


# desider

the magazine for defence equipment and support



**DE&S looks back with pride  
at Operation Herrick**



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cover image



Soldiers of C Company 2nd Battalion Royal Anglian Regiment are silhouetted against the setting sun during operations in Afghanistan.

# desider

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## FOREWORD

by Bernard Gray, Chief of Defence Materiel

I am, understandably, always quick to praise those in DE&S when they have gone above and beyond the call of duty in performing their roles in defence of our country. That, in many ways, is what my annual Chief of Defence Materiel Commendations are all about.

This month though I can look back on a whole series of successes which underpinned the efforts of UK Forces in Afghanistan, a significant part of the international community's mission to bring stabilisation to what had become a failing nation.

Operation Herrick was, for the most part, a triumph for DE&S. Across the organisation, operating centres came together to provide the equipment and support needed to help UK Forces do their jobs. From support to aircraft and vehicles to providing vast quantities of ammunition, and commodities such as medical equipment, food and fuel, our project teams stepped up to the mark. When urgent calls came to provide supplies in rapid order, or in some cases to design new equipment from scratch, DE&S was there, in many cases saving lives by virtue of the quality of its work.

With equipment from Operation Herrick now redeployed from the front line, this edition of *desider* contains a snapshot of our success during a decade of significant effort. While a host of volumes would be needed to list all the work which went into Operation Herrick by DE&S' people, this month's edition gives a flavour of the activity our staff were involved in. We are there to make sure UK Armed Forces can do their jobs to the best of their abilities and there is no better example of that than the joined up support we provided over the many years of Operation Herrick. I now add my heartfelt thanks to all of you who went the extra mile. Well done.



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JUNE 2015

# InsiderGuide

**MICHAEL BRADLEY** is DE&S Director General (Resources) and Chief Financial Officer, responsible for finance, accounting, cost assurance and corporate risk. From his viewpoint, staff at DE&S should take real confidence from recent successes

**D**E&S has had its critics in the past but our workforce has done a remarkable job in the last few years in very difficult circumstances. We are now in a completely different place, with a credible recent track record. I don't think we should be afraid of patting our people on the back and telling the world how much we have improved.

There are many pieces of evidence for this. The cost of the Equipment Plan has been stable over the last few years and the National Audit Office actually praised our financial management in its last report. At the end of 2014/15 we will be in a similar position and the next Major Projects Report should again be positive about our management of the Equipment Programme. We have also reduced our inventory of equipment from £40 billion to £31.6 billion, removing more than £8 billion from the headline number between March 2012 and March 2015; this is a tremendous achievement by our teams, the result of simply stopping buying more than we were consuming and disposing of a lot of surplus items that we don't need.

Elsewhere there are more real successes for the organisation. We have saved the Front Line Commands around £2 billion on the future Equipment Support Programme without putting their outputs at risk; we have performed brilliantly in delivering new helicopters or modifications to helicopters on or ahead of schedule; and our management of in-year expenditure and the accuracy of the data surrounding it has improved significantly.

Our success in supporting the withdrawal from Afghanistan has been quite phenomenal; admittedly there has been very little good press about our efforts, but there's simply been no story to latch on to, because our team returned the equipment in better shape and order than any other operations over the last 25 years. So there are many, many ways in which we can show how the organisation is improving every year.

I know some of our people have felt down. They are still suffering from poor systems in their work, next to no salary increases, car parking issues at Abbey Wood and too much bureaucracy in the organisation. So DE&S has not been an easy place to be successful.

But it should be a very exciting time to be working at DE&S. We now have people on board from the MSPs who will help us turn the organisation into a more professional unit and make it easier for our staff to do the job they love doing.



Picture: Andrew Linnett

We all want to have quality tools, systems and skills to do our jobs and it's exciting for me to see people outside trying to help us deliver on those long term goals. In the past we have been busy focusing on the day job, making sure kit gets delivered to where it's needed at the best possible price, and our focus has not been on our people or our key business processes. We have now got 200 skilled

“Premier League” players on our team here to make us better at what we do. It is a real opportunity and hopefully an upbeat message for everyone.

This organisation and our staff should be very proud of the work we have done over the last couple of years and we should not be afraid of telling people we are on the up!



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# Continuity is key, says Minister

**D**E&S staff should be encouraged and reassured by continuity of the ministerial team following the general election.

Philip Dunne made his first visit to Abbey Wood on 21st May as the newly named Minister for Defence Procurement which gives him a seat on the Defence Board.

And he stressed how important it was to continue his work. "I'm absolutely delighted to be back here working with DE&S," he said. "There are some outstanding people here and I hope that continuity of my role and that of the Secretary of State is reassuring to people.

"One of my tasks will be ensuring that DE&S transformation beds in well to make sure the organisation is 'match fit' in 2017. I've had a briefing with the Managed Service Providers and things are moving at pace to deliver the change, which will strengthen the organisation.

"We are determined to bring the staff with us, upskill

where necessary and give key people the tools to take on our contractors in a more equitable and fair way to give best value to the taxpayer. And to deliver kit on time and on budget."

He added: "It is helpful to me that the Secretary of State is back in post, and I hope it's helpful to DE&S that I'm back in post. The fact we have two ministers who are familiar with the department will be helpful in our future negotiations with the Treasury."

Mr Dunne pointed to 'chunky' decisions, which would come out of the next Strategic Defence and Security Review, and a number of major announcements due in the next 18 months as illustrations of a busy time at DE&S.

"It's clear the Prime Minister sees the UK standing tall in the world. Defence is a priority. We have made that clear in our manifesto, which we can now deliver as a strong government," he said.

"We have commitments which include replacing Vanguard through the

Successor programme and a one per cent real terms increase above inflation for each year of this Parliament for the Equipment Plan. This provides confidence to the service chiefs and everyone who works in the defence industry. They are two important planks on which defence will rest for the next five years.

"And there will be no more cuts in uniform staff. The Army will not fall below 82,000. That is another important plank. We are today engaged in 28 operations around the world; we may not have a standing commitment on the scale of Afghanistan but it's an unusually large number of materially significant engagements so I don't see in the current threat environment it is going to reduce in the way we envisaged in the 2010 defence review.

"It isn't going to feel much like a lull at the moment and there will be a regular drumbeat of defence announcements."

**The Ministerial team at the MOD** continues to be led by Secretary of State the Rt Hon Michael Fallon, who retains his role in the new Conservative Government.

Philip Dunne is Minister of State for Defence Procurement and the Rt Hon Earl Howe has been appointed Minister of State in the House of Lords.

New faces are Penny Mordaunt as Minister of State for the Armed Forces, the first woman to take up the post, and Mark Lancaster who becomes Minister for Defence Personnel and Veterans.

Julian Brazier returns to the MOD as Minister for Reserves.



Picture: David Tucker

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### World's first marine vacuum degasser

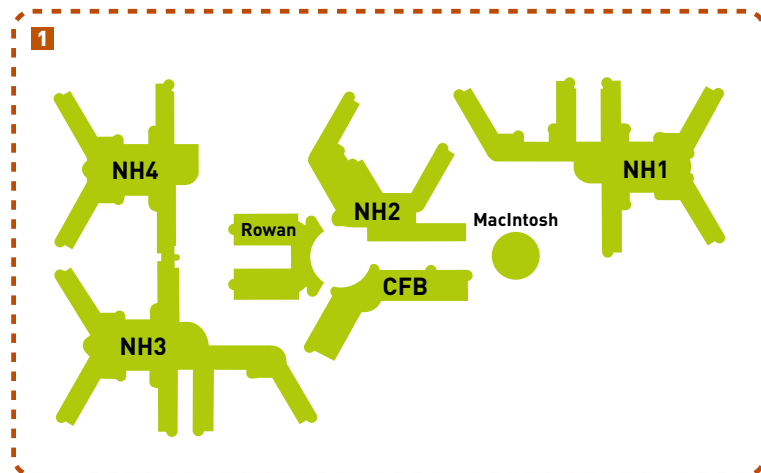
Dutch firm Spirotech has won an award from BAE Systems for its design of the world's first marine vacuum degasser, installed on Type 45 destroyers *HMS Diamond* and *HMS Daring*. The new degassers represent a first for the industry and another ten will be installed on additional Navy vessels. The equipment removes dissolved gas and improves chilled water distribution on ships to reduce energy consumption and improve water flow.

The equipment removes dissolved gas and improves chilled water distribution on ships to reduce energy consumption and improve water flow.

# NEWS IN BRIEF

## Search-and-rescue capability in the Mediterranean

*HMS Bulwark* and three Merlin helicopters have been earmarked to help provide a search-and-rescue capability in the Mediterranean, working closely with the Italian Navy and co-ordinated via Rome. The aircraft, from Royal Naval Air Station Culdrose, are supported by more than 80 UK personnel, including air and ground crew.



## The Queen led the nation in marking VE Day 70

### VE Day 70

The Queen led the nation in marking VE Day 70 on 10th May at a Service of Thanksgiving at Westminster Abbey. The Duke of Edinburgh, Prince of Wales and Duchess of Cornwall, members of the Royal Family, the Prime Minister, and nearly 1,000 veterans and their families attended the service, with representatives of Allied Nations and Commonwealth countries who fought alongside Britain in the conflict. Led by the Dean of Westminster the service included thanksgiving for reconciliation and unity, prayers for peace, with an address given by the Archbishop of Canterbury. Two minutes' silence was observed by staff at Abbey Wood on Friday 8th May.





## Royal Navy Engineers in action on board an operational warship

### Newly-formed Engineering Training Squadron

A group of Royal Navy engineers has embarked on *HMS Northumberland* as a part of a new training scheme. The 30 sailors from the newly-formed Engineering Training Squadron have the opportunity to put their skills into action on board an operational warship. The engineers will get a true taste of life at sea, working and living on *HMS Northumberland* for six weeks. They will be working closely with the experienced crew on the ship, ensuring they get the best possible training for their future Navy career.

## Lord Mayor on board HMS Middleton

### The Royal Navy's minehunters

Steven Wylie, Lord Mayor of Portsmouth, learned about the vital role of the Royal Navy's minehunters during a day at sea on board *HMS Middleton*, one of the Navy's 15 mine countermeasures vessels which will deploy to the Gulf later this year. During a trip around the Solent Councillor Wylie met *Middleton's* 45 crew and was shown how the ship finds, identifies and disposes of mines. Sailors on board explained how minehunters keep sea lanes open and ensure the safe transit of energy, raw materials and manufactured goods which are vital to the UK's economy.

### Abbey Wood

#### 'Future Proofing the Military'

DE&S Technical Director is hosting a symposium 'Future Proofing the Military', at Abbey Wood on 1st October addressing new and emerging challenges facing planning and delivery of military capability.

Jonathan Slater, Director General Head Office and Commissioning Services, will give the keynote address.

Confirmed speakers include Assistant Chief of the Naval Staff (Capability) – Rear Admiral James Morse; Rear Admiral John Kingwell, Director Defence Concepts and Doctrine Centre; and Rini Goos, Deputy Chief Executive at the European Defence Agency.

The core theme will be on reducing the Armed Forces' reliance on fossil fuels and other scarce natural resources which pose significant risks to all elements of military capability.

Further information, contact Richard Brewin at [DESTECH-QSEPSustProc@mod.uk](mailto:DESTECH-QSEPSustProc@mod.uk) / tel 020 7218 9438.

50,000 die each year in the UK, from work-related injuries and diseases.

### Devonport

#### International Workers Memorial Day

Staff and Armed Forces personnel gathered in Devonport last month to commemorate workers across the globe killed or injured at work. International Workers Memorial Day remembers those including the estimated 50,000 in the UK who die each year from work-related injuries and diseases. Commodore Ian Shipperley, who runs the naval base, said: "It's important to remember those from the dockyard who have died over the years supporting our nation's defence, as well as all the others across the world. We need to continue the fight against poor health and safety to ensure the safety all our present and future workers. We should take great pride in the high standards we uphold here in the base."

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HMS Scott back at sea

# HMS Scott at sea again



**H**MS Scott has returned to sea after refit in Devonport. The deep-water survey ship is now training and proving the ship is fully able to deploy in the future. The vessel helps map the world's deepest oceans to aid navigation of Royal Navy ships, helping protect the UK's



international trade routes.

The ship's commanding officer, Commander Karen Dalton-Fyfe, said:

**“My team have risen to the challenge with sheer hard work and determination. Following our first few days at sea, my ship is operating well and looks great, I couldn't be more pleased.”**

The ship generally spends more than 300 days a year at sea and in her 18-year lifetime she's sailed

more than 750,000 nautical miles.

HMS Scott can survey 150km<sup>2</sup> of ocean floor every hour. All the processing of the data is conducted and checked onboard with the final product rendered to the UK Hydrographic Office in Taunton.

Because HMS Scott was designed and built to house her advanced survey sonar system she is a spacious ship with most 85 crew members on board having his or her own cabin complete with an en-suite restroom and shower. There are also two gymnasiums as well as a badminton/basketball court, designed to maintain the crew's fitness.



# New shock protection tests a success

Underwater tests have successfully proved a novel way of protecting containers holding a warship's vital mission systems and other equipment from shock experienced when the ship is attacked by mine or torpedo.

Key equipment which will give flexible capability to the Type 26 Global Combat Ship – mission systems, command and control or mine countermeasures modules, for example – are often housed in standard 20-ft ISO containers. This means warships and auxiliary vessels can be quickly rerolled for a variety of missions.

But the containers are vulnerable to effects of underwater shock.

Weapon effect specialists from Weidlinger Associates, managed by DE&S' Naval Authority Group along with the Defence Science and Technology Laboratory, have developed protection for the containers.

The system builds on existing

arrangements and uses mounts integrated into a frame which allows rapid fitting to any ship with suitable bolts. It is a low cost, low risk solution.

The protection system was developed at Weidlinger's HQ in Fife and trialled in its test facility in Moray, witnessed by DE&S, industry and a host of Nato partners.

Containers were tested in the NAG's floating test platform - STV-01 - against all underwater shock levels that Navy ships are expected to face.

The system has gone from concept to pre-production in just a few months. It protects the container for a few thousand pounds preventing damage to equipment inside, which could cost millions.

Final detailing of the design is now being completed, with the system available for use later this year.

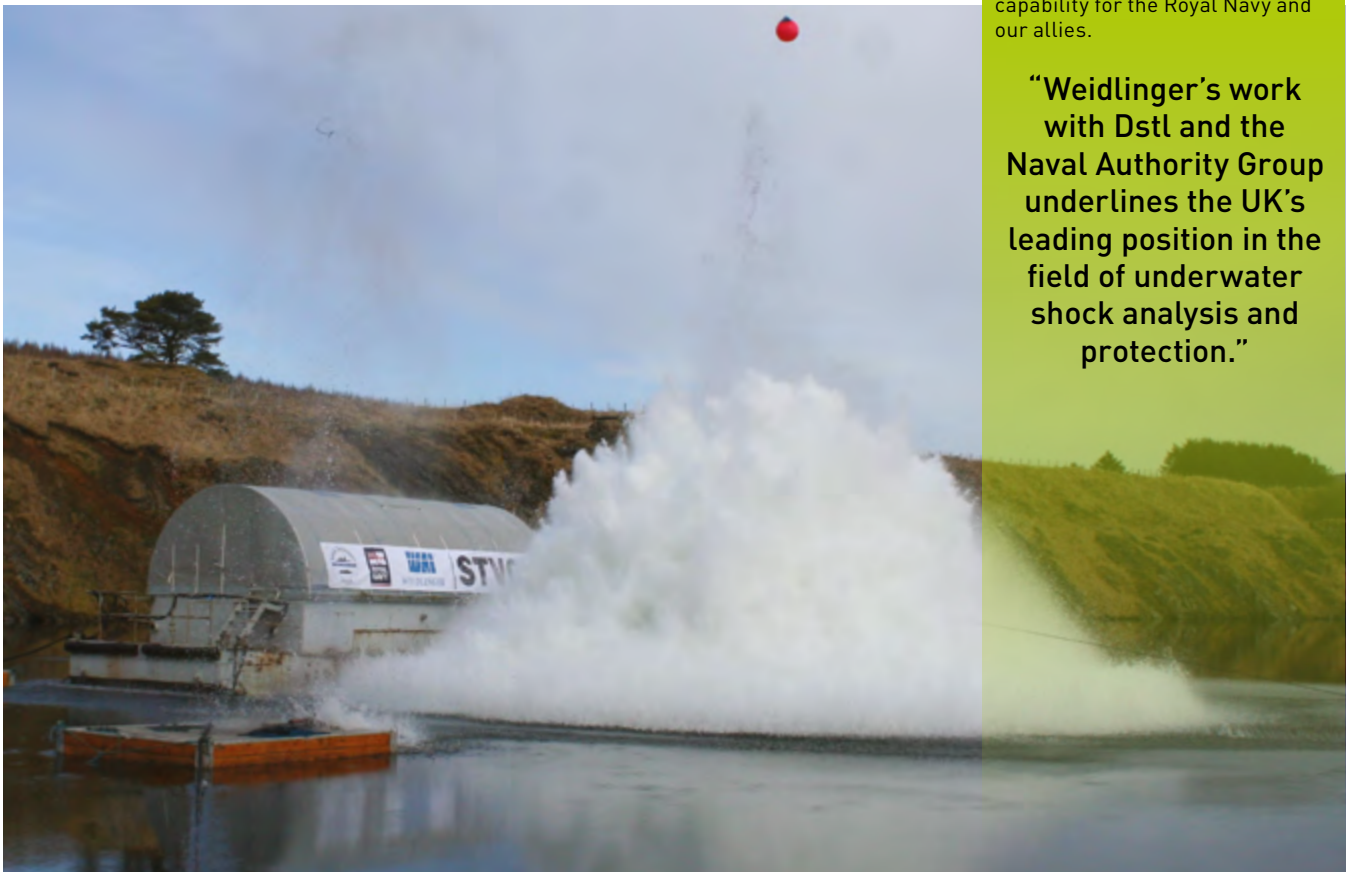


**The Naval Authority Group** provides specialist engineering support to maritime projects to help deliver cost effective solutions and work with industry to develop sustainable military capability.

Deputy Head David Manley said: "Shock protection to containerised capabilities has been an area of concern across Nato for some time. The shock mounting system developed by Weidlinger offers excellent protection against threats encountered at sea and will provide a highly effective capability for the Royal Navy and our allies.

**"Weidlinger's work with Dstl and the Naval Authority Group underlines the UK's leading position in the field of underwater shock analysis and protection."**

Below: Explosive test against the STV-01 Shock Barge





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# NEWS IN BRIEF

## New contract for Osprey CSL

Osprey CSL has secured a new contract, initially for a year with an option to extend for a further two years, to undertake safety assessment support on the Voyager aircraft on behalf of the Strategic Transport and Air to Air Refuelling team. The company will update evidence which underpins the aircraft's safety, presented as a safety assessment report.

Mike Spencer, Engineering Director at Osprey CSL, said: "Osprey has vast experience of providing the UK MOD with aviation expertise through our exceptional team of safety and airworthiness engineers drawn from both civil and defence aviation.

**Our work will ultimately help to ensure that the RAF Voyager aircraft can demonstrate it is airworthy and fit for deployment."**

## Achieving the Strategic Edge Through People 2040

### Science and technology research programme

A multi-million pound science and technology research programme is being launched by the MOD looking at the capabilities it will need to have by 2040.

The programme will develop new ways to identify, recruit, develop, train, operate and retain people.

The MOD aims to bring together regular and reserve forces, contractors and civilians into a world-leading effective, dynamic and enduring future force.

'Achieving the Strategic Edge Through People 2040' is a four-year programme valued at around £12 million. It is being led by the Defence Human Capability Science and Technology Centre.

**'£12  
million,  
four-year  
programme'**



## The Sting Ray torpedo

*HMS Sutherland* has been trialling her equipment after renewing it during the ship's refit.

The latest to be tested were her non-operational anti-submarine torpedoes which fire into the water from the side of the ship at sea in UK waters. The torpedoes are one of several lines of defence against underwater threats.

The Sting Ray torpedo thrusts out of the tube using high-pressure air. Then a small parachute deploys to slow its decent into the ocean. Although the torpedo used by *HMS Sutherland* was a trials variant, the real thing normally carries a 1,000lb explosive charge, and is powered underwater at more than 50mph towards enemy submarines.

## Making DE&S more efficient

### New time recording system

A new time recording system is being introduced across Abbey Wood to improve management information in preparation for charging Front Line customers for DE&S work.

Time Recording and Charging – to be recorded weekly by staff – has been piloted by three operating centres across the organisation.

Helicopters, Weapons and Submarines have been using the system for three months and it is now being extended to 10,000 staff.

Management hope the system, known as TRaC, will give equipment a more accurate value for accounting.

It will also record a wealth of information on projects and activities that staff are involved in – giving a 'whole-of-business' view to make DE&S more efficient.





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# 680-tonne Forward Island arrives at Rosyth

The most iconic section – the Forward Island – has been lifted onto Prince of Wales at Rosyth.

Upper Block 07 is where the second of the Royal Navy's new aircraft carriers will be commanded atop the flight deck.

As the main hub of the ship it contains the bridge and approximately 100 vital mission systems compartments.

David Shepherd, Head of Programme for the second ship, said: "Taking delivery of the Forward Island into Rosyth is an important milestone for *Prince of Wales*. The island has been delivered to an exceptional standard of engineering.

"It's a proud day for everyone in the Aircraft Carrier Alliance and

demonstrates the pride and drive among the team to deliver the nation's flagships."

Construction of the 680 tonne Forward Island began in December 2013. When it left its dock hall in Govan it was driven onto a barge using a single remote control and 144 wheels beneath it at a careful half a mile per hour. It then travelled via the Irish Sea, Land's End and the English Channel before arriving in Rosyth.

The second 'Aft Island', which is still under construction in Glasgow, operates as an airport control tower to co-ordinate aircraft movements, but both islands are designed with the ability to incorporate the other's role in an emergency, increasing the survivability of the ship.

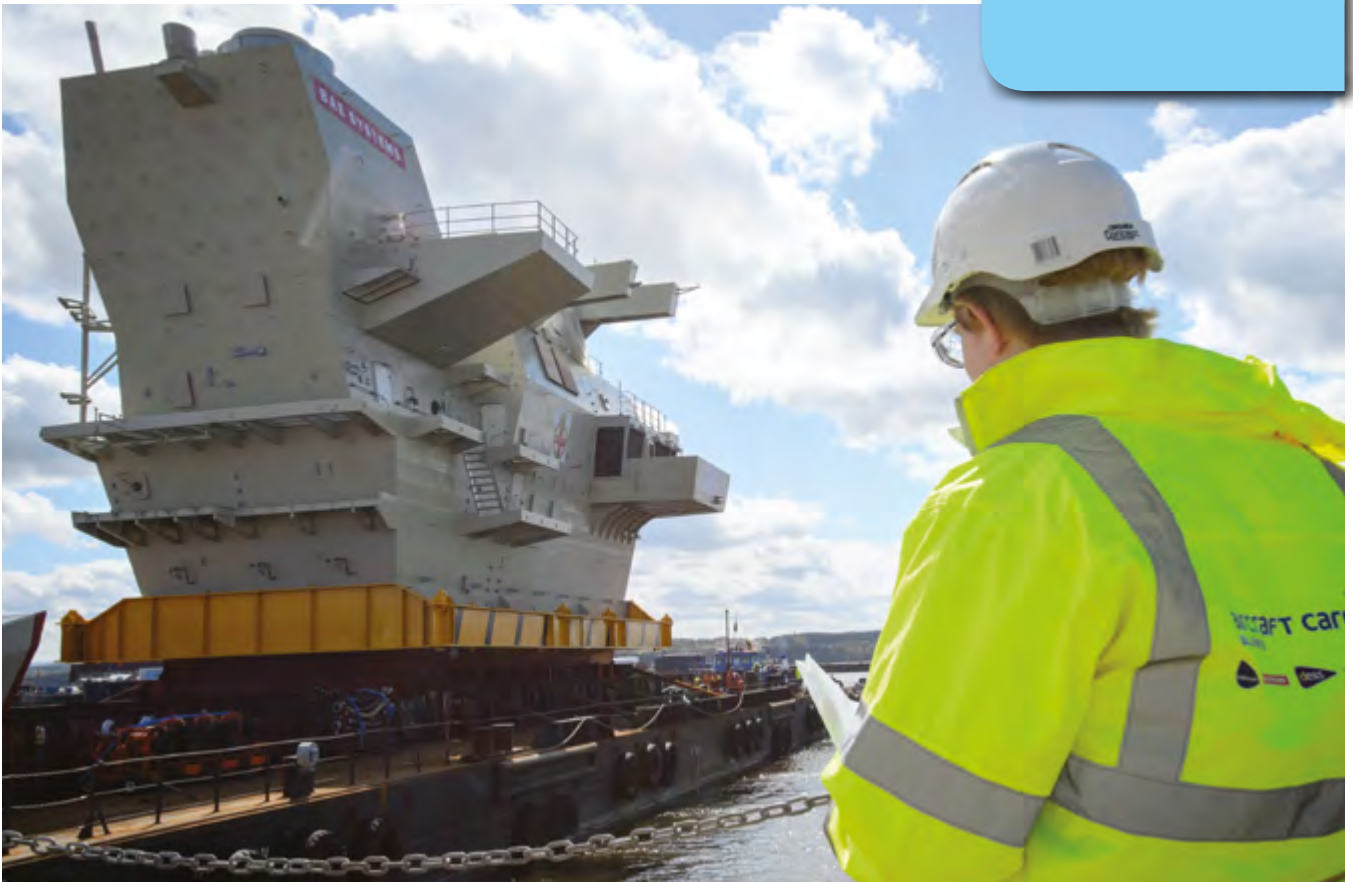
Construction of the final block for the second carrier has begun in Rosyth.

The final sponson, SP11, will house a variety of compartments over three decks, such as stores, workshops, a mooring deck and a planning complex briefing room.

Construction of this part of the ship marks a significant phase in the programme, with all 25 of the blocks that make up *HMS Prince of Wales* now having entered the production phase.

While the steel for the sponson is being cut at two sites across the UK, final assembly of the unit will take place in Rosyth. The block will be in a state of manufacture for around a year, with the assembly of the unit onto *HMS Prince of Wales* scheduled for next May.

Below: it's an impressive site as the iconic Forward Island arrives in Rosyth



**Martin Douglass** has been appointed as the new *Queen Elizabeth* class Engineering Director and will take up his new role on 1st September.

He will lead the engineering and quality assurance teams through the remainder of the programme, up

to delivery of *Prince of Wales*. He will also assist the Ministry of Defence and Royal Navy in the achievement of First of Class Flying Trials with fast jets in 2018. Mr Douglass will be based in Bristol.



## Enhanced Bowman results in £3 million of savings

**A**round 30,000 enhanced versions of Bowman, the Armed Forces' tactical communications systems, have been fielded to all three services on time and to budget.

The programme, which took around two years to field, has also resulted in around £3 million worth of savings to MOD.

The Bowman and Combat Information Platform (BCIP) 5.5 uplift has been run by the Battlefield and Tactical Communications and Information Systems (BATCIS) team.

Enhancements include an improved version of the Land Environment Message Set, the Bowman External Messaging Service and the move to Microsoft Office 2010 from Open Office.

Included in the update is a package of centralised and distributed training by General Dynamics UK. Training for the

new version is minimal due its more intuitive nature as it follows common IT user practices.

Colonel Andy Fallows, BATCIS Deputy Head, said:

**“Fielding of the new and improved Bowman kit is a real success story for BATCIS. The teams in Abbey Wood and Ashchurch, where the kit is updated, have delivered this product on time and in budget but also with significant savings to the MOD and the taxpayer.”**

**The two year BCIP 5.5** to uplift equipment started in April 2013, by the BATCIS Fielding Management Team (FMT), based at Ashchurch, along with temporary staff from Army Headquarters and subject matter experts provided by General Dynamics UK.

This was in contrast to previous uplifts which were carried out at a practical level by GDUK with the liaison function being carried out by FMT. This significant change saved defence almost 50 per cent on previous uplift costs.

The majority of the uplift was carried out at Ashchurch, with out of area uplifts in Canada and Germany as well as Gibraltar, Cyprus and the Falkland Islands and was rolled out in Afghanistan in January.

Final equipments were uplifted in mid March with the facility at Ashchurch being drawn down at the end of March.



# Sky's the limit for air systems

**Defence and Security Equipment International (DSEI)** is the largest integrated defence and security exhibition in the world and is acknowledged and recognised as an essential platform to showcase and demonstrate the full capabilities of air systems from around the world.

Hosted at London's ExCeL every two years, DSEI continues to serve as the premier meeting place for global defence and security communities.

DSEI organisers, Clarion Events, are building on the record breaking success of the last DSEI which was staged in 2013 and saw 32,000 visitors from 121 countries worldwide - including 158 programmed delegations - engaging with 1,489 exhibitors representing 54 different countries.

## Growing markets

According to recent forecasts from Strategic Defence Intelligence ([www.strategicdefenceintelligence.com](http://www.strategicdefenceintelligence.com)), both military aircraft and military helicopter markets are set to grow. The value of global military aircraft is expected to increase at a Compound Annual Growth Rate (CAGR) of 3.64% during the forecast period, to reach US\$87.5bn by 2025; this market segment is estimated to value US\$61.2bn in 2015. The segment consists of six categories of aircraft: reconnaissance and surveillance; multi-role; transport; attack; bombers and training.

The military rotorcraft market will expand at a projected CAGR of 2.6% over the next ten years, increasing from US\$21.1bn in 2015 to US\$27.3bn in 2025. In terms of growth rate, the Middle East is anticipated to see the fastest growth with a CAGR of 4.7%, primarily due to robust modernisation plans and strong economic growth.

## Strong offering

DSEI 2015 will feature its strongest aerospace offering to date, with exhibitors including Airbus Defence and Space, Boeing, BAE Systems, Finmeccanica, General Dynamics, Northrop Grumman, Bell, Lockheed Martin, L3, MBDA, Rafael, Rolls-Royce, SAAB and Thales. Platforms expected to be displayed include Typhoon, Apache, Chinook, Merlin, Sea King and Wildcat helicopters. Unmanned systems will also be prominent, with a broad spectrum of exhibitors including: Boeing Insitu, Northrop Grumman - who will feature the Global Hawk - iRobot and QinetiQ.

## Larger RAF contingent

This breadth of innovation within the air systems component has been met with unprecedented approval from the RAF, which has decided to bring an even larger contingent to DSEI 2015.

Air Vice-Marshal Malcolm Brecht, Chief

of Staff Air Capability, said: "DSEI 2015 enables us to highlight themes that will influence future UK air capability, and we will continue to pursue the excellent opportunity that DSEI 2015 provides to engage in high-level industry briefings and bilaterals."

## Future of Military Rotorcraft: 2030 and Beyond Conference

A one-day Strategic Conference entitled "Future of Military Rotorcraft: 2030 and Beyond" will take place on 14 September, the day before the exhibition opens its doors. This conference will examine the drive to develop military rotorcraft beyond their current traditionally limited operational capabilities.

The United States' Department of Defence is developing their next generation of vertical lift utility and attack rotorcraft that will offer, at a minimum, significantly increased speed and range. The morning session will address the requirement to develop this next generation of vertical lift rotorcraft and will include speakers from within the U.S. Army (the current acting lead on this programme), the U.S. government and agencies involved in the creation of the concept, together with industrialists and academia. The afternoon session will focus on the present day and look at the transition of military forces to new

vertical lift technology and the difficulties that such a transition poses.

## Air Theatre

Visitors will be able to discuss the latest issues in the aerospace supply chain in the Air Theatre, which will provide DSEI attendees with a key insight into how the industry is currently leading and delivering effective air power. This dimension to DSEI also provides a valuable opportunity to network and develop new contacts from a range of related sectors around the world.

DSEI Event Director, Duncan Reid, said: "DSEI 2015 will again provide an international showcase of key products, systems and technologies that will be crucial to the wide spectrum of future air operational capabilities. More than 30,000 quality visitors will be able to network within the full aerospace supply chain from around the world as well as participating in seminars to discuss key issues. The Air Zone, including its theatre, will be a major attraction for the many delegations and military visitors."

**DSEI will be held at ExCeL London from 15-18 September 2015. [www.DSEI.co.uk](http://www.DSEI.co.uk) Registration to attend is now open (military personnel can go free) - visit [www.DSEI.co.uk/registration](http://www.DSEI.co.uk/registration)**





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# Operation Herrick

A LOOK BACK WITH PRIDE

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# Air Support

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**“This has been a remarkable set of achievements by the Air Support Operating Centre over a sustained period. Delivery of new capability and support has been vital to the success of the Operation Herrick campaign and I am deeply proud of the achievements and dedication shown by all staff involved at every level” – Air Marshal Simon Bollom, Chief of Materiel (Air)**



Throughout the long landlocked campaign in Afghanistan the Air Transport fleet was vital in providing the strategic air bridge and crucial tactical intra-theatre airlift, resupplying people and materiel and providing critical life-saving aero-medical evacuation.

During the campaign the operating centre increased the capacity of the strategic air transport fleet, doubling the size of the C-17 fleet and replacing the ageing Tristar with the modern Voyager. Staff advanced introduction of Voyager into service to provide a much welcomed boost to the 4,794-mile each way journey. During the final 28 months of the

campaign Voyager flew more than 1,274 sorties carrying 172,733 passengers and 11,667 tonnes of freight. The HS125 fleet was also busy transporting the Prime Minister and other VIPs and senior military commanders into theatre.

Within Afghanistan, the C-130 fleet provided vital troop and equipment movement including aeromedical evacuation (including for Afghan civilians), aerial delivery equipment and discrete support to UK and coalition forces. The Sentinel R Mk1 flew more than 16,000 hours providing vital intelligence for ground commanders.

Air Support delivered more than 42 Urgent Operational Requirements

ranging from whole aircraft (the procurement of two BAE 146 Mk 3 providing intra-theatre transport for 50 passengers or freight) to guided parachute systems for the vital resupply of materiel to forward operating locations.

At the equipment level, improved beyond-line-of-sight communication systems, enhanced air combat clothing and survival aids, and key synthetic training facilities to enable air and ground forces to undertake essential simulated mission training prior to deployment were also delivered.





# Combat Air

From the strategic, RAF Reaper, to the Infantry's Nano platform Black Hornet, a number of Unmanned Air Systems (UAS) platforms were deployed in support of Operation Herrick, providing almost 240,000 hours of vital intelligence, surveillance and reconnaissance information in support of ground troops.

Desert Hawk 3 and its predecessor, Desert Hawk 1+, deployed to Afghanistan in 2007 and were the first mini UAS to be operated by UK forces. Such was the success of Desert Hawk 3 and Black Hornet that they have now been brought into the

core equipment programme.

Reaper, the UK's only armed Remotely Piloted Aircraft System, was initially flown from Creech Air Force Base, USA and then later also from RAF Waddington.

Herrick also saw Watchkeeper, the Army's tactical UAS capability, deploy alongside Hermes 450 Urgent Operation Requirement and proved critical in the drawdown of troops, giving greater situational awareness while helping reduce the risk of threats.

Eight Tornado GR4 aircraft were stationed at Kandahar from June 2009

until the withdrawal last November.

They were tasked with providing tactical reconnaissance and close air support to British, coalition and ISAF ground forces. Seven RAF squadrons operated the Tornados, flying almost 33,500 hours.

Throughout deployment the Tornado GR4 force was supported by DE&S' Fast Air Support Team providing dedicated technical support to the aircraft, including introduction of several Urgent Operational Requirements, such as 'helmet-mounted cueing' and the answering of more than 700 technical queries raised in theatre.







**“I am immensely proud of the unwavering support provided to Operation Herrick by staff across my operating centre. Their achievements are testament to the hard work and dedication of DE&S and its continued commitment to our British and Allied forces now and in the future”**

**– Air Vice-Marshal Sue Gray,  
Director Combat Air**

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# Helicopters

**W**hile Chinook involvement in Afghanistan began in 2001, there have been nine years of intense operations since February 2006 where helicopters supported by DE&S project teams have flown more than 158,000 hours, the equivalent of 48 hours of flying for every day of the operation.

To enable effective operations in challenging operational and environmental conditions, 112 Urgent Operational Requirements were delivered by DE&S project teams. These UORs provided new in-theatre capabilities, including the introduction of safety enhancements, defensive aid suites and delivery of the entire Shadow R1 intelligence, surveillance, target acquisition and reconnaissance capability.

The deployed helicopter fleets transported more than 720,000 passengers (equivalent to 1½ times the entire population of Somerset), transported more than 25,000 metric tonnes of air freight and extracted around 13,000 military and civilian casualties from the battlefield.

Operation Herrick culminated in the successful redeployment of 19 aircraft back to the UK in only 10 days last November.

These are the hard facts by which the Helicopters Operating Centre contribution to sustaining operations in Afghanistan can be measured; the delivery was vital to supporting Front Line Forces, time and time again.

This would have been impossible without the sterling contribution made by colleagues in industry who were critical in underpinning this outstanding performance – a true team effort.

**“Our support to Operation Herrick was a substantial achievement, and possible only through the efforts of highly committed, professional and knowledgeable people within the Helicopters Operating Centre and our colleagues in industry who were critical to sustaining such outstanding effect. I am immensely proud of all that was achieved, and offer my sincere thanks to all those involved”**  
- Air Vice-Marshal Julian Young, Director Helicopters







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# The Inventory Management Operations Centre

The Inventory Management Operations Centre (IMOC) has had many guises over the duration of Operation Herrick.

"Our people who gave their all in support of the front line have changed too," said Andrew Cannon-Brookes, IMOC Director. "And it should not be forgotten that Herrick ran in parallel with Operation Telic in Iraq.

"The presence of very real and unpredictable threats and shocks meant that we needed to be ready to respond at a moment's notice. Our priority is operations, yet the pressures of programme delivery remain constant, leaving us with a careful balance of priorities and a need for tight focus on what is most important day by day, week by week.

"In IMOC, we have built up a flexible structure to enable us to free up resource at short notice to support operational deployments and other urgent engagements, and we are very proud of the role that the teams have played in recent operations.

"One of the main enablers of operational success is timely and accurate information. We have delivered eCompendium, MJDI (Management of the Joint Deployed Inventory), JAMES (Joint Asset Management and Engineering Solutions) and transitioned from WRAM (Work Recording and Asset Management) to GOLDesp in theatre.

"We have learned from experience and the utility of Log IS in the Reverse Support Chain cannot be overemphasised. By the end of this operation the Closed Stores Account Team had reconciled £958 million worth of stock with just £327,000 of write-off action outstanding.

"The traditions of our organisation and the sense of duty, service and loyalty among all our staff, no matter their backgrounds, are something to be extremely proud of. It is an honour to be a part of that culture."

## ISTAR

DE&S' Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) Operating Centre completed more than 200 Urgent Operational Requirements during Operation Herrick.

These ranged from highly specialised small standalone equipment to suites of capability. A flavour of what members of ISTAR OC delivered includes:



"I am immensely proud of the dedication and skill of all of the ISTAR teams and people who have delivered more than 200 UORs over many years for Operations in Afghanistan. The diversity of capabilities, all of them life saving or safety critical for our Service men and women on the front line, is impressive" – Clive Tarver, Director ISTAR



- Design and installation of the Bastion air traffic control tower. Delivery of the Watchman radar, navigation aids and radios to enlarge and modernise the airfield.
- Automated Sense and Warn deployed in Bastion and forward operating bases to save lives by countering indirect fire from rockets, artillery and mortars.
- Search and detect dogs to protect against improvised explosive devices (IEDs).
- Long, medium and short range Base ISTAR equipment, including;
  - Capability with integrated day-night systems to protect patrol bases;
  - Acoustic shot detection systems for both base and vehicle;
  - Sniper detection systems to detect optical weapon sights and surveillance systems used by sharpshooters, by day and night, and in all weathers;
  - Manportable short range base observation posts for perimeter protection.
- Mounted and dismounted electronic countermeasures (ECM) equipment to inhibit the detonation of improvised explosive devices, including;
  - Ultra lightweight dismounted ECM.
  - ECM equipment and vehicle integration kits for specific platforms eg. Mastiff, Ridgback and Foxhound.
- Asset tracking systems to provide deployed commanders with near real-time position reports for air and land vehicles.
- UORs to a variety of specialist military users across communications and ISTAR, providing critical specialist capability to enable high risk operations to take place and IED/insurgent networks to be defeated.



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# Land

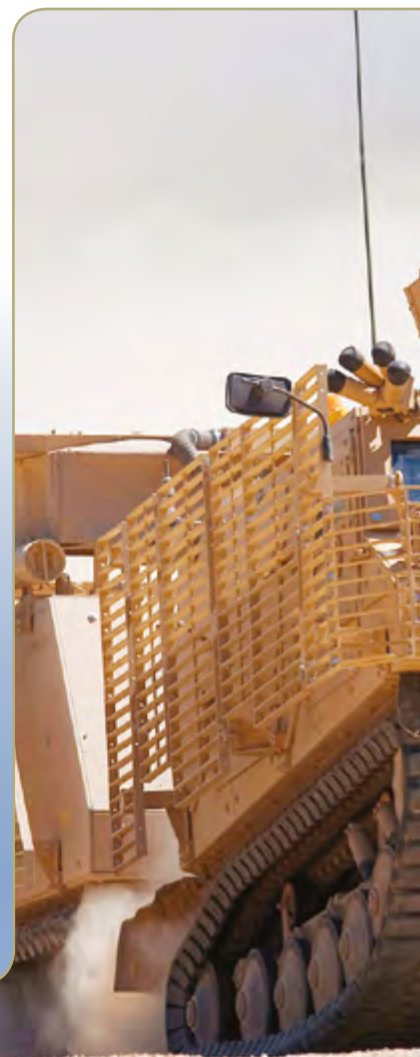
**F**rom 2002 to 2014 Land Equipment delivered 230 Urgent Operational Requirements at a total cost, including support, of £5 billion to Operation Herrick.

Of note was the delivery of more than 2,000 Protected Mobility vehicles with the Foxhound vehicle going from drawing board to delivery in just six months.

For the soldier the key change has been the move to an integrated system, including improved load carriage and protection, and a new suite of weapons and sights.

The area where technology played the largest part was in the development of explosive ordnance disposal capability with the Vallon hand-held detector being a world beater.

From the modification of in-service Combat Vehicle Reconnaissance (Tracked) and Warrior to the delivery of camp infrastructure the Land Equipment operating centre has been at the heart of equipping the Army for operations in Afghanistan. It is work that has undoubtedly saved lives and significantly helped to successfully execute operations.



Prince Charles tries his hand at using the Vallon IED detector

2002



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The UOR process enabled our troops in Afghanistan to be equipped with some of the most cutting-edge vehicles available for military use, offering levels of protection never seen before on the battlefield. The MOD confirmed the Army's proposals to bring all vehicles procured through UORs for use in Afghanistan into the core Army equipment programme. This will ensure that Regulars and Reservists continue to benefit from these protected vehicles for decades to come and are fully equipped to deliver on our Army 2020 plans in this changing world

– Philip Dunne, Minister for Defence Equipment, Support and Technology

Left: Warthog and, below, Foxhound





**A Christmas cracker:**

The MOD sent over six tonnes of festive food to Afghanistan to give forces a taste of Christmas while on operations, including:

- Two tonnes of turkey;
- One and a half tonnes of gammon;
- One and a half tonnes of sprouts;
- 200 kilos of cranberry sauce;
- 1,000 iced Christmas cakes;
- A tonne of Christmas pudding;
- 15,000 mince pies; and
- 45,000 After Eight mints.

# Logistic Commodities & Services

**C**o-ordination of supplies of military equipment – weapons, ammunition, personal equipment, food, medical supplies – proved one of the great successes of Operation Herrick.

Staff from Logistic Commodities and Services, and its various predecessors, and the Defence Support Chain Operations and Movements worked hard to ensure that supply lines were kept open so personnel and support staff had what they needed, when they needed it and in the right quantities.

Big improvements in the deployment of logistic information systems such as MJDI and JAMES enabled management of stocks to be carried out more efficiently while the successful drawdown of equipment at the end of operations showed the benefits of continuing improvement.

LCS had to support Camp Bastion, the largest operational UK military base built since World War Two, for nearly ten years. It covered an area similar to a medium-sized British city and contained its own water bottling facility, three dining facilities serving up thousands of meals a day – required average was 4,000 calories per person, or 5.6 million calories in total each day. At its height in around 2011, 28,000 troops were stationed on site.

An example of the equipment LCS had to manage can be gained by the amount brought home in good order at the end of operations. By the turn of this year 39,000 cubic metres of stock had arrived back in the UK, which required aircraft hangars to be converted into warehouses to hold slow-moving stock and free up more space for materiel transiting back to its original unit.

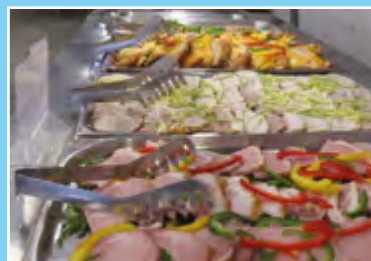
LCS supplied uniforms, body armour, jerry cans, toilet roll, medical equipment among many other items.

**BFPO delivered more than 1.25 million bags of mail and 10 million parcels** (average 2kg in weight). Total weight of mail was just short of **10,000 tonnes, equal to a Type 45 destroyer carrying 22 Challenger 2 battle tanks.**

Defence Clothing helped introduce the Multi-Terrain Pattern uniform which replaced the traditional four colour woodland uniform known as No.8: Disruptive Pattern Material, which offered better camouflage across a range of terrains including Afghanistan.







**“The business should be rightly proud of the excellent work of these teams in Operation Herrick. They completed the work with great professionalism and rigour. I offer my personal thanks to all involved”**  
Lt Gen Chris Deverell, Chief of Materiel (Land)

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# Weapons

**W**eapons Operating Centre made a significant contribution to Operation Herrick by delivering substantial quantities of safe, battle winning weapons throughout the campaign.

To achieve this, the respective project teams and Defence Munitions needed to develop, procure, process, supply and store the bulk of ammunition and explosives used in Herrick. Key achievements included:

Defence General Munitions surged

production of specific natures to meet a substantial increase in demand and innovative work to develop enhancements to air countermeasures and smaller, lighter smoke grenades.

International Guns, Missiles and Rockets delivered a staggering quantity of new handheld missiles/rockets, improved the reliability of the M134 mini-gun on Chinook and delivered the Exactor precision attack weapon

Maritime and Air Weapons improved the accuracy and flexibility of Brimstone

air-to-ground missile by developing a dual-mode variant

The Defence Ordnance Safety Group modelled and advised users about the safe distances between armed aircraft and the protection of temporary hangars.

The significant volume of munitions needed careful stock management and processing by Defence Munitions to meet the operational and UK-based training requirement.

**The British Army fired 46 million bullets at the Taliban during Operation Herrick.**

**Around 27 million 5.56 rounds were fired from either the standard SA-80 assault rifle or minimi machine gun.**

**A further two million 9mm rounds were fired from handguns.**

**At least 80,000 105mm artillery shells were fired.**

**About 55,000, 30mm rounds were fired from Apache gunships.**







“The Armed Forces rely on us at the Weapons Operating Centre and industry to provide them with weapons which meet their requirements, which operate safely and reliably when needed in the heat of battle, and not to run out. I am extremely proud to say that’s exactly what the operating centre managed to achieve during Operation Herrick – Laurence Bryant, outgoing Director Weapons

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“It is timely to reflect on the achievements of the Joint Enablers Domain, based on Helicopters and ISTAR Operating Centre achievements, over this unprecedented period. Like my Operating Centre Directors, I am immensely proud of what we have achieved with our own people, our stakeholders and industry. My support to Afghanistan began when I returned from Nato and took over as Director Helicopters in February 2008 and continued in my COM(JE) role from July 2011. My three visits to Afghanistan during 2008-2013 reinforced in my mind the vital role DE&S plays on operations.”

– Pete Worrall, Chief of Materiel (Joint Enablers)





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# Castles, Spitfires and ballroom dancing

Roddy Malone is Head of Operational Support Programmes (OSP), leading 400 people acquiring and supporting 300 categories of equipment – from providing troops with a place to sleep (deployable infrastructure) and something to drink and wash in (combat water capability), to a range of armoured vehicles and combat bridging as well as the logistic fleet of Land Rovers, specialist trucks of all shapes and sizes, plant, and all MOD hire cars and staff cars. Annual spend is around £300 million

## **A brief outline of your career.**

My first job was as a trainee welder and pipefitter in Grangemouth, when the North Sea oil industry was booming. After a year, I competed for an engineering apprenticeship in 26 Command Workshop, REME Stirling and I've never looked back. The journey from Apprentice to 1-star has been a huge learning curve, and I would not have had such a variety of working life experiences anywhere except the MOD, so I am grateful to HMG. I also had a few years in the Territorial Army (REME) with three camps in Germany on major Nato exercises; a bit of 'user experience', and again fantastic.

## **What motivated you to join the MOD?**

I grew up in Alloa (small football club fame) in the industrial heartland of Scotland. I thought of my REME apprenticeship simply as a major engineering workshop where I could learn a practical trade (military vehicle engineering), study at Technical College and get to strip and rebuild some pretty cool big boys' toys, including the then brand new Combat Vehicle Reconnaissance (Tracked) and the all-new Foden Recovery Vehicle; both are still around today, testament to the project teams of that day and this!

## **Who has inspired you in your career?**

The great engineers and their inventions mostly. The UK is a nation of creators, not least Isambard with so many reminders around Bristol. Also team members, my peers and other major projects teams. The achievements of our people across DE&S and wider defence community is astonishing, all going the extra mile to support the Armed Forces, undeterred by complexity, process, conflict, criticism, setbacks or challenge, usually putting job before self.

## **What are you most proud of during your time at DE&S?**

I think the Scout Team would come for me on a dark night if I did not mention leading the hazard-stricken journey from Initial Gate in 2009 to place the manufacture contract for the biggest UK Armoured Fighting Vehicle (Tracks) fleet since Challenger 2 in the 90s. It was a team effort, helped by some senior muscle, but watching the Prime Minister announce the contract to the world in the shadow of the Nato summit, with the first all new prototype vehicle as a backdrop for the world's press, was a memorable checkpoint on an enduring journey.

## **Procurement and support is often about the equipment. How important are people?**

Equipment is a product and a tool to be used. Acquisition and support is all about the people, especially those at the sharp end of the business of defence. Equipment delivery doesn't just come from following the Acquisition Operating Framework or a textbook; it comes from our people working together on common purposes with user delivery needs in mind.

## **What motivates you inside and outside work?**

Travelling, for pleasure or work, offers freedom and reward for the experience and in bringing home the importance of democracy and the security it provides to travel unhindered to and through large parts of the world. I am a disciple of Ryanair and Easyjet, true revolution for the masses, as is the European rail network having drifted across much of Europe and beyond and enjoyed every mile on the way. On a lighter note, my son recently turned up from university with a 1974 Triumph Spitfire which he bought for two grand off a bloke he'd never met before. I have found my last few weekends under the bonnet, not motivated by the need to tinker with simple 70s engineering but by a strong

motivation to get the damn thing MOT'd and on the road so I can reclaim my garage!

## **Relaxation?**

Monday night is ballroom dance practice. I'd like to say I'm dragged kicking and screaming onto the floor by my partner, but I actually enjoy it. The return on investment comes with the pleasure of confidently joining the dance floor at a social event or on holiday; that dance floor included the main ballroom on the *Queen Elizabeth* cruise liner from Southampton to Hamburg for the last May bank holiday weekend. I like reading too, fiction, losing myself in a spy thriller. I can read a novel in 48 hours.

## **Best advice to a teenage Roddy Malone about work/life.**

Don't become institutionalised at work; enjoy, deliver and move on. Oh, and teenagers should be careful of buying Triumph Spitfires from anybody at University.

## **If money was no object, what capability would you procure for UK Forces?**

Money IS an object and we must not lose sight of that. Being Head of OSP my current loyalties lean towards the Army; soldiers on the ground in harm's way doing their best and reliant on what we supply them. Armoured vehicle renewal is unfinished business and I would like to see our troops in the next 8x8 Utility Vehicle. I now have that opportunity as it is on my 'get on and do' list.

## **Something we don't know about you?**

I was born in 18th century Airthrey Castle on the bloody battlefields of Stirling Bridge, the grounds depicted in Braveheart, Longshanks and Wallace. After World War Two, Airthrey was converted to a maternity hospital, where I popped into the world. It is now part of the Stirling University Study Centre with a nine-hole golf course and a bar; I guess it's a hard life being a student up there.





Picture: Andrew Linnett



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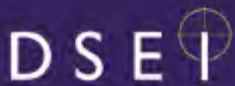
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## Jason in 70 mph luge crash

Jason Douglas is back at Abbey Wood following his exploits in the Great Britain luge championships, undeterred by a 70 miles an hour crash

Jason, a lieutenant in the Merlin Airframe Engineering Authority at DE&S, was part of the Royal Navy's luge team at La Plagne in France for the service's championships. The tri-service and British titles were also up for grabs.

With 'sliders' – luge competitors are routinely subjected to extreme G forces as they lie on their tiny sleds – covering the 1.2km track in less than 50 seconds the potential for accidents is high.

And Jason's efforts at pushing himself to the limit saw him endure a crash on the final bend, emerging unscathed with a 17th place finish in the British Championships.

The Army and RAF set the pace in the inter-service championships, although many in the Royal Navy team posted personal bests. Jason finished fourth in the Navy contest, and 14th in the individual standings in an inter-service event where the Army retained the title.

Are you interested in testing the limits of your mental and physical fitness? If you are in date RNFT, a member of the Sports Lottery and interested in testing limits of mental and physical fitness, contact Lt Ed Rolls – RN Luge Team Manager or Lt Martin McArdle – RN Luge captain at [rnluge@gmail.com](mailto:rnluge@gmail.com)



# Winging it...

**C**olin Preece spent a week at the end of last month flying the DE&S flag against the best talent in the world in the spectacular sport of wingsuiting.

The sport is regarded as the nearest thing to flying, with competitors reaching horizontal speeds of up to 235km per hour after launching themselves from an aircraft.

And Colin, an engineering support manager with Operational Support Programmes at Abbey Wood, relies on his special suit to travel up to three minutes before

he needs to deploy his parachute.

As a warm up to his appearance in the skies over Netheravon in Wiltshire Colin attended a training camp in Texel in the Netherlands. He is also competing in the World Series, with the first round having taken place at Florida's Zephyr Hills.

Wingsuiters must complete 500 parachute descents before they can train, or at least 200 freefall descents in the previous 18 months. Colin has done about 600 jumps, around 230 in a wingsuit.

Below: Artistic training camp in Texel, Holland, the extremely technical three-way dock at 100 mph horizontal speed, until recently only achieved by a handful of wingsuit pilots



## MOTTO

### the MOD Lottery March winners

#### £10,000:

James Campbell (Clyde).

#### £5,000:

Kevin McConnell (Netheravon).

#### £2,000:

Lorraine Baglee (Gosport).

#### £500:

Veena Shah (Northwood),  
Sophie Bowser (Gloucester).

#### £100:

Mary Hatton (East Molesey),  
Caroline Rogers (Corsham),  
Christopher Archer (Bicester),  
David Neat (Aldershot),  
Stephen Glass (Abbey Wood),  
Pauline Johnson (Chilwell),  
Helen Brook (Twickenham),  
Joyce Kelly (Corsham),  
Martin Sherman (Abbey Wood),  
Jacqueline Ashby (Yeovilton),  
Alastair Logan (Edinburgh),  
Oliver Crowle (Abbey Wood),  
Huw Doman (Abbey Wood),  
Michael Plumb (Sennelager),  
Neil Armstrong (Swanwick),  
Stephen Russell (RAF Cranwell),  
Susan Coole (Gutersloh),  
Peter Nightingale (RAF Wittering),  
Michael Foreman (Aldershot),  
Edward Mitchell (Northampton)

## Large screens in a meeting room near you



Picture: David Tucker

**M**eeting rooms across the Abbey Wood site have been enhanced by large screens and DII equipment to improve productivity and make Abbey Wood a more modern and efficient place to work.

This will save time and resources spent on booking and installing equipment.

All the street meeting rooms have 65-inch LED screens with DII already installed while smaller meeting rooms have 55-inch screens with DII.

They are installed in the majority of meeting rooms, as well as many other smaller rooms such as the 'wedge rooms', bookable via the Carillion Amey intranet site.

Paul Bishop, DES CIO Technical Delivery, and Air Commodore Mike Quigley, Director Technical with one of the new 65" screens



# 60 SECOND SPOTLIGHT

## **Name?**

Lucy Collins

## **Job?**

I am a naval architect within the Naval Authority Group, based at University College London as a Research Assistant. I also represent DE&S on an inaugural board of women – the Young Women’s Board of Women In Science and Engineering (WISE) - looking to bridge the gap between classroom and boardroom and promote women in science and engineering. I am the founder and Chair of the UCL Student Section of SNAME (the Society of Naval Architects and Marine Engineers) – the first to be set up in the UK.

## **Your route into DE&S?**

I wanted to work for NASA but I became a naval architect because of one sentence: ‘designing a submarine is more challenging and complex than designing the space shuttle’. I was sold.

## **Your claim to fame?**

I was the first uniformed female constructor to do sea time on a Royal Navy submarine. Seeing a ship or submarine in build, alongside, in repair, in refit or in dry dock is valuable but nothing can compare to seeing that vessel when fully manned and operating at sea. As a naval architect, it is important to experience critical spaces in use otherwise how can you get future designs right? I received honorary ‘dolphins’ after the voyage and it was the week of my career to date.

## **Your advice to anyone?**

Have passion for what you do and love it. Always rise to the challenge and you’ll find yourself achieving things you never even thought possible.

## **What do you do when you are away from work?**

I love singing and playing guitar – I live far away from my grandma so it all started with me recording songs for her so she could listen to them and a few months ago I was invited to perform on BBC Radio Bristol.

## **What are you most proud of?**

The outreach I do and my work on the WISE Young Women’s Board.



Above: Lucy meeting the Princess Royal

Last week I received a certificate in recognition of excellence in engineering engagement with young people at the UCL Provost’s Engineering Engagement Awards. To have my work in this area recognised was a very proud moment.

## **What irritates you the most?**

When people don’t do the best they can – whether it’s not taking the time to read over an email before they send it or not applying themselves and submitting work that isn’t their best. We can achieve a great deal if we have the motivation to do so and we shouldn’t waste opportunities.

## **Who would you invite to your dinner party?**

Definitely David Mitchell and Victoria Coren-Mitchell. They used to live near me in Kilburn and I always thought it would be good fun to have them round for dinner – I think they’d be excellent company and we’d get on well!

## **Your secret:**

I am a massive country music fan!



## DE&amp;S PEOPLE

## MORE THAN A GRAIN OF TRUTH - seven million times

**A** DE&S engineer has raised the issue of children dying of preventable causes across the globe with a remarkable exhibition of art.

While working in a charity shop on a Saturday morning Nick Hales learned around seven million children die unnecessarily every year of hunger, lack of clean water, poor sanitation, lack of simple medicines or absence of mosquito nets.

"I pondered how I could at least raise this issue," he said. "My first idea was something like the scene Jewish Holocaust memorial museums present, with perhaps a pile of 7,000 children's shoes each representing 1,000 dead children. But the cost was too high.

"So I hit on the idea of a display of seven million grains of rice, not unlike Ai Wei Wei's pebbles in the Tate Modern."

For this year's Fringe Festival arts programme in Bath, Nick hired an old chapel used as an art space and bought 120 kgs of rice – from the weight of a grain of rice given on the internet.

With that, he created what he terms an 'art installation' with each grain representing a child's small white coffin. He called it 'Unloved – the forgotten Holocaust'.

"The effect on visitors has been



Nick Hales curating the installation

quite moving for me, as my first venture into this sort of art," he said.

"Written comments have included such as 'very challenging and humbling', 'never forget, never', 'thought provoking, what a terrible waste of life' and 'a beautiful setting, a very powerful message'.

"Children found the rice fascinating too and on the first day the youngsters of a Latvian family visiting Bath used their fingers to make Zen garden patterns in the rice."

Pictures of the installation and the actual rice used, in bags, feature in the Bath Fringe 'Love and Death' exhibition.

Nick is Senior Engineer for Critical Avionics in the DE&S Technology Office.

## Changes to the senior structure of DE&S HR Function

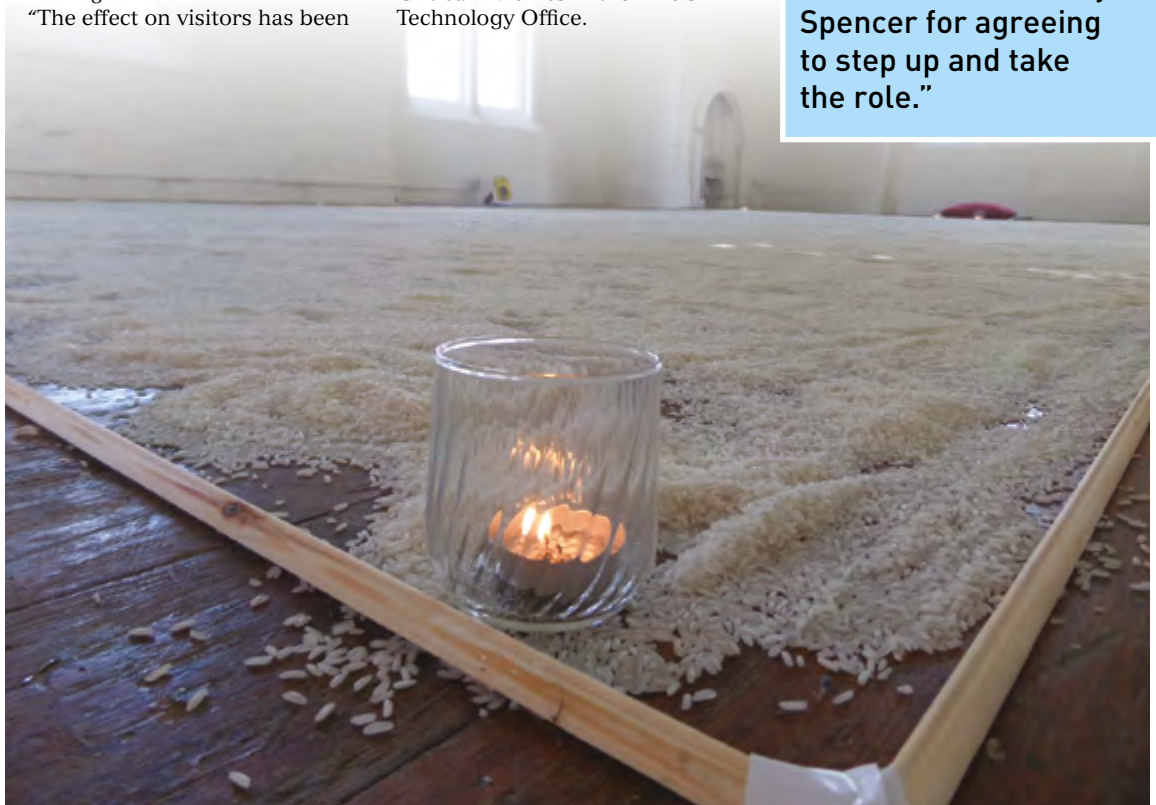
**D**E&S has announced changes to the senior structure of DE&S HR Function which came into effect last month.

A new DE&S 2\* post, Director of Learning and Talent, has been endorsed, and David Ball (DHR), who has a long standing interest in learning and development, has accepted CDM's invitation to step into this role. David will be responsible for shaping a bespoke learning and talent management approach as part of the overall transformation programme.

Shirley Spencer, current Head of People Strategy, will step into the DHR role on a temporary basis, with the intention being to launch a process to appoint a permanent DHR over the summer. Shirley will bring both her knowledge of DE&S and her private sector experience to the role at this critical time for DE&S.

Chief of Defence Materiel Bernard Gray said:

**"I would like to give special thanks to David Ball for his sterling service and to Shirley Spencer for agreeing to step up and take the role."**





## Lewis Cup defeat for DE&S footballers

The footballers of Abbey Wood missed the opportunity to make it a hat-trick of victories in the national Civil Service championships with a 4-1 defeat at the home of League One club Fleetwood Town.

The Defence Sports and Recreation Association team, the bulk of which came from DE&S, went down to HASSRA North East, the association supporting the Departments of Health and Work and Pensions, in the final of the Lewis Cup plate competition.

Two goals in arrears at half time DSRA hit back in the second half, spurred on by man-of-the-match Chris Kite. And with ten minutes to go they were back in it through a header from Richard Cope-Evans.

But, pushing for the equaliser, they were twice caught on the break to end all hopes of a comeback.

The MOD's players earned their place at Fleetwood after two days of qualifying rounds at Warwick University against other Civil Service departments. They finished runners-up in their group with two wins and two draws.



**Team line-up.**

Back row, from left: Chris Kite (DE&S), Chris Misir (Serco), Scott Drayton (capt, UKHO), Richard Cope-Evans (MOD Guard Service, Abbey Wood), David Cooper (DBS), Kevin Wade (manager, DE&S). Front: Oliver Howard (Defence Commercial), Sean Cameron (DE&S), Josh Samphier (DE&S), Tom Osborne (DE&S), Wayne Shill (DSG). Not in picture: Andy Lakey (assistant manager), Nick Moore, Duncan Reade, Andy Warmisham, Jordan Andrews, Jack Fillingham (all DE&S)

## 2nd place for the Abbey Wood Saddle Club in its first event

Abbey Wood Saddle Club secured overall second place in its first Team Quest competition - a UK wide dressage event sponsored by British Dressage.

The team saw four riders and their horses enjoy the 17th May outing in a bumper day at Burrows Court Farm in Gloucestershire.

The four partnerships included Ian Taylor with Lord Star, aka Zando; Maddie Lacey-Duke with Jozzka; Lara Mathias with Eastern Dancer; and Jennifer Spence with Pontoon Bridge Boy aka Captain.

The team is keen to keep up the hard work representing DE&S.

Abbey Wood Saddle Club was founded this year by Sqn Ldr Laura Brown to promote and support all equestrian activities. Dressage is one of the equestrian Olympic disciplines best known for its dancing horses.

The club will be participating in more competitions and organising other equestrian events.

New members are welcome. For more information on dressage Team Quest contact Vanessa Arruda (Abbey Wood ext 30274); and for information on joining the Saddle Club contact Sqn Ldr Laura Brown.



Right: Ian Taylor and Lara Mathias line up for competition

## Alan Watters reaches 50 years in service for MOD

**A**lan Watters has just completed 50 years with the MOD as he contemplates an art-filled retirement.

Alan, who handles legacy systems for the Network Technical Authority in Corsham, has spent his career in engineering, graphic design and communications.

And he is planning to develop his creative side, encouraged by his partner Ann Swan who is an internationally-renowned botanical artist, when he eventually leaves the MOD.

"I work mainly in graphite and colour pencil, but also dabble in sculpture and more recently, personalised photo mosaics, made up from hundreds of smaller images," he said at his home in Wiltshire.

"We have had art studios and workshops built at our home for Ann to work and teach in, and for me to 'play' in. I don't normally do botanical drawing, but I have recently had a go at it."

Growing up in Dunfermline, Alan drew caricatures of teachers and other pupils. But a place at art college went begging and he took an engineering apprenticeship in Rosyth in June 1965.

With no graphics department on site he was given all the graphics-related work, developing his skills as he contributed regular cartoons to local and national media and had fine art works accepted in Scottish exhibitions.

Since then he has managed engineering and graphic design for the RAF in Germany, designed and edited magazines for the Army in Andover and been responsible for various publications at Corsham.

Alan is also a marathon runner, having completed 48 marathons all over the world.

He is planning a website of his own but, to see more of his partner's work, visit [www.annswan.co.uk](http://www.annswan.co.uk)



Alan training for his next marathon

Below: drawing of Ann Swan and a brown hare by Alan Watters







# Defence Simulation and Modelling

MSc | PgDip | PgCert



The Defence Academy and Cranfield University are pleased to confirm MOD funding for the Defence Simulation and Modelling (DSM) MSc programme starting September 2015.

The programme has been identified by the MilCap Board as providing suitably qualified and experienced personnel (SQEP) to co-ordinate simulation efforts across defence.

The Defence Simulation and Modelling MSc programme provides comprehensive defence specific coverage of the domain and subsequent application of Modelling and Simulation across defence training and education, acquisition, analysis and experimentation. It provides an in-depth understanding of the main principles of the hardware and software, including the underlying technologies and architectures used in creating a synthetic battlespace to support defence activities.

The programme can be studied **full time (1 year) or part-time (up to 5 years)** using a blended mix of residential and distance e-Learning, classroom, seminar and hands-on practical sessions. The programme is modular in nature enabling students to select the course of study most appropriate to their particular requirements and interests.

A limited number of FREE MOD places are available.

## For further information:

Jonathan Searle, Head of Modelling and Simulation, Centre for Simulation and Analytics  
Tel: +44 (0) 1793 785 852 | Mil: 96161 5852 | E: jsearle.cu@da.mod.uk | j.r.searle@cranfield.ac.uk  
<http://www.cranfield.ac.uk/cds/postgraduatestudy>

Programme modules include:

- Foundations of Modelling and Simulation
- Networked and Distributed Simulation
- Computer Graphics
- Discrete and Continuous Simulation
- Intelligent Systems
- Statistical Analysis and Trials
- War Gaming and Combat Modelling
- Weapon Systems Performance Assessment
- Networked and Distributed Simulation Exercise
- Advanced Self Study Modules



# LEARNING AND DEVELOPMENT



Susanna Mason

## Training is key in Commercial revamp

Susanna Mason outlines how transformation of DE&S' Commercial function will help the organisation achieve its 2017 goals

**G**ood people doing the best job they can in a challenging environment."

That's how Susanna Mason, DE&S DG Commercial, describes her team. Nine months into the job, Susanna is determined to help them and others develop their Commercial skills, and for Commercial to make a significant contribution to DE&S being 'match fit' by 2017.

"Over the last few years – partly as a result of the operational context – we have taken our eye off the ball on training and development, and not been able to offer our people the kind of opportunities they deserve to learn new skills and become more professional," she said.

"That's why we have designed the MOD Commercial Professionalism Programme, a complete revamp of our existing offering."

Susanna is quick to thank Steven Morgan, outgoing Director Professional Development and now MOD's Director Commercial, for his work on developing the Programme, and has recently appointed Mike Greatwich as Director Commercial Function to manage it.

Already more than 3,000 training days have been delivered, and all new entrant Commercial staff are receiving classroom-based basic Commercial training before they are posted to their first role.

She is also ensuring that more attention is paid to numerical and analytical skills, an area she admits has been ripe for improvement.

In response to the Cabinet Secretary's target that 25 per cent of senior civil servants be made more commercially aware by last March, Susanna's team designed

suitable training courses, beat the target and delivered training to a significant number of military staff as well.

Another big change has seen the introduction of the new Single Source Contract Regulations – known as the Orange Book – late last year. "It's been the biggest change to the way we do business for a long time," she said. "My teams are doing a great job of putting it into action, working hard to make it a success. And, to be fair, industry is playing its part as well."

Better data is next on her agenda. "Until recently our contract management data was very 'dirty'. We're putting in a huge effort to data cleanse, tidy it up, ensure that end dates are correct and close down old contracts. It's basic housekeeping, not glamorous at all but incredibly important because without accurate data it is extremely difficult to understand our workload and plan ahead properly."

And her senior management team of Mike Greatwich (Director Commercial Function), Alan Peter (Director Commercial Operations) and Karen Jordan (Director Contractor Management) are all heavily engaged with DE&S Transformation, ensuring Commercial is at the forefront where it belongs.

Susanna said: "I am lucky to be surrounded by a lot of really bright, committed people; I'd like them to have the confidence to shine even more. I've not even reached the end of the beginning of what I want to do to achieve this."

### What's new in single source procurement?

Around 45 per cent of the procurement budget is spent on non-competitive tenders.

A new approach - part of the Defence Reform Act last year - is the principle that industry should receive a fair and reasonable price for providing the MOD with the protections needed to assure value-for-money.

It is based on greater transparency and standardised reporting, stronger supplier efficiency, stronger governance and an independent regulator – the Single Source Regulations Office.

The new approach – known as the Orange Book – is in force. All new contracts meeting criteria and more than £5 million in value will be covered.



## Information Professionals' Conference

**A**ir Commodore Mike Quigley – DE&S' Director Technical – addressed the spring Information Professionals' Conference at Abbey Wood last month.

He repeated his commitment to the upskilling and professional development of staff in the new DE&S Information Management and IT function.

DE&S Chief Information Officer will be working closely with the Materiel Strategy team and the MOD Head of Information Professions. Kate Guthrie and Deborah Bradley from these teams also presented to explain how the function will be strengthened within the Transforming DE&S environment and its critical role, not just to DE&S, but to MOD as a whole.

DE&S' Knowledge and Information Management profession and the DE&S CIO team have done much work to establish it as a recognised and valued profession. DE&S CIO now wants to focus more attention on the other Information professions and repeat their joint successes. A selection of staff with Information Assurance and IT roles took part in workshops to discuss how they would like to see the function shaped and developed. Outputs from this session will be made available to information professionals.

**The autumn conference will be held at Abbey Wood on 5th October.**



Picture: David Tucker

## MARSHALL MASTERCLASS

**T**he challenge of bringing a £1.5 billion contract forward at least a year can provide lessons for other project teams, the latest DE&S Masterclass has concluded.

The Project Marshall team took 'a sprint across the line' with contract signature last autumn to update and sustain the UK's military air traffic management capabilities.

The contract, awarded to Aquila (a joint venture between Thales and air traffic services company NATS), has begun building an efficient, sustainable and modern Air Traffic Management service for the Armed Forces at more than 60 airfields and ranges in the UK and overseas, including in Cyprus, Gibraltar, the Falkland Islands and Ascension Island.

The early signature – encouraged by Bernard Gray, Chief of Defence Materiel – helped avoid the General Election and the forthcoming Strategic Defence and Security Review.

Project Marshall team leaders compressed time from the schedule by modifying some of its phases, shrinking timescales and using a competitive dialogue process.

"I'll have to put my poker face on," said team leader Mick Brown, when told the contract had to be brought forward. To persuade the team it was possible, he took a 'can do' approach with team members along with the various stakeholders and bidders to believe that shorter timescales were possible. It was a considerable

challenge.

Warnings of earlier bidding dates were issued while more manpower was drafted into the team. As each milestone was passed, the confidence of the team in its task was increased.

Mr Brown said his team had been the most integrated he had ever worked in, with everyone pulling together over long hours and weekends.

The 22-year contract is now a seven-year firm price arrangement, with further extensions of five years.

Air bases will now see full modernised approach and visual control rooms installed with maintenance carried out on a regional basis.

### Lessons learned –

- **Get early buy-in from DE&S senior figures;**
- **Regularly brief Ministers and the Treasury on issues;**
- **Be open with industry to build trust and make sure messaging is clear and consistent;**
- **Strengthen stakeholders relations which helped quicken up the approvals process;**
- **Identify and embrace different ways of working.**



# LOUD AND CLEAR

**YOU ASKED FOR A NETWORK THAT EVOLVES.  
MESSAGE RECEIVED.**

We're proud of the responsive approach we take to the Skynet services we deliver globally to the UK MoD. This involves a commitment to providing an integrated network that constantly adapts to meet changing needs across Land, Sea and Air. Watch this space for the exciting innovations being made to our global network capabilities later this year.

[satcom-airbusds.com](http://satcom-airbusds.com)

PIONEERING THE FUTURE TOGETHER

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