

desider

Mar 10 Issue 23

de&s



MINISTRY OF DEFENCE

the magazine for defence equipment and support



Merlin weaves its operational magic in Afghanistan

PACE supplement [See inside](#)



Cutting edge



'Lusty' takes a break



'Spy' is back in the sky



Perfect pancakes



Husky is new top dog



cover image

Significant work by AgustaWestland helped the deployment of the Merlin Mk3 helicopter to back up front line operations in Helmand Province as the aircraft is currently involved in Operation Moshtarak. Ballistic protection for the Merlin was completed in just three months. Strategic partnering with the company by DE&S is helping to increase the capability of the helicopter force during operations.

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FEATURES

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The Strategic Partnering Arrangement between DE&S and AgustaWestland was hailed as a ground-breaking deal when it was signed in 2006. It is now providing big benefits in Afghanistan where helicopters are providing much-needed support to the front line.
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- 32 Out of the frying pan . . .**
DE&S could not let Shrove Tuesday pass without finding some chefs back from Afghanistan to demonstrate the variety of meals to be made from front line rations. Schoolchildren reaped the benefit by enjoying pancakes, cooked by the experts.



NEWSREEL

Marchwood backs Haiti

PERSONNEL AT Marchwood played their part as efforts to help the people of earthquake-torn Haiti revved up. RFA *Largs Bay* was loaded with vital aid and supplies at Marchwood, the military Sea Mounting Centre near Southampton, as part of the international relief effort in Haiti. She carried 40 Land Rovers for personnel to reach the affected areas, shelter materials such as corrugated iron and support equipment such as forklift trucks to rebuild the nation's port.

Research conference

DEFENCE Research 2010, a part of DE&S' supplier engagement programme, will take place on March 23-24 at Birmingham International Conference Centre. The event will draw together key decision-makers, including DE&S, the Equipment Capability Sponsor (military customer), Dstl and the Centre for Defence Enterprise. It will also incorporate suppliers from prime and sub-contractors to SMEs, academia, research organisations and individuals. More details at www.defenceresearch.co.uk

Safety on the agenda

ESAS10 – a symposium on system safety and environmental issues – will be on 25-27 May at Abbey Wood South. It is currently free to MOD employees on registration. ESAS 10 is sponsored by DE&S S&EP. Speakers will be from DE&S, the wider MOD, and industry. The symposium will include presentations, workshops and trade stands. For details of registration please see the S&EP intranet pages or the SCSC website.

Prince experiences a spring in his step



Plain sailing: Prince Charles takes a ride in Springer as he visits troops on Salisbury Plain before they deploy to Afghanistan. The Prince is Colonel-in-Chief of 1st Battalion, the Mercian Regiment (Cheshire)

Kit goes on show on the Plain: pages 25, 26 and 27

Picture: Cpl Jim Barron, RLC

DE&S extends quality ammunition partnership

DE&S HAS extended its partnering agreement with Rheinmetall Waffe Munition for another five years to provide security of supply of critical munitions to meet operational and training needs.

It is a new order volume worth more than £130 million until 2015 and will deliver savings and benefits totalling £37 million.

The Partnering Agreement includes a range of 36 general munitions, including rockets, grenades, flares, baton rounds and a range of 40mm ammunition, including grenade machine gun rounds.

DE&S' Defence General

Munitions leader, Colonel Andrew Gibson, said: "The MOD only buys high quality munitions which are reliable, safe and suitable for service.

"Over the last five years Rheinmetall Waffe Munition have proved they can deliver a wide range of both pyrotechnics and medium calibre munitions on time and at a fair price."

Other long term benefits of the agreement include product development, a contractually taut monthly delivery schedule, agreed capital expenditure programme, maintaining a UK office and priority access to test and evaluation facilities at a reduced cost.



Peter Northen, left, DE&S Head of Munitions, International and Torpedos, with Armin Papperger, president of Rheinmetall Waffe Munition

THE FIRST two Type 45 destroyers – *HMS Daring* and *Dauntless* – have performed side-by-side at sea for the first time.

They successfully completed a series of complex manoeuvres south of the Isle of Wight on 15 February.

The pair sailed at high speeds to simulate the defence of a high-value warship and also put their communications equipment to the test as a warm-up to intensive operational sea training later this year.

Captain Richard Powell, *Dauntless*' commanding officer, said: "Conducting joint trials in this way will further enhance the potent capability of the Type 45. It also marks an important step in the delivery of the 21st century Navy.

"We have been able to build on the successes of *Daring* over the last year and in *Dauntless* we are delivering a warship that the Royal Navy and the nation will be really proud of."

Daring was commissioned into the Royal Navy last July and is due to enter service later this year. *Dauntless* is expected to enter operational service in 2011.

■ Duncan progress: page 11



Together for the first time

Osprey's a winner (again!)

Soldier shot in Afghanistan thanks DE&S staff who helped save his life

Report: Hannah Swinger

A SOLDIER whose life was saved by his body armour has thanked the DE&S and industry team who made it – by buying them a pint! Lance Sergeant Daniel Collins from 1st Battalion the Royal Welsh was shot in the back while on patrol in Helmand last year.

His Osprey body armour of ceramic ballistic plates stopped the bullet from piercing his body.

Lance Sgt Collins, 27 from west Wales, said: "When I was shot I thought the worst, especially because it was from only about 200 metres away and I think it was a 7.62mm round – that's a high calibre bullet to be hit by.

"I was examined on the spot expecting to be told bad news but there was nothing there. The body armour had stopped the bullet and saved my life."

The armour, made by Coventry firm NP Aerospace, consists of



Pints all round: Lance Sergeant Daniel Collins pulls the first 'thank you' beer alongside Mike Pigott of DE&S' Defence Clothing team

hard armour protective plates and a fragmentation vest. It has been in service since early 2006. DE&S' Defence Clothing project manager Mike Pigott, who worked on Osprey, said it had been a real boost to the team to meet Lance Sgt Collins.

"It was big job for the team to deliver this essential kit in such a short time but we were determined to do it," he said.

"The team is always thinking about the boys and girls out on operations and we are committed to delivering the best equipment to them.

'This body armour is among the best in the world'



Fully armoured: soldiers of 1 Royal Welsh are kitted out with vital body armour during Operation Moshtarak in Afghanistan last month. Picture: Staff Sergeant Mark Jones

NEWSREEL

JSF takes on a UK look

THE F-35 Lightning II aircraft which will eventually arm the UK's new aircraft carriers has taken on a further British look with its first UK pilot. RAF Squadron Leader Steve Long is the first UK pilot to take to the skies in the Joint Strike Fighter, flying at 20,000 feet over Naval Air Station Patuxent River where he has been based with VX-23 US Navy Test Squadron since May 2008.

Medical care earns praise

CLINICAL treatment and rehabilitation of service personnel seriously injured on military operations is highly effective, the National Audit Office has reported.

Military commanders and patients have confidence in the treatment at facilities in Afghanistan, at Selly Oak, the main hospital for seriously injured troops, and at Headley Court, the MOD's main rehabilitation facility. The quality of care for the seriously injured is demonstrated by the number of "unexpected survivors", with the Department's strength in clinical care underpinned by a clear focus on trauma care.

UOR deal

MINISTER for Defence Equipment Quentin Davies has signed a Memorandum of Understanding with his French counterpart for closer co-operation on procurement of urgent operational equipment. The memorandum does not seek to deliver interoperable solutions; the aim is to share best practice and seek rapid solutions to common procurement requirements. It also complements national processes by providing a framework for sharing each other's Urgent Operational Requirement activities.

SA92 shapes up

□ The S92A is providing reliable service internationally in the oil and gas industry and Search and Rescue with the Maritime and Coastguard Agency (MCA) on Shetland and the Isle of Lewis.

□ The helicopter has a cruising speed of 145 knots, with a radius of operation in excess of 260 nautical miles. Compared to the Sea King the new aircraft is approximately 30 per cent faster and has around 70 nautical miles greater radius of operation.

□ The SAR-H S92A has a fully equipped paramedic station including piped mains oxygen and an electrical power circuit within the cabin that allows immediate life-saving care to be administered day and night.

□ Not including the four aircrew, the S92 can carry 10 passengers in crashworthy seating and one stretcher, or six+ seated and two on stretchers in the SAR role. The helicopter has a twin, side by side high speed winch installation. Both winches are identical and rescue is possible using either.

□ The entire fleet will be able to attend low level overland night-time incidents which require pilots to use night vision goggles. All helicopters will have forward looking infra-red equipment which enables the crew to search terrain, over sea or land, in low light.

□ A common helicopter livery has been selected. The single black and orange livery will: maximise visibility; signal that this is an emergency service; represent the MOD and MCA by including the RAF, Royal Navy and MCA insignia on all helicopters.



Above: an S92, pictured during a rescue, will gradually replace military Sea Kings, including those of the RAF, right, in the search and rescue role



The Soteria – Greek God of Safety – Consortium consists of:
 CHC: The largest global supplier of civilian helicopter services and the current provider of the MCA interim SAR service.
 Royal Bank of Scotland: Proven MOD PFI expertise.
 Thales UK: UK Government PFI/PPP experience, significant training provider and a leading MOD and DfT contractor.
 Sikorsky: Leader in the design and manufacture of military and commercial helicopters, with a long pedigree in SAR.

Soteria moves out in front as next SAR provider

THE SOTERIA Consortium is winning the race to provide a Search and Rescue service in the UK well into this century.

The consortium is the Government's preferred bidder for the 24-hour military and civil helicopter service which will operate aircraft from 12 bases around the country. At the moment the service is provided by Sea Kings of the RAF and Royal Navy and a civilian service under contract to the Maritime and Coastguard Agency (MCA).

Search and Rescue (SAR) services will be gradually replaced over the next decade through a single 25-year Private Finance Initiative contract with Soteria which will retain a

proportion of military aircrew working alongside civilian aircrew trained to the same high standards. The service will continue to be managed jointly by the MOD and the MCA.

Minister for Defence Equipment and Support, Quentin Davies, said: "The new service, which will begin with a phased introduction anticipated to begin in 2012, will bring together the current Search and Rescue helicopter provision into one highly effective and harmonised service under a single contract.

"The future service will benefit from modern, fast, reliable helicopters and will continue to operate from 12 bases to ensure that it provides a fully

effective SAR service."

David Rae of Soteria said: "This is an important programme for the UK and this decision a strong vote of confidence in Soteria and our ability to provide this vital service.

"Soteria will work in partnership with the MOD and Department for Transport and other SAR and civil resilience stakeholders to ensure that the UK's history of providing a world leading SAR service is assured and enhanced through the introduction of modern technology in the form of the Sikorsky S92."

Coastguard bases will make the transition first, to be followed by the eight service bases.

New cannon and ammunition are now set for trialling

DE&S AND its French counterpart the DGA have signed an £11 million contract in the next stage of trialling innovative ammunition for the Warrior and the first FRES vehicles.

The 40mm Cased Telescoped Cannon and Ammunition (CTCA) system will be trialled from next year until 2014 to ensure cannon and ammunition are safe, effective and reliable for the British and French armies. This contract follows an earlier one worth £35 million for supply of hardware to support qualification and the demonstration phase trials.

The 40mm cannon provides the high

explosive firepower equivalent to a 45-50mm cannon while taking up the space of a smaller 25mm cannon. Ammunition uses an innovative design, where the size of the munition is reduced by placing the projectile inside the beer-can shaped case and packs the propellant around it.

CTCA is provided by CTA International (CTAI), a joint venture between Nexter Systems and BAE Systems, based in Bourges, France.

Project manager Lt Col Alistair Roxburgh of DE&S' Medium Armoured Tracks team, said: "40mm CTCA will provide a step change in improved

lethality for the Warrior Infantry Fighting Vehicle and the FRES Scout variant.

"This contract will start the important process of demonstrating the safety, performance and reliability of the system so that it can then be integrated into the new turrets."

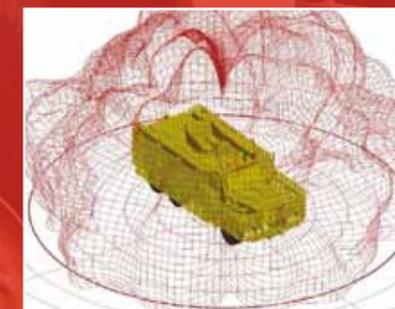
Eric Cavallari, French project manager, added: "We have been working successfully with the UK for 10 years on the CTCA. CTCA offers versatility at the heart of our concept of operations as it is efficient against armoured vehicles in open terrain and against dismantled fighters in urban areas."



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THE WORK of DE&S helps put the UK in a world leadership position.

That was the message from Minister for Strategic Defence Acquisition Reform Lord Drayson on his second visit to Abbey Wood since returning to defence in 2009 to explain to DE&S staff how the Government is tackling financial constraints on the MOD.

Before the session Lord Drayson had been given a briefing on unmanned air vehicle procurement.

He said the work he had seen was an example of the "brilliant work all of you at DE&S do for defence". He added: "It is innovative, on time and on budget and puts the UK in a world leadership position."

Lord Drayson said he hoped the Bernard Gray report and subsequent defence acquisition reform would get to the 'kernel' of the problem facing the MOD and the military.

He believes it is vital that defence acquisition is as efficient as possible and said a package of reforms had been identified that will fix these problems.

The package includes:

- A commitment to a Strategic Defence Review in every parliament.

- A 10-year planning horizon with the Treasury for defence spending.

- An audit by the

National Audit Office every year on the affordability of programmes within the 10-year time frame.

- A sub-committee of the Defence Board responsible for defence acquisition oversight.

- A £45million investment in skills and training.

Lord Drayson said: "I believe this package of measures will help fix the problems we have. It gives a solid planning framework and keeps

'Innovative, on time and on budget – work that puts DE&S on top of the world'

Lord Drayson praises staff on his latest visit to Abbey Wood. *Tim Foreman reports*

the whole thing affordable." He acknowledged that the Bernard Gray report and critical coverage in the media had painted an unfair picture of the vital work being done at DE&S.

He said: "Defence acquisition

is crucial to the MOD and should not be spun out elsewhere. The military is an integral part of defence acquisition, which means DE&S should not be privatised."

Following his presentation Lord Drayson heard opinions from the floor including fears over the lack of competition for 'monolithic' defence companies.

In response to the Haddon-Cave report, he spoke of the need to attract experts in science and engineering to careers in the MOD.

There were also concerns over balancing the £45 million put aside for skills and training to improve defence acquisition with proposed rebalancing of posts across DE&S.

During the Q&A session Lord Drayson said the MOD has to be more transparent and up front about the complexities and difficulties of defence.

He said: "The watershed has been the Green Paper, the Bernard Gray report and acquisition reform.

"The media coverage of defence over the last few days has been more positive.

"This is because it has perhaps dawned on people that Britain has a tremendous asset in its armed forces."

Lord Drayson said he believed a better public image of the way defence works will help organisations like DE&S have a more stable platform to deliver projects.

He said: "It is good to ask ourselves as a country what we want from the MOD and the military?"

He later added: "We need to determine what Britain's foreign policy will be in the future. If we want to stay in the Premier League we have to pay for it.

"If we want to have the strategic influence, this is the cost and this is inescapable.

"In the future we will have to spend even more money on force protection. We cannot have strong defence on the cheap."



Lord Drayson talks to staff at Abbey Wood



Duncan displays joined-up thinking



Before and after: Duncan takes shape

DUNCAN, THE sixth Type 45 destroyer being built on the Clyde by BAE Systems Surface Ships, continues to make excellent progress towards her launch on later this year.

All five blocks of the ship, above, are now in position on the berth at the Govan shipyard.

The bow section (blocks E/F) was the first unit to be moved last November, less than two weeks after the launch of Defender. Blocks E/F were built at the company's Portsmouth site and transported to Govan on a sea-going barge.

The final block, C, made its way out in January, only two months after the first block was moved.

Blocks B to C and C to D are currently being welded together, with both due to be completed by the end of this month. The other units of the ship have been linked up.

Currently the ship is more than 35 per cent complete, with outfit sitting at just under a quarter. Duncan is experiencing a week-on-week improvement with regards to percentage of completion when compared to Defender at the same stage of build.

Navy takes minehunting deeper into the oceans

NEW UNMANNED underwater 'robots' are in service with the Royal Navy, boosting its ability to hunt mines remotely, as far down as 200 metres.

Following sea trials of the system towards the end of last year, the Mine Countermeasures Reconnaissance Unmanned Underwater Vehicle (known as Recce) is now fully integrated into service. Two systems have been handed over to the Royal Navy's Unmanned Underwater Vehicle Unit.

The new, fully autonomous Recce can scan the sea bed for mines for more than 20 hours at a time, using advanced sensors to pinpoint their exact location.

This data is fed back to onboard operators for analysis, considerably reducing the risk to naval divers who traditionally carried out these operations.

The system is a step change for the mine-hunting capability of the Navy's Hunt class vessels, but it can be deployed from any ship or even a jetty with a suitable davit.

High resolution imagery also gives the operator a sharper, clearer picture of the sea bed, enhancing their ability to identify the mines.

DE&S' Underwater Systems



Recce will give the Royal Navy an extended capability in scanning the sea bed for mines

programme manager, Phil Jenkin said: "The system builds on the success of the Remus technology of smaller, shallow water vehicles, which the Royal Navy has used over the last few years.

"The new vehicle is not intended to replace the existing systems but extend the Navy's remote mine hunting capability, boasting improved sonar technology, allowing it to cover larger areas of water and to dive deeper."

Two systems, each consisting of two 3.9 metre

long, torpedo-shaped vehicles, were bought by DE&S in a £5 million contract placed with Hydroid Inc in 2007.

"Recce takes the diver out of the minefield and accelerates the military timeline so you can clear the battlespace long in advance of the main force," said Graham Lester, European Director of US-based contractors Hydroid Inc.

"It is a completely transportable system, which can go straight onto a platform in theatre and operate immediately."

'The wagon had done its job and saved us – it was damaged, but we weren't'

MASTIFF IS the latest protected vehicle to save the lives of its passengers after a roadside bomb explosion in Afghanistan.

Former professional footballer turned Army Officer Lieutenant Stephen Healey was commanding a convoy from the turret of the lead vehicle in Helmand when it hit an Improvised Explosive Device. The 27 year old from Cardiff said: "We were driving along and then suddenly I felt a massive explosion and got thrown into the air by the blast.

"I fell back into the turret and then all the debris and dirt from the explosion rained down on my head.

"My first thought was for the blokes in the vehicle and I felt sick thinking what I would find below me. There were eight of my soldiers and an interpreter down there."

But Stephen was relieved and delighted to discover that no-one had been injured in the blast.

"I dropped down into the cab and amazingly everyone was OK," he said.

"Obviously they were all shaken and shocked but no-one was actually injured. The force of the blast was incredible. The pressure wave actually snapped a couple of the machine guns in half.

"We had taken a direct hit under the belly of the Mastiff. The wagon was completely un-driveable but it had done its job and saved us – it was damaged but we weren't."

Stephen, from 1st Battalion The Royal Welsh, joined the Army in 2007 having completed a two-year apprenticeship with Swansea City.

He was forced to abandon a promising soccer career through a succession of injuries.

Mastiff survives a direct hit in Helmand



Above: Lt Stephen Healey and his colleagues survived an IED explosion in Helmand Province.

Left: the Mastiff protected patrol vehicle



DE&S improves Trident support

DE&S AND Lockheed Martin UK have signed an agreement to increase efficiency and effectiveness of in-service support to the Trident strategic weapon system.

Michael Polley, Managing Director LMUK SS and Clive Billiald, Head of Strategic Weapons at DE&S, signed the Code of Conduct and Memorandum of Partnering Principles (MOPP).

Formalisation of this arrangement provides the MOD and LMUK SS will help to ensure that the UK maintains a safe and effective nuclear deterrent while meeting programme commitments in the most economical matter.

The MOPP and Code of Conduct will assist in ensuring that the two organisations continue to work effectively together and remain faithful to the mission statement – working as one to deliver safe and effective in service support to the strategic weapon system.

Excalibur trials aim to give AS90 a sharper cutting edge



The AS90 self-propelled gun, above, may eventually fire the US' Excalibur shells, pictured during trials in Arizona, right



TRIALS TO look at firing American Excalibur 155m precision guided shells from the British Army's AS90 self-propelled howitzer have been successful.

At the same time the US Modular Artillery Charge System (MACS) has also been trialled in AS90 under an interoperability arrangement.

The trials in Arizona were supported by elements of Artillery Systems and Indirect Fire Precision Attack teams at DE&S, the Royal Artillery Trials and Development Unit (RATDU) with scientific support by BAE Systems, Qinetiq and the US Department of Defense.

Initial trial observations show that of the six Excalibur rounds fired, all impacted between one and three metres from their targets.

Excalibur is currently in use with coalition forces, providing a 155mm precision capability to operations while UK Fire Support Teams have already used Canadian Excalibur in support of UK operations.

The now out of service M107 (green and white bag) charges have now been replaced by MACS as the in-service charge system for US 155mm indirect fire systems.

M107 was the UK operational reserve charge and limited clearance is being sought to employ the new system as a reserve to be used only in extreme circumstances.

Further trials are planned with the German modular charge system, to verify the benefits of a modular system and scope alternatives if any future UK requirement was to be set.

Both trials are expected to report this year following analysis of the trial data. Results from both trials will then be circulated within the user and scientific community to identify potential routes for technology pull-through in future projects.

Tireless out, Trenchant in at Devonport

NUCLEAR-POWERED attack submarine *Tireless*, twice the manhours of a usual RAMP, sailed from Devonport on 6 February following a substantial 18-month Revalidation and Assisted Maintenance Period (RAMP) and life extension, successfully completed ahead of schedule by Babcock.

HMS Tireless' departure follows the docking of *HMS Trenchant* earlier last month for a major RAMP that will include significant capability upgrades.

The 320,000 manhour RAMP in *HMS*

Tireless, has encompassed significant life extension work.

HMS Trenchant will now undergo a challenging 11-month RAMP by Babcock, featuring a volume of work normally reserved for a Long Overhaul Period (Refuel) [LOP(R)], including the largest and most complex combat system installation and upgrade package ever undertaken in a RAMP.

■ Sonar 2076 pages 28 and 29

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'Lusty' drops in on Rosyth



Babcock bound: HMS Illustrious makes her way along the Firth of Forth towards Rosyth

HMS ILLUSTRIOUS has arrived in Rosyth for a 13-month docking period on a contract awarded under the Surface Ship Support Alliance between DE&S, Babcock and BAE Systems.

It will be the fifth refit to be undertaken by Babcock on the Invincible class aircraft carriers and the second by the company's team on HMS Illustrious.

'Lusty' received a large number of capability upgrades during her last refit by Babcock in 2005, and will receive further upgrades during this upkeep period. These will include the Defence Information Infrastructure and installation of reverse osmosis plants for improved shipboard fresh water production.

Close working between Babcock, DE&S and the Royal Navy in advance of the £40 million refit has enabled

Work will take vessel through to advent of the new carriers

knowledge and experience to be applied to work that will ensure HMS Illustrious returns to the fleet in optimum condition to deliver maximum value for money to DE&S.

Work will include major repairs to funnels and a foul release paint system on the keel, which provides improved fuel efficiency and speed through the water.

High pressure air and salt water systems will be overhauled, as will all 200 underwater valves. Flight deck and hangar deck paint will be renewed, and work undertaken

on the diesel generators.

Habitability upgrades for the 682 crew and 366 aircrew will include revitalising mess decks, as well as galley equipment upgrades for improved catering facilities, and the chilled water and air conditioning plants will also be overhauled.

David Winstanley, Clyde Director (Rosyth) project general manager, said: "The MOD upkeep team at Rosyth is looking forward to working in partnership with Babcock and ship's staff to deliver this project against challenging budget and programme requirements."

Babcock project manager Charlie Forrester added: "Many of the team involved in this docking period have been involved in all four previous carrier refit contracts and we have a wealth of platform knowledge and experience to take forward onto Illustrious."

HMS Illustrious will be docking in No.2 Dock at Rosyth, alongside No.1 Dock where Babcock will assemble the new Queen Elizabeth class carriers.

HMS Illustrious will sail for sea trials next spring. She will remain operational until her out-of-service date after the commissioning of the Queen Elizabeth class carriers.

Purchase and supply at Abbey Wood

DE&S HOSTED the annual Chartered Institute of Purchasing and Supply (CIPS) day on 28 January.

A packed Central Facilities Building heard presentations on: delivering support to current operations; current and future trends in technology contracting; sustainable purchasing, and the range of opportunities available to members of CIPS.

CIPS representatives updated members on the proposed CIPS corporate award scheme.

Organised by DE&S Special Interest Group (SIG) in conjunction with CIPS staff, the event contributed a day's continuing professional development (CPD) towards attendees' personal attainment.

CIPS day 2011 will be on 27 January 2011 in the lecture theatre, Abbey Wood. Further details of the event or of DE&S CIPS SIG may be found on D Commercial's webpage under popular items, or via the link CIPS SIG.

Wildcat work goes to Stonewood

THE STONEWOOD Group has been selected by General Dynamics UK to design and develop the on-board encrypted data storage systems for the AgustaWestland AW159 Lynx Wildcat helicopter.

The bespoke systems will be used by the Army and Royal Navy, and will ensure that mission and communications system data is fully protected. The AW159 Lynx Wildcat programme will deliver a fleet of light helicopters, and their capability will be a significant advance on that provided in both Iraq and Afghanistan by the current Lynx fleet.

Training contract secures next generation pilots



Tucano: the aircraft is a popular basic trainer for future fast jet pilots

TRAINING FOR the Royal Navy and RAF's future fast jet pilots has been secured thanks to a multimillion pound contract awarded by the MOD

Awarded to VT Group, the contract will ensure delivery of tri-service basic fast-jet training to the RAF and the Royal Navy on the Tucano TMk1 aircraft,

VT will be required to provide a number of sufficient airworthy, capable and sustainable Tucano TMk1 aircraft to deliver the required number of flying hours every year and will be responsible for the maintenance of the Tucano TMk1 aircraft fleet, excluding all off-aircraft engine work.

VT Group Chief Executive Paul Lester said: "The programme supplements our work in the UK Military Flying Training System and initial military flying training to underline our position as the UK's leading provider of support to military flying training.

"VT has been closely linked to the Tucano since the aircraft was introduced into RAF service and we are delighted to extend our support of the platform."

Service delivery will start next month and will run for four years.

NEWSREEL

Prospectus published

THE Defence Academy - College of Management and Technology 2010/2011 prospectus is now available. All courses - acquisition, business, leadership, management, nuclear and technology - are in one volume. More detailed descriptions are available on the website - Intranet: www.defac.rmil.uk/sites/da/colleges/cmt Internet: www.da.mod.uk/cmt

For hard copies e-mail admin.cmt@defenceacademy.mod.uk or ring 96161 4828 (01793 314828). Learning Centres and Defence Electronic Learning Centres will also soon be stocked with copies.

Performance management

ABBEEY Wood staff are invited to the Defence Academy - College of Management and Technology lunchtime seminar on 29 March in the CFB lecture theatre. Anthony Mitchell, Projects, Client and Programme Director at Ashridge Business School will speak about performance management from 1-2pm. To book a place e-mail admin.cmt@defenceacademy.mod.uk or contact 96161 5422/59

New deal puts craft into Royal Marines' work

NEW ENGINEERING support for landing craft has been described by DE&S as a turning point in backing for the Royal Marines.

DE&S and Babcock have finalised a ground-breaking continuous engineering support (CES) arrangement for the long term support of the Royal Navy's fleet of 33 landing craft. The fleet is made up of Landing Craft Utility (LCU) and Landing Craft Vehicle Personnel (LCVP) which operate from amphibious ships HMS Ocean, HMS Albion and HMS Bulwark and the Landing Ship Dock (Auxiliaries).

Babcock will undertake LCU and LCVP support period activity, working with DE&S to develop the maintenance requirements jointly.

The CES pulls together a single team in Devonport working alongside Royal Marines to deliver improvements



Craft fair: LCUs are moored at Devonport, above white, below left, Royal Marines embark during a recent exercise on HMS Albion

in landing craft materiel state and availability with savings in through life costs.

Captain Graeme Little, leader of DE&S' Capital Ships' In-Service Ships team, said the arrangement was a turning

point in engineering support for the Royal Marines.

"It is a further demonstration that the MOD and industry can work together extremely effectively to deliver in an increasingly tight financial climate.

The initiative will see a significant increase in craft availability and is a real success for the amphibious surface manoeuvre community."

He added: "We also see this as an important stepping-stone in the drive for further improvements as part of the wider joint initiative between the MOD and Babcock to develop Devonport as the Royal Navy centre for amphibious support excellence."



Terrier is put to the test



Lessons learned: Terrier, main picture, builds on the knowledge gained from building the larger Trojan engineer vehicle, seen, right, working in an area of IEDs in Afghanistan

CONSTRUCTION OF the first of a new fleet of 60 tracked armoured earthmoving engineer vehicles to give the Royal Engineers a powerful and versatile route-clearing and earth moving capability is underway

Manufacture of the first Terrier production hull has begun at BAE Systems' Newcastle factory and will be used in mine blast trials to demonstrate improved protection levels introduced by modifications resulting from experience gained on other vehicles during operations in Iraq and Afghanistan. Successful trials



have also been completed on two demonstrator vehicles.

DE&S Manoeuvre Support team leader, Group Captain Paul Ridge, responsible for the Terrier project, said: "Successful completion of the mid-point reliability trials and the start of first production hull are significant milestones for BAE Systems and MOD. While there remain

challenges, both teams are committed to building on the momentum and recent successes to deliver world class capability and reliability for the Royal Engineers."

Terrier will be able to negotiate most terrain, and its earth-moving bucket and side-mounted excavator arm will make short work of digging and obstacle clearance tasks.

The bucket can be quickly replaced with a surface mine clearance device, this combined with a route marking system can be used to cleared routes of surface laid munitions.

Terrier's battlefield mission test

- Travelling 3,300 km, split between road, track and cross country
- Excavating 135 pits for Warrior infantry fighting vehicles
- Digging 39 pits for AS90 self-propelled howitzers
- Moving 15,500 tonnes of spoil
- Operating the vehicles remotely via a Playstation-style remote controller and radio link
- Completing a range of route clearance, route denial and placement of ditch-crossing fascines

Python is more than just a snake in the grass

THE ROYAL Engineers have fired their latest weapon in their battle against the Taliban for the first time - an exploding hose which punches safe passage through suspected Improvised Explosive Device belts.

The Python rocket is a trailer-mounted, rocket-propelled mine-clearing system pulled behind the Trojan engineer tank. Python fires a snake of high explosives.

"You feel the vehicle rock, and in awe of what has just happened. You see the flash, hear the bang and then feel the shock wave," said Staff Sergeant Mark Eastley from 30 Armoured Engineer Squadron.

As the weapon fires, rockets lift the hose out of its barrel, shooting it over Trojan, and over a long strip of ground. Seconds later the hose explodes. "It will

save us getting out and combing the ground for IEDS all the time, so there is less risk to our lives," said LCpl Simon Whitemore, from 1 Royal Tank Regiment.

The Royal Engineers used Trojan - with a large plough on the front - to clear safe passage through a suspected IED belt last month. It was the first time the plough had been used on operations in Afghanistan.

Advertisement



Fit for purpose?

Millbrook's Julian Bryan looks at the way military vehicles are specified and designed - and asks how industry might serve the military even better...

"Currently, military vehicles offered by manufacturers are not always suitable for their application. VMs tend to underestimate the extremes of use and can even seem uninterested in gaining credible feedback. Even the basic foundation blocks of quality or reliability may sometimes not be seen as priorities.

"VMs must ensure there is an understanding of what is being asked for and deliver a vehicle that is fit for purpose, in the time-frame needed. It is very much up to us - industry - to understand what the military wants and deliver on that need..."



Good project management leads to good equipment and effective support to the front line. Troops from 4 Brigade take part in a medical evacuation exercise on Salisbury Plain last month, during which they were able to discuss the quality of the latest equipment with DE&S project staff



... and performance is about to get even better too

says Andrew Tyler, Chief Operating Officer at DE&S

AS CHIEF Operating Officer project performance is a subject very close to my heart. Over the last couple of years I have spent a lot of time with delivery teams and industry getting to grips with individual projects to get them through difficult phases or ensure that they start off on the right footing.

As those who have spent time with me will know, one of my biggest crusades over this period has been to ensure that our forecasts for time and cost are honest and accurate and that news – good or bad – is reported early. In my view, it is a much bigger sin to hide the fact that a project is in trouble than to confess that help is required.

The large majority of our projects have delivered, and are increasingly delivering, to cost and time; nearly 90 per cent on cost and more than 80 per cent on time. With the complexity of our business their path is often not smooth and there will be bumps and deviations along the way. The

key is to see these coming before you hit them so that action can be taken by working together to address them. Project recovery should not be the main job description for a Chief Operating Officer! That is why, in my personal objectives for the current year, I committed to a project to provide Team Leaders, Group Leaders, Directors, and me with those early indicators that allow us to identify risks and issues, and work together to mitigate them before project performance sustains major damage.

Our current performance management reporting process within DE&S does not provide a holistic view of project health. It is limited to a narrow set of data, i.e. latest forecasts for performance, cost and time. This is all too 'rear-view mirror' and largely allows one to admire the road-kill after you have hit it. A new system for capturing key project health leading indicators, called Sentinel, is therefore being rolled out across DE&S over the next few months.

Successfully piloted at the end of last year across ten projects, Sentinel will take 20 discrete metrics (such as rate of churn of project team staff and Earned Value Management data) and feed them into an overall assessment of a project's current health. These metrics are grouped under four headings; Performance, Personnel, Reviews and External Factors and are individually weighted to give an overall health score. This will provide a consistent method of tracking a project over time. What is most important, is that it will provide a robust method of judging whether a project is at risk or has entered the recovery phase; and crucially, in advance of what a subjective view might tell us – trying to avoid the oft-quoted frog in boiling water, who didn't feel the water getting hotter until it was too late.

To minimise the reporting burden, I have been clear that the data used for



Chief Operating Officer Andrew Tyler

Sentinel should be readily available to project teams and should be supported

by our existing Corporate Management Information System (CMIS), which is being upgraded to include a Sentinel tab. Vital to the success of this tool is the accuracy of data input by the project teams.

The Corporate Approvals Performance and Risk (CAPR) team together with the Programmes & Technology Group is now rolling out Sentinel to a wider population of around 50 projects across all Operating Centres. The first full-run of Sentinel will be on 10 March and will be fully embedded by 10 June. Additional assistance or guidance is given to those projects that require it.

The development and rollout of Sentinel is a key element of my and the Chief of Defence Materiel's continual drive to improve our performance management approach. Further details on Sentinel can be found on the CAPR webpage under related links or by contacting David English CAPR-Hd.

Project management? We're up there with the best

DE&S project management is up there with the best, according to independent evaluators.

And their benchmarking report last month concluded that DE&S has demonstrated strong project management performance. As shown in the graph, right, this puts it high in the top quartile of comparator organisations for excellence.

"This is great news for DE&S," said Lord Drayson, Minister for Strategic Defence Acquisition Reform.

"It shows that some of the best project managers in Government work in defence, who are also working on some of the most technically difficult projects going. The challenge is to maintain this performance but also to do better. The additional training funds provided as part of the Strategy for Acquisition Reform will be used to do just that."

The benchmarking assessment was carried out by Human Systems Ltd which has been providing an independent assessment of MOD Programme and Project Management (PPM) processes and practices for some years. Working with more than 50 leading companies and government organisations worldwide, it is able to compare DE&S against both government and 'industry at large' and also against a more challenging comparator group, made up of organisations specialising in complex, high risk, technology-based projects.

"This report provides a huge endorsement of the excellence within the

DE&S PPM operations," said Tony Teague, Managing Director of Human Systems Europe. "All organisations have scope for improvement, but this is a very sound base on which to build."

The benchmarking is based on a set of assessment tools and a database representing many years' analysis of project management and follows a structured approach, focused on the key elements of PPM.

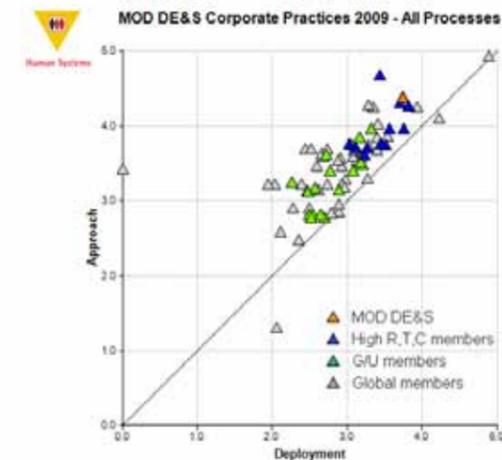
"The metrics that make up the final assessment report are strictly evidence based", said General Alan Macklin, Director of the Programmes and Technology Group at DE&S. "Human Systems assessors gather evidence of our performance across 21 key PPM processes, including risk, planning and scheduling, benefits management and resource management."

The detail is gathered from a thorough analysis of documentation (what our processes are) and through highly structured face-to-face workshops, for discussion on how we actually put those processes into practice. Typically, workshops include a broad range of DE&S delivery and functional area staff, to ensure that all relevant perspectives are covered.

"This report provides independent confirmation that we are as good at our business as the best comparable

organisations anywhere. But it also highlights clear areas where we still need to do better," said General Macklin.

The report identifies continuous improvement, management of behavioural



Graphic courtesy Human Systems

change and organisational governance of project management as having scope for improvement -- areas which will reinforce existing project management initiatives led by the MOD's PPM Centre of Excellence, in particular the PPM up-skilling programme.

"This report has fuelled our commitment to improvement," said General Macklin.

"We're in the top quartile for excellence. Now we need to apply what we know – across DE&S and the wider MOD."

College of Management and Technology

Military Aerospace and Airworthiness

Suite of Accredited Short Courses

“MOD engineers fulfil vital roles in delivering safe and effective equipment to the front line. Defence aerospace engineers often operate at the forefront of technology and provide essential through-life support. As partnering relationships with industry increasingly support defence capability, our people need professional development opportunities which are consistent with delivering effective products and services, good decision making and improved added value.

This Suite of Accredited Courses gives access to leading-edge thinking on important aerospace technologies and related subjects. It is matched to the functional competence requirements for defence aerospace professionals who work either in engineering or in closely aligned skills areas.”

Technical Development Partner for Aerospace, February 2010

The Military Aerospace and Airworthiness Suite of assessed modules comprise 18 modules. The successful completion of a number of these can result in formal qualifications such as MSc, PgDip or PgCert which can also be utilised when seeking Engineering Council registration.

Designed in collaboration with Technical Development Partner for Aerospace, DE&S. Tuition fees apply to attend these modules, however there are limited places available to DE&S Aerospace Engineers, funded via Upskilling. To take advantage of these places please return applications to the Aerospace Development Partner Support Team.

For further information on module syllabus please visit:
<http://www.cranfield.ac.uk/cds>

For module information and application forms, please contact:

Lynn Raper
Student Support Centre, Cranfield University
T: 01793 314167 | E: lraper@cranfield.ac.uk

For DE&S related enquires only, please contact:

Aerospace Development Partner Support Team
T: Military 96793 2411 | desseair-dp1@mod.uk



Course modules:

- Air Transport Engineering – Maintenance Options
- Aircraft Accident Investigation and Response
- Design, Durability and Integrity of Composite Aircraft Engine Controls
- Fundamentals of Aircraft Engine Controls
- Gas Turbine Fundamentals
- Introduction to Aircraft Structural Crashworthiness
- Introduction to Human Factors
- Mechanical Integrity of Gas Turbines
- Practical Reliability
- Safety Assessment of Aircraft Systems
- Safety Management Systems in Aviation
- Aeronautical Engineering 1 and 2
- Airworthiness
- Aircraft Survivability
- Guided Weapons
- Military Aircraft Systems
- Military Avionics

From January 2011, Cranfield University will be adding a part-time MSc in Military Aerospace and Airworthiness to its prospectus of Postgraduate Courses.

Partnering in action . . .

. . . how the front line reaps the benefit of partnering between DE&S and industry

When DE&S and AgustaWestland signed a Strategic Partnering Arrangement in June 2006 it was hailed as a ground-breaking deal. The then Minister for Defence Procurement, Lord Drayson, said it was “early evidence that the Defence Industrial Strategy is a framework for real change within defence industry, the MoD and the business relationship between us. Only through this change will we jointly equip the Armed Forces of this country with the equipment and technology that they need to meet the security challenges of the 21st century.”

The arrangement is initially for 10 years with reviews every two years. It commits DE&S and AgustaWestland to improve the speed of delivery, reduce the costs of acquisition and support, and increase the availability of helicopters to the front line.

Pete Worrall, DE&S’ Director of Helicopters, regards the joint working as vital. He said: “DE&S, Front Line Commands and AgustaWestland have forged an excellent working relationship since the agreement was signed some years ago. A fantastic example of this is the speed with which Urgent Operational Requirements have been delivered to support our forces on operations particularly in Afghanistan.

“In addition, partnering with AgustaWestland has allowed us to drive down the through-life costs and increase the availability of helicopters to the front line. We mustn’t forget that most of the helicopters deployed to Afghanistan are from AgustaWestland – Apache, Lynx, Merlin and Sea King.”

The Joint Modification Service (JMS) is a collaborative AgustaWestland and MOD pan-platform organisation for managing modifications in a partnered, coherent and efficient manner. The service was set up in March 2007 to provide a responsive, sustainable and cost effective

continued on page 22



Partnering as a force multiplier

continued from page 21

process that delivers modifications on time, to budget that meets the needs of the service customer and company shareholders.

Away from the front line the agreement has seen substantial progress on the delivery of new capability and support. The Lynx Wildcat – the next generation Lynx helicopter, an MPR project – continues to meet its targets set in 2006 for performance, cost and time with a successful first flight last November. Visiting the team recently General Sir Kevin O’Donoghue, Chief of Defence Materiel, said: “I have seen the project teams and AgustaWestland develop positive working relationships underpinned by open communication, a common understanding of motivations, and emphasis on improving personal behaviours, which has greatly contributed to project success.”

AgustaWestland is currently working with Lockheed Martin and the MOD on a longer term MPR project to convert 30 Merlin Mk1 maritime patrol aircraft to a Merlin Mk2 standard with a multi-role capability. The programme takes advantage of modern technology to build in further protection against obsolescence while allowing technology insertion through such initiatives as open system architecture and use of commercial-off-the-shelf technology.

The first flight for a Merlin Mk2 aircraft is on track for later this year.

On the support front the Sea King fleet has benefited from SKIOS (Sea King Integrated Operational Support) with greatly improved response times for technical support, better understanding of issues through closer working together and budget stability with known costs for the contract period – all with much improved value for money compared with traditional support.

AgustaWestland also provides in-service support to a fleet of 70 Merlin helicopters under the through-life Integrated Merlin Operational Support (IMOS) contract. The contract is managed from the company’s Yeovil site with the joint team working side-by-side in a fully integrated and partnered environment.

Under IMOS, Merlin output levels have continued to grow in the face of some significant technical challenges with DE&S realising savings of almost £1 million per month compared to the previous traditional support arrangements.

On Apache, a £439 million contract has been awarded to AgustaWestland, building on the existing support arrangements for the UK Apache helicopter programme and strengthening them further. Under the contract, one of the key areas will see AgustaWestland increasing the availability of the Apache helicopters from current levels which will significantly benefit front line users. Again the joint team operates from Yeovil.

AgustaWestland’s Managing Director Graham Cole said: “The Apache IOS contract is further evidence of our continuing commitment to partnering with the MOD to deliver innovative support solutions in a cost effective manner.”

Meanwhile, a further indication of the deepening partnering relationship between the MOD and AgustaWestland is the collocation this year of the Director Helicopters’ Sea King team onto the firm’s Yeovil site. The increased potential for joint working this will bring is welcomed by both partners.



Apache, top, benefited from upgraded targeting software, delivered to the front line ahead of schedule, while above, the Sea King fleet has benefited from improved technical support and budget stability. Below, Lynx Mk 9 on its maiden flight following conversion to a re-engined Mk9A. The conversion will apply to all 22 Mk 9 aircraft with the first being deployed in Afghanistan from May



But what does it mean for the Afghan front line?

- Deployment of Modernised Target Acquisition Designation Sight onto UK Apache Aircraft last May for which the joint team received a Chief of Defence Materiel’s award.

A team of AgustaWestland field service representatives deployed to theatre last June under condo (contractors on deployed operations) arrangements for a 30-day period to upgrade the aircraft software.

This was a critical element of the training and fielding plan for the new software to ensure the forward fleet were operating at a common standard, and the battle-winning performance enhancements of the software were delivered to the front line as early as possible.

- Significant support and resource provided by AgustaWestland to assist with the delivery of a raft of high profile urgent operational requirements (UORs) which have enhanced front line capability, including the early deployment of Merlin Mk3 aircraft to Afghanistan, most recently on Operation Moshtarak. For example, ballistic protection enhancement for Merlin was completed in just three months.

- The acquisition, modification for UK use and subsequent new-build replacement of six military AW101 helicopters back to Denmark.

This innovative project provided the UK with six extra battlefield helicopters, modified for UK use, within 12 months of contract placement.

The six ex-Danish aircraft, now designated the Merlin Mk3a, are in service with the RAF and have already flown more than 3,000 hours.

- The Lynx Mk9 to 9A re-engine programme has resulted in four aircraft being converted and flying within a year, and deployed for successful trials in Kenya in readiness for operations in Afghanistan from May, for the first time providing an all-year round Lynx capability.

- The modifications necessary to deploy Sea King Mk7 to Afghanistan in just six months, providing vital support to ground troops.



Dotted line: Graham Cole, MD of AgustaWestland and Pete Worrall, DE&S Director Helicopters, sign their annual joint objectives. Main picture and below, the Merlin has proved a vital addition to helicopter capability in Afghanistan



Fit for the fight

4 Brigade puts
the latest kit
through its
paces as they
prepare for
deployment to
Afghanistan

See pages 26
and 27

Towards a safer world

AW101 MERLIN. 100,000 FLYING HOURS

Operating the AgustaWestland Merlin, the Royal Navy and Royal Air Force have now exceeded 100,000 flying hours in this remarkably versatile helicopter. Operating around the World on maritime patrol (including anti-piracy and counter-narcotic) missions, as well as in Bosnia, Iraq and now Afghanistan as a class-leading and hugely capable Battlefield Support Helicopter, AgustaWestland would like to pay tribute to the courage, dedication and professionalism of the air and ground crews who so successfully operate and maintain the Merlin in these most challenging environments.

agustawestland.com

 **AgustaWestland**
A Finmeccanica Company

Picture: Andrew Linnett

DRAGON RUNNER and Husky went on show to the media for the first time as DE&S staff met the troops who will be the next on the front line in Afghanistan.

4 Brigade are ready to deploy to Helmand Province to counter the Afghan insurgency and personnel said they were confident that their equipment would not let them down.

Experts from DE&S project teams were on hand to discuss the equipment going out which included the Husky support vehicle, latest versions of Mastiff and Jackal, and the high tech Dragon Runner bomb disposal robot along with the latest developments in food for the troops.

Major Alan Paramore, from DE&S' Protected Mobility team, who look after some of the best regarded vehicles used by the military, talked to members of the Royal Dragoon Guards before their deployment to theatre with the Mastiff armoured vehicle.

Major Paramore said: "I wish these men all the very best on their tour with Mastiff. I'm sure she will look after them. It is important for us to have a chance to speak to the people who will be taking

Report:
Tim Foreman and
Hannah Swingle
Pictures:
Andrew Linnett



'Best in the world and better than we have had before'

these vehicles out to theatre. We can give them feedback and advice and they can get answers to any questions they may have."

Lance Corporal Arren Swift added: "This vehicle offers us fantastic protection and gives you a warm fuzzy feeling when you are inside them. They are also very mobile and durable."

The Husky protected support vehicle attracted interest from the media. Lance Corporal Graeme McCracken, part of an Operational Mentoring and Liaison Team from 1 Scots, said: "This is a very robust vehicle with good protection. There are obviously huge problems from all sorts of threats in Afghanistan but we are confident in this vehicle."

David Pilch, the Husky project manager from the Protected Mobility team at DE&S caught up with members of 1 Scots to talk about Husky at the event.

He said: "The general feedback from the users was they really liked the vehicle and are looking forward to using it."

"All of them said they felt very safe in it, which was good to hear.

"This event was very useful as we were able to go through everything

Troops on the way to Afghanistan get together with DE&S staff on Salisbury Plain as equipment goes on show to the media

related to Husky from the kit on the vehicle, why we bought it, to where it fits in to the operational context.

"There were varying degrees of knowledge on the vehicle from the users I met so it was good to take questions and clarify any points."

Captain Mike Lee from the Royal Dragoon Guards said: "We have been through a good period of training and it has given us all a lot of confidence.

"It's good to talk to members of the project team from DE&S and get their feedback on modifications.

"As a user we need to get the whole picture of why things are how they are so talking to the project team is immensely useful."

The event featured a demonstration of

the Army's counter IED capabilities where Dragon Runner came into its own.

Corporal Chris Cooper, 33 Engineer Regiment (EOD), was demonstrating the robot that helps find and deactivate improvised explosive devices, a project managed by the Special Projects Team at DE&S.

"This is the best kit available in the world and better than we've ever had before," he said.

"Dragon Runner is the way ahead as it's about keeping us out of danger. We can even stand around corners and deal with devices, keeping out of the line of sight."

Troops also practised medical evacuations drills, bringing the focus onto improvements in medical equipment.

Lt Col Nigel Partington, Commanding

Officer for UK Medical Group for Operation Herrick 12 said that the development in kit and training for the Medical Emergency Response Teams had never been better.

"Over the years I have seen a vast improvement in the kit that is being issued to our Medical Emergency Response teams and the equipment that we have now is among the best in the world. We know that we can do our very best for our injured troops and provide them with essential and often life saving treatment in that time before they get to a hospital."

Personnel from 4 Brigade went through their paces on Salisbury Plain on 9 February. Above: an RAF Chinook helps in a casualty evacuation exercise which involved treatment inside the latest Mastiff vehicle, right.



Below: Corporal Chris Cooper puts Dragon Runner to the test while, left, more personnel demonstrate the range of food on offer on operations.

Facing page: Husky and Mastiff (inset) on Salisbury Plain



Team takes centre stage in latest Sonar upgrade

The latest version of Sonar 2076 – the world-beating sonar for the Royal Navy’s flotilla of attack submarines – will be integrated into the first boat later this year.

The upgrade, known as Stage 5, will be integrated to a Trafalgar class boat during its maintenance period in the hands of Babcock in Devonport.

The Stage 5 Inboard Replacement will improve capability and through-life cost of the system to make sure it retains its reputation as the world’s most advanced, fully integrated passive/active search and attack sonar suite.

At the same time DE&S’ Combat Systems Group (CSG) is working towards an affordable common combat system across all the Navy’s submarines including the Astute class, which will incorporate the upgrade to Sonar 2076.

The sonar system was developed in the late 1990s and provided a big step up in capability. However, demands of the system could not be met by commercially available computing technology at the time. System software and hardware were bespoke and expensive to develop and maintain.

Commercial technology has now caught up and Sonar 2076 can be moved to a commercial off-the-shelf (COTS)

arrangement. Stage 5 was approved by the Investment Appraisal Board in 2006 as a demonstrator on one submarine.

The programme introduced COTS processors and modularised system software components. The design is supported by generic open architecture and a software development kit which allows software development by third parties.

Tony Gordon, Stage 5 project manager, said that the architecture and kit were exercised by having an independent contractor develop new functionality. “This software was loaded onto a CD and sent to the Stage 5 development facility at Thales in Manchester where it was integrated and up and running on the day of receipt,” he said.

“Anyone involved in procurement and support of software-intensive systems will appreciate how significant this is.”

A £20 million contract has now been placed with BAE Systems for the inboard replacement of the system. Thales will be working on three Trafalgar class and three Astute class submarines to install the sonar upgrade over the next two years. The new COTS architecture will see big savings in through-life costs.

The sonar upgrade programme is

An affordable, common and sustainable combat system

System work is prelude to a common combat system for all Royal Navy submarines



Above: the first-of-class Astute, the latest in the Royal Navy’s submarine flotilla.

Left: the Sonar 2076 Stage 5 team

integrated with CSG’s Common Combat System vision, where sonar software will co-exist with the command and navigation software on a common processing infrastructure.

The group, formed in 2007, will deliver an affordable, common and sustainable combat system across all classes of submarine.

It will minimise whole-life costs while meeting safety, availability and capability targets.

The CCS programme, initiated and controlled by the MOD, progressively uses the key enablers of COTS technology and open systems architecture and takes advantage of the commercial investment and volume that comes with participating in a global market.

An essential aspect of this initiative is to tackle design, procurement and

support at combat system, rather than equipment level, combining the efforts of as many stakeholders as possible, changing the manner in which we design, procure and support our combat system thus having far reaching implications across the combat system enterprise.

The pathfinder to this has been an industry-wide team under BAE Systems management which has been tackling design issues on the combat system for the fourth Astute boat *Audacious*.

The team’s success in tackling issues at system level, producing a common COTS-based architecture, removing duplication and considering integration earlier in the design process, has resulted in a combat system at lower cost.

The MOD has now formed a design evolution team which extends the collaborative design to the Common

Combat System for the whole flotilla. This integrated programme will bring together separately-funded combat system design programmes to cover in-service, new build and future platforms utilising through life capability management to ensure costs are minimised. The team construct harnesses the best brains in industry while the ultimate control of the design and its evolution is managed through a single team structure within the CSG.

The group has built on earlier successes from introducing COTS to command systems, sonars and the Tactical Local Area Network to evolve the combat system design using state of the practice internet and virtualisation technologies and deliver these into the Navy’s submarines via a fast-moving implementation programme.

Light weapons – heavy interest

DE&S puts the front line on show to the wider MOD

Pictures: Harland Quarrington

It currently in service with troops in Afghanistan has gone on show to staff at Main Building. Two DE&S teams – Light Weapons, Photographic and Batteries, along with Dismounted Soldier Systems – were joined by some of their industry partners to show off the latest developments in light weapons.

It was also a chance for DE&S to demonstrate the quality, range and depth of its work to other parts of the MOD.

The event, mirroring one held by the teams in Abbey Wood before Christmas, was organised by DE&S' corporate communications manager Mark Lambert.

"The demonstration was to showcase to MOD HQ staff how the LWPB and DSS Teams are successfully delivering DE&S' mission to support the Armed Forces for operations effectively and efficiently," he said.

"In addition, we were able to show how the teams are working with the defence industry to deliver what is best for the end user on operations in Afghanistan."

More than 50 light weapons were displayed in the Memorial Courtyard, including the first new infantry combat rifle – the L129A1 Sharpshooter – which will fire a 7.62mm round and enhance accuracy of engagement during longer-range fire fights with the Taliban.

"The Sharpshooter rifle is designed

for a generalist soldier who is a good shot, so it is designed far more for a man to be able to switch his weapon and use it without months of specialist training," said Major Toby Barnes-Taylor, Chief of Staff for DE&S' Individual Capability Group.

The Sharpshooter is part of a £1.5 million Urgent Operational Requirement (UOR) as a direct response to a requirement from battlefield commanders. The first batch will be sent to Afghanistan later this year.

Colonel Peter Warden, leader of the Light Weapons, Photographic and Batteries team, said: "Everyone takes interest in the UORs and the new equipment coming in for specific purposes, but there's a whole lot of other activity that goes on, on a daily basis, to maintain, look after and improve the fleet of weapons that we have.

"People don't realise just how

much kit we have to manage; and obviously the numbers are increasing all the time, along with the ramp-up in terms of what we're doing on operations."

Among the arsenal was the Benelli Combat Shotgun, which went into service early last year and has proved to be a capable personal weapon in infantry sections in southern Afghanistan.

Displayed alongside the weapons was a range of the latest complementary accessories, including optical sights of varying magnification, image intensification or 'night vision', and thermal imaging technology, and even a man-portable laser targeting system.

Future developments in weapon systems were also on show, including the Picatinny rail, which is replacing the standard NATO rail on British weapons and is a universal rail that will allow a range of sights and other ancillaries to be fitted to light weapons.

Major Barnes-Taylor said feedback from front line troops in Afghanistan is influencing evolution of their weapons.

"We found that, with the integration of the SA80 rifle with the helmet and body armour that is used in theatre, soldiers, after many hours, found that their wrists started to ache and they couldn't get a stable fire position because of the normal foregrip.

"Therefore we went out and procured what is known as a Picatinny quad rail, which replaced the entire furniture at the front of the rifle, and, with a down-grip,

'Our partners are utterly unified in their desire to support the man on the ground'



Front line comes to MOD: more than 50 weapons were on show to staff in Main Building
Right: Sean Somerville, capability manager with the LWPB team, and Brigadier Carew Wilks, leader of the Individual Capability Group, show off a number of the team's weapons to Dr Simon Cholerton, head of Equipment Capability Secretariat.
Below: Nick Gurr, Director Media and Communications, and David Stevens take a close look at the Combat Shotgun

looks like a gangster grip out of the 1940s movies. Essentially it totally alters the dynamic of how the soldier holds it and gives his arms greater chance to rest and therefore work better for longer."

Brigadier Carew Wilks, Individual Capability Group leader, added that his team's dedication and professional ethos are mirrored in their business partners. "Together with the MOD, the traditional defence industrial partners, such as those we have here today, are utterly unified in their overall desire to support the man on the ground; so they are as keen as we are to find any solution to any issue that is raised," he said.

Among industry partners represented were Accuracy International, who supply the Army's marksmen with precision long-range rifles, GMK displaying the combat shotgun, Heckler and Koch showing work they have done on lightening the GPMG, Manroy Engineering, showing the 0.50 Heavy Machine Gun and Istec Services showing mounting systems. Qioptiq and Thales demonstrated the latest infantry weapon sights, surveillance system and range finder, less than lethal effect, and lightweight thermal imagery kit.

Mark Lambert added: "It was encouraging to see staff from MOD Head Office attending the event, who work in business areas not directly associated with land equipment. This proves staff are genuinely interested in attending such events and increasing and widening their knowledge about different facets of the business."





Food on the front line is often a reminder of home. DE&S took some service chefs back to school to show the next generation how the best meals can sometimes come from the simplest ingredients

CHILDREN FROM a primary school in the west had a flipping good time as they gave a big thumbs up to food from the front line.

The youngsters from St Philip's School in Bath enjoyed an Easter-themed cookery class, courtesy of DE&S' Defence Food Services team, and two military chefs.

Pancakes were top of the agenda, made out of ingredients found in the 10-man operational ration pack used to feed troops in Afghanistan.

Captain Jeremy Rigby, leader of the Enleigh-based team, said: "Traditional events always have a particular poignancy to servicemen abroad on operations; it is a link with home that marks the passing of time away but also reminds them what their friends and families are up to at home.

"To that end we go to great lengths to mark these special days when on operations and use it as an opportunity to boost morale.

"Pancakes are always a bit of fun and we have developed the ration packs to be as versatile as possible so that they can provide the key nutrition that is required and give our talented and imaginative chefs the raw ingredients they need to provide a whole range of appetising meals in austere conditions.

"The team in Enleigh which manages food for the armed forces both home and overseas is constantly developing and updating the ration packs. Working with nutritionalists and troops as they return from the front line they are well aware that the meals on operations are



Report: Hannah Swingler
Pictures: Andrew Linnett

Out of the frying pan . . .



Right: Warrant Officer Brendan Wood, on the left, helps Lance Corporal Dependra Limbu and Corporal Mickey Rowe cook up a treat for the youngsters of St Philip's School in Bath. Above and top right: the proof of the pudding is in the (pancake) eating

as important for morale and relaxation as they are for maintaining energy levels and health."

Corporal Mickey Rowe and Lance Corporal Dependra Limbu, from 32 Royal Artillery based at Larkhill, have served as chefs in Afghanistan. This time their task was to treat pupils from Year 2 to a feast of pancakes made from dried eggs, powdered milk and flour.

Cpl Rowe said: "Having worked as a chef in Afghanistan I know firsthand that food is very important to troops as it is not only fuel for the body but the mind too.

"The food that the troops eat often provides them with a link to home and observing Shrove Tuesday by flipping pancakes is an extension of this."

L/Cpl Limbu added: "The children were amazed to see what was in the ration packs and the wide variety of

meals that could be made with these ingredients. Many of them recognised the dishes as food their mums and dads would cook at home.

"It was great to see the surprise on their faces and also the fun they had taking part in the pancake flipping."

And the session was certainly a hit with the youngsters. Teacher Alison Howe said: "The children were thrilled to see the military chefs preparing and cooking food in front of them in the classroom.

"They made a variety of pancakes using the dried products from the ration packs and all of them were eaten with much enthusiasm.

"It has been a real education for the children and they were very surprised to see that the meals that the troops eat out in Afghanistan are similar to the food they eat at home. It has been a wonderful experience for us all."

'We have developed ration packs to be versatile to provide the key nutrition that is required'

- Operational ration packs (ORPs) are designed to give soldiers a balanced diet containing the required amount of calories until they can be provided meals on operations using commercial rations, commonly referred to as fresh rations.

- ORPs are available in both 24hr and 10-man formats. The 24hr is an individual, self-contained ration issued to service personnel for personal preparation and consumption. 10-man ORP is usually prepared by qualified chefs, for group feeding.

- A 38 Menu Multi Climate Ration has been developed to meet the demands of both hot and temperate climates, and has been available since May 2009.

- For most of the time the majority of Service personnel on operations eat freshly prepared hot and cold meals, cooked by professional chefs, which are supplied with a wide range of commercial rations that includes a variety of fresh fruit and vegetables sent from the UK.

- ORPs are readily available in Afghanistan with full availability across all menu variants. This ensures that troops are provided with a variety of choices. However, as you would expect in an extreme environment movement of rations in theatre can be challenging.

DE&S is a carbon standard champion

DE&S HAS achieved the Carbon Trust Standard for its efforts to reduce carbon emissions within the TLB – the first organisation in the MOD to do so.

The Carbon Trust is an independent Government body set up in response to climate change.

An independent assessor from the Carbon Trust looked at energy consumption records for DE&S sites and carried out an external audit within the TLB by scrutinising invoices or statements from energy suppliers.

The audit also included site visits to review local targeting processes and procedures and also to evaluate monitoring and site energy efficiency measures.

One of the main criteria was that DE&S had to show a reduction in its absolute carbon emissions year on year. The carbon footprint for DE&S has reduced from 295,000 tonnes to 277,000 tonnes over three years.

Another requirement was that DE&S had to demonstrate it has a performance management system in place, with benchmarking and targets, as well as being able to appraise major projects in terms of carbon impacts.

Steve Aylmer, of the DE&S Environment Policy team, said: "We are delighted to be the first organisation in the MOD to receive the Carbon Trust Standard. Being recognised in this way provides a valuable independent assessment of our systems and procedures as well as getting advice. It is a real endorsement of the hard work that has gone into cutting DE&S' carbon footprint."

Achieving the standard allows DE&S to achieve a higher ranking in the Carbon Reduction League table which will reduce the cost of participation in the scheme.

A better understanding of ALARP

REDUCING SAFETY risks to levels as low as reasonably practicable (ALARP) will not be compromised by the MOD having to make cash savings.

But Chief of Defence Materiel, General Sir Kevin O'Donoghue, has found that, within DE&S, understanding of 'reasonably practicable' is less than satisfactory even though work was done in 2009 to clarify and communicate it.

Gareth Jones, DE&S Head of Safety and Environmental Protection, said: "ALARP is at the heart of UK safety legislation. It demands that safety risk controls are implemented unless the sacrifice incurred (which might be operational restrictions or cost) is grossly disproportionate to the safety benefits which would result.

"The availability of funds does not influence whether risk is ALARP, but it may determine the timescale for introducing risk control measures."

He added: "This allows projects and sites to assess risks to be ALARP if they can show they are working to a timely plan to introduce mitigation. But managers must not be tempted to defer or cancel these plans in an attempt to reduce expenditure – if they do, their ALARP claims will be invalidated."

Where funding lines for safety risk controls are threatened, Sir Kevin has said managers must refer the situation through their line management chain. In a recent case, he intervened to protect funding for an equipment safety enhancement which was threatened by PR10 options.

New team formed to keep minesweepers in the hunt



Left: HMS Ledbury of the Hunt class. The ships will now see their engineering and support managed by a new Portsmouth-based team, representatives of which are pictured below with Rear Admiral Bob Love



A TEAM to manage engineering and support activity for the Royal Navy's Hunt class minecountermeasures ships has been launched in Portsmouth.

The Hunt Class Output Management (COM) team will provide a focal point for ships staff and the range of support authorities.

The team will be part of the Surface Ship Support Alliance between BAE Systems, Babcock and DE&S, established last September.

BAES will lead the Hunt team in Portsmouth while Babcock leads the Type 22 frigate team in Devonport. If the Hunt team

proves a success more COM teams will be formed for other warship classes.

DE&S' Director Ships, Rear Admiral Bob Love, launched the Hunt COM and highlighted the importance of the Hunt arrangements within the Alliance and the need to work closely with Babcock and the Type 22 COM to share good ideas and drive performance improvements from which all parties will benefit.

Integrating members of the Waterfront Logistics Support Group within the COM team has provided a single point of contact for the ships' stores officers and is already producing significant improvements for the supply chain function.

The Hunt COM brings together the expertise of Superintendent Fleet Maintenance, BAES and DE&S' Minewarfare, Patrol and Hydrographic team.

System to give gunners extra fire control

THE FIRST increment of a new fire command and control system for the Royal Artillery has been delivered on time and within cost by DE&S' Artillery Systems team.

Fire Command Battlefield Information System Application (FC BISA) has been developed under a prime contract with Logica with technical input from the Royal Artillery Trials and Development Unit (RATDU).

In FC BISA, the Royal Artillery now has the latest digitised, networked command control, communication, computers and information (C4i) system, integrated into the Bowman communications network.

Given a firing platform and a target, FC BISA will compute what charge to load, what fuse to set and what bearing and elevation to set on the weapon.

Weather and terrain information are also downloaded, and the movements of other forces around the battlefield entered into the system to ensure accurate and safe firing.

Graham Nichols of Artillery Systems, who has been working closely with FC BISA for two and a half years, said: "I was impressed with the way everyone worked together to ensure that any issues that threatened the fielding were promptly dealt with, and particularly the flexibility shown by Logica and the customer. I look forward to building on this with the fielding of the next FC BISA increment.



Sergeant Burnett of the 3rd Regiment Royal Horse Artillery discusses the merits of FC BISA in the turret of an AS90 self-propelled howitzer with Colonel Nigel Jefferson of DE&S' Artillery Systems team, right, and Alan Thompson of Logica.

"It was clear that the proactive efforts of the combined 'Tiger team', drawn from the Artillery Systems project team, Logica, RATDU and the Joint General Dynamics(UK)/BATCIS Joint Systems Integration Body was much appreciated by the Regiment, and ensured that the fielding and conversion ran smoothly."

3 Regiment Royal Horse Artillery is the first unit to field FC BISA. Colonel Nigel Jefferson, operations manager, with Artillery Systems, visited the regiment with Alan Thompson and Chris Rocks from Logica at the end of the first phase of conversion.

IT maintenance wants wider audience

SYSTEM ADMINISTRATORS who manage non DII/F IT equipment in DE&S could benefit from utilising the MOD's Single Source Maintenance (SSM) contract.

The contract currently provides IT maintenance for 245,000 IT assets worldwide with a four-hour fix for critical equipment and an eight-hour fix for non-critical equipment. Engineers are resident onsite where possible and can provide hardware, software and network support solutions via an extensive service catalogue.

From 1 June the SSM will also provide maintenance of audio visual equipment in place of the ad hoc repair service available to 31 May.

Further details on the SSM can be found at: <http://www.ssm-csd.dii.r.mil.uk>

Enquiries to Mark Taylor on: 01225 468927/9355 68927



Support chain head pays visit to Raleigh

DE&S' DIRECTOR Joint Support Chain has been briefed on Royal Navy logistics training at HMS Raleigh in Cornwall.

Air Vice-Marshal Matt Wiles, pictured above with Lt Cdr John Gallimore, commander of the Royal Navy School of Seamanship, visited the establishment in his role as the Logistics Skills Champion. As a senior logistician in the MOD his role is to provide a focus for logistics training.

While at HMS Raleigh he visited the Defence Maritime Logistics School, which trains officers and ratings across the logistics specialisations including personnel administration, catering services and supply chain.



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New finance system rolls out to boost DE&S team decisions



HMS Nottingham at her decommissioning ceremony. The Type 42 destroyers are being replaced progressively by the Type 45s.

Nottingham bows out of service

HMS Nottingham has left Royal Naval service after her 30-year career came to an end with a decommissioning ceremony in Portsmouth on 11 February. The Type 42 destroyer

clocked up almost 700,000 nautical miles on operations across the globe.

Among the guests at HMS Nottingham's decommissioning was former First Sea Lord Sir Henry Leach whose wife, Lady Leach, launched the ship in February 1980.

Commander Andrew Price, the ship's commanding officer, said: "HMS Nottingham has served the Royal Navy proud since she was launched in 1980, serving throughout the world."

"Today is tinged with sadness as the ship's career comes to an end, but the new class of highly-capable Type 45 destroyers represent a step change in technology relevant for the modern world."

HMS Nottingham – the sixth ship to bear the name – was built at Vosper Thornycroft in Southampton and launched on February 18 1980.

In 2002 HMS Nottingham hit a rock off the coast of Australia. She returned to sea in 2004 following an 18-month repair.

The ship returned from her final deployment, patrolling the South Atlantic, in April 2008.

A NEW through-life finance system will roll out this month to place the best and most up-to-date financial information at the heart of DE&S decision making.

The Planning Budgeting and Forecasting (PB&F) module will focus on equipment defence lines of development. For the first time equipment procurement and support costs can be easily brigaded by Programme Boards, equipment groupings and platforms for all new and existing projects.

It will mean better decision making in the long term, improving capability delivery.

DE&S users can now easily update their teams, managers, and capability delivery programme boards on planned expenditure against categories of cost using sophisticated reporting facilities that place quality financial information at the heart of decision making.

The system keeps up to date with the latest planning round position and has a built-in hierarchical structure which carries out the mapping of costs. It also has direct feeds from other PB&F modules (the Equipment Planning and Equipment Support Cost Models) to minimise the workload for users. While the first 10 years is automatically uploaded, users can extend their forecast out to as long as 30 years where appropriate.

Teams from DE&S' Through Life Finance and Financial Management Information Systems (FMIS), a part of Director Financial Management, have worked with DE&S project teams to develop the module.

This follows a successful pilot programme with three Programme Boards in 2009. Programme board support functions and project teams have played a fundamental part in the success of this implementation, working to identify the complex equipment and financial relationships that characterise DE&S.

A successful programme of briefings, demonstrations and training was completed in February so that users can 'hit the ground running' this month.

And it's not only DE&S focused, as work is now ongoing to explore the most effective ways of including the non-equipment Defence Lines of Development to further improve whole life financial decision making.

Watchkeeper agrees three-year support deal

THALES HAS been awarded a three-year initial Contractor Logistic Support contract valued at £55 million to support the Watchkeeper Unmanned Air Vehicle programme.

Under the deal, Thales will provide initial provisioning and support spares, repairs and maintenance.

DE&S' Unmanned Air Systems' Watchkeeper programme manager Steve Waller said: "This is a significant milestone, keeping the programme on track to achieve the in-service date later this year and deliver the capability into theatre as soon as is practical."

Watchkeeper will provide operational commanders with a 24-hour, all-weather, intelligence, surveillance, target acquisition and reconnaissance (ISTAR) capability supplying accurate, timely and high quality imagery to support decision making.

The system will consist of unmanned



From left: Director Combat Air Air Vice-Marshal Simon Bollom; CAPISTAR David Kernohan; Jonathan Barratt UAS team leader, Eddie Awang, Thales; Jerry Davies, Watchkeeper support; Steve Waller Watchkeeper programme manager; Cdr(RN) Tom Manson, UAS chief engineer; Mike Boardman Watchkeeper support manager; Tom Garvey, Thales

air vehicles, sensors, data links and ground control stations.

Watchkeeper will progressively replace the Hermes 450 (H450) Urgent Operational Requirement as the primary source of tactical ISTAR

support to UK forces in Afghanistan from later this year.

Watchkeeper offers a significant ISTAR capability enhancement on H450; both in Afghanistan and for future operations.



A computer image of the virtual trainers to be installed at RAF Brize Norton

Frigate back and now fighting fit

HMS Campbelltown has left Rosyth for sea trials after a substantial refit by Babcock.

Work on the Type 22 frigate has incorporated weapons systems upgrades and machinery as well as significant essential maintenance. Installation of the Defence Information Infrastructure (DII), Sea Wolf Mid-Life Update (SWMLU), fit of a 4.5 Mk8 Mod1 Gun, and upkeep of the Goalkeeper gun system have all been undertaken.

Solar test lands a boost

VEHICLE test and development facility, Millbrook, continues to advance its military capability with new equipment to simulate the effects of the sun's rays on vehicles.

The new solar radiation simulation equipment enhances the existing capability of the site's variable temperature emissions chamber which has a temperature range of -40 degrees C to +50 degrees C.

Parachute training set to land in the virtual world

PARACHUTE STUDENTS in the Armed Forces will benefit from virtual reality parachute descents on a simulator thanks to a contract signed by DE&S.

Eight Virtual Reality Parachute Trainers (VRPTS) are to be installed at the Parachute Training School at RAF Brize Norton, the UK's only provider of military parachute training for personnel from all three services.

The VRPTS will give students a real time experience in a virtual world of being suspended under a parachute canopy as a precursor to a live descent.

This will allow students to practise canopy handling drills and how to deal with emergencies

in a safe, but realistic virtual environment.

Through networking the VRPTS, instructors via a central control point will be able to place a student in a simulated day or night descent scenario under pre-determined wind conditions and inject various emergency scenarios as required.

Students will be repeatedly tested on their understanding of parachute canopy handling and what to do in an emergency. Virtual reality drop zones on to land and water will be included to complete the effect.

Cheltenham-based Pennant Training Systems will design and install the trainers in a contract

worth £374,000. The systems will be managed by DE&S' Flight Simulation and Synthetic Trainers project team and supported for the first four years with options to extend.

"In a closely competed tender Pennant offered the best value for money solution for this requirement which will significantly increase the realism of ab initio training provided by the Parachute Training School," said Martin Gabb, DE&S FsAST project manager.

"We are now working to a tight schedule to deliver this capability with first training on the new systems planned for July 2010."

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'Spy' is back in the sky



Above: the finished product on its way back to the RAF

Report: Tim Lewis

ONE OF the RAF Battle of Britain Memorial Flight's two Chipmunk trainers has returned to RAF Coningsby following a major overhaul.

Designed as a primary trainer, WG486 has an interesting history as a rather unlikely spyplane.

It was one of the final two Chipmunks that monitored the East German border around Berlin, photographing Warsaw Pact activity.

When the Berlin Wall came down in 1989, the aircraft was transferred to the BBMF, while its companion took up residence in the museum at Gatow.

The two BBMF De Havilland Chipmunks, the last in RAF service, are probably the least-seen aircraft of the fleet. They are used primarily for conversion and continuation training of BBMF pilots on tail-wheel aircraft.

Within the RAF, 'tail-draggers' are now unique to the BBMF and pilots new to the Flight commonly arrive with no

previous tail-wheel or piston engine experience.

Major maintenance is carried out every eight years on the Chipmunks and last July marked WG486's turn for a trip to the hangar.

The work was carried out by the Aircraft Restoration Company (ARCo) at Duxford under a contract awarded by DE&S' Nimrod team, which is responsible for the BBMF aircraft.

Scheduled maintenance included replacement of all flexible hoses and control cables. The elevators, rudder, flaps, one aileron and the starboard wing

required fabric replacement.

Additional tasks required by the Nimrod team involved the replacement of the engine and the fitting of a combined GPS/Radio and Mode 'S' IFF system.

The project team was helped by staff from the Defence Quality Assurance Field Force office in Cambridge, who carried out surveillance activities and Flight Authorisation Certification before flight test.

WG486 was successfully flight tested by Sqn Ldr Ian Smith, the Flight's commanding officer, on 28 January and returned to Coningsby.

Calling DE&S engineers

EMPLOYEES AT DE&S with a science or engineering background can join Government Science & Engineering (GSE), a community established by the Government Chief Scientific Adviser to support and champion the profession and its members. Members will be offered invitations to free events, professional development opportunities including exchanges with academia, access to the GSE web community, and more. GSE now has 2,500 members from more than 30 government organisations. Register via: <http://www.civilservice.gov.uk/my-civil-service/networks/professional/science-engineering/index2.asp>

HR Information Notes are for YOU

They contain vital information for all staff in DE&S - they are the main vehicle for announcing implementation of HR changes to line managers and individuals.

- 03/2010 - Management of Civilian Stub records on Joint Personnel Administration (JPA)
- 04/2010 - Announcement of the DE&S Early Release Scheme for Band E and Skill Zone Staff Employed at RAF Wyton and Brampton
- 05/2010 - Requirement for Service Personnel to populate HRMS
- 06/2010 - Equality and Diversity Impact Assessment (EDIA) guide
- 07/2010 - Use of Recruitment and Retention Allowances (RRAs) and Milestone Related Retention Allowances (MRRAs) in DE&S

DE&S duo defeats the southern oceans

TWO ROYAL Navy officers who work in DE&S are back from a gruelling two weeks battling the southern oceans as part of a worldwide adventurous sail training exercise.

Lieutenant Commanders Steve White and Peter May work in service operations with Corsham-based Information Systems and Services.

But they took a fortnight out to join a Royal Navy and Royal Marines crew taking on the Army and RAF on the 2,200-mile voyage from Perth in Western Australia to Sydney.

The journey formed stage five in a year-long 13-leg exercise for the 15-strong crews, many of whom are sailing novices and who have just returned from serving in Afghanistan or Iraq.

The three 67-ft steel-hulled yachts set sail from Fremantle Sailing Club to tackle the voyage across the Great Australian Bight and through the Bass Strait.

"It is widely held that the Southern Ocean is to a sailor what Everest is to a climber, and we were not disappointed," said Steve.

"Since leaving Fremantle we had several 'tasters' of what is available. Fortunately, there was the occasional respite from the constant swell and large waves and this gave us the opportunity to re-group as a crew and we became more seasoned with a strong teamwork ethic."

Gale force winds in the Bass Strait made for an even more uncomfortable



Steve White, left, during the crossing of the Great Australian Bight and, above, at journey's end.

Below: Peter May at the helm



few days before an emotional entry into Sydney Harbour, ahead of the RAF but 25 miles behind the Army.

"The two weeks culminated in an amazing day of sailing right to the finish," Steve added. "We were shattered, but each and every one of our crew had taken part in the whole effort, all contributing to a real adventure."



PC Billy Hayes, left, with Inspector George Allan

Coulport's MOD Police get shirty in Afghan sports kit appeal

GENEROUS MOD Police officers at DE&S-administered Coulport have been helping to improve the lives of Afghans in Helmand.

Constable Billy Hayes (45), currently serving at the Interim Helmand Police Training Centre in Lashkar Gah, put out an appeal to MOD Police and Guarding Agency colleagues to collect old sports tops and equipment recently.

Officers at Coulport, where Billy is normally based, took up the challenge and so far have collected around 170 tops and other sports garments for Billy to use in Afghanistan.

"When the working day is done,

after evening prayers, the recruits and local people like a kick-around and other sports," said Billy.

"It is a way for them to unwind and come together for a few minutes of fun. There isn't a lot of a sport clothing or equipment available, so I thought it might help them if I could arrange a few items.

"I knew that MOD officers at Coulport would get behind the effort, so I posted a message on our intranet asking for help. The response so far has been fantastic."

Billy, who lives in Helensburgh, is a part of the international peacekeeping force in the region, training around 150 new police recruits every three weeks.



You had your say

The October 2009 MoD Your Say survey results for DE&S have been published on the Defence Intranet; please take the time to read them.

Your own business area results will be shared with you by your team leader.

Our overall engagement index score has improved again and more of you than ever took the opportunity to tell us what you think about the things that matter.

However, we can do better; leadership and the way we manage change is still a concern.

Our results will now be studied in detail to identify what needs to be done and these next steps will be shared with you in a future edition of *desider*.

Pilot Colin swaps one ship for another in retirement



Over and out: pilot Colin Donne has retired after 35 years' service

AN ADMIRALTY pilot working in Devonport supporting the Royal Navy has retired after 35 years' service.

However, Colin Donne does not intend his seafaring days to be over just yet. He and wife June are to sell up and live on a boat on the River Tamar in the Plymouth area.

The couple will travel to Turkey, buy themselves a Turkish gullet (traditional sailing boat), sail it back to the UK across the Mediterranean, through the French waterways and back across the Channel to Plymouth where they intend to make the gullet their home on the banks of the river.

Joe Lovelady, Chief Admiralty Pilot in Plymouth, said: "Colin has given excellent and very professional service to the MOD for 35 years. As a colleague and friend it has been a pleasure to know and work with him."

Colin has a long career of working on water after an earlier career as a teacher. He left the

'Colin has given excellent service to the MOD for 35 years'

classroom to join the Royal Maritime Auxiliary Service (RMAS) in 1975 in Plymouth.

He worked his way up the service to qualify as a tugmaster in 1986 and was promoted into his current role of Admiralty Pilot in 1991.

As an Admiralty Pilot for the Port of Plymouth since 1991 he qualified to pilot aircraft carriers, large fleet tankers, submarines, foreign warships and commercial vessels using the Devonport base.

His career spent working in Devonport and around the waterways of Plymouth included sailing with mooring and salvage vessels, ocean tugs, harbour tugs and cable and research ships.

Colin has two sons, one daughter and two grandchildren, and has become a popular and well known welcoming face to many of the ship and submarine crews returning back to Devonport, and will be missed.

Team drives away with award

PROTECTED MOBILITY'S commercial team has taken the gold award in the latest Defence Commercial Awards.

The awards took place on 22 January, in a packed Central Facilities Building at Abbey Wood where the winners were recognised for achievement of great commercial outcomes for defence.

Judges had to choose from 21 high calibre nominations.

Protected Mobility's team won the award for the Tactical Support vehicles UOR programme in support of the MOD's commitment to operations.

Through an intensely busy period the team drove through aggressive timelines and complex arrangements with a variety

of suppliers while supporting numerous concurrent UOR contracts.

This was an exemplar of the values and professionalism that the commercial function strives for.

Silver went to the CTLB Energy Procurement and the DE&S Energy Category Management teams.

They've delivered impressively in the high profile Pan-Government Energy Project with their work providing significant benefits and this pan-government project is acknowledged as the most successful of the collaborative programmes in Government.

The Afloat Support commercial team took bronze with their implementation of the RFA Through Life Support contracts.



DE&S team is in the swim

HELP FOR Heroes has received a £4,000 boost from a DE&S team's sponsored swim.

Members of Equipment and Support Continuous Improvement Team, including its head Matt Roberts, took part in the swim at Filton Leisure Centre.

Five teams of two and three people swam for 20 minutes at a

time for a total of seven hours and 24 minutes – the length of a civil service day – and to swim a total of 50 kilometres.

With support from DE&S staff and the public, swimmers managed to raise £4,120 and swam more than 57 kilometres.

The team is pictured, left, after their swim at Filton

DEVONPORT-BASED Colin Davies will be battling up Mount Kilimanjaro later this year – 18 months after having a leg amputated.

Colin, a DE&S employee who works for the naval base, saw his Royal Navy career end in a medical discharge. And, after years of pain, had his right leg amputated above the knee.

Now without the constant chronic nerve pain, he says he has his life back, and will be looking to raise cash for charity Limb Power when he begins his mountain climb in October.

"As part of my rehabilitation I went to take part in the Amputee Games in Stoke Mandeville Stadium last August," he said.

"These are a fun games that help people rehabilitate with all degrees of disability through the introduction of sport. The games are run by Limb Power who bring in professionals from many sports to coach participants.

"These games helped my recovery to the extent I now do archery, swimming, canoeing, wheelchair tennis and rowing."

The charity hike up

Climber's charity task is simply mountainous

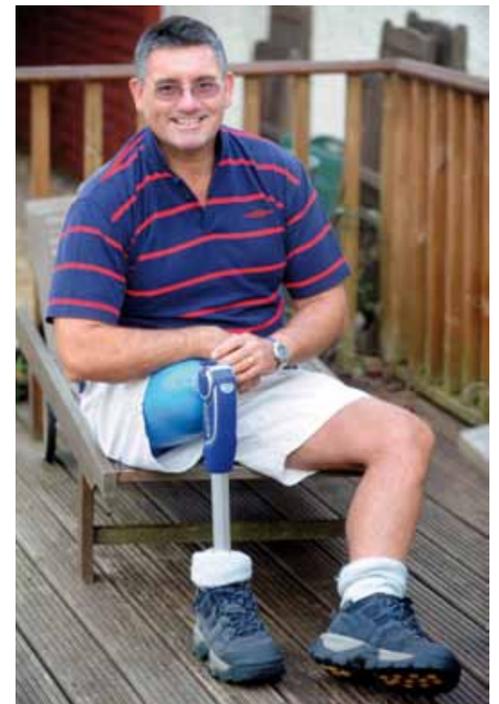
Kilimanjaro will promote limb power and give a team of amputees a challenge of a life time. This has been set up with the company Charity Challenge who successfully took celebrities up Kilimanjaro for Comic Relief.

"The games helped me tenfold, and changed my life which allowed me to meet so many inspirational people," Colin said.

"We are now taking on this challenge to promote health and fitness and to inspire new amputees to get on with their lives after limb loss.

"Although an individual amputee has completed this climb, this will be the first time a team of amputees, with differing levels of disability and fitness will embark on such an adventure."

Colin has a website at <http://www.justgiving.com/colin-davies>



Heading for the heights: Colin Davies has set his sights on Mount Kilimanjaro in the autumn to raise money for charity

Jim takes another journey up quality street



Award winner: Jim McIntosh of DSDA Beith

JIM McINTOSH, Quality Manager at the Defence Storage and Distribution Agency's (DSDA) Beith site, has completed the requirements of the MOD Quality Practitioner Licensing Scheme and has been awarded a full Quality Practitioner licence.

Through this scheme Jim also satisfied all the requirements of the Chartered Quality Institute (CQI) which is the only chartered professional body within the UK dedicated to quality.

This resulted in Jim being elected by the CQI Qualification

Board as a Chartered Member of the Institute (MCQI) in the grade of Chartered Quality Professional (CQP). Jim is one of the first quality managers in DSDA to achieve this standard.

It is professional recognition of Jim's commitment to quality, academic achievement, experience, training and integrity which will assist him in personal and professional development.

From a business perspective, having a CQP is a clear demonstration of continuing

commitment to quality and competence in applying quality concepts, principles and techniques to improve our performance, enhance our ability in meeting our business aims and ensure we consistently meet and exceed our customers', stakeholders' and third party assessor's requirements.

DSDA Beith has a robust Quality Management System that is managed and maintained in a professional manner to ensure we continue to retain our ISO 9001:2008 Certification.

NEWSREEL

Teams set to merge

DE&S' Underwater Warfare Systems and Naval Electronic Warfare project teams will merge on 1 April into the Underwater & Electronic Warfare (UEW) team under Capt John Macdonald. The team will retain its current project portfolio, and project teams/telephone numbers will remain largely unchanged. E-mail addresses will change to reflect the new team title, and its migration from FWE to MCS; when new addresses are confirmed, a DIN will be published.

Boxing clever

CLYDE Naval Base will host a charity boxing dinner show on Thursday, 11 March featuring boxers from Royal Navy Scotland against fighters from the Naval Air Command. Proceeds will go to Help for Heroes and Royal Navy and Royal Marines' charities. Bouts will be held in the base's Warrant Officers' and Senior Rates' Mess where tables will seat up to ten people. Tickets cost £50 per person. Calling POPT Richard Collins on 01436 674321 Ext 3613.

Disco cash

A total of £260 was raised by the latest Blue Light Disco at the Drumfork Centre, Helensburgh, on 12 February. The money was split between Help for Heroes and the Yorkhill Children's Foundation. Receiving the cheque for Help for Heroes was Commander Ian Riches, Clyde's Executive Officer, after his first full day in his new job.

Mike rides to the rescue – thanks to flexi-time

CHAMPIONSHIP MOTORCYCLE fueller Mike Wain helped his British team to a second place podium finish in Qatar – thanks to the Abbey Wood flexi-time system.

When a Yamaha Phase One team member's mother was taken ill at the end of last year Mike of the AS90 self-propelled gun team – part of Artillery Systems – at Abbey Wood was the only other fueller free to take his place for the last race of the World Endurance Championship season – but he did not have enough leave left.

By working flat out through November and December, even coming in between Christmas and New Year to complete Continuous Improvement reports, Mike was able to build up enough flexi-time to make the trip to Qatar.

During the race Mike was in charge of fuelling the bike and managing the fuel strategy.

After eight hours endurance riding, Britian's James Ellison finished the race one lap behind the Austrian victor in second place, the team's best result since winning the World Championship in 2003.

Mike said: "It was fantastic, I never even expected to be there, so to finish second and see the Union Flag going up above our riders on the rostrum was absolutely brilliant.

"The fuelling went absolutely perfectly and James obviously recognised the part it played as he got off the bike after the race



Mike, above centre, gets to work on refuelling the British challenge in the World Endurance Championship.

Right: Mike in less busy times

and thanked me with massive hugs.

"Big thanks from me to whoever introduced the fantastic Flexi system we have at Abbey Wood and my BAE Systems line management for taking it on as well!"

In addition to the World Championship and the TT Races, the Phase One team is planning a new challenge this year - racing electric motorcycles. The volunteer team particularly needs anyone with a good



understanding of DC motors, batteries and electronic motor controllers. If you have these, general mechanical or PR skills, and would like to be involved in motor sport on the world stage as part of your personal development, contact mike.wain700@mod.uk

Teamwork will prevent trip becoming a pain in Spain

TEAMWORK, LEADERSHIP and personal confidence will be high on the wish list when a DE&S team takes on a climbing expedition on Spain later this month.

Six personnel from DE&S, including a doctor and physiotherapist, will take on Exercise Tiger Spanish Summit in the Calpe region of the country.

"This is a high-profile exercise, building on a successful model last year, which gained extensive media coverage bringing significant

reputational benefits to DE&S," said Abbey Wood-based organiser Warrant Officer Carl Roberts.

"The impact of carrying out such an activity should not be underestimated. It carries a high level of prestige in senior circles within the department and it underlines DE&S and Director JSC's commitment to those serving on operations.

"It provides an opportunity for those serving personnel within DE&S to do something for those who have been injured on operations."

Multi-role Lyn notches up an award double

A DE&S civil servant has earned a prestigious honours double for her work with the Joint Combat Aircraft (JCA) team.

Lyn Tyacke spent four years in Virginia as a lead systems engineer on the JCA programme moving the Lockheed Martin F-35 Lightning II fighter nearer to UK service.

She has been honoured by the United States Department of Defense and the Chief of Defence Materiel, General Sir Kevin O'Donoghue.

Lyn was presented with the 'Secretary of Defense Medal for Outstanding Public Service' by Major General David R Heinz from the US Marine Corps, the Programme Executive Officer for the F-35 JCA project.

At the same ceremony in MOD's Main Building, Lyn was also presented with CDM's Certificate of Commendation.

Between September 2005 and last August, Lyn was responsible for co-ordinating technical information exchange between the various local and international partners in the project, ensuring that each of the separate systems incorporated within the JCA would be able to operate effectively together; an essential role in a project of this size.

Lyn said: "I feel very honoured and very fortunate to have had the opportunity to serve (as part of the JCA Team in Virginia).

"It was really interesting working in an international, collaborative environment. It was a great opportunity



Lyn Tyacke receives her US award from Major General David R Heinze of the US Marine Corps, executive officer of the F-35 Joint Combat aircraft project

to work together and learn the processes that other acquisition communities implement," she added.

CDM's award recognised Lyn's part in a team whose 'meticulous planning, clear direction, detailed negotiation, and strong commitment brought the delivery of the air component of the future carrier strike capability one step closer to fruition'.

Now back in the UK, Lyn is a trainer at the Defence Academy in Shrivenham.

Marcus puts best foot forward

A ROYAL Navy Chief Petty Officer is all set to make a titanic effort for charity over April and May.

Chief Petty Officer Marcus Bohlin (39), who works at Clyde Naval Base, ran the Great Scottish Run last year for his chosen charity, Alzheimer Scotland, and this year is planning to up the ante in his efforts to raise cash.

On 18 April he will be taking part in the Chris Hoy Half Marathon in Edinburgh, then, on 8-13 May will walk all 96 miles of the West Highland Way from Milngavie to Fort William.

As though that wasn't enough, super-fit Marcus will then return to Edinburgh on 23 May to run the full marathon – a total of 135.3 miles over a five-week period.

Marcus' aim is to raise £1,650 for Alzheimer Scotland. "My dear old Granddad suffers from Alzheimer's disease," said Marcus. "I want to raise money for this charity so that people can continue to get the help and support they deserve to make the rest of their lives as happy and as dignified as possible."



How are we doing?

The latest figures from HRMS show that at the end of January 53 per cent of DE&S staff had completed six days or more training and 36 per cent had completed the extra four required for continuing professional development. This is good news but we cannot afford to be complacent and we must continue to make a concerted effort to undertake and record on HRMS relevant development activities. The updating of HRMS is key to the 6+4 target. It not only provides the data on the number of training days completed but also, and equally as important, it provides validation of the training undertaken. The end of the reporting year is fast approaching, so please check you have recorded all the training and development activities you have completed this year.

DE&S teams head back to school

DE&S' ENGINEERING Skills Support Team, mentors and assessors attended the G04SET celebration and assessment day at the BAWA Club in Filton.

G04SET is a work-related learning scheme for 12-14 year old pupils, aimed at raising their awareness of the exciting future career opportunities in science, engineering and technology. Teams of six pupils from schools in the Bath and Bristol areas got a taste of real life application of science in a 10-week programme working with DE&S-based mentors. They supported 10 school teams by visiting the schools and hosting visits to Abbey Wood.

DE&S mentors picked up two awards; for best teamwork to Craig Proudlove and Badminton School; for innovation to Claire Thomas and Kingsfield School. For further information speak to Rachel Dyer on 967936769 or see the Engineering Skills Director Intranet Site.



TOGETHER WE FLY HIGHER.

Ready for take-off? Thanks to our British partnerships, more UK Chinooks are ready than ever before. Our Through Life Customer Support (TLCS) programme provides maintenance and engineering support for Britain's Chinook fleet, setting a benchmark for future MoD sustainment contracts. Together, we're taking logistics to new heights. Discover more at boeing.co.uk/together

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