

# desider

Mar 2012 Issue 46



MINISTRY OF DEFENCE

the magazine for defence equipment and support

**Government  
White Paper  
details**

## National security begins at the front



Industry focus supplement [See inside](#)



Off-the-shelf  
purchasing



Front line  
feedback



A flare  
for safety



A clearer  
way forward



Intercept  
and destroy

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## FEATURES

### 18 48 hours in Bastion

Defence correspondent David Willets of *The Sun* spends a dramatic couple of days in the emergency section of Camp Bastion's medical facility in Afghanistan, marvelling at the skills of the staff and the effectiveness of the equipment

### 20 Intercept and destroy

A new Royal Navy missile defence system will be able to intercept and destroy enemy missiles travelling at supersonic speeds. The missile itself will be called Sea Ceptor

### 22 Keeping Forces on the go

Chief of Defence Materiel Bernard Gray has praised staff for the role DE&S is playing in keeping the fleets of patrol and support vehicles working on Operation Herrick in Afghanistan

### 24 DE&S Ships faces the future

DE&S Ships is moving to a functionally-based organisation which will be formally launched on 2 April, allowing it to face a challenging future including delivering the *Queen Elizabeth* class aircraft carriers and Type 26 Global Combat Ship



Picture: Sgt Steve Blake, RLC

## cover image

A soldier from 2 Rifles supports Afghan security forces as they clear insurgents from an area to the west of Gereshk in Afghanistan. Around 250 British troops were acting in an advisory role to soldiers and police from the Afghan National Army and Afghan Uniformed Police.

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## NEWS

### 5 The future in black and white

The defence science and technology budget will be protected in one of the major decisions of the Defence White Paper published last month

### 7 500 up for Brimstone

The 500th Dual Mode Seeker Brimstone missile, a star performer on Operation Ellamy in Libya, has been delivered to DE&S

### 8 C-17 shows 'off-the-shelf' in action

DE&S is putting into action the Government's pledge in the White Paper to buy 'off-the-shelf' with an eighth C-17 transport aircraft for the RAF

### 10 UK and France move closer

Wide-ranging implications for DE&S have emerged from closer-co-operation on defence announced by the UK and France

### 11 A thumbs-up from the front

Recent upgrades to armoured tracked vehicles have been welcomed by troops using Warrior, Trojan and other vehicles in Afghanistan

### 12 Flares light the way forward

Newly-modified flares, more-user friendly to aircrews for seducing heat-seeking missiles away from their aircraft, are to be trialled this year

### 15 Innovative plans for test sites

A programme to look at the future of military test facilities in the UK has come up with a range of innovative commercial ideas

### 28 Portsmouth continues development

A large drilling rig is helping prepare Portsmouth for the Royal Navy's new aircraft carriers, at the same time as work begins on the second ship

# insiderguide

# Bernard Gray

## Chief of Defence Materiel



'While I can't promise an immediate end to the uncertainty, you can be assured work is advancing apace to develop the DE&S Interim Structure, which will be required to keep the organisation running effectively'

As we await a decision from Ministers on the Materiel Strategy and PR12, establish how VERS 2 will affect DE&S and start work on the organisation's Interim Structure, it seems an appropriate moment to reflect on the good work carried out by DE&S personnel in support of operations, current and future.

The scale of our achievement was brought home to me on my recent visit to Afghanistan, where I was able to see first hand the work undertaken in the Equipment Sustainability System Regeneration Facility. One of the largest facilities built in support of military operations since World War II, this truly impressive capability supports up to 26 armoured vehicles on which both military personnel and Defence Support Group civilians conduct deep repair and maintenance. This means that the vehicles and equipment required in theatre do not need to be returned to the UK for repair, which avoids considerable cost and increases the availability of crucial vehicles – Mastiff and Jackal availability is now as high as 93 per cent. Put simply, it saves lives.

In Afghanistan, one of the major issues facing us is the future redeployment of materiel, which will be a far more complex task than the drawdown from Operation Telic. The scale of the task will be immense.

Back in the UK, DE&S teams continue to deliver high-profile equipment to improve our fighting capability.

In a project being taken forward by Team Complex Weapons, the new Sea Ceptor missile system, which will equip Type 23 frigates and the future Type 26 Global Combat Ship, is being developed under a £480

million contract with MBDA UK. This missile system must be capable of reaching speeds of up to Mach 3 and dealing with multiple targets simultaneously across an area of around 500 square miles over land or sea.

You may also have seen the Prime Minister's recent announcement that the MOD is to buy an eighth C-17 aircraft, which will provide the Armed Forces with extra capability for transporting troops and equipment. The C-17 project team is now busy negotiating this purchase with the US.

An extra 100 Foxhound Light Protected Patrol Vehicles are also to be acquired, adding to the 200 ordered in 2010. Managed by DE&S' Protected Mobility team, Foxhound will allow troops to carry out a wide range of tasks in environments that may restrict larger, heavier vehicles.

Projects such as these demonstrate that DE&S is continuing to deliver the capability required by the Armed Forces despite the fact that we are also facing a period of considerable change. While I can't promise an immediate end to the uncertainty, you can be assured work is advancing apace to develop the DE&S Interim Structure, which will be required to keep the organisation running effectively in the run up to the wider reforms proposed under The Materiel Strategy. This project, led by Chief of Staff Simon Cholerton, will seek to make the best use of all staff before the broader changes associated with The Materiel Strategy take effect. Your team leaders are already involved in this work with the aim that the Interim Structure will begin to take shape from this summer.

THE DEFENCE science and technology budget will be protected to ensure the UK continues to develop cutting-edge new techniques and equipment to give our troops the edge in battle.

Science and technology spending is planned to stay at 1.2 per cent of the annual budget in a Government White Paper, *National Security Through Technology*, unveiled on 1 February.

The Government has set out how it will provide the best equipment for UK Armed Forces and security services and achieve best value for money for taxpayers. It provides clear principles that will underpin the relationship with industry as the MOD invests more than £150 billion in military equipment over the next decade.

The White Paper follows a commitment in the Strategic Defence and Security Review to outline the Government's future approach to working with the defence and security industries. It has been developed jointly by the MOD and Home Office, following extensive consultation.

Minister for Defence Equipment Support and Technology, Peter Luff, said: "Our Armed Forces must continue to have innovative, high-technology equipment to give them a battle-winning edge, so we will support the development of defence technology directly and protect the amount we spend.

"We had to take tough decisions but we are now close to achieving a sustainable and balanced budget for the first time in decades. This will mean we can start ordering new equipment for the Armed Forces with confidence and will help provide the clarity industry needs to invest in the right areas.

"We plan to spend over £150 billion on defence equipment over the next ten years. We will strongly support responsible exports, increasing the market opportunities for all defence and security companies and encouraging them to invest in the UK. If we can save money and get the capability now rather than later, our budgets will go further and the country will be better defended.

"Britain's smaller businesses are the breeding ground of genuine innovation, developing new technologies that provide our front line forces with battle-winning advantage. Last year the MOD spent almost £1 billion directly with smaller businesses and we want to see that figure grow. We will strengthen the ability of smaller firms to compete for defence and security contracts, making sure their innovation is fully tapped."

Crime and Security Minister James Brokenshire said: "The recommendations in the White Paper will help us assist UK-based suppliers in obtaining export orders and increasing opportunities for small and medium-sized enterprises.

"A healthy and competitive UK security industry – building on our experience hosting the Olympic Games – will help contribute to growth and

The front line, where national security often begins: UK troops on patrol in Afghanistan

# UK national security is spelled out in black and white

Government Paper pledges to keep science at heart of military equipment

support our national security objectives.”

The White Paper, along with the MOD's ten-year equipment plan – to be published later this year – will set out the military equipment programme the Government will undertake and how the MOD will work with industry.

The White Paper discusses the underlying concepts of sovereignty and explains how future international acquisition programmes will be set up,

The White Paper includes plans to:

❑ **Protect the essential science and technology (S&T) budget** – To ensure UK Armed Forces continue to have state-of-the-art techniques and equipment, the MOD is prioritising investment in S&T. The White Paper states the Government's intention to halt years of decline in spending on defence S&T by maintaining spend at least at the current 1.2 per cent of MOD's budget, spending more than £400 million each year.

❑ **Support exports** – The defence sector is vital to the success of the UK economy. The MOD will help all UK-based suppliers obtain export orders and promote products abroad while protecting UK security and core values of human rights and democracy. Ministers will be closely involved in supporting defence and security exports; exportability will be built into new acquisition requirements; co-ordination across Government will be improved, and new arrangements developed to provide the training that overseas customers often seek.

❑ **Encourage Small and Medium Enterprises** – SMEs are currently awarded 42 per cent of MOD equipment contracts worth almost £1 billion per year and many more contribute to defence and security programmes as subcontractors. New measures in the White Paper will make it easier for smaller contractors to compete for Government tenders, help them to develop new products and provide expert advice to help them export.

emphasising the Government's preference for bilateral programming where possible.

It also examines the future of Government in-house and science capabilities, international collaboration on science and technology and wider Government action to address the skills agenda.

Recognising the wider impact that Government spending choices on defence and security can have, it announces the establishment of a new ministerial working group to co-ordinate the cross-Government aspects of the new approach.

This White Paper is part of a broader approach to defence transformation which encompasses Lord Currie's review of Government Single Source Pricing Regulations and The Materiel Strategy, which will transform the MOD's equipment buying procedures making them more cost effective and efficient.

## Help for SMEs

❑ To enable firms to meet potential bidders, the Next Generation Estate Contracts (NGEC) team is running special networking sessions and has created an online 'Potential Bidders Directory' which provides contact details for organisations with a registered interest in each contract, so that SMEs may approach them;

❑ MOD now advertises lower value contracts, which may be more attractive to SMEs, on the Contracts Finder website;

❑ MOD has revised internal guidance to ensure that SMEs are not rejected on the basis of rigid turnover-to-contract value ratios without proper assessment of their actual capacity and potential;

❑ A dedicated SME group in the new Defence Suppliers Forum has been created, chaired by an MOD Minister, to provide a better 'voice' for small suppliers.

❑ The Centre for Defence Enterprise (CDE) has successfully provided access to the defence for innovation SMEs, and the White Paper builds on this to broaden its remit to cover security and seek ways to provide even more support to SMEs, particularly on bringing potential products to market.

The White Paper is available at <http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/PolicyStrategyandPlanning/NationalSecurityThroughTechnologyCm8278.htm>

## NEWSREEL

**Port still under review**

ASSESSMENT on the future of Marchwood Sea Mounting Centre, the military port close to Southampton, is still being carried out. Peter Luff, Minister for Defence Equipment, Support and Technology, has repeated the MOD no longer needs to retain ownership of the port. Sale options and alternative UK locations to ensure value for the taxpayer are still being looked at, he has told Parliament.

**Strategic alliance**

TORCHLIGHT Solutions and Optima Defence and Security have formed a strategic alliance, providing a combination of Counter-IED experts to meet the ever-increasing range of complex global threats. Their combined client base includes key organisations within defence, security, wider Government agencies and high-end defence manufacturers.

**Mortar deal**

BAE Systems and General Dynamics Ordnance and Tactical Systems have teamed up to develop, demonstrate, and produce the 81mm Roll Controlled Guided Mortar (RCGM), an affordable precision mortar round. The companies have been maturing the guided mortar technology over the last 12 months and will be conducting tactical demonstrations this year.

# 'Thank God for decent kit'

## Equipment saves soldier in double bullet strike

A BRITISH soldier has twice narrowly avoided injury thanks to his world-class equipment.

Lance Corporal Denis Larubi, from 2nd Battalion, the Mercian Regiment was twice shot at by insurgents while on sentry duty in Nahr-e Saraj, Afghanistan.

The first shot struck ballistic glass in the guard tower right in front of his face, but could not penetrate the toughened window.

The next day he was shot at again, but this time the shot ricocheted off his weapon and hit the shoulder of his body armour.

The 30-year-old said the round had thrown him to the floor after it ricocheted off his weapon and hit the armour.

"The bullet had hit the handle of my sights that I had been looking through at the time and splintered off a shard of plastic, which pierced my drink container. The bullet then ricocheted and hit me on the left shoulder.

"Thank God for decent equipment."

The news was greeted with delight by Colonel Peter Rafferty leader of DE&S' Personal Combat Equipment team.

"Once again the UK's investment in the best possible personal protective equipment has stood the test of combat," he said.

"Incidents such as these reinforce the importance of our



Lance Corporal  
Denis Larubi

work and motivate my largely civil service staff to continue to do the best they can on behalf of our brave servicemen and women."

Denis was born in Uganda

and has served with 2nd Battalion the Mercian Regiment (Worcester & Sherwood Foresters) since March 2006 as part of the Reconnaissance Platoon.

## New tankers will back up Navy's global reach





Picture: MBDA

## 500 up for Brimstone

### MBDA UK praised as high precision 'weapon of choice' shows its reliability

THE 500TH Dual Mode Seeker (DMS) Brimstone missile has been delivered to the MOD.

The missile, introduced into service in December 2008, has become the weapon of choice on operations for Tornado GR4 crews engaging fast, manoeuvring targets and those close to civilian or friendly areas.

It came of age on Operation Ellamy last year, proving itself in built-up areas against armoured and other targets which could not be engaged with any other weapon available to Nato forces.

Squadron Leader Chris Higgins of the Surface Attack (Medium) team at Abbey Wood said: "This is a significant milestone for DMS Brimstone. Reaching this total so quickly has been made possible by the excellent effort made by MBDA (UK), who drastically accelerated

the manufacture of DMS Brimstones in 2011 to support Operation Ellamy, which also ensured that a robust stockpile is now available for Operation Herrick.

"DMS has become a success story for the RAF and DE&S, thanks to the full support it has been given from factory to front line. This support includes the wider RAF community, DE&S and the MOD capability sponsors."

Brimstone's high precision is made possible by the laser/millimetric wave Dual Mode Seeker, developed under an Urgent Operational Requirement, while the warhead minimises risk of collateral damage yet is effective against heavy armour.



More than 200 missiles have been fired operationally, with an accuracy and reliability rate both well above 90 per cent, which makes it the most reliable weapon available to the RAF.

DMS Brimstone is deployed on Operation Herrick with Tornado GR4 and is scheduled to be replaced by Brimstone 2 next year.

Above: DMS Brimstone, which performed impressively in operations over Libya last year

A NEW fleet of 37,000-tonne tankers are to be ordered to sustain Royal Navy ships around the globe.

The new Military Afloat Reach and Sustainability (MARS) tankers, pictured left, will maintain the Navy's ability to refuel at sea and provide fuel to warships and task groups.

They will support deployed amphibious, land and air forces close to the shore and operate helicopters. They are planned to enter service from 2016, replacing existing Royal Fleet Auxiliary (RFA) single hulled tankers.

At more than 200 metres long, the four tankers will pump enough fuel to fill two Olympic-sized swimming pools in an hour.

Minister for Defence Equipment Support and Technology, Peter Luff, announced that Daewoo Shipbuilding and Marine Engineering

(DSME) is the Government's preferred bidder at £452 million.

British companies took part in the competition, but none submitted a final bid for the build contract. In light of this, the best option for defence and value for money for taxpayers is for the tankers to be constructed in South Korea by DSME.

UK companies will however benefit from £150 million of associated contracts comprising:

- £90 million on UK contracts for the key equipment, systems, design and support services. The winning design is being provided by UK company BMT Defence Services;
- £60 million investment in the UK from customisation, trials and specialist engineering support.

□ Hundreds of MBDA (UK) workers at Lostock in Lancashire have been thanked for their efforts in supporting Operation Ellamy.

The factory produces complex weapons including the Dual Mode Seeker Brimstone missile.

"Brimstone has a reputation for its accuracy and reliability, and the use of this missile alongside the RAF's other air-to-surface weapons was of key importance to the success of the operation to liberate the country," said Peter Luff, Minister for Defence Equipment, Support and Technology, pictured left.

"Throughout this time staff at MBDA provided exemplary support in ensuring that this capability was available for use at all times."

MBDA UK managing director Steve Wadey said: "Dual Mode Brimstone has been a real success story in showcasing the innovative capabilities that MBDA delivers to the front line and we are delighted to mark the 500th delivery.

"We believe this milestone highlights the continued success of Brimstone and the Minister's visit is a welcome recognition of the contribution MBDA and its employees make to the Armed Forces and their operations."

## NEWSREEL

## Firms tie up

SYSTEMATIC and AgustaWestland have signed a Heads of Agreement to jointly explore business opportunities worldwide. The two companies will also work towards integration of the SitaWare range of systems with AgustaWestland's helicopters and help Systematic with development and marketing of its products and services.

## Dog Olympics

THE MOD has been asked to provide search dogs to help with security at the Olympic Games. These are being trained by the Defence Animal Centre, and no military working dogs will be withdrawn from Afghanistan, Armed Forces Minister Nick Harvey has said.

## Tom moves up

TOM Enders takes over as chief executive of EADS when Louis Gallois steps down on 31 May. Arnaud Lagardere will become chairman on the same day while Fabrice Bregier will succeed Mr Enders as Chief Executive of Airbus.

## Lessons learned

'A short take off and vertical landing approach to Capability Disposal' – lessons learned from Harrier – is a Learning from Experience seminar on 12 March from noon to 1.30pm in the Central Facilities Building lecture theatre at Abbey Wood. Bookings through e-solutions' events booking system.

## 'Rising costs trend has been halted'

THE TREND of vast cost increases in defence programmes has been halted, thanks to the current radical reform programme.

Defence Secretary Philip Hammond said that the MOD was close to eliminating the black hole in its finances and there would soon be an affordable, deliverable programme for the future announced. "This will see us invest more than £150 billion in the right equipment for our Armed Forces while achieving value for money for UK taxpayers," he said.

Mr Hammond was answering criticism from the House of Commons watchdog the Public Accounts Committee who said the total cost of the 15 largest defence projects had continued to rise in 2010-11 by almost £500 million.

The committee's Margaret Hodge, who welcomed signs of improvement in the MOD's management of the projects, said cancellation of the Nimrod aircraft had wasted £3.4 billion while delays to the *Astute* submarines had increased costs by almost £2 billion.

"Scrapping the ill-fated Nimrod MRA4 was one of many tough but necessary decisions we had to take," said Mr Hammond. "The aircraft were more than eight years late, almost £800 million over budget, and the unit cost of each aircraft had soared by 200 per cent, with no guarantee they would ever be fit to fly."

"The *Astute* programme is now on a much firmer footing with the first boat in service and the second due to leave Barrow soon."



Vital airbridge: troops embark on C-17 no 7 which was delivered to the RAF last year

## 'Off-the-shelf' in action

DE&S HAS wasted no time in putting into action the Government's pledge to buy off-the-shelf equipment by ordering an eighth C-17 transport aircraft.

The newest C-17 is due off Boeing's production line this month and should be in service with the RAF in July.

The extra C-17 will help to support the airbridge which transports Armed Forces personnel and equipment between the UK and front line operations.

Prime Minister David Cameron announced the purchase on 8 February, a week after the publication of the Government's White Paper on defence, pledging to buy more equipment 'off-the-shelf'.

The aircraft, which will cost £200 million, will be based at RAF Brize Norton in Oxfordshire along with the other aircraft in

## New C-17 puts Government pledge into early motion

the fleet which are operated by 99 Squadron. The multi-million pound C-17 aircraft can fly more than 4,500 nautical miles, meaning it can fly directly from Helmand Province to the UK.

Defence Secretary Philip Hammond said: "The C-17 has shown its worth in Afghanistan ensuring that our troops are given the fastest, most efficient passage home."

"It is a vastly impressive aircraft that can carry three Apache helicopters, or take a whole Chinook helicopter.

"This latest addition to the RAF fleet will further strengthen the vital airbridge between Britain and Afghanistan, ensuring critical deliveries are made to the front line.

"Buying equipment off-the-shelf allows us to quickly deliver equipment that our troops need on operations at best value prices for the taxpayer and is a great example of the White Paper, announced last week, in action."

As well as transporting troops and equipment, C-17s can also be converted rapidly to offer intensive care provision in support of the aeromedical airbridge. One aircraft is on standby 24-hours a day to fly seriously injured personnel back to the UK at short notice.

The aircraft can also be deployed to help with humanitarian and disaster relief efforts around the world.

Our UK employees are proud to provide kit for Britain's armed forces. We design, manufacture and maintain fighter jets, armoured vehicles and naval vessels including the Typhoon aircraft, Scimitar light tanks and the Astute Class of submarine. But we're prouder still of the contribution and sacrifices made by our armed forces every day. Thank you.

# PROUD TO SUPPORT OUR ARMED FORCES.

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**BAE SYSTEMS**

## NEWSREEL

## Company activity

SERCO has won a number of multi-activity contracts potentially worth around £130 million to provide operational support, engineering and training services to the RAF and Naval Air Command. Included is a contract to continue support at RAF Northolt for up to seven years and one of up to five years for support at Royal Naval stations Yeovilton and Culdrose. Serco already supports the Merlin helicopter fleet at Culdrose. Serco also has a five-year contract to support activities at RAF Valley.

## Sonar supply

THALES UK will supply Sonar 2076 search and attack sonar – ‘eyes and ears’ – for HMS Anson, the fifth Astute class submarine, in a £30 million contract with BAE Systems Submarine Solutions. Thales will supply a complete sonar system, comprising inboard and outboard of the bow, fin, intercept and flank arrays, and associated inboard processing. Thales has now been contracted to supply Sonar 2076 for the first five boats – *Astute*, *Ambush*, *Artful*, *Audacious* and *Anson*.

## Lunch lecture

STEVE McCarthy, formerly Chief of Staff at DE&S, will be the speaker at a lunchtime seminar at Abbey Wood on 26 March. Mr McCarthy is now Director International Security Policy. Bookings to admin.hq@defenceacademy.mod.uk or 96161 4828

# UK and France closer on defence co-operation

THE UK and France have moved towards closer co-operation on defence in an agreement which will have wide-ranging implications for DE&S.

Projects including the Watchkeeper unmanned air system, the A400M future transport aircraft and sharing of submarine technologies are among those which will see the two nations moving closer together.

The moves were announced by Prime Minister David Cameron during a UK-France summit in Paris on 17 February where he was joined by Defence Secretary Philip Hammond and Chief of Defence Materiel Bernard Gray.

“The defence co-operation we have discussed today is real, it is substantial, it is going to make a big difference to the military capabilities of both Britain and France,” said Mr Cameron.

“We are similar-sized powers, with similar-sized Armed Forces, with similar ambitions. It is about

making the most of our existing capacity, as we will be combining and using it together. It is also about operational capacity, the ability to take action together, and it also covers the most sensitive defence areas of all, including, of course, the nuclear issue.

“It is, I think, a real breakthrough that we have made over the last two years and we are determined to keep pushing this forward.”

The two countries agreed to take forward planned co-operation on unmanned air systems following success in Libya and Afghanistan within a

long-term strategic partnership aimed at building a shared sovereign capability.

A jointly funded contract is expected to be placed with BAE Systems and Dassault to study the technical risks of the Medium Altitude Long Endurance (MALE) drone.

And France has confirmed its interest in the Watchkeeper system, recognising the opportunities this would create for co-operation on technical and operational support, and development of concepts and doctrine. The French will begin evaluation of the system this year.

French interest: Watchkeeper, pictured on its first UK flight



## And what it will mean for DE&S

□ A bilateral Joint User Group has been established for co-operation to inform A400M operating techniques and procedures for synthetic and live training. A common support plan will continue to be developed for the two countries' future A400M transport fleets.

Industry will be expected to offer an affordable in-service support solution. A contract will be negotiated with Airbus Military so integrated support is in place for the arrival of the first French aircraft in 2013.

□ A bilateral Memorandum of Understanding was signed in June 2011 to support submarine technology exchanges. Collaborative work will identify areas of technological co-operation and savings along with feasibility of a co-development of specific sonar equipment.

□ Plans are aligned for future Maritime Mine Countermeasures capabilities. The first step of an incremental approach will begin next year with a demonstrator/prototype of off board systems based on unmanned technologies. The Joint Project Office already established within OCCAR will begin a European competitive process in 2012 for a common assessment phase.

□ UK and France intend to adopt a co-operative approach to meet the need for future satellite communications services, considering they will form a core asset in any future beyond line of sight capabilities. A comparative study will be made this year to analyse different architectural options.

□ Joint interest is confirmed in the

40 mm CTA cannon that will equip armoured vehicles. Effort will be made to assure qualification by 2013, jointly promote the export of this system and the elaboration of a Nato standard.

□ Bilateral co-operation on Counter-IED will be strengthened. A high degree of interoperability will be demanded and a joint action plan will be elaborated this year to cover co-operative opportunities in the operations/capability/R&T domains.

□ The two countries plan a joint assessment phase this year on Storm Shadow/Scalp enhancement and initial studies on future anti-surface tactical missiles. A contract and an MoU is planned for development and manufacture of the Future Anti-ship Guided Weapon. Efficiency savings of up to 30 per cent are reaffirmed.



# Front line feedback keeps vehicles well on track

**‘Key memory was meeting those who put their lives on the line relying on our kit’**



RECENT UPGRADES for armoured tracked vehicles have received a resounding thumbs up from troops on the front line.

Warrior, CVR(T), Trojan and CRARRV are among those vehicles performing well on duty in Afghanistan.

That was the positive message to Tim Barnard, leader of DE&S’ Platforms team at Combat Tracks Group, who joined his requirements manager Lt Col Howard Pritchard on a tour of users in theatre, at the invitation of Col Al Thompson of Joint Force Support (JFSP).

“While much is said about

the logistic chain and getting spares to Afghanistan, the communications chain back to the UK can be very frustrating,” said Mr Barnard.

“In my case it affects our ability to support armoured tracked vehicles.

“What we learned was that our vehicles were performing extremely well after their Urgent Operation Requirement upgrades.

“Users were pleased with the vehicles and, due to their outstanding performance, the minor issues which they had were far down the pecking order

of challenges that the JFSP are facing.

“Our own focus was therefore welcomed and we came away with two pages of minor snags to resolve with the stakeholder community in the UK.

“My other key memories will be the flying time to get out to theatre, constant noise in the transit accommodation, visiting the forward operating base at Lash Durai by Chinook, experiencing the roll-over trainer in Bastion and last and foremost meeting those who put their lives on the line relying on the kit we provide.”

Above: DE&S’ Platform team leader Tim Barnard, pictured right, joins troops along with requirements manager Lt Col Howard Pritchard with the green hackle on his beret



Munitions guardians, from left: Simon Cocker (general manager, Bishopton), Ron Barlow (gate guardian designer), Jim Sheridan MP and Col Mark Vincent of DE&S

## MASS investment cuts munitions risk

BRITISH TROOPS will benefit from completion of a new £1.3m office building at BAE Systems Bishopton in Renfrewshire.

The new single storey office, constructed on time and to budget, will be part of the Environmental Test Facility (ETF) and was opened by local MP Jim Sheridan on 3 February.

The ETF helps de-risk military equipment before it is used on operations, by subjecting it to vibration, heat, cold, damp and other extremes, to ensure the equipment works reliably and safely under all conditions. Testing is designed to mimic the harsh conditions equipment can be subjected to in battle.

At the opening of the new facility, Col Mark Vincent, leader of DE&S’ Defence Ordnance Safety Group, said: “It’s pleasing to see the investment that’s now being put

in under the MASS (munitions acquisition, the supply solution) programme and the new facilities that have been developed as a result of the security that a longer term partnering arrangement gives.

“As leader for the Group which provides advice and assurance that all our munitions are safe and suitable for service use, it’s particularly good to see the facilities here.

“The tests in these facilities allow us to provide the assurance that our servicemen and women – when they are using weapons on training or operations – can have confidence that they will work properly and they will work safely. These tests could ultimately save lives.”

The site’s new gate guardian, called Airburst, is based on a shell’s trajectory and subsequent detonation and was the winning design in a BAE Systems competition.

## NEWSREEL

## Telecoms diploma

BABCOCK, which operates the MOD's High Frequency operations as part of the Defence HF Communications Service contract, has launched a new National BTEC-approved Advanced Diploma in Telecommunications. Under the contract Babcock staff transmit and receive messages for UK and Nato forces around the world. Staff, who come from a variety of backgrounds with few formal qualifications, have completed the first modules.

## Engine milestone

THE CTS800 helicopter engine, produced by the Light Helicopter Turbine Engine Company, a 50/50 venture between Rolls-Royce and Honeywell, has passed 100,000 in-service flight hours. The CTS family of engines powers a number of aircraft including the AgustaWestland Super Lynx 300, Lynx Mk9a and the AW159 Wildcat.

## Shelter deal

MARSHALL SV has delivered four shelters as part of a new air traffic control infrastructure DE&S is establishing in Afghanistan. The units will help sustain the Instrument Landing System and Distance Measuring Equipment, primarily for the RAF's fixed wing operations. The contract was placed by Thales UK to support an order from DE&S' Air Defence and Air Traffic Systems team.

A Chinook fires defensive flares as it comes in to land in Helmand Province, Afghanistan



# Safer flares light the way forward

NEWLY MODIFIED, safer flares are to be trialled by the RAF later this year.

The infra-red MTV (magnesium, teflon and viton) flares, which produce a spectacular combination of light, heat, smoke and gas, help to seduce heat-seeking missiles away from aircraft.

But they degrade over time due to corrosion of the magnesium powder fuel which reduces their performance. And a build-up of hydrogen gas inside can make them a risk to personnel.

DE&S' Defence General Munitions team has been leading the way along with the Defence Science and Technology Laboratory (Dstl), QinetiQ and others to come up with a safer flare. The modified flare has a longer storage and service life while still meeting high standards of performance.

"MTV flares produce

hydrogen during their service life," said the team's project manager for air countermeasures Gerry Lidyard.

"Other Nato nations have similar issues and have had bad experiences of this."

Flares can also degrade quicker – particularly in humidity or on the front line – if there is no air-conditioned storage.

"QinetiQ took forward the task of providing immediate risk mitigation by the introduction of a hydrogen getter sheet within the ammunition container while Dstl tackled the longer and more complex issue of reducing the problem at manufacture of actual MTV pellet," Mr Lidyard added.

The hydrogen getter sheet is able to absorb 12 litres of hydrogen, more than enough to ensure hydrogen levels remain safe throughout the manufacture to disposal life of the flares.

Jim Calloway, of Applied Energetic Technologies at

Dstl, said: "We did a lot of work to understand ageing of pyrotechnics in the late 1990s so the specific work on MTV flares was a natural extension.

"Working with universities helped us to understand the problem of magnesium corrosion, looking at the causes and investigating possible solutions."

Changing the manufacturing process and introducing a new corrosion-resistant magnesium alloy has resulted in the modified MTV flare, identical in performance, safer and with a longer service life.

Ground trials conducted on Dstl's track facility at COTEC Lavington have successfully demonstrated the flares meet all performance requirements.

The next stage is a series of air warfare trials on helicopters, transport and fast jets to confirm the flares' performance in the dynamic environment.

## Redundancy programme 'working well'

THE MOD has welcomed comments in a report which says its redundancy programme is working well and that reductions in civilian staff are good value for money for the taxpayer.

The National Audit Office (NAO) has praised the MOD for acting decisively in its redundancy and early release programme to reduce civilians by 29,000 and the Armed Forces by 25,000. It estimates the process will cost £0.9 billion and produce £4.1 billion in cost reductions.

But it has warned the urgent need to cut costs means the MOD is having to cut headcount in advance of planning in detail how it will operate in the future, thereby risking making current skills shortages worse.

Defence Secretary Philip Hammond said: "We recognise the risks the NAO identifies and are actively managing them.

"MOD civilians contribute to every aspect of defence in the UK, internationally and in theatre, and these necessary changes will be achieved mostly through reductions in recruiting and by not replacing those who leave. As with the military, compulsory redundancy programmes will only be used as a last resort."

NAO head Amyas Morse said in his report: "The MOD is in the difficult position of needing to maximise financial savings by cutting headcount before it has detailed plans for how it will operate in the future.

"The department has acted decisively, but runs the risk that it will lose skills that it needs, worsening the current skills shortage."

He added: "A more targeted approach is needed to restructure the workforce and retain the skills that will be required in future."

## DE&S unveils theme of 2012 industry event

DVD2012 – DE&S' principal industry event of the year – will have Land Open System Architecture as its major theme.

Through LOSA MOD intends to develop and encourage systems integration and interoperability so that it can have coherent military units for peacetime training and operations

Military units consist of soldiers, vehicles and headquarters/bases – for

each platform the MOD has produced or is producing a generic architecture (Generic Vehicle Architecture - Defence Standard (Def-Stan) 23-09 exists, and MOD are currently developing the Generic Base Architecture - Def-Stan 23-13 and the Generic Soldier Architecture - Def-Stan 23-12).

These are open standards which define interfaces to the essential

infrastructure, power and data and, additionally, in the case of headquarters/bases, water, waste and fuel.

They will be available to anyone wishing to build a sub-system that will connect to the infrastructure. This means sub-systems can be quickly and easily added to the platform or changed or upgraded as needed.

Standards are developed by MOD and industry and are mandated by the MOD for relevant projects.

For DVD2012, MOD is encouraging all participants to take account of the standards, allowing demonstrations to show how systems from different companies can be joined together through standard interfaces.

There will be a mock Forward Operating Base which will offer a good example of where systems such as toilets, kitchens, accommodation etc provided by different manufacturers can link to the power, data, water, waste and fuel infrastructure through the use of these standards.

Visitors to DVD2012 – to be held at Millbrook on 20-21 June – will see what the various participant systems are doing and how they are performing. It is hoped this will include imagery and streaming video.

### Land conference is set to be DVD prelude

DE&S IS holding a one day pre-exhibition conference on 19 June to discuss open architectures and systems in the Land domain.

The MOD will make an opening presentation on Land Open Systems Architecture with national and international industry and academia invited to present.

The conference will bring together military staff, government procurement agencies, research and development staff and industry from around the world.

Potential presenters should submit an abstract of no more than 220 words. Presentations are to be 20 minutes allowing 10 minutes for questions. Contributions are invited on three themes:

□ How can common open standards (such as the MOD's Generic Vehicle

Architecture) be effectively implemented and managed internationally?

□ What are the benefits and risks to industry of the MOD's adoption of open, modular and scalable architectures including viewpoints of Design Authority and Intellectual Property Rights (IPR)?

□ How can open systems be safely implemented and comply with security requirements? How can each system be verified and validated in initial build and after subsequent upgrades?

Abstracts must reach DESCSTLand-SciTech@mod.uk by midday 30 March. Successful applicants will be notified by 23 April when the final programme will be published.

NUCLEAR SUBMARINE HMS *Vigilant*, and Royal Marine Commandos who have recently returned from spearheading Operation Herrick 14 in Afghanistan, were on the agenda for the Prime Minister during a visit to Devonport last month.

David Cameron spoke to personnel and viewed specialist equipment used by 3 Commando Brigade in Afghanistan at Stonehouse Barracks, Plymouth.

On display was the Viking amphibious vehicle and also the Offshore Raiding Craft – an eight-seater gun-mounted boat used by Marines to quickly transfer personnel from a warship to the shore or another vessel.

Mr Cameron also spoke to 30 Commando Information Exploitation Group – around 450 specialists whose intelligence gathering in Afghanistan led to the discovery and destruction of 5,725kg of explosives, enough to make 800 Improvised Explosive Devices.

## PM's Devonport visit boosts base future

Mr Cameron was joined on his tour of the submarine by *Vigilant's* commanding officer

Commander Mark Lister and DE&S Director Submarines Rear Admiral Simon Lister,

and was shown some of the 16 missile tubes, machinery spaces, radio room and control room.

The submarine, which is usually based at Faslane in Scotland, is undergoing a three-year overhaul period which includes a refuel of the nuclear reactor power plant.

The Prime Minister praised the Armed Forces for their conflict role in a 'difficult and dangerous world'.

"I don't think you always know how proud the country is of you," he told members of 30 Commando.

"At the end of the Defence Review we are going to have a very capable Royal Navy with Royal Marines at the heart of it. The Government is fully committed to Plymouth."



David Cameron chats to Royal Marines on his visit to Plymouth

## Protector gets down to Antarctic work

*HMS Protector*, the Royal Navy's new Ice Patrol Ship, has arrived in Antarctica for the first time after her long sail south from Portsmouth.

Her first task within the frozen wilderness was to disembark stores and personnel for the British Antarctic Survey teams stationed on the Antarctic peninsula.

While in the British Antarctic Territory, a key part of *HMS Protector's* duties is to make contact with Antarctic base stations.

Since their arrival the crew have visited the Uruguayan base, Artigas, and the Argentine base, Jubany.

*HMS Protector*, formerly the ice-breaker MV Polarbjorn, has been leased on a three-year contract from Norwegian company GC Roeber Shipping.

She will continue taskings over the next few months, visiting bases, supporting scientific work and undertaking hydrographic survey work.

*HMS Protector* and her sea boats in Port Lockroy, Antarctica



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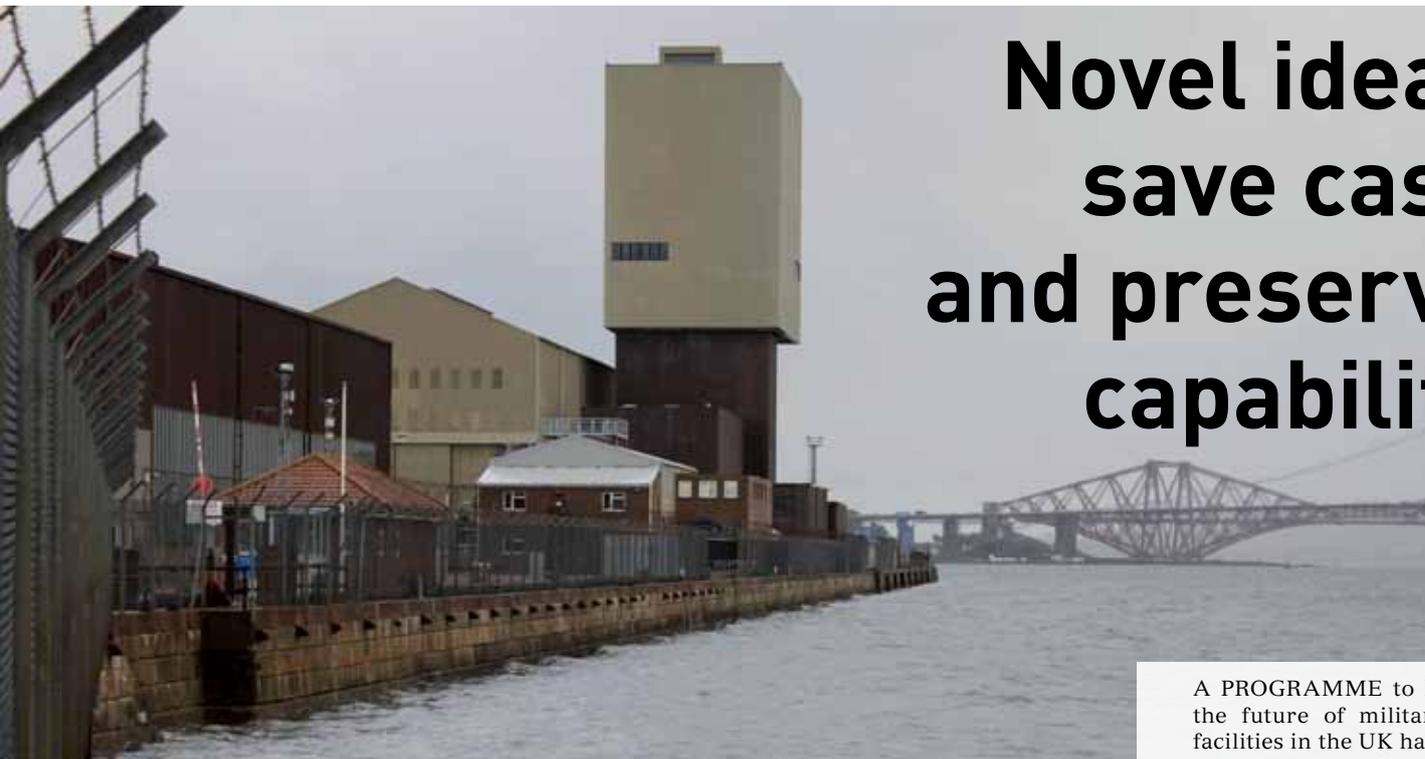
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**MARSHALL** **SDG**

CAPABILITY DEVELOPMENT

A Marshall Land Systems Company

# Novel ideas save cash and preserve capability



Rosyth South Arm, above – the tall building contains the Large Fatigue Chamber. The buildings will be demolished

A PROGRAMME to look at the future of military test facilities in the UK has come up with a range of innovative commercial ideas.

The facilities, including a Hypobaric chamber, a vehicle test track and a bridge test site, are run by QinetiQ on behalf of the MOD.

They have been used for research and supported by the MOD but demand for some of them has been declining.

Value-for-money solutions offered by the joint DE&S and QinetiQ team should cut spending to zero in the next couple of years.

Joint project leader Paul Jenkins, Commercial Deputy Head at DE&S Weapons, said: "There remains much still to do but the effectiveness and flexibility of the joint team has enabled the level of support being provided by MOD to reduce from about £9 million per annum to less than £1 million in 2012/13; the team is confident of reducing it to zero in 2013/14.

"In addition, QinetiQ has delivered each of the contracted programmes of work to time and within budget.

"The joint team, led by myself and Rick Hughes for QinetiQ, pays tribute to Tim Pinchen, who retires from the Defence Infrastructure Organisation this month, for his outstanding contribution to the success of this programme."

## Sites looking forward to a new future include . . .

❑ Bridge Test Facility at Christchurch (pictured right during last year's demolition) – a deal has gone through with the Quantum Group whose plans to develop the site include a large food store, public riverside walk and piazza/open space, community park, gym, cycle routes and footpaths, riverside coffee shop and 30 units of affordable housing.

❑ Vehicle Test Track at Hurn in Dorset incorporates a 2.5 mile vehicle test and trial track, a large tilt table and other facilities for testing wheeled and tracked vehicles and earth moving equipment. Discussions are taking place for its sale while preserving its current capability.



❑ Hypobaric Facility at Farnborough simulates the low pressure environments found at high altitude. Plans are to move it to Boscombe Down, where the MOD already picks up running costs, saving around 50 per cent. QinetiQ plans to let out the vacated space, leading to a general reduction in the company's overheads

❑ The South Arm at Rosyth, pictured at top of page, is also expected to be sold. The Large Fatigue Chamber (steel pressure vessel encased in 4,000 tons of stressed concrete standing 100 feet high) will be demolished. Smaller facilities including a noise and vibration trials lab and QinetiQ offices have already moved nearby.



❑ Removal of a heavy girder bridge across the River Stour at Christchurch, pictured left. A developer wants to build a new, modern pedestrian crossing.

## Advertisement



## Flex and Adapt

How do you manage support services across multiple locations with similar operational priorities and still achieve best value?

After all, services need to be able to develop and evolve rather than be stagnant and unresponsive to change. Yet the pace of and the need for such change may differ from one location to the next.

The answer lies quite simply in a flexible, partnership approach, where both sides recognise that change is necessary and work together to improve service delivery as, when and where it is required.

At Interserve, we respond to this challenge by constantly refining our offer; working with the MoD to create intelligent, tailored solutions that deliver the right service, wherever the location.

Partnership and adaptability underpins all our work with the MoD. It gives opportunities for continuous improvement, provides the means to address change and prevents issues from developing into problems.



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## Training estate bidders are unveiled

FOUR BIDDERS have been shortlisted for a new contract to manage the Defence Infrastructure Organisation's (DIO) UK training estate.

The National Training Estate prime contract is worth up to £950 million, covers approximately 200,000 hectares, and will provide services ranging from managing air weapons ranges to providing laundry services or clearing snow and ice.

Key sites will include Salisbury Plain Training Area, Catterick Training Area, Dartmoor, Sennybridge, and Otterburn. The MOD has also created an option for elements of the Reserve Forces' and Cadets' Association (RFCA) estate to be included in the contract scope.

The shortlisted companies are:

- Babcock Support Services Ltd
- Kellogg Brown & Root Ltd and Balfour Beatty Workplace Ltd
- Landmarc Support Services Ltd
- Serco Ltd, BAE Systems Surface Ships Ltd and Kier Regional Ltd

Colonel Christopher Sloane, Commander

Defence Training Estate, said: "Military training is vital to the success of operations, which is why we need to provide excellent training facilities that enable our troops to learn and develop the skills that are essential if they are to meet their operational commitments at the highest professional standard."

"A sound partnership with industry will be the key to supporting the training requirements of defence.

"Industry will play a major role in running and maintaining the training estate, so it is vital that we identify the best possible private sector partner for this significant commercial arrangement."

Steve Rice, Head of the DIO's Next Generation Estate Contracts programme, added: "This contract covers a significant expanse of the defence estate requiring a first-rate prime contractor that is ready to deliver innovation and value for money.

"I am pleased that we have achieved a strong shortlist of contenders; I would now urge smaller businesses to consider where and how they might contribute within supply chains, and to start liaising directly with the bidders."

## Viking back to the front



Amphibious vehicle heads back – this time to help out the Swedes

REAR CARS of 12 Viking all-terrain vehicles will be returning to Afghanistan – a year after they came back to the UK from the front line.

The cars will be joined to 12 front cars supplied by the Dutch to support a Swedish deployment as part of the International Security Assistance Force.

The UK's rear cars will be provided with their full set of applique armour.

To meet the requirement, a Government-to-Government loan of the 12 troop-carrying rear cars has been put in place

following negotiation between DE&S and the Swede's version of DE&S- Försvarets Materielverk.

The initial request was submitted to the Platforms team in DE&S' Combat Tracks Group.

The loan under the UK-Sweden Memorandum of Understanding has involved DE&S' International Relations Group and the Foreign and Commonwealth Office's UK Defence Attache to Sweden.

Agreement was also reached with the Royal Marines, who operate the Viking, and the MOD's Capability Sponsor.

"This loan is an opportunity

to build international co-operation with other potential users of the Viking," said David Stevenson, Littoral Platform Manager with Combat Tracks Group.

"As part of their force package Sweden decided to take Viking as a light protected mobility platform that meets the Swedish requirements."

Preparation of the vehicles was done in Sweden by BAE Systems Hägglunds AB.

On completion of operational use the UK vehicles will be uplifted to Mk2 standard at nil cost as part of the loan.

## Now Dauntless heads south on maiden deployment



DE&S' HEAD of Destroyers has praised the Type 45 community as the second-of-class vessel gets ready for her first deployment.

*HMS Dauntless*, pictured left, is set for the South Atlantic this month, following on from *HMS Daring* which is providing security in the Arabian Gulf and Indian Ocean.

"I would like to thank all those in the Type 45 build and support communities who have made this possible," said Commodore Stephen Braham.

"It has taken a significant effort to get *HMS Dauntless* to the start line of her deployment. I wish her commanding officer and her crew all the best, now and in the future."

## ... and here's the scenery she might find

Type 23 frigate *HMS Montrose*, to be replaced by *HMS Dauntless*, is pictured on her South Atlantic patrol

Picture: LA [Phot] Jon Hamlet



## Minister: why defence needs SMEs

PETER LUFF has formally opened a new environmental testing facility at Wimborne in Dorset.

The Testing Regulatory and Compliance (TRaC) laboratory represents a £2 million investment and greatly expands the company's existing test facilities to include chambers capable of testing equipment to a wide range of military standards by replicating challenging conditions.

Electromagnetic, climatic and mechanical conditions that might be encountered can be reproduced under exacting laboratory conditions to ensure survivability and reliability of equipment for military and civilian uses.

Recent MOD contracts have included testing on vehicles such as Husky and



Peter Luff, left, with TRaC chief executive Mark Heaven

Warthog and environmental and thermal testing of military radios and ECM equipment.

Test capabilities on site include shock and vibration, temperature, humidity and salt spray as well as load and fatigue testing. Sub-contract work includes

aspects of Warrior, A400M and the *Queen Elizabeth* class carriers.

Perhaps the most significant capability TRaC can bring to DE&S is a new reverberation chamber to carry out high intensity radiated field testing of aerospace systems, the majority of which has often been conducted outside the UK.

Mr Luff, Minister for Defence Equipment, Support and Technology, said: "TRaC Global is an exemplar of what we are talking about in the White Paper on Science and Technology. Defence needs SMEs more than any other area and continuing development is essential.

"The biggest growth area will be in modifying off-the-shelf kit, so the sort of work carried out at TRaC is really important.

"It's a real pleasure to be here and ticks all the boxes for me."

Ever wondered how effective the medical equipment provided by DE&S is on the Afghanistan front line? Or how good the staff who use it are?

David Willetts, defence correspondent of *The Sun*, joined the world's best trauma hospital for the daily battle to save lives during . . .

Every squaddie seriously injured in Afghanistan has the staff and equipment at the incredible Role 3 hospital's A and E ward in Camp Bastion to thank for keeping them alive.

The British-led team of 254 includes 85 Americans and 15 Danish staff.

The world-class medics treat around 30 patients each week. And it is thanks to them that 98 per cent of those who make it through the door still breathing manage to survive their injuries.

First in is a young British soldier with a bullet wound in his leg. The team was able to monitor the firefight where he was injured and as soon as he was hit a report was sent to the Emergency Department. As a rescue helicopter was scrambled, the medical team assembled.

Doctors, nurses, radiologists, anaesthetists and other experts gather in Resus Bay 3 while, in the room next door, surgeons prepare to operate in their state-of-the-art theatre.

Everyone dons heavy, lead-lined overalls as protection from the radiation emitted by the crucial X-rays about to be done.

Next the US paramedic who treated the soldier in the back of a rescue helicopter strides in and delivers a report on the medical status of the patient.

The medical team gets to work. A

battlefield tourniquet and field-dressing have stopped the bleeding. Millions of pounds worth of equipment and skills honed over many years now surround him.

Major Richard Yardley, of 1 Medical Regiment, is an A&E shift leader. The 40-year-old says: "This is like the medical equivalent of a Formula One pit stop. The guy changing the tyres is not thinking about the guy filling up the tank and vice versa. But they get on with their own job so, in minutes, everything is done."

Drugs and fluids are pumped into the soldier's system and a £100,000 Dart X-ray machine — which takes an instantaneous internal image of the soldier's chest — is swung into place. During this controlled flurry of action a reassuring nurse is quietly explaining what is happening to the soldier.

Within 20 minutes he is whisked to one of two CT scanners — the best money can buy at £500,000 each — which takes a 3D internal image. The hospital can even do a live link-up with Queen Elizabeth Hospital in Birmingham where another consultant, who will take over the patient's care in the UK, can view the images.

Just 45 minutes have passed since this soldier was shot on the Helmand front line. Within another ten minutes he is in

theatre and the wound is cleaned, set and bandaged. By the end of the afternoon he is on an intensive care ward.

Once a steel rod has been inserted to support his bone, he should be walking on a ward in Birmingham in less than a week.

Each individual at Role 3 — which sits in the middle of Camp Bastion, now the same size as Reading — receives more than 18 months of training to prepare for this six-month tour.

The result is the most slick and comprehensive war zone medical team ever assembled — and possibly the best trauma team on the planet.

The centre is packed with the best kit money can buy, making it as good, if not better, than any NHS hospital in Britain.

Emergency department nurse specialist Corporal Rob Dews is on his sixth tour of duty. He says: "Most of the guys can't even remember being here because they are in and out so quickly. But what we do here is a massive part of saving their lives."

"We are an elite team and all know our roles. If they get through the doors alive, they stay alive."

Five more patients come in that day — wounded Americans and suspected Taliban detainees — who, under international law, receive the same level

. . . 48 hours  
in Bastion

Article and  
pictures  
courtesy of  
*The Sun*



of care as coalition soldiers, along with a contract worker.

Day Two is full of more action. A British patrol has been hit by a deadly Taliban booby-trap bomb.

This time multiple casualties are being raced to the hospital on a Chinook helicopter. Concentration is etched on the faces of the team as they prepare to go into action.

Within six minutes of the blast the helicopter is airborne, and within 15 a casualty is back, preceded by a British paramedic who strides in to deliver his update.

A few short words of medical jargon and the Resus teams are fully briefed on their patient.

The soldier has tourniquets on both legs. A rapid infuser is on hand, capable of delivering two to three litres of blood to a patient per minute. This hospital has ten of these crucial, life-saving bits of kit. In fewer than 45 minutes from the first alarm being raised, the patient is being operated on. It is another success for the team.

But later that day tragedy strikes. A patient has suffered catastrophic battlefield wounds.

Fewer than 20 minutes after the first call the heavy thumping of a Chinook's twin propellers thunders overhead as

it comes in to land with the soldier on board.

Seconds later he is wheeled in and it is immediately clear how desperately ill he is. He has no pulse and no heartbeat.

The look in the medics' eyes is enough to instantly reveal he is slipping away.

As the soldier is pushed in one medic cranes over and performs CPR, hands clasped on the patient's sternum. He heaves down, forcing the heart to mechanically pump then pushing air into lifeless lungs.

Suddenly there is a flicker of hope. The vast amount of adrenaline put into his body causes the heart to convulse in erratic spasms. One of the lines on the medical screens starts to tremor.

But as quickly as the hope is ignited, it is snuffed out. The muscle is only reacting to the drugs.

Despite their heroic efforts, this soldier arrived dead. No piece of equipment and no doctor could have done anything to save him.

The room is returned to its original order, ready for the next inevitable patient.

Hospital Commander Colonel Peter Jackson leads the current unit, 208 Field Hospital. He has united his team under one goal — to prevent names being added to the list of war dead carved

into Britain's National Arboretum War Memorial in Alrewas, Staffordshire.

He says: "The last time I was in Afghanistan was in 2007. Before this mission I travelled to the National Memorial, where all the names of the fallen since the Second World War are written.

"We found our space for 2007 and my wife and I read out the names.

"I wanted to pass to the unit a simple objective — and that was to keep names off the wall. It's our single purpose. Ripping names off the wall is what we're all about."

And during our 48 hours with this incredible, hard-working team that is exactly what they did, relentlessly, despite the overwhelming odds.

❑ 45 minutes – time from battlefield to operating table

❑ 98 per cent – survival rate

❑ £100,000 – cost of Dart X-ray machine

❑ £500,000 – cost of CT scanner

❑ 30 – war patients treated a week



# Intercept and destroy – Sea Ceptor puts ‘rapid’ into Navy air defence

**A** new Royal Navy missile defence system will be able to intercept and destroy enemy missiles travelling at supersonic speeds.

A £483 million contract to develop this cutting edge air-defence system – known as Sea Ceptor – is being awarded to UK industry.

The Sea Ceptor concept will use a new UK-developed missile capable of reaching speeds of up to Mach 3. It will deal with multiple targets simultaneously, protecting an area of around 500 square miles over land or sea.

The system will eventually replace the vertical launch Seawolf which is currently in service with the Royal Navy's Type 23 frigates and set to go out of service in around 2016. It is also planned to be the principal air defence system on the Type 26 Global Combat Ship in the decade after 2020.

Sea Ceptor will be developed under a demonstration contract with MBDA (UK) that is expected to last for five years. It will sustain around 500 jobs in MBDA and its supply chain in places including Stevenage, Filton and Loughton.

The missile is at the heart of the maritime Future Local Area Air Defence

System, known as FLAADS.

Peter Luff, Minister for Defence Equipment, Support and Technology, visited MBDA staff at Filton on 30 January to discuss the contract.

He said: “The development of this missile system is a huge boost to the UK’s world-leading missile industry and once again proves our commitment to providing battle-winning technology to our Armed Forces. The introduction of this missile system will ensure that the Royal Navy will be able to continue protecting our interests wherever they may be. It is also highly significant in sustaining and developing the UK’s skill in building complex weapons.”

He was joined in welcoming the contract by Chief of Defence Materiel Bernard Gray, who warned that there was

no room for complacency when it came to providing the Armed Forces with the kit they require.

“Development of Sea Ceptor is testament to the forward thinking attitude of the MOD,” he said. “While we are committed to providing our Armed Forces with the kit they need now, it is also vital that we have one eye on the future and the threats that may face us.”

Award of the contract was described as a ‘major achievement’ for DE&S’ Short Range Air Defence team, by team leader Group Captain Mike Quigley.

“FLAADS, and the Common Anti-air Modular Missile now known as Ceptor,



**‘This will equip our frigates to deal with the type of sophisticated missile threat expected in the coming decades. Investment in advanced defence technology, such as Sea Ceptor, is vital to ensure the Royal Navy’s continued ability to defend the UK’s interests wherever necessary’ – First Sea Lord, Admiral Sir Mark Stanhope**

❑ Sea Ceptor is at the heart of the maritime Future Local Area Air Defence System (FLAADS) to equip the Type 23 frigate fleet from 2016 and for the British Army to replace its Rapier deployable air defence system. At the centre of both systems is MBDA's Common Anti-air Modular Missile (Camm).

❑ Ceptor is derived from interceptor, the role of the system to provide defence by intercepting incoming threats. The use of the Sea prefix is in line with the Royal Navy's convention for maritime guided weapon systems.

❑ The maritime FLAADS is the second major work package launched under the Portfolio Management Agreement signed between MBDA and the MOD in 2010. The agreement provides the ability for the MOD and MBDA UK to manage a range of weapons projects as a wider portfolio, thereby gaining significant efficiencies and flexibility.

❑ By partnering with industry through Team Complex Weapons, DE&S is ensuring that the UK maintains skills and technologies to provide the Armed Forces with the next generation of complex weapons. Team CW is made up of DE&S, MBDA (UK), Thales UK, QinetiQ and Roxel. It was created in 2006.

are at the heart of the Complex Weapons forward programme.

"Delivering the Team Complex Weapons strategy of 'commonality, modularity and re-use' of technology and equipment wherever practicable, Ceptor will also replace the Army's Rapier Ground-based Air Defence system towards the end of the decade and provide elements of ASRAAM's (advanced short range air-to-air missile) mid-life update.

"It's worth noting that this approach will avoid the prohibitive cost of running three entirely separate projects, as would have happened in the past.

"The FLAADS contract is the result of more than two years hard work and, in the current climate of defence cuts, the MOD's commitment to FLAADS and the Ceptor missile is welcome news for all three services."

MBDA's UK managing director Steve Wadey added: "The contract is a powerful example of how industry and the MOD can deliver together an advanced capability that meets military needs in the most cost-effective manner. It is also a highly significant step in advancing and sustaining the UK's mastery of complex weapons technology. Importantly, Sea Ceptor, ideally suited to the Type 26

Global Combat Ship as well as a wide range of other vessels, is highly relevant to other navies around the world who are looking for a next generation naval air defence system capable of countering the growing future anti-ship threat."

The company added that integration of Sea Ceptor is planned to reduce in-service costs of the missile system for the remaining life of the Type 23 frigates.

MBDA has already awarded Thales UK an £11 million contract to provide the laser proximity fuse for the missile.

Thales has traditionally supplied the majority of the proximity fuses for MBDA missiles, including Seawolf and Rapier.

**Report:** Hannah Swingler



# Keeping Forces on the go

**Chief of Defence Materiel Bernard Gray salutes staff for their role in keeping fleets of patrol and support vehicles on duty in Afghanistan**

**D**E&S staff have been praised for their part in keeping the fleets of patrol and support vehicles used by UK Forces on Operation Herrick on the road.

Chief of Defence Materiel Bernard Gray told staff at a series of town hall sessions at DE&S headquarters at Abbey Wood on 13 February that he had only recently returned from a visit to Afghanistan.

"It was a fascinating trip in many ways," he said. He was taken round the Equipment Sustainability and Regeneration Facility, a huge workshop at Camp Bastion which maintains and repairs vehicles on Operation Herrick.

"It's a bit like the Grand Canyon; you don't get a feel for it until you are in it," he said. "We are keeping the Armed Services on the road with availability rates as good as UK trucking companies, over 90 per cent availability in many cases. And it means we are making a real difference to saving peoples' lives. It is a tremendous success story and DE&S staff involved should be proud of what they have achieved."

Mr Gray said that, while support to operations is continuing, how we will bring back military equipment once operations end is also being considered.

And the task is likely to be more

complex than Operation Brockdale, which repatriated a large amount of materiel from Iraq.

"As we approach 2014 it will become an increasing priority for us," Mr Gray said. "We will have to focus people on that at the same time as the combat mission."

"This will be much more complex than the drawdown from Iraq where we used Kuwait."

"The withdrawal from Afghanistan will be a huge logistical challenge, particularly for Logistic Commodities and Services and Defence Support Chain Operations and Movements. We have a very significant amount of materiel out there."

On the future structure of DE&S, Mr Gray told staff that the Secretary of State's views on the pre-Christmas Materiel Strategy submission were awaited. In the meantime Mr Gray confirmed that work was underway on the Interim Structure and that the aim was that this would lead to introduction of changes by the end of the summer. Led by Chief of Staff Simon Cholerton, the Interim Structure project is seeking to make the best use of people before the wider reforms of The Materiel Strategy are introduced.

It will take into account the large

reduction in staff numbers expected as a result of voluntary early release (VERS) and any resulting staff imbalances across the organisation. It will be implemented in three phases; the first phase, completed in February, is an analysis to understand the impact of any potential cancellations or pauses in projects and to identify low-value tasks and processes. Mr Cholerton is currently gathering the data from around 200 questionnaires which have gone out to project team leaders.

The second phase in April will see DE&S' Board considering the results and looking at what corporate level efficiencies can be implemented.

The third phase in May and June will be working up the interim structure by planning with Operating Centre Directors. This will include plans to reduce posts to match tasks over the next three years so DE&S will be capable of delivering to its agreed outputs. This will also ensure the organisation remains safe and professional in the run up to reforms under The Materiel Strategy.

On VERS, Mr Gray is hoping that all staff leaving under the two schemes will have left DE&S by the end of the year. The last leavers from VERS 1 will depart by the end of March, followed by the first VERS 2 leavers by the end of June.

"The aim is to complete VERS in





DE&S this year," said Mr Gray. "I don't think it is in anybody's interests to stretch it out longer than that. We have a large amount of people who want to go in 2014. If you want to stay you are welcome, if you want to leave, then I think it is in everybody's interests to depart by the end of 2012."

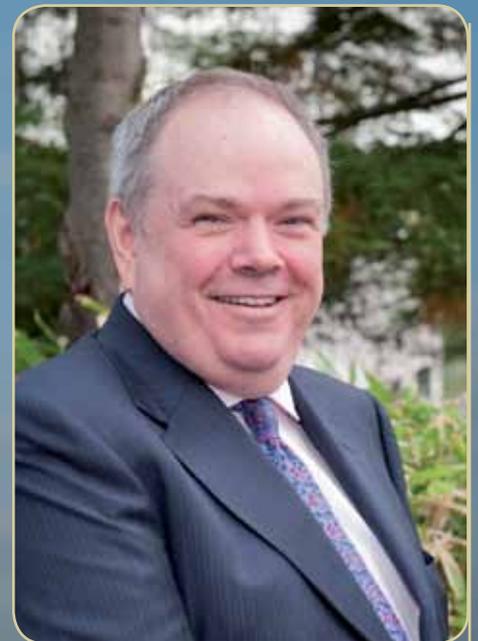
So far an analysis of operating centres has put the potential staff reductions at about 20 per cent. Decisions on how DE&S makes up a shortfall by 2015 will be determined by the outcome of Planning Round (PR) 12, which is due to be announced in the near future. PR12 might lead to some adjustments, which could free people for other tasks, or DE&S could consider stopping lower-priority tasks or looking at working in different ways.

Finally, Mr Gray described the Government's February White Paper

as "a shift in emphasis rather than revolution. There's a commitment to open competition in the domestic and international market place; a drive to minimise the specialist development required. If there are solutions out there available to us then we can use any money saved to invest in more front line capability," he said.

He added there was also a desire to encourage small and medium-sized enterprises (SMEs) and he pointed to a company he had met who had made its business with the MOD – supplying the suspensions for the new Terrier engineers' vehicle – the basis for success in the export market. "We need to try to make it less onerous for SMEs to do business with us," he said. "They do have a lot to offer and they can offer us some agility if we can work with them."

Above: more than 3,500 vehicles have been serving in Afghanistan. Keeping them available for operations has been a 'tremendous success story,' according to Chief of Defence Materiel Bernard Gray, below



# All change at Ships

DE&S Ships moves to a new structure on 2 April, continuing the transition to a more functionally-based organisation. Director Ships Tony Graham sets out the context to *Steve Moore*

DE&S' ships operating centre is facing big challenges, among them delivering the *Queen Elizabeth* aircraft carriers to fulfil the requirements of Future Force 2020 and preparing the ground for the Type 26 Global Combat Ship early in the next decade. All this while still supporting a busy Royal Navy schedule and against a backdrop of declining staff numbers and budget constraints.

From next month the organisation will deliver and support ships through a simplified structure of three one-star led output teams responsible for delivering platform capability – one each for acquisition, support and commercial shipping, supported by a number of functional teams.

On acquisition, Mr Graham said: "One of our big challenges has been building two aircraft carriers alongside the Type 45 destroyers, which is a very large spike in terms of activity, followed by a big drop in activity. No-one so far has owned that issue. We need to get a single person focussed on it.

"Type 26 is another strategically important acquisition programme as frigates are the workhorses of the Royal Navy," he said. The team will be looking for value for money in managing the overall programme. Industry will need to show they can deliver success and affordability.

On support, Mr Graham said "We have been moving towards a strategic decider-type function by outsourcing activity to industry," he said. "Reducing costs in shipping support tends to be driven by better planning, which comes from better work allocation, and speed of decision making at the waterfront. Rather than a ship fitter writing a note to HQ and waiting for a decision on whether something should be repaired, they will be empowered to make those decisions. By speeding up decisions you stop the waste of unplanned activity. By separating out acquisition and support, the future support organisation will have a single one-star post whose job it will be to bring coherence to the waterfront from a DE&S perspective."

The third area is Commercial Shipping: from the Royal Fleet Auxiliary to training ships and small boats, there are many types of ships where support activities are competed for. "This is where I want to bring in innovation," he said. "It's an area where I'm going to experiment, making the most of our opportunities to exploit competition to maximise efficiencies."

Alongside the three one-star led output teams Mr Graham is addressing challenges of reduced staff numbers and loss of skills, particularly in engineering, by pooling skills in functional teams. "As you transact more work to industry, clearly we do less of the 'doing'. We used to have close relationships with dockyards and research establishments which would feed suitably qualified and experienced personnel into this organisation. As those people retire it is increasingly important we manage the skillsets we do have in a more flexible way."

Two functional teams – Maritime Combat Systems and Maritime Platform



The new structure will consist of three output teams responsible for safe, capable and available ships:

Ship Acquisition team

Ship Support (Alliance) team

Commercially Supported Shipping team

These will be supported by five enablers:

Maritime Combat Systems team

Maritime Platform Systems team

Ships Commercial team

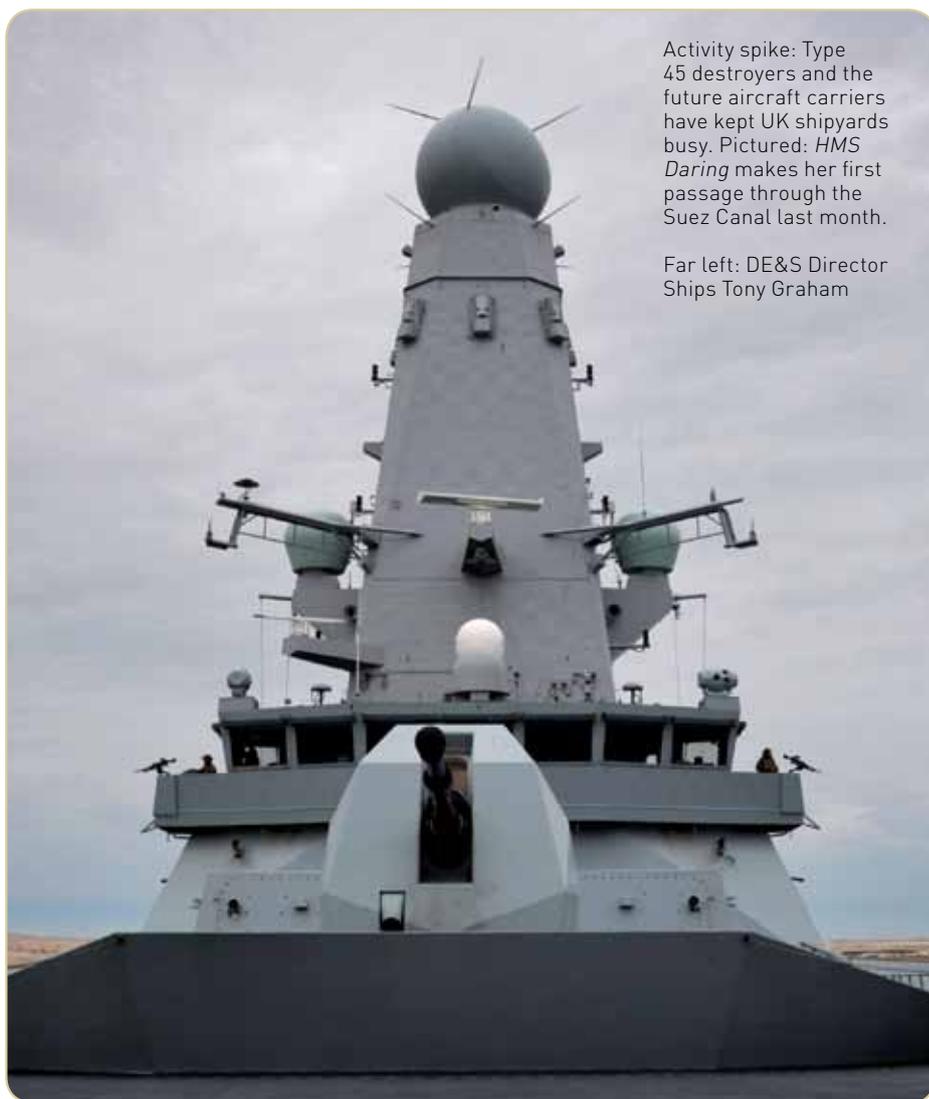
Ships Finance team

Ships Programme Office

Systems – will have an engineering focus, and will also include equipment project teams. Mr Graham added: “This is where we’ll get some commonality of resource management and it ensures a through-life perspective in the organisation. We want to get back to better career management. Commercial and finance functions have long-established routes for developing their people; engineering has not been as well blessed in terms of managing these important skills. And they are also quite hard to grow with industry doing more of the engineering.”

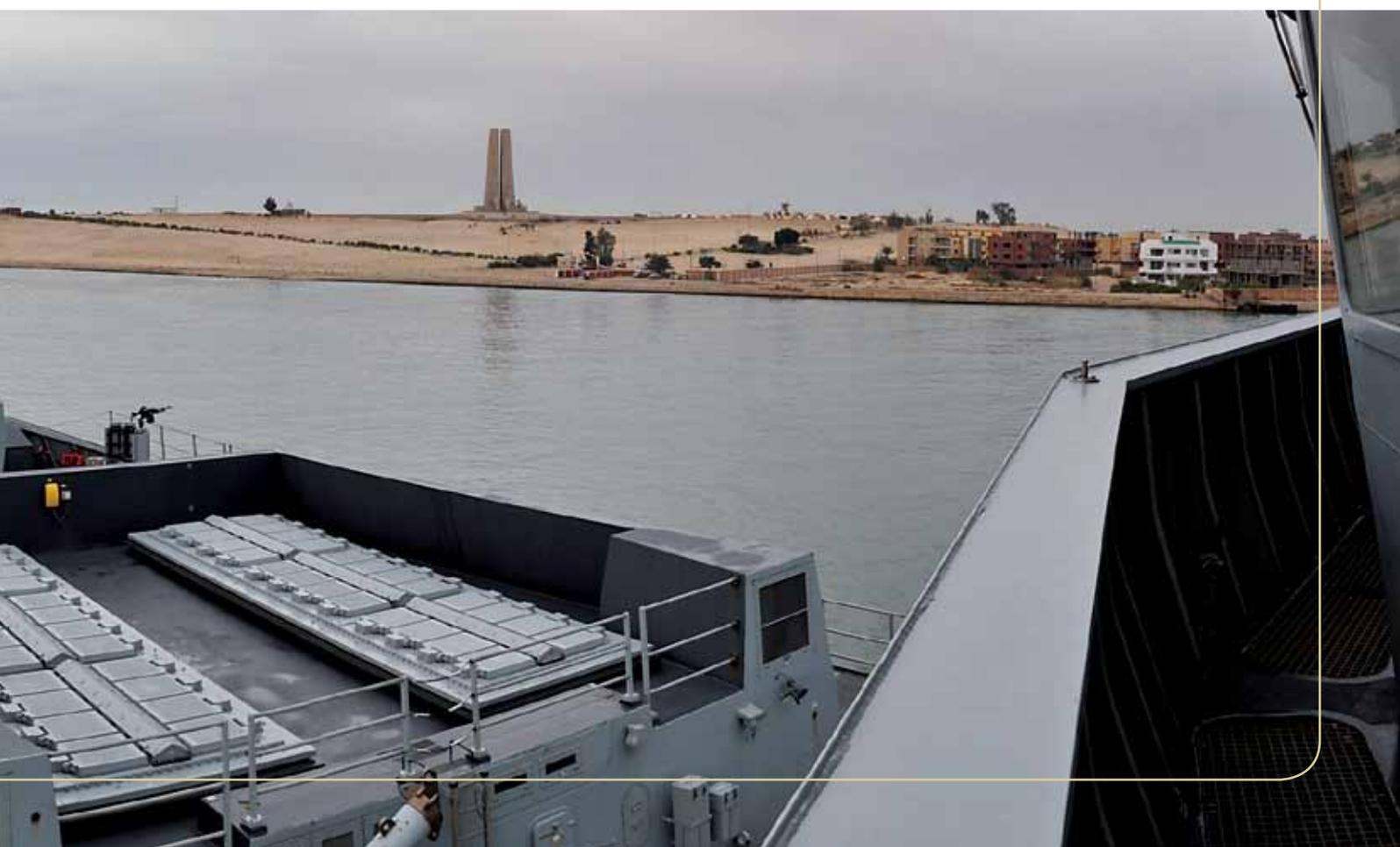
The new structure includes a strengthened programme office, managing the forward programme for the whole Ships Operating Centre and providing a more robust idea of the

■ continued on page 26



Activity spike: Type 45 destroyers and the future aircraft carriers have kept UK shipyards busy. Pictured: *HMS Daring* makes her first passage through the Suez Canal last month.

Far left: DE&S Director Ships Tony Graham



■ continued from page 25

future workload. "That will allow us to react more quickly when you get the very regular 'what ifs' of planning rounds, or when a ship deploys or is unavailable, or we have to get round the loss, as we have recently, of major platforms," said Mr Graham.

"The programme office will allow me to better manage my business. As part of that we are challenging it to develop new tools for planning and financial management that links the plans with our resources and our people."

Industry has reacted positively to the simplification of the structure with BAE Systems putting greater delineation between their build and support operations and Babcock reflecting similar thinking in realigning their own management structure. The Royal Navy is doing likewise with its waterfront management. "I am a great believer in keeping things simple," said Mr Graham. "And this allows everyone to have clearer accountability, clearer definition of responsibility and better empowerment. It's a lot easier to make decisions when people have the authority and a singular focus, and simpler communication allows for more effective business decisions."

With high profile operations like the Queen's Diamond Jubilee and the London Olympics looming, on top of the round of worldwide ship deployments, the Royal Navy remains active. "The programme



remains buoyant and it's important our people identify with the organisation and believe it has a future. This organisation has to invest heavily in skills and that's why I am excited about The Materiel Strategy, because I believe Bernard Gray has a clear vision about the future, the importance of bringing in a strategic partner and the internal investment for future skills development of the workforce." Meanwhile, Director Ships recognises that the Materiel Strategy Interim Structure work currently underway across DE&S may lead to further changes, just as they may in other Operating Centres.

He said: "I believe the Ships team understands the genuine commitment of senior management. We are trying to walk the talk. I know there's bound to be scepticism too until we deliver on promises. But all I can say is that when I

come into work, the first thing on my mind is 'how do we make it work for our people?'"

In 31 years of working in acquisition Mr Graham says he has never been in a team that has disappointed him. "I still believe we have high calibre people, highly motivated to deliver good outputs and I remain completely enthused that I have so many dedicated committed people with a huge range of talents which allow us to continually surprise our customer with our ability to rise to particular challenges," he said.

"When you look at the culture and the innovative nature of the organisation we have today compared to 30 years ago people are now far more adaptive to change, always far more willing to innovate. It's important we exploit that culture and our innate ability to deliver the required professional outputs."



Pictures:  
Andrew  
Linnett

Systems success: a contingent capability medical facility deployed on exercise in the UK



## ... and how it will apply to the front line

THE SOSA approach has been applied to the Future Chemical, Biological, Radiological and Nuclear protected role 3 medical treatment facility project with good results.

Brigadier Jon Britain, Head of Capability, Expeditionary Logistics and Support, said: "Taking a System of Systems Approach for the facility has enabled my team to accurately capture and describe all the medical capabilities and associated operational activities required to deliver this complex yet critical programme.

"The improvement in our understanding brought about by such an approach really helps us to better articulate requirements to a diverse group of DE&S delivery teams.

"I am confident that this will allow us to make best use of existing capability, will minimise the diversity of solutions and, overall, is fundamental to the delivery of coherent capability with increasingly constrained resources."

# DE&S moves forward in quest for smarter work

MANAGING COMPLEX defence systems through a common approach has moved a crucial step forward in DE&S.

The System of Systems Approach (SOSA), launched in 2010, aims to help manage delivery of complex systems through consistent systems engineering best practice. The result is smarter work, achieving better value for the defence budget.

DE&S Director Safety and Engineering has now announced new principles – contained in JSP 906 – to guarantee new defence equipment and systems are coherently planned, acquired and operated.

Design principles covering reuse, interoperability and business drivers aim to build coherent behaviours across the organisation.

Steve Hyde, Head of DE&S' Systems Engineering and Interoperability Group (SEIG), said: "I'm pleased with this JSP as it enables us to move towards the full scale adoption of SOSA across defence.

"It means that we will all have to perform our roles in a more collaborative way and that decision-makers will need to consider the consequences of changes across the entire defence enterprise, rather than just the project or programme level."

Implementing these design principles will help delivery teams to improve operational effectiveness while reducing total cost of ownership. Ultimately it will help DE&S to deliver more adaptable and agile systems better placed to deal with operational change.

SEIG is supporting Carrier Enabled Power Projection, Type 26 Global Combat Ship, and Future Role 3 Medical Treatment Facility, among others, as well as providing extensive analysis and support to the Capability Management organisation.

For further guidance about SOSA go to the SOSA Home Page on MOSS <http://cui6-uk.diif.r.mil.uk/r/864/SOSA%20Portal/default.aspx> or SOSA Front Door on Civ: 011791 33813, Mil: 9679 33813, email [DESSESEIG-Prog@mod.uk](mailto:DESSESEIG-Prog@mod.uk)

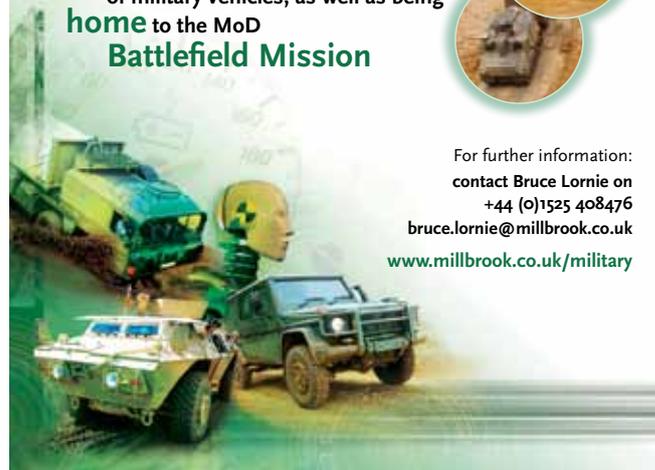
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# Drilling deepens Portsmouth's carrier preparations



While work begins on Prince of Wales

A LARGE drilling rig is playing its part in preparing Portsmouth for the Royal Navy's new aircraft carriers.

The rig Deep River is sampling the sea bed in the harbour approaches and inside the harbour itself.

Twenty-seven bore holes will be sunk to a depth of 32 metres along various parts of the route which will be dredged to make it wider and deeper during 2014-15.

The first of the two 'super carriers' – *HMS Queen Elizabeth* – is due to arrive in Portsmouth in 2016. Work has already begun on the second carrier, *HMS Prince of Wales*, in Portsmouth.

Captain Iain Greenlees, who is in charge of the transformation project to prepare for the arrival of the ships, said: "The carriers will use the existing channel to approach the harbour but, because of their size, the channel needs to be deepened and widened by removing the edges of the banks at the eastern end of Spithead anchorage, allowing a more direct approach to the entrance.

"We will also be deepening the pockets at the berth and ensuring there is a suitable turning circle at the top end of the harbour."

He added: "Work so far has identified this to be the route which balances best navigational safety, lowest environmental impact and cost. The analysis of these final boreholes will complete our detailed understanding of the work that will be required and allow us to apply for final approvals and run a competition for the work.

"We expect to be moving around 3.5 millions tonnes of the seabed in 2014-15. It is important that we understand its structure to ensure any material that can be reused or contains contaminants for separate disposal is localised."

Production on *HMS Prince of Wales* began on 16 February. Work on the forward section of the hull, known as Lower Block 02, started as Commander-in-Chief Fleet, Admiral George Zambellas, cut the first steel in a ceremony at the company's production facility.

Mick Ord, Managing Director at BAE Systems' Naval Ships business, said: "The steel cut for Lower Block 02 demonstrates the steady progress which continues to be made on the carrier programme. Everyone here is hugely proud to be involved in one of the largest engineering projects in the UK today and excited that the ships will return to Portsmouth, as their home port, once complete."

Above: *Deep River* is helping Portsmouth prepare

Right: Admiral George Zambellas and Aircraft Carrier Alliance project director Geoff Searle start the steel cut on *HMS Prince of Wales*



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# The rescue system you hope will never be needed

IT COSTS £130 million and weighs 360 tonnes. It is one of the most sophisticated pieces of equipment in the world and for four days 70 experts from three countries have been putting it through its paces.

Yet they say a silent prayer that they will never have to use it.

The Nato Submarine Rescue System is stored and maintained in a giant purpose-built hanger at Clyde naval base. It can dive to 2,000 feet, deep enough to operate anywhere around the world's continental shelves.

Owned by Britain, France and Norway, it is always on stand-by – and so far, it has never been used.

**The DE&S-procured Nato Submarine Rescue System has been going through its paces in Scotland. Clyde's Alan Dignon reports**

Twenty-five volunteers were subjected to the rigours of internment in two giant decompression chambers for 18 hours to see how they would react to the confines, the changed atmospheres and the pressures that would exist if they were rescued from a stricken sub.

For the volunteers, it was a scary introduction to the next phase of their Royal Navy careers – their next job is to go on to submarine training school. If they are ever in trouble, this is what will rescue them.

The system – loading platform, decompression chambers and rescue submarine – can be on the move within three hours on a convoy of lorries.

In an emergency the nearest suitable ship which could accommodate the system would be alerted.

The whole loading platform is bolted onto the deck and the submarine – straight out of a sci-fi movie with its glass-fronted nose

– is ready to go, lowered into the water by the giant cranes that are part of the kit.

What happens next depends on whether or not the submarine's hull has been breached. If it has, the breached compartment is automatically sealed and the rest of the hull becomes pressurised. If not, the rescue sub can do the job on its own, bringing up 15 survivors at a time.

If it is breached, the decompression chambers are set up and the rescue sub transfers survivors straight into port and starboard chambers on deck which can take 35 people at a time.

The numbers game is important because it can take up to four days to get someone fully decompressed and the rescuers would want to get as many people out of the submarine as quickly as possible – if not, the bends can kill.

Chambers are staffed by professionally trained divers and nurses who can tend to the injured, clean any who are contaminated, and generally run things until it is safe to open the doors to the outside world.

Lieutenant Commander Kevin Stockton, who runs Clyde's Northern Diving Group, said: "It is a quite brilliant stand-alone

Monitoring the system during the international exercise. Below: the Northern Diving Group testing the decompression system



system designed simply to save lives.

"Speed is essential in getting to a stricken submarine and the fact we can be on the move in three hours with 360 tonnes of equipment is impressive.

"Although it is essentially a Nato asset the brotherhood of the submariner is such that I am sure we would respond to a request from any government which had a submarine in distress.

"The brutal reality is that if a submarine were to go down in really deep water there is nothing that anyone could do because the pressures would become too great for anything to survive."

The divers, doctors, nurses and specialist operators from Britain, France and Norway operated as a seamless team for four days.

The exercise, called Massivex, worked around the clock from initial alert response to 18 hours of simulated decompression time. It worked – but as the participants returned to their homes in three different countries, they hoped it would never have to work for real.

The system's submersible



**'A brilliant stand-alone system designed simply to save lives'**

## NEWSREEL

## Dstl on the road

DEFENCE Science and Technology Laboratory (Dstl) is hosting an ISTAR and Sensors roadshow in the Atrium of Neighbourhood 2 at Abbey Wood on Wednesday 25 April. The roadshow will showcase work under the Chief Scientific Adviser's ISTAR and Sensors research programme and provide an opportunity for DE&S employees to discuss capability with colleagues from Dstl. More information from David Guy, ISTAR Science Gateway on 9679 34232 or email at: DESISTAR-SCG@mod.uk

## Technology at Abbey Wood

A selection of industry-developed products managed through technology delivery will be on show at Abbey Wood's Neighbourhood Two Atrium on Thursday, 29 March. The event will increase awareness of new and emerging technologies, how they are being exploited into defence, and the critical impact they are delivering. Further information from Sarah Smith desptgd-buscoord@mod.uk or 9679 80208.

## User training

A new training course for project team users of MJDI (Management of Joint Deployed Inventory) MIS is now available via the DA-CMT Acquisition e-Learning website at: <https://online.dacmt-acquisition.org.uk/Home/tabid/36/Default.aspx>. New users must complete training before they can log on.

# Lancaster back in the fold



Smart work: HMS Lancaster cuts a dash in Portsmouth

PORTSMOUTH WARSHIP *HMS Lancaster* has returned to sea for the first time in 16 months following her major upgrade.

The Type 23 frigate has benefited from a £22 million refit including superstructure changes, refurbishment of her engines and new weapon systems.

The upgrade was carried out in Portsmouth by BAE Systems. *HMS Lancaster* has had four new diesel generators fitted, all four turbine engines overhauled, anti-fouling paint applied to the keel and the

addition of a transom flap at the stern which makes her far more fuel-efficient.

Upgrades to weapon systems and sensors have included new fully automatic 30mm close range guns on either side of the ship and an updated Seawolf missile system.

*Lancaster's* Commanding Officer, Commander Steve Moorhouse, said: "I feel extremely privileged to command *Lancaster* as we emerge from an extended refit period with state of the art weapon technologies, powerful

engines and a ship's company that are well trained and highly motivated.

"I am extremely grateful to BAE Systems for their hard work in returning the ship to me ready for our return to sea and I look forward to putting *Lancaster* to the test during our forthcoming sea trials".

*HMS Lancaster* also boasted a new flag when she put to sea. The flag of the Duchy of Lancaster was displayed, donated by Paul Clarke, Chief Executive Officer of the Duchy, and his wife Vanessa.

## Don't miss out on having your say

SERVICE PERSONNEL in DE&S are being urged to make sure they and their families can take part in elections on 3 May.

Many across the UK and deployed overseas cannot have their say in elections if they have not registered to vote by the deadline.

Now they are being encouraged to print off a voter registration form at [www.aboutmyvote.co.uk/armedforces](http://www.aboutmyvote.co.uk/armedforces) by 18 April.

Last year 75 per cent of service personnel who responded to an MOD survey said they were on the electoral register. Electoral Commission research shows 85 per cent of the general eligible population are registered to vote.

Jenny Watson of the Electoral Commission said: "It is important that members of the Forces and their families take a few minutes now to register to vote, or check that they are on the electoral register.

"Registration rates among the Forces are lower than the general population due to moving house, moving base and being deployed overseas so we want to make sure as many as possible are on the electoral registers ahead of polling day."



# Gunnery fires up Wayne's world

DE&S marked Apprentice Week in February with events at Abbey Wood. Steve Moore caught up with the MOD's Apprentice of the Year as he enjoyed a fortnight with a DE&S weapons team

TO THOSE interested in an engineering career with DE&S, look no further than Wayne Bantick for inspiration.

The 21-year-old was the deserved winner of the MOD's apprentice of the year title which he picked up at Main Building in December.

Not bad for someone whose experience of work before he left school was in Sainsbury's.

"I came out of school without much clue about what I wanted to do but thinking it had to be something in the engineering industry," he said.

"I saw an advert for MOD apprenticeships, sat the tests, attended a MOD board interview, passed that, got the job and the rest is history."

Wayne, who lives in Southampton, joined the MOD in 2008. Since then he has completed a year of off-the-job training and two years on-the-job training at Defence Munitions Gosport while attending day release at a local college. He finishes an HNC in mechanical engineering in June, an extra qualification he hopes will help him earn a long career with the MOD.

Much of his apprenticeship, with valuable support from training staff at Gosport, has

involved working on close range gunnery systems. He has just completed a fortnight at Abbey Wood.

"It's a great opportunity for someone who has experience of working with weapons in the depot to come to Abbey Wood and look more closely at some of the issues that can arise," he said.

"Abbey Wood is a different working environment with the Army, Navy and RAF working in conjunction with civil servants, something which is new to me."

He has been working with the Close Range Gunnery Systems team, and hopes it will be a stepping stone to further progress. "I would like my work here with gunnery systems to be a career move as it is a team I would be very interested in working in," he said.

"I have recently been to Falmouth and Fareham getting an insight into all the areas that the team works in. I have always wanted to travel with my work, so this means I can get out and about away from the depot."

For the MOD's award winner it's been a busy time. "If you are interested in engineering than I can recommend an MOD apprenticeship to anyone. I certainly don't regret it. Coming to



Above:  
apprentice  
of the year  
Wayne  
Bantick

Abbey Wood is beginning to open a lot of doors for me, and I am grateful for the support I have had from people there.

"It's been a good and successful year for me. Being number one apprentice in the MOD is great but I worked hard to get it and now I need to make it work for me."

**DE&S  
engineers  
celebrate  
schools  
milestone  
– page 32**

## Scheme on the move

DE&S ENGINEERS will enjoy a wider range of development opportunities with the move of the Technician Apprenticeship Scheme to the ownership of Director Safety and Engineering.

The scheme was previously part of Director Human Resources.

This will be followed on 2 April by the Defence Engineering and Science Group's Graduate Development Scheme, currently a part of MOD Centre's Directorate of Civilian Personnel.

These two teams will form the core of a centralised DE&S Engineering Skills delivery team.

The moves are part of DE&S' Engineering Strategy, which aims to provide a centralised process for recruitment and development of engineers at all grades.

Director Safety and Engineering Howard Mathers said: "Bringing these vital schemes under their new ownership is a major step in the right direction for DE&S' Engineering Strategy and will ensure that we develop engineers with the right skills for the future."

## 'Shrewd MOD investment'

'I WANT engineers and craftsmen to be the wonder of our age,' writes MOD apprentice champion and Government Minister Andrew Robathan.

The men and women in our Armed Forces – particularly those on operations – rely on the quality of the equipment and support we can provide them.

For example, soldiers in Afghanistan rely on their vehicles to carry out their mission as well as keep them safe. If anything breaks down it can be a life-threatening situation.

It makes the job of today's engineers and craftsmen a vital one, though they don't always get the credit they deserve.

Apprenticeships play such an important role. That's why the MOD continues to value and support apprenticeships. Our scheme remains an enviable one.

It's a unique opportunity to work on some of the country's most advanced engineering and equipment projects.

And from our perspective, it's a shrewd investment in our future workforce.

Take the work on the new aircraft carriers. Almost 800 apprentices are currently involved.

We can't defer investing in our future. It's a false economy. Investing now in the skills we will need in the future is a key part of our plan for recovery. Apprenticeships are at the heart of this.

We need more engineers and craftsmen. They are vital to the defence of this country, and central to its future prosperity.'

SAILORS AND Marines at Clyde naval base have a new facility to help them combat the threats of modern conflict.

The Advanced Respirator Test System (ARTS) facility opened its doors in January and is designed to help personnel prepare for the dangers of warfare.

The introduction of new equipment like the General Service Respirator has led to the creation of the facility, where Royal Navy personnel can go to ensure that their GSR is in perfect condition.

Petty Officer John Reid said: "The facility comprises several separate cubicles which can be filled with synthetic smoke.

"It allows personnel to test their equipment in a safe environment, carrying out a number of exercises that simulate different movements.

"Any leaks or problems with the masks can then be detected and

recorded by the facility's high-tech ARTS equipment before being corrected by the examiner.

"Phase one of the roll-out is currently underway and involves the issue of the new GSR to all Royal Navy and Royal Fleet Auxiliary ships, all submarines, Fleet Air Arm Squadrons and Royal Marine units."

The GSR has several advantages over the previous respirator. The single visor design improves the user's field of view and there is also an improvement in breathing and communications for the wearers.

The equipment provides the UK Armed Forces with world class protection against a wide range of potential threats which can be encountered on the modern battlefield.

Pictured, right: Captain Jack Tarr, Captain of HMS Neptune, is given a tour of the facility by Petty Officer John Reid

## Clyde prepares for modern war threats



### CIPS conference

COMMERCIAL STAFF from DE&S heard high-profile speakers from procurement last month at the latest MOD Chartered Institute of Purchasing and Supply (CIPS) conference.

The conference took place at Abbey Wood and Andover on consecutive days.

In Andover, DE&S Director Commercial Les Mosco reaffirmed support for CIPS training, but said the MOD was exploring all opportunities, including the International Association for Contract and Commercial Management.

Delegates at Abbey Wood were welcomed by Darren Bone who, while heading DE&S' ISTAR commercial team, is also chairman of the MOD's CIPS Special Interest Group.

Among the speakers was John Collington, the Government's Chief Procurement Officer, who outlined key achievements including the Contracts Finder database which has seen a dramatic increase in contracts to small and medium sized enterprises.

# Simplifying procurement now comes up to speed

A MORE efficient way of procuring less-complex goods will be launched by DE&S' Director Commercial next month.

This follows trials by teams across MOD and discussions with industry.

It will make contracting simpler for the MOD and industry, and meet a Government objective of simplifying procurement for small and medium-sized enterprises (SMEs).

Template 1, the first template of Standardised Contracting to be launched on 2 April, is mandated for goods below £250,000. A second template, also to be mandated, will be launched in the autumn, increasing the threshold to £5 million.

There will be constraints on the suitability of the templates for all requirements, and an exemptions process has been put in place to ensure they are being used properly and to ensure compliance.

Simpler, self-contained contracts will speed up the contracting process. Templates are based on the Sale of Goods Act, making rights and obligations for both parties clear in a series of narrative conditions that have been developed to work together.

Narrative conditions will



Twelve new 42-inch and 47-inch screens, sponsored by Thales UK and backed by military charities, have been installed at RAF Brize Norton to carry the latest flight news for those departing on operations. Info providers, front row, from left: Group Captain Dom Stamp of RAF Brize Norton, Air Marshal Sir Robert Wright of the RAF Benevolent Fund, John Howe, Major-General Sir Evelyn Webb-Carter of the Army Benevolent Fund and Robert Robson of the Royal Navy and Royal Marines charity

remove complications when suppliers do not fully understand the complexity or the disparate nature of defence contracts for simple requirements.

It is anticipated templates will be more inviting to the SME community thereby enlarging the MOD supplier base. Managing the process will be easier as there will be no negotiation on terms and conditions.

Template 2, later in the year, will widen scope and minimise constraints on Template 1. It

builds on terms and conditions in the first template.

Standardised Contracting templates will not completely replace established MOD contractual processes which will remain in use where appropriate and effective.

Further information is from the Standardised Contracting team on 030 679 30280. See the launch of standardised contracting on the Commercial Toolkit, or attend an advertised presentation (via e-solutions).

# DE&S helps make 'the impossible possible'

DE&S ENGINEERS are celebrating 50 successful partnerships with schools in the west country.

The engineers have helped encourage more than 300 young people to follow careers in science, engineering and technology as part of Go4SET, a 12-week work-related scheme for 12-14 year olds raising their awareness of future careers.

Each year, teams of six pupils from ten Bristol schools worked with DE&S mentors on a project designed to raise awareness of environmental issues, as well as to develop skills in critical thinking and project planning.

Go4SET also helps DE&S mentors towards professional development.

DE&S mentors joined their teams at Fry's Conference Centre, Keynsham on 1 February for the annual Go4SET celebration and assessment day.

DE&S mentors have helped encourage more than 300 young people to follow science careers. Gavin Rudgley,



Gavin Rudgley, right receives DE&S' award from Charity Watkins of the Engineering Development Trust. Above: teams and DE&S mentors arrive at Shrivenham



Head of Sea Systems Group, accepted an award on behalf of DE&S for this success.

This year's scheme gave schools a chance to visit the Defence Academy at Shrivenham, Wiltshire to receive a taste of MOD engineering. David Diamond,

Deputy Head of Engineering Skills Development, told the pupils: "If you want to choose a profession that can change the world for the better, there are not many more exciting careers than engineering. Engineering is all about making the impossible possible."

## Andy's handy at fundraising game

ANDY SMITH of the Forward Support Store at Bull Point, is the latest in a long line of Devonport staff supporting local charities.

Andy recently organised a Christmas raffle in aid of the Mustard Tree Cancer Support Centre at Derriford Hospital, gathering 30 prizes.

With his colleagues in the Naval Stores Area, Andy raised £250, beating his previous year's total of £176.

Andy said "I am very grateful to everyone who supported the raffle, especially those who generously donated prizes. It is amazing that with times as they are we have been able to raise a lot of money for a local charity."

Neil Ashton, from the Service Families Accommodation Store, was the lucky winner of the grand prize.



## Quality at the MOD tells in the end

THE MOD has held its first Quality Award presentation recognising the efforts of staff in adopting a quality approach to ensure team success.

Successful nominees for the 2011 award, presented with their awards on 17 January, included three individual and five team awards.

They represented a range of MOD departments, including munitions, surface ships, military vehicles and an international

project office's quality assurance department.

Individual award winners were Mr Wayne Ridewood of the Strategic Weapons team, Mr Ian Mountjoy of DE&S Ships but now with DE&S' Land Equipment, and Mr Martin Abbott of DES ISTAR.

Team awards went to the MOD's Saudi Arabian Project Office – Quality Assurance team; DES Ships' MET Quality Assurance team; DQA Field Force/Protected Mobility Team QA Manager/DQA Corporate Support;

Surface Combatants team; and International Guns, Missiles and Rockets' Air team.

Twelve high standard nominations were received for the first awards.

Pictured, above, with the winners are Howard Mathers, Technical Director for the MOD, and Simon Feary, Chief Executive of the Chartered Quality Institute, the award sponsors. The award will be held annually with 2012 award nominations to be submitted from this July.

## Team puts the 'rapid' into aircraft carrier evaluation



Vice-Admiral Andrew Mathews with Capital Ships staff

INNOVATION, HARD work, and a forward-thinking approach have earned members of DE&S' Capital Ships Client Organisation Team a Chief of Materiel (Fleet) commendation for their efforts on the *Queen Elizabeth* aircraft carrier programme.

The team was recognised for handling of inspection, test, evaluation and acceptance at a rate of progress never seen before on ship programmes. To date, 261 out of 1,500 events have already been completed, delivering significant risk reduction while setting the ground for construction, integration, commissioning and trials.

Chief of Materiel (Fleet), Vice Admiral Andrew Mathews, said: "This is a remarkable achievement. To have over 15 per cent acceptance while still only being a quarter of the way through assembly is a clear reflection of the team's hard work and forward-thinking approach.

"Team members have been passionate about getting the job done and the results speak for themselves: this is great news in process terms and a real opportunity for the Royal Navy to have this capability. We now have vital ground to ensure the project is a success."

### DSRA Lottery winners December

**£10,000:** Christine O'Neill (Camberley).

**£5,000:** Paul Boler (Poole).

**£2,000:** Andrew Brodie (Carlisle).

**£1,000:** Matthew Wadds (Corsham).

**£500:** Sally Johnson (Main Building).

**£300:** Brian Emmans (Northallerton), Clare Gleeson (Abbey Wood), Linda Smith (Culdrose), Rosemarie Russell (Corsham).

**£200:** David Courtney (Catterick Garrison), Dennis Clarke (Abbey Wood), Harry Knight (Bicester), Lynne Aslett (York), Julia Small (Abbey Wood), Barry Norris (Folkestone), Stephen Goodchild (Brampton), Katie Austin (Foxhill), Jeremy Richards (Abbey Wood), Gary Booth (Blandford), Kevin Wilson (Staffordshire).

**£100:** Allan Humphrey (Newton Abbot), Terence Daw (Warminster), Graham Ovington (Abbey Wood), James Reynolds (Kent), Thomas Gray (RAF Kinloss), Hazel Donald (Bedfordshire), Kevin O'Daly (Northwood), Michael Cook (Longtown), Mark Evans (Plymouth), James Honey (Abbey Wood), Julie Parkes (Sutton Coldfield), Fiona Holland (Helensburgh), Michael Brailey (Exeter), Sarah Whittington (Oakham), James Hughes (Camberley).

NORWICH CITY soccer fan Scot Butcher is to undergo his ultimate personal challenge this month – spending a day wearing the shirt of arch rivals Ipswich Town.

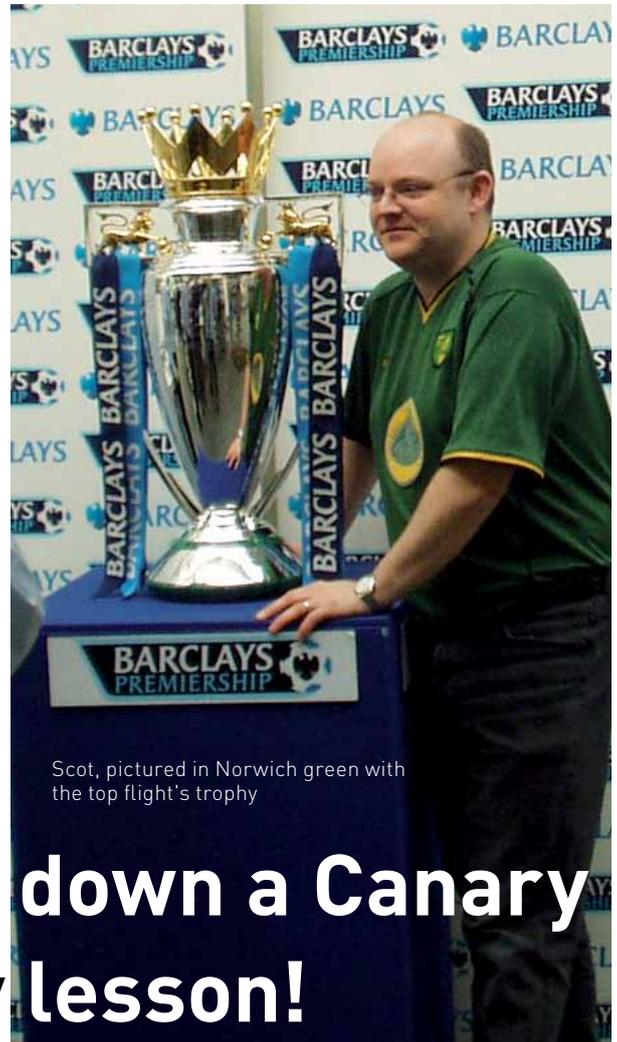
Scot, of Future Submarines at Abbey Wood, can be seen around the site wearing the Canary yellow shirt (and often more sober away green strip or goalkeeper's grey) of his beloved team, currently enjoying life in the Premier League.

But he will be raising money for Sport Relief 2012 on Friday 23 March by sporting the blue of East Anglian neighbours Ipswich. The more money he raises, he says, the lesser the 'pain'.

Scot has already had more than £100 pledged before the day. His colleagues have promised the more they help him raise, the wider they will ensure the circulation of photographic evidence of his 'ordeal'. They have already obtained his Ipswich shirt for him.

The event is part of a 'shirt of hurt' initiative by Radio 5 Live presenter Danny Baker, which asks football fans to wear the shirt of their biggest rivals for the day to raise cash for Sport Relief during Britain's biggest year of sport.

Scot's colleagues have set up a donations page at [www.virginmoneygiving.com/ScotTheTractorBoy](http://www.virginmoneygiving.com/ScotTheTractorBoy)



Scot, pictured in Norwich green with the top flight's trophy

## How to bring down a Canary – in one easy lesson!



A GROUP of armed forces personnel in Plymouth with long-term illnesses and injuries has received a cash boost.

Hasler Company, inside Devonport, has been presented with £1,800, left, by South West Women In Construction (SWWIC), who work in the building industry.

Commodore Steve Dearden, commander of Devonport, has agreed to SWWIC's 2012 Ladies With Influence Lunch taking place in *HMS Drake* in September, when all profits will go to Hasler Company. The event will be sponsored by Simon Cowls, manager of Interserve Defence, a Devonport contractor.

**Group heralds a fine Hasler future**

# Swimmers create a splash with the soldiers' charity

STAFF AT Abbey Wood have raised £4,000 for the Bristol branch of ABF The Soldiers' Charity which supports needy soldiers and their families.

Thirty people who took part in a nine-hour 'swimathon' at the Filton Sports and Leisure Centre were sponsored by colleagues and friends.

Organiser Michael Bell, project manager in Combat Tracks Group's Systems team praised the achievements of the pool lifeguard Kirsty Brown who swam 320 lengths (the equivalent of eight kilometres or five miles) in about three hours, Andy Lewis who swam 350 lengths (8.75 km) and Scott Robinson who swam 324 lengths (8.1 km). Michael and his colleague Tony Williams both swam 300 lengths (7.5 km).

"Staff at Abbey Wood are among our most valued supporters," said chairman of the charity's Bristol committee, Colonel Andy Flint.

"Their efforts account for around a quarter of the £40,000 we raise annually in Bristol."



Above: Colonel Andy Flint (standing, fifth from left) with staff from Abbey Wood whose 'swimathon' has raised £4,000 for the Bristol branch of ABF The Soldiers' Charity

Left: coming up for air is Land Equipment's Jemma Sanderson

Pictures courtesy of Martin Bennett

## Chance to 'Beat the Block' Mk2

A SECOND Beat the Block cycling event is to be held while another major part of the first aircraft carrier is moved around the UK coast.

Lower Block 02, a major part of HMS Queen Elizabeth, will leave Portsmouth on 25 May on a barge en route for Rosyth where the ship is being assembled.

Cyclists are invited to take part in Beat the Block 2, following the success of the first event, from Glasgow round the coast of Scotland to Rosyth, last year.

The journey to Rosyth will involve 500 miles in five days and minimum sponsorship is £250 per entry for the Royal Navy and Royal Marines Charity.

Places are limited, closing date for entries is 30 March. More info from [kirsty.noble@baesystems.com](mailto:kirsty.noble@baesystems.com)

## 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:

**2012DIN04-020:** JSP 886 Vol 4 Part 204 Compilation of Equipment Table and Associated Documents has just undergone a rewrite and can be found on the Defence Intranet. A major change to the format of the Equipment Table has been included in the rewrite. Equipment Tables on initial issue and revision will now be nine sections

**2012DIN04-018:** DE&S is responsible for all tri-service ocean and coastal towing ('blue water' towing) and heavy lift transport of ships and submarines using semi-submersible vessels or barges. This DIN offers guidance on specialist tonnage, design and approval of towing rigs, survey and approval of vessels for MOD use and project management of such towing and operations.

**2012DIN01-038:** The Olympic and Paralympic Games will impact on a number of MOD locations and have a significant effect on how people travel to and from work as well as business travel. At the same time the MOD must deliver vital services. This DIN contains guidance on how the MOD is planning ahead to meet business needs during the Games and playing its part to reduce footfall.

Further information and more details on the latest DINs see:

<http://defenceintranet.diweb.r.mil.uk/DefenceIntranet/Library/CivilianAndJointService/AtoZ/DinsIndex2012.htm>

# LTPA

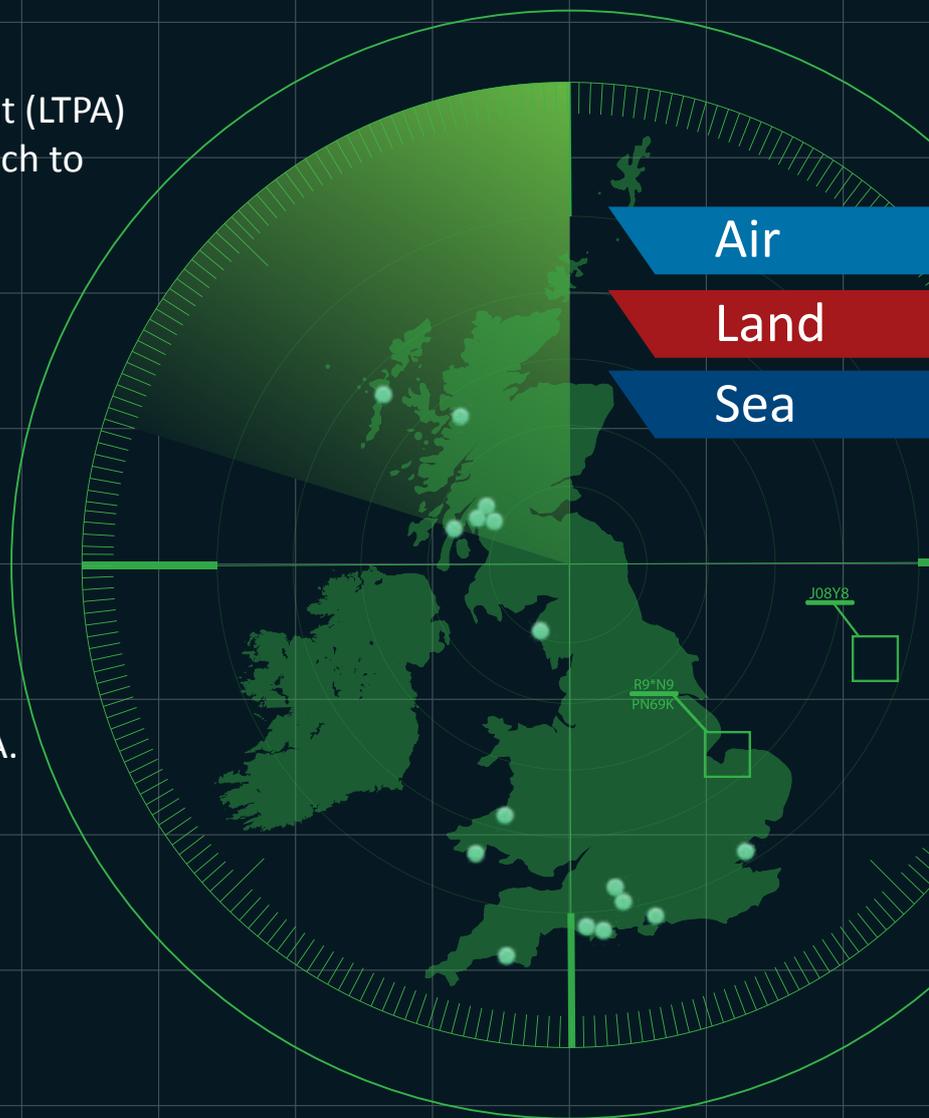
T&E begins here

## Are we on your radar for T&E?

The Long Term Partnering Agreement (LTPA) is an innovative collaborative approach to provide Test and Evaluation, Training and support services to the MOD.

The LTPA is a framework agreement under which the majority of your fixed costs associated with Test and Evaluation are centrally funded.

If your project has a T&E requirement call now, or visit the website to find out if the costs of your trial are covered under the LTPA.



0800 015 0594

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