

# desider

Apr 2013 Issue 59

the magazine for defence equipment and support



Ministry  
of Defence



## A400M Atlas training boost

Latest on the Materiel Strategy [See inside](#)



Gunners hit  
the target



Bridging  
the gap



Quick on  
the draw



Clyde  
on patrol



Gold Cup  
drama

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DE&S is investing £226 million on a specialist training school at RAF Brize Norton where the fleet of new A400M transport aircraft – named as Atlas by the RAF – will be based. The UK is buying 22 to replace the C-130 Hercules

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DE&S introduced a small radio to address an urgent ISAF need for secure ground-to-air communications. A team at DE&S has since developed the radio to fill a multitude of roles including satellite access for dismounted patrols

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Chief of Defence Materiel Bernard Gray has told a major conference that Nato members, including the UK, will not be able to sustain their Armed Forces if they do not seize the opportunity to work in a new, radical way

### 26 Keeping gunners on target

Technology to enhance weapon sights and make life easier and safer for gunners and commanders on the front line has been unveiled to stakeholders in a demonstration on the Lulworth Ranges in Dorset



Picture: Sgt Nige Green

## cover image

Aircrew and those who will work on the ground on the RAF's next generation airlifter, the A400M, named by the service as Atlas, will be working on simulators to be installed at RAF Brize Norton in Oxfordshire.

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A new 'spider' crane has been making life easier for those working with the support helicopter fleet on Operation Herrick at Camp Bastion

# insiderGuide



# Bernard Gray

## Chief of Defence Materiel

**'You will know, probably even better than me, what a complex organisation DE&S is and how it reaches into almost every part of defence'**



I think you are well aware that an Initial Gate Business Case on the Materiel Strategy is currently working its way through the approvals process. We expect to hear soon whether Ministers have taken the decision to launch the Assessment Phase.

While awaiting that decision, I felt it was important to take this opportunity to remind you of some of the reasons why the DE&S Board is convinced of the need for change in the way DE&S is managed.

You will know, probably even better than me, what a complex organisation DE&S is; how it reaches into and interacts with almost every part of defence and links with defence contractors around the world.

The Materiel Strategy aims to find a solution that offers the greatest likelihood of focused and sustained improvement, has the strongest incentives for cultural change and introduces a real drive for productivity. A future DE&S with a more robust customer/supplier interface and strong incentivisation to deliver against requirements will provide a significant boost to our ability to meet the equipment and support needs of the Armed Forces.

The Board believes that this will be realised most effectively through a GOCO operating model but this view will be fully tested against a viable DE&S+ option that will be worked up in parallel should Ministers launch the Assessment Phase.

Whichever option is decided, this is an opportunity to allow our business to build success, job satisfaction and better performance. The potential benefits to the Armed Forces of the kind of reforms that the programme is investigating are considerable.

I am pleased to be able to confirm that we have arrangements in place to begin a significant external recruitment campaign in DE&S to fill a number of vacancies, with a high priority devoted to filling the remaining safety critical posts throughout the organisation.

The beginning of the month marked the change from us having one customer to having several; all empowered to make their own choices on how they meet their capability requirements within defence and looking to us to assist in meeting those requirements across the equipment, logistics and support areas.

The Customer Design Programme for which I am the SRO, is intended to enable our customers in the Front Line Commands to drive significant improvement in their ability to task and hold DE&S to account for delivery.

Alongside Materiel Strategy, the two programmes will drive the necessary changes across the breadth of the acquisition system to help make the changes in performance we need.

Irrespective of change that is afoot our customers continue to require the very best in equipment and support so that they, in turn, can provide the best capability for defence.

Finally, I thought it worth alerting you to the recent announcement that the majority of the Information Systems and Services Operating Centre, which is based at Corsham in Wiltshire, is to transfer to the Joint Forces Command in April 2014. This decision has arisen from work to reshape the boundaries of DE&S as it faces the challenges of the future.

## Materiel Strategy leaders



Barry Burton, left, took over as Director Materiel Strategy last June following two years as Principal Private Secretary to the Secretary of State. He has worked on Defence Exports in Washington, Land Command and Iraq where he was Political Adviser to the Senior British Military

Representative. More recently he was the Director of Secretariat and Communications in DE&S and Head of Policy in MOD's Operational Directorate.

Dr Liesl Neale, right, who is leading work on the DE&S+ option, moved to the Materiel Strategy team from the COS role at the Defence Academy. A former Head of Secretariat and New Media in Main Building, she has worked in a number of functional areas in DLO and DE&S including finance, HR, estates and strategy.



Dawn Cunningham-Martin, below left, leading work on the DE&S 'as is' option, was most recently Deputy Head of the Submarine Enterprise Performance Programme, and

has also worked as Head of DE&S Secretariat and Communications. She joined the Materiel Strategy team last autumn to lead the Engagement, Baselineing and International workstreams. Her previous roles covered policy, finance and change management, but key were leading

communications and secretariat teams in DLO, DE&S and FLCs.



Richard Smart, below right, heading work on the GOCO option, joined the Materiel Strategy team in July 2011 following three years as Head of Team Complex Weapons. He has spent most of his MOD career in DE&S and its predecessor organisations, working mainly on the procurement and support of fixed wing transport aircraft – C-130J, C-17 and A400M. He supported the rollout of integrated project teams under Smart Acquisition in the late 1990s.





Pictures: Andrew Linnett



Away day on home ground: Major General Tim Inshaw (inset, above) Director Information Systems and Services, and Vice Admiral Sir Andrew Mathews, Chief of Materiel (Fleet), main picture, at the board's day at Abbey Wood

# Board away day makes ground on home soil

DE&S' SENIOR leadership of Board members and 2\* Operating Centre and Functional Directors met at DE&S headquarters at Abbey Wood to work on and debate the development of ideas for DE&S+.

This is the Value for Money Benchmark (VfMB) against which the preferred Government Owned Contractor Operated solution will be compared should Ministers decide to approve the start of an Assessment Phase on the Materiel Strategy. As such DE&S+ will need to be a viable and implementable option.

Chief of Materiel (Fleet), Vice Admiral Sir Andrew Mathews, chaired the workshop.

He said: "The day was solely focused

on the development of the DE&S+ option and how far we could push the boundaries from where DE&S is today.

"It was a good session with plenty of valuable input from the senior leadership team on how to make DE&S+ a very viable model for the future.

"We were looking at ways of making DE&S+ a radical improvement when compared with the current status quo; driving up the levels of freedom that we could adopt in a future DE&S organisation to address the problems highlighted in the Materiel Strategy business case."

Another Board member at the Away Day event was Chief of Materiel (Air) Air Marshal Simon Bollom and a total of 18 2\* Directors or deputies from across DE&S also attended.

Dr Liesl Neale, Head of the VfMB team, began

the discussion by describing to Board members and 2\* Directors the approach her team was taking to developing the DE&S+ Blueprint. She said afterwards: "This Blueprint will set out in broad terms the problems DE&S+ is trying to solve and the vision for the future DE&S+ operating model, as well as identifying candidate initiatives that have the potential to address the capability gap identified.

"There was a wide-ranging discussion on DE&S+ and it was invaluable in helping shape the development of the proposition we expect to make for the best DE&S can do in the public sector."

The Senior Management Team worked both as a group and in syndicates to develop their vision for the future organisation and to discuss ideas for the changes that need to be made to achieve it.

They also considered what their role as leaders would be in making such changes happen.



**'The day was focused on how far we could push the boundaries from where DE&S is today'**



## NEWSREEL

## Counting the fuel costs

ANNUAL expenditure on fuel from 2013-14 to 2016-17 is expected to be between £600 million and £750 million, with annual consumption between 900,000 and one million cubic metres, according to figures released to Parliament. This excludes Afghanistan as extra fuel needed is funded from the Treasury's Special Reserve. Expenditure in 2012-13 is expected to be around £769 million, of which £206 million will be spent in Afghanistan.

## New CDS

GENERAL Sir Nicholas Houghton has been appointed new Chief of the Defence Staff to take over from General Sir David Richards in July. Defence Secretary Philip Hammond said: "I look forward to working with Sir Nicholas as we continue radical reforms to the MOD and deliver Future Force 2020."

## Sale still on

THE MOD expects a sale of the Defence Support Group which represents overall long-term value for money for the taxpayer and maintains quality and timeliness of DSG's support to the Armed Forces, Minister for Defence Equipment Support and Technology Philip Dunne has repeated.

## Card sharp

MEAN average expenditure using a Government Procurement Card per transaction was £200.75 for 2011. The figure fell to £190.41 for 2012, according to Government figures.

## Duncan on her way



Final Type 45 destroyer leaves the Clyde

DUNCAN, THE sixth and final Type 45 destroyer built by BAE Systems has set sail from the Clyde in preparation for her handover to the UK Royal Navy.

The ship set off from the company's Scotstoun yard on 19th March for the journey to her home port of Portsmouth.

Her departure was delayed for a few days by a technical issue which DE&S and BAE Systems staff worked to complete over the previous weekend.

Jennifer Osbaldestin, BAE Systems' Type 45 Programme Director, said: "Duncan is an outstanding vessel and we are all extremely proud to see her begin her delivery voyage to Portsmouth.

"After a very successful build period she will now become the newest asset in the fleet. When the White Ensign is raised, she will be formally handed over to the Royal Navy and will join her sister ships, completing the class of highly capable and advanced Type 45 destroyers."

Duncan's Commanding Officer, James Stride, said: "She is a fantastic ship, offering a world-class air defence capability, and as we leave the Clyde I can reflect on the hard work from everyone involved in the build programme to get us to this significant moment.

"My team of Royal Navy personnel are all very keen to take full custody of the ship once she gets into Portsmouth and starts her training and trials prior to deploying around the

globe, protecting our nation's interests."

At Portsmouth BAE Systems provides in-service support to all of the Type 45 destroyers, with the company's engineers co-ordinating all aspects of repair, maintenance and support to improve ship availability and reduce through life support costs.

The Type 45s will provide the backbone of the UK's naval air defences for the next 30 years and beyond.

## Defender takes her place in the Navy

HMS DEFENDER – the fifth of the Type 45s – has entered service with the Royal Navy after completing sea trials.

Defender and her crew will now undergo further trials and training to prepare for her first operational deployment.

Head of the Ship Support Alliance for DE&S, Commodore John Newell, said: "This achievement represents the culmination of a huge amount of work by both the MOD and BAE Systems, which will ensure that we have a Navy ready to meet the challenges it faces both now and in the future."

Commander Phillip Nash, Defender's Commanding Officer, added: "Entry into service of this very powerful and advanced warship is a great day for the Royal Navy. These modern multi-purpose vessels provide a vital capability meaning that the UK can react to current defence challenges anywhere in the world."

HMS Defender was launched on 21st October 2009.

THE FINAL Puma Mk1 helicopter has arrived at Eurocopter Romania, right, to undergo the Life Extension Programme and is expected to be returned as a Puma Mk2 by the middle of next year.

The Puma Life Extension Programme is modifying 24 of these aircraft with new Makila engines, new tail rotors and modern avionics that will significantly improve aircraft safety, performance and also overcome obsolescence issues.

As a result the aircraft will be able to continue to deliver an effective support helicopter capability until 2025.

## Last Puma heads for life extension



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## A400M Atlas comes in from the cold

AIRBUS MILITARY'S A400M has passed a renewed series of cold weather tests in a production-representative configuration.

During a week-long deployment to Iqaluit, Canada, the flight test team demonstrated the capability of equipment such as the cargo system and production-standard engines which were not available during earlier tests in Sweden.

Tests conducted over five days included engine runs after a 24-hour cold-soak to -32°C, use of all the cargo bay equipment, taxiing, and a development flight.

The aircraft has also received full civil type certification from the European Aviation Safety Agency. The award reflects A400M Atlas' status as the world's first large military transport to be designed and certified to civil standards from inception.

The UK has ordered 22 aircraft with the first one due to be delivered by Airbus Military in autumn 2014, and the final one in autumn 2021.

□ A400M Atlas training: pages 20 and 21



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Alliancing in action: Petty Officer Sean Stafford of *Queen Elizabeth's* ship's company works with Kevin Sutton of BAE Systems to configure the complex Internal Network Electronics, currently undergoing test and acceptance at *HMS Collingwood*

## Mission system – Putting the 'war' into warship

WORK TO get the crew of *HMS Queen Elizabeth* up to speed on the ship's complex networks has begun in earnest, even though the first-of-class future carrier's entry into service may still be some years away

Weapon engineering technicians, Chief Petty Officer Anthony Hughes and Petty Officer Sean Stafford, joined the ship in January and are already helping to test and commission the complex communications network, known as the Internal Network Electronics (INE).

INE is the heart of the ship's mission system – the kit that puts the 'war' in warship. It links together virtually every computer and information system on board, and connects them to the outside world through satellite communications.

The INE is undergoing a series of critical acceptance trials at its shore integration facility in Lyster Building at *HMS Collingwood*, Fareham.

"We wouldn't normally get to touch the kit until it is handed over on the ship, so getting to work on it so early is fantastic," said Chief Hughes.

Royal Navy personnel are embedded with their industry partners in the Aircraft Carrier Alliance. Commander Steve Lynn, head of the ship's weapons engineering department, said: "The experience that the ship's company is gaining, and the opportunity to work alongside industry experts, means we will be better able to exploit all of the world-beating technology that *Queen Elizabeth* offers right from the outset."

For industry it is useful to have the eventual customer on the same side from the start. Steve Brown, BAE Systems' Mission System Integration Manager said: "Having the Royal Navy working as an integrated part of the team during these early stages of the trials adds real value, ensuring no surprises as the programme progresses, helping us to be sure we are delivering exactly what the user needs."

INE's delivery into service is set to continue for another four years, through shore integration at *HMS Collingwood*, installation on the ship and testing in Rosyth, followed by a rigorous set of sea trials as part of *Queen Elizabeth's* acceptance. "It's a long road," said Petty Officer Stafford. "And we'll be with it every step of the way."

## 'Unmistakeable as an aircraft carrier'

CONSTRUCTION OF the Royal Navy's new aircraft carrier has passed another stage with installation of the ship's navigation bridge.

The 700-tonne section was lifted into place on the deck of *Queen Elizabeth* on 14th March.

Nearly two thirds of the ship has now been built and the structure is due to be completed by the end of this year.

The carrier is expected to begin sea trials in 2017.

The forward island houses the bridge where the captain and navigation crew will operate. The enormous steel section was built in Portsmouth and transported by barge to Fife, where the carriers are being assembled.

Both *Queen Elizabeth* and her sister ship *Prince of Wales* will have two island sections which will provide independent control of navigation and air traffic control operations.

Defence Secretary Philip Hammond, who watched installation of the bridge said: "The addition of the navigation bridge is a significant milestone for *HMS Queen Elizabeth*, which is now entering the final months of her construction. The workforce at Rosyth should be proud of their involvement in developing the largest and most technologically advanced warships the UK has ever had."



In place: the huge navigation bridge is lowered onto the deck of *Queen Elizabeth* in Rosyth. Below: cutting the celebration cake, from left, Jim Bennett, Power and Propulsion Director, Frankie Bath, team administrator, Neil Mounty, Delegated Acceptance Authority and Lt Cdr Andrew Blackburn, QEC aviation client

Aircraft Carrier Alliance programme director Ian Booth said: "The fitting of the first island means the front section of the ship is structurally complete and *HMS Queen Elizabeth* is now unmistakable as an aircraft carrier.

"This is another huge milestone for the Alliance and another reason to take pride in this historic programme.





## Team makes a splash with diving equipment

A WILTSHIRE company has been awarded a contract to provide the Armed Forces with training equipment for underwater diving.

The DiveZone, in Melksham, will supply equipment under a £150,000 deal for those undertaking adventurous training.

Lieutenant Colonel Matthew Tresidder, left, of DE&S' Defence Clothing team, said: "Adventurous training is a critical component of training for the Armed Forces. Placing service personnel

into challenging situations is essential to creating robust and resilient personnel who are more capable of withstanding the demands of a range of different operational deployments."

Mark Alexander, Director of The DiveZone, added: "This is excellent news for us as a medium-sized business and it is a great privilege for us to be able to support the Armed Forces."

"This contract, which was won with the help of Prospective Services Ltd,

provides some welcome stability for the company, and will give us the opportunity to expand our workforce with the extra work involved."

Access to adventurous training is open to all servicemen and women, including the injured and disabled who are able to participate through the Battle Back initiative.

Adventurous training activities include canoeing/kayaking, caving, gliding and freefall parachuting as well as diving.

## Awards – the race is on

THE NOMINATION process is underway for this year's Minister (DEST) Acquisition Awards.

Each year, the Minister for Defence Equipment, Support and Technology recognises and celebrates outstanding achievements of the MOD acquisition community.

The awards take into account successful delivery, difficulty of objectives, contribution to defence capability and value for money.

Nominations are invited from across the MOD including those in the functions that enable acquisition (human resource, finance, commercial, policy and secretariat).

Teams can be nominated by line management, their peers, other stakeholders and they can also nominate themselves. All nominations must be endorsed at Two Star level or above.

The Minister will present the awards on 28th November in Main Building.

Applications should be made via DIN 2013DIN04-034. Further information can be obtained from Alyson Rees, DECS-IP-Group. Closing date is 8th July.

# Typhoon fleet takes on the full tranche upgrade

THE UPGRADE package known as Drop 2 is to be rolled out across the RAF's entire fleet of Tranche 1 Typhoons.

Enhancements will provide capability upgrades to a range of Typhoon avionics systems covering displays and controls, attack and identification, defensive aids and communications sub systems.

Installation of the update to the whole Tranche 1 fleet has been agreed following successful delivery and assessment of Drop 2.

It was developed through a Mutual Support Agreement between the UK and Germany and involved BAE Systems and the German National Support Centre organisation based in Manching, Germany.

First flight of an enhanced Tranche 1 Drop 2 Typhoon took place last May at RAF Coningsby and has since been assessed by the RAF's Typhoon Test and Evaluation Squadron.

Robert Forshaw, Drops Desk Officer at DE&S' Fast Air Support Team, said: "The Drop 2 upgrade has been successfully evaluated and will now be embodied onto the wider Tranche 1 fleet.

Right: RAF Typhoons line up ready to depart for the US-based Exercise Red Flag earlier this year



"Initial roll-out targeted RAF Typhoon aircraft participating in the Red Flag high intensity air-to-air combat exercise at Nellis Air Force Base in the US in February and March. Remaining front line squadrons will receive the upgrade shortly.

"Participating nations within the Drop programme have taken a keen interest in what the RAF has achieved with this modification and are now

looking to embody the Drop 2 product onto their Tranche 1 aircraft."

Andy Flynn, Head of Contract Engineering Services for NETMA, the Nato Eurofighter and Tornado Management Agency, said: "This update came out of the feedback we have received directly from pilots. We are also moving towards improving availability that will deliver cost benefits too."





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## NEWSREEL

WW2 heroes  
honoured

WORLD War Two heroes who served on Arctic Convoys and in Bomber Command will receive new awards in recognition of their heroism and bravery. Production of the new Arctic Star and Bomber Command clasp will kick start this month. Up to a quarter of a million veterans and the families of those who have died could be eligible to receive the new awards in recognition of their unique contribution protecting Britain during World War Two. Living veterans and widows will be the first in line to receive the new awards.

The cost of  
homecoming

ACCURATE costs for the withdrawal of equipment and materiel from Afghanistan are not yet available. "Equipment will only be repatriated where to do so represents the best value way to meet an enduring military requirement," Armed Forces Minister Andrew Robathan has told Parliament. "We will seek the most cost-effective solution to repatriating military personnel and equipment, while balancing this alongside logistical and military considerations."

## Roke research

ROKE Manor Research has been awarded a three-year, £5 million research contract by the Defence Science and Technology Laboratory to assess, mature and integrate innovative sensor technology for the dismounted infantry soldier.



# Reactor core project off to ground-breaking start

VICE ADMIRAL Sir Andrew Mathews has led the ground-breaking ceremony for new facilities which will help provide future nuclear reactor cores for Royal Navy submarines.

The facilities at Raynesway, Derby, will be part of the Core Production Capability (CPC) programme.

Members of DE&S' Nuclear Propulsion project team were present representing Director Submarines along with colleagues from Rolls-Royce, who run the facility and are leading the team responsible for the work, and Graham Construction, the lead construction contractor.

DE&S Chief of Materiel (Fleet) Sir Andrew said: "Rolls-Royce has played a vital role in supporting the Royal Navy's nuclear submarine propulsion programme for more than 50 years.

"This significant investment to regenerate the facility, to build our nuclear reactor cores, will ensure that the site continues to do so for decades to come."

Jason Smith, President Rolls-Royce Submarines added: "We are pleased to begin construction of this important facility, which will use the most advanced manufacturing techniques to enhance our world-leading nuclear manufacturing capability.

"The investment in this facility demonstrates the high level of trust that the MOD has

□ Phase 1 will provide new facilities for development and manufacture of current and future nuclear core design by 2017, in a facility compliant with all modern health and safety standards.

□ New energy and reception buildings outside the licensed site will support the manufacturing site. Rolls-Royce and DE&S are working with the Health and Safety Executive (Office of Nuclear Regulation) to ensure design meets all of the latest nuclear safety requirements and wider legislation.

□ Phase 2 will follow once the Phase 1 building is fully operational, leading to a new facility to manufacture the nuclear fuel for all naval reactor plant requirements from 2021 onwards.

in both our technology and the expertise of our highly skilled workforce."

Raynesway contains the manufacturing facilities to provide nuclear cores and supporting equipment for the *Astute* submarines, and employs more than 300 Rolls-Royce staff and subcontractors.

Some of these facilities were originally built in the 1960s and the CPC project will provide an eleven-year £500 million phased regeneration of an important UK strategic asset.

The phased regeneration

will enable cores to continue to be produced to meet the *Astute* build programme as well as delivering, subject to Main Gate decisions, the early cores for the Successor programme.

Other work on the site has seen MOD and Rolls-Royce investment in new offices and heavy industry manufacturing capability, all in support of the Submarine Enterprise.

When complete, the programme will have replaced the current core manufacturing facilities spread across the site into one integrated facility.

## Survival suits earn a new lease of life

INTERNATIONAL SAFETY Products (ISP) has extended an eight-year relationship with the MOD through a new agreement to continue servicing Intrepid Once Only Survival Suits used by the Royal Navy.

ISP has supplied more than 30,000 suits since striking up the relationship in 2004. The suits increase survival chances for those escaping stricken ships.

Maritime Spares Group leader Cherry Proud said: "We are pleased to be working with ISP to implement a process that will lead to a progressive and safe extension to the life of the suits. It will improve value for money while at the same time minimising the risk in the event of an abandonment."

# Mull and Rona earn top DE&S approval

Ready for the off: Bernard Gray joins Colonel Alan Litster, commander of 43 Commando, before heading for the sea



CLYDE-BASED Royal Marines have new patrol boats to help protect high-value shipping.

Under the watchful eye of the Chief of Defence Materiel Bernard Gray, 43 Commando Fleet Protection Group Royal Marines (43 Cdo FPGRM) put their two new Island class boats through their paces.

The versatile vessels – called *Mull* and *Rona* – were production line MOD Police boats which have undergone extensive refitting at their manufacturer in Anglesey.

The boats have been fitted with three new weapon mount positions, more protection for coxswains and crew, as well as enhanced communications.

The end result is an ideal platform for Royal Marines to

operate during vital protection and patrolling duties on the Gare Loch, Loch Long and on the Clyde.

Colour Sergeant Sid Blake from 43 Commando's R Squadron said: "Anyone who has experienced a ride in an Offshore Raiding Craft will know how wet you can get even on a mild summer day".

"When you think that we can be patrolling or exercising on the west coast of Scotland for between six and 15 hours at all times of the year then it's easy to imagine how much of an endurance test it can become".

"The new Island vessels offer us everything an ORC can but with a number of key improvements. They are highly versatile vessels and give us the

ability to rotate the crew and gunners through the protection offered by the heated cockpit."

Accompanied by the 3 Commando Brigade Commander, Brigadier Martin Smith, Commanding Officer of 43 Commando Colonel Alan Litster and members of DE&S' Boats team, Mr Gray was taken to sea and shown the full range of the impressive vessels' capabilities.

Mr Gray said: "I'm absolutely delighted by the marked improvement these vessels offer the Marines in their day-to-day business.

"My appreciation goes to the project team who demonstrated a real commitment in delivering these vessels in such short order."

## Swedish patrol boat gives Marines food for thought



ROYAL MARINES based in Plymouth have hosted their Swedish counterparts as part of a working relationship sharing amphibious skills and knowledge.

The two parties toured the new centre for amphibious specialists at Royal Marines Tamar in Devonport.

The most recent joint project has been trialling Swedish naval fast patrol boats – the Combat Boat 90 (CB90) – by the Royal Marines who have had them on loan since 2011.

Colonel Garth Manger, commanding officer of 1 Assault Group Royal Marines, said: "The Royal Marines are hugely in debt to the Swedish Navy for lending us four of their CB90 Assault Craft. We have been able to test the CB90 in a variety of coastal conditions.

"In doing so we have learned a great deal about the type of craft that we need to support the Royal Navy in providing force protection to the fleet and in looking for a replacement for one of our assault craft. The CB90 is a great craft and we will be sorry to see them go." Swedish Forces had two Royal Marine Offshore Raiding Craft on loan.

## NEWSREEL

### Commercial changeover

CHANGES AT the top of MOD Commercial see Helen Sawford leave to head the Government Procurement Service's Newport operation from 1st May. Her role as Head of Commercial for Commands and Centre will be taken by Mike Greatwich. In the meantime Martin Neary will be acting Commercial Chief Of Staff. With Information Systems and Services (ISS) moving to reporting to Joint Force Command, ISS Commercial will report to Les Mosco, MOD Director Commercial.

### New courses

TWO new courses to help staff improve finance and military capability management have been launched. A practitioner course to help staff work with key stakeholders is aimed at DE&S, front line commands and industry, along with an advanced course for those involved in leadership roles. More information is available from the Defence Academy website at [www.da.mod.uk](http://www.da.mod.uk)

### Costs down

TRAINING for MOD civilian personnel cost an estimated £35 million in 2011-2012, down from £49 million the previous year, according to Government figures. These include external training and that provided by the Defence Academy, primary provider to civilian personnel.



## NEWSREEL



### Brazil takes on second ship

THE latest addition to the Brazilian Navy's fleet – *Apa*, above – has left BAE Systems in Portsmouth for her new home in Rio de Janeiro. She is the second of three *Amazonas* class ocean patrol vessels being delivered to the Brazilian Navy by BAE Systems. Her sister ship, *Amazonas*, completed the crossing last year, while the final ship, *Araguari*, will be handed over in June. The three ships were originally procured, with help from DE&S, for Trinidad until the Caribbean island pulled out of the deal.

### UAS costs

TOTAL financial approval for delivering and sustaining unmanned air systems, all purchased as urgent operational requirements, from 2007 to the end of next year is £774 million for operations in Iraq and Afghanistan. Collectively these have flown for well over 140,000 hours.

### Port stays

THE UK's military port, or sea mounting centre as it is known, will remain at Marchwood in Hampshire under current plans after it is sold off, Defence Equipment, Support and Technology Minister Philip Dunne has confirmed.

# Inventory management – the DE&S view

## Minister answers criticism of military stores levels

SPARES AND equipment are at a level which means operational commanders in Afghanistan are not constrained in conducting missions.

Operation Ellamy – operations over Libya in 2011 – also demonstrated the right level of equipment availability.

Philip Dunne, Minister for Defence Equipment, Support and Technology, has responded to criticism from MPs that money is wasted on equipment and supplies the Armed Forces do not need.

“Support for military operations is, and must continue to be, our first priority,” he said. “Appropriate reserves of equipment are essential to be able to deploy our Armed Forces at short notice and sustain them on operations around the world.”

But he has pledged to reverse decades of lax inventory management to ensure assets are managed more efficiently.

“Considerable progress has been made since 2010,” he said. “The size and value of our holdings are now heading in the right direction and we plan to spend almost £2 billion less on inventory over the next four years. Introducing comprehensive programmes and modern IT systems to enforce rigorous control are central to this improvement.”

Richard Bacon, a member of the House of Commons Public Accounts Committee,



said: “While it is perfectly understandable that the MOD would want to ensure troops on the front line have the equipment they need, the MOD should set targets to reduce unnecessary ordering and regularly review its progress to see where else money could be saved.”

Inventory: DE&S' Logistics Commodities and Services runs more than 60 warehouses with around £8 billion of stock

## ... and improvements are on the way

THE JOINT MOD and Rolls-Royce team providing the RB199 engine availability contract – ROCET 2 – for the Tornado aircraft has concluded an agreement for the company to reduce the MOD RB199 inventory.

The amendment to the contract, which has been negotiated in less than two months, does not require further funding and will provide significant receipts to the MOD dependent on the disposal route obtained.

The programme involves classification of all RB199 stock by Rolls-Royce; if not required to support the UK Tornado fleet, the remainder will either be managed for resale across the globe or will ‘fuel’ the RR Revert recycling initiative.

The aim is to maximise the value of the surplus stock, which had an original value in excess of £300 million, by exploiting

the position and links that Rolls-Royce has within the global engine market.

The team has agreed a methodology that provides benefit to both the MOD and industry and can be seen to have extremely ‘green’ credentials.

Head of Tornado Propulsion, Wg Cdr Lyndon Jones, said: “By allowing the original manufacturer, who is aware of the current market and the material composition of the surplus components, to dispose of the inventory, best value for money can be achieved; while industry retains the availability risk that is a cornerstone of the ROCET 2 availability contract.”

Director Combat Air, Air-Vice Marshal Graham Farnell,

added: “This innovative approach to reduce inventory demonstrates what can be achieved when the MOD and industry truly work together in partnership. The agreement should now be used as a template for future collaboration in defence when trying to address the challenges of inventory reduction.”

Steve Spooner, Rolls-Royce Project Director RB199, said: “When working in partnership with the MOD, we are able to bring to the fore capabilities and knowledge which provide mutual benefit. To help global sustainment our revert consortium aims to maximise the recovery of scarce materials and to minimise their movement around the world.”

**‘This should now be used as a template when trying to address inventory reduction’ – Graham Farnell, DE&S**



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## NEWSREEL

70 years of  
Empire

QINETIQ and DE&S are celebrating the 70th anniversary of the Empire Test Pilots' School, best known for training military test pilots and flight test engineers. The school trains graduates to lead complex experimental trials on all types of civil and military aircraft.

The Boscombe Down school has begun flying the Avro RJ100, a new multi-engine platform, and another aircraft, the Avro RJ70, is planned to be introduced in 2014/15. Student numbers at the school, operated by QinetiQ under DE&S' 25-year Long Term Partnering Agreement, continue to rise.

# New start, electric future

## Logistic depot opens as part of power contract

BRIGADIER PETER Rafferty has opened a new logistic depot for all general purpose power generation and distribution equipment.

The depot is part of the Future Power Contract being produced by DE&S' Deployable Infrastructure project team.

The depot is owned and operated by Wincanton Logistics on behalf of Rolls-Royce Distributed Generation Systems (RRDGS) based in Middleton near Manchester, who were the winners of the Future Power contract in March 2011.

The contract, due to run for the next five years, is worth £29 million for delivery of new tactical electrical distribution equipment, new variable speed general purpose power generators (2-6.5kW) and for support utilising a Contractor Logistic Support (CLS) arrangement.



Brigadier Rafferty is pictured, centre, with Andrew Biggs of Rolls-Royce, left, and Ross Bannerman of Wincanton Logistics. The opening was originally set for January but was postponed due to snow

Brigadier Rafferty, Head of General Support Group, was given a presentation on how Deployable Infrastructure and RRDGS transitioned from the traditional model of logistic support to one of CLS.

Brigadier Rafferty said: "This is a perfect example of how the MOD can work in close partnership with a supplier in order to give a value for money solution to the front lines in austere times."

Simon Wood, the Rolls-Royce service delivery manager, added: "Without the extensive help of the project team this facility would not have been ready to provide the first class service it now can do."

Mike Helyard, operations director of Wincanton Logistics, said it had been a huge challenge to get the depot ready to receive, store, manage and issue the 21,000 line items that is on the shelves.

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# Army set to take the strain on Salisbury Plain

Warthog on Salisbury Plain



DE&S SUPPORT to land forces will be focused more on the UK as the Army returns from Germany.

Details of investment in new bases and accommodation have been set out in a basing plan which clarifies the Army's future UK locations.

Returning troops are set to boost the UK economy by around £1.8 billion with major concentrations around Salisbury Plain, eastern Scotland, the north of England and the Midlands.

Around 70 per cent of the Army will be brought back from Germany by the end of 2015 with the final 4,300 back by the end of 2019.

The new basing plan will make the best use of the defence estate and provide better accommodation and facilities for troops and their families.

The Government is investing £1.8 billion in the new basing plan and £1 billion of this will be spent on building new accommodation. This will

see around 1,900 new family homes being built and more than 7,800 new rooms for single soldiers along with more than 800 upgraded rooms for single soldiers and more than 450 upgraded homes for families. The rest of the investment will be spent on technical infrastructure.

These changes will provide savings and efficiencies for the Army, a sustainable military footprint to support operations and certainty for personnel and their families.

Defence Secretary Philip Hammond said: "By setting out our plans to bring troops back to the UK we are providing our personnel and their families with greater stability for their future and also saving around £240 million a year in operational running costs.

"We are going to invest an additional £1.8 billion in our new basing plan, providing investment around the country, crucial jobs for local economies and the best possible

accommodation for our soldiers and their families.

"This work also supports and enables the Army 2020 structure, announced last year, which will ensure that the British Army remains the most capable Army in

its class, adaptable and ready to meet the security challenges of the next decade and beyond."

The return of the Army from Germany was first announced in the Strategic Defence and Security Review in 2010 which committed to returning all 20,000 troops plus their families to the UK by 2020.

Around 70 per cent will now return by the end of 2015 compared to a previous commitment of half by 2015. A number of Army units have already returned leaving fewer than 16,000 personnel and 30 units overseas.

## SCOTLAND

Edinburgh and Leuchars  
Army 2020 manpower total: 4,000

## WEST MIDLANDS

Stafford and Donnington  
Army 2020 manpower total: 3,200

## SALISBURY PLAIN

Tidworth, Bulford, Larkhill, Warminster, Perham Down and Upavon  
Army 2020 manpower total: 15,000

## NORTH EAST

Catterick, York, Dishforth, Topcliffe and Harlow Hill  
Army 2020 manpower total: 7,500

## EAST MIDLANDS

Cottesmore and North Luffenham  
Army 2020 manpower total: 5,800

## EASTERN ENGLAND

Colchester and Swanton Morley  
Army 2020 manpower total: 3,500

## SOUTHERN ENGLAND

Aldershot  
Army 2020 manpower total: 4,200

□ Seven sites are no longer required by the regular army and will be made available for disposal: Claro Barracks in Ripon, North Yorkshire; Howe Barracks in Canterbury; Craigiehall Barracks in Edinburgh and Cawdor Barracks in Brawdy, Pembrokeshire; plus elements of Redford Barracks in Edinburgh, Forthside Barracks in Stirling and Copthorne Barracks in Shrewsbury

## Keeping Forces out in front

DE&S and the Defence Science and Technology Laboratory (Dstl) have awarded a two-year contract to help information superiority for operations.

The QinetiQ-led consortia along with Niteworks have been awarded £10 million worth of contracts.

These will help deliver an Information Superiority for Contingent Operations research programme set up by Dstl.

Information superiority is about obtaining a greater level of information about the battlespace and using it more rapidly to give an advantage to UK Forces.

## Hawk is up and running again

PRODUCTION OF the Hawk Advanced Jet Trainer, pictured right, is back up and running in the north west with the first of 30 new aircraft now in build at BAE Systems Warton.

The production line has been reinstated in response to orders for a further 30 aircraft, 22 for the Royal Saudi Air Force and eight for the Sultanate of Oman.

It is the third military jet production line in operation in the north west. Typhoon is built and flown at Warton while the rear fuselage for each F-35 is built at the company's Samlesbury site.





## Register now for DE&S' land equipment show

REGISTRATION IS now open for DVD2013 – the leading event for land equipment and support.

The event, at Millbrook in Bedfordshire on 19th and 20th June, will be organised by the Army and DE&S Land Equipment, recognising the new capability role taken on by the Army as part of Defence Transformation.

The two-day agenda will focus on innovative and efficient solutions for the upgrade and upkeep of land equipment and on contingent operations and delivery to ensure future sustainability.

Attendance at DVD is restricted to authorised visitors engaged with the defence industry, armed forces, defence media, defence colleges and research establishments. All visitors must register online and, once approved, will receive an email containing their unique barcode, which must be produced, along with photographic identification upon arrival at Millbrook.

Major General Carew Wilks, Director of Land Equipment at DE&S, said: "As well as providing opportunities for UK industry and the military to exhibit and network, the two day event will enable visitors to take part in vehicle demonstrations. Millbrook is home to the MOD's Battlefield Mission and has the ideal test tracks and special surfaces for showcasing a wide range of military vehicles."

Anyone involved in equipment and support for the UK's land forces who would like to attend DVD2013, register now at [www.theevent.co.uk](http://www.theevent.co.uk)

## Edinburgh leaves New York for the last time



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THE LAST of the Royal Navy's Type 42 destroyers *HMS Edinburgh* has visited New York on her final international journey before being decommissioned.

It marks a historic milestone for both the ship and the Royal Navy as New York is the Type 42's final international destination before she returns to Portsmouth and makes way for the Navy's Type 45 destroyer.

For 30 years she has been part of the Royal Navy backbone, ploughing the waves, hunting pirates and drug runners, defending the Fleet from attack, and providing humanitarian aid after natural disasters.

Her Commanding Officer, Commander Nick Borbone, said: "When we set off from Portsmouth our visit to New York seemed a long way away. But we are entering the final chapter in the Type 42 story."

"*HMS Edinburgh* is the last in class and has consistently remained a capable ship with a highly trained and motivated company and I am extremely proud to have served in her."

Before decommissioning in June, *HMS Edinburgh* will take part in Battle of the Atlantic 70 commemoration events next month.

TWO 'SPIDER' cranes purchased as an Urgent Operational Requirement (UOR) have been providing vital support to the Chinook helicopter fleet.

One is at Camp Bastion with the other training and maintaining operator skills at RAF Odiham.

The project was delivered on time and to budget by DE&S' Air Commodities team, with project management support by Land Equipment through flexible resourcing.

The cranes are a modified variant of a mini crane used in the construction industry worldwide.

Chinook Junior Engineering Officer in theatre, Flt Lt Gareth Winn-Morgan, said: "Since its purchase, the crane has been a key factor to sustaining Chinook operations on Operation Herrick. It gives engineers added flexibility when removing heavy components from the aircraft; before, the aircraft would be towed into a hangar to utilise the gantry cranes; with the spider crane the engineers can carry out heavy maintenance on the flight line, saving valuable time."

The cranes have a maximum capacity of 2.9 tonnes at 2.5 metres extension. A six-section boom allows a working radius of more than 14 metres.

The cranes were purchased under a £330,000 contract with Terberg DTS UK and delivered inside four months along with spares, support and training.

Gp Capt Greg Underhill, Air Commodities leader, said: "It is a testament to the dedication and hard work of the UOR team and Terberg that we were able to deliver this excellent piece of equipment with a comprehensive support package within demanding timescales."

"We have a number of key contracts with Terberg under which they have provided excellent airfield equipment and support. Drawing on this relationship and their particular expertise with this equipment has proved vital to the success of this project."

Alisdair Cooper, Managing Director of Terberg DTS UK, added: 'We were delighted to be awarded this contract with DE&S and extremely pleased that we were able to deliver this critical equipment on time and on budget'

Work is ongoing to consider whether the equipment will be brought into the core programme.

# Spider gives lift to operations in Bastion



Heavy lift: the spider in action at Camp Bastion

A ROYAL Marines training vessel is undergoing maintenance alongside in Portland Harbour.

*TV Tristram*, the former *RFA Sir Tristram*, de-commissioned in 2005, has been moved from her moorings, below, for the work under the £1 million DE&S contract with UK Docks which is scheduled to finish this month.

Included in the work is painting of all external weather decks, hull and superstructure, renewal of safety railings, generators and switchboard and replacement of a sewage collection tank, worn anchor chain links and any corroded structures.

Training areas will be refurbished and the port landing platform replaced. *TV Tristram* is expected out of service in 2020.



Tristram enjoys a makeover

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# Mapping out an Atlas future

Simulators for the new A400M Atlas aircraft will give RAF air and ground crews a 'unique training experience'

**D**E&S is investing £226 million on a specialist training school at RAF Brize Norton in Oxfordshire where the fleet of new A400M transport aircraft – named as Atlas by the RAF – will be based.

It will house two full flight simulators to train RAF pilots, a specialist workstation to train loadmasters, a cockpit simulator to train engineers and a suite of computer-based training equipment. The facility will allow all personnel who operate, support and maintain the aircraft to train in a replica environment giving them the best and safest learning experience available.

Flight Lieutenant Chris Aston, a future A400M Atlas pilot, said: "The A400M Atlas programme is incredibly exciting and one I'm delighted to be involved in. These facilities will give both aircrew and groundcrew a unique training experience. Having access to flight simulators, a Loadmaster workstation trainer and cockpit maintenance operations simulator will ensure that we can get the most out of the aircraft."

The 18-year deal with A400M Training Services – a joint venture between Airbus Military and Thales Training and Simulation – will create and secure up to 300 long term jobs, principally at RAF Brize Norton but also at Airbus Military

and at Thales UK's facility in Crawley, West Sussex, where the simulators are being built.

Training services will include design, construction and management of the A400M Atlas training school, the installation and maintenance of full flight simulators and all synthetic training equipment, and support to the RAF's own course design team and training staff.

The training school will be built at RAF Brize Norton, with work planned to be finished next spring.

The UK is buying 22 A400M Atlas transport aircraft to replace the RAF's fleet of C-130 Hercules, with the first aircraft entering service towards the end of next year. Able to carry twice as much as the Hercules, the A400M Atlas can transport 32 tonnes of cargo over a range of 4,500 km, providing unprecedented capability to support the UK Armed Forces.

Another £80 million is being spent on defensive aids for the aircraft. The contract is for development, manufacture and installation of the modifications required to the aircraft so that it can operate the Large Aircraft Infra-Red Counter-Measures defensive aids system when flying in hostile environments.

On a visit to RAF Brize Norton to inspect an Atlas aircraft last month,

Minister for Defence Equipment, Support and Technology Philip Dunne said: "Our air and ground crews have always been some of the best trained in the world and the facility at RAF Brize Norton cements that position for the RAF's latest transport aircraft fleet. The blend of real and synthetic training will ensure crews can be 'hands on' with the aircraft throughout their training.

"The defensive aids suites will provide pilot and crew with an essential defensive capability and peace of mind when operating in hostile environments. Protecting our crews and the aircraft is paramount."

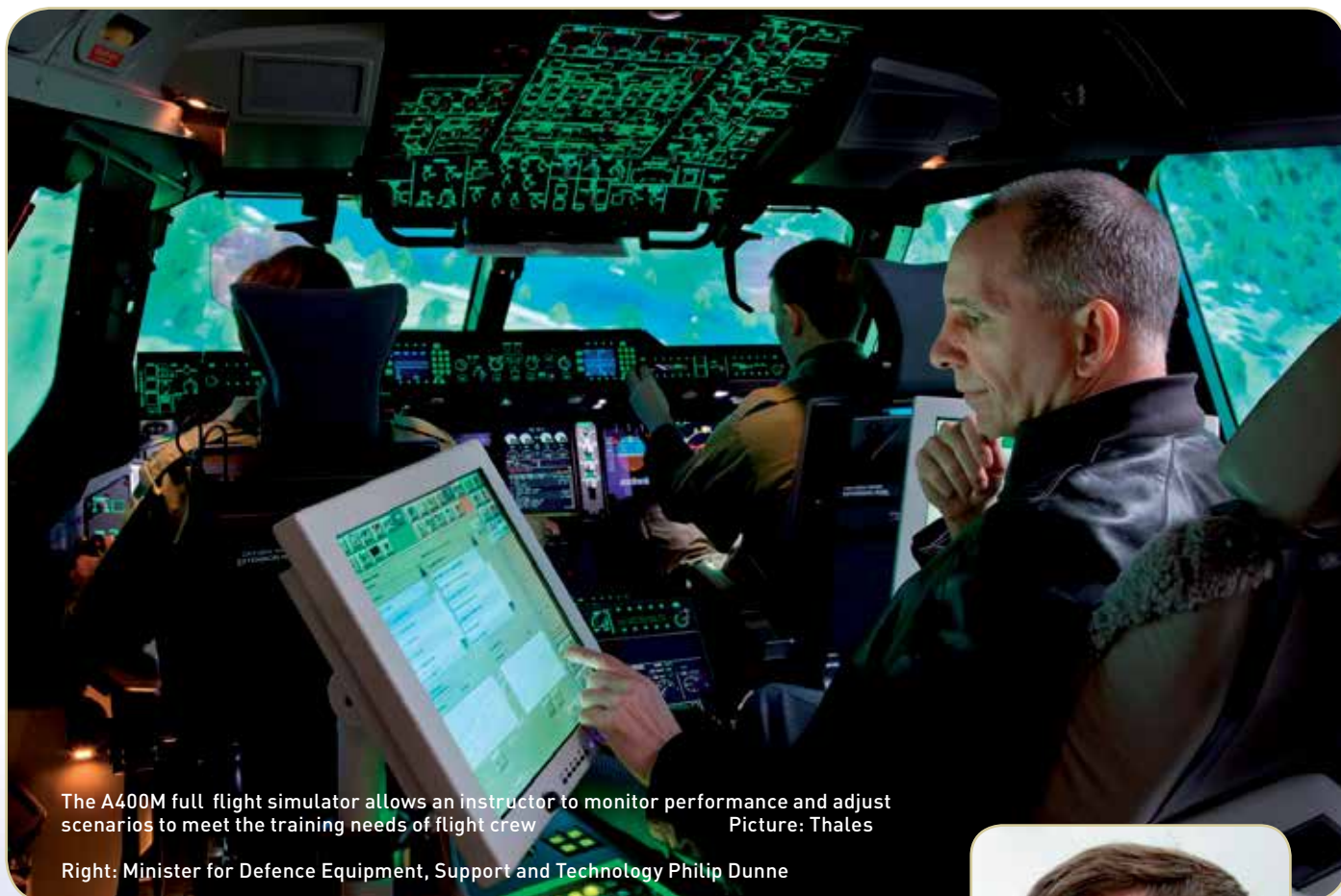
Marion Broughton, head of Thales UK's military aerospace business, added: "This contract award demonstrates yet again that Thales is a key MOD partner in the provision of training services. It also continues our long association with RAF Brize Norton where we already provide VC10, TriStar and Voyager training services. We look forward to providing further services to the RAF's next generation of air support aircraft."

Alongside the C-17 Globemaster and the new Voyager aircraft, now entering service with the RAF, the A400M Atlas fleet will give the RAF the ability to move people and equipment rapidly around the globe for military and humanitarian operations for decades to come.





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The A400M full flight simulator allows an instructor to monitor performance and adjust scenarios to meet the training needs of flight crew

Picture: Thales

Right: Minister for Defence Equipment, Support and Technology Philip Dunne





Pictures:  
Andrew  
Linnett

# Quick on the

## Small radio, big impact as kit now provides rapid satellite access for foot patrols

Prince Harry was recently pictured sitting on a camp cot in Afghanistan with a DE&S-procured AN/PRC152 radio by his side.

DE&S introduced this small radio to address an urgent ISAF need for secure ground-to-air communications. The Bowman and Tactical Communications and Information Systems team has since developed the radio to fill a multitude of roles, including satellite access for dismounted patrols.

The radio's big brother AN/PRC117f entered British service at about the time of the first Gulf War. It remains capable and ISAF patrols carried it to supplement Bowman communications. But its weight and size made it less than ideal so DE&S procured more of the smaller radio, weighing just over a kilogramme. Sitting alongside Bowman, it is the radio of choice for longer range infantry patrols while the PRC117f is used in vehicles, operation rooms and headquarters.

The role of the PRC152 has expanded from purely ground-to-air to include interoperability communications with alliance partners, particularly US forces, while being widely used to enable patrols to communicate with their base if close enough or through a satellite if further away. "This feature is becoming increasingly important as the Afghanistan drawdown continues and communication ranges increase," said project manager Steve Turpin. "To make life easier for the operator, we have integrated the radio into the same harness as the personal role radio reducing the number of cables and separate switches soldiers need to wear."

Wider roles demand additional capability. Dismounted patrols asked for satellite access while moving. "Our solution was to procure a specialist antenna, which the operator can wear in a holster," said Mr Turpin. "When the patrol needs satellite access, they simply draw the antenna and the blades flick out to give communications within seconds. It is just as quickly replaced. The antenna is now in use with ISAF."

The antenna, though quickly deployed, was not directionally efficient. The team again provided the answer. Mr Turpin said: "We provided an amplifier, worn on a soldier's belt or body armour, increasing the power output of the radio from five to 20 watts. This gives the radio an equivalent power as the PRC117f while still easy to carry. The amplifier provides more reliable satellite access but also increases the range at which communications can be established with aircraft; an important advantage to forward air controllers directing close air support missions."

Satellite access, of course is at a premium and the popularity of the radio increases demand. "Scientists were asked to come up with a solution and they delivered," said Mr Turpin. "They devised a new waveform called Integrated Waveform, or IW, enabling satellite channels to be divided into even smaller subdivisions than hitherto possible allowing more concurrent communication paths through the satellite. This demanding technical solution required changes to radios and satellites. The programme to upgrade the



# draw

radios with the new waveforms is well advanced, the controllers to programme the satellites have successfully completed trialling and those deploying to ISAF are trained in using it."

The end of Afghanistan operations will not end the service of this little radio. Mr Turpin said: "A new project aims to replace the in-service, ground-to-air radio before LE TacCIS delivers a transformational replacement in 2018 or thereabouts. Perhaps more significantly

the radio has shown it provides important capability and is likely to find itself in service with many different units. The radios entered service through Urgent Operational Requirements – five separate ones, each delivered within 50 per cent for cost and time."

He added: "The PRC152 ensures that UK Forces fight with the best mix of equipment available. Originally deployed to fill a specific role, the radio proved popular and is now in general service."







# Now is the time

In creating defence capability, the challenge is to ensure that the whole of our collective capability is greater than the sum of the parts, argues Chief of Defence Materiel Bernard Gray

Chief of Defence Materiel Bernard Gray has told a major conference that Nato members, including the UK, will not be able to sustain their Armed Forces if they do not seize the opportunity to do something radical.

He said at the International Institute of Strategic Studies during a discussion meeting on defence acquisition, focused on international co-operation and reform,

that arguably there was widespread industrial over-capacity and duplication, and individual nations were finding it hard, if not impossible, to afford all the capabilities they needed.

He said: "Despite this multiplicity of suppliers, as was demonstrated during the Libyan campaign, there are some critical capability shortfalls.

"Our collective challenge, then, is to maximise the capability we can squeeze out of the resources we have."

He said that many of the defence and security challenges and threats Nato members are facing now, and would do in the future, did not recognise



# e to get serious

organisational or national boundaries.

"They cannot be neatly packaged. They are not easily eradicated. They demand a sophisticated, but determined response. In doing so – and it is our fundamental obligation to our citizens that we get this right – we must be flexible, financially disciplined, and ensure our collective sum is greater than our individual parts. And to do this right, we will need a collaborative and reformist approach," he said.

Mr Gray explained that there were three types of fighter aircraft being built in Europe and around nine in service with European nations; there were 11 suppliers of frigates and four suppliers of aircraft carriers versus just one of each in the US.

No fewer than 23 types of armoured vehicles were planned to be commissioned in Europe in the next 10 years.

Equipment collaboration was a possible solution but it had a long and chequered history.

"Lynx, Puma, Gazelle, Jaguar, Tornado and Typhoon and, more recently, the Stormshadow missile are all examples of success, if success is defined as

delivering capability eventually. Indeed, for Stormshadow, as I am sure many of you will know, a unique co-operative approach was adopted where both the French and UK governments agreed a joint requirement and asked the supplier, MBDA, to provide the solution for both nations.

"And if I have one suggestion for you in your discussions during this conference, it is that you consider why this approach has not been successfully replicated more often.

"Many such collaborative programmes have been bedevilled by delay and spiralling costs and, in some cases, complete abandonment by us, or one or more partner nations.

"But the factor we must consider now, in creating this defence capability, is to ensure that the whole of our collective capability is greater than the sum of parts."

He said for governments, the change in mindset required to build the specialisation pillar, in particular, was the most difficult. Getting nations to think in a more collegiate way and to begin to adopt a more enlightened and flexible approach to capabilities considered as sovereign would be a significant step.

The air domain was where there had been the most fruitful examples of collaboration and where the best opportunities might lie in the future in the areas of support and logistics.

The A400M aircraft might be an example of where collectively efficiencies

could be gained through centralisation of facilities and developing a common support solution, and after 2015 the UK might be in a position to share spare capacity in the RAF's planned A330 fleet of Voyager aircraft. This could be made available to other nations if contracting arrangements allowed.

Mr Gray said: "Simply put, both governments and suppliers must rise to the challenge of the new defence landscape. In doing so, governments will be tough, but fair, customers.

"We will root out poor performance, both within our own organisation and within our suppliers. For as the UK Secretary of State has mentioned previously, defence money is for creating defence capability, not subsidising failure – either in the MOD or in industry.

"Fundamentally the question is this: does industry want to come to the table to help Governments reduce costs by working together or, arguably, as we see now, does industry feel that its own interests are best served by continuing to operate in various domestic markets?" he said.

"We need industry to be more efficient, effective and, as with governments and alliances, more flexible."

Reforming defence acquisition would be part of the solution to the problems he had outlined. The Materiel Strategy was how that reform was shaping up; the initial analysis had been done and MOD now needed to make sure the proposals were the right ones.

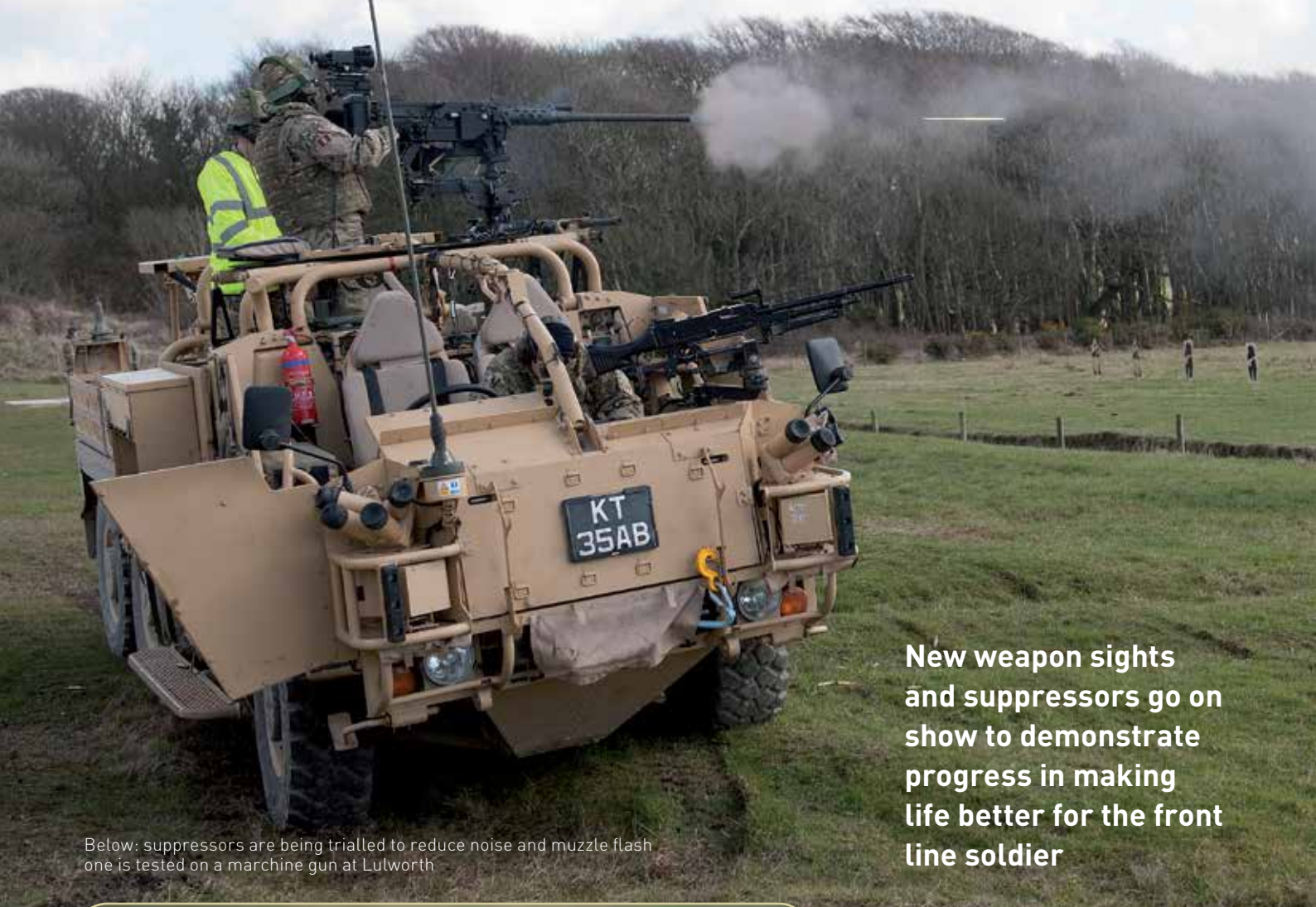
"But the need to deliver further efficiencies in defence acquisition, support and provision of capability to those international security bodies to which we subscribe has never been so strong," he said.

"On the political side, there are many challenges to face. Nationally we must be altruistic, while internationally, EU pooling and sharing and Nato Smart Defence approaches must be complementary."





# Technology will keep gunners on target



**New weapon sights and suppressors go on show to demonstrate progress in making life better for the front line soldier**

Below: suppressors are being trialled to reduce noise and muzzle flash one is tested on a machine gun at Lulworth



**T**echnology to enhance weapon sights and make life easier and safer for gunners and commanders on the front line has gone on show at a Dorset range.

Senior Army officers, technology developers and representatives from industry were hosted by DE&S Director Technical – Technology Delivery team to evaluate the latest stage of work conducted by the team and a Qioptiq-led consortium including QinetiQ and BAE Systems Advanced Technology Centre. All were on hand at the Lulworth Range last month to look at the potential for military use of new digital and optical technology to improve sighting systems on support weapons, including the Heavy Machine Gun.

Included in the technology is a project known as the Digital Optical Weapons





Pictures: Andrew Linnett

Qioptic. "This is very relevant to the British Army and DOWS is the start of that journey. But we realise that one size does not fit all. Our work will maximise the performance of rifles, the Sharpshooter rifle, heavy machine gun, general purpose machine gun and grenade launchers, especially at night. Our aim is to get them to their maximum effective range, 24 hours a day, no matter what the conditions.

"We are looking to take the commercial world and employ it in the military environment. Human integration factors are key and having the user and stakeholder involved is critical. The art of the possible is immense."

QinetiQ has assessed commercial Smartphone processors to understand their image processing capabilities and has demonstrated their image improvement techniques such as contrast enhancement and image sharpening. BAE Systems ATC worked to understand the HFI implications of presenting more information. An understanding of digital latency, or delay, in screen data being displayed is an issue that needs to be considered.

Other capabilities on show included clip-on thermal imagers for night vision goggles, giving the dismounted soldier increased capability to see in total darkness. Lightweight and waterproof, the imagers showed stakeholders how maximum situational awareness can be achieved at night, with variable brightness for the full range of conditions, urban, desert or cave. The imagers can be clipped onto the HMNVIS on a soldier's helmet, with four and a half hours of use guaranteed by just one AA battery.

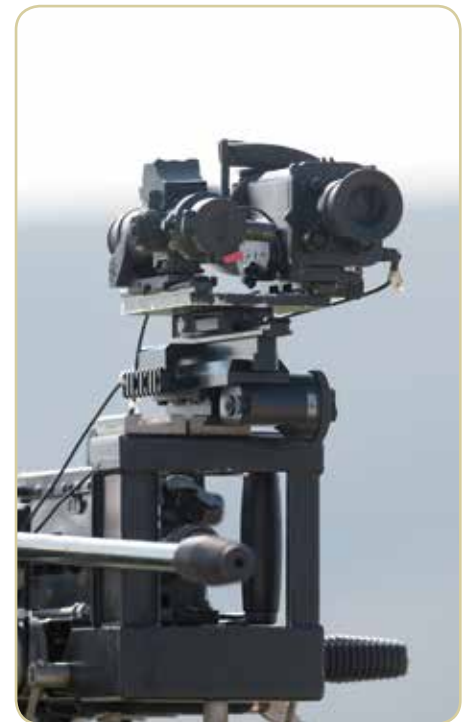
A number of suppressors were on show for the SA80, light and general purpose machine guns which reduce noise and muzzle flash. Developers are looking at suppressors' effects on the bulk weight of the weapon, increase on the length of the weapon and any stresses imposed on the weapon's moving parts.

"The day was about exposing various strands of work that Technology Delivery has been doing over the past year and a

half and to generate discussion with the user group and relevant stakeholders to agree a way forward for exploitation or if further work may need to be done," said the team's Nick Brown.

"It's all about what technology can do for us. Up until the 1990's defence had led research and development in this area but we couldn't keep up with the pace of commercial development. We've heard today about some of the opinions of the user community so I think there will be significant follow on from this. It is crucial to bring our stakeholder community together because they are the people we are doing this for. If we are doing something which is not to their requirement or doing something which does not improve their capability there is no point in us doing this. It is up to us to understand where technology can help them attain their goals.

"The user community seems to be really enthusiastic about what they have seen. There are a number of plans we have to go forward with now."



Right: a DOWS sight on a machine gun

Below: a clip-on thermal image

Sight (DOWS) which seeks to provide operators of support weapons with a reliable and up-to-the-second picture of the battlefield and potential target engagement. Included is the Support Weapon Remote View Optic, or SWRVO, developed by Qioptic and Istec. This takes the weapon sight picture and displays it on a screen mounted to the side of the weapon. Commanders have the same view as the gunner and can switch quickly from day to night and thermal vision. The benefits include less collateral damage, lower ammunition expenditure, allowing the gunner to keep better cover and giving commanders a weapon sight picture, which gives them increased situational awareness and common understanding of the target.

"We are digitising the sight systems of the future," said Steve Rickard of



# 'It still has the power to take my breath away'

**One of the most impressive sights in defence (and few staff ever get to see it)**

CLYDE HAS celebrated an engineering milestone with the 100th docking in the base's massive Shiplift facility.

Designed in the 1980s and entering into service in 1994, the shiplift has helped maintain some of the Royal Navy's most sophisticated vessels.

From giant 16,000-tonne *Vanguard* class submarines to glass reinforced plastic *Sandown* class minehunters, the facility has seen them all.

To help mark the 100th docking a cake-cutting ceremony was held on 25th February with Commodore Mike Wareham, Naval Base Commander Clyde, cutting the submarine-themed cake.

Also attending was Director and General Manager for Babcock Clyde, Pete Merriman, representatives from the Faslane Flotilla and members of the Shiplift team.

"This is a special occasion for Clyde and for the ships and submarines of the Faslane Flotilla," said Commodore Wareham.

"For the past 19 years the Shiplift has been the cornerstone of engineering support to Clyde-based ships and submarines and has played a key role in maintaining continuous at sea deterrence. The 100th docking represents many thousands of hours of hard work and dedication by those personnel employed in supporting the Fleet from Scotland."

For a limited time the Shiplift opened its doors to naval base workers. Usually off-limits to all but those working on the vessels, staff got the chance to see one of the most impressive and memorable sights in defence – a 149-metre *Vanguard* class submarine lifted entirely out of the water.



Cutting edge: Commodore Mike Wareham cuts the ceremonial cake

## SHIPLIFT – KEY DATES

1984	Design started
1989	Design completed and construction started
1990	Superstructure built
1993	Shiplift commissioned and handed over to the base
1994	Operational proving programme started. First docking
1995	Engineering modifications made to the submarine cradle
1996	First docking with the new cradle
2013	100th docking

Dimensions: length – 186m; width – 52m; height – 45m

The Shiplift is made of reinforced concrete supported by piles driven into the bedrock. It uses a proven 'Syncrolift' lifting system, consisting of a steel platform operated by 96 hoists and associated cables.

The Shiplift is in a covered dock running the length of 22 double-decker buses.

Captain Ian McGhie, Captain of the

Faslane Flotilla, said: "I have been a submariner for 26 years, but the sight of a *Vanguard* class submarine in the Shiplift still has the power to take my breath away.

"The 100th docking is a truly impressive achievement and it is thanks to the professionalism of the crews and the expertise of our engineers that the Shiplift now forms a part of daily business at Clyde."

## One-stop-shop created for defence reading

THE CHIEF of Defence Staff, General Sir David Richards, has commissioned a new list of books and articles as core reading for military professionals.

In an indication of the way military capability is generated in the UK, General Richards' list is available to a wider audience that reflects defence's partnerships – international, cross government, or with civil partners, industry, and reserve forces.

The list is available on the Defence Academy's website at: [www.da.mod.uk/recommended-reading](http://www.da.mod.uk/recommended-reading)



## New comms delivered in rapid time

A NEW communications and information system has been introduced to Nato forces and deployed headquarters.

Project Maggie's equipment – servers, switches and computers in rugged transit cases offering voice, data and video services – has passed from concept to delivery in less than 12 months.

It will allow the UK to access huge information resources currently held by Nato.

DE&S' Defence Information Services team in Corsham obtained financial approval in January last year.

Hardware and software were ordered within three months through the information assurance elements of the Information Systems and Services catalogue, with military manpower supporting building of the capability. The project was paid for through defence underspends.

With the help of 22 Signal Regiment it was first accepted into service in March last year.

The capability will be used by the Allied Rapid Reaction Corps at Innsworth and Stafford, by Air Command to support the Joint Force Air Component and by Headquarters Army to support UK contingency tasks.

□ The MOD and industry partners have concluded a flight trial to test and demonstrate an integrated defensive aids system "open architecture".

This architecture enables aircraft sensors and countermeasures to be fitted to aircraft more easily, allowing rapid enhancement to the protection of front-line aircraft in a more agile and cost effective manner through-life.

The Common Defensive Aids System demonstrator programme is a £24 million, three-year partnership between the MOD and industry led by Selex ES, with Thales and QinetiQ from the UK, and BAE Systems North America.

## Battling the cyber threat

**US exercise welcomes DE&S' valuable input**



Corsham's Global Operations Security Control Centre helps lead the fight against cyber warfare. Left: UK personnel on Cyber Flag



**'Those in the cyber community will appreciate the difficulty in keeping a network operating while deployed – especially when somebody is trying to knock it over!'**

PREVENTING SCIENCE fiction becoming science fact has seen a tri-service team of UK specialists take part in a full-scale cyber exercise in the US, probably the biggest of its kind in the world.

The team from the recently-formed UK Joint Cyber Unit – including personnel from DE&S' Information Systems and Services at Corsham – were at Nellis Air Force Base in Nevada for Cyber Flag 13-1, a full exercise run by US Cyber Command. It is the first time the US has opened the event to partner nations.

Ever more sophisticated hardware and applications in 21st century war-fighting bring increasing threat of cyber attack. Exercises such as Cyber Flag are important; something recognised by the US with the awarding of 'flag' status to this exercise.

Cyber Flag, using a virtual network of

around 7,000 devices, integrated defence of military networks into a broader campaign to replicate pressures of an operational environment. This culminated with a realistic 'live-fly', which saw coalition forces supporting an air component in a hostage rescue.

Fictitious 'users' were added to the network to do basic tasks like sending an e-mail or accessing the internet. This created challenges as networks had to be 'open' enough to be usable, but also defended against potential incursions.

A senior UK participant in the Cyber Flag exercise from ISS said: "This issue of usability versus security is not a new one and something which Joint Cyber Unit personnel from the Global Operations Security Control Centre at Corsham are well versed in. Indeed this experience

proved invaluable for the exercise. Those in the cyber community will appreciate the difficulty in trying to keep a network operating while deployed – especially when somebody is deliberately trying to knock it over!"

He added: "It is easy to dismiss the concept of a cyber war as farfetched; however Cyber Flag gave UK military personnel experience of what one might entail.

"With the increasing threat of science-fiction becoming science-fact, Cyber Flag 13-1 was an excellent experience, not something which should be considered the sole preserve of 'computer geeks', but a war-fighting exercise like any other."



## Network looks at the alternatives

AS PART of the Bath and Bristol Women's Network mission to overcome workplace and career obstacles relevant to women, network co-leader Janet Young ran an event to look into the MOD arrangements for Alternative Working Patterns (AWP).

Martin Thomas, HR Business Partner, provided insight into the policy rules and guidance relating to the variety of working patterns that are available in MOD including part time, term time, job share, home working and compressed weeks.

The statutory Right to Request was explained alongside the understanding that line managers and staff seeking AWP should work together to find solutions that continue to meet the business need.

Two Network committee members provided first-hand accounts of their practical experiences of working AWP.

There is much to celebrate about DE&S commitment to and availability of alternative working patterns, but some practicalities hindering its successful application.

The presentation slides from the Network event can be found on its website along with more information about the network <http://cui6-uk.diif.r.mil.uk/r/970/default.aspx>.

# Finding out at DE&S



ABBEY WOOD hosted a successful event on 5th and 6th March as part of Climate Week.

The aim was to demonstrate to staff the impact of climate change in everyday lives, the workplace and in the operational environment – Front Door to Front Line.

Outside organisations held stalls on the first day including South Gloucester Council, First Great Western, Alupro, the Local Sustainable Transport Fund, Severnside Partnership, Wessex Red, Climate SW Partnership, and

First Bus. It gave staff an opportunity to find out how they could make a difference to climate change.

The Department for Environment, Food and Rural Affairs, and Environment Agency Climate Ready team provided an overview on what is being done across Government.

DE&S Chief of Staff Simon Cholerton presented awards to nursery children at Woodpeckers who had painted their favourite weather for a competition.

Exhibitors on the second day

included stalls from Quality, Safety and Environmental Protection, the Met Office, Debut and the Defence Science and Technology Laboratory.

DE&S Director Technical, Air Vice-Marshal Julian Young, said: "New threats and challenges frequently require governments, societies and international institutions to adapt. Addressing climate change and resource security is no different.

"In defence we need to plan for the environmental impacts driven by our capability decisions."

Chief of Staff Simon Cholerton, front right, at Abbey Wood's Climate Week event

## Corsham showcases Government IT capability

AROUND 200 civilian and military IT specialists from across Information Systems and Services at Corsham and the wider MOD attended a 12th and 13th March market stall event hosted by IT Head of Profession for MOD Claire Fry and members of her DE&S Chief Information Officer team.

The event was the first in a series across the MOD this year to showcase the various elements of the Government's ICT Capability Strategy which translate into a positive future for Civil Service IT professionals.

The strategy is aimed at increasing IT capability and professionalism in the public sector. It is aimed at putting the right people into the right place at the right time to deliver successful ICT services while saving money by reducing the spend on contractors and consultants, interims and external recruitment and redeploying ICT people whenever possible.

Stallholders included members of the Civil Service IT



Anita White, on the right, with visitors to Corsham's IT market last month

Profession Board to chat about the extensive IT curriculum on offer via Civil Service Learning and Defence Academy, the new IT Career Framework based on SFIA, and opportunities for graduates and apprenticeships.

To find out more about IT developments in the Civil Service, visit the MOD IT Head of Profession website: <http://defenceintranet.diif.r.mil.uk/Community/Networks/Pages/ITHOP.aspx>



# Clyde safety enters new phase

A CAMPAIGN to turn Clyde naval base into a safer place for people to work is embarking on its third phase.

Clyde and industry partner Babcock Marine launched an improved safety culture in 2008 to become a way of life for all employees and contractors. The Incident and Injury Free (IIF) initiative has cut the number of incidents at the base over the last five years.

Incidents serious enough to be reported to the Health and Safety Executive are well down, while awareness of safety culture has seen a huge increase in the number of near miss incidents reported.

"The figures do act as a useful barometer for safety culture," said Ian McKay, Clyde's Safety Health Environment Assurance Manager. "The active engagement of all staff, including permanent and visiting contractors in our IIF programme, is key and the 'near miss' reporting culture and the willingness for anyone to 'step in' when they see something unsafe is what really makes the difference."

Phase 1 of the campaign brought

in workshops to secure buy-in from senior management. This was followed by sessions for all Clyde and Babcock personnel, then broadened to other base staff.

Later the campaign was extended

## IIF successes

- 64 per cent reduction in reportable events to HSE (25 to 9)
- 39 per cent reduction in non reportable events (219 to 134)
- 800 per cent increase in near miss reporting (94 to 724)

to BAE Systems at Barrow to cater for contractors and ships' staff working on the *Astute* submarines. So far more than 4,500 people have attended the full orientation sessions.

The second phase which began in 2010 introduced a safety leaders' programme to target selected business departments to help foster champions of

the IIF campaign and to promote peer-led coaching.

Mr McKay said: "We are just about to launch Phase 3 which will continue to embed the IIF initiative with more focussed workshops on specific themes, steadily moving away from peer-led workshops and targeting individual aspects of the business where there is greatest scope for improvement. Plans are now in place to hold a local safety conference and establish our first Clyde Safety Awards.

"Five years down the line there is now an increased focus on individual behaviours with plans now in place to develop further the key behaviours expected from senior managers, line managers and all employees. There is also a proposal to align our behavioural safety programme with some of the principles of the larger Submarine Enterprise Peer Review Programme."

Mr McKay added: "We have come a long way and the challenge is to sustain the progress made and ensure that Clyde remains a safe working environment which is incident and injury free."

## ... while safety leaders meet at Abbey Wood

MORE THAN 150 members from across the DE&S safety domain attended a Safety Leadership Event, a one-day conference at Abbey Wood.

Air Marshal Simon Bollom, DE&S' Chief of Materiel (Air), opened the 26th February conference, pictured left, with his thoughts on risk tolerance.

A range of presentations were given by the 2\* Operating Centre Directors on issues including duty holders in DE&S, competence challenge and the difficulties of reducing risk to 'as low as reasonably practicable' (ALARP).

The afternoon was dedicated to sharing lessons learned from accidents and incidents, opened by Director Ships, Tony Graham, who looked at why lessons are not being acted upon.

The section was concluded by Director Combat Air, Air Vice-Marshal Graham Farnell, who reinforced the lessons learned theme with clever use of a video of a vertical take off by a Lightning II aircraft.

The conference was closed by Director Technical, Air Vice-Marshal Julian Young, who picked up on points made by Air Commodore Mark Sibley to consider how DE&S might improve in terms of a 'just culture', and how individuals might be encouraged to admit to human error.





# Appliance of (joined up) science

**A Royal Society shadowing scheme to link politicians and civil servants with academia is designed to boost joined-up scientific thinking. Nick Hales of DE&S Director Technical takes up the story**

I inquired whether there was interest in pairing with an Abbey Wood-based procurement project manager and was offered a pairing with Professor Kevin Williams of Cambridge and Eindhoven Universities who works on electronics using light – or photonics.

In the first part of the exchange we both met the Chief Scientific Advisor for his views on the future of science and the problems that need addressing. We then sat in on a Parliamentary committee scrutinising a proposed merger between the British Antarctic Survey and the National Oceanography Centre. MPs had an excellent understanding of the issues and recommended the merger did not take place.

Subsequently Kevin came to Abbey Wood where he met and exchanged perspectives with members of Technology Demonstration and their support staff. Kevin also visited General Dynamics (UK) at their Edge facility in south Wales.

To reciprocate, I was invited to Cambridge University for a discussion with the Head of Engineering, Dame Professor Ann Dowling. Especially interesting, as I had managed a programme on the topic, was her recent published work on jet engine noise reduction, the SAX-40 concept, which could also offer 124 passenger miles per gallon.

Meeting Professor Jon Crowcroft

I learned that Cambridge designed the chips which power more than 90 per cent of mobile devices, and researchers also designed the 'cloud' where we can store our data away from our computers, thus insuring us against loss of the computer. Electronics with the 'cloud' is nearing its limits hence the importance of Professor Williams' work on photonics, computing chips that use light.

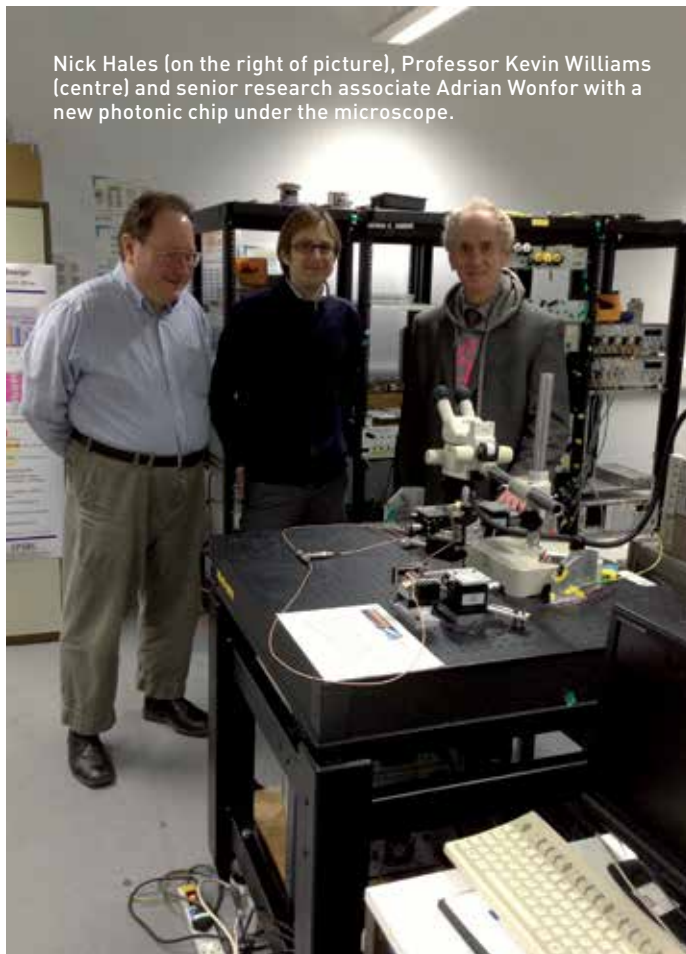
Among the other professors whose work I was privileged to discuss was Jan Maciejowski who works on predictive control including future air traffic management, (another area of work I have been involved in as a project manager), and the interplanetary Mars sampling recovery programme.

We visited the Centre for Science and Policy, set up to solve a lack of

trust, understanding and respect between academia and government leading to reduced exploitation of research. This is addressed to some extent by the Royal Society's scheme.

I hope more DE&S engineers will take advantage of the scheme, particularly younger ones who have more time to exploit what they learn and disseminate ideas.'

■ Anyone interested in being part of the scheme see the Royal Society website <http://royalsociety.org/training/pairing-scheme>



Nick Hales (on the right of picture), Professor Kevin Williams (centre) and senior research associate Adrian Wonfor with a new photonic chip under the microscope.



## Now it's HMS Ambush

AMBUSH, THE second of the *Astute* class submarines, has been commissioned into the Royal Navy.

Around 500 invited guests joined naval base workers and the submarine's crew for the 1st March ceremony at Faslane.

The day represented another step forward in the programme to build seven vessels, the future of UK submarine operations for many years.

First Sea Lord Admiral Sir Mark Stanhope described the day as 'important and noteworthy'.

"These vessels represent the cutting-edge of military technology and

the future of UK submarine operations for many years to come," he said.

*Ambush* was launched at BAE Systems' yard at Barrow on 5th January 2011 and arrived on the Clyde last September.

Since then, *Ambush* has undergone extensive sea trials with the White Ensign being raised for the first time on 18th January after the signing of the 'certificate of acceptance', transferring her from builders to the MOD.

*HMS Ambush* is expected to complete sea trials and be formally handed over to the operational control of the Royal Navy later this year.



DE&S' IN-HOUSE Multimedia team is reminding programme managers of the impact design-related elements can make and how essential they can be to delivering key milestones.

The team, part of DE&S Corporate Communications, includes highly skilled designers, photographers and video producers. Their role is to support Operating Centres on multimedia outputs from the DE&S Organisational Chart and media facilities to videos on equipment capability.

Using correct corporate branding and having a professionally designed product will have a positive impact on programme work. Designers within the team can provide advice on bespoke creative solutions.

Section leader Katherine Hollingworth said: "The team is there to support and advise on design requirement from corporate branding to overseeing the finished product and production.

"Key things to remember as the client is to think about deadlines and allow sufficient time. Think about content, including text and imagery and ensure these are finalised before the design request."

The two professional photographers in the team can support requests for film and photographic production. This can include anything from a 30-minute film to coverage of an event at Abbey Wood which may only include a few photographs.

The team has produced instructional videos for front line commands, films for industry days and extensive imagery for key events and milestones in equipment programmes.

Find out more from the team at DES SEC-CorpComms-MultiMedia

## Make an impact!

Think graphically, and DE&S' experts can help deliver better programmes



On assignment: DE&S Multimedia photographer David Tucker

## Land leads the way in SDSR-inspired revamp

DE&S' LAND Equipment Operating Centre has reorganised from 1st April.

The Land Equipment Support Strategy aims to give industry a greater role in optimising provision of equipment support and reducing costs.

Alongside this, a revised organisation design enables more effective ways of working to drive efficiencies through application of portfolio, programme and project management principles and through more efficient use of scarce specialist resources.

Land Equipment has reorganised in response to demands of the Strategic Defence and Security Review, changing ways of working to ensure sustainable safe and professional delivery of its outputs to front line customers within a framework that allows greater agility in adapting to its customers' changing priorities.

This revised programme



□ Part of the process of General Support Group's restructuring will involve the merger of Expeditionary Campaign Infrastructure with Deployable Infrastructure to form the Operational Infrastructure Programme (OIP).

The formation of OIP brings together all operational infrastructure under one team, which includes operational accommodation, tented camps and aircraft shelters, field hospitals, force protection material, battlefield utilities such as power generation, fuel/water processing, engineering workshops, tools and machinery, garage equipment, test and measurement equipment.

Back from left: Sarah Handley (Camp Infrastructure assistant head), James Bannochie (senior engineer), Col Doug Gibson (team leader) and Neil Terrill (Support and Test Equipment assistant head). Front: Lt Col Huw Parker (S01 Operations), Sam Rawle (Battlefield Utilities assistant head) and Helen Churchill (Financial Controller).

grouping caters for a small number of programmes and projects that are being transferred into the operating centre due to reorganisations elsewhere in DE&S.

Heads of programmes will be renamed to make it straightforward for those outside the organisation to understand the purpose of that area.

Changing identities include: Combat Tracks Group becomes Armoured Vehicles Programmes (three capability programmes: In-Service Platforms, Scout SV and Artillery Systems); Combat Wheels Group becomes Combat Mobility Programmes; General Support Group is renamed Operational Support Programmes; Individual Capability Group becomes Soldier System Programmes; and Joint Battlefield Trainers, Simulation and Synthetic Environments will now be Training and Simulation Systems programmes.

## Sign up to the MOD's sports day

ENTRIES ARE invited for the MOD's annual sports day.

Recognised as the highlight of the sporting calendar for civilian staff the event is the flagship of the Defence Sports and Recreational Association

This year sports day is on Friday 28th June at Bath University sports village and will feature archery, athletics, cricket, football, a fun run, hockey, netball, rounders, swimming, tennis, tug of war and volleyball.

There will also be additional fun and team-building events along with live music, a barbecue and beer tent.

Closing date for entries is Friday 17th May

Entry forms and further information are available from the DSRA Team Intranet Page: Defence Sports and Recreational Association (DSRA)

## Still ahead of the game

THE ARMED Forces' Rally team's first outing of the year saw DE&S' Alan Paramore again finish ahead of his teammates as the sport enjoyed a weekend in Blackpool.

Major Paramore of the Protected Mobility team piloted his Land Rover to 39th position from a starting field of 88 over the 26 stages of the North West Rally.

He was accompanied by Lt Col James Sunderland of Deepcut in recording a total of just over two hours for the stages, a few minutes ahead of their nearest team-mates.



## Where there's smoke, there's FireSnow!

LATEST DEVELOPMENTS in technology used to fight fires in DE&S and beyond are to be featured in a new quarterly e-journal.

FireSnow will be a bite-sized newsletter outlining vehicle and craft fire detection and suppression, as well as covering areas of regulations/directives/environmental impacts which are shaping the future of fire systems across all areas of DE&S.

The e-journal, from Protection Systems in Combat Tracks Group, will inform and promote communications between teams in DE&S as well as outside the organisation.

Each issue will cover a different team across the Land, Sea and Air environments to share knowledge throughout the community.

# Broadening horizons

THE MOD apprentice of the year led the way as the engineers of the future broadened their experience of life in the department.

Polly Blaikie of DE&S, who took the top honour in a ceremony at Christmas, was back in Main Building for a discussion with Permanent Under-secretary Jon Thompson.

Other apprentices were out and about as part of national apprentice week last month.

Polly currently works with DE&S Submarines and is based in Barrow.

She was given an insight into the workings of Main Building by Mr Thompson who has, in the past, welcomed other DE&S apprentices to Main Building to broaden their work horizons.

Meanwhile Richard Johnson, Seaboats Support deputy project manager with DE&S Ships, spent a day shadowing Lt Gen Sir David Bill, commandant Royal College of Defence Studies.

Richard began his three-year apprenticeship in 2009 and completed with an HNC in Mechanical Manufacture and an NVQ Level 3 in Technical Support Services.

He is now working with the team responsible for support and acquisition of Pacific 24s, Pacific 22s and Avon Seariders, primarily in use as marine interdiction and fast rescue craft on board Royal Navy warships.

## DE&S apprentices are out and about across the MOD

"Not only was the experience informative it was also extremely enjoyable," he said of his day at the College.

"Despite initial apprehension

I was made to feel very welcome by everyone involved and gained a valuable insight into one aspect of the higher tiers of Government."



Polly Blaikie and Permanent Under-secretary Jon Thompson at MOD Main Building

Picture: Harland Quarrington

□ Apprentices are showing they have every opportunity to further their careers in DE&S.

Wayne Bantick, the MOD's apprentice of the year in 2011, joined the International Guns, Missiles and Rockets team to broaden his career at Abbey Wood.

He began as an E1 grade and has recently been promoted to C2.



# Camilla suffers cup heartbreak



Above:  
Camilla  
and Or  
Sing About  
after the  
race

Right: what  
might have  
been -  
Jody Sole,  
on the  
left, roars  
home for  
Gold Cup  
victory at  
Sandown  
Park



CORSHAM-BASED RAF officer Camilla Howard saw her big racing day end in disappointment in front of a sizeable crowd at Sandown Park.

Flt Lt Howard, who works in military admin at Information Systems and Services headquarters, became the first female RAF jockey to take part in the Grand Military Gold Cup, a steeplechase for amateur jockeys which is steeped in military heritage and was celebrating its 150th anniversary.

It was the first time in 30 years that jockeys from all three services took part.

But there was to be no fairytale outing for Flt Lt Howard, 32, whose mount Or Sing About, found the soft ground tough going after being sent off on the three-mile race on 8th March as the 66-1 outsider.

Flt Lt Howard, whose father

and grandfather both held amateur jockey licences, was well adrift of the pace early on and Or Sing About tailed off to be out of contention after 11 flights.

"It was a brilliant day even though I had to pull the horse up," said Flt Lt Howard.

"Unfortunately, the horse does not like soft ground and we had rain on Thursday night and on the day on Friday which made the going really tough.

"I arrived early to walk the course and the reality of what I was about to do hit home as I had a look at the fences close up.

"With a few final words from the trainer in the paddock - 'he won't like the ground so sit tight and see how far you can get' - I had a leg up and we were off to the start," she added.

The race itself did not go to plan. "We took off far too early for the first fence - I think I might have shut my eyes! - and then hit the second fence so we were off the pace from there onwards," she said.

"We made it round one circuit and I then pulled him up as we were not going to be able to catch the rest of them.

"But I was thrilled to have ridden in the race and that both of us came home safely. I will just have to make it round the full two circuits next year!"

The cup was won by Lance Bombardier Jody Sole on the five-year-old Paul Nicholls-trained 7-4 favourite Merriion Square.

Two other horses in the ten-strong field also suffered and were pulled up as the distance on a wet and overcast day over demanding ground took its toll.

## CDM trip helps boost Marine funds

CHIEF OF Defence Materiel Bernard Gray joined Royal Marines for a function to raise funds for the Royal Marines Charitable Trust Fund.

Organised by 43 Commando Fleet Protection Group and co-hosted at Glasgow City Chambers by personnel from 45 Commando and Royal Marine Reserve Scotland, the charity event on 22nd February saw many prize draws and auctions, with activity days with the

Scottish Royal Marine Units and signed Glasgow Celtic and Glasgow Rangers tops among items up for grabs.

Around £20,000 has been raised for the fund towards the charity's target of £6 million by next year, which is the 350th anniversary of the founding of the Royal Marine Corps.

■ [www.rmctf.org.uk/our-challenge](http://www.rmctf.org.uk/our-challenge) for more information.

□ THE RAF will look for a third successive title as Lord's cricket ground hosts the Inter Services Twenty20 tournament for the fourth year in a row on 18th June.

The tournament featuring the best cricketers in the three services is one of few to provide three games of high-quality cricket in one day.

Combat Stress will be this year's supported charity, with Heineken UK as the event sponsor.

Ticket prices: Adult £15, Over 65s £7.50, Under 16s £5. Purchasing information is available at [www.interservicest20.co.uk](http://www.interservicest20.co.uk)

### DSRA LOTTERY WINNERS JANUARY 2013

#### £10,000:

Simon Laight  
(Whitehall).

**£5,000:** Lynsey  
Tilston (Liverpool).

**£2,000:** Alan Cuer  
(Abbey Wood).

**£1,000:** Iain Brodie  
(Gloucester).

**£500:** Deirdre  
Weatherall (High  
Wycombe). **£300:**

Paul Cooke  
(SPVA), Richard  
Edwards (Bulford  
Camp), Roy  
Smith (Andover),  
Stephen Davies  
(Whitehall). **£200:**

Karen Chase  
(UKHO), Andrea  
Long (Chicksands),  
Gerard Mullin  
(Babcock), Claire  
Swain (MDP

Easington),  
Ben Campbell  
(Winterbourne),  
Judith Taylor  
(Bicester), Mark  
Hastler (BAE

Filton), Craig  
Bainbridge (Abbey  
Wood), David  
Gray (Andover),  
Gary Collier  
(Leconfield),  
Robert MacNaught  
(Abbey Wood).

**£100:** Deborah  
Russell (RAF  
Shawbury), Neil  
Aiston (MGS  
Longtown), Ian  
Armsby (DMC  
Plymouth),  
Richard Hughes  
(Corsham), Joanne  
Smart (Catterick  
Garrison), Robert  
Neil (RNAD  
Coulport), David  
Hume (Corsham),  
Gwendoline  
Appleton

(Colchester),  
Frank Jewell  
(UKHO), Darrel  
Perry (RAF  
Cosford), Patricia  
Pittendrigh  
(Bacock), Janet  
Gul (Halifax),  
David King  
(Abbey Wood),  
Stella Crawford  
(Portsmouth),  
Gary McIlvenna  
(Aldermaston).

# Fit to fight

How front  
line Forces  
and their  
support  
staff stay  
healthy  
– and  
hygienic!

CHILDREN in a north Bristol school have been trying out their own version of the front line to see how UK Forces maintain good hygiene.

The 5-7-year-olds from Barley Close Primary School learned about the challenges of good hygiene in austere environments from members of DE&S' Expeditionary Campaign Infrastructure team.

Sarah Handley, the team's Output Programme Manager, was joined by engineering graduate Ruth Boomer.

The children were able to try on a variety of military uniform including Mess Dress and Multi Terrain Pattern clothing. The children were encouraged to put forward their ideas on what they thought the differences were between their own homes and that of a soldier's home in the field.

Issues they explored included temperature, security, waste disposal, power and clean water. The children were fascinated by how many difficulties could be encountered, not just in Afghanistan but at the London



Olympics too.

Children learned about hygiene equipment, including the most recent DE&S-purchased Tactical Base Ablution Unit. This exposed them to engineering challenges of transportation, reuse of water and waste disposal. Water recycling generated particular interest.

Below: Members of the ship's company are coached on the importance of physical fitness on board

**CREW MEMBERS** from Faslane-based submarine *HMS Vigilant* have been praised by the British Heart Foundation for efforts to improve their health and well-being by hosting a Health at Work symposium.

This launched the "Well Boat" initiative, combining health promotion, sporting opportunities and nutritional support.

If the crew is unwell or unfit it could mean that they are unable to perform their jobs. Not a single day of patrol has been missed in more than 40-years of continuous deterrence, so it is crucial all on board are in good shape.

"Due to the nature of deterrent patrols, with the limited resources on board and the inability to transfer patients for further care, the safeguarding of the crew is vital to operational capability," explained Surgeon Lieutenant Mike Hill, *HMS Vigilant's* Medical Officer.

"Health at Work Day helps fulfil our commitment to ensuring our crew's future welfare. In addition to the reduction of days lost through ill-health, there is also an increase in the individual's performance on board."

As part of the initiative nutrition has also been improved on the submarine with better labelling of food options to highlight healthier choices. The crew can make better and more informed decisions regarding their nourishment.



THE ROYAL Navy marked National No Smoking Day in Devonport by holding a One Mile Treadmill Challenge for charity.

Commodore Graeme Little (Naval Base Commander) and Captain Mark Knibbs were the first to complete a mile, followed by a number of *HMS Drake* personnel throughout the day. Proceeds from the event will go to the British Heart Foundation.

The MOD Regional Occupational Health team, Royal Naval Health Centre, Dental Department and Health and Safety at *HMS Drake* united to promote No Smoking by erecting displays and providing practical advice to naval base workers interested in kicking the habit.

Julie Hanley from the occupational health team led the campaign. She said: "As well as promoting health and wellbeing for naval personnel we have also raised some money for charity."





❑ Royal Marines from Plymouth responded to an unusual tasking when they helped rescue a pony in danger of falling off a steep cliff face on the Rame Head Peninsular.

Marines responded with a landing craft vehicle personnel and an off-shore raiding craft.

Members of the RSPCA, Maritime and Coastguard Agency, and Devon and Somerset Fire and Rescue Service were transferred to the landing craft. They were dropped off at the beach off Rame Head in south east Cornwall.

The rescuers gently coaxed the distressed pony down to the beach area from the cliff edge and anaesthetised the animal to calm it down before transfer to neighbouring Cawsand Beach for final release.

"Being able to contribute to the Plymouth community and utilise our skill and equipment for the benefit of the public gives us great satisfaction," said a Marine spokesman.



❑ MOD Police from Clyde have used money from successful Blue Light Discos to sponsor a junior rugby team.

Loch Lomond Mini Rugby Team was presented with £500 by the MDP's Community Police Officer, PC Russell White, during one of its regular training sessions at Vale of Leven Academy on 25th February



## DE&S sites in the community

■ Young firefighter Stuart Thomson, left, 16, undertook work experience with a difference when he spent a week with Clyde's Defence Firefighters.

Stuart, who is a member of the Dumbarton Young Fire Fighters Association, practised working with breathing apparatus, working at heights, first aid and of course putting out a range of fires using all the equipment at the disposal of the modern firefighter.

The programme was organised by Station Officer Jim Gray of the Defence Fire and Rescue Service.

# Future media looks at future Devonport

Fact-finders: students are shown the inside of HMS Sutherland's ops room



DEVONPORT HAS hosted media students from the City of Plymouth ahead of a month-long study project on the site.

The students, studying the National Extended Diploma in Media, were treated to a rare insight into the workings of the base.

For most it was the first time they had been inside a naval base and seen warships close up. They had a tour of HMS Sutherland which last year conducted a successful maritime policing patrol deterring piracy, smuggling and other illegal use of the busy trade routes at sea.

College lecturer Rob Chadwick, Academy Manager, Media and Digital Industries, said: "This is a fantastic opportunity for our students. I hope it will be a partnership that can benefit everyone for years to come."

They were also shown the naval heritage area including the submarine HMS Courageous and enjoyed lunch in the historic officers' mess wardroom.

Commander Andy Coles, Devonport's Executive Officer, said: "This is the beginning of a new engagement which we hope will continue to grow. The students are the bright economic future of the city and the Royal Navy has a lot in common with a college with our motivated high-achieving young workforce."

## From Abbey Wood to London – the DESpots saddle up

A TEAM of civil servants and military staff – known as the Bristol DESpots – will be cycling for charity this summer, aiming to raise £5,000 for Help for Heroes.

The team will leave Abbey Wood on 31st May for the 160-mile journey to London, to meet up with the Big Battlefield Bike Ride from Paris to London on 2nd June on the way to the Cenotaph. The DESpots will be backed by the Defence Clothing team, with support vehicles.

❑ [www.justgiving.com/Bristol-DESpots](http://www.justgiving.com/Bristol-DESpots)



## Training is tops at Gosport

**DEFENCE MUNITIONS**  
Gosport apprentice training staff are celebrating after being awarded a Grade 1 – Outstanding by Ofsted in all four areas of their training provision.

The DM Gosport craft scheme completes a significant part of the training in-house, using a fully approved NVQ centre, in-house assessors and experienced apprentice masters.

Some of the inspectors' key findings included: all apprentices progress into engineering employment; they complete an exceptional range of relevant additional qualifications and activities; personal and academic support is excellent; managers are quick to respond to concerns from apprentices; and apprentices quickly take responsibility for their learning.

Pictured above are Kevin Haydock, Apprentice Training Manager, and Lynn Wilkinson-Berry, Apprentice Training Administration, Safeguarding and Welfare Officer

**TOP OF the class** Lt David Blatcher has been rewarded for exceptional performance on his Marine Engineering MSc course at University College London.

Lt Blatcher received the Yard Prize, donated in the 1990s by a submarine engineering consultancy.

The prize was presented by DE&S Director Submarines and Chief Naval Engineer Officer, Rear Admiral Simon Lister.

"Through his consistent efforts he has enhanced the reputation of the Royal Navy," said Rear Admiral Lister at the presentation.

Lt Blatcher achieved a distinction for his thesis on diesel engine emissions, led a team to win the ship design prize with a novel twin-hulled deep-water survey ship and graduated at the top of his class. He now works in Director Ships' Electrical Systems Group delivering future technical projects.

## David is yards better!



David, right, receives his prize from Rear Admiral Simon Lister

# Duchess delights during Devonport family visit

THE DUCHESS of Cornwall delighted recovering troops and their families during her first visit to the Royal Navy in Plymouth.

The Duchess visited injured troops and chaplains from the south west at Devonport.

The Duchess talked to members of the Royal Navy Medical Services and recovering injured Royal Marines and personnel from the other Armed Forces who are benefiting from the recovery pathway under the care of Hasler Company. The Duchess of Cornwall has been Commodore-in-Chief of the Royal Naval Medical Services since 2006.

Major Steve Melbourne, officer-in-charge Hasler Company, said: "It is a huge honour for all the guys and girls under Hasler and the staff to have a personal visit from the Duchess. It means a lot to them."

"This was a chance for the users of the Royal Naval Recovery Pathway to tell their stories to her. They all have individual stories of triumph over adversity and it was a chance to tell her what fantastic care they have had through Hasler Company."

Hasler Company helps to aid the recovery and re-integration of injured and ill service personnel who have complex needs and require focused and individual attention.

The Duchess met Marine Spencer Vaughan, 25, and his partner Jodie Jenkins. Spencer



The Duchess meets Spencer Vaughan and his partner Jodie Jenkins

suffered a broken neck during a non-combat incident and was partly paralysed. He said: "It was really good to meet the Duchess. She was very interested in my life and what my future will be. It does give you a lift to have people like her giving us their time."

The Duchess then met chaplains from all Royal Naval units in the region. The chaplains offer pastoral care and spiritual

and moral leadership to the men and women of the Navy and their dependants. The Duchess has been Commodore-in-Chief of the Royal Naval Chaplaincy Service since 2008.

The Prince of Wales, Admiral of the Fleet, and Commodore-in-Chief, Plymouth Royal Naval Command, visited HMS Bulwark at sea and met members of the ship's company.



# Portsmouth shows off expertise on VIP visit



Major General Abdullah gets first hand experience of the MOD's work on helicopters during his visit to Portsmouth naval base

PORTSMOUTH'S CENTRE of expertise for helicopters has gone on show to a senior member of the Royal Saudi Air Force.

Major General Naif Bin Abdullah Bin Saud Bin Abdullah Al Saud, Director of Safety for the RSAF, visited 1710 Naval Air Squadron at the city's base on a fact-finding mission.

He was given a comprehensive tour of the headquarters including the squadron's repair office and various laboratories.

The squadron is a centre of expertise for helicopter structural repair, modifications and scientific support. Its work includes designing and fitting modifications to helicopters across all three services.

It also provides vital support to aircraft on front line operations overseas, ensuring they are kept ready to perform to the highest standards.

Squadron Commanding Officer, Commander Ken Whitfield, said: "The visit was a highly successful fact-finding mission to aid the Royal Saudi Air Force's ambition to set up a similar organisation. These welcome visits provide increased visibility and offer mutual benefits to both organisations.

"It is hoped that we can continue to support the Royal Saudi Air Force with its endeavours to develop an equally capable organisation."

The squadron comprises 194 experts mostly from the Royal Navy and Civil Service. Although most of its work supports military helicopters, it also provides expert scientific advice to ships and land-based systems.



## Judith clocks up 37 years

JUDITH LAW has received her Imperial Service Medal from Tim Rowntree, Director Air Support, having retired after a 37-year Civil Service career, including 15 with the MOD.

Judith, pictured above with Mr Rowntree, has worked in various air and weapons organisations and, from 2003, with Robin Philip, former Head Air Support Commercial.

She also supported the Abbey Wood Conservation Society, was a local assessor for the GEMS scheme, and social secretary for the Laurels sports club.

Judith has also been a member of the Scouting Association for more than 25 years and an elected member of her local Parish Council.

Colin Ballard has received his Imperial Service Medal for his support to Royal Marines in Devon for more than 25 years. At a ceremony held at 11 Amphibious Trials and Training Squadron in Royal Marines Instow. Colin of Bideford was presented with the medal by Commanding Officer 1 Assault Group Royal Marines, Colonel Garth Manger.

# 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:

**2013DIN04-032:** This relates to all users and demanders of items supplied on the Adhesives Tapes and Sealants contract that is managed by the Medical and General Supplies team. The update is to the hyperlink that shows an edited version of the items that can be demanded/locally purchased and items that can no longer be procured due to them not being manufactured to the contract's specification.

**2013DIN04-030:** This DIN makes sure the MOD is able to meet requirements of the US International Traffic in Arms Regulations in theatre and that no unauthorised third parties have access to US ITAR-controlled materiel during movement and disposal of US ITAR-controlled materiel in theatre and back to the UK.

**2013DIN04-023:** Support for the Army Tactical Computer Systems with regards to repair, procurement of spares, support for publications and training is being terminated. Equipment is to be returned to depot, ensuring all computers/hard drives are returned/disposed of in accordance with local security procedures.

**2013DIN04-022:** This DIN informs users that the Bowman HF Mk1 lithium-ion rechargeable battery is obsolete and staff should refer to equipment disposal instructions.

Further information and more details on the latest DINs see:

<http://defenceintranet.diif.r.mil.uk/Reference/DINsJSPs/Pages/DINsindex2013.aspx>



We ensure global reach  
from **up there**

to ensure smooth passage  
**down here**

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