

# desider

the magazine for defence equipment and support



**New Dreadnought  
submarine sparks into life**

# THE DE&S WAY

THE BLUEPRINT OF THE ORGANISATION

NOW AVAILABLE BY DOWNLOADING THE DESIDER APP



Also available for  
smartphones

Search 'Desider' in  
your app store  
to download



cover image



Michael Fallon, Secretary of State for Defence, gets work underway on Dreadnought. Picture: Andrew Linnett

**desider**

[www.gov.uk/government/publications/desider-2016](http://www.gov.uk/government/publications/desider-2016)

**Editor:**

Tom Morris - 9352 37888 or 0117 9137888  
tom.morris114@mod.uk

**Reporters:**

Laura Martin Plaza, Hazel Stanley, Tom Knight,  
Hannah Carolin and Hannah Wood

**Photography and Design:**

Andrew Linnett, Ed Low, Charlie Perham, Jack  
Eckersley, Mark Hawke and Ally Bowman

**Distribution Manager:**

Dick Naughton - 9352 34342 or 0117 9134342  
DES SEC-CorpOC-BusMgr1a@mod.uk

**Printing:**



*desider* is distributed free to DE&S employees and the equipment capability organisations. Copies may be sent to readers outside MOD, including in the defence industries and is published on the world wide web via GOV.UK. While the editor takes care to ensure all material produced is accurate, no liability can be accepted for errors or omissions. Views expressed in *desider*, and products and services advertised, are not necessarily endorsed by DE&S or the MOD. All editorial submissions must be cleared by the relevant MOD authorities with content for advertorials to be cleared by the relevant MOD project team before publication.

© Crown Copyright

This magazine is produced on Coccoon Silk 90gsm which contains 50 per cent recycled and de-inked pulp from post consumer waste and Forest Stewardship Council certified material from well-managed forests.



# FOREWORD

By Tony Douglas, CEO

It has been an outstanding month for DE&S for so many reasons it's difficult to know where to start.

It began when I presented the latest DE&S staff with their Bonus Awards. It is always a great pleasure to reward staff who have gone above and beyond to deliver excellence for DE&S.

This was followed shortly after by a trip to Barrow-in-Furness, where Sir Michael Fallon, Secretary of State for Defence, cut steel on the newly named Dreadnought class.

The huge project promises to secure thousands of jobs from Scotland to the South of England and allow the Royal Navy to provide a Continuous At Sea Deterrence for the UK through the 2050s and beyond.

I stated on the day it was a very special moment and Rear Admiral Mike Wareham, DE&S Director Submarines Acquisition, also acknowledged it as a 'huge day' for DE&S, Barrow and the Royal Navy.

There was then a visit to MOD Abbey Wood by HRH the Duke of Edinburgh in his capacity as Colonel-in-Chief of the Royal Electrical and Mechanical Engineers (REME).

I am sure all of you who witnessed his visit sensed his genuine interest in the equipment and warmth towards the REME personnel, who work amongst their 11,000 DE&S civilian and military colleagues to deliver world-leading equipment and support to the UK Armed Forces.

Elsewhere during October, there were several other notable achievements deserving specific mention.

Minister for Defence Procurement, Harriett Baldwin, travelled to North Wales to announce a £131.5 million support contract for the RAF's long-range Sentinel surveillance aircraft, sustaining around 160 UK jobs.

Unmanned Warrior, organised by the DE&S Tech Office and Navy Command, was a great success with a mix of industry, academia and Defence sectors deploying to islands off the west of Scotland to demonstrate the potential offered by maritime autonomous systems to the Royal Navy. Those of you who enjoy *Desider* and its extra content on the app can see footage of this inaugural event.

The DE&S Lightweight Missiles and Systems (LMAS) project team has received a prestigious international munitions safety award for their work on the Brimstone 2 missile.

Members of DE&S have again been out in the community making a real difference – this time helping develop a local skate park near MOD Abbey Wood and giving a local charity for children based in Bath a new lease of life. This work does not go unnoticed.

And, finally, it's interesting to read more about this year's Tom Nevard Memorial Competition winner Luke Lawrence. This DE&S apprentice strikes me as a young man who will go a long way.

## SENIOR LEADER COMMENT

---

- 06** Air Vice-Marshal Graham Russell, Director Helicopters, talks to Desider about his history with DE&S, his current role and what keeps him coming back for more

## NEWS

---

- 08 Team triumph:** The DE&S Mine Countermeasures and Hydrographic Capability (MHC) team achieves some major milestones
- 09 Sentinel boost:** Min DP Harriett Baldwin announces £131.5 million support contract for RAF long-range Sentinel surveillance aircraft
- 12 Royal Appointment:** HRH the Duke of Edinburgh visits MOD Abbey Wood
- 14 Bonus Awards:** CEO Tony Douglas recognises and rewards those who have gone above and beyond to deliver excellence for DE&S
- 15 Dreadnought:** The build phase of the first of the UK's new ballistic missile submarines gets underway at Barrow-in-Furness
- 18 Working together:** DE&S Lightweight Missiles and Systems (LMAS) project team and industry receive prestigious joint award for their work on the Brimstone 2 missile
- 22 Industry collaboration:** QinetiQ and BAE Systems sign multi-million pound extensions to the Naval Combat System Integration Support Services
- 23 Unmanned Warrior:** Industry, academia and Defence sectors demonstrate the potential offered by maritime autonomous systems to the Royal Navy
- 28 Proud moment:** Bristol affiliated with HMS Prince of Wales – one of two new generation aircraft carriers procured by DE&S for the Royal Navy



## FEATURES

- 20 Community matters:** Members of the DE&S Cost Assurance and Analysis Service (CAAS) team have created a welcoming community space at a local skate park near MOD Abbey Wood
- 26 Setting the Standard:** The DE&S Defence Standardization team from Glasgow have celebrated their 50th anniversary and underlined their desire to help project teams

## REGULARS

- 30 First Person - Unmanned Air Systems**  
Strategic Deputy Head Charlie Hazeldean on her varied career, mentoring and her love of the great outdoors
- 32 Jobs - Desider's latest recruitment pages**
- 36 60 Second spotlight - Luke Lawrence**  
on competing for Great Britain in Modern Pentathlon, winning the Tom Nevard Memorial Competition and taking your opportunities
- 37 DE&S People - Warrant Officer Class 2**  
Damien Richards tells Desider what it takes to be top notch at tug of war and elsewhere the Poppy Appeal at MOD Abbey Wood is receiving great support

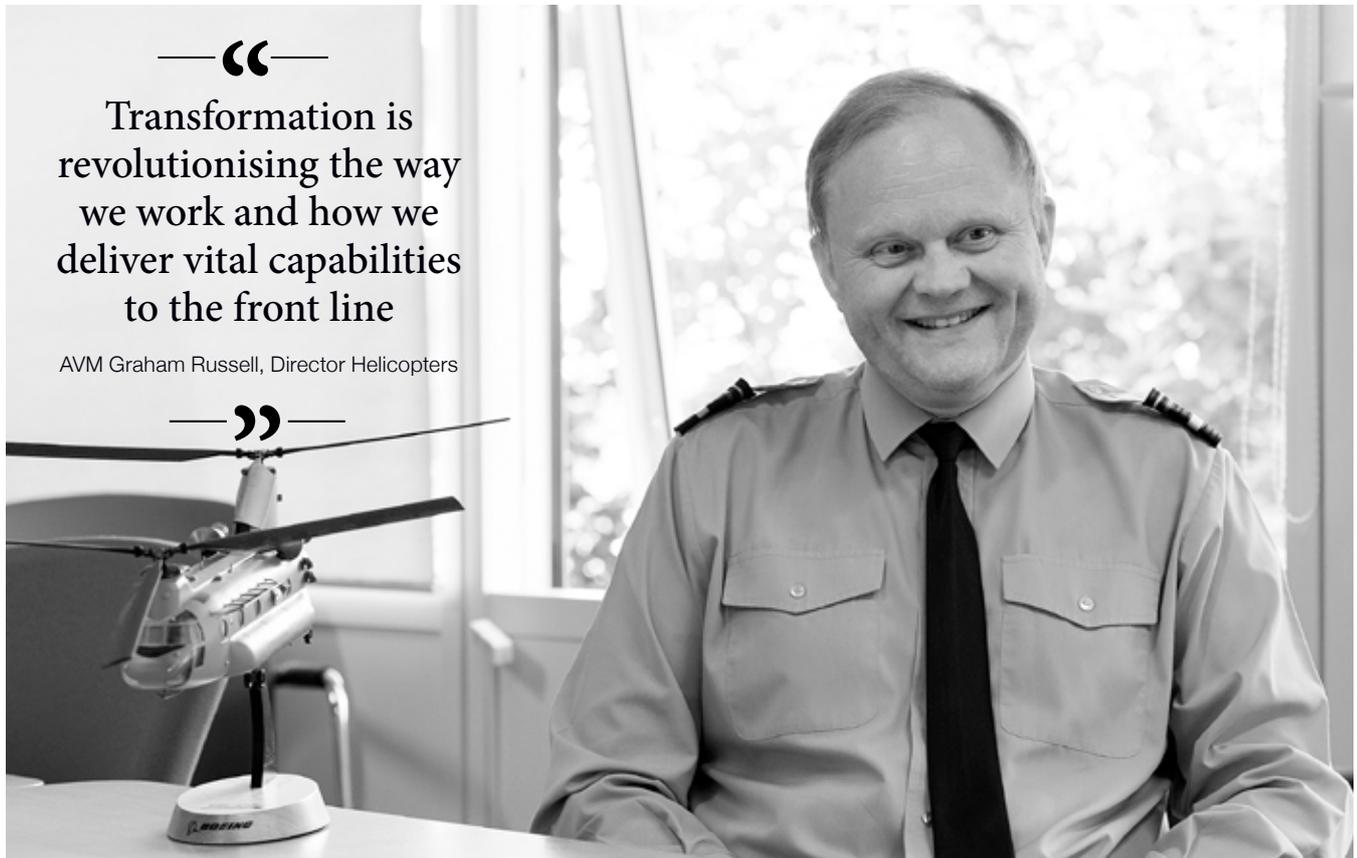


23



20

## Air Vice-Marshal Graham Russell, Director Helicopters, talks to Desider about his history with DE&S, his current role and what keeps him coming back for more



— “ —  
Transformation is revolutionising the way we work and how we deliver vital capabilities to the front line

— ” —  
AVM Graham Russell, Director Helicopters

Picture: Andrew Linnett

I joined DE&S from Air Command, where I was the Air Officer A4 responsible for operational engineering and logistics. I was also the A4 Force Commander, directing the RAF's high-readiness deployable Air Combat Service Support Units, and the Chief Air Engineer to the Chief of the Air Staff.

Though I've only been in my current post since the start of August, I've spent over seven years working in DE&S in various capacities. I started in the Typhoon project team, later setting up the air mobility programme support function. I was also the Hercules and TriStar Project Team Leader, responsible for the Hercules J and K models, all three marks of TriStar, Aerial Delivery and Airborne Forces Equipment. More recently, in Air Command, I was the customer signatory for 11 Command Acquisition Support Plan (CASP) Annexes across five DE&S Operating Centres.

Taking the helicopter helm means I'm responsible for all of the rotary wing project teams – as well as some fixed wing elements, such as the Army Air Corp's Islander aircraft. And that sees me travelling across the country to meet with as many customers, suppliers and DE&S teams as I can. With 470 staff based in Yeovil, I try to get there at least once a week.

Because for me, it's the people that make this job so rewarding.

They're one of the reasons why my service career has seen me return to DE&S time and again. We have some incredibly dedicated, skilled people – all completely committed to supporting the front line. Whether civil servants, military personnel or our industry partners, I see the same level of commitment, tenacity and perseverance to deliver what our customers need. And it's that unwavering dedication that makes DE&S the real powerhouse behind our services.

I particularly wanted to return to DE&S at this exciting time. Transformation is revolutionising the way we work and how we deliver vital capabilities to the front line commands. As with any major change programme – and this is without doubt the most extensive DE&S has ever faced – there is short term uncertainty and hurdles to overcome. So it's a challenge, but also a massive opportunity, both for ourselves and our customers; the prize is undoubtedly worth the effort.

The successful delivery of transformation will therefore be a key focus for me in the next 12 months. Another focus is the development

of our partnerships with key suppliers. With the majority of our helicopters supported by integrated operational support contracts – often spanning the life of an aircraft – it's essential we find ways to reduce through-life cost of ownership and increase operational flexibility to deliver greater value. I'll be working closely with our suppliers to ensure we're looking beyond today's immediate needs, developing longer term improvement opportunities.

There are also several exciting programme deliveries in the pipeline. Following the announcement at Farnborough International Airshow, we are now working hard to place the AH-64E production contract, Merlin Crowsnest will see us introduce an airborne early warning system onto our Merlin helicopters, and we're working hard on the Shadow aircraft enhancement, increasing the size of the fleet and extending the in-service life.

So, all in all, it's going to be a busy year. But it's one which I believe will see DE&S, through transformation, continue to improve its support to the front line, better equipping them today and long into the future.

# Trusted expertise to deliver operational solutions

Leonardo is proud to have participated in the Royal Navy's Unmanned Warrior demonstration.

The Leonardo multi-role, multi-sensor Unmanned Air System, based on the SW-4 Solo Optionally Piloted Helicopter, provided fully integrated capability with its suite of advanced payloads, including Osprey AESA Radar, SAGE ESM, EO/IR and AIS.

Leonardo gave the Maritime Commander real time Persistent Wide Area Surveillance, fully integrated into the ship Combat Management System and the skyISTAR Sensor/Mission Management System.

Finmeccanica is now Leonardo - inspired by the vision, curiosity and creativity of the great master inventor - designing the technology of tomorrow.



Osprey MM Radar



SkyISTAR Mission System



SAGE ESM

# DE&S team at forefront of innovation

**A** DE&S project team working hard to bring novel maritime autonomous systems into operational reality has achieved some major milestones.

The Mine Countermeasures and Hydrographic Capability (MHC) team is seeking to develop and exploit autonomous systems to detect and dispose of sea mines and for ocean survey, allowing these military tasks to be achieved more safely and more cost effectively.

To accomplish this, the team has recently reached important milestones on two major contracts that demonstrate the technology in a real world environment.

The first is the Maritime Mine Counter Measures (MMCM) demonstrator, contracted through Thales Underwater Systems, which is being delivered in collaboration with France through the Organisation for Joint Armaments Co-operation (OCCAR).

The MMCM system includes an unmanned surface vessel and unmanned underwater vehicles with sonars. It will provide a demonstration of systems and equipment to defeat sea mines using remotely-operated, unmanned marine vehicles and sensors.

Following a successful design stage for MMCM, the UK and France have

now committed to build and test two prototype systems.

The next phase of this €150 million contract was announced by Minister for Defence Procurement, Harriett Baldwin, at Euronaval in Paris last month.

She said: “This innovative project further strengthens the UK-French defence relationship and supports cutting edge research on both sides of the Channel. The development of advanced autonomous mine counter measures capability will safeguard our strategic interests, secure around 150 jobs in the UK supply chain, and protect our brave and skilled personnel.”

Whilst MMCM will deliver a system able to detect and dispose of mines, an important alternative technique is mine sweeping, where mines are detonated by simulating ship magnetic and acoustic signatures. Excellent progress is being made on the second demonstrator, contracted with Atlas Elektronik UK, which is delivering an autonomous minesweeping system.

Now in an advanced state of build, the system will enter the trials stage in early 2017.

Alongside delivering these demonstrators, the MHC team is hard at work on the assessment phase, studying technical options in detail.

MHC Team Leader, Alex du Pré, said: “It is really exciting to see the potential of autonomous systems demonstrated at Unmanned Warrior this October.

“To bring these systems to operational reality will require a concerted effort by the MHC team to understand the performance, cost, survivability and Defence Lines of Development (DLOD) aspects of these systems.

“We are working hard to achieve this through our studies, trials and demonstrator work. There is good reason to be confident and our investment to date is helping to keep the MOD with our industry partners at the forefront of this technology for the benefit of the Royal Navy.”

*See pages 23-25 for news on Unmanned Warrior*

“

The development of advanced autonomous mine counter measures capability will safeguard our strategic interests, secure around 150 jobs in the UK supply chain, and protect our brave and skilled personnel

Harriett Baldwin  
Minister for Defence Procurement

”

Above: An Atlas Elektronik unmanned surface vessel similar to that being procured by the MHC team for the autonomous minesweeping demonstrator



Above: Sentinel, inset: Raytheon CEO Richard Daniel, Minister for Defence Procurement Harriett Baldwin and Raytheon General Manager Roger Shore

# Sentinel Support Contract

Minister for Defence Procurement, Harriett Baldwin, has announced a £131.5 million support contract for the RAF's long-range Sentinel surveillance aircraft.

Sentinel has already proved its worth in Afghanistan and Libya, and it is currently a key asset in operations against Daesh in Syria and Iraq, thanks to its ability to gather intelligence on enemy movements and track specific targets.

The aircraft's 'eye in the sky' airborne mission management system gives troops persistent, wide-area, all-weather surveillance, which, combined with its air to ground search capabilities, allows the Armed Forces to gather accurate information from a safe distance.

Minister Harriett Baldwin said: "Sentinel aircraft provide vital intelligence to our Armed Forces, giving them the ability to make decisions that help keep Britain safe, including on current operations against Daesh.

"As part of our £178 billion equipment plan, and backed by a rising Defence budget, this new support contract will sustain 160 jobs across the UK and demonstrates the very

tangible benefits which Defence is bringing to the nation's economy."

The deal with Raytheon will provide maintenance for the aircraft for the next five years, sustaining around 160 UK jobs at RAF Waddington in Lincolnshire and at Hawarden Airfield near Broughton, North Wales.

DE&S Chief Executive Officer Tony Douglas said: "This support contract demonstrates how we are working collaboratively with industry to sustain UK jobs and to ensure our equipment remains fit for purpose and continues to meet the needs of our military customers.

"This contract was required to deliver on the decision in the 2015 SDSR to extend this key airborne surveillance platform, and I am delighted with the speed that the DE&S delivery team have worked with industry to negotiate this new contract, which is a testament to their drive, professionalism and delivery focus."

## Supporting SMEs

Minister Harriett Baldwin also visited Kent Periscopes in St Athan to view their new innovative periscope assembly facility.

Kent Periscopes design and manufacture optical systems for some of the MOD's key armoured fighting vehicle programmes – the Ajax programme alone has helped sustain 20 jobs at the company – and they have invested around £250,000 to further expand their business and increase their workforce by a third by 2018.

Minister Harriett Baldwin said: "The investment that Kent Periscopes have made in their new facilities is testament to the highly skilled work force and the economic benefits Defence delivers in Wales and across the UK."

After her visit to Kent Periscopes, the Minister hosted the Small and Medium sized Enterprise (SME) Forum, which included a showcase of SME products and services for Defence and a more formal meeting to discuss issues such as market access for SMEs and intellectual property.

# NEWS IN BRIEF



Above: Watchkeeper was one of the numerous unmanned systems to be demonstrated to DE&S and the Royal Navy during Unmanned Warrior last month – see pages 23 to 25.

## 25<sup>TH</sup> ANNIVERSARY OF MERLIN

An event has been held to mark 25 years since the birth of the Royal Navy's Merlin anti-submarine and anti-surface helicopter.

In October 1991, the £2.2 billion Merlin Mk1 programme was the largest and most sophisticated systems integration project to date.

Entering service in 1999 and deployed on operations for the first time in 2000, the Merlin Mk1 significantly enhanced the UK's maritime operational capability with the provision of a new and versatile anti-submarine and anti-surface warfare capability.

Last month, Lockheed Martin

marked the anniversary in Portsmouth's Historic Dockyard, bringing together past and present members of the Ministry of Defence (MOD), Royal Navy and industry team members in celebration of the milestone. Memories, experiences, photos and videos of the programme's 25 year journey were shared.

The Merlin programme has maintained critical sovereign capabilities for the UK, while creating and maintaining more than 1,000 jobs, with much of the development work on the mission system carried out by British engineers.



Above: Merlin helicopters have been deployed on operations since 2000

## RESOLUTION BUILDING OPENING

Chief of Materiel (Fleet) Vice Admiral Simon Lister unveiled a plaque (right) to mark the BAE Logistics team's move into a newly opened Resolution Building in Barrow-in-Furness.

The building will be used to store classified materials and components used as part of the Dreadnought-class submarine construction project as well as the shipyard's wider submarine programme.

It has been named Resolution to mark 50 years since the launch of HMS

Resolution - the Royal Navy's first submarine to carry nuclear weapons.

The Resolution Building is the first facility to be delivered under BAE's £300 million Site Redevelopment Programme.

It is 17 metres high and has a 28,000 square metre floor area – the equivalent of five football pitches – and a loading area that can fit four lorries.



# ROYAL NAVY TAKE DELIVERY OF FINAL WILDCAT HELICOPTER

825 Naval Air Squadron (NAS) has taken delivery of the Royal Navy's final Wildcat Helicopter Maritime Attack (HMA) 2 at Royal Naval Air Station Yeovilton.

On October 25 Commander Simon Collins, Commanding Officer of 825 Naval Air Squadron, took delivery of the last of 28 Wildcat procured by DE&S and delivered by Leonardo Helicopters.

Brigadier Darren Crook, DE&S Helicopters 1 Head said: "The delivery of the final Wildcat HMA2 marks an important milestone in fielding the outstanding capability that this aircraft provides to the Royal Navy. Wildcat builds on the fine tradition established by the long-serving Lynx, while employing technologies that are at the leading edge of modern helicopter design as they are deployed around the world."

Wildcat, specifically procured to operate from the Frigates and Destroyers of the Royal Navy, is earmarked for a variety of roles – anti-ship, anti-submarine, ship protection, casualty evacuation, battlefield reconnaissance and general utility.



## CEO VISITS YEOVIL



DE&S Chief Executive Officer, Tony Douglas, visited Yeovil last month as part of an ongoing series of roadshows aimed at keeping staff informed of what's changing in DE&S and how it will affect them.

The Leonardo Helicopters manufacturing site in Yeovil accommodates some 330 DE&S Helicopter Operating Centre staff. For his first employee visit as CEO, Tony addressed over 200 members of staff across two sessions.

During his visit, Tony shared his vision for taking DE&S forward using

Objectives, Goals, Strategies and Measures (OGSM) and the importance of the recently published DE&S Way.

Throughout his visit to the site, Tony praised the hard work of staff, recognising their invaluable contributions and the vital role they play within DE&S to equip and support our Armed Forces customers.

He also received a tour of Centenary House and the In Service Support and Flight Facility, before hosting a networking lunch with invited staff of all grades from the Lynx-Wildcat, Merlin and Apache project teams, plus members of the Helicopters OC HQ.

## APPRENTICE PROGRAMME



DE&S launched its recruitment campaign for the 2017 apprentice scheme on November 1.

The organisation is aiming to recruit 85 new apprentices for the September 2017 intake with 70 based at Abbey Wood and a further 15 at Devonport in Plymouth.

A DE&S apprenticeship is a three year development programme leading to an office based engineering management role supporting equipment and systems used by the Royal Air Force, Royal Navy and British Army.

The closing date for applications is January 29 next year. Applications should be submitted through the Civil Service Jobs website.

If you have family or friends who you think would be interested in becoming a DE&S apprentice, further information can be found at [ww.gov.uk](http://ww.gov.uk)



Above: HRH the Duke of Edinburgh spoke with REME personnel based at DE&S during his visit. Pictures: Charlie Perham and Jack Eckersley

# HRH The Duke of Edinburgh visits Abbey Wood

HRH The Duke of Edinburgh visited MOD Abbey Wood in Bristol last month.

As Colonel-in-Chief of the Royal Electrical and Mechanical Engineers (REME), His Royal Highness had the opportunity to find out how REME personnel work amongst their 11,000 DE&S civilian and military colleagues to deliver world-leading equipment and support to the UK Armed Forces.

During the event, hosted by the Chief Executive Officer, Tony Douglas, and Chief of Materiel (Land), Lieutenant General Paul Jaques, the Duke of Edinburgh observed the REME-operated Recovery variant of the British Army's next generation Ajax vehicle.

The new armoured vehicle, which will be assembled by General Dynamics in Merthyr Tydfil, will provide enhanced intelligence, surveillance and protection capabilities to the British Army and has secured thousands of jobs across the UK.

His Royal Highness also saw the innovative Explosive Ordnance Disposal robots, which help troops to detonate explosive devices safely, and visited the Dismounted Close Combat stand, which showcased the progress that has been made in soldiers' protective clothing since operations in Iraq right through to the recent launch of the new Virtus body armour system.

Speaking at the event, Lieutenant General Paul Jaques, the British Army's most senior serving REME officer, said: "It is a great honour and privilege to welcome our Colonel-in-Chief to DE&S and to have the opportunity to showcase how REME officers and soldiers, alongside their military and civilian counterparts, are delivering world-class equipment and support to defence."

DE&S is no stranger to Royal visitors; the site was opened by HM The Queen in July 1996 and, since then, Prince Andrew has also visited in his capacity as a Royal Naval officer.



# Edinburgh

— “ —  
**It is a great honour and  
 privilege to welcome  
 our Colonel-in-Chief to  
 DE&S**

Lieutenant General Paul Jaques  
 Chief of Materiel (Land)

— ” —



Above: Permanent Secretary and VCDS with CEO Tony Douglas

## Permanent Secretary and VCDS visit Abbey Wood

MOD Permanent Secretary, Stephen Lovegrove, and Vice Chief of Defence Staff (VCDS), General Sir Gordon Messenger, visited Abbey Wood in October and held a town hall where they addressed DE&S staff about a range of current Defence issues.

After CEO Tony Douglas’s welcome, Stephen Lovegrove outlined the Government’s commitment to Defence, highlighted by the reappointment of Sir Michael Fallon as Secretary of State and by the recent announcement that construction has started on the Successor submarine programme.

He encouraged DE&S to take full advantage of its status as a Bespoke Trading Entity (BTE) and the management freedoms it has been granted, and praised the effort dedicated within the organisation to carrying out its transformation. He said: “You’ve got great leadership and an impressive transformation programme, and I would like to convey the full recognition of how important everything that you do in equipping and supporting our Armed Forces is in keeping the country safe.”

General Sir Gordon Messenger focused on the operational perspective, recognising the complexity of the global situation and drawing attention to the UK’s responsibilities on the international stage. Among the issues he tackled were the Strategic Defence and Security Review’s implementation phase, the importance of technology and the Armed Forces’ multi-role capability.

He also acknowledged DE&S’s hard work, saying: “I have been utterly struck by how critical this organisation is to Defence, and hugely encouraged by the way in which you step up and deliver your challenging role. I know how seriously you take the business of procuring and developing the capabilities that will allow us to address future challenges. Your work is much appreciated.”

Both speakers then welcomed questions from the audience, generating discussion about Defence priorities and the need to challenge the way business is done in an increasingly competitive world.

# Celebrating the very best of DE&S

Winners of the latest Bonus Awards attended a ceremony at Abbey Wood where DE&S CEO Tony Douglas congratulated them on their achievements.

The quarterly DE&S Executive Bonus Awards recognise and reward those who have gone above and beyond to deliver excellence for DE&S.

One winner was Alan Brown, who drove the pricing negotiations on the Munitions Acquisition Supply Solution (MASS) contract. His efforts helped to secure greater efficiencies in this contract which supplies and supports the majority of ammunition, mortars and shells used by the Armed Forces. He said: "The meeting with the CEO brought together a number of award winners from diverse areas of the DE&S business. It was remarkable to reflect upon the very broad range of really impressive work by individuals, which underlined their commitment to our business. This award was a very tangible thank you."

Martin Sheppard was also rewarded for his excellent work on the Apache Capability Sustainment Programme.

He said: "I've been working on the programme for the last five years, and it's been one of the most enthralling projects of my MOD career."

"I'm extremely proud of the way my team has delivered on its promises to provide the Army with the kit and capability it deserves – at a price it can afford."

Another of this autumn's winners was Ian Buglass, who has developed a significant safety enhancement to the Gazelle AH1 Rotary platform.

He added: "Such recognition has certainly encouraged me to continue to go 'above and beyond' what is expected."

Matt Conibere received his award in recognition of his role in the delivery of specialist submarine capability for the Submarine Production team. From build and Initial Operating Capability, through to Mod State Zero, Matt demonstrated outstanding commitment to delivering safe operations that maximise operational capability.

Craig Jones, another key member of the Submarine Production team, has also been recognised for his dedication to delivering a safe and efficient specialist submarine capability. Acquiring scarce technical skills across diverse engineering disciplines, he has brought a breadth of experience rarely found in a single individual.

David Jarvis, now retired, received his award for his work leading the financial programming of the Type 45 Destroyer. His unwavering support and personal commitment delivered appreciable savings to the MOD and provided great inspiration to his team.

Alan Brown drove the pricing negotiations on the Munitions Acquisition Supply Solution (MASS) contract. His efforts helped to secure

greater efficiencies in this contract which supplies and supports the majority of ammunition, mortars and shells used by the Armed Forces.

Ray Spurr played a crucial role in protecting the reputation of both DE&S and the MOD through his efforts to resolve variations in the accounts. This award is testament to his commitment to the task at hand – a commitment that exemplifies the virtues of a Crown Servant.

Ian Buglass has been supporting the Gazelle fleet for 17 years. He received his award for his particular focus and drive in delivering the complex Safety Modification Programme and maintaining the capability that supports the vital work of the 'Special User' community.

Martin Sheppard led his small team to great success with the Apache Capability Sustainment Programme. His immense professionalism, under great pressure, and careful stakeholder engagement played a vital part in the delivery of this key capability.



# Dreadnought: The start of something special



# Dreadnought: History in the Making



Leading the way: Defence Secretary Michael Fallon (centre) is flanked by DE&S CEO Tony Douglas (far right), DE&S Director Submarines Acquisition Rear Admiral Mike Wareham (right) and Tony Johns, Managing Director Maritime - Submarines at BAE Systems (far left).

Picture: Andrew Linnett

**A**fter five years of meticulous planning, the simple press of a button set in motion the build phase of the first of the UK's new ballistic missile submarines.

The start of production on the newly named Dreadnought submarine was marked by Secretary of State Michael Fallon in Barrow-in-Furness on October 5 and hailed as a "very special moment" by DE&S CEO Tony Douglas.

These enormous submarines – each the length of three Nelson's Columns and the most advanced ever built for the Royal Navy – will continue to provide a Continuous At Sea Deterrence for the UK through the 2050s and beyond.

They are also the first submarines built for the Royal Navy that feature innovative lighting, allowing the crew to simulate night and day, and the first to be built with separate female crew quarters, toilets and washing facilities.

Following the steel cut, Mr Fallon revealed on Trafalgar Day (October 21) – a celebration of the Royal Navy's victory over the combined French and Spanish fleets at the Battle of Trafalgar in 1805 – that Her Majesty the Queen had graciously approved 'Dreadnought' for the new class of submarines. The iconic name, one of the most famous in the Royal Navy, will be carried by the entire class of four submarines, and also christen the first boat.

Several hundreds of suppliers are expected to be involved in the programme at its peak, around 85 per cent of those based across the UK – securing thousands of jobs from Scotland to the South of England.

The project is a huge undertaking for DE&S – a sentiment CEO Tony Douglas was ready to acknowledge last month.

"It was an exciting day – the start of the production stage of the newly named Dreadnought submarines. We have all been waiting for this very special moment for a long time," he said.

"The programme is the Ministry of Defence's biggest project and

it will require team work, tremendous skill, commitment from our industrial partners and the UK supply chain, and close collaboration with our US allies to deliver it successfully."

Rear Admiral Mike Wareham, DE&S Director Submarines Acquisition, echoed his Chief Executive's sentiment and paid tribute to the project teams at Abbey Wood, Barrow, Derby, Keynsham and in the US, who have and will work closely together to deliver the flagship submarine programme.

He said: "We have been working towards official start of production for five years – designing the submarine, preparing the long lead items and working with the supply chain.

"These four submarines will provide the UK with a credible deterrent for the UK for the next 30 plus years. It was a huge day for DE&S, a huge day for Barrow and a huge day for the Royal Navy."

Just days before the event, Mr Fallon had announced a £1.3 billion investment with BAE Systems, who are charged with building the submarines, allowing the project to move into 'Delivery Phase 1'.

The money will also be spent furthering the design of the submarine, purchasing materials and investing in facilities at BAE Systems Barrow-in-Furness, where the submarines will take shape.

The Successor programme will now move into the next stage, with production work beginning on structural steel work for the 'auxiliary machine space' of the first submarine, which contains switchboards and control panels for the reactor.

As well as starting the build, Mr Fallon also met with apprentices and shipyard workers and toured the Devonshire Dock Hall, where Audacious, Anson and Agamemnon – the fourth, fifth and sixth of the seven Astute-class nuclear-powered submarines – are under construction.

## What's in a name?

'Dreadnought', one of the most famous names in the Royal Navy, was announced last month as the lead boat and class name for the Royal Navy's new successor submarines.

Named 56 years after the launch of Britain's first nuclear-powered submarine of the same name, Dreadnought has extensive historical significance, borne by no fewer than nine Royal Navy ships.

A previous Dreadnought sailed with Sir Francis Drake to repel the Spanish Armada; and another was present with Nelson at Trafalgar. But the most famous of all was the ninth Dreadnought – a battleship so advanced that it rendered all others obsolete at a stroke.

Such historical resonance will continue through the names of boats 2, 3 and 4.

Defence Secretary Michael Fallon said: "Every day our ballistic missile submarines are used to deter the most extreme threats to Britain's security.

"We cannot know what dangers we might face in the 2030s, 2040s and 2050s, so we are building the new Dreadnought class.

"Along with increasing the defence budget to buy new ships, more planes and armoured vehicles, this commitment shows we will never gamble with our security."

## Dreadnought facts & figures

- 152.9 metres long
- The largest submarines ever built for the Royal Navy with a displacement of 17,200 tonnes
- For the first time in a Royal Navy submarine, there will be a classroom/study area set aside
- The doctor works from a designated 'sick bay' where they will conduct routine check-ups, dispense medicines and can care for a major casualty if required
- More than 20,000 cables on board equating to 347km
- 130 crew members including three chefs and one doctor
- The first Royal Navy submarine to be built with separate female crew quarters, toilets and washing facilities
- Manufactures its own oxygen and fresh water
- Modern gym facilities including exercise bikes, rowers, weight benches, a running machine and cross trainer
- Innovative lighting to simulate night and day – a first for a Royal Navy submarine

# Brimstone 2 Project Team recognised by NATO



Left to right: Phil Cheese (DOSG Chief Technologist), Richard Smart (Director Weapons), Andrew Strickland (Roxel UK), Tony Bates (LMAS Brimstone 2 Project Manager), Ray Gibson (DOSG Science and Technology), Mike Sharp (MSIAC Project Manager), Ian Carr (DOSG Team Leader), Holly Pennington (DOSG Science and Technology), Colin Lapsley (MBDA Brimstone 2 Chief Engineer) and Chris Roberts (DOSG Science and Technology).

**The Brimstone 2 missile team has received a prestigious international munitions safety award for their work on the Brimstone 2 missile.**

The team, consisting of Lightweight & Medium Attack Systems (LMAS), Defence Ordnance Safety Group, MBDA, Roxel and TDW, developed and integrated Insensitive Munitions (IM) technologies into the Brimstone 2 missile.

DE&S and industry were recognised by NATO's Munition Safety Analysis and Information Centre (MSIAC), who awarded the partnership the Munitions Safety Award for Technical Achievements.

The award was presented at Abbey Wood last month by MSIAC Manager Dr Mike Sharp, who said that Brimstone 2 represented a world first for this class of weapon, delivering significant reductions in risk to users whilst meeting all of its performance requirements.

Tony Bates, Brimstone 2 Project manager, said: "We are delivering a missile that has more capability and is safer to handle and to use, which has gone down very well with the user community.

"There have been challenges along the way, but all the organisations have worked together tremendously well and we have got the end result – delivering the capability into service.

"Receiving this award reflects both my team's incredible dedication to achieving this goal and the success we have enjoyed working with other MOD teams and with industry."

Throughout the development period, successive Ministry of Defence (MOD) project teams and Defence Ordnance Safety Group (DOSG) safety specialists have managed the technical risks associated with Roxel's rocket motor and TDW's warhead, supporting early technology derisking efforts and pulling them through to deliver a world leading operational capability coupled with the

highest level of insensitivity and safety.

Brimstone 2's improved safety will reduce costs in manufacture, storage and transport, and provide the RAF with more flexibility in operational usage. Brimstone 2 entered production in July 2014 and Initial Operational Capability was declared in May 2016. MBDA and LMAS are now exploring potential applications of the missile for Unmanned Air Systems, helicopters and naval platforms.

Director Weapons Richard Smart congratulated the team on their award, commending the many individuals who had worked through a demanding project with numerous difficult technical challenges to deliver a world leading capability.

The Ministry of Defence announced a £170 million investment in Brimstone 2 missile in July. It is currently deployable from RAF Tornado aircraft and expected to be available for deployment from RAF Typhoon aircraft from 2018.

# Not all fast computers reach Mach 2



Eurofighter Typhoon

More than 40 DE&S staff rolled up their sleeves and volunteered to help create a welcoming community space around a popular local skate park near MOD Abbey Wood.

Members of the Cost Assurance and Analysis Service (CAAS) team descended on Bradley Stoke Skate Park, which was opened last April and has become a vital resource for the community.

The park is frequented by all ages using their skate boards, scooters and BMX bikes, and it even regularly hosts a group of over-50s skateboarders.

But parents, family and friends who use the site found they had to either sit in their cars or lean on the railings because there was nowhere to sit.

To alleviate the problem, the CAAS team spent a day constructing five benches and planters which feature additional seating to

give the area a more communal feel. They also spent time planting bulbs, digging, tidying the undergrowth and dredging a nearby stream.

DE&S staff worked alongside Graham Baker, Youth Development and Participation Worker for Bradley Stoke Town Council, who had spent three years making the skate park a reality.

He said: "We always wanted a properly landscaped skate park that is welcoming and friendly, not only to skate park users, but as a communal space for their parents, friends and family.

"The help from DE&S has been invaluable and means we have taken a giant leap forward in implementing what we want the skate park to eventually be."

CAAS team project leader, Matt Loader, said: "We were very keen to identify an opportunity where we would come and make a real difference.

"Everybody has really enjoyed pulling together, getting their hands dirty and doing

something that has a tangible effect on the local community. I thoroughly recommend that other teams get involved in what is a very rewarding endeavour."

CAAS team member Janina Powell added: "It was really enjoyable and there was a terrific sense of team spirit. Everybody was determined to get involved and make a difference.

"It was also an excellent way to meet other members of the CAAS team and understand their role within DE&S. I really think events like this will help our work ethic inside and outside of the office."

Matt and his team are producing a Learning from Experience (LFE) document on the organisation and running of the event, and aim to run a presentation in December for teams/ individuals thinking of running their own volunteering event.



# DE&S staff demonstrate their community spirit



Commercial apprentices and graduates based at Abbey Wood took the opportunity to develop their leadership and team working skills by volunteering at the Bath Area Play Project (BAPP).

BAPP is a local charity set up to provide quality play opportunities for school age children during school holidays, facilitating positive activities and opportunities which may otherwise not be available. The Odd Down Community Centre is used by BAPP to host a weekly youth club for teenagers with a range of disabilities, as well as a session open to all teenagers aged 11-17.

Fundraising events were held by graduates and apprentices to raise money for materials needed for the project, while Brewers Decorator Centres kindly donated the paint. The group worked across two days in sweltering heat to give the centre a much needed lease of life.

DE&S Apprentice Sophia Gibbs helped organise the event and shortly after progressed into a Band D role with the DE&S Unmanned Air Systems team.

She said: "It was great to see everyone pulling together as a team and remaining enthusiastic for the duration of the project. It is fantastic that we were not only able to contribute something to the community but also develop our team working skills."

Caroline Haworth, BAPP Director, said: "A million thanks to the MOD team, as without their hard work we would still have a sad building which looked unloved. The community has responded favorably with lots of lovely comments and feedback and a marked increase in the number of users of the outside court. We could not have done this without the MOD team and loved having them here whilst they did the work. Thank you."

**Two companies have been awarded long term deals by DE&S to provide combat systems integration services to Royal Navy surface platforms.**

QinetiQ and BAE Systems have signed multi-million pound extensions to the Naval Combat System Integration Support Services (NCSISS) contract to provide the Royal Navy with combat systems integration services to both in-service and future platforms, including Type 45 destroyers and the new Queen Elizabeth Class (QEC) aircraft carriers.

The contract extensions will see both companies providing specialist staff to help support the key in-service Royal Naval platforms, delivered out of its Maritime Integrated Support Centre (MISC) facility at Portsmouth Technology Park (PTP) in Portsmouth until March 2027.

This, in turn, will help secure the site's future as a UK Centre of Excellence for Maritime Mission Systems integration and testing, specialised analysis and technical expertise.

Steve Hyde, Head of DE&S Maritime Combat Systems, said: "The signing of these contracts allows the continued assurance of the safe integration of the Royal Navy's combat systems into its surface fleet, while providing

value for money for the UK tax payer."

Operating in collaboration with the Royal Navy and DE&S, the contract extensions will sustain around 280 jobs in the Portsmouth area.

Neal Lawson, Director Ships Support at DE&S, added: "These contracts demonstrate how DE&S, industry and the Royal Navy are working collaboratively to deliver cutting-edge technology to the Surface Fleet through evermore efficient means.

"This arrangement will ensure that our current and future Royal Navy fleets of surface ships will have the world-class capability required to deliver the nation's global effect. The Portsmouth Technology Park will remain a unique and vital centre of excellence for the UK."

For more than 45 years, PTP has integrated and tested complex combat and communications equipment and software for all Royal Navy warships prior to their deployment at sea. Recent examples of technology that has been tested and integrated with existing equipment using facilities at PTP include BAE Systems' Artisan surveillance radar and MBDA's Sea Ceptor missile.

Steve Wadey, QinetiQ CEO, said: "This

contract is recognition of Portsmouth as an asset of critical national importance, relied upon by the Royal Navy to guarantee the safety and effectiveness of its fleet. It is excellent news for QinetiQ and its partners, which together support over 280 local jobs."

BAE Systems' Naval Ships Combat Systems Director, Richard Williams, added: "The award of the NCSISS phase two contract is a vital part of our continuing support to the Royal Navy and secures BAE Systems' position at the heart of naval combat systems integration for the next decade."

# Naval Combat System Award

— “ —  
 These contracts demonstrate how DE&S, industry and the Royal Navy are working collaboratively to deliver cutting-edge technology

Neal Lawson, Director Ships Support

— ” —



Picture: Jack Eckerlesley

# Unmanned Warrior: the dawn of a new age in maritime warfare



Industry and academia joined national and international defence sectors on islands off Scotland to demonstrate to the Royal Navy the potential offered by maritime autonomous systems.

Unmanned Warrior 2016 – the largest event of its kind in Europe – was the brainchild of former First Sea Lord Admiral Sir George Zambellas and was organised by the DE&S Tech Office and Navy Command.

It ran for two weeks last month alongside Exercise Joint Warrior – a bi-annual UK triService multinational exercise that involves numerous warships, aircraft, marines and troops.

Those taking part demonstrated technology addressing five themes: hydrographic and oceanographic data gathering, anti-submarine warfare, mine countermeasures, surveillance and control of autonomous systems.

The Royal Navy saw a range of unmanned systems from major defence companies as well as small and medium-sized enterprises (SMEs) and institutions including Marine Scotland and the Met Office.

Cdr Pauline Aird, DE&S Technology Office Maritime Section Head, said: “I am incredibly proud of how my

team dealt with the very real challenge of delivering Unmanned Warrior, which was by some margin the largest demonstration that we have had to organise in terms of scale and complexity.

“I have also been impressed by the systems that have been on show at Unmanned Warrior and, more importantly, witnessing for the first time the level of interoperability now achievable between air, surface and sub-surface unmanned systems; that was inspiring.”

She added: “The great thing about Unmanned Warrior is that it has shown that you can put experimentation and demonstration of new technology over an already existing force training exercise. We should look to similar future exercises to capitalise on innovative concept work and technology demonstration.

“Having all the key stakeholders – industry, the Royal Navy, and the MOD – working together towards a common aim really helped with collaborative working and enhanced innovation in the area of unmanned systems.”

Held off islands on the west coast of Scotland, the event enjoyed excellent weather, allowing attendees to demonstrate how their unmanned

underwater, surface and aerial vehicles could be used and integrated into the modern Navy.

Philip Betson, DE&S Technology Office Maritime Unmanned Systems Project Manager, said: “I was very excited about the prospect of arranging Unmanned Warrior.

“We started off with a general idea of what we had to deliver and a firm time scale. What we didn’t know was the scope of it and the enormity of the logistics, which included identifying companies, locating suitable sites and finding accommodation for hundreds of people in the Outer Hebrides.

“Arriving in Benbecula and seeing the enormous level of activity taking place as Unmanned Warrior started to get underway was very satisfying.”

Fleet Robotics Officer, Commander Peter Pipkin, added: “Unmanned Warrior was a tremendous success and allowed the Royal Navy the priceless opportunity to explore how maritime autonomous systems could help revolutionise the conduct of maritime and amphibious warfare.

“The importance of this event, both in terms of collaborative working and promoting innovation, should not be underestimated.”

# Unmanned Warrior hailed a tremendous success



Above: U.K. Royal Navy transports a REMUS 600 unmanned underwater vehicle (UUV) to the operations area as part of the first-ever Unmanned Warrior (UW), a research and training exercise  
Picture: John F. Williams.



Above: Master Chief Petty Officer Rick Gaughen and Petty Officer 1st Class Antonio Munoz, perform preflight checks on a rotary wing unmanned air vehicle. Picture: John F. Williams.



Liam Coe is an engineering apprentice on placement with the DE&S Technology Office who helped plan Unmanned Warrior.

“Helping plan Unmanned Warrior has been both interesting and exciting. The main challenges have been getting so many companies to sign up to a commercial framework and obviously the logistics of getting everything and everyone to the Outer Hebrides,” Liam, pictured far left at Unmanned Warrior, said.

“But I have been in a position where I am working with a variety of industries and people from the MOD who I have not had the opportunity to work with before.

“I would definitely say working with DE&S offers exciting opportunities. I have been to a series of different ranges and facilities and seen a lot of equipment I would not have seen.

“I cannot think of many other jobs where I would find myself in the Outer Hebrides having helped plan an important event like this.”

# Setting the standard for five decades

The DE&S Defence Standardization team maintain and develop the standards for everything from aviation fuel to weapons safety to ensure our equipment is interoperable with other Armed Forces. Desider spoke to DStan, which this year celebrated its 50th anniversary.

“Standards are like the air you breathe,” Calum Sim, UK Defence Standardization team leader, said.

“You don’t really recognise you need them until it really matters and they are always there in the background.”

DStan was formed as the Directorate of Standardization on January 1 1966, bringing together the Naval Materiel Standardization Team and the Directorate of Standardization (Army).

Based in Glasgow, the team, in the past three years, has transformed from reactive to proactive – helping to meet D’Tech’s objective to build capabilities and deliver technical solutions.

What should be of particular interest to every project manager and engineer within DE&S is the huge, free to use database of information on hand, to help inform decisions on what standards they should be meeting in terms of equipment.

This database – known as ‘StanMIS’ – also aims to help ensure that equipment is interoperable across European platforms so it can be used alongside other Armed Forces and guards against teams buying parts that subsequently become redundant and disappear.

Tim Straker said: “Anybody buying anything with DE&S should be using this tool. It gives you access to thousands of standards free of charge”.

Harry McLernon added: “It is guidance. These are standards you should consider. It helps inform your decision. It gives you the information so you can make an intelligent choice.

“We are here to help project teams pick the right standard, thus saving time and money.”

As well as StanMIS, the team also work with NATO - fighting the UK’s corner.

Steven Lapsley said: “The reason we have standards is because we want to know about the equipment we are



buying. They break down barriers to trade and open the market to us. It’s about working closely with industry and promoting UK Standards. At meetings, we try and influence those such as the French and German and let them know British is best.”

Calum says that the team’s proactive outlook is starting to pay dividends, and celebrating 50 years with an event in Glasgow last month seemed fitting.

“For 50 years, DStan has maintained and developed a portfolio of standards, but in the last three years the service has transformed from reactive to proactive,” he said.

Gerry Watt added: “We want to help project teams, so that is what we are actively going out to do. It’s like registering for Amazon, but we don’t ask for your credit card details – it’s as simple as that.

“Since its launch in summer 2014, StanMIS has grown to a user base of over 1,500 Ministry of Defence and industry users. That is impressive, but we want many more.

“The truth is, if you are a project manager or engineer at DE&S, you should have signed up to StanMIS and be taking advantage of it.”

To access StanMIS visit <http://dstan.uwh.diif.r.mil.uk/stanmis/>

“StanMIS is a very intuitive application to use. After an hour’s training, I was able to create and populate a Standardization Management Plan (SMP).

“I especially like the automatic reporting when standards are updated. It has significantly reduced the amount of time I have to spend reviewing and updating the SMP.

“The support provided by DStan was professional and they have listened to our suggestions for improvements.”

Sandy McNeil- DE&S Mine Countermeasures and Hydrographic Capability Deputy Project Manager

# LTPA

T&E begins here



All images©MOD Crown Copyright

## QinetiQ and the MOD working together to provide **Test, Evaluation and Training Support Services**

[www.LTPA.co.uk](http://www.LTPA.co.uk)

# Aircraft carrier affiliated with Bristol

Bristol has received the honour of becoming affiliated with HMS Prince of Wales – the second of two new generation aircraft carriers procured by DE&S for the Royal Navy.

HMS Prince of Wales is part of a new generation of Queen Elizabeth Class aircraft carriers and, alongside her sister ship, HMS Queen Elizabeth, she will be one of the largest and most advanced warships ever built for the country's fleet.

Each 65,000 tonne aircraft carrier will provide the Armed Forces with a four acre military operating base, which can be deployed worldwide. The vessels will be versatile enough to be used for operations ranging from supporting war efforts to providing humanitarian aid and disaster relief.

Alongside the City of Liverpool, Bristol was offered the chance to be one of two cities to have a civic affiliation with the ship.

This affiliation means that the ship

will spend time in Bristol, allowing visitors on board, while also boosting the city's image overseas.

Bristol's Lord Mayor, Councillor Jeff Lovell, attended the official sea affiliation ceremony to accept the honour on behalf of the city.

He said: "It is a privilege to be able to accept this on behalf of my home city. Being offered the opportunity to be affiliated with such a landmark in British naval history is a real honour. I hope this affiliation will lay a strong foundation for further developing our relationship with our nation's Armed Forces.

"By affiliating ourselves with this ship we are also helping to boost Bristol's image around the world and confirm our status as a city of international importance.

"Alongside our fellow Core City member Liverpool, I look forward to building our relationship with the Navy through this ship and can't wait for the people of Bristol to be able to make the

most of it when she drops anchor in the city for the first time."

DE&S Director Ships Acquisition, Rear Admiral, Henry Parker said: "Bristol has a strong maritime history and I am delighted that the city, of which DE&S is part, was given the chance to affiliate with HMS Prince of Wales. The city can be rightly proud at being associated with a capital ship that marks a new age for the Royal Navy."

Bristol's maritime past includes being the birth place of historic ships like the Matthew, the ship that John Cabot used to discover Newfoundland in 1497, and Brunel's SS Great Britain, the first iron hulled, propeller driven ship to cross the Atlantic.

HMS Queen Elizabeth is due enter service in 2020. HMS Prince of Wales is due to follow in 2023.



**TRUSTED  
ENGINEERING  
EXPERTISE**



## **THINK BRIGGS DEFENCE.**

Expert engineering capability across a wide range of military equipment including protective plant and materials handling.

From refurbishment programmes to emergency engineer support, wherever you are, Briggs Defence are.

To find out more contact **01235 550051**  
or email [defence@briggsequipment.co.uk](mailto:defence@briggsequipment.co.uk)

## **THINK BRIGGS.**

Your Unique Solution; Think Briggs Defence.



**BRIGGS  
DEFENCE**

Engineering.  
Capability.  
Assurance.



Pictures: Jack Eckersley 

# On management, mentoring and her passion for public service

**Charlie Hazeldean is Unmanned Air Systems Strategic Deputy Head at DE&S. She tells Desider about her varied career, her desire to support staff development and her love of the great outdoors**

## **Job title:**

Unmanned Air Systems Strategic Deputy Head

## **Can you give us a brief outline of your overall career to date?**

After working as a software engineer in a small IT start-up, I joined DE&S 12 years ago looking for a new challenge and some job security. Since then I have had some amazing experiences. Within DE&S, I have worked on Logistics and Intelligence software, Electronic Counter Measures and helicopter engines before becoming Deputy Chief of Staff to CoM Land and then moving to my current role in Unmanned Air Systems (UAS) last year. In amongst these DE&S roles, I have worked in Head Office in Scrutiny and Approvals and for the Permanent Joint Headquarters (PJHQ), spending six months deployed in Afghanistan as the Op Herrick Civil Secretary.

## **What does your role involve?**

I am responsible for the delivery of the strategic Unmanned Air Systems. I look after the current operational capability, Reaper; the major procurement of the replacement system, Protector; and the Future Combat Air System, a 10 year, cutting edge research and development (R&D) programme, including a collaborative element with France, which aims to position the UK for future combat air acquisition decisions early in the next decade. It brings some interesting challenges.

## **What about your role is exciting, rewarding or interesting?**

My role incorporates all three! I love the fact that in UAS we are at the cutting edge of technology delivery, and the challenges of maintaining an operational system whilst delivering a major programme for its replacement are very exciting. I also find managing teams very rewarding. I really enjoy developing people and watching them move on to bigger and better things. I also try and make sure I support development more widely in DE&S through mentoring other project managers.

## **What are the issues that you face and the best ways of overcoming them?**

There is a huge amount to be done over the next 12 months on all three of my projects. The only way we can do this is by working together, with the sponsors and industry. I've found that the biggest difference is made by actually getting people to talk to each other, preferably face to face.

## **How much importance do you place on teamwork?**

One of the things I love about DE&S is the team spirit; the focus on working together as a group in order to deliver for the customer. What turns an interesting role into an amazing one is the people and I am privileged to have a brilliant team in UAS; their commitment and dedication is what motivates me to do the best job I can do in order to support them.

## **How will transformation affect your team?**

As a team already operating on a functional basis, transformation has come very naturally. We have just completed Spiral 2 for Protector and have found it a very useful exercise, helping us think about areas which need more focus. I personally am energised about transformation and the future of DE&S.

## **Why did you choose to pursue a career in DE&S?**

I was working for a tiny software firm and it didn't look as if the company would survive. I saw an advert on TV for IT specialists and thought I would give it a go. I started in March 2004 and haven't looked back.

“ I love the sense of purpose and community which DE&S and the wider MOD provide ”

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

I love the sense of purpose and community which DE&S and the wider MOD provide. You are always bumping into people you know and that network of contacts is crucial. I honestly feel like the vast majority of people work here because they are passionate about what they do and are committed to public service. You can't underestimate that.

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

I like to make the most out of life and try and fit a crazy amount of things in. Weekends often involve mountains, either walking or climbing up them, sleeping on top of them, skiing down them or swimming in lakes at the bottom of them. I balance this with a lot of yoga. This year Mr H, my partner in crime, has been deployed overseas for the summer, so I'm looking forward to his return and new adventures. However, at the moment studying for an MSc in Major Programme Management is taking up most of my free

# CASE STUDY

## Richard Ireland, from the National Codification Bureau, gives his insight into working for DE&S

### **Name:**

Richard Ireland

### **Job title:**

Team Leader for the United Kingdom National Codification Bureau based in Glasgow

### **How long have you worked for DE&S?**

Approximately 12 of my 15 years in the MOD have been in DE&S (or its forerunners), having also worked in Navy Command and the Defence Communication Services Agency (DCSA), as it was.

### **Why did you choose to pursue a career in DE&S?**

When I joined one of DE&S's forerunners - the Defence Logistics Organisation (DLO) back in 2001 - as an engineering apprentice, the work was much more interesting than the commercial apprenticeships I had considered. I was exposed to a range of weapons systems, including Spearfish, Brimstone and Storm Shadow, and the quality of the training scheme was much better than those offered elsewhere. Since then, the majority of the Ministry of Defence (MOD) posts I've been interested in have been within DE&S. My experience is that DE&S is best placed to reward and recognise an individual's success and hard work.

### **What does your role entail?**

On a day-to-day basis, I lead a team of specialists who ensure that the North Atlantic Treaty Organization (NATO) codification is carried out for MOD equipment, ensuring it is compliant with the standards set out by NATO (NATO Codification is the cataloguing of items that go through the Military Supply Chain). My team consists of engineers, IT specialists, logisticians, generalists, policy experts and service managers. In addition, I've also embarked the department on a Business Development Programme - implementing innovative options to improve our service in terms of visibility, performance, workforce planning, sustainability and customer focus. On a personal basis, I represent the UK at NATO committees as the UK's Codification Director - both at the Director's Main Group and the Strategic Planning Committee -, which is a tremendous opportunity to influence NATO policy, but also to work closely with allies to peer review our organisations and performance levels.

### **What are the opportunities to develop and progress within your function?**

Within the engineering function, I have joined the Institute of Engineering and Technology and my objective is to reach Chartered Engineer. I'm undertaking Project Management training through the Defence Academy in Shrivenham and attended the Defence Strategic Support Management Course last month. I have applied for the Future Leaders Scheme and, should I be successful, look forward to pursuing the opportunities offered by the scheme.

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

The people I work with and the pace of the job. I'm lucky to have a great team of Small and Medium-sized Enterprises (SME's) who have decades of experience in their areas and there's always somebody to ask when a query arises. The pace is quite demanding, but is also very rewarding.



Picture: Andrew Linnett

### **What's your ambition?**

I'm very proud to have got to where I have in the organisation, especially as I started out as an apprentice and, in that regard, I think I've exceeded my ambitions. I plan to stay in DE&S for a long time to come, so who knows - perhaps one day I'll succeed in reaching the Senior Civil Service (SCS).

### **What's the greatest achievement (in your role) to date?**

Without going into too much detail, I am delighted to have worked with my team to develop a business case which justifies an option to save Defence millions, whilst supporting the Strategic Defence and Security Review (SDSR) Prosperity Agenda and retiring our workforce planning risks. I am also proud that the MOD have asked me if I'd be a Social Mobility Role Model, and I look forward over the coming months to mentoring and supporting others in achieving their very best - there's no better reward than helping others succeed.

### **Why would you recommend DE&S to others as a great place to work?**

I've been asked a number of times by candidates at interviews lately why I would encourage them to work for DE&S. There are serious plans being realised which will enable the organisation to reward, recognise and retain talent. In addition, compared with industry, my view is that the work is much more interesting when you can be the decider, not the provider.

### **What are the social benefits of working for DE&S?**

Being based in Kentigern House in Glasgow city centre, we are fortunate enough to have the use of a well-stocked Gym for CSSC members and walking clubs for those that enjoy them. Being in the city centre also means we are well placed for access to bars and restaurants.

# WORK FOR DE&S

Welcome to this edition of DE&S jobs in Desider. There are great opportunities available at DE&S and each month we list current and future posts. For even more opportunities visit the Civil Service Jobs Portal at [www.civilservicejobs.service.gov.uk](http://www.civilservicejobs.service.gov.uk)

## Graduate and apprentice schemes

DE&S offers a number of top class graduate and apprenticeship opportunities, providing successful applicants with “hands-on” experience in roles across a range of projects.

If you have recently left school or university and are interested in embarking on a career in defence but do not yet have the experience/skills required for our listed

vacancies, DE&S offers a number of top class graduate and apprenticeship opportunities, providing successful applicants with “hands-on” experience in roles across a range of projects.

More information on the range of graduate and apprentice opportunities DE&S has to offer is available [www.civilservicejobs.service.gov.uk](http://www.civilservicejobs.service.gov.uk)

## Rewards and benefits

In addition to the fantastic variety of cutting edge jobs and an excellent opportunity to develop skills through training, including working towards professional qualifications, we also provide first rate benefits for all of our employees. These include flexible working, excellent annual leave, maternity and paternity allowances as well as a very competitive pension scheme, eligibility for performance related pay, free car parking (caveats apply), a proactive employee engagement, access to Benenden Medical care and the opportunity to join many civil-service clubs such as the Sports and Social Association and Motoring Club (CSMA)

which offer numerous discounts to members.

Our headquarters are based in Abbey Wood, Bristol and, like many other sites, boasts an impressive range of facilities including a fully equipped gym, an on site nursery, a range of restaurants and coffee bistros and a hairdressers.

We understand the commitments our staff have, both inside and outside of the office. Our aim is to provide you with a place of work which allows you the flexibility you require to maintain a great work/life balance.

## Equality and diversity

DE&S is committed to embracing diversity: it is one of our core values. Irrespective of gender, marital status, race, religion, age, disability and without reference to social background or sexual orientation, DE&S operates an inclusive environment to allow you to develop your career.

Whether uniformed or civilian, we expect the attitudes of our people to reflect our approach to diversity by:

- fostering a working environment where all staff feel comfortable, welcomed and valued for their contributions

- promoting a workplace that values dignity, respect and fairness
- promoting high standards of behaviour and complying with the law by creating equality of opportunity

To demonstrate our commitment, we are members of Stonewall, Race for Opportunity, Opportunity Now, The Employers Forum on Disability, The Employers Forum on Age, and we are also affiliated to a:gender.

Read more about equality and diversity in MOD.

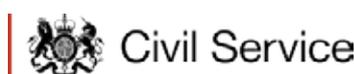
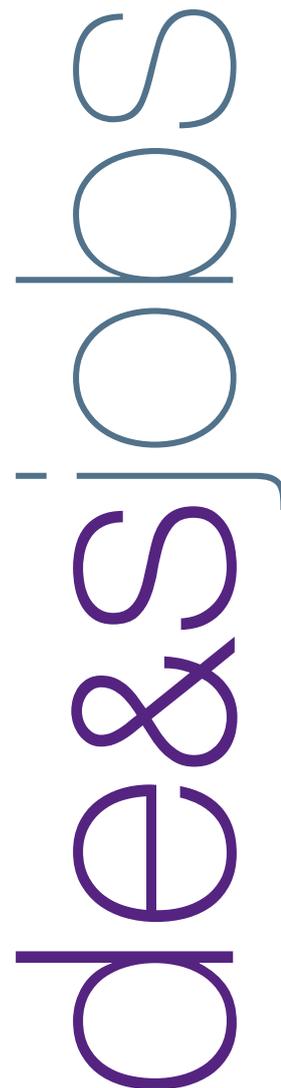
## How to apply

We are looking for innovative, talented, focused individuals to join us in being instrumental in defending Britain's interest both at home and overseas.

DE&S provides the opportunity for a truly rewarding career, working on complex, interesting and often sensitive projects of great significance and consequence, with excellent training opportunities for your continued professional development.

If you would like to view all current vacancies across DE&S and the wider civil service, please visit the Civil Service Job Portal.

In addition, for an easy, hassle free way of keeping up to date with all the latest vacancies, you can now follow us on Twitter or like our page on Facebook.



## CURRENT VACANCIES

**Cost Engineer** DE&S

Bristol | £30,424 | Higher Executive Officer C2 | Closing date: 15 Nov 2016

Reference number **1513451** Post type **Permanent** Hours **37 Hours****Job Description:** You will support the Delivery Lead in all types of cost engineering tasks ensuring the delivery of risk based investigation tasks and cost and schedule estimates for budget setting and approval purposes.**Cost Engineer** DE&S

Bristol | £37,071 | Senior Executive Officer C1 | Closing date: 15 Nov 2016

Reference number **1513496** Post type **Permanent** Hours **37 Hours****Job Description:** You will be able to take the lead in all types of Cost Engineering tasks, providing leadership and guidance, ensuring tasks are completed to time and standard and completing assurance activities from senior stakeholders where delegated.**Project Scheduler** DE&S

Bristol | £49,835 | Grade 7 B2 | Closing date: 15 Nov 2016

Reference number **1513458** Post type **Permanent** Hours **37 Hours****Job Description:** You will strategically advise and influence stakeholders on a range of complex strategic issues, as well as ensure our Schedulers are equipped to deliver and execute timely plans and schedules.**UK Military Flying Training System Manager** DE&S

Bristol | £30,424 | Higher Executive Officer C2 | Closing date: 21 Nov 2016

Reference number **1495521** Post type **Permanent** Hours **37 Hours****Job Description:** The UKMFTS PT Environment Manager's role is to undertake, and co-ordinate, the UKMFTS and Training Aircraft environmental management activities to deliver compliance with Project Orientated Environmental Management System (POEMS) requirements.**Commercial Officer** DE&S

Bristol | £30,424 | Executive Officer C1 &amp; C2 | Closing date: 30 Nov 2016

Reference number **1505758** Post type **Permanent** Hours **37 Hours****Job Description:** In this diverse and dynamic role, you'll be at the heart of all kinds of commercial projects. From purchasing and procurement, to tender evaluation, you'll be authorised to enter into commercial commitments up to £10m. As part of this role you will set up commercial strategies, provide commercial advice and conduct negotiations with suppliers.**Salvage & Mooring Officers** DE&S

Bristol | £54,000 | Band B2 | Closing date: 1 Dec 2016

Reference number **1511635** Post type **Permanent** Hours **37 Hours****Job Description:** The duties will consist of both practical/at sea tasks as well as office based work relating to development of capabilities, research and policy.

# FUTURE VACANCIES

## CAAS Cost Modellers/ Cost Forecasters DE&S

Bristol | £30,424 & £37,071 | Estimated launch: 18 Oct 2016

**Grade** Higher Executive Officer / C2 & Senior Executive Officer / C1 **Post type** Permanent

**Type of role** Project Controls **Hours** 37 Hours

The Cost Assurance and Analysis Service (CAAS) - exists as the MOD's centre of excellence for pricing and costing support to the Acquisition Community, enabling continuous improvement of the acquisition process, risk reduction, and ensuring Best Value for Money for Defence.

## Finance DE&S

Bristol | £19,101 - £24,362 | Estimated launch: 31 Oct 2016

**Grade** Administrative Officer / E1 & Executive Officer / D **Post type** Permanent

**Type of role** Finance **Hours** 37 Hours

DE&S finance officers work to procure and support the equipment that MOD requires. This could be anything from army boots to warships or ration packs to aircraft.

## Engineering (Air domain) DE&S

Bristol | £30,424 - £37,071 | Estimated launch: 4 Nov 2016

**Grade** Senior and Higher Executive Officers / Band C1 and Band C2 **Post type** Permanent

**Type of role** Engineering **Hours** 37 Hours

DE&S's engineers work with industry partners to deliver programmes, provide specialist input to projects, and solve a range of engineering challenges.

## Supply Chain Management DE&S

Bristol | £24,362 | Estimated launch: 10 Nov 2016

**Grade** Executive Officer **Post type** Permanent

**Type of role** Logistics **Hours** 37 Hours

Work with a variety of partners to ensure the flow of equipment and support services go to where the Armed Forces need them, when they need them.

## Engineering DE&S

Barrow | £30,424 | Estimated launch: 5 Dec 2016

**Grade** Higher Executive Officer / C2 **Post type** Permanent

**Type of role** Engineering **Hours** 37 Hours

DE&S's engineers work with industry partners to deliver programmes, provide specialist input to projects and solve a range of engineering challenges.

## Engineering DE&S

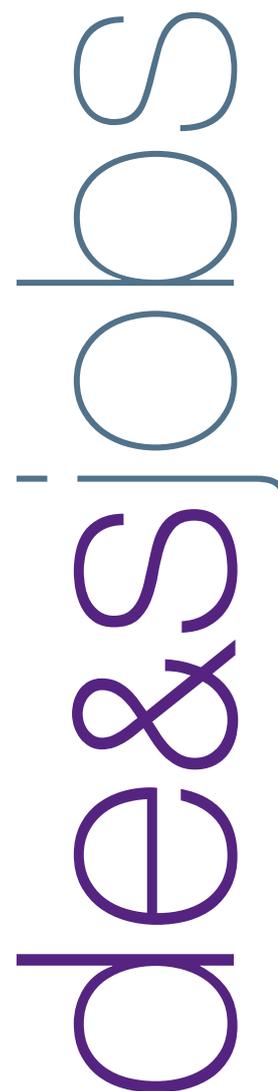
Barrow | £37,071 | Estimated launch: 5 Dec 2016

**Grade** Senior Executive Officer / C1 **Post type** Permanent

**Type of role** Engineering **Hours** 37 Hours

As above.

*Please note - This is the currently planned recruitment activity for the coming months and may be subject to change according to business needs and priorities.*



## 60 SECOND SPOTLIGHT

**Name?**

Luke Lawrence

**Job?**

Phase 2 Apprentice with the Ministry of Defence (MOD) Advanced Apprenticeship Scheme in placement working on Individual and Crew Trainers within Soldier Training and Special Programmes (STSP).

**Your route into DE&S?**

I joined DE&S in September 2015 as a new apprentice and have spent the last year at Bridgwater College gaining my Business and Technology Education Council (BTEC) Level 3 Mechanical engineering and National Vocational Qualification (NVQ) Level 2 Performing Engineering Operations Qualifications.

**Your claim to fame?**

I used to be a full-time funded athlete competing for Great Britain in Modern Pentathlon and was based at the University of Bath. I competed from 2008 to 2012, when I dislocated my knee on an altitude training camp in the Pyrenees whilst cross country skiing and had to have part of my kneecap removed.

I've also just taken part in and won the Tom Nervard Memorial Competition (a prestigious event for apprentices) in the individual hand skills category.

**Your advice to anyone?**

I seem to live my life by "jumping in with both feet" and committing myself totally. My advice is to find something that you are passionate about and jump. The more you commit and immerse yourself, the greater the reward will be at the end of it. It's a scary prospect at times but it really is the only way to get the best out of every opportunity that life hands you.

**What do you do when you're away from work?**

I try to stay as active as possible and try new things. I love the outdoors and often find myself on walks in the sun or camping on a hillside in the rain - always in good company of course.

**What are you most proud of?**

After I finished full time sport I helped set up and run a swimming school in Nairobi, Kenya. Within a year it had grown to over 100 members and ranked within the top three clubs in the country with swimmers competing internationally. I am incredibly proud of what was achieved in the 14 months I spent living there and the change it initiated, not only in their swimming, but in their everyday life and mentality.

**If you were sent to a desert island, what**

Picture: Jack Eckerley

**three things would you take with you?**

I think I would take a barbecue, a crate of beer and a boat. Not for means of escape but more so that others can join me.

**What irritates you the most?**

Negativity: It's contagious and poisonous in large doses but we are all in control of how much we take.

**What is your favourite place in the world?**

My favourite place in the world is my family home. I was lucky enough to have grown up in a tiny little remote village in the far reaches of Somerset. I like to go back to visit as much as possible to see my parents and also to enjoy the oasis I enjoyed in my childhood and continue to

enjoy today.

**Your secret?**

I've always had an incredible support base of family and friends around me. Nothing ever goes according to plan but it's these people that are always there to help along the way.

**Do you or someone you know deserve their 60 seconds in the spotlight?**

Email [tom.morris114@mod.uk](mailto:tom.morris114@mod.uk)

# Damien's got Pulling Power

If your idea of tug of war is just eight overweight men grunting as they try to haul their opposition towards them at the local village fair, then think again.

Those at the elite end of the sport, such as Warrant Officer Class 2 Damien Richards, put in hours of training to make sure they have the edge in what can be an energy-sapping battle of wills, lasting anything between 10 seconds and 20 minutes.

In any given week, Damien, part of the Protected Mobility Vehicle Programme (PMVP) team in Land Equipment at Abbey Wood, runs six miles at lunchtime before hitting the gym three days a week.

Two more evenings are spent training with Felton Eccles TOW Club near Bristol Airport and then between April and September nearly every Sunday is competition day.

The huge callouses on his hands are testament to the hours he spends straining at the rope during training and competition. It is also why he was

selected as part of the Felton team to represent England at this year's British and Irish Championships held at Llandrindod Wells, in Wales.

There, Felton – representing England – picked up the bronze medal in the 600kg class. Competing as Felton in the Open Competition the club went one better and took gold.

It was one of many highlights the sport, which Damien took up more than 25 years ago as a teenager in Devon, has given him.

"I first started tug of war when I joined a young farmer's club in Honiton aged 14," Damien said.

"There were barn discos and they always started with a tug of war and then we would have a few beers – it was great fun and I've kept doing it ever since and even met my wife through it.

"I enjoy the bond within the team, we do everything together. You have to work as a unit - you are only as strong as your weakest puller.

"You also have to be mentally and physically tough and patience is a



Above: Damien representing England

virtue. If you try to move before you have tired your opponents out, it can be easy to make a mistake that will cost you the contest."

To satisfy his passion for the sport, Damien travels all over the country with Felton to compete.

He has recently returned from Sweden, where he competed in the World Championships in the England 600Kg 4x4, which is a mix of four men and four women.

"Felton is a very well respected club, whose pedigree to represent England dates back to the 1950's. There is plenty of rivalry, which is friendly banter most of the time," Damien said.

"When we do compete for England the Swiss are always the ones to beat, as they get funded by their government and it's very hard to compete with, because we have to pay for everything ourselves, from training clothing to flights and hotels.

"Tug of war has a rich history and was last held at the Olympics in 1920, but they are trying to get it re-instated for Tokyo in 2020. Taking part in that would be the ultimate achievement."



Above: Damien is proud of representing his country and the medals his team have won

## History of Tug of War

No one knows exactly when or how tug of war originated, but it is known the contest of pulling a rope originates from ancient ceremonies and cults from all over the world.

Tug of War was an Olympic sport between 1900 and 1920. Great Britain won the most medals – two golds, two silvers and a bronze.

Earlier this year in Gujarat, India, a Guinness World Record for the largest tug of war tournament was set when 4,672 people took part.

## DE&amp;S PEOPLE

# Intrepid Helen runs riot



Above: Helen Smith braved the Alpine DVD (MAD) Run last month

An intrepid member of the DE&S Operational Support Vehicles Programme (OSVP) team took on a 5km course designed to test off road vehicles – on her own two feet.

Helen Smith tackled the course at Millbrook Proving Grounds, which

features steep hills, sand dunes, gravel and waist deep water to raise money for charity during DVD 2016.

Helen, a member of the OSVP management board, agreed to take on the challenge – known as the Millbrook Alpine DVD (MAD) Run - to help promote and raise money for Help for Heroes.

Despite her reservations, Helen did the team proud by both completing the run and being the first female from the Ministry of Defence (MOD) to cross the line.

While the event was clearly tough, luckily the only victims of the energy-sapping experience were Helen's socks, which had to be binned.

Helen said: "The description said the course was undulating, I'd call it 'flipping hilly!'"

The MAD Run event seeks to raise money and awareness for the Help for Heroes charity in support of those who have suffered life-changing injuries and illnesses in the service of our country.

You can still donate to the cause by visiting <https://www.justgiving.com/Jutta-Crane>

## MOTTO

the MOD Lottery  
August 2016 winners

### £10,000

Luke Massey (Corsham)

### £ 5,000

Jennifer Pitt (Barry)

### £ 2,000

Heather Browne (RAF Waddington)

### £500

Jayne Begley (Corsham)

Christopher Vickers (RFA)

### £100

Charlene Stevens (Sutton Coldfield)

Stephen Halsey (London)

Edgar Bray (Glen Douglas)

Claire Webb (Catterick Garrison)

Alastair Goodson (Abbey Wood)

Christopher Simpson (Bielefeld)

Sital Panesar (Feltham)

Robert Moore (Abbey Wood)

Barry Rolls (Blandford Forum)

Philip Keith (Plymouth)

Lee McAleer (Helensburgh)

Terrie Brown (Portsmouth)

Mark Hayhoe (Feltham)

Tracey James (Cardiff)

Cath Poonwasie (Shrivenham)

Robert Lakin (Credenhill)

Victor Wain (Portsmouth)

Lindsay Tolley (Abbey Wood)

Sarah Bragg (Dstl)

Simon Laight (London)



The DE&S Chinook project team raised almost £300 for charity after holding a bake off. Team leader Ross Richards and project leader Mark Geoghegan had the arduous task of sampling the 28 tasty entries which included tarts, gateaux, sponges, cupcakes, brownies, sausage rolls and meat pies. After much consideration, Farzana Arshad (right) was named winner for her five layer chocolate gummy bear cake (above), while Wing Commander Steven Deith came in second with a Victoria sponge and Jamie Hill finished in third with his sausage rolls. In total the team raised £287 for Marie Curie Cancer Care.



# Poppy Appeal response 'phenomenal'



Above: The first sand bag was placed at MOD Abbey Wood by Director Land Equipment Major General Robert Talbot Rice (right), on July 1

**T**he response to the Bristol Poppy Day 'Wall of Remembrance' at Abbey Wood has been so overwhelming that organisers have had to order more sandbags and sand.

As part of the events to mark Poppy Day this year, DE&S staff, teams, contractors, consultants and families were requested to sponsor a sandbag.

The first one was displayed on July 1 by Director Land Equipment Robert Talbot Rice to coincide with the first day of the battle in 1916.

The Battle of the Somme was the largest and most bloody battle of the First World War on the Western Front, with more than one million men wounded or killed.

The first day of the battle remains the worst in the British Army's history, with 57,470 casualties, of whom 19,240 lost their lives.

The aim was for 100 sandbags to be sponsored and placed on the steps outside Rowan in the Abbey Wood plaza to mark the final day of the Battle of The Somme on November 18.

But, such was the demand, more than 90 have already been taken up, meaning organisers have had to order another 100 sandbags and the additional sand to fill them.

Chris Della Porta, who has been helping to co-ordinate the effort, said: "The response from those at DE&S has been phenomenal.

"In fact, the response has been so good that we have had to buy an additional 100 sandbags and order on two more tonnes of sand so that all those wanting to take part have the opportunity."

Those behind the Royal British

Legion's efforts at Abbey Wood also requested '100 Volunteers for 100 Years' to help sell poppies at Abbey Wood and across Bristol.

More than 70 have signed up to take part in that initiative, which will see them selling poppies at Abbey Wood at in Bristol city centre at the beginning of November.

Chris added: "Given how busy people who work at MOD Abbey Wood are, we have been very pleased with the response."

"It's clear that DE&S and project team leaders are very much behind the appeal and are actively encouraging their staff to take part and help make a difference."

See December's edition of *Desider* for a report on Poppy Day at Abbey Wood.



**M**ore than 60 members of the DE&S family took part in The Royal British Legion's Rowing Challenge, raising £350 for the Poppy Appeal in the process.

Wannabe Steve Redgraves and Katherine Graingers were challenged to row 500 or 1,000 metres as fast as they could on an indoor rowing machine in the atrium in Neighbourhood Two.

Air Marshal Julian Young, Chief of Materiel (Air), started the event by reciting all those awarded the Victoria Cross during the First World War – whilst rowing.

All times were displayed on a wall during the challenge and rowers could try as many times as they wished to finish top.

Major Tom Skinner, from the Soldier, Training and Special Programmes (STSP) in DE&S Land, finished the fastest man in both 500m and 1,000m, with times of 1min 24secs and 3mins 07secs respectively.

Sarah Biggs from ISTAR registered as the fastest woman for 1,000m with 4mins 12 secs.

Gemma Timms, DE&S Joint Sensor and Engagement Networks, who organised the challenge, was the fastest woman over 500m with 1min 42secs.

Gemma said: "Many thanks to all those who took part and raised money for such an important cause."

In total the Bristol Poppy Appeal raised £1,300 on the day.

# desider



**SEARCH 'DESIDER'  
IN YOUR APP STORE**

