

# desider

Jan 2015 Issue 80

the magazine for defence equipment and support



Ministry  
of Defence

de&s



## Upgraded Spearfish gives Navy more firepower beneath the waves

Latest Finance and Military Capability wallchart [See inside](#)



Bringing home the kit



Minehunting in the 21st century



Last respirator is handed over



Green light for steel cut



Teambuilding at DE&S



# THE APACHE ADVANTAGE: ALWAYS MISSION READY.

**AH-64E Apache** delivers multi-mission superiority you can rely on mission after mission.

On-cost and on-schedule, the newest Apache builds upon its long-standing reputation for reliability with innovations that significantly extend the life of critical components and reduce lifecycle costs—because being always ready is a critical advantage.



## FEATURES

### 19 Herrick: the Redeployment

After more than a decade of UK operations in Afghanistan, military equipment is coming back from Operation Herrick in one of the largest logistic tasks in modern UK military times

### 24 Facing the underwater threat

New ideas are shaping the way in which the Royal Navy detects mines at sea and performs surveys of the ocean floor

### 26 Get in, Go far!

That's the message to the young as the best engineering apprentices in DE&S went on show in the annual MOD awards in London

### 28 There's no i in team

New apprentices have been learning the values of teamwork and co-operation a long way from Abbey Wood

### 30 Squeezing out the costs

Staff have moved into top gear to find efficiencies in the DE&S C-Vehicle private finance initiative



Picture: BAE Systems

## cover image

A £270 million contract to upgrade the Royal Navy's Spearfish heavyweight torpedoes, increasing the capability of the submarine fleet, has been signed which will sustain hundreds of jobs in the UK and create 40 new skilled engineering roles

JANUARY 2015

# desider

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

### Assistant Head, Corporate Comms:

Ralph Dunn - 9352 30257 or 0117 9130257  
DESSec-CorpComms-AsstHd@mod.uk

### Editor:

Steve Moore - 9352 30537 or 0117 9130537  
stephen.moore544@mod.uk

### Distribution Manager:

Dick Naughton - 9352 34342 or 0117 9134342  
DES HR-Corp-BusMgr1a@mod.uk

### Advertising:

Richard Stillman - Ten Alps Media, 1 New Oxford Street, High Holborn, London SC1A 1NU  
Tel: +44 (0)20 7657 1837  
Fax: +44 (0)20 7379 7155  
richard.stillman@tenalps.com

### 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. 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 Cocoon 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.



## NEWS

### 4 MSPs have boosted the Materiel Strategy

The Managed Service Providers are working with DE&S staff in two key ways, explains Materiel Strategy Director Richard Smart

### 8 More praise lavished on defence reform

Lord Levene's latest comments on reform of DE&S put the transformation work of the organisation in a positive light

### 9 Final respirator is handed over

The last of more than 300,000 General Service Respirators has been handed over at the end of the manufacturing phase of a £52 million contract

### 10 A400M support contract signed

DE&S' A400M team has awarded the first common in-service support contract for initial maintenance for the aircraft

### 16 Putting steel into MARS tankers

Two significant milestones have been achieved in the delivery of four support tankers for the Royal Fleet Auxiliary

### 18 Fort Victoria ready for sea

One of the largest ships operated by the Royal Fleet Auxiliary has a new lease of life following a ten-month refit

## CDM Commendation winner 2014

*desider* magazine's performance in the commercial market earned it an award from Bernard Gray, Chief of Defence Materiel, in his recognition of top-performing staff at DE&S over the previous 12 months. Advertising revenue from the magazine and its family of supplements and wallcharts reached more than £500,000 in 2013-14.

# insiderguide

# Bernard Gray

## Chief of Defence Materiel

**‘With your continued support 2015 will see our confidence grow and our reputation build’**



I was privileged to be in Main Building a few weeks before Christmas to host the MOD's Apprentice Award Ceremony, and to see the winner of the year being rewarded for her efforts in the submarine domain.

It caused me to think about how our next generation of engineers will shape the future of DE&S and, perhaps more importantly for them, how we can offer them fulfilling jobs and attractive careers both in DE&S and across the wider MOD.

There is a vast range of accredited training qualifications and opportunities available to the younger generation and the MOD is helping to lead the way with up to 19,000 young apprentices employed throughout the Armed Forces and their civilian support organisations. This is a substantial and important commitment, and one I'm especially proud of as I see DE&S taking on more and more young talent to build our future and help safeguard our country. They are training in important areas and quickly building up the skills which will stand them in good stead, and enhance our workforce.

In addition to the practical skills and expertise, a number of former apprentices have also developed sound leadership skills which has seen them taking on important roles in project teams, proving the wider worth of the apprentice scheme, and that age is no barrier to responsibility and progress.

The New Year often sees people setting new goals for themselves, and DE&S is no exception. I encourage us all to build on what we achieved over the previous 365 days. When I look back at some of our successes in 2014 – equipment delivered on time and to cost, some projects delivering early, major contracts renegotiated on more favourable terms to the department – it sets the 2015 bar a lot higher.

I recall the comments of Lord Levene in his early 2014 review of the progress made on defence transformation, where he noted that we had become 'more business-like and focused'

while praising us for embracing complex and radical change. Those comments were made at about the same time as the last Type 45 destroyer, *HMS Duncan*, entered service four months early. This set the tone for the year which went on to see successful introduction of upgraded Chinook and Merlin helicopters, signing of the multi-billion pound contract for the Scout Specialist Vehicle, the naming and floating out of the first *Queen Elizabeth* aircraft carrier, introduction of Voyager into service on time, and the beginning of Airseeker's reconnaissance work over northern Iraq. In the background was continuing work to bring home a vast range of equipment from Afghanistan following the end of combat operations there, the eradication of the black hole in the MOD finances and the feeling in Government that the MOD can now be trusted to spend taxpayers' money much more wisely and efficiently.

Those successes and milestones are just a snapshot of 2014. There were many more achievements with perhaps a lower profile but which were no less significant that we can all be proud of. The change in DE&S status as we became a Bespoke Trading Entity last April, began the changes required to improve and strengthen the way we do our business. It is the design and implementation of those changes which will, in turn, ensure that we become the world class organisation that I know we can be by 2017.

The Managed Service Providers are here and working alongside us across the business, supporting our goals. The first arrivals are bedding down and more will follow in the coming months. It is clear to me that we are becoming a more confident DE&S with every passing year. With your continued hard work and support, 2015 will see that confidence grow, our performance continue to improve and our reputation build. There is a great deal to look forward to.



## A400M support moves into gear

ARRIVAL OF the new Managed Service Providers (MSPs) – bringing to DE&S skilled people with experience in transformational change – has been a big boost to the Materiel Strategy programme, according to its Director, Richard Smart.

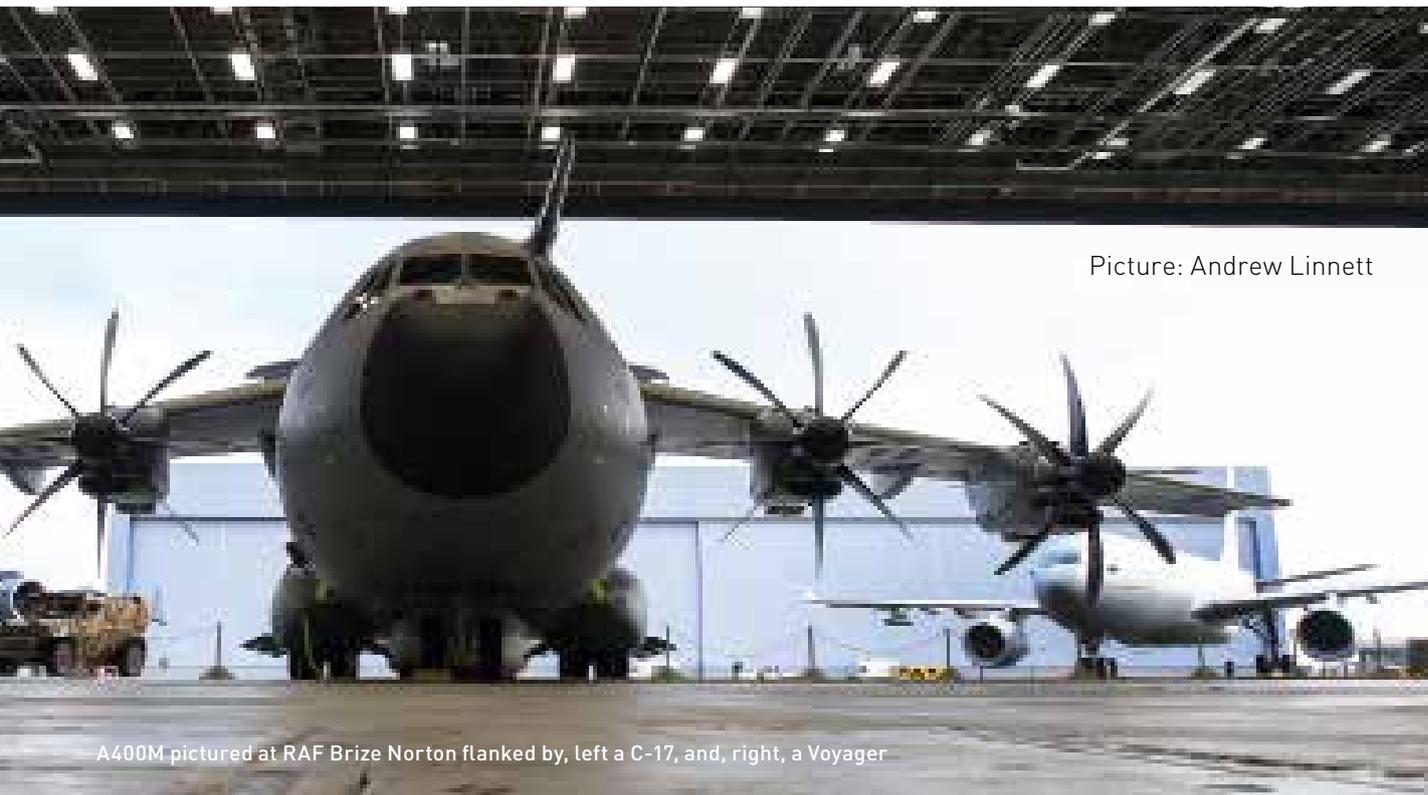
“We have all been working hard to build relationships and ensure the MSPs understand our business in DE&S and what's been done to date on transformation,” he said.

The MSPs – Bechtel, CH2M Hill and PwC – announced last autumn, are working with DE&S in two key ways.

The first is through the Materiel Strategy Team. Here MSP staff are working as part of the Rainbow Team of DE&S and MSP personnel, who will jointly develop and manage the design of strategic change as part of a transformation plan for DE&S as a whole.

They are also integrating with the DE&S-led Programme Management Office whose role is to support the change programme and ensure optimum coherence of the various strands of activity.

Secondly, the MSPs are working



Picture: Andrew Linnett

A400M pictured at RAF Brize Norton flanked by, left a C-17, and, right, a Voyager

THE FIRST support contract for A400M Atlas, the RAF's new military transport aircraft, has been announced.

The £175 million contract was awarded to Airbus Defence and Space (ADS) by DE&S and the French Direction générale de l'armement (DGA) through the European co-operative body, OCCAR.

The news comes as Rolls-Royce has

announced an £18 million investment in Bristol to support the TP400 engine, produced by the Europrop International engine consortium and which powers the Airbus A400M.

The money will fund facilities for maintenance, repair and overhaul of the engines, training for employees, and conversion of an existing test bed to be

capable of running the engine while on the ground.

This will initially support engines in service with the RAF, but will also support service requirements for other A400M customers.

□ A400M support: page 10

# MSPs get down to business in DE&S transformation work

with the Chiefs of Materiel and Director Human Resources to inform and deliver the strategic transformation developed by the Rainbow Team.

To do this the MSPs have been getting to know DE&S business and build relationships, with their focus shifting onto future baselining and data collection activities in the New Year, building on previous work.

PwC are directly supporting Director HR in the design and delivery of a new employment model and focusing on ways to attract, develop, retain, reward and deploy staff.

For DE&S to complete the one-year transition phase, the key milestones will be: agreeing the collaboration charter, baselining DE&S' Key Performance Indicators, business capabilities and skills and putting together with the

## Arrival has been a boost to the Materiel Strategy

senior leadership a 'Match Fit' end state articulation as well as the associated transformation and implementation plans, which will be reviewed and signed off by the DE&S Executive.

These will then form the basis of the subsequent transformation phase of the programme, capturing the KPIs and milestones which the MSPs will be expected to achieve and deliver.

Mr Smart said the programme had been given a big boost by the MSPs.

"It's been all about building our

capacity so that we're ready to give the right support to business change. Work is nearing completion on the Collaboration charter which is an early key milestone for the programme and we've also been constructing a joint plan for delivery of the key programme milestones," he said.

"The Transformation Plan will be developed by this March and a detailed Implementation Plan by June, when we will expect change in the business to significantly ramp up."

The procurement of the third and final MSP, for Work Package 2, which will be designed to improve DE&S Information and Financial Management as well as Information Technology, is expected to begin in the next few months.

The competition for this contract has been deliberately timed to enable WP1 and WP3 outputs to shape the requirements.



Above: Defence Secretary Michael Fallon announces the Spearfish contract at Portsmouth. He said: "This contract should be considered in the context of the broader package of measures announced over the past year – a £600 million investment in Portsmouth's naval base, £100 million to upgrade the port in preparation for the coming of fleet flagships, £70 million to support and maintain Type 45 destroyers and £4 million to exploit the massive potential of unmanned vessels. "All adding up to an iron-clad determination to keep the expertise, so long a preserve of this city, in house and guarantee Portsmouth remains a thriving hub of marine excellence."

Below: a Spearfish torpedo is loaded onto a Royal Navy submarine



BAE Systems Spearfish Torpedo Upgrade supply chain:

- BAE Systems, Maritime Services, Portsmouth and Hillend
- Defence Munitions, Beith
- Atlas Elektronik UK, Newport and Winfrith
- Altran, Bath
- Hortsman Defence, Bath

- GE Intelligent Platforms, Towcester
- FPT, Portsmouth
- Hymatic Engineering Ltd, Redditch
- UTC Aerospace, Plymouth
- Caledonian Control Technology Ltd, Warwickshire
- Eaton Aerospace Group, Hampshire
- Honeywell Hymatic, Worcs
- Polaron Components, Watford
- QinetiQ, Farnborough

# Spearfish all set for many more years

A DEAL negotiated by the DE&S Torpedoes, Tomahawk and Harpoon project team has ensured the sustainment of the UK's torpedo manufacturing capability in Portsmouth for another ten years.

Announcement of the £270 million contract to upgrade the Royal Navy's Spearfish heavyweight torpedoes was made by the Defence Secretary, Michael Fallon, as he visited BAE Systems (BAES) Broad Oak facility in the city last month.

Spearfish is one of the most powerful and advanced wire guided torpedoes in the world and enables Royal Navy submarines to engage a variety of surface and underwater targets.

The upgrade will include a new warhead, a change to the fuel system to improve safety, full digitisation of the weapon and a new fibre optic guidance link to improve performance.

Following the completion of the design phase, existing torpedoes will be upgraded by BAE Systems in Portsmouth to the new design with initial deliveries in 2020 continuing until 2024.

Bernard Gray, Chief of Defence Materiel, said: "The contract to upgrade these important weapons represents value for money and a significant

capability boost for the Royal Navy, highlighting how the MOD is investing in equipment the Armed Forces needs now and in the future to defend the UK."

## New design upgrades one of the world's most powerful torpedoes

Spearfish torpedoes are carried by the Royal Navy's *Astute*, *Vanguard* and *Trafalgar* class submarines and once fired Spearfish homes in on its target using sonar. It is controlled by the submarine after launch via the new fibre optic link.

The Spearfish programme supports 60 jobs in Portsmouth where the torpedo is designed and manufactured, with an additional 40 new skilled engineering jobs being recruited to work on the programme by BAES.

The company estimates that hundreds of jobs will be sustained in the company's supply chain, with the jobs of around 100 MOD staff, based at Defence Munitions Beith in Scotland, also sustained by the contract award.

John Hudson, Managing Director for BAE Systems' UK Maritime Sector, described the contract as "one of the most exciting development programmes in the country".

He added: "Upgrading the Spearfish Heavyweight Torpedo will provide sophisticated advances for the Royal Navy with increased operational advantage in the underwater domain."

The MOD has already awarded BAE Systems a £600 million contract to run Portsmouth naval base and a £70 million Type 45 destroyer support contract that combined sustains more than 2,000 jobs in the Portsmouth region, including skilled engineering roles.

## DE&S pride in a job well done

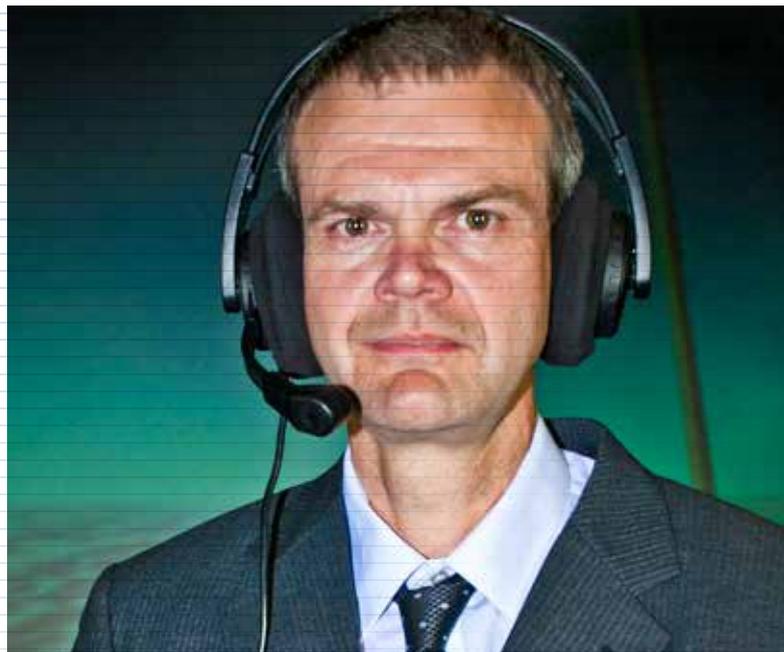
DAVID EASTON, DE&S Torpedoes, Tomahawk and Harpoon team leader, said: "This is the culmination of an extended and very challenging period of work, and is great news for DE&S and the Royal Navy.

"My team, supported by numerous DE&S and MOD stakeholders, has put in a massive effort to make this happen, so it was fitting that they were able to attend the media event and witness the Secretary of State announcement first hand.

"Our relationship with BAES is very strong and we are both now fully focused on ensuring we deliver a successful project and the much needed improvements to the Spearfish torpedo."

# PROUD TO SUPPORT THE ARMED FORCES.

Meet some of our employees who are also reservists with the UK's armed forces. As a founder signatory to the Armed Forces Corporate Covenant, we are committed to assisting employees who are reservists and encouraging more of our staff to consider volunteering. In addition we give more than £3M in donations and sponsorships to armed forces charities, events and heritage activities every year.



## NEWSREEL

## Successor spending

TOTAL spend on the Successor submarine programme up to the end of the financial year 2014 was £2.068 billion. As of 31st March last year the MOD had committed £230 million for long lead items, including weapons handling and launch system and the pressurised water reactor.

## Contract for safety first

ATKINS and Gama Aviation have secured a five-year contract to undertake airworthiness reviews to help ensure RAF aircraft are airworthy and fit for deployment whenever they're needed. The contract follows the Military Aviation Authority's July 2013 regulation requiring a baseline airworthiness review of every aircraft on the Military Register by 1st July 2015, followed by an annual review of each aircraft.

## Joining up

RICARDO, a company involved in design and manufacture of vehicles such as Foxhound and Vixen, has joined Niteworks, the MOD-industry partnership providing decision support to enhance UK defence capabilities.

## F-35B arrivals

THE four F-35B aircraft ordered last November for the UK will be delivered in May, July, September and October 2016, it has been announced. This is an initial planning date only.

## Support programmes to get vital technical backing

TECHNICAL EXPERTISE and support for supply of vital goods to the front line will be provided to around a dozen of DE&S' Operational Support Programmes by QinetiQ in a new £2.4 million contract.

Projects include supply of water, fuel and power, and operation of support vehicles. Support will help the safety and efficiency of troops in theatre while securing value for money.

The contract is for an initial 12 months with options for three further years. It has been awarded under the Framework Agreement for Technical Support, managed by DE&S, which offers a quick route to market for teams requiring specialist technical skills.

Col Doug Gibson, DE&S Deputy Head at OSP, said: "This contract establishes a single arrangement to secure required technical deliverable support with the aim of improving timeliness, quality and consistency.

"The technical expertise provided is critical to help define and manage requirements, to source and manage suitable industry sub-suppliers, and to underpin procurement and support of safe systems which can provide the required capability at a cost that represents value for money to the taxpayer."

QinetiQ will support OSP in defining requirements of its end users, assessing potential solutions, and identifying the investments most effective in meeting the challenges.

The company is the prime contractor and has teamed with PA Consulting, Frazer-Nash Consulting, Roke Manor Research and BAE Systems to deliver the programme.

Steve Elwell, Director for QinetiQ Procurement Advisory Services, said: "It is the independent thinking and technical expertise of our scientists and engineers that helps provide our customers with the confidence to make decisions."

# Levene praises MOD on its four-year reform

AN INDEPENDENT reviewer has praised the "fundamental transformation" that the MOD has undergone in the last four years.

And there is a positive assessment too of reform in DE&S.

Lord Levene, who made his original Defence Reform recommendations in 2011, delivered his annual progress report just before Christmas and declared: "a leopard really can change its spots".

The review praised stronger financial management across defence – a vital step in ensuring that the department never again has an unaffordable, overheated programme – and finds that the MOD is now much better placed to address the challenges of the future.

Lord Levene said: "This year I perceive a sea change in attitudes from every side. One of the principal recommendations was to delegate expenditure down the chain of command to the user. This was a brave decision by Ministers and the Treasury but I think that their faith and confidence is beginning to pay off.

"To me the MOD is now a very different animal from that which I left some 20 years ago, especially in terms of showing that they can be trusted to manage the money. A leopard really can change its spots."

Defence Secretary Michael Fallon said: "Defence has undergone significant transformation over the past four years, and I am pleased that Lord Levene has recognised the progress made, not least the much stronger financial management he observed.

"Of course, there is always more we can do. That is why I welcome Lord Levene's suggestions for further improvement and am pleased to report that much of this work has already begun."

As the MOD moves towards the next Strategic Defence and Security Review this year, the Secretary of State has reiterated his commitment to cementing and building on the progress made so far, with a strategic focus that ensures that defence stands up to challenges from a position of strength.

To ensure progress continues, Lord Levene has

accepted the Defence Secretary's invitation to conduct a further review.

The review also found that:

- the "right attitudes and behaviours are increasingly in place" in the Head Office;
- the Defence Board has already come to be considered among the best in Whitehall, embedding a wholesale attitude and behaviour change, as Front Line Commands embrace newly delegated powers;
- financial management is much stronger in MOD than three years ago;
- top level budget holders are, on the whole, seen to 'own' their plans, take more responsibility for delivery and are more active in determining their own priorities;
- a "lean and agile" Joint Forces Command is bringing improved focus to technological enablers.

## ... and there's good progress at DE&S too

LORD LEVENE said: "Good progress has been made in the last year around the future organisation and operation of DE&S: its new status as a bespoke trading entity and the strengthened governance arrangements under an independently chaired commercial-style Board, seem right; the quality and morale of the DE&S management team is good, and I congratulate MOD on securing extensive new pay flexibilities. These reforms augur well for the future.

"I also welcome DE&S' review of the delivery of the storage, distribution and other logistics services with a view to greater private sector involvement. This seems right; DE&S needs to maintain a strong focus on its core business of equipment acquisition and support."

# 309,228!

## Final respirator is handed over in £52 million contract

THE LAST of more than 300,000 General Service Respirators (GSR) has been handed over to DE&S.

The 309,228th delivery was made by Rob Sutton, Military and Civil Defence Director of manufacturers Scott Safety on a visit to DE&S.

It completes the design and manufacture phase of the £52 million contract, marking the end of an intensive period of development, testing and trialling.

“Scott Safety is proud to be the supplier of the MOD’s General Service Respirator,” said Mr Sutton. “Providing this world class capability has created and secured jobs in the UK.”

The GSR provides significantly enhanced respiratory protection to UK Forces and is planned to remain in service for 20 years.

Front line forces received the first GSRs in 2010 and, since September 2012, all personnel on military operations have deployed with a GSR. More than 90 per cent of soldiers on the front line have been issued with the new respirator.

During development the GSR has been designed to integrate with all MOD-provided equipment that it may be expected to interact with.

Air Commodore Andy Hall of Air Command, the lead user Front Line Command, said: “The GSR is a superb piece of equipment, offering unprecedented levels of protection as well as being practical and, so far as is possible for a respirator, comfortable.”

Peter Bartlett, Physical Protection project manager with DE&S’ Chemical, Biological, Radiological and Nuclear team, said: “The end of the development and manufacturing phase for GSR marks a momentous milestone, replacing the S10 after nearly 30 years in service.

“The GSR is individual issue and impacts on every member of the Armed Forces. Reaching this point is the result of a team effort. Thanks to all personnel involved as part of the MOD unified customer and Scott Safety for reaching this stage.”



Protected: a soldier wears the General Service Respirator at the Defence CBRN Centre, Winterbourne Gunner in Wiltshire. The Centre has provided fielding support for the GSR roll out via their Technical Support Group (TSG) running GSR conversion courses for existing trainers and operational instructors.

## A range of enhancements over other respirators

- ❑ Twin canisters and self-sealing valves reduce the possibility of contamination inside the mask during canister change.
- ❑ In emergency situations it continues to protect a user from CBRN threats with only one canister. The one piece visor improves the field of vision and enhances personal situational awareness when operating in a CBRN environment.
- ❑ Locking bars on the harness ensure the fit of the respirator remains constant through repeated use.
- ❑ A considerably lower breathing resistance reduces the physiological burden of wearing a respirator especially when under physical stress. This was evidenced by RAF Regiment Gunner, Lance Corporal Andy MacMahon, breaking a world record by running the London Marathon wearing an issued GSR and canisters in 3 hrs 28 mins. After the run he said: “I am very impressed with the new GSR; compared to the old respirator it is almost as if you are running without one!”

## NEWSREEL

### Three wins for company

MASS, a subsidiary of technology group Cohort, has been awarded three contracts to provide £8 million worth of electronic warfare operational support services. The first will provide air platform protection test and evaluation services at RAF Waddington for a minimum of five years. The others are to provide specialist tools and training for users in the Middle East. The supply is via two different UK customers with programmes running for one and two years respectively.

### Along the path

MORE THAN £8 million of Government money will go to the Aldershot Veterans Accommodation Pathway to provide 85 units of temporary, supported and independent accommodation around the town to create an accommodation pathway for veterans. Approximately 275 vulnerable ex-service personnel from across the country will benefit each year.

### Science probe

THE Defence Science and Technology Laboratory has commissioned Roke Manor Research to conduct a science and technology programme on behalf of HQ Army to support future development of Land Forces in the 2030-2040 timescale. During the initial 18-month research, Roke will present the Army with an overview of technologies that could be exploited to support the requirements for future capability in the Land Environment.

DE&S' A400M project team has awarded the first common in-service support contract for the initial maintenance and support of the A400M Atlas.

The £175 million contract was awarded to Airbus Defence and Space (ADS) by DE&S and the French Direction générale de l'armement (DGA) through the European co-operative body, OCCAR.

The contract, which will cover all lines of maintenance and includes the implementation of spare parts pooling, has been praised as the result of "close defence ties" which have built up between London and Paris.

Bernard Gray, Chief of Defence Materiel, said: "A400M Atlas is a truly multi-national programme; indeed, it is the biggest of its kind in Europe. This support contract seeks to draw on that fact and reduce support contract costs through the close collaboration that has developed between DE&S and its French partners at the DGA.

"For success in any major joint programme we need competence and strong working relationships, something which has been clear throughout this process."

The UK service, which will run for an initial two years, will be based at RAF Brize Norton with the inclusion of RAF engineers to ensure the skills and flexibility for operational deployment are developed and maintained. French support will be based in Orleans.

French procurement chief for the DGA, Laurent Collet-Billon, said the cross-channel deal could lead the way for service co-operation with other European nations in the A400M programme.

"This newly-signed joint contract demonstrates added value under the French and British leadership for a common approach for in-service support and paves the way for possibly our A400M partners to move forward that way," he said.

The UK's first A400M Atlas was unveiled in late November at RAF Brize Norton, which will become the home of the fleet.

The UK is the third country to operate the aircraft which is at the forefront of modern technology and will replace the fleet of C-130 Hercules.

Air Commodore Stephen Wilcock, head of the A400M programme, added: "We are delighted to have placed this contract along with our partners in the DGA to provide in-service support to the A400M Atlas aircraft. This contract delivers significant savings through shared costs and provides the foundation for longer term co-operation on support and inter-operability which will benefit both air forces."

# After the unveiling, now the support

The RAF's first A400M arrives at RAF Brize Norton in November  
Right: Bernard Gray, Philip Dunne and Laurent Collet-Billon



Joint UK-French deal will keep the new A400M transport aircraft in the air

■ The £2.8 billion programme to procure the 22-strong fleet for the RAF will see the A400M Atlas go on to support a wide range of military and humanitarian operations – combining the intercontinental range of the C-17 with the ability to do the tactical rough landings of the C-130 Hercules.

To date, Airbus Defence and Space has delivered the seven first serial A400M aircraft among the 170 which have been ordered by the six partner nations: Belgium, France, Germany, Spain, UK and Turkey. Five aircraft have been delivered to France, one to the UK and one to Turkey.

## Operational build-up already under way

THE FIRST front line Atlas squadron – 70 Squadron – is building up its engineering strength for the first operational tasking this summer.

The squadron's engineering manpower has been steadily building with RAF personnel supplemented by Airbus civilian-licensed engineers.

Servicing and maintenance of the aircraft away from home base RAF Brize Norton will be done by the squadron's aircraft ground engineers, which should number 42 by April and 88 by the end of this year.

So far all those engineering personnel have completed their training at the Airbus Defence and Space International Training Centre, Seville; the first course to train future Atlas engineers at Brize will be run on the squadron early this year.

Buildings previously used for the VC10 and TriStar are being refurbished and Base Hangar is undergoing renovation.

Building of a new hangar is under way and the combined Airbus and RAF engineering teams can look forward to being housed in a maintenance

facility large enough to hold three Atlas aircraft.

Squadron engineers have already visited industry partners Rolls-Royce and Airbus in Filton. They heard of Rolls-Royce's role in the Europrop International consortium of four companies that make Atlas engines.

At Airbus personnel saw where the wings for all Atlas aircraft are made before being shipped to the final assembly line in Seville.

Below: engineers get a close look at components in Bristol



Powering our nation's defences today.  
Creating a force for tomorrow.



# Collaborate more effectively with conferencing services from DFTS

In a connected world, conferencing gives you the collaborative tools you need to stay in touch and get more done – saving you time and money on unnecessary travel.

Find out what we can do for you:  
0800 389 2272 option 8  
[dfts.comms@bt.com](mailto:dfts.comms@bt.com)  
[www.dfts.r.mil.uk](http://www.dfts.r.mil.uk)  
[bt.com/defence](http://bt.com/defence)



## Typhoon tests out Paveway IV



THE RAF will release up to 20 Paveway IV weapons this month when they deploy to the USA for exercises.

This comes after successful release of live Paveway IV bombs over the Cape Wrath training area, pictured, as part of the latest Typhoon upgrade, known as P1Eb.

The predominantly air-to-ground capability upgrade provides enhancements to the Litening III Laser Designator Pod and a helmet-mounted sight. The pod can now be used seamlessly with the sight to visually identify air tracks at long range, as well as identifying, tracking and targeting points on the ground.

Paveway IV offers increased precision, stand-off, and flexibility of employment, and the Typhoon can release a number of weapons to different targets in a single pass.

The Paveway IV drops included a mix of profiles including GPS and laser guidance; pre-planned and target of opportunity using the helmet sight, and employing impact and airburst fusing settings on the weapon.

**DSEI**

15 - 18 September 2015  
The World Leading  
Defence & Security Event  
ExCeL, London [www.dsei.co.uk](http://www.dsei.co.uk)

AIR + UNMANNED + MEDICAL + SECURITY + LAND + NAVAL

## Engage with the whole defence & security sector at DSEI 2015

- 1,500 companies representing the whole supply chain, from Primes to SME's
- 6 dedicated areas featuring state-of-the-art solutions
- Largest display of the latest defence & security technology
- Networking opportunities with 32,000 representatives from government, military, industry and academia from all over the world

- High-level seminars delivering the latest insight into the defence & security markets from an international perspective

VISITOR  
REGISTRATION  
NOW  
OPEN

IMAGES COURTESY OF: Supacat, Peter Harrison, SABA, Richard Seymour and THALES

Register NOW on:  
[www.dsei.co.uk/book](http://www.dsei.co.uk/book)

IN ASSOCIATION WITH



Defence & Security  
Organisation

ORGANISED BY



# Radar returns to Wittering



The radar team, below, includes from left: Webber Forbes (ADATS Proj & Elec 1), Flt Lt Wes Hearst (Air Command), SAC Dan Greenhow (90 SU), FS Bob Burke (90 SU), Cpl Lee Pritchard (90 SU), Ian Lethbridge (site co-ordinating installation design authority), Sgt Steve Jones (Wittering Ground Radio Maintenance Section), Chris Kealey (ADATS Projects and Electrical), Medwyn Williams (ADATS Radio Tech Authority2)

**DE&S team helps regenerate capabilities at former Harrier base**

A DE&S-led team has completed installation of new radar to allow flying to take place again at an RAF station.

The year-long project included a new air traffic control position and a complete Watchman primary surveillance radar system.

Completed under the management of the Air Defence and Air Traffic Systems (ADATS) team, the work allows the safe return of flying squadrons to RAF Wittering this year.

It saw the first full Watchman radar installation on an RAF airfield for around 20 years and had to be completed before the start of Project Marshall, the future military air traffic management which begins on 1st April.

Work was delivered by ADATS' Radio Tech Authority under Medwyn Williams and Radars Installation Design under

Webber Forbes for the air traffic control tower engineering works and radar installation, respectively. Overall project/programme management fell to Chris Kealey of ADATS Projects and Electrical.

Radars Installation Design developed designs with construction company Morgan Sindell – on contract through Babcock Dyncorp to build the 16-metre steel radar tower – to ensure successful interfacing with the radar equipment.

RAF Leeming-based 90 Signals Unit extensively refurbished a previously recovered radar equipment cabin and the system parts.



The RAF Northolt radar cabin, part of defence strategy for the 2012 Olympics, was used in the installation.

Mr Forbes said: "I managed recovery of the RAF Northolt radar and I am pleased to have overseen its recycling and re-deployment to RAF Wittering. With the closure of various airfields over the past few years, it has been a pleasure to enhance air traffic management capabilities, rather than draw them down."

There was skilled input from 90 Signals Unit Navigational Aids, Aerial Engineering and Ground Engineering Flights, 5001 Squadron, ADATS Installation Flight, Babcock Dyncorp, RAF Wittering Ground Radio Maintenance Section, and several contracted organisations.

The radar and control suite passed all performance checks and flight trials and was handed over to RAF Wittering personnel on 2nd December. It will enable the closure of RAF Wyton airfield in March.

Among flying units to relocate to Wittering will be Cambridge University Air Squadron (UAS), No 5 Air Experience Flight, East Midlands UAS and 115 Squadron.



RAF staff take control at Wittering



# Delivering Capability to the UK Armed Forces

The 'Merlin Life Sustainment Programme' has inducted its first aircraft into the production line, on time and on budget.

Everything we do, we do with passion.

**LEADING THE FUTURE**

[agustawestland.com](http://agustawestland.com)



**flickr**    **YouTube**



**AgustaWestland**

A Finmeccanica Company

## Albion takes first steps towards Flagship task



HMS Albion in Devonport

PLYMOUTH-BASED *HMS Albion* is getting a new lease of life as she starts a refit after three years in extended readiness.

Work will bring her back to life as the Royal Navy's flagship.

The make-over of the 19,000-tonne ship will include upgrading her computers, weapons, radar and command systems. Her engines and propulsion system will be given a full overhaul, as will the accommodation spaces and messes.

The mammoth task began in dry dock with staff inspecting the outside of her 577ft hull, which had become home to masses of marine life now removed.

The team of sailors, reservists and specialist marine engineers from defence firm

Babcock will work together to breath life back into the assault ship.

Commander Steve Ward, the ship's senior naval officer, said his team found the ship 'in surprisingly good nick' when they stepped aboard to begin *Albion's* rejuvenation.

Commander Ward said: "The first impression was very much like stepping on board any Royal Navy warship. The core team have done a good job of keeping the 'patient' alive these past three years. All of us – MOD, Babcock and ship's company – are raring to go and up for the challenge."

When she completes her regeneration *Albion* will swap roles with her sister ship *HMS Bulwark* as the Navy's flagship. *Bulwark* will then be laid up in extended readiness.

## Babcock takes on more Phalanx work

BABCOCK, IN association with Raytheon, will deliver four Phalanx 1B kits and convert four land weapons systems to their original marinised configuration to provide close-in protection for Royal Navy vessels.

Three of the four Phalanx kits will add to the defensive capability of the *Queen Elizabeth* aircraft carriers.

Babcock supports Phalanx systems under a long-term availability contract awarded in 2006. The company is also upgrading 16 Phalanx systems to the 1B configuration in an on-going programme.

The latest contract to provide a further four Phalanx 1B kits and four conversions, which follows a similar contract awarded last year for four kits and two conversions, will be delivered under an amendment to the existing support and upgrade contract. The systems are to be delivered by March.

Phalanx is a rapid-fire, computer-controlled radar and 20mm Gatling gun system.

# LTPA

T&E begins here



©MOD Crown Copyright

## MOD Partner for Test, Evaluation and Training Support

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

## NEWSREEL

## Battlefield info probe

A consortium is to be formed from UK and US academia and industry to help troops on the battlefield share, store and process information. The Defence Science and Technology Laboratory and US Army Research Laboratory are holding an Opportunity Day on 3rd February. Most core information technologies are designed for an office rather than the tactical space used by Forces. The consortium will last for up to ten years. More information from <http://www.arl.army.mil/www/default.cfm?page=2499>

## QE carrier co-operation

THE Government is exploring possible co-operation between the Royal Navy and the US Navy and Marine Corps on the *Queen Elizabeth* class aircraft carriers, Defence Secretary Michael Fallon has said. "The US Marine Corps operates the F-35B Lightning aircraft, the same aircraft we will operate from the carriers. We are exploring options for co-operation," he added.

## Bahrain base

IMPROVEMENT of facilities for UK ships in Bahrain will support the MOD in furthering British interests in the region, Defence Minister Mark Francois has told Parliament. They will be used by Royal Navy ships assigned to the region and others which pass through on global deployments. Around 170 personnel will be stationed there.



Left: DE&S Director Ships Tony Graham cuts the first steel for RFA *Tiderace*

# Putting the steel into the MARS tanker build

TWO SIGNIFICANT milestones in the delivery of four tankers for the Royal Fleet Auxiliary have been achieved.

The keel has been laid for the first block – the cargo section – of first-of-class *RFA Tidespring*.

And the first cutting of steel has taken place for second ship *RFA Tiderace*.

Both events in the Military Afloat Reach and Sustainability (MARS) tankers programme took place at the DSME shipyard in Korea.

The yard is building four tankers to support and replenish the Royal Navy in its worldwide operations.

*RFA Tidespring* is making

excellent progress, with more than 95 per cent of the 11,000 tonnes of steel prepared since last June and 93 per cent of the blocks fabricated.

She is expected to complete her build phase next autumn, before entering service in 2016.

Each tanker will travel to the UK from DSME for customisation and capability trials before entering service.

*RFA Tiderace* is due to complete her build phase with DSME in spring 2016 before entering service in 2017.

DE&S Director Ships Tony Graham, who was in Korea, said: "This represents another great step forward on the

MARS tanker programme, with the keel lay of the first ship.

"It is clear from my tour of the block that the quality of workmanship is high, and the level of pre-outfit achieved is impressive. This is testament to the focus and discipline of the wider MARS team as a whole, the MOD, shipyard, supply chain and supporting contractors.

"It is also a delight to begin construction of ship 2, clearly illustrating to me and the wider stakeholder community the speed of build of these vessels, all helping to deliver the plan to replace ageing RFA tanker hulls as quickly as possible."

Keel lay for *RFA Tidespring* – In the centre Mr JS Shin, Executive Vice President DSME, with DE&S Director Ships Tony Graham; DE&S Commercially Supported Shipping Commodore (E) RFA Ian Schumacker, ACOS Afloat Support and Senior Responsible Owner for MARS tankers Commodore RFA Robert Dorey, and other MARS tanker project team members



## QinetiQ in line to put Artful to the test



*Artful*, above, pictured in Barrow

THE SEARCH for efficient and effective trials has seen QinetiQ chosen to support testing and acceptance of *Artful*, the third and latest *Astute* class submarine.

Acceptance and testing trials will cover static and underway acoustic signature measurements, magnetic signature measurements and optimisation, weapon discharge and electronic warfare calibration. Trials will be on QinetiQ-managed ranges and in the open sea.

QinetiQ has provided extensive test and evaluation services for ships and submarines including the previous two *Astute* submarines and the Type 45 destroyers.

Lt Cdr Gary Dunn of DE&S' Submarine Production team, said the emphasis in awarding the contract was improving value for money.

"In addition due to the nature of acceptance and testing programmes we need to work with a supplier capable of dealing with short term changes of plan," he said.

"We selected QinetiQ because they have delivered a significant reduction in the defined programme costs, underpinned by their ability to manage a complex programme in a highly flexible and responsive manner."

QinetiQ will manage the range infrastructures and safety while co-ordinating personnel and facilities including those of its subcontractors.

The company will also gather information throughout the programme to produce comprehensive reports at the end of each trial to support acceptance and operational handover of *Artful* to the Royal Navy.

QinetiQ.com

PEOPLE WHO KNOW HOW  
**TO DE-RISK  
THE FUTURE**

Through their technical expertise, know-how and rigorous independent thinking, our engineers and scientists are uniquely placed to help customers meet challenges that define the modern world. Our prized possession is trust.

We inspire confidence by working in partnership with our customers to ensure that they meet their goals, first time, every time.

**QinetiQ**

## Babcock is confirmed to run DSG

THE MOD has signed a contract to sell the Defence Support Group (DSG) to Babcock for £140 million.

DSG maintains and repairs key military equipment and manages the storage of the land vehicle fleet.

As part of the transaction, a ten-year service provision contract has been placed with Babcock for maintenance, repair, overhaul and storage of current military vehicles and light weapons.

The contract award follows the announcement of the preferred bidder in November and will see Babcock continue the services DSG currently provides.

As well as the £140 million that the sale will generate up front, the Army will also benefit from considerable savings, seeing a transformation in the way its vehicles such as Challengers and Warriors are maintained.

Minister for Defence Equipment, Support and Technology Philip Dunne said: "Signing this deal with Babcock will put the Defence Support Group on a sustainable long-term footing and will transform the equipment maintenance and repair support that the Army relies on both at home and overseas. "Babcock will provide market-leading engineering and fleet management expertise to optimise vehicle availability to the Army at better value for the taxpayer.

"The £140 million proceeds from the sale and the significant savings over the life of the contract represent outstanding value for money for the tax payer and will allow us to continue to focus our resources on the front line."

Contract completion is planned for 31st March and the service provision contract will start on 1st April.

## Reservists to get more paid leave

THE MOD is increasing the minimum level of special paid leave available to civil servants who are also Volunteer Reservists from ten to 15 days.

Permanent Secretary Jon Thompson is leading the cross-Government challenge to encourage

eligible civil servants in all departments to join the Reserve Forces.

The increase in special paid leave will better support Volunteer Reservists in meeting their Reserve training commitments.

DE&S Director Ships Tony Graham with DE&S Cluster Team Leader Capt Nick Fox on a visit to Cammell Laird to see progress on RFA Fort Victoria



# Team praised as Victoria is ready for sea again

ONE OF the largest vessels operated by the Royal Fleet Auxiliary (RFA) has been given a new lease of life following the completion of a ten-month refit.

The £49.5 million work has seen *RFA Fort Victoria's* two main engines overhauled and six diesel generators replaced.

Significant pipe and steel work, sewage and ballast water treatment plants, boilers and upgrades to navigational systems also formed part of the refit.

More than 450 people, including apprentices, have worked on the refit, which was delivered by the DE&S project team and Cammell Laird, in Birkenhead, on time and within budget.

Ian Schumacker, DE&S' Royal Fleet Auxiliary Commodore, said: "The refit of *RFA Fort Victoria* is a great example of what can be achieved through the collaborative

relationships developed within the cluster contract support model.

"Cammell Laird has a proven



Commodore Ian Schumacker

track record in supporting RFA ships on a worldwide basis, and I am delighted that following this complex package of work the ship is now rejuvenated for future operations."

After entering service in 1993, *RFA Fort Victoria's* primary purpose has been to replenish warships and auxiliaries with fuel, oils and lubricants, water, ammunition, food and solid stores.

At 204 metres and displacing 36,500 tonnes she is the biggest RFA ship, and one of the biggest operated by the MOD. After a period of operational sea training, she will be redeployed on operations early this year.

Cammell Laird chief executive John Syvret said: "I congratulate the DE&S, RFA and Cammell Laird team for delivering such a good job so efficiently.

"The RFA's investment in us enables Cammell Laird to employ and train workers including apprentices, improve our infrastructure and contribute millions of pounds to the Merseyside community and supply chain."

After more than a decade of UK operations in Afghanistan, military equipment continues to be brought back to the UK from Operation Herrick. One of the largest logistic tasks performed in modern UK military times, DE&S staff have performed miracles in helping to bring home equipment in good order. *desider* looks at the statistics of the redeployment in a five-page special



**Herrick: the redeployment**

# 'Benchmark for the future'

The task of closing down the UK's presence in southern Afghanistan and moving people and equipment back to the UK – termed Redeployment – was the biggest logistical challenge faced in a military generation. It is largely complete and in good order.

Brigadier Richard Parkinson who, as Head of Defence Support Chain Operations and Movements (DSCOM), co-ordinated all DE&S Redeployment activity and managed the air, land and sea lines of communication on behalf of Commander Joint Operations, said: "The challenge was huge: the sheer volume of equipment that needed to be redeployed or disposed of was compounded by the remoteness of the location in a landlocked country 3,500 miles from the UK and made more complex and uncertain by the volatile regional security conditions.

"All aspects of Redeployment were planned meticulously and coherently by all stakeholders across defence; this planning coupled with the outstanding efforts from everyone involved in Redeployment from in-theatre to staff in Logistic Commodities and Services depots and DE&S project teams, has enabled an incredibly successful end to this long military campaign."

DE&S personnel needed to understand what was to happen to items once they were no longer required on Operation Herrick. DE&S inventory and requirement managers reviewed all stocks in Afghanistan be it an Apache helicopter or an office chair. Over six

DE&S' work in organising the return or disposal of equipment from Afghanistan has helped bring a successful closure to the Herrick mission



Where sale was not viable, items were sent to be correctly disposed of, complying with UK regulations

months, decisions were made on more than 45,000 Nato stock numbers, often three or four decisions being required per number to reflect differing conditions of each item.

Lt Col Rachel Parr, SO1 J4 in Joint Force Support (18), said: "Understanding what we were required to do with stocks made our lives so much easier in a time-sensitive operation. The decision-making process has been superb and I commend DE&S staff for their efforts. Accelerating the deployment of logistic information systems MJDI and JAMES to Afghanistan was the right thing to do and enabled us to manage the drawdown of the theatre equipments and stocks in a professional manner and close down the theatre accounts with minimal loss or write-down. JAMES and MJDI have permitted a leap forward in our capability to manage our deployed inventory."

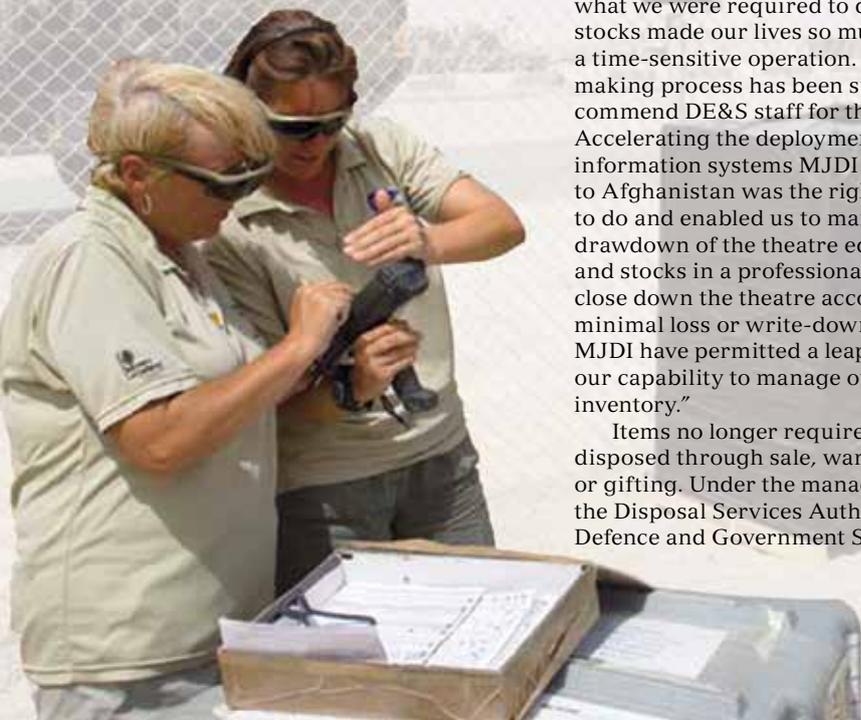
Items no longer required were disposed through sale, war-like scrap or gifting. Under the management of the Disposal Services Authority, Agility Defence and Government Services has

sold equipment beyond economical repair or not economical to return to the UK including tented camps, office furniture, washing machines, medical incinerators and scanners. More than 130 non-military vehicles have also been sold including fork-lift trucks, white fleet vehicles and even two airfield de-icing vehicles. Money raised will go to the Front Line Commands.

Where sale was not viable, items were sent to the war-like scrap area to be correctly disposed of, complying with UK legal regulations.

Stocks returning to the UK entered the theatre reverse support chain. Logistics Commodities and Services personnel deployed to Camp Bastion to inspect and triage stock entering the chain. They ensured that the containers or aircraft pallets were correctly packed, consigned and marked up for return to that depot, so that staff would know exactly what was arriving and be able to process the stocks on to the shelf as efficiently as possible. Through their triage they have saved more than £12 million in unnecessary disposal or transport costs.

DSCOM was responsible for moving



items to and from Afghanistan. A chartered Boeing 747 aircraft flew every other day to resupply theatre with critical stocks and recover items back to the UK. Sensitive items such as protected mobility vehicles and munitions were collected by the RAF's C-17 fleet shuttling between Bastion, the Middle East and RAF Brize Norton. Together the 747s and C-17s flew almost five million air miles. Some medical stocks were immediately despatched to Sierra Leone to tackle the outbreak of the Ebola virus.

On the main surface route, shipping containers and some bigger vehicles travelled through Pakistan to link up with roll-on roll-off vessels. Alternative routes went north, with general stores travelling via road and rail across seven

international borders arriving in Riga, Latvia, a journey of 5,508 miles, before returning by sea to the UK

DSCOM also co-ordinated vehicles and equipment arriving back at Marchwood military port and RAF Brize Norton. They are subsequently moved in the UK by Logistic Services, unit or chartered transport to their final destination. For the land vehicles, this has been to the DSG-operated Herrick Exchange Point at Warminster. This facility, supported by DE&S, is carrying out the regeneration and refurbishment of vehicles before their re-issue to units. Stocks continue to arrive in the UK and are expected to do so until the end of March.

Brigadier Parkinson added: "While

UK forces have departed southern Afghanistan the DE&S Redeployment effort continues until March by which time we should have received back all of the vehicles and stocks that are transiting back to the UK. That said, the task of removing 3,465 vehicles and major equipment and 4,728 containers of materiel, as well as the disposal of the equivalent of 6,293 containers, has been a significant undertaking that has occurred alongside the need to support the Herrick mission and also to mount, sustain and recover other operations and training activities worldwide. DE&S should be collectively proud of the significant contribution it has made to the successful closure of the Herrick mission. It will be the benchmark for the future."



# Herrick in numbers

From protection suits to post office services, the UK effort was underpinned by DE&S staff. Statistics for returning or disposing of equipment show how important that work has been

### Camp Bastion

- Largest operational UK military base built since World War Two
- Operating since 2005
- 26km<sup>2</sup> (City of Bath is 29km<sup>2</sup>)
- On site facilities included its own water bottling facility, three dining facilities capable of feeding around 7,000 diners, a Pizza Hut and a KFC
- 28,000 troops on site in 2011-12 (including Leatherneck and Shorabak bases within the broader site)

### The challenges to DE&S Logistic Services on Operation Herrick

- 31,000 lines identified and re-brigaded across Logistic Services sites at Donnington, Bicester, St Athan, Stirling, Portsmouth and Longmoor to allow Herrick stock to be returned to their original base and be located with existing stock.
- To date Logistic Services has received around 39,000m<sup>3</sup> (equivalent to 13 Olympic size swimming pools) of stock from Herrick since redeployment started.
- Around 18,000 Nato stock numbers (items) with a total stock value of £648 million dispersed around 34 separate warehouses across the Logistic Services estate.
- More stock is still expected from Operation Herrick.

### Challenges:

LS estate did not have enough space or the specialist facilities for the volume of stock forecast to return from Afghanistan, therefore:

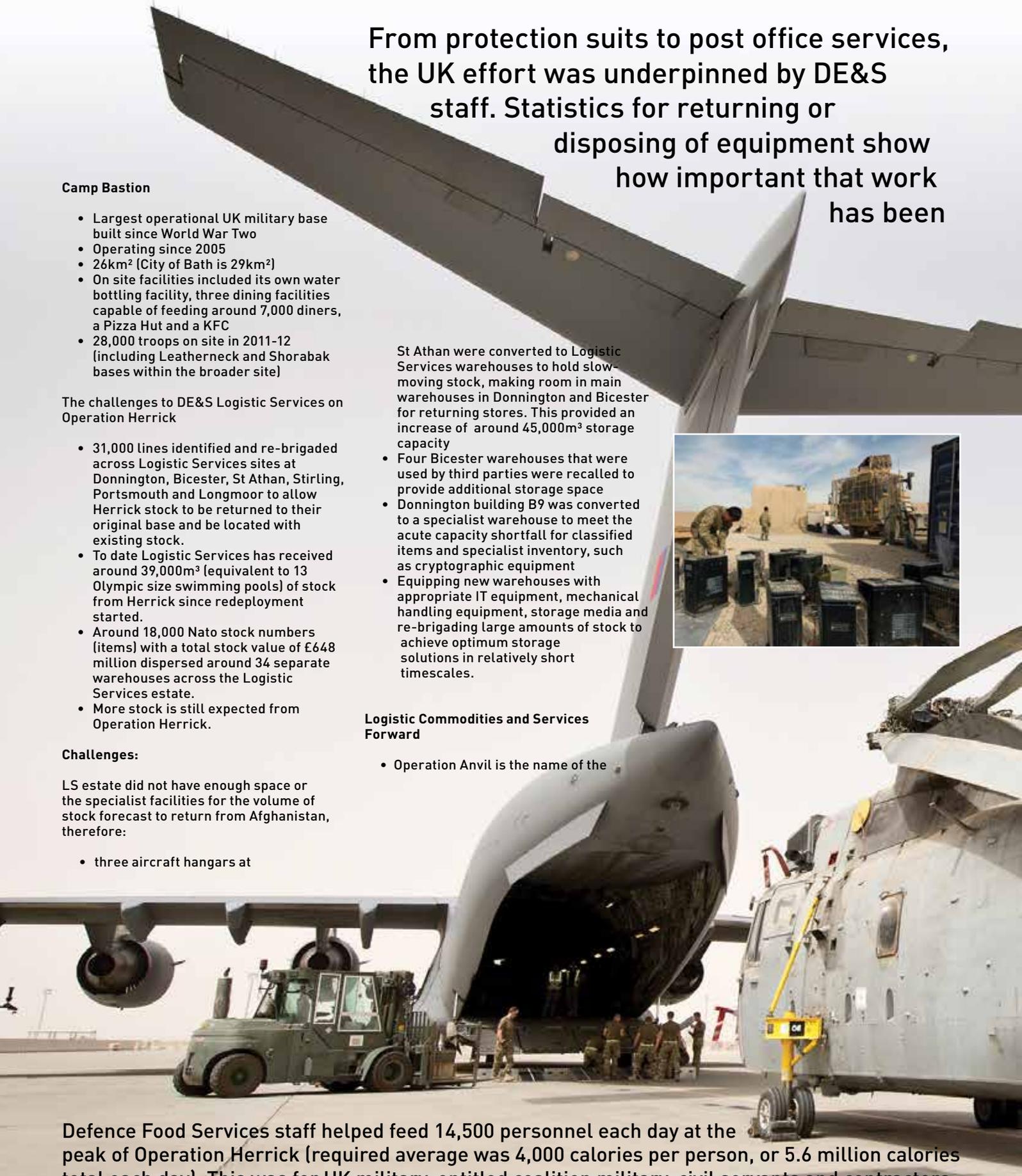
- three aircraft hangars at

St Athan were converted to Logistic Services warehouses to hold slow-moving stock, making room in main warehouses in Donnington and Bicester for returning stores. This provided an increase of around 45,000m<sup>3</sup> storage capacity

- Four Bicester warehouses that were used by third parties were recalled to provide additional storage space
- Donnington building B9 was converted to a specialist warehouse to meet the acute capacity shortfall for classified items and specialist inventory, such as cryptographic equipment
- Equipping new warehouses with appropriate IT equipment, mechanical handling equipment, storage media and re-brigading large amounts of stock to achieve optimum storage solutions in relatively short timescales.

### Logistic Commodities and Services Forward

- Operation Anvil is the name of the



Defence Food Services staff helped feed 14,500 personnel each day at the peak of Operation Herrick (required average was 4,000 calories per person, or 5.6 million calories total each day). This was for UK military, entitled coalition military, civil servants and contractors

operation to redeploy equipment or return it to the UK

- Logistic Commodity Services Forward (LCSF) personnel are deployed to assist with the in-theatre reverse supply chain during redeployment in Afghanistan. They inspect and triage stock for return to the UK
- The LCSF team offers the potential to significantly streamline the reverse supply chain process by identifying precisely which stores depot and depot warehouse each Nato stock number should be consigned to, in line with its materiel condition
- UK base processing of ISO containers (the time taken to receive the receipt for a transport container to placing on shelf) increased from two ISOs per day to 5-8 ISOs per day
- Operation has been instrumental in 'proof of good order' and has saved more than £12 million

### Disposal Services Authority in theatre

- Under the management of the DSA,

Agility, Operation Herrick's in-theatre disposal contractor, has disposed of equipment beyond economical repair, or is not economical to return to the UK as well as Camp Bastion's (and other camps) waste.

- DSA's contractor has disposed of 3,300 pallets of surplus, non-controlled equipment including screwdrivers to kitchen pots, rowing machine to a television
- 131 non-military vehicles disposed of including fork-lift trucks, transit vans, white fleet vehicles and pick-up trucks
- 300 tons of ballistic glass (for example heavily laminated glass from vehicles) was disposed of in theatre by a scrapyards contractor

### Benefits

- Using a contractor to manage the disposal keeps military resources in the

Front Line Commands free to perform their duties and keeps space available on the Logistic Services estate for operational equipment

- All items disposed of in theatre were categorised as surplus equipment not commercially or financially viable to return to the UK. The robust disposal programme has ensured that environmental and financial risks have been minimised. The net value of sales of equipment and materials has still to be determined but is expected to be millions of pounds. Most of this money will go to the Front Line Commands.



# Facing the underwater threat

## New ideas are shaping the way in which the Royal Navy detects mines at sea and surveys the ocean floor

A revolution in the way the Royal Navy detects and disposes of sea mines and surveys the ocean floor is on the way after a DE&S programme passed a significant milestone.

Mine disposal is currently carried out by the *Hunt* and *Sandown* class mine countermeasures vessels. Ocean survey, or hydrography, is mainly the responsibility of the *Echo* class ships.

DE&S' Mine Countermeasures and Hydrographic Capability (MHC) programme – which has just kicked off its assessment phase – is looking at a range of autonomous systems operating above, on and beneath the ocean's surface, deployed from a single class of mother ship or from the shore.

Unmanned Surface Vessels (USVs) could be used to taxi UUVs at high speeds into the area of interest and provide a platform for further sensors and mine disposal equipment. Unmanned Air Vehicles (UAVs) may provide communications and overwatch, further extending the range between the systems and their operators."

Autonomous systems are potentially more cost-effective and flexible. The mother ships would not need to be as sophisticated as the current minehunters and the autonomous systems will be portable, meaning they can be transported rapidly by land, sea or air and deployed from sea or land.

Assessment phase will confront

and has been established with the express purpose of de-risking the MHC programme. MASTT trials will help determine the full capability of the new systems while building confidence and experience in their operation.

"Unmanned systems promise greatly improved operational flexibility," said Mr du Pré. "By breaking the link between the ship and the mission systems, they also allow greater flexibility in procurement. The programme is ideally suited to incremental acquisition, which will, in turn, reduce risk exposure and allow the risks to be managed in a controlled way. To achieve this, MHC will need to deliver a modular, open system architecture allowing for easy



*RNMB Hazard*, an experimental boat used by the Maritime Autonomous Systems Trials Team, capable of launching and recovering a range of autonomous systems

"The MHC programme aims to revolutionise these capabilities by exploiting the rapidly developing field of maritime autonomous systems," said MHC team leader Alex du Pré. "This builds on some very exciting developments in the R&D community.

"Unmanned Underwater Vehicles (UUVs) fitted with sophisticated sonar and navigation systems offer the potential both to detect mines and provide an ocean survey capability. This could be done covertly at long range from the operators, while improving safety by preventing the need for ships and their crews to enter the minefield themselves.

technological challenges. In addition to a thorough analysis of technical and programme aspects, MHC is planning advanced technology demonstrators to try out the systems in a demanding operational environment. One of these is an unmanned, USV-based minesweeping system which will be fitted to a *Hunt* class ship. Another is the Maritime Mine Counter Measures demonstrator, in collaboration with France.

MHC will also be running an extensive trials programme using the Royal Navy's Maritime Autonomous Systems Trials Team (MASTT). This 15-strong unit has high-tech robotic equipment

upgrade and replacement of individual system components."

There will be other challenges too. The Royal Navy currently approaches mine hunting and ocean survey differently but the two branches could be merged in the future as the two tasks will be delivered by similar systems.

"Change will need to be carefully managed," said Mr du Pré. "Current mine disposal and hydrographic capabilities are highly respected but obsolescence will catch up with them in time and the existing ships will be very old by the time they are retired. The Royal Navy will need to be convinced of the benefits of the

new systems if they are to make the leap away from the current tried and tested approach.

“In focusing on modular, autonomous systems, MHC is the first major Royal Navy programme to break away from traditional shipbuilding. As the Royal Navy is likely to exploit autonomous systems widely in the future, MHC is seen as a pathfinder in this new technology area.”

Mr du Pré added: “Achievement of Initial Gate success is an important milestone for the programme. While there are many challenges to be addressed, the rewards for the Navy promise to be great. This feels like an exciting place to be.”



Members of the MHC team receiving a Chief of Materiel (Fleet) award from Director Ships for excellence in project delivery following success at Initial Gate. From left: Jayne Hamling, Rhodri Briddon, Tony Graham (Director Ships), Alex du Pré and Jennifer Back

## TOM NEVARD MEMORIAL COMPETITION



The competition started in 1952 as a memorial to Tom Nevard who was an assistant secretary in the labour branch of the Ministry of Supply and played a key role in how engineering apprenticeships are managed within the Ministry of Defence.

### Awards

#### Phase 1 -

**Individual Design and Manufacturing Winner (Phase 1)**

**Rhys Davies** DE&S Abbey Wood

**Runner Up (Phase 1)**

**Rose Wheelhouse-Thomas** DM Gosport

**Runner Up (Phase 1)**

**Jonathan Derwin** DM Gosport

#### Phase 2 -

**Individual Design and Manufacturing Winner (Phase 2)**

**Kersey Segger** DE&S Devonport

**Runner Up (Phase 2)**

**Craig Kitcher** DM Gosport

**Runner Up (Phase 2)**

**Macauley Binner** DM Gosport

#### Team Design and Manufacturing Event

**Winners** Emma Quigley (Phase 3)

DE&S Devonport

**Richard Carlile** (Phase 3) DE&S Abbey Wood

**Elliot Symes** (Phase 3) DE&S Abbey Wood

**Joseph Clingo** (Phase 1) DE&S Devonport

**Ashely Hodgetts** (Phase 1)

DE&S Abbey Wood

**Jack Newman** (Phase 1) DM Gosport

**Rowan Ward** (Phase 2) DSG Bovington

**Jo Jones** (Phase 3) DE&S Abbey Wood

#### Runners Up

**Stuart Redford** (Phase 3) DE&S Devonport

**Gareth Hopton** (Phase 3) DSG Donnington

**Miles Goldsack-Rowland** (Phase 2)

DE&S Abbey Wood

**Lee Williamson** (Phase 1) DSG Bovington

**Matt Veal** (Phase 3) DE&S Abbey Wood

**Joe Gardiner** (Phase 1) DSG Bovington

**Nick Bennett** (Phase 3) DE&S Abbey Wood

**Dan King** (Phase 1) DE&S Devonport

## SIR HENRY ROYCE MEMORIAL FOUNDATION MEDAL



In 1982, the MOD accepted an invitation from the Sir Henry Royce Memorial Foundation to nominate civilian engineering

apprentices (or group of apprentices) for awards for work which is considered to be of outstanding merit and in the tradition of excellence of engineering design and quality of workmanship for which Sir Henry was renowned.

**Award Winner** Jake Briscoe DM Gosport

## SIR DAVID CARDWELL MEMORIAL PRIZE



In 1982 it was decided to award a prize in memory of the late Sir David Cardwell (the former Chief of Defence Procurement). The award is given to an apprentice who, while not being an outright winner, has nevertheless made exceptional progress and overcome some great personal or physical difficulty.

### Award Winner

**Jacky Tommy**  
DSG Donnington

### IET Technician of The Year 2014

**Mark Holloway**  
Finalist

### IET Young Woman Engineer of The Year Awards

**Hannah Stanbury**  
Southeast Shortlisted

### EEF Future Manufacturing Awards Regional Event

**Joshua Beddis**  
Southwest Regional Finalist

**Stuart Redford**  
Southwest Regional Finalist

**Hannah Stanbury**  
Southeast Regional Finalist

## APPRENTICE OF THE YEAR



In 1977, the Competitions Committee decided that there should be a competition to find the "Apprentice of the Year" from apprentices in their final phase of training. This encompasses a paper sift and interview to determine the top three apprentices in the MOD.

### Ministry of Defence Apprentice of the Year 2014

**Gold Medal Winner**  
**Emma Quigley** DE&S Devonport

**Silver Medal Winner**  
**Joshua Beddis** DE&S Abbey Wood

**Bronze Medal Winner**  
**Stuart Redford** DE&S Devonport



# Get in,

Emma Quigley led the best of DE&S' young talent against the top talent across the MOD in the annual apprentices award ceremony in London.

Emma, a DE&S apprentice working on submarines at Devonport, received her Apprentice of the Year award on a glittering occasion attended by principal guest of the event, the Duke of York.

Emma's triumph was part of another 1-2-3 for DE&S with her Devonport colleague Stuart Redford taking the bronze medal and Abbey Wood's Joshua Beddis the silver.

The day was opened by Bernard Gray, Chief of Defence Materiel, who also gave the closing address. The event has become a celebration of the achievements of the MOD's civilian engineering apprentices and increases in importance every year. MOD chiefs are keen to show how vital young talent is to the defence of the UK and central to its future prosperity. They are key to creating and nurturing the engineers and craftsman of the future.

Air Vice-Marshal Julian Young, Director Technical at DE&S, said: "The MOD Apprentice of the Year awards is a celebration of some of the best in our future talent within defence, and it was a privilege to have the Duke of York as our guest of honour at the event.

"As well as internal prize winners, it is great to know that we benchmark strongly in competition with the private sector in picking up national awards too. DE&S is a major stakeholder in Civil Service apprenticeships, and we are proud to have more than doubled our numbers over the past two years, and delighted with the high quality of intake – get in, go far!"

The MOD is increasingly turning to apprenticeships as a preferred way of training youngsters for other functional areas such as information systems, information management, commercial and finance.



# Go far!

That's the message to youngsters as the best engineering apprentices in DE&S went on show in the annual MOD awards in London

Last year was the MOD's most successful year for engineering apprentices with a completion of more than 93 per cent; each apprentice filled a vacant post in the department. And schemes that closed down in the last millennium are starting up again, including ones at Defence Munitions in Beith.

Apprentices find themselves regularly tested against their peers in industry, including Rolls-Royce, BAE Systems and Airbus where they routinely hold their own.

Alongside the DE&S apprentices in Main Building was young talent from the Defence Science and Technology Laboratory, Defence Munitions and the Defence Support Group.

Richard Nevard, grandson of Tom Nevard, who played a key role in how apprenticeships are managed in the post-war period and after whom one of the apprentice competitions is named, was again a guest at the event and praised the influence of apprenticeships on the future well-being of organisations.

"I was delighted to speak again with the winners and runners up and hear how real work is starting for some," he said. "We are all pleased to hear that apprenticeships are definitely back in fashion. It was certainly music to our ears to hear the Duke of York speak so eloquently and passionately on the subject and the Chief of Defence Materiel give his full support. I look forward to hearing plans for 2015's competition."

As an example of the skills on show, the Duke was presented with a scale model brass Spitfire, made by three apprentices from Defence Munitions at Gosport, Rose Wheelhouse-Thomas, Jack Newman and Jonathan Derwin.

Among organisations represented on the day were the Institution of Engineering and Technology and the

Institution of Mechanical Engineers, who sponsored some of the prizes.

Right: Bernard Gray congratulates Apprentice of the Year Emma Quigley while, below, the Duke of York was the event's special guest



# There's no i in team!

Apprentices new to DE&S have been learning the values of teamwork and co-operation in an environment somewhat removed from Abbey Wood – Dartmoor

Phase 1 apprentices have taken part in a five-day residential adventure training course at Runnage Farm, near Princetown, in the middle of a wild and rugged moor, a centre which caters for everything from cycling to climbing and kayaking and where people go for Duke of Edinburgh's Award and Ten Tors training.

The training, as part of the three-year apprenticeship, is run in conjunction with Bridgwater College, the new training provider for DE&S.

During the week, the students took part in rock climbing, mountain biking and a two-day wild camping expedition designed to develop necessary leadership skills.

They have to navigate their way across the moor, build a temporary river crossing and prepare meals with nothing but basic equipment.

They also had the chance to meet and work with inspirational instructors such as former Royal Marine Darren Swift, who while climbing Mt Everest in 2003 rescued an injured climber from high on the north ridge, for which he was awarded the Royal Humane Society's highest award, The Stanhope Gold Medal, and the society's Silver Medal.

"The students thoroughly enjoyed the experience even though many had never participated in similar exercises," said Tracey Cruse, DE&S' apprentice competition officer.





Cycling and rock climbing were two of many activities on the Dartmoor agenda. Below: Tobie Bryant and Jayden Peck get to grips with some steering issues

“The course was challenging for some but for most it formed good friendship groups which I am sure will continue throughout their three-year apprenticeship. In previous years the course has taken place later in the apprentices’ time at Abbey Wood; now it’s closer to the start, and that has helped them form their friendships so much earlier.”



# Squeezing out the costs

Abbey Wood teams are always under pressure to operate more efficiently and effectively. When savings were demanded in DE&S' 15-year private finance initiative to provide bulldozers and diggers to the front line, staff moved into top gear

**A** DE&S team which provides more than 2,000 earth movers, diggers, bulldozers and other construction trucks to the three services has achieved nearly seven per cent savings on its contract after a series of radical changes in the last year.

The Cabinet Office demanded savings of at least five per cent on the £714 million 15-year private finance initiative (PFI) – known as the C-Vehicle contract – which runs for another six years.

Kat Morgan, Head of the PFI Capability Cell in DE&S' Operational Support Vehicles Programme (OSVP), said: "The contract has been delivering continuous efficiency improvements from its conception so there wasn't a lot of fat remaining. The key was to recheck what capabilities the Front Line Commands really needed today and tomorrow. This

enabled us to remove or reduce unwanted capabilities and introduce new ones or more of those required.

"The fleet has more than 100 different lines of equipment, some of them used by all three services, from field deployable mechanical handling vehicles like telehandlers and cranes to heavy Royal Engineer equipment like bulldozers, excavators and dump trucks. Getting all commands to confirm requirements in the fluid post-Afghanistan period with eyes firmly fixed on Future Force 2020 was never going to be easy. But we've achieved it."

There were some easy wins like removing vehicles no longer needed, or cancelling new buys as their work could be done by existing equipment. Ultra-

light wheeled tractors were no longer needed while some lines of dump trucks, excavators and loaders could be reduced. Service Provider ALC, a joint venture between Amey and Babcock, are using cash from selling the equipment to buy new capabilities.

Hamish Knox, Managing Director of ALC, said: "We have achieved very good prices for the vehicles we have sold by utilising our experience gained in reselling the original MOD legacy fleet. To date the MOD has already received more than £13 million in gainshare from the legacy resale and the sale of vehicles identified during review should provide an additional £3 million."

More excavators, lighting towers and concrete mixers have been bought, all without the need for extra funding.

There have been some harder wins too. The original contract required the entire fleet of 2,100 to be available at 30 days' notice. This has been reduced to





90 per cent ready in 30 days, leaving the remaining ten per cent available for third party hire, for which the MOD recovers a gainshare. Fixed levels of equipment overseas such as Kenya has been removed from the contract in exchange for agreement that all equipment abroad not in an ALC pool would be on demand. This allows greater freedom of equipment allocation and promotes return of equipment to the UK when not in use. This cuts overseas maintenance and increases income from possible hire.

The review also included bringing more of the RAF's

equipment into the contract, fleets of JCB telehandlers joining Terex 35-tonne cranes in the C-Vehicle fleet. The Royal Navy has had its requirements for telehandlers and cranes now included as a core contract capability. Savings have also been made by better use of MOD transport.

Kat Morgan added: "The challenge for the OSVP and ALC teams is to continue finding further efficiencies in support of the changing capability requirements while maintaining the high standards of service they provide together. As our Forces draw down from Afghanistan, including ALC's field service reps who are based with them, and the returning equipment regenerated, the question still remains: can the provision of C-Vehicle Capability be optimised still further?"

# Biggest display of land systems capabilities

THE LAND systems component of DSEI has achieved iconic status as a showcase for the latest land systems presented by manufacturers from around the world and as a window on future developments in policy and the shape of the strategic challenges we face.

The Land Zone at DSEI 2015 will be of record size, with an expected 700 land focused exhibitors, out of a total 1,500 exhibitors, found in the Land Zone and around the exhibition halls. The military vehicle static park at the heart of the Zone has been similarly expanded.

The exhibitor list features companies involved in the heartland of MOD programmes. They include Lockheed Martin, currently delivering the Warrior Capability Sustainment Programme and will see nearly 500 vehicles delivered from 2016-2017 onwards. A key sub-system will be the 40mm Case Telescoped Ammunition turret, a UK-France joint venture. Warrior CSP Armoured Infantry Battlegroups will be the backbone of the Reaction Brigades in Future Army 2020 structure.

Lockheed Martin is also under contract from General Dynamics to produce the turret for the Scout specialist vehicle, which also features the CTA turret. General Dynamics is a major supplier to MOD, with 300 Foxhound Light Protected Patrol Vehicles delivered. Proven on operations in Afghanistan, the vehicle is a significant example of the utilisation of motor sport



Thales Watchkeeper WK450 Remote Piloted Air System for all-weather use by the British Army

protection technology and DSEI 2015 will feature a dedicated motor sport zone again.

The MOD fleets of General Dynamics Mastiff and Ridgback are being overhauled by Morgan Advanced Materials, Ricardo and Ultra Electronics in a new joint venture. Each Reaction Brigade in Future Army 2020 will have a Protected Mobility Battlegroup equipped with Mastiff and Ridgback at its core.

A long-established flagship exhibitor at DSEI, BAE Systems, has been upgrading the Viking all-terrain vehicles for future Royal Marine operations and is also close to delivering the last Terrier engineer tractors. Thales is in full flow with deliveries of the Watchkeeper Remote

Piloted Air System to the British Army. The system received full flight clearance earlier this year and is being shared as a joint programme with the French Army.

Other major players exhibiting include Denel, Iveco, Jankel, Nexter, Oshkosh, Patria, Raytheon, Streit and Supacat. However, DSEI is also renowned for providing SMEs with a global platform for their innovation. Visitors will be able to see solutions spanning a range of requirements, such as Aeroglow vehicle escape systems, Hesco's rapidly deployable barrier systems, through life support specialists OSEC and Richmond Defence Systems' training and equipment packages for border protection troops, special forces and police.

## DSEI Land Zone

THE continuing success of DSEI is due in no small measure to the feature zones dedicated to crucially important areas of defence and security capability.

The zones enable visitors to optimise their time at the event and the concept has been undergoing continual refinement since its introduction in 2011.

In addition to displays and capability demonstrations by a diversity of suppliers, the Land Zone also hosts brief but highly informative seminars delivered by top military figures.

## Army involvement in DSEI 2015

The British Army is again planning to deliver a strong presence at DSEI 2015.

Highlights of Army participation in DSEI 2013 included a symposium hosted by the Chief of General Staff, a keynote address by the Chief of Materiel (Land) and a dedicated stand in the Land Zone.

The post-Afghanistan era is a time of radical change, with Future Force 2020 playing a fundamental role in shaping the Army's agenda. The Defence Growth Partnership is another significant factor now in play, as the Army seeks to deepen its relationships with industry.

Against this background the Army must have the capability to tackle the broad range of often complex and demanding roles that the coming decades will bring. These cover the spectrum from the assertion of sovereign rights to the conduct

of constabulary actions, and support for partners, some of which may well have a counter-insurgency dimension. New technical challenges, such as disruptive technologies and infomatics, also have to be met.

Lt Gen Mark Poffley, Commander Force Development and Capability, said: "Recent events have highlighted the need for an integrated and persistent security response across a wide spectrum of operations. The British Army is reconfiguring to meet the challenges of the contemporary security environment. An important part of this adjustment is establishing a close relationship with its industrial partners, seeking out innovative and relevant solutions as part of the DGP and exploiting mutually beneficial agendas to defeat those who threaten our security."

■ At DSEI 2015 high mobility vehicle specialist Supacat will showcase its range of vehicles and its ability to develop innovative engineering solutions to unusual customer requirements. Supacat designed the High Mobility Transporter, known as Jackal and Coyote with UK Forces, to meet a requirement for an agile, all-terrain vehicle, which was used extensively in Afghanistan.



Supacat vehicles on show



□ DSEi 2015 will be a key event for defence and security company Saab. We will exhibit the full range of our land systems portfolio including battlefield engagement, air defense, radars, vehicle systems, CBRN systems, multi-level command and control solutions and a comprehensive range of training options. Saab will also bring its unique level of expertise in the air and naval domains.

## THALES

■ At Thales, our commitment is to provide equipment, systems and services that deliver the interoperability and scalability that deployed forces need for operational superiority.

Our land solutions include complex mission systems for vehicles and soldiers, integrated combat systems, thermal imaging cameras and sights, lasers, voice and data communications, and high-fidelity simulators for training drivers and other vehicle crews.

## BAE SYSTEMS

□ BAE Systems Munitions has completed its largest, most significant investment programme, following the signing of the MASS Partnering Agreement in August 2008 with the MOD.

The transformation of facilities, infrastructure and culture occurred at its three manufacturing sites (Glascoed; Radway Green and Washington).

All objectives, schedule milestones and identified capabilities have been achieved, along with new facilities, significantly improved manufacturing flexibility, efficiency and designed in safety improvements.



■ A leader in design and manufacture of specialist batteries and chargers, Lincad is pleased to announce that it has been awarded three new R&D contracts by the MOD. This will provide the funding required for the company to take the development of three key new products through to the production stage.

Lincad has been at the forefront of developing specialist solutions for the MOD's battery and charger requirements for over 12 years. Over that time, through a process of mechanical refinement and the use of cutting edge cell technology, the company has consistently delivered products that have helped to reduce the



load that soldiers in the field have to carry, with no loss of efficiency or reliability.

Brian Soden, Lincad's Managing Director, said: "We're delighted that the MOD has decided to fund the further development of these three new products. We have every confidence that our continued work will bring significant benefits to soldiers deployed in operational roles."

Visit Lincad at DSEi on Stand S4-430

□ WEW offers mobile fuel and water logistics delivery solutions, transportable by road, rail, sea or air. Our integrated tank and pump system modules have capacities from 500 litres upwards to 60,000 litres in one unit and can be connected to create a fuel or water farm.



# Home of the Battlefield Mission



## Chosen by Defence.

Millbrook is an independent, impartial world-leader in the full range of military vehicle and system test & evaluation.

Email: [bruce.lornie@millbrook.co.uk](mailto:bruce.lornie@millbrook.co.uk)  
Millbrook, Bedford, MK45 2JQ, UK  
[www.millbrook.co.uk](http://www.millbrook.co.uk)



# Where DE&S can go for technical support



Electronics and components support to DE&S will remain as part of the MOD this year



A TECHNICAL repair organisation will be back in Abbey Wood next month to show off its capabilities to DE&S customers.

The Defence Electronics and Components Agency (DECA) will provide DE&S with secure access to assured onshore capacity and capability for through-life maintenance, repair and overhaul, upgrade and procurement services.

The agency is currently the electronic and components business unit of the Defence Support Group. But it will be retained in the MOD from 1st April while the DSG is taken over by private enterprise.

Extensive work is under way to separate the electronic and components businesses at Sealand and Stafford from the DSG Land business. Chief Executive (Designate) of DECA, Geraint Spearing and his team, are working to deliver an Executive Agency from April.

The unit is trusted to work closely with its MOD customers and industry to deliver depth repair to the UK military and help meet operational needs.

Given the need to continue offering best value, Treasury, Cabinet Office and defence ministers have also endorsed that DECA will continue expanding its offerings into the Land, Maritime and Joint Enabler environments.

MOD customer engagement days have been held at Sealand, with follow-on events at Abbey Wood. These have enabled engagement with DE&S customers to help identify areas where the new agency can support DE&S in developing support strategies and delivery of transformation.

Further Abbey Wood events are scheduled for 26th February and 20th April. For further information contact Steve Harrison on 01244 847490 or [steve.harrison@dsg.mod.uk](mailto:steve.harrison@dsg.mod.uk)

## LINCAD

POWER MANAGEMENT SYSTEMS

Providing intelligent battery solutions to the MOD for over 28 years



Come and see us at DSEI 2015  
(Stand S4-430) 15th - 18th  
September 2015

[@LincadLtd](https://twitter.com/LincadLtd)

Lincad is proud to have been designing and manufacturing specialist batteries, chargers and power management systems for the British Armed Forces for over 28 years.

Our expertise, commitment and desire to integrate the latest cutting edge technology fosters innovation and ensures that we continue to take product performance to new limits.

Producing lighter, more powerful batteries with faster, more flexible charging solutions is what we do. And what we do supports the extreme demands of today's soldier in the field.



**Lighter**  
LIPS 14 provides  
160 Wh/kg in  
ruggedised form



**More powerful**  
CUTLASS battery powers  
robot for explosive  
ordnance disposal



**Faster**  
4 channel Fast  
Charger reduces  
recharge times



**More Flexible**  
Power Scavenger  
recharges from any  
suitable DC source

Lincad Ltd - 331 Lysons Avenue, Ash Vale, Surrey, GU12 5QF Tel: +44 (0) 1252 894600

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

## DE&S survey results spark detailed analysis

THE HEADLINE results from the DE&S Employee Engagement Survey have been published and the reporting and comment tools, which enable teams to analyse their results in more detail, have recently been released.

Teams will now carry out detailed analysis to help them identify actions to be taken forward that best suit their needs.

Focus groups are to be held across a number of sites to help gain further insight into survey results and seek staff views on the key actions they wish the senior management team to focus on.

The 2014 survey, the first specific to DE&S, generated the highest ever response rate with 79 per cent (9,400) of staff completing the survey.

Bernard Gray, Chief of Defence

Materiel, said: "I'm pleased that there are many positives to share in these results. There are however a number of areas where we recognise we need to improve.

"During the last 12 months DE&S has changed direction from pursuing a GoCo to becoming a bespoke trading entity. Naturally, this has been unsettling.

"Feedback on organisational objectives and purpose tells us that we need to do more to engage with staff on what our new status means for them and where our Materiel Strategy transformation is taking the new DE&S.

"Pay and reward continues to be an issue across the whole of the Civil Service and this is an area that, with the expertise of our Managed Service Providers, we are starting to address.

"We aim to put in place a framework for rewarding people that better fits our unique business and enables us to retain and attract specialist skills.

Mr Gray added: "An increasing number of staff said that they believe the senior management team will take action on the results of this survey which we are committed to doing and we will be reviewing the detailed results of the survey and focus group activity over the coming weeks to agree the actions we need to take.

"Thank you to everyone who took the time to participate in the survey; feedback received will help the senior management team to shape and deliver the changes which will make DE&S an even better place to work."

## Investment comes under spotlight

DE&S' LONG term investment in the UK's naval bases came under the spotlight when Defence Secretary Michael Fallon visited Devonport last month.

The £2.6 billion Maritime Support Delivery Framework contract runs for the next five years and safeguards thousands of jobs in Devonport, Portsmouth and on the Clyde.

Mr Fallon was in Devonport to meet Royal Navy personnel and talk to city officials and industrial partners over investment plans to transform part of the naval base for commercial use.

During his tour, Mr Fallon saw the area of the naval base which is due to become a prime location for the marine industry.

This follows the Government announcement of the City Deal last year, which could bring nearly £300 million investment to the region.

Mr Fallon said: "The investment we are now making in the naval base and through the City Deal will help support 25,000

Right: Mr Fallon speaks to the Commanding Officer of HMS Grimsby, Lt Cdr Will King, as the ship and crew return alongside at Clyde after a four-month Nato deployment.



defence and support jobs across the wider Devonport area that depend on defence."

Mr Fallon also visited Clyde on 18th December to reaffirm the defence commitment to Scotland.

During his tour of the base, Mr Fallon received a progress report on works being undertaken to transform Clyde into the Royal Navy's Centre of Submarine Specialisation by 2020.

Speaking from the submarine HMS Triumph at Clyde, Mr Fallon said: "It is so important as we head towards the end of what has been a very important year for Scotland, that we continue to affirm our commitment to the country, not only as a fundamental part of defence, but as a part of the United Kingdom as a whole.

"In Scotland we employ vast numbers of highly skilled military and civilian workers. At this base alone there are more than 6,700 people working on transforming the area ready to receive HMS Triumph and HMS Talent and the remainder of the Astute class submarines to the Clyde by 2020.

"This project brings job creation and security to our people; it also provides long term security to their families."

It may have been a damp day in Rosyth but progress on the Queen Elizabeth carriers made it a positive day for Mr Fallon pictured on the right. He joined Ian Booth, Aircraft Carrier Alliance MD, on the deck of the first carrier, which is being fitted out following its floating out from No 1 dock last summer



■ Engineering support work: page 38

# Latest Brimstone heads for US-based trials



The DE&S/industry team welcome the first Brimstone 2 production missiles. Back from left: Andrew Wolstenholme (MBDA) Brimstone 2 B&P Project Manager and Paul Moulton (MBDA) Brimstone Manufacturing Manager, Henlow. Front: Sam Rees-Booth (MBDA) Brimstone 2 Production Project Manager, Colin Lapsley (MBDA) Chief Engineer Brimstone, Matt Brown (DE&S) MAWS leader, Tony Bates (DE&S) Brimstone PM, Martin Southworth (MBDA) Product Assurance, Richard Leighton (MBDA) Head of Brimstone

THE FIRST production standard Brimstone 2 missiles have been delivered.

DE&S' Maritime and Air Weapons Systems team leader Matt Brown formally accepted delivery of the first 20 missiles from manufacturers MBDA at the company's live build facility at Henlow.

First missile acceptance is a key milestone for the programme and represents the culmination of much hard work by all those involved throughout the joint MOD and industry team.

Brimstone 2 will bring a range of operational performance and logistical benefits that will provide advantages in operational use and stockpile management.

These come from the missile being classified as an insensitive munition due to the new warhead and rocket motor design as well as improvements in the seeker, guidance and greater air carry hours.

The missiles will be taken to the China Lake range in the USA for use in operational evaluation trials this year when the system will be put through its paces against various target sets and conditions to ensure it meets the exacting requirement set by the user.

These trials are the first step along the road towards the formal acceptance into service of the Brimstone 2 weapon system by the RAF.

Mr Brown said: "I have only been directly involved with this project for a short time, but what has become clear to me is the total commitment and dedication of the joint team to make this project a success."

His views were echoed by

Richard Leighton, head of Brimstone at MBDA. "The joint team – RAF, DE&S, MBDA, Dstl and QinetiQ – have worked extremely hard to get to this stage, overcoming various obstacles along the way," he said.

"I am proud of what the team has achieved and would like to personally thank all of those involved for their very real efforts that have made this a reality."



Above: Martin Southworth of MBDA and Matt Brown (MAWS leader) at the company's facility in Henlow

- Brimstone 2 was developed to provide an Insensitive Munitions-compliant version of this successful missile
- It is a high precision air-to-ground missile used against high value, fast moving agile targets as well as armoured vehicles
- Its high precision reduces collateral damage
- It operates from the Tornado GR4

## NEWSREEL

### Horse trading

DEFENCE Minister Anna Soubry has issued reassurance that deceased working military animals do not enter the food chain. "When an animal dies the body is passed to contractors approved by the Animal and Plant Health Agency for disposal in accordance with the appropriate animal welfare, hazardous waste and healthcare regulations," she told Parliament last month. "In the case of military horses the MOD retains the horse passport and returns it to the organisation which issued the passport. This is in accordance with the 2009 Horse Passport Regulations."

### Covenant success

EVERY local authority in Great Britain and more than 370 businesses have signed up to the Armed Forces Community and Corporate Covenants respectively. The news is contained in the Covenant annual report for 2014, which details a number of key successes including more than £100 million awarded through the Covenant to projects that benefit personnel, veterans and Armed Forces families. The Covenant was enshrined in law in 2011.

### Latest chart

THIS copy of *desider* contains the latest Defence Finance and Military Capability organisational chart. Further copies can be obtained from DE&S on Abbey Wood extension 30537.



## Teaming up in the field

## Land open architecture takes further steps forward

Trialling with allies, left, and discussing feedback with stakeholders, below



DE&S TECHNOLOGY Delivery has successfully led an MOD and industry team in trialling LOSA (Land Open System Architecture) developments in the laboratory and in the field.

Activity culminated in an international conference and visitors' day to showcase the impact LOSA – a complex cross-cutting area of work – could have on industry, acquisition and user ways of working.

Lt Gen Chris Deverell, Chief of Materiel Land, and Lt Gen Mark Poffley, Army Force Development and Capability, have announced an audit into all existing land vehicle, soldier and tactical base/HQ programmes and projects to assess their compliance with LOSA.

Open workshops (Government, industry, international) developed key LOSA topics, notably: how future contracts would be tailored to suit 'openness'; investigating the impact of open systems on security; impact on future equipment

design (in particular the next generation of communications systems); 'system of systems' integration and on what LOSA can offer to deployed facilities management.

Workshop feedback will help inform the future LOSA Red programme developing four standards on generic soldier, vehicle and base architecture along with COIL (Common Open Interface Land) which enable LOSA implementation.

As part of the generic soldier architecture trials, various companies demonstrated soldier equipment to key stakeholders.

The German MOD helped demonstrate Nato generic vehicle architecture, which builds heavily on the work done by the UK vehicle architecture team. The

emerging COIL standard enabled a level of interoperability between the German demonstration vehicle and UK systems in just two hours.

COIL defines the standards for sharing data between the various LOSA platform architectures. The COIL-related part of the event advanced development and validation of the embryonic COIL specification over radio networks. Further activity is planned to demonstrate the impact of the implementation of all four standards.

## Companies team up to design carrier support

BABCOCK AND BAE Systems will spend the next 12 months helping to design engineering support for the *Queen Elizabeth* class aircraft carriers.

The contract award is part of the wider Support Development Phase in which the MOD, BAE Systems Maritime Services and Babcock will work together to provide optimum and fit-for-purpose engineering support for the new carriers.

BAE Systems and Babcock will be involved in four support development phase workstreams – Class Management,

Design Management, Maintenance Management, and Information Knowledge Management.

Under these workstreams the companies will design technical services and maintenance solutions to ensure the carriers are available for their operational requirements.

Both companies have welcomed the opportunity to work together.

Mike Whalley, Babcock Managing Director Warships said: "We have a unique and timely opportunity to deliver

an innovative support solution that is focused not only on the successful transition of the *Queen Elizabeth* class into service but will also underpin and de-risk her operational support programme worldwide.

"This is further testament to the benefits of operating in an enterprise with BAE Systems, Royal Navy and the MOD to deliver optimised engineering support."

Richard Dingley, Fleet Services Director at BAE Systems added: "This contract is a key stepping stone in organising a joint enterprise

ready to support *HMS Queen Elizabeth*.

"Together we aim to build an integrated support community, operating to ensure that the resources the new class of carriers are in the right place at the right time – in Portsmouth and in operation around the globe."

The Support Development Phase contract announcement follows news of £100 million Government investment in Portsmouth naval base, improving facilities and services in preparation of the arrival of the carriers.

# Groundbreaking!

Managing information takes on a light-hearted look – thanks to ‘Des’ the 7ft model



Teamwork, from left: Gill Coleman, (IManager, Inventory Management Operating Centre); Ian Martin (CIO Compliance Team); Leah Kennett, (KIM Cost Assurance and Analysis Service); Sue Hoare (KIM D Tech); Air Vice-Marshal Julian Young; Nathan Broderick, (CA Communications Officer); Sarah Enos (CIO Communications Manager); Ian Slade (IManager JES); Howard Mitchell (CIO Information Architecture Team)

DES, A seven-foot tall campaign mascot, has helped underline how vital improving information management across DE&S is to staff.

Colleagues rose to the challenge of DE&S' Chief Information Officer (CIO), Air Vice-Marshal Julian Young, to take part in activities associated with improving information management during the fortnight.

Opportunities included MOSS training sessions, market stall events in larger DE&S sites as well as daily hints, tips and shortcuts provided on the IMWOW (information management ways of working) tour website. The tour also took in Bicester, Donnington, Waddington and Yeovil with on-site training and market stalls.

Many other DE&S staff across the globe received IMWOW material including the information management calendar cube containing a host of tips and hints to assist with managing information.

Air Vice-Marshal Young said: "By the amount of feedback received personally, the IMWOW Tour has

proven successful across Abbey Wood and our wider DE&S sites. The whole CIO team has come together with IHub staff and presented themselves as a community and profession wholeheartedly committed to improving the delivery and management of information, tools and policy.

□ The DE&S IMWOW website has more hints, tips and shortcuts to save staff time and make life easier. At Abbey Wood, 'Des' and his placard will deliver key messages on behalf of CIO and iHubs over the coming months. He returns for IMWOW 2015. <http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/DES/Policy/Info/Pages/IMWOW.aspx>

"I acknowledge that many colleagues have struggled to get to grips with tools such as MOSS and Meridio, and this is why it was important for us to provide a package that helped people across

DE&S improve their skills and 'get that IMWOW moment'.

"I congratulate the team for staging the campaign, and also give a big vote of thanks to all colleagues across DE&S who spent time over the fortnight improving their own knowledge and awareness in good information management ways of working.

"I look to everyone to apply what they have learned and assist others to learn more – it's all about getting access to the information you need and saving you time."

Visitors to the Abbey Wood market stall were able to see Windows 7/Office 2010 in action and meet the DES Tech Refresh team. The CIO Cyber Smart team was also on hand to answer questions on how staff may ensure online safety at work and at home.

Another community that will begin to have greater visibility over the coming months is the Digital Buddies, where individuals interested in volunteering were able to sign up.





# It's a bargain!

## Rachael pits her skills on BBC's popular antiques show

RACHAEL ADAMS of QSEP's Audit Team is set to become a TV star after taking part in filming for BBC1's *Bargain Hunt*.

Presented by Tim Wonnacott, *Bargain Hunt* is the show where two teams are given £300 and one hour at a fair to buy antiques which they have to sell at auction, hopefully making money into the bargain.

Both teams are advised by an antiques 'expert'. Once the teams have shopped for their antiques, the expert goes shopping with any leftover money.

Their purchases are 'bonus buys' and each team has to decide whether or not to take their expert's item to the

auction, but just because it's been bought by an expert doesn't mean it's going to make money.

Rachael said: "I applied, along with my friend Kristina, about three years ago as we thought it would be fun and wanted to meet the witty Tim Wonnacott. Our antiques expert was Christina Trevanion.

"The first part was filmed at the Stafford Antiques Fair in mid-September. We bought an old tin ladybird toy, a lacquer box with playing cards and a plastic skeleton called Gary, and Christina's bonus buy was a silver gilded hip flask.

"At the time Tim was a TV show contestant himself, in *Strictly Come Dancing*, so while we were there the *Strictly* team did some filming for their show so we were briefly in that too."

The show is expected to be aired next month but *Bargain Hunt* has whetted Rachael's appetite for TV stardom. She said: "I would like to apply for *Deal or No Deal* so that I have a better chance of winning a life changing amount of money!"



## Rovers fan Nigel heads back Down Under

Nigel says goodbye at the Memorial Stadium

THE DEFENCE Ordnance Safety Group has said farewell to Commander Nigel Smith of the Royal Australian Navy.

Cdr Smith became a Head of Section in DOSG in 2011, as part of the MOD Exchange Programme.

Additionally, as a naval weapons engineer officer, he led DOSG on the Safety and Suitability for Service assessment policy. While in the UK he also engaged in wider Australian defence related activities. He leaves to become the Director Ordnance Safety in the Department of Defence in Canberra.

While in the UK he followed his local football team, Bristol Rovers, home and away. On his last visit to the Memorial Stadium he received a surprise visit from Rovers team manager Darrell Clarke who presented him with a club shirt signed by the first team.

Cdr Smith has been succeeded by Lt Col Arthur Tsamis of the Royal Australian Electrical and Mechanical Engineers.



Top: bargain hunters, from left: Rachael, Kristina, 'Gary' and Christina  
Above: presenter Tim Wonnacott with his *Strictly* dance partner Natalie Lowe, and Rachael



## Pol Sec gets to change the face of men's health

HUNDREDS OF staff across Abbey Wood threw away the razors and shaving foam for November in their annual efforts to raise cash to change the face of men's health.

There were some horror shows to be witnessed around the site, but the money began piling up, thanks to the generosity of team colleagues.

Typical of efforts across the site were staff from Policy Secretariat with, above from left, Jonathan Hawkins, Lee Archer and Ben Musty sporting their November efforts which, with contributions from colleagues, raised more than £200.

# Why the AA is the perfect choice for the Armed Forces

SAVE AS MUCH AS  
**34% OFF<sup>1</sup>**  
our online prices



- You'll have the option to put your AA Membership on hold, for example when you're on duty overseas
- AA Membership covers the whole of the UK including Northern Ireland
- Save as much as 34% off<sup>1</sup> AA Breakdown Cover on our online prices at enrolment and 20% at renewal every year<sup>2</sup>
- More dedicated patrols than any other UK breakdown service<sup>3</sup>

To join, call

# 0800 048 0075

Quoting reference F690

**Breakdown Cover**

**AA** Your 4th  
Emergency  
Service

1. Applies to Family Roadside and Relay cover in first year only. Other levels of cover are available and varying discounts apply. Offer only available to Armed Forces personnel by calling the number given, quoting the stated reference and paying annually by direct debit under a recurring transaction arrangement. Enrolment offer available to new Members for their first 12 months of Membership only. Offer not available in conjunction with any other offer/discount or on any other AA product/service. Details correct at time of issue. 2. Renewal offer available to Armed Forces personnel who are existing AA Members, or who join under the enrolment offer, and will be available at each renewal date until they cease to be Armed Forces personnel or the withdrawal of this scheme. 3. Mintel – UK Vehicle recovery report, September 2013. Automobile Association Insurance Services Limited is an insurance intermediary authorised and regulated by the Financial Conduct Authority. Registered office: Fanum House, Basing View, Basingstoke RG21 4EA. Registered in England & Wales, number 2414212.

## MOTTO – THE MOD LOTTERY October winners

**£10,000:** Ian Dowgill (Shawbury). **£5,000:** Nicholas Head (Bicester). **£2,000:** Valerie Furniss-Roe (Bordon). **£500:** Mark Coates (Harrogate), Victoria Hickman (Digby). **£100:** Neil Wilkes (Whittington), Brian Gilmour (Londonderry), Lorna Bain (RAF Lossiemouth), George Pearson (RAF Cosford), Jonathan Bowland (RAF Marham), June Wilson (Portsmouth), Kit Malia (Headley Court), Mark Bassett (Abbey Wood), Paul Hulley (Cheadle Hulme), Ronald Clark (Bergen Hohnne), Josephine Pegram (Thatcham), Emma Starmer (Bergen Hohnne), Bradley Pengelly (Sennybridge), Richard Worsley (Bacton), Thomas Price (Gosport), Jill Graham (Shawbury), Pete Doherty (Bielefeld), Mary Aston (Northwood), Anita Harrington (Andover), Rita Latty (Bicester).

### November winners

**£20,000:** Deborah Orchard (Corsham). **£10,000:** Sarah Fletcher (Whale Island). **£5,000:** Philip Kent (Bastion). **£2,000:** Jason Piper (Abbey Wood). **£500:** Jacqueline Tillison (RAF Syerston), Marcus Purse (Grantham). **£100:** Damian Kemp (Lisburn), Christina Fowler (Arbroath), David Aitken (Clyde), Christian Franklin (Barnstaple), David Yeo (St Andrews), Colin Fernley (Telford), Christine Cavill (Exeter), Raymond Drury (Abbey Wood), Tracey Lee (Abingdon), Daniel Phillips (Abbey Wood), Karen Beddoe (Brecon), Antony Smith (Abbey Wood), Daniel Weaver (Telford), Paul Arnott (Newport), Janet Niemand (*HMS Nelson*), Norman Arnott (Barrow-in-Furness), John Moyles (Whitehall), Marion Lye (Corsham), Kevan MacLeod (Coulport), George Thompson (Holywood).

■ If you want to play the DSR Lottery, contact the DSR Application form. Civ: 07793 657066, or visit the DSR team intranet page: [http://defenceintranet.diif.r.mil.uk/Community/Social/Pages/DefenceSportsandRecreationalAssociation\(DSRA\).aspx](http://defenceintranet.diif.r.mil.uk/Community/Social/Pages/DefenceSportsandRecreationalAssociation(DSRA).aspx)

## Helen flies the DE&S flag



Left: Prince Harry reviews 26 Squadron RAF Regiment on presentation of its new Standard

PROJECT MANAGER Helen Thomas represented DE&S as an RAF Regiment squadron was handed its new Standard in a ceremony in Suffolk.

Helen is part of the Chemical, Biological, Radiological and Nuclear team at Abbey Wood.

She was at RAF Honington to see Prince Harry present the new Standard to 26 Squadron, RAF Regiment. The Regiment's 26 and 27 Squadron are the specialist users of several CBRN capabilities.

The prince was welcomed by a fly-past by a Typhoon jet from

## CBRN capability reinforced for Regiment at Honington

29 Squadron for what was his first official Standard parade as the Reviewing Officer.

With standards given only once every 25 years, most RAF airmen only take part in a handover ceremony once in their career.

Prince Harry talked about the work that CBRN supports and mentioned the specialist systems they use.

During lunch a number of speakers acknowledged the contribution of other organisations, such as DE&S and the Defence Science and Technology Laboratory to the work of the Defence CBRN Wing.

Helen said: "It was really good to be there and know that everyone in the team at Abbey Wood is making a difference that is recognised and valued by front line users."



Back row from left: Andy Lakey (assistant manager, DE&S), David Chamberlain (DE&S), Steve Burke (Defence Commercial), Joe Mayled (Defence Commercial), Josh Samphier (DE&S), Oliver Howard (Defence Commercial), Scott Drayton (UKHO), Daniel Jarman (DE&S), Joe Goss (DE&S), Chris Kite (DE&S), David Cooper (DBS), Kevin Wade (manager, DE&S). Front: Wayne Shill (DSG), Richard Cope-Evans (MOD Guard Service, Abbey Wood), Calum Simpson (Babcock), Jack Fillingham (DE&S), Tom Bond (UKHO).

## Navy gives MOD a tough time

THE MOD's soccer players – boosted by a contingent from Abbey Wood – suffered a tough time at the hands of the Royal Navy as they warmed up for their national championships in Warwick in March.

With the MOD trying to select the best players from their A and B squads which

completed at Warwick last year and a new management team in place it was always going to be a tough test.

And when the Navy scored four times without reply in the first half on the way to a 6-1 win there was little chance of an MOD comeback.

Good work from Steve

Burke and a finish from man-of-the-match David Cooper pulled a goal back soon after the break and Josh Samphier twice struck the crossbar from distance.

But the Navy pulled away again towards the end with another two goals to give the score a convincing look.

## Lucy bridges classroom/boardroom gap

NAVAL ARCHITECT Lucy Collins is representing DE&S as part of an inaugural board of women looking to bridge the gap between classroom and boardroom.

Lucy, currently on secondment to University College London, is one of ten women across the UK invited to the Young Women's Board of WISE, a campaign to promote women in science, technology, engineering and mathematics, or STEM for short.

With the WISE campaign in its 30th year, the Board will help young women be successful as they enter the STEM workforce and navigate through their early careers.

Board members were selected through certain criteria: the women must be born after the WISE campaign was established, hold technical qualifications and work in a technical position.

As successful young role models in their own organisations, the Board is perfectly poised to bring their expertise to an ever-changing workplace. And with technology creating new ways to network and grow professionally in comparison to



Lucy Collins, front row extreme right, joins her newly appointed Board members, along with Board directors Megan Stowe and Sarah Shaw, back row

30 years ago, Board members will be a great resource for the WISE campaign to reach their target of one million more women in STEM.

"After 30 years, it was essential for WISE to bring in new blood to tackle the country's growing need for more people to study and work

in the STEM sector," said Helen Wollaston, Director of WISE.

"We need to have massive ambition to reach the next one million women in STEM and the young women's board is a reflection of that ambition. We hope to aspire and capture the imagination of girls with these outstanding role models."

## Neil's GEMS award earns him cash

A GEMS award of more than £6,500 has been won by Neil Terry for improving storage and maintenance of small boats.

Mr Terry suggested using an off-the-shelf Versadock floating cradle system secured to a jetty or pontoon or secured between moorings to store and maintain small boats.

This has been rolled out through boat users who were keeping their boats in water, increasing susceptibility to flooding of the engine compartment, which results in engine rebuild and compartment re-wire.

Savings in the first two years has allowed funding to be re-allocated from defect rectification to planned upkeep which has increased Fleet seaboard availability and to meet targets.

Mr Terry retired from the MOD last April.

The award came from DE&S' Group Award committee, the first attended by DE&S GEMS champion Clive Tarver.

## DINs - released this month

Defence Instructions and Notices (DINs) are defence-wide instructions, guidance and notices for military and civilian staff, containing up-to-the-minute information to help people carry out their duties. Some of the latest issued on Defence Equipment and Support are:

**2014DIN04-219:** This DIN outlines the out-of-port vessel-tasking process for providing support to military training exercises.

**2014DIN04-223:** The Hercules C-130K went out of service in October 2013 which prompted the start of disposal of all associated infrastructure, equipment, spares including data and records no longer required. This DIN reminds the wider MOD of the necessity to review and dispose of all C-130K data and records still held in accordance with appropriate legislation and MOD regulation.

**2014DIN04-229:** New supply arrangements are in place for supply of mechanical and avionic components using Selex ES as the prime contractor. The Consumable Contract has merged 23 existing contracts into a single 'thin prime' contract to bring value for money, updated and current contractual conditions and embedded performance indicators.

**2014DIN01-206:** This outlines guidance to service personnel on changes to the system of individual electoral registration and the new way to register to vote on line.

A DIN Index Search replaced the annual DIN indexes at the end of 2014. More information from the link below:  
<http://defenceintranet.diif.r.mil.uk/Reference/DINsJSPs/Pages/DINsJSPsHome.aspx#DINs>

## Dragon remembers

UNDER brilliant Pacific skies within sight of the coast of Chile, *HMS Dragon* is pictured as she heads towards a commemoration of the 1,600 British and Commonwealth sailors killed when their ships went down at the Battle of Coronel in 1914. Type 45 destroyer *Dragon* and Chilean frigate *CNS Almirante Cochrane* paused over the wrecks of *HMS Good Hope* and *HMS Monmouth* for a service of remembrance.

