitas, said: "We're delighted that the British Army and DE&S continue to recognise the enhanced fighting capabilities that our Talon Fused Weapon Sight delivers."



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## SPEAR missile achieves trial firing milestone

### A new air-to-surface cruise missile for the UK's F-35B Lightning fleet has had a successful first guided firing.

A joint MOD and industry team has conducted the first in a series of trials of the Select Precision Effects At Range (SPEAR) air-to-surface cruise missile from a Typhoon test and evaluation jet at Vidsel range in Sweden.

This guided firing marks a critical milestone in the development and maturity of the SPEAR programme, which is managed by DE&S.

Once in service on the F-35B fighter jet, the MBDA-designed SPEAR missile will provide a potent strike capability. It will enable the Royal Navy and RAF to project power at increased range from land bases and when deployed from Queen Elizabeth-class aircraft carriers as part of the Carrier Strike Group.

Dean Pask, the MOD's Senior Responsible Owner for SPEAR said: "This guided firing represents a major step in the capability development of the SPEAR programme, and is the first in a campaign of firings to demonstrate the missile's capabilities. The success of this test is a testament to the hard work and collaborative efforts of our industry partners at MBDA and BAE Systems, as well as MOD personnel across multiple teams."

Each F-35B aircraft will be able to carry up to eight SPEAR missiles, providing the next generation of stand-off air-to-surface missiles for Suppression of Enemy Air Defences missions in challenging and complex operating environments. The turbojet-powered miniature cruise missiles have a range of over 100km, and can find their targets using a combination of laser, radar or GPS-aided guidance.

The trial, which did not carry a live warhead, demonstrated the release, gather and long-range free-flight control of the missile following a high-altitude and high-speed release from a BAE Systems-operated Typhoon aircraft. It also demonstrated the missile's ability to autonomously navigate to its target via predefined waypoints, using its advanced all-weather radar seeker to map the target area, and then use seeker radiofrequency imagery to successfully engage with it.

Matthew Brown, SPEAR Team Leader at DE&S, said: "This trial was a key step on the way to delivering SPEAR to the UK front-line, where it will provide a new capability to defeat the most complex air defence systems, enabling pilots to fly and fight wherever they're needed in defence of the UK and its allies."

Developed in the UK by MBDA, work on the SPEAR missile system supports several hundred jobs among MBDA's 5,500-strong UK workforce. The first guided firing follows an extensive series of ground and flight trials, including captive flights by Typhoons.

Mike Mew, Tactical Strike Director of MBDA, said: "SPEAR is a truly unique weapon system - the first to offer the range, flexibility, precision and load-out to defeat modern enemy air defences. The success of this trial is thanks to excellent joint working from teams across MOD, BAE Systems and MBDA."

Earlier this summer, DE&S and MBDA signed the 10-year Portfolio Management Agreement 2, which represents the renewal of a long-term strategic relationship through which complex weapon systems design, development, production and support will be conducted. It supports  $\pm 6.5$  billion of planned investment in the UK weapons industry by the MOD over the next decade and also covers Brimstone, CAMM, Sea Viper, Sea Venom and Storm Shadow.

# Protecting UK air platforms against tomorrow's threats

## The laser-based UK Defence Aids System has successfully completed its live-fire trials at the Vidsel Test Range in Sweden.

RAF pilots are a significant step closer to being equipped with a cutting-edge airborne laser self-protection system, following successful live-fire trials, which saw the UK Defence Aids System (UK DAS) defeat 100 percent of targets. The delivery is being led by the DE&S Air Platform Systems (APS) delivery team.

UK DAS capability will initially be fitted to a range of RAF aircraft, including the intelligence-gathering Shadow Mk2 and the A400M transporter, allowing both to rapidly detect and defeat threats such as missiles.

The laser was put through its paces during live-fire trials in Sweden, under the watchful eye of the APS delivery team and Team Pellonia, a collaborative UK enterprise which includes the UK MOD, Leonardo UK, Thales UK, Chemring Countermeasures and the Defence Science Technology Laboratory (DSTL), working together to deliver cutting-edge airborne defence systems.

During the trial at the Vidsel Test Range, the laser system defeated a range of infrared heat-seeking missiles being fired simultaneously. The system uses Thales's Elix-IR threat warning system to quickly detect and identify the launch of missiles, filtering out background interference so that only valid threats are tracked, classified and declared.

Once a threat has been classified, an alert is sent to Leonardo's Miysis Directed InfraRed Counter-Measure system, which tracks the incoming missile and directs a jamming laser at it with pinpoint precision. The overall system is controlled by Leonardo's Modular Advanced Platform Protection System.

DE&S APS delivery team leader Alex Buckley said: "Our team played a pivotal role in procuring this innovative system and coordinating its integration and installation on to the Shadow mk2 aircraft. We are also supporting the development of the A400M, E7 Wedgetail and CSAT Envoy installations, ensuring that a common, coherent systems approach to Next Generation Air Survivability is adopted across the UK's military air platforms.

"I am extremely proud of the contribution that the UK DAS team has made in enabling the delivery of this first-of-its-kind fully integrated system on to the Shadow mk2. The team have adeptly liaised with Air Command, DSTL, our industry partners and the platform integration stakeholders to ensure that a robust, throughlife supportable solution is provided. They are continuously working to ensure that the challenging programme timescales are met to protect our aircraft in a dynamic, evolving threat environment." The UK DAS laser system was based on a series of defined threat adversaries, landscapes and technology requirements, which helped inform its spiral development and ensure the technology is well-positioned to address the key threats facing the RAF. It will be continually updated through a separate Air Command-led spiral development programme.

Following the successful live-fire trials, Defence Secretary John Healey said: "Identifying, tracking and defeating threats from the air in seconds is crucial to having the edge over those who try to do us harm. We're equipping our Armed Forces with the very latest technology to keep them safe and give them the advantage on operations."

Partnerships, such as Team Pellonia, help boost UK economic growth. It is estimated that this project is sustaining 700 jobs at Thales in Glasgow and 1,250 specialist roles at Leonardo in Edinburgh, supporting both local and national economies.



## Major life extension programme for HMS Scott begins

Work has started on HMS Scott to extend the vessel's operational life into the early 2030s.

HMS Scott, the largest survey vessel in Western Europe and the fifth largest vessel in the Royal Navy, has arrived at APCL Group's A&P Falmouth facility, where it will undergo an extensive Ship Life Extension Programme (SLEP), overseen by DE&S.

The SLEP marks a crucial phase in ensuring the continued service of HMS Scott. Its comprehensive overhaul will include a full hull blast and recoat, and the replacement of several onboard systems. The vessel will also receive upgrades including new water management systems, sewage treatment plants, thermal oil boilers and LED lighting installations. The project also involves the removal and overhaul of key components, such as its four Cummins generators.

HMS Scott's Commanding Officer, Samuel Nightingale, said: "HMS Scott, and the capability she offers, is not only unique in the Royal Navy but also across the whole of NATO. Over the course of her service life she has probably surveyed a greater area of seabed than any other vessel in history. But, following the decision last year to extend her until at least 2033, a major docking period is required to keep her performance and availability at the highest level.

"Following the Life Extension Programme at A&P Falmouth I look forward to returning to the fleet with a rejuvenated ship brimming with all the latest capabilities."

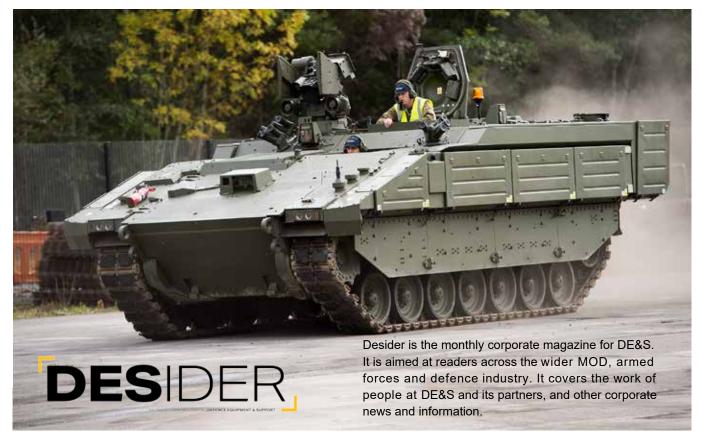
APCL has been a defence partner for 12 years, during which it has delivered Through-Life Support for many ships including Royal Fleet Auxiliary (RFA) and Landing Ship Dock Auxiliary vessels, and Tide Class Tankers. Tim Henshaw, DE&S RFA Group Technical Superintendent, said: "With the announcement that HMS Scott would be extended in service, teams from D&ES' Capability and Availability groups have worked with our A&P Falmouth to generate a comprehensive specification, identifying areas of obsolescence with existing systems and identifying replacement equipment that can be supported until the vessels Out of Service date.

"The Life Extension will include the overhaul and service of all major parts of the ships propulsion systems, ships services and mission systems. The time in port also allows for improvements in ship's crew living and working areas, with the upgrade of the galley and improvements in accommodation areas."

A small team of DE&S staff based in Falmouth, with assistance from ship's crew will provide oversight of this significant engineering project to ensure work is completed to the highest standards.

Matt Weetch, APCL's Director of Defence, said: "APCL is proud to be supporting HMS Scott in her life extension package, ensuring this vital platform can continue to support the Royal Navy into the next decade."

Mike Spicer, Managing Director of A&P Falmouth, added: "HMS Scott is no stranger to Falmouth, and we are looking forward to working with her ship's company, sub-contractors and partners in DE&S to ensure this vital capability is ready and available for her future taskings. This support period also presents a great opportunity for our apprentices here at A&P Falmouth to gain valuable experience working on and supporting MOD vessels."



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## Contract placed to deliver advanced UK satellite

A new satellite to support military operations will be designed and built in the UK, boosting the UK space sector and strengthening intelligence, reconnaissance and surveillance capabilities.

#### Armed forces personnel will have access to the latest space technology, following a contract placed by DE&S with Surrey Satellite Technology Ltd (SSTL) for a new satellite.

The  $\pounds$ 40 million project with SSTL will support around 200 skilled jobs, boosting the UK's space sector and helping to grow the economy.

The satellite, named Juno, will have advanced imagery sensors capable of capturing daytime images of the Earth's surface. Expected to launch in 2027, Juno will strengthen the UK's Intelligence, Surveillance and Reconnaissance (ISR) capabilities.

Paul Russell, DE&S Space team leader, said: "Placing contracts and managing delivery of a new generation of UK military capabilities for use in a complex and critical environment takes incredible focus and collaborative working with our defence and industry partners. These efforts are key in ensuring the UK Armed Forces have access to the surveillance and intelligence information they need to maintain a competitive edge."

The contract for Juno was awarded via competitive procurement to SSTL, the same company that manufactured Tyche, UK Space Command's first satellite, which launched in August.

Both satellites form part of the MOD's space-based ISR programme, which will deliver a constellation of satellites and supporting ground systems by 2031. These satellites will carry a range of ISR technology, including high-resolution cameras, radio frequency sensors and synthetic aperture radar systems. Together, they will support military operations, for instance by monitoring adversary activities, and will contribute to other activities, including natural disaster monitoring, the development of mapping information, environmental monitoring and tracking the impact of climate change. Maria Eagle, Minister for Defence Procurement and Industry, said: "The contract for Juno shows the UK's commitment to grow one of the most innovative and attractive space economies in the world and keep our competitive edge in space science and technology. Juno will not only support Armed Forces personnel deployed globally, but also support highly skilled jobs, delivering on the government's growth mission."

SSTL employs around 400 engineers, technicians and support staff at two sites in Surrey and Hampshire. With around half of these employees expected to work on the project, Juno will play a key part in securing critical UK skills in the growing global space sector. The project will also help inform the procurement strategy for future space capability requirements.

Andrew Cawthorne, SSTL Managing Director, said: "We're incredibly proud that the Ministry of Defence has again placed its trust in SSTL to deliver the UK's next sovereign intelligence, surveillance, and reconnaissance spacecraft. Juno will offer a step-change in imaging capability over Tyche, SSTL's demonstrator spacecraft which launched in August and is now being operated by UK Space Command."

Air Chief Marshal Sir Rich Knighton said: "With Tyche in space, and Juno now on contract, UK Space Command's ISTARI programme is making great strides, showcasing innovation and collaboration across government and industry. With these Earth Observation satellites in orbit, UK Space Command and Defence will be better equipped to conduct all-domain military operations and deliver assured space-based intelligence, surveillance and reconnaissance to the joint force and our allies."

# Double recognition for DE&S at MOD Quality Awards 2024

DE&S staff and partners across Defence gathered to celebrate the hard work and dedication of colleagues working in the Quality field who have excelled over the last year.

## Two DE&S staff members have been honoured at this year's MOD Quality Awards, in recognition of their commitment to quality in Defence.

Alec Robson, from the DE&S Air Support team, won the MOD John Bullock Quality Ambassador Award, while a unique Special Merit Award was given to Christopher Hobby from the DE&S Defence Quality Assurance Field Force (DQAFF).

The MOD Quality Awards are organised by Quality and Configuration Management colleagues and were presented this year by David Moore, DE&S DQAFF Regional Team Leader. They are a showcase of Defence's Quality successes, celebrating those who have delivered significant benefits and improvements through a Quality approach. This year's awards were sponsored by the Chartered Quality Institute and saw a record 52 nominations, reflecting a growing pool of talent across the sector.

Alec Robson was recognised for his role in coaching and mentoring; specifically, his dedication to creating, communicating and implementing best practice. Over his 40year career in the MOD, Alec has been a key member of the Engineering Quality community, forming strategy and driving improvements at DE&S.

He said: "It's an honour to receive the John Bullock Quality Ambassador Award, especially during World Quality Week with this year's theme being 'From Compliance to Performance'. By embracing Quality Management principles in driving innovation and success I was able to leverage compliance as a foundation stepping stone and push towards a performance-driven cultural mindset. Quality is a lifestyle, not an event, and we are all quality ambassadors within DE&S." Special Merit Award winner Christopher Hobby is a government quality assurance representative and, despite being a new addition to DQAFF, his colleagues say he has shown true diligence in the work he undertakes. Christopher's quick thinking and immediate action prevented a potentially life-threatening situation during a ground-running engine test exercise. His actions were applauded by the judging panel for applying both quality and safety mindsets to prevent a loss of life and equipment.

Christopher said: "I feel honoured and proud to accept the Special Merit Award on behalf of all of us associated with the Defence Quality Assurance Field Force. It is great to feel valued for my contributions towards the organisation's efforts."

This year, Thales UK took home the coveted MOD Quality Supplier of the Year Award. This award assesses the forward thinking of suppliers, examining their approach to root cause analysis, investment in quality skills and techniques for their staff, how they apply continual improvement and their leadership in the defence sector. Thales UK were recognised for their outstanding approach to governance, assurance, improvement and leadership.

Andy Banks, Director, UK Quality & Customer Satisfaction at Thales UK, said "We are honoured to be recognised as the MOD Quality Supplier of the Year; it is a testament to the dedication and high standards demonstrated by our teams. Since establishing our strategic framework for the UK in 2022, we have been focused on continuous improvement and innovation to support our partners and ensure that we deliver the quality and reliability that the MOD and the UK demand. This award celebrates not only the efforts of our Quality Team but also the commitment and hard work of all Thales employees."





#### PEOPLE

## Laura Borrelli

#### Job title

DE&S Culture and Inclusion Lead

#### What does your role involve?

I work in the People Directorate within the new Corporate area, leading a creative and passionate team of Culture and Inclusion specialists. We work on a variety of strategies and interventions to help create a values-led culture that supports the diversity and wellbeing of our people.

#### What do you most enjoy about your job?

The people! Being part of a dynamic and innovative team that prizes different perspectives and creativity, and knowing that our work has a positive impact. My background has always been in promoting equality and inclusion in organisations. I love the ambiguous nature of culture, the variety and breadth of work, the continual change, and the opportunities to learn and grow.

#### What is your greatest accomplishment to date?

It's not one great accomplishment but lots of little ones that nudge our culture towards greater equality and inclusion. I take a lot of fulfilment from changing perspectives and creating opportunities for people to value each other's differences through conversation. Try talking to someone with a different background or who you don't agree with – it can be enlightening!

#### What keeps you energised about working at DE&S?

Our organisation's mission. I feel a huge sense of pride whenever I hear about our operations (or see a Chinook flying overhead) and the incredible work we do as an organisation. When you're in an enabling role, its easy to lose sight of the bigger picture, but what work could be more meaningful right now than keeping our families and nation safe?

#### Who or what has shaped who you are?

Persevering through experiences when I've felt like I didn't belong is probably why I enjoy working in inclusion now. I've changed schools, did a history degree as a mature student, moved around a lot (in the UK and overseas), and travelled a lot for work in previous roles. What stands out though are the incredible people I've worked with. I'm very lucky to have had some fantastic leaders and mentors who have helped me feel valued and included, and supported to be myself.

#### What do you enjoy doing in your spare time?

I have two young children and a golden retriever, so I don't have much spare time right now! When I do, I love bike rides (including on my Peloton), sea swimming, saunas and ice baths.

#### What might surprise people about you?

I'm named Borrelli after my Great-Grandad, Federico Borrelli, from Schiava in Italy. As an Italian national in the UK during World War Two, he was arrested and held in a POW camp in Liverpool, before being deported to Canada on the SS Arandora Star. The Arandora was mistaken for a British warship and sunk by a German U-Boat with one torpedo left and he sadly didn't survive. I've always kept my surname in honour of Great-Grandad Federico!

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

"Progress not perfection." This mindset helps me at work and at home. As long as we're doing our best and learning from our mistakes, we're doing OK!



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A British Army solider tests out a SA80 A3 rifle fitted with the Talon Fused Weapon Sight.

during the National Service of Remembrance.

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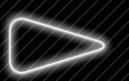
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