

desider

April 2012 Issue 47



MINISTRY OF DEFENCE

the magazine for defence equipment and support

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Why DE&S staff are probing a World War Two shipwreck [See inside](#)



Dockyard transformation



Helmet system proves a hit



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FEATURES

18 Recycling closes the final chapter

Recycling of the former Royal Navy aircraft carrier *Invincible* has been completed by the Turkish contractors inside ten months. *Invincible* left Portsmouth last spring for recycling by the Turkish company Leyal Ship Recycling, one of Turkey's leading ship recycling companies near Izmir on the Aegean coast

20 DE&S probes secrets of the deep

Members of DE&S' Salvage and Marine Operations team will be hard at work on the island of St Helena from later this month examining the wreck of a tanker which was sunk by a German U-boat during World War Two. *RFA Darkdale* was the first British ship sunk south of the equator during the war as she was hit by four torpedoes in the early hours of 22 October, 1941.

22 Open procurement is the way forward

The Government's White Paper in February obliges DE&S to seek out what the global market has to offer UK Forces in cutting edge, high quality kit, getting the best return for the UK taxpayer. But British companies should not fear this competition, says Minister for Defence Equipment, Support and Technology Peter Luff



cover image

Signing of the £452 million Military Afloat Reach and Sustainability Tanker contract has been described as a dream by officials of the company – Daewoo Shipbuilding and Marine Engineering – who will be building the ships in a yard in South Korea.

Picture courtesy of BMT Defence Services

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Bernard Gray

Chief of Defence Materiel

‘The Materiel Strategy Interim Structure will rebalance resources to achieve the manpower reductions we have to make while enabling us to continue to operate effectively’



I know you will be well aware that work on The Materiel Strategy is continuing to go forward, as we develop and flesh out the options for the future management of DE&S. This work is focusing on the options for increasing the role of the private sector in DE&S, as set out by the Secretary of State in his statement to Parliament on Defence Transformation on 1 March. These options will be developed and tested further in the coming months, and I will update you as thinking matures.

I've spoken at a recent town hall briefing about our work on The Materiel Strategy Interim Structure. This work will rebalance resources to achieve, in a coherent way, the manpower reductions we have to make as part of the Strategic Defence and Security Review, while enabling us to continue to operate effectively. As this work continues, you will be kept fully informed.

Alongside these pieces of work, the constant focus of DE&S on the support of current and future operations continues unchanged. I was very pleased to see progress last month on two very important equipment programmes – those for four Military Afloat Reach and Sustainability (MARS) Tankers and for the eighth C-17 transport aircraft.

They represent two very different types of contracting, but both may be helpful pointers towards some of the work that DE&S may be doing in the future. One was an international competition and the other was an off-the-shelf purchase.

For the MARS Tankers, the Afloat Support team ran a demanding competition involving shipbuilders in Europe and Asia and secured an excellent deal

for new Royal Fleet Auxiliary tankers.

This project fits in well with the recently published White Paper ‘National Security Through Technology’ in which the Government’s preference for fulfilling the UK’s defence and security requirements through open competition in the domestic and global market was clearly set out.

The plan to buy an eighth C-17 was announced by the Prime Minister on 8 February and the C-17 negotiating team was in the US within days to agree the final terms and conditions. Due to their hard work – which built upon a commendable amount of preliminary work undertaken over the Christmas period – we were able to have the contract signed and agreed with the delivery date of the aircraft finalised within a month of the Prime Minister’s announcement.

This is a prime example of a pure Military Off The Shelf (MOTS) purchase. In this case we have contracted for a US Air Force (USAF) aircraft in the very final stages of production, thereby achieving an early delivery date. In turn we pay for a USAF replacement aircraft at the end of the production line.

The fact that RAF C-17 aircraft maintain strict configuration commonality with their USAF counterparts is a key enabler in delivering such agile procurement to meet urgent operational needs. Procuring C-17 on a pure MOTS basis also delivers a range of other benefits including huge economies of scale in support by leveraging off the very large USAF C-17 programme. Finally, our huge thanks go to the USAF for helping us to procure the eighth C-17 in such an aggressive timescale.

Olympic air security is put to the test

UK ARMED Forces aircraft and personnel took part in the latest training exercise for their vital role providing air security for the Olympic Games.

Exercise Taurus Mountain 3 put airmen, soldiers and sailors through their paces in the skies over north Yorkshire, detecting and intercepting aircraft that intrude into restricted airspace.

The Air Security Plan for the Olympic Games builds on the RAF’s existing defence of UK airspace.

The exercise integrated additional forces to ensure the safety of the Olympics. These included RAF Puma aircraft together with Royal Navy and Army Lynx helicopters carrying teams of RAF Regiment snipers to intercept aircraft in restricted airspace, and airborne surveillance aircraft including Royal Navy Sea King and RAF E-3D Sentry aircraft.

On the ground, the RAF is providing additional mobile ground radar systems, while the Army is deploying air observers and Rapier and Starstreak missile systems.

Military activity, including the Air Security Plan, supports the overall police operation, so the exercise was a chance for police and military to learn more about how the other operates.

Air Commodore Gary Waterfall, the Deputy Air Component Commander, said: “While there is no specific threat to the Games, we have to be ready for whatever occurs and play our part in what will be a safe and secure Olympics for all to enjoy.

“Our multi-layered security plan means we have a range of responses available to us, ensuring we can deal appropriately with anything from redirecting an aircraft that may have strayed into restricted airspace to preventing an attack.”

Armed Forces units taking part in the exercise included:

- Typhoon jets from RAF Coningsby.
- Puma helicopters from RAF Benson with sniper teams from the RAF Regiment at RAF Honington.
- Royal Navy Lynx helicopters from RNAS Yeovilton.
- Royal Navy Sea King ASaC helicopters from RNAS Culdrose.
- Grob Tutor aircraft from RAF Leeming.
- Sentry E-3D aircraft from RAF Waddington, Lincolnshire.
- Air Surveillance and Control System (ground-based radar), from RAF Boulmer.
- 1 Air Control Centre (ground-based radar), from RAF Scampton.
- Joint Ground-Based Air Defence (missile systems), of 16 Regiment Royal Artillery, from North Luffenham.

'An awesome piece of kit'

Commander's verdict on *Astute* trials voyage

Homecoming: *HMS Astute* on the final leg of her return to Clyde on 1 March



HMS ASTUTE has returned to Clyde after her most important series of sea trials so far – with her commander saluting her 'awesome' capability.

The first-of-class submarine spent 77 days at sea, 65 alongside, and was inspected by 18 stars-worth of American and British naval authority – including the First Sea Lord and America's naval equivalent, the Chief of Naval Operations.

She 'battled' against *USS New Mexico*, America's newest and best *Virginia* class hunter attack submarine. She deep dived, fired her Tomahawk Land Attack Missiles, and over the course of the deployment sailed

Report: Alan Dignon

16,400 miles. Commanding Officer, Commander Iain Breckenridge, said: "We are looking forward now to a bright future – this is a submarine of tremendous capability."

On the deployment, where *Astute* visited the US Naval Base in King's Bay, Georgia, Commander Breckenridge said: "We met and surpassed every expectation. She is simply better than any other submarine I have ever been on.

"She is still on trial and is first-of-class which always brings its own problems but we

are beginning to look beyond those problems and see the promise.

"We fired off four Tomahawks, aimed at a corner of Eglin Air Force Base to test for accuracy, and we fired six Spearfish torpedoes, including the first salvo firing by a British submarine for 15 years.

"Our sonar is fantastic and I have never before experienced holding a submarine at the range we were. This is the future – *Astute* is on its way. She is one awesome piece of kit."

The 7,400-tonne submarine will stay at Clyde for maintenance before returning to sea for more trials.

NEWSREEL

Last aircraft at St Athan

THE last RAF aircraft to be repaired at St Athan in south Wales has flown out, ending 75 years of maintenance at the site. A VC10 left St Athan on Thursday 23 February en route to RAF Brize Norton. St Athan's history as an aircraft maintenance base dates back to 1938.

Engines milestones

THE 300th EJ200 engine to be built at the Rolls-Royce facility in Bristol has been delivered to BAE Systems and the company has also delivered the 500th Tranche 2 standard engine on behalf of the Eurojet consortium. Both engines will power Typhoons in the Royal Saudi Air Force.

Handover

MARSHALL Land Systems has handed over to the MOD the first truly deployable CT scanner, a Philips Brilliance 64 CT. The handover was attended by Brigadier Jon Brittain, Head of Capability Expeditionary Logistic Support, Sir Michael Marshall, Chairman of the Marshall Group, and representatives of DE&S and the Surgeon General's Department.

Sentry value

SENTRY, the UK's Airborne Early Warning (AEW) and Control aircraft, forms part of the UK's contribution to Nato and the six UK aircraft generate 25 per cent of the total Nato AEW Force, Armed Forces Minister Nick Harvey has told Parliament.

Body armour plate proves just the job



A BRITISH soldier who was shot in the back during a firefight in Helmand Province shrugged off the impact, swapped his damaged armour plate for a new one and carried on with the mission.

Trooper Daniel Griffiths, left, from 1st Battalion, The Queen's Dragoon Guards was shot by insurgents on the edge of the Nad-e Ali district.

As British soldiers returned fire Trooper Griffiths, 23, was hit in the back by a round in the middle of his body armour plate.

"It felt like a sledgehammer blow and knocked me to the

ground," he said. "When we got to a safe compound I checked my body armour and found the bullet had gone through my day-sack and into my back plate. I was pretty relieved, and felt a bit light-headed."

He later swapped the damaged plate for a new one before carrying on with the mission.

Major Justin Stenhouse, Queen's Dragoon Guards, added: "This action demonstrates individual courage but is also testament to the high-quality equipment issued to those on operations."

NEWSREEL

Training deal renewed

FB Heliservices' £193 million four-year contract plus two possible one-year extensions began on 1 April to continue helicopter flying training at RAF Shawbury, RAF Valley and AAC Middle Wallop, together with support services at Shawbury and Middle Wallop. The contract continues Defence Helicopter Flying School support which FBS and FB Heliservices have delivered for the last 15 years. Training will continue using Eurocopter Squirrel and Bell Griffin helicopters, upgraded with new technology. FB Heliservices is owned by Bristow Helicopters and Cobham Aviation.

Fusion team

FUSION Air Traffic Management has added BT, Moog Fernau, Park Air Systems and Frequentis to its team bidding for Project Marshall to provide air traffic control for all MOD air stations and air weapon ranges in the UK and overseas. Fusion also includes Lockheed Martin, Finmeccanica company Selex Systems Integration and Cobham.

dstl support

ENGINEERING consultancy Frazer-Nash has been appointed to support the Defence Science and Technology Laboratory's (Dstl) five-year 'RAMD' (reliability, availability, maintainability and durability) research programme to improve management and sustainability of combat and logistic vehicles.

Logistic upgrade makes further progress

THE SINGLE logistic system which gives global visibility of defence assets wherever they are managed has moved on another step.

An upgrade from Release 3 to Release 4 of the Management of the Joint Deployed Inventory (MJDI) opens more functionality to users.

It also increases the amount of current and historical information on stock availability and usage to all who have access.

It is the first time the system – which reaches full operating capability at the end of this month – has been upgraded incrementally.

It was achieved seamlessly, a major fillip to suppliers and its DE&S project team alike. It also

proves the processes required for the upgrade to Release 5 later this year and gives a huge degree of confidence for future upgrades.

Cdr Phil Waterhouse, MJDI Project Manager, said: "This marks a significant step forward for MJDI and brings the much-needed improvements in the way defence stock is managed even nearer to its full capacity.

"The project team and suppliers deserve praise for the success of this highly complex and challenging project."

MJDI begins the challenge of rolling out to HQ Army and HQ Navy ships and submarines in the next few months.

Helmet system a hit with Tornado crews

A NEW helmet-mounted system to help RAF Tornado pilots identify friendly forces is proving successful in Afghanistan.

The system, delivered by BAE Systems as an Urgent Operational Requirement, projects information in front of the pilot's eye allowing instant assessment of points of interest. The technology can save vital seconds and lives in the theatre of war.

The request for the fitting of a Tornado Helmet Mounted Cueing System (HMCS) onto the RAF's Tornado GR4 fleet came last April.

The system is now operational on aircraft in Afghanistan with positive feedback from pilots.

Wing Commander Kurt Hill, Tornado Capability Manager with DE&S' Fast Air Support team, said: "The Tornado HMCS capability has greatly enhanced the crew's situational awareness and resource management, enabling the rapid identification of points of interest in the homogeneous Afghan environment."

Martin Taylor, BAE Systems' Combat Air Support Director, added: "We are delighted with the positive feedback from the RAF crews who have used the HMCS on Tornado in Afghanistan. The speed at which the system was developed and deployed demonstrates our ability to respond effectively to customer requirements.

"Over the coming months, we will continue to work with the customer, to provide the capability across the wider Tornado fleet."



Above: Gp Capt Mike Smith joins representatives of the DE&S team and Raytheon UK alongside ZJ690

Sentinel's early return boosts fleet capability

SENTINEL TEAM leader Group Captain Mike Smith has welcomed back ZJ690 to the fleet ahead of schedule at RAF Waddington after final modifications.

The surveillance and reconnaissance aircraft, the first to be delivered under the ASTOR (Airborne Stand-off Radar) contract in 2008, was employed on early development but lacked the modifications.

Now brought up to the same standard as the other four in the fleet, ZJ690 can play a full part and will help boost the fleet's ability to conduct concurrent operations which it did recently in Afghanistan and Libya.

Sentinel prime contractor Raytheon UK delivered ZJ690 back to the RAF in January, under the original baseline cost and earlier than the 90 per cent schedule date of the end of last month.

The aircraft deployed on Operation Herrick less than two weeks after being accepted back into service at RAF Waddington and performed faultlessly on its first mission over Afghanistan.

DE&S' Head of Air ISTAR Air Commodore Peter Ewen said: "I am delighted to see ZJ690 returned to the front line ahead of schedule. The project team has worked closely with the Raytheon team and the early return of this aircraft gives the Front Line Commands a much more robust ISTAR capability to support operations in Afghanistan."



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Land lands at Abbey Wood

DEFENCE Science and Technology Laboratory (Dstl) is hosting a Land and Joint Logistics roadshow in Neighbourhood 2, Abbey Wood on 16 May. It will showcase work under the Chief Scientific Adviser's Land research programme. DE&S staff will be able to discuss capability with colleagues from Dstl. For more information contact William Suttie, Science Gateway on 07748 181147 or DESLESCG-TL@mod.uk

Arresting kit

MARSHALL Aerospace has commissioned two Rotary Hydraulic Arrestor Gear systems at Camp Bastion following the opening of a new runway last year. Systems are fitted at major RAF bases to slow down fast jets in an emergency landing. Two drum-wound belts tension a steel cable that spans the runway for landing aircraft to hook onto at speeds of around 120 knots. Work at Camp Bastion was undertaken at the request of DE&S' Air Commodities team.

Front-line welfare now comes neatly packaged

A CABIN to house telephones, communications equipment and personal computers for front line personnel to keep in touch with their families has passed transportable trials.

The FAST cabin (flexible, agile, scalable and transportable) includes satellite communications, a generator and air conditioning in one portable self-sufficient ISO-style container.

It will form part of the WelComeE project, helping families to keep in contact while loved ones are deployed.

Trials were run by RAF Brize Norton's Joint Air Delivery Test and Evaluation Unit in partnership with contractor Paradigm and DE&S' Networks team.

The cabin can be deployed within 60 minutes. Final adjustments will be made after user trials in Cyprus.

Flt Lt Andy Wilson of the Networks team said: "I was very impressed with the way the joint team ensured the FAST cabin passed fixed and rotary wing trials. Lessons learned in creating this technology demonstrator should mean a much smoother introduction into service of the production model, planned for later this year.

"The cabin is the final piece in the technology upgrade programme that we have been working on over the past two years to deliver more agile and



Brize prize: the FAST cabin can be safely carried by an RAF Chinook

flexible capabilities to theatre; this will give Joint Force Support the capabilities they need to provide high quality welfare services, while gaining the best value for defence."

Martin Weeks, Paradigm's project manager, added: "To obtain this approval within three months is an excellent achievement and has been testament to the close working

relationship between MOD and industry in existence throughout the trials phase."

WelComeE's communications package for service personnel currently comprises 30 minutes publicly-funded call time per person per week, with a top-up service available, as well as round-the-clock internet access and a Wi-Fi-based messaging service called Wi-Lite.



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– D.C. Special Operations Command (not pictured)



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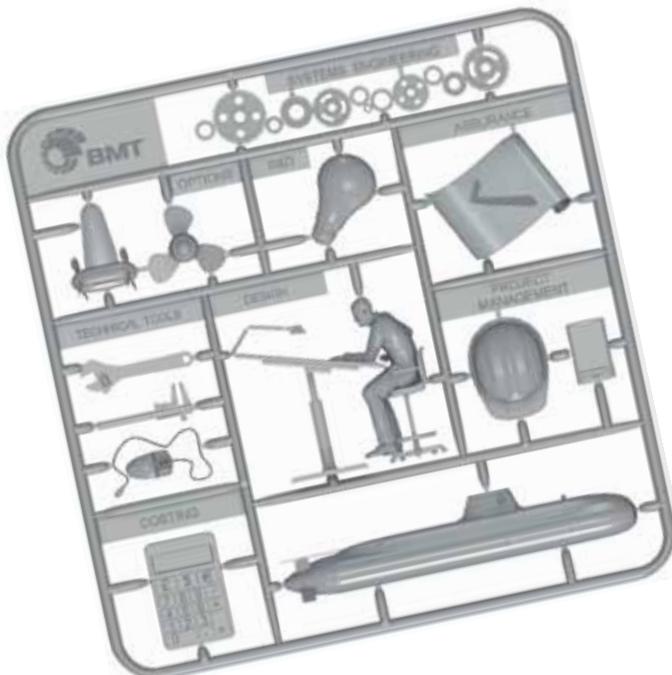


THE A400M transport is an aircraft fit for a king. Spain's Juan Carlos has become the first head of state to fly in the Airbus Military future airlifter which is being assembled in Seville.

With Airbus chief military test pilot Ed Strongman and experimental test pilot Ignacio Lombo the King made a flight of around 40 minutes from the Torrejon base near Madrid.

During the flight the King, who is a qualified military pilot, took control for 20 minutes at around 10,000 feet and performed a series of manoeuvres including turns and simulated delivery of humanitarian supplies.

Achieving new depths in submarine design



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 **BMT Defence Services**

"Where will our knowledge take you?"

Look smart, be smart – Daring crew trials uniforms

A NEW combat uniform for the Royal Navy is being trialled by the ship's company of *HMS Daring* while on counter-piracy operations in the Arabian Gulf.

Sailors on board the Type 45 destroyer are now wearing a specially-designed dark blue kit in place of the Royal Navy's traditional light blue outfit known as the Number 4 dress. This is the first new uniform to be worn by sailors on operations for 20 years.

The new kit, pictured right, is designed to be more versatile and adaptable to the different weather the Navy encounters around the globe.

Each sailor on board *HMS Daring* has been issued multiple layers including a t-shirt, shirt, thermal fleece and windproof jacket, all in the new darker colour. The trousers have slanted pockets on the legs so it is easier to use them when sitting down.

The whole uniform has been designed to make it easier to get dressed quickly – something that is essential for those on board who may have to be woken in the event of an incident. The boots have zips as well as laces and the collar can be turned up and fastened instantly with Velcro rather than fiddling with buttons.

"So far the reaction on board the ship has been very positive," said Lieutenant Commander Ben Hughes, *HMS Daring's* Logistics Officer. "People were initially apprehensive but it is a very practical uniform that looks much more modern.



"The boots are very comfortable as well, especially for people who are stood on their feet all day and with the zip it makes it easier to just pull them on and off."

The Royal Navy emblem worn on the upper arm with the ship's badge emblazoned on the other also makes the wearers instantly recognisable as RN personnel. Rank badges are worn at the front rather than on the shoulders to ensure an individual is instantly identifiable.

Similar trials of the new uniform are due to take place on the Type 23 Frigate *HMS Westminster* and the *Trafalgar* class submarine *HMS Talent*.



T45 No 5 is back on trial

Defender
heads out
of Glasgow

Scientists keep close eye on Dragon

DRAGON – the fourth Type 45 destroyer – fired her decoy flares for the first time during her latest trials.

The Portsmouth-based warship used the ranges off Portland Bill, with a team from the Defence Science and Technology Laboratory (Dstl) ashore monitoring the destroyer's radar cross-section and infra-red characteristics as she fired off the flares.

The distinctive angular nature of the *Daring* class is designed to minimise the 'blip' the ships produce on an enemy radar screen and suggest that, instead of an 7,500-tonne warship bristling with weaponry, the target is an innocuous smaller vessel.

NEWSREEL

Ellamy's Italy road costs

ESTIMATED costs of transporting supplies and materials by road to Italy by military vehicles during Operation Ellamy last year was about £1.6 million, Armed Forces Minister Nick Harvey has revealed. There were around 400 moves by 2 Mechanical Transport Squadron to Trapani and Gioia Dell Colle and additional road moves by contracted commercial carriers. Typical cost per vehicle was around £2,000 for fuel, £650 for road tolls, £300 for accommodation and other personal costs for drivers and about £500 for Eurotunnel costs. At the height of operations around 100 hire vehicles were used to support 900 personnel.

On guard

THE MOD's Police and Guarding Agency ceased to have executive agency status on 1 April, in the latest defence reform. The separate elements of the MOD Police and the Guarding service will continue within the MOD, collocated and under command of the MOD Chief Constable. This is expected to save £140,000 on administration, Defence Undersecretary Andrew Rowbathan announced in Parliament at the end of February.

Jon on move

JON Day, the 2nd Permanent Undersecretary at the MOD is the new chairman of the Joint Intelligence Committee.

DEFENDER, the fifth Type 45 destroyer, is on her second and final stage of sea trials off Scotland ahead of handover to the Royal Navy later this year.

Trials will include final testing of the ship's power and propulsion, combat systems, navigational and communications equipment.

The ship's Senior Naval Officer, Commander Nicholas Boyd, said: "The second set of sea trials marks another milestone in the life of the ship and her company as we prepare to join the fleet.

"We are looking forward to operating her sophisticated equipment and systems during trials and beyond, putting our experience and training into practice."

Paul Rafferty, Type 45 Programme Director at BAE Systems, said: "The trials demonstrate progress and provide an opportunity to prove her outstanding capability in preparation for Acceptance off Contract in July."

MOD to urge investment from overseas

OVERSEAS-BASED suppliers are being encouraged to invest in the UK's defence and security sector through a new Industrial Engagement Policy.

The MOD will encourage participating companies to:

- see the UK as a prime location to engage in research and development, investment and technology transfer;
- extend opportunities for UK companies to become part of their supply chain; and
- engage specifically with SMEs in these activities and, where possible, provide advice to enhance SMEs' opportunities to succeed in the market place.

These activities will also underpin promotion of UK defence and security exports.

The new policy will be implemented by the UKTI Defence and Security Organisation – Industrial Engagement Unit who will draw up agreements with overseas-based suppliers for engaging with UK industry.

Annual reports will provide Peter Luff, Minister for Defence Equipment, Support and Technology, with a consolidated overview of how suppliers interact with the UK's defence and security sector and how they support and enhance the UK's defence and security capabilities.

Mr Luff said: "We have had long and successful relationships with our overseas based suppliers and I believe they will continue to see the benefits of our new Industrial Engagement Policy and will want to be seen to continue their significant and valued contributions to our vibrant defence and security sector.

"Our new approach will highlight the UK's unique environment for investment by overseas-based suppliers and ensure that their future engagement is fully recognised and targeted more effectively in support of the priorities this Government has outlined in its recent 'National Security Through Technology' White Paper".

Business must make most of French tie-up

THE UK'S smaller companies have a vital role in developing the defence sector.

As the lifeblood of the defence industry they are uniquely placed to influence front-line technology.

Minister for Defence Equipment, Support and Technology Peter Luff, pictured right, addressed delegates at the NDI Conference on the role small and medium-sized enterprises (SMEs) play in developing new technologies.

The two-day conference in Bristol last month, entitled 'Building for Growth', focused on business opportunities in defence, security, aerospace and space.

Mr Luff said: "SMEs are the lifeblood of any industry, but this is especially true in defence. They have the agility to exploit new technologies, the niche capabilities to develop it and of course are cost effective.

"They have a vital role to play in ensuring that our forces have the best support, at the right price for the British tax payer."

He added: "We must spend on science and technology. We've set the base line at 1.2 per cent of total defence budget, currently equivalent to £400 million per annum. But I'm hoping it will be possible to increase this as part of the equipment programme."

Mr Luff also commented on the UK-France Defence and Security Co-operation Treaty, and the business opportunities it opens up for UK companies.

"France and the UK represent half the total

Minister's messages to industry

UK industry has nothing to fear from competition – pages 22 and 23



European spend on defence and by working together we are able to maximise our purchasing power, operational capabilities and sustain a strong industrial presence that will underpin both our and France's security.

"The treaty will open up greater opportunities for SMEs. It's important that UK businesses make the most of it. The relationship is here to stay and I want all of you to be a part of it."

Pen put to paper on RAF's eighth C-17

THE RAF'S eighth C-17 strategic transport aircraft – detailed in *desider* last month – is now undergoing final production testing.

The contract was signed with Boeing on 9 March. The aircraft is expected to enter service with the RAF this July.

Announced by Prime Minister David Cameron on 8 February, the purchase represents a significant uplift in the UK C-17 fleet.

The aircraft plays a vital role in sustaining the UK's 'Air Bridge' into Afghanistan.

Seven C-17s are already flown by the service's 99 Squadron from RAF Brize Norton, Oxfordshire.

Last May the RAF marked completion of its first decade of operations with the C-17. The first four

were initially acquired under a lease agreement with Boeing before being purchased outright in 2008, with orders subsequently placed for new-build fifth, sixth and seventh C-17 aircraft.

The UK fleet has logged more than 60,000 flight hours since service entry, predominantly supporting UK operations but also providing humanitarian and disaster-relief missions and contingent airlift capability for the nation's Joint Rapid Reaction Force.

Under the MOD's Future Force 2020 an eight-strong C-17 fleet is complementary to A400M deliveries to the RAF.

The UK operates the second-largest fleet of C-17s, behind the US Air Force.

Victory sails off into new hands

THE ROYAL Navy's oldest commissioned warship – currently at the start of a ten-year refurbishment under a DE&S contract – is to be transferred from the MOD to a charitable trust.

HMS Victory, at the Historic Dockyard in Portsmouth, will now be maintained by the *HMS Victory* Preservation Trust, part of the National Museum of the Royal Navy. At the same time a £25million capital grant has been announced to support the new Trust by the Gosling Foundation. The MOD has matched this with another £25 million.

HMS Victory will continue as a commissioned warship under her commanding officer and ship's company and will remain as the flagship of the Second Sea Lord until, as previously planned, she is made the flagship of

the First Sea Lord. Second Sea Lord, Vice-Admiral Charles Montgomery, said: "I am absolutely delighted with this initiative. It will significantly enhance the way in which *Victory* can be preserved for the benefit of the nation and future generations, while retaining her links with the Royal Navy.

"She will be in the hands of an organisation which will look after her unique status and has all the professional experience that her continued and enhanced preservation requires."

The new charity will also assume responsibility for the refurbishment work of BAE Systems which was last year awarded the £16 million contract to restore the ship – the most in-depth transformation since her return from the Battle of Trafalgar in 1805.



New dawn: for *HMS Victory*

Ship pioneers upgrade programme



New engines mark a major milestone

Ready and waiting: *Chiddingfold* is all set to receive her new engines

TWO NEW engines have been fitted, marking a milestone in the year-long upgrade of a Portsmouth minehunter.

HMS Chiddingfold has seen her Rolls-Royce Deltics – which have been used in many of the Royal Navy's smaller warships for years – replaced by Caterpillar C32 Acert engines.

The work is part of a major mid-life upgrade to the Navy's eight Hunt class minehunters being carried out by BAE Systems in Portsmouth.

The programme will extend

the lives of the eight ships, maintaining their position as some of the most capable mine countermeasures vessels in the world.

Work on *Chiddingfold* started in January with the removal of two sections of deck to allow access to the bowels of the ship. With the engine room fully prepared, the new engines were carefully craned into the ship and onto their new mounts.

Lieutenant Peter Davis, the ship's executive officer, said: "*Chiddingfold* is the first of the re-

engineered Hunt class minehunters and we are looking forward to putting this new system through its paces later this year to find out exactly how the ship will perform."

New gearboxes and propellers and an upgrade to the hydraulic bow thruster system are also part of the upgrade.

BAE Systems project manager Mark Draper said: "*Chiddingfold* is the first of class for this project and we are learning a lot. The engine installation is a real milestone."

Northwood hosts new command

THE JOINT Forces Command was due to be launched on 2 April in a ceremony at the Northwood headquarters.

It has been established to ensure that a range of vital joint enabling capabilities, functions and organisations – such as medical services, training and education, intelligence, and cyber – are organised and managed effectively and efficiently.

It will work alongside the single services to deliver joint enabling capabilities to support success on operations.

Over the next year, the Command will assume the full range of its planned responsibilities for current operations, future contingencies, and for the longer term.

It will reach Full Operating Capability by next April.

For more information visit the JFC intranet site, <http://defenceintranet.diiweb.r.mil.uk/defenceintranet/jfc>

Now Prince of Wales takes to the waves



AIRCRAFT CARRIER Alliance workers at Rosyth have welcomed the 400-tonne lower bow section of the second *Queen Elizabeth* class aircraft carrier, which is to be assembled at Babcock's dockyard.

The bulbous bow, which is made up of two modules and will form part of *Prince of Wales*, sailed under the Forth bridges, above, on 15 March on a sea-going barge, to complete its voyage from Babcock's sister facility in Appledore, north Devon, left.

The ship is being constructed at yards around the UK and each block will be transported to Rosyth for final assembly in the Number One Dock. The bow is pictured, right, next to that of the first carrier, *Queen Elizabeth*.



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Corsham kick-starts hunt to find a 'Big 5' partner

WHAT MAY prove to be the biggest information and communications technology (ICT) services acquisition change programme in Europe – based at DE&S' Information Systems and Services HQ in Corsham – has advertised for a Strategic Partner.

Defence Core Network Services (DCNS) is the programme to deliver better integrated end-to-end ICT services with greater agility at less cost.

It is a step-change for the ISS Operating Centre that leads on ICT services for the MOD.

The initiative will see replacement services for ISS' 'Big 5' supply contracts (Defence Electronic Commerce Services, Defence Fixed Telecommunications Service, Defence Information Infrastructure, Defence High Frequency Communications Services, and Skynet Satellite Communications), and also changes the way the organisation goes to market for those services, together with potential changes to ISS' structure.

Early engagement of a Strategic Partner is one of a range of measures to better manage the risk of transition to new contracts for ICT services.

The DCNS Strategic Partner will work within ISS and provide support and advice.

They will build on the strategies, plans and approach during the DCNS programme design, developing the implementation while de-risking outcomes and benefits.

More than 150 representatives from 83 companies visited Corsham on 12-13 March. A



Merlin tests out landing area

A MERLIN helicopter from RAF Benson is pictured, above, paying a flying visit to Corsham.

The visit on 2 March was to conduct a reconnaissance of the new landing area on the sports pitches and to discover the best way to approach the area by air.

As the ground is still settling the helicopter was unable to land, but instead hovered in place to check for unexpected turbulence. The new landing area is expected to be available from October.

partner is to be in place by the end of June.

Programme Director Commodore Jamie Hay said: "Telephones, personal computers, office automation and access to necessary applications are taken for granted by today's workforce and, like many homes and businesses, the MOD buys in these services from specialist providers and has contracts with organisations like BT and the Atlas consortium.

"Our 'Big 5' service supply contracts come to an end from 2013, so ISS must secure these services, and more, to

maintain and improve day-to-day functionality, while driving down costs. Our answer to this challenge is the DCNS programme."

DCNS is re-defining acquisition of ICT services against a challenging economy, a dynamic marketplace and changing needs of users.

It comprises four elements: the Services Portfolio, Target Supply Chain Model, Target Operating Model and Delivery Programme, covered in the DCNS factpack and the programme director's blogs available on the Defence Intranet.

MOD means business – with Serco help

SERCO WILL be the commercial partner to help improve business services in the MOD.

Defence Secretary Philip Hammond announced the Defence Business Services Management Contract as part of a long-term programme to transform the way corporate services are provided.

Defence Business Services (DBS) stood up last July and provides human resources, finance, information and vetting to all areas of the MOD.

Serco will work with DBS, which will continue to be part of the MOD, to turn the organisation into an efficient shared services centre which builds on private sector best practice.

The value of the four-year contract is around £36 million with an option to extend for another year.

It is based on a zero management fee with all Serco's earnings performance-related. Serco will be incentivised to drive down costs and deliver efficiencies.

Savings are expected to be around £71 million during the contract.

Mr Hammond said: "The new Serco management team have first-hand experience of making similar changes in the wider public and private sector, improving performance through innovation.

"We are committed to working with Serco to make this transformation a success and to deliver savings which will allow more resources to be made available to the front line."

NEWSREEL

Systems up in numbers

UK machine gun maker Manroy will supply UK Forces with blank firing systems (BFS), tow bars and tripods in a £1.1 million contract. Manroy will provide 295 BFS for training, taking the total number of BFS sold to the MOD by Manroy to 363. Manroy owns the intellectual property rights for the 0.5" calibre Heavy Machine Gun Blank Firing System, including the ammunition, and last May signed a £4.1m, five-year continuation to an existing contract to supply the MOD with blank ammunition.

Mat Strat LFE

MAJOR-General Chris Deverell, Director Materiel Strategy at DE&S, will speak at a Learning From Experience seminar on phase one work of the Materiel Strategy on Tuesday 17 April from 2-3pm in the lecture theatre at Abbey Wood. Bookings through the Abbey Wood events booking system.

Air harmony

ENGINEERING consultancy Frazer-Nash, working with Marshall Aerospace, has been awarded a contract by the European Defence Agency (EDA) to produce a harmonised set of European military airworthiness certification criteria. A harmonised set of standards and requirements aims to reduce duplication across countries, cut initial aircraft procurement costs and, potentially, through-life costs.

Calling all villagers!



New loudhailers will help UK troops get their message across – loud and clear

UK TROOPS will soon be equipped with new loudhailers to communicate more clearly with local people in operational areas.

STG Media Systems of north London has been awarded a £48,000 contract by the Intelligence and Information Solutions team – in DE&S' ISTAR (intelligence, surveillance, target acquisition and reconnaissance) operating centre – to supply its latest ultra-lightweight Mega-Voice public address system, pictured left.

It is battery operated, robust and has a range of up to 1,500 metres. It will allow patrolling troops, particularly on operations in Afghanistan, to announce their arrival to local villagers, provide reassurance and invite people to meetings.

The system is lighter, smaller, louder and more portable than predecessors and can be operated from a 45-litre Bergen.

STG managing director Suzanne Coop said: "We are pleased to work with our user group the way we do. Clients suggest improvements to our current systems and the very next order incorporates the new features."

"The latest Mega-Voice unit will improve personal safety by increasing the effective communication distance, using wireless technology with long-range, highly intelligible speech."



Above: a UK patrol passes a market in an Afghan village. A new loudhailer will help troops get messages across to the local population in operational areas

TWO VANGUARD class ballistic missile submarines have been in Devonport at the same time as *HMS Vengeance* prepares for her Long Overhaul Period (Refuel) (LOP(R)).

At the same time the LOP(R) on *HMS Vigilant* – the third Vanguard class refit and refuel to be undertaken by Babcock – is approaching the end of nearly three and a half years' work at Devonport.

The more than £300 million LOP(R) has represented five years of activity including the planning phase.

Around 200 design alterations and class modifications have been incorporated including an upgrade to the latest reactor core as used in *Astute* class submarines fuelling the submarine for life.

The project has involved more than 2.3 million staff hours, over 2,000 people, and more than 80 subcontracting companies. Around 26,000 items have been removed from the submarine and overhauled, 32,000 litres of paint have been applied and 400 systems have been tested by the Babcock commissioning teams.

MOD contract manager Nick Febbrarro said: "The success that this LOP(R) has enjoyed is due to the close collaboration of many agencies and contractors, but particularly the joint project ethos that is dominant between MOD, Babcock, Rolls-Royce and the ship's company."

Vigilant emerges fighting fit



HMS Vigilant emerges after three and a half years hard work by staff at Babcock, Rolls-Royce and DE&S

At more than 200 metres long, the four 37,000-tonne tankers will be approximately the same length as 14 double decker buses and can pump enough fuel to fill two Olympic sized swimming pools in an hour.

Ships will boost British design skills



Report: Tim Foreman

SIGNING OF a £452 million contract was described as a “dream” when a delegation of senior personnel from one of the world’s largest shipbuilders visited Abbey Wood.

The Military Afloat Reach and Sustainability (MARS) Tanker contract award event marked the new deal between South Korean company Daewoo Shipbuilding and Marine Engineering (DSME) and the MOD.

At the event senior staff from DSME, who travelled from South Korea to the Filton site, signed the MARS Tanker contract with DE&S.

They were joined by members of the Royal Fleet Auxiliary, who will operate the ships, and UK ship designer BMT Defence Services, who will work with DSME on the programme.

Vice Admiral Andrew Mathews, Chief of Materiel (Fleet), signed the contract with Senior Executive Vice President at DSME, Mr Jae Ho Ko.

During the signing Mr Ko handed Vice-Admiral Mathews a crystal paper weight of the MARS Tanker design and joked: “This is an on-time delivery.”

Vice-Admiral Mathews, said: “This contract marks the end of a long journey and I am absolutely delighted that DSME

will deliver the next generation of tankers after winning this competition. We believe these will be excellent ships of which the Royal Navy and the RFA will be hugely proud.”

The MARS Tanker programme is managed by the Afloat Support team in DE&S, headed by Commodore David Preston.

Mr Ko said: “We know that these ships are a high priority for the Royal Fleet Auxiliary. Likewise, it is true that winning this contract has been like a dream for our company, DSME.

“The competition has been challenging

and has taken a very long time.”

He added: “This support vessels contract is so significant that it will be recorded in the history of our company as opening a new chapter.”

The tankers will maintain the Royal Navy’s ability to refuel at sea and provide fuel to individual warships and seamlessly integrate into Task Groups.

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

Partners all ready to jump on board UK’s new tankers

Company visits Abbey Wood and hails ‘dream’ contract as a moment of history

Company to prove engineering expertise

THE UK’S new fleet of refuelling tankers for the Royal Navy will feature naval design expertise from Bath-based BMT Defence Services.

Involvement of BMT will retain UK capability, knowledge and skills in naval ship design and engineering with its Aegir vessel design.

BMT’s Aegir design uses a hull that meets the latest marine pollution regulations and adopts design principles common with the latest Royal Navy ships.

Muir Macdonald, Managing Director of BMT Defence Services, said: “We and our partners Daewoo are delighted with this result against such strong international competition and are looking forward to reinforcing our partnership with this joint success.

“We shall very much enjoy working closely with the MOD to deliver these ships that are such an important addition to the RFA fleet.

“It will be a privilege to work with a shipbuilder with the reputation and capabilities of DSME; it gives BMT a massive boost in further proving our design and engineering expertise.”

He added: “The global market for auxiliary vessels will remain strong over the next couple of decades and the selection of our Aegir design puts Britain in pole position for championing our design and know-how around the world.”



Mr Jae Ho Ko, senior vice-president of DSME, signs the contract with DE&S’ Chief of Materiel (Fleet) Vice Admiral Andrew Mathews

Recycling closes Invi

Recycling of the Falklands campaign veteran *HMS Invincible* has been completed by the Turkish contractors inside ten months.

The Royal Navy aircraft carrier enjoyed a career spanning nearly 30 years ending with her leaving service in 2005, but departed from Portsmouth in March 2011 for recycling by the Turkish contractor Leyal Ship Recycling, one of Turkey's leading ship recycling companies, in Aliaga, near Izmir on Turkey's Aegean coast. This heavily industrialised area has been dedicated for ship dismantling by the Turkish Government while the speed of the work showed the value of an experienced workforce familiar in the complex art of ship recycling.

Disposal Reserve Ship Organisation (DRSO) played a crucial part in supporting DE&S' Disposal Services Authority (DSA) by preparing the ship and producing an inventory of hazardous materials and a 'Green Passport', which highlighted the hazardous materials on board along with an asbestos survey. DRSO also supported towing preparations.

DSA's primary aim is to sell surplus ships to overseas governments for further military use. Where this is not possible – for instance when ships are no longer seaworthy and only suitable for recycling – then safe and environmentally sound recycling is the option in compliance with its legal responsibilities as a producer of waste. *Invincible* is the 14th ship to be

successfully recycled for the DSA.

Leyal provided a monthly breakdown of metals and waste removed, with photographs showing key stages of the dismantling. DSA staff made visits to the yard to make sure work was in accordance with the UK Government's Ship Recycling Strategy. An audit of original weighbridge tickets, licenses and consignment notes were also checked



Invincible's final chapter

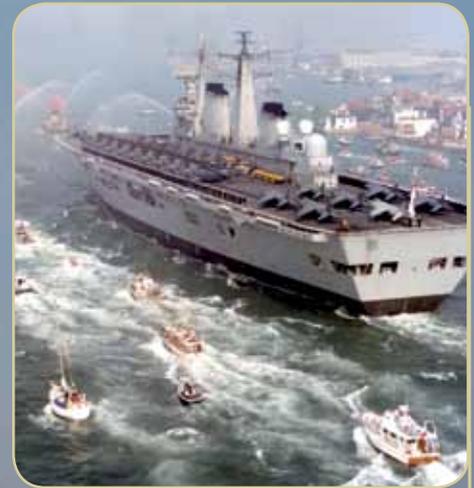
against the monthly reports sent to the DSA. More than 11,500 tonnes of waste were recovered, less than two per cent going to landfill.

Leyal was also subjected to audits and inspections from the UK Environmental Agency to make sure it was adhering to all current health, safety and environmental legislation and the terms of its waste management permit.

A final report on the ship's recycling will go to foreign governments who look to DE&S as providing the lead on recycling warships.

Invincible is Leyal's eighth and highest profile ship recycled so far following previous recycling of Type 42 destroyers *Cardiff*, *Newcastle*, *Glasgow*, *Exeter*, *Southampton* and *Nottingham*, and the former fleet auxiliary ship *Oakleaf*.

The company received huge media interest in *Invincible* as well as enquiries from former sailors who received, with the compliments of the company and in recognition of the strong attachment that the ship had with those who served on her, a memento in the shape of a small piece of the hull suitably engraved.



Above: happy times – *HMS Invincible* returns to Portsmouth safe and sound from the Falklands in 1982

Main picture: *Invincible* departs from Portsmouth last year for her journey to Turkey



DE&S probes secrets of the deep

Team heads south to survey tanker sunk by German U-boat

A fortnight on an island close to the equator in the spring might sound the ideal place to get away from it all.

But members of DE&S' Salvage and Marine Operations (SANMO) team will be hard at work on the South Atlantic island of St Helena – one of the earth's more remote spots – later this month, examining the wreck of a tanker sunk during World War Two.

RFA Darkdale became the first British ship sunk south of the equator during the war when U68 slammed four torpedoes into her side as she lay at anchor off Jamestown in the early hours of 22 October 1941.

Now oil gradually seeps from the hull into the 40-metre deep waters of James Bay. The DE&S survey will decide what, if any, action is needed to prevent the *Darkdale* becoming an environmental

hazard to an island where tourism is on the increase.

"St Helena was an important stopping off point for ships passing to south east Asia, particularly with war taking place in the Mediterranean," said Matt Skelhorn, the team's wreck research analyst.

"*Darkdale* had been in St Helena for some weeks and refueled some pretty large warships. There was no anticipation of a submarine attack on her.

"She blew up, broke in half and sank. The bow section turned turtle, the stern section is on its side. We don't know how much oil is on board and until we start doing an in-depth survey of her we cannot be certain. There was a big explosion and she was set on fire before she sank so a lot of that oil could have gone anyway. We know she's been leaking small quantities periodically ever since and there are munitions on board too. The wreck is gradually degrading."

The team has been tasked as part of a legacy wrecks remediation programme to go down and survey her. Information is critical and desk-based assessment beforehand pulls together as much detail about the ship as possible.

The team has scoured the archives, looking at photographs, plans, diagrams and logs to find out as much about the *Darkdale* as possible.

Official British records have provided a partial picture but much information came from Kapitan Karl Friedrich Merten, captain of U68, whose scrupulously compiled logs provided details of the types of torpedo used on the night of the attack and their exact targets. The log of a Norwegian ship which refuelled the *Darkdale* some days before was also useful. Local divers' knowledge has added to the picture.

A nine-strong team leaves on 26 April with the survey set to last a fortnight. SANMO's team includes personnel from its Marine Salvage Units at Devonport and Greenock who will operate their remotely controlled underwater vehicles and multi-beam sonars. They will be accompanied by a scientist and three contractors who will provide the environmental expertise.

With all the kit in a huge container the team will fly from RAF Brize Norton to Ascension Island – St Helena is still one of the few places in the world you can't fly to, yet – before a Royal Mail ship will take them on the final leg to the island.

HMS Royal Oak, the wreck on which SANMO has been working in Scapa Flow, Orkney Islands



“We will survey the wreck and its surrounding area,” said Mr Skelhorn. “We will find out how many holes she has, what damage the torpedoes did, work out which tanks the oil is leaking from, to get as detailed an overview as possible. In the meantime the environmental team will be continuing work to consider impact of the oil leaks on local marine life and the potential for further pollution.

“The guys who will be leading the survey are very experienced. I don’t think *Darkdale* will pose a huge technical challenge in surveying the wreck, it’s just a matter of physically getting out there. We’re doubling up with pretty much all the kit we are taking with us, because if anything breaks down it’s not as if you can pop out to replace it. We will be completely self-sufficient.

“Then we draw all the evidence together to provide a report on what the situation of the wreck is and what

potential problems there are. Does the amount of oil justify further work? Do we put monitoring measures in? We simply don’t know yet.

“And we make this information available to as wide an audience as possible because it is historically significant. The kind of wrecks we deal with won’t necessarily be the most well-known ones – *HMS Hood*, wrecks from Jutland, you can get a book off the shelf in the library about those – but few will have heard of *Darkdale* unless they have a personal interest in it. Because of the work we will be doing it will allow that story to be more widely known.”

Team members are conscious of sensitivities too. Forty-one of *Darkdale*’s crew went down with the ship – only two survived, along with a handful who were on shore at the time. The team plans a wreath-laying ceremony.

For SANMO it is a high profile opportunity to show its capabilities. Much of the team’s previous surveying has been on the Royal Navy battleship *Royal Oak*, sunk by a U-boat in Scapa Flow early in World War Two. She is one of 1,500 Royal Navy or MOD-operated merchant vessels which lie on the ocean floor around the world. Most pose no threat to the environment but SANMO has begun research on around a dozen in preparation for possible future surveys.

“We have been working on the *Royal Oak* since the 1990s so *Darkdale* is a natural progression for us,” said Mr Skelhorn. “It is important as we will be testing the methodology of what we do but St Helena isn’t the first place we would have chosen to test because of the amount of logistics involved. If it comes off though it will set the standard for the future.”

Previous name: Empire Oil
 Class: Dale class freighting tanker
 Laid down: October 1939
 Builder: Blythswood Shipbuilding Co Ltd, Glasgow
 Launched: 23 July 1940
 Into Service: November 1940
 Out of service: 22 October 1941
 Length: 141 metres
 Beam: 18.7 metres
 Tonnage: 8,145
 Propulsion: Diesel

Armament: 1x4.7in gun, 1x12 pdr gun, 2xPig Troughs; 2x Hotchkiss machine guns; 2xMarlin machine guns; 2x Lewis machine guns; parachute and cable rockets.

There were planned to be 19 ships of the Dale class.

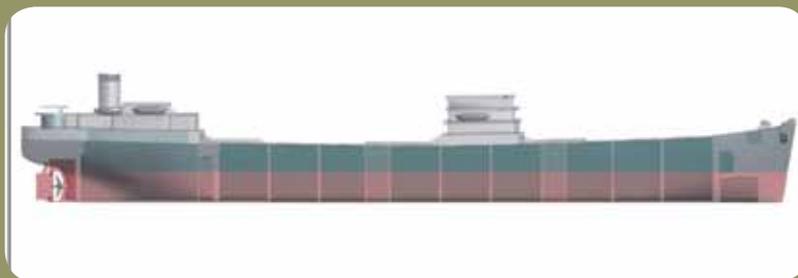
4 August 1941: arrived St Helena to act as Fleet Oiler, carrying 3,000 tons of fuel oil, 850 tons of aviation spirit, 500 tons of diesel oil and some lubricating oil.

17 September 1941: refuelled aircraft carrier *HMS Eagle* and cruiser *HMS Dorsetshire*.

22 October 1941: torpedoed by U68 which reported that *Darkdale* exploded, turned over and sank within five minutes. 41 were killed. The Master, Chief Engineer and Purser were dining with the Garrison Commander in the military barracks above Jamestown, two Ratings lay in Jamestown Hospital and a further two were on a run ashore, trying to get back to their ship when the torpedoes struck at around 00.15.

The crew who were lost are remembered with pride on the Tower Hill Memorial, London and on the Cenotaph at Jamestown, St. Helena.

20 April 2009: during a visit to St Helena by *RFA Gold Rover* a memorial service was held at the Jamestown Cenotaph and wreaths were laid.



This picture: a Dale class tanker, one of a class of 19 planned.

Above: three-dimensional views of RFA *Darkdale*, from plans of the ship supplied to Photogrammetry and Computer Modelling (PCM) at the National Imagery Exploitation Centre (JARIC)

'UK industry has nothing to fear from competition'

Peter Luff, Minister for Defence Equipment, Support and Technology, explains the future of equipment procurement and support to the International Armoured Vehicles Conference

The commitment to open procurement has been the most talked about aspect of the White Paper 'National Security through Technology' since its launch on 1 February. This obliges DE&S to actively seek out what the global market has to offer UK Forces in terms of cutting edge, high quality kit. It's about properly kitting out our troops at best return for the British taxpayer.

Wherever possible, we'll be looking to meet our defence requirements through open competition in both domestic and global markets. But the strength of British industry means our companies should not fear this competition and I see no reason why the shelf will not remain well stocked with British products.

Between 2006-2011 the MOD awarded nearly 40,000 new contracts with an approximate total value of just over £67 billion. Of that figure, the number of new contracts placed where the majority of work occurred within the UK remained consistent at around 85-95 per cent.

If British industry is as competitive as I believe it to be and its export record suggests, then I see no reason why these figures need to decline significantly.

This open procurement approach is particularly good news for Small and Medium Sized Enterprises (SMEs). And

I'm delighted to say this approach is already working. Tarian Quickshield is a great example of new battle-winning capability developed in partnership with an SME. In this case Dstl worked with Amsafe in Bridport to develop a new form of RPG netting.

Incredibly light, it's been described as 'band aid' for bar armour, but it actually does the job more effectively and at less cost. It's already in service with the Army in Afghanistan and Singapore Technologies Kinetics have signed a Memorandum of Understanding with Amsafe so it is available to the customers of their armoured vehicles.

This is the kind of innovative technology which I am sure will do well in the export market.

We're going to make sure the MOD is more accessible. The new SME Forum which I chair is a realisation of that pledge.

We will also do this by ensuring individual procurement strategies maximise the potential for SMEs at prime and sub contract level.

And we'll be making sure there's an emphasis on 'open systems' factored in to our requirements. So there's scope for industry to offer the kind of 'add on' systems which enhance major weapons and platforms.

In 2010-2011 the MOD placed 42 per cent of its contracts with SMEs who offer innovation and flexibility. We're keen to do a lot more business with them.

And I want to see more of the bigger names harnessing this potential. Some are already seizing the initiative. General Dynamics in south Wales has a dedicated technical facility known as The Edge.

The Edge searches out new ideas from across the supply chain and academia. And it also works with organisations such as the MOD-sponsored Centre for Defence Enterprise. This is partnership working which means that across the board we are all maximising our research and technology spend.

Boosting our export market is another principle of the White Paper. Defence exports leverage influence with our allies and boost interoperability with their Armed Forces. Exports can also reduce the cost of long term programmes and remove some of the associated risks.

The UK is already the second largest defence exporter in the world, with £6 billion of sales and a 22 per cent share of the market.

In parallel with this drive to boost the chances of UK industry abroad, we will also be continuing to develop the collaboration and partnership we have with close allies. Working with other



countries offers significant economies of scale which enable us to spread the cost and the risk.

The MOD plans to spend £5.5 billion on its core armoured vehicle programme over the next decade. This will involve managing the legacy of Afghanistan as we draw down our operations there and making decisions about which Urgent Operational Requirement vehicles – more than 2,000 of them approved at a cost of £2.8 billion – will now be brought into the MOD's core equipment programme.

I believe the success of our UOR process pretty much encapsulates our new approach when it comes to off-the-shelf purchase and innovation.

Vehicles based on the US Cougar fleet and the Bronco from Singapore were purchased as off-the-shelf base vehicles and then adapted here in the UK – often by SMEs. And then shipped out to Afghanistan as new battle winning capabilities.

This process of high tech adaptation and integration calls for cutting edge skills in the UK. These are exactly the kind of projects which will help to develop and sustain our skills base here in this country.

The servicemen and women I've met on my visits to theatre speak very highly of the agility and protection provided by these vehicles which they know by their new, adoptive names. Names like Mastiff, Ridgback, Wolfhound and



Mastiff at work on the front line
Below: Foxhound

Warthog which have now entered the military vernacular. This pragmatic and innovative approach is definitely the way forward.

We are committed to more simplified and realistic acquisition strategies across our equipment programme, and particularly when it comes to armoured vehicles; to reduce cost; mitigate risks; and to make sure that adaptability is factored in from the outset, as opposed to rigid over-specification at the drawing board stage.

The new Foxhound is a UK design and 90 per cent of the companies involved in its production are UK-based. In common with all recent UORs, it exploits state of the art technology. In this case, that includes the UK's world-leading

motorsport industry.

This is an amazingly agile piece of kit, with an engine which can be removed and replaced in just 30 minutes. It's an ideal vehicle for our partnering and mentoring role we'll be taking on as the process of transition gathers pace in Afghanistan.

Foxhound is on schedule to be operating in Afghanistan this summer. The soldiers I have spoken to are genuinely excited by the prospect of its arrival. And they should be. I have driven it. I know just how good it is. And just how easy it is to drive.

Whatever the size of our future vehicle fleet, the decisions we make will need to make sure our Forces are ready and prepared.'



For the full text of Mr Luff's speech, go to <http://www.mod.uk/DefenceInternet/AboutDefence/People/Speeches/MinDES/20120221InternationalArmouredVehiclesConference.htm>

The Nimrod story

Team preserves legacy of the 'mighty hunter'

DE&S' NIMROD team disbanded at the end of last month bringing to an end more than 40 years' support to an iconic aircraft.

The last few team members have been securing the futures of a number of the aircraft – the last of the maritime reconnaissance version (MR2) was withdrawn in 2010 with the remaining R1 surveillance aircraft completing its service life during Operation Ellamy over Libya last year.

Thanks to the team, a number will still be seen in museums and sites around the country, including RAF Kinloss, Bruntingthorpe, Elvington and the RAF Museum at Cosford. One cockpit has been bought by the National Museum of Scotland.

At its height the team was made up of hundreds of members, spread between the RAF stations at Wyton, Kinloss and Waddington as well as Abbey Wood and BAE Systems' plant at Warton.

The last few members are being redeployed largely to Airseeker, Merlin, Sentinel and Sentry teams, with some leaving DE&S under voluntary early release.

"It's been a challenge to meet the targets of the disposal but we have hit them very well," said disposals manager Richard Coward.

"Since the team has shrunk in size it's been a big achievement to get the work

finished by the end of March. With support from Project Hercules, Nimrod parts within the MOD inventory will have been cleared from the system. It has all been achieved in a very efficient way."

Some of the ground equipment has been transferred to the Navy while electronic warfare equipment from the discontinued MRA4 programme has gone to the Joint Combat Aircraft project.

The first of the 49 Nimrods saw service in 1970 with the surveillance version following a few years later.

"Within Nato the UK had a niche skill in anti-submarine warfare which the RAF had long been involved in during and since World War Two," said Sqn Ldr Geoff Barrett, a former Nimrod navigator and

requirements manager with the team.

During its distinguished history Nimrods put in sterling service during the 'Cod Wars' between Iceland and the UK over fishing rights.

During the Falklands war several Nimrods combed the sea for enemy submarines while acting as escorts to the British Task Force and also providing communications relay.

Nimrods took part in Operation Granby – Gulf War 1990-1991 – Nato operations against Serbia in 1999, Operation Telic over Iraq in 2003 and beyond, the campaign in Afghanistan, and over Libya last year.

They also were a routine component of British search and rescue operations around the British Isles and further afield.

□ Nimrod was introduced into service from 1970 to replace the Shackleton.

□ The Comet airframe was chosen because of the relative ease of conversion (notably introduction of the long bomb-bay panner which could hold nine torpedoes).

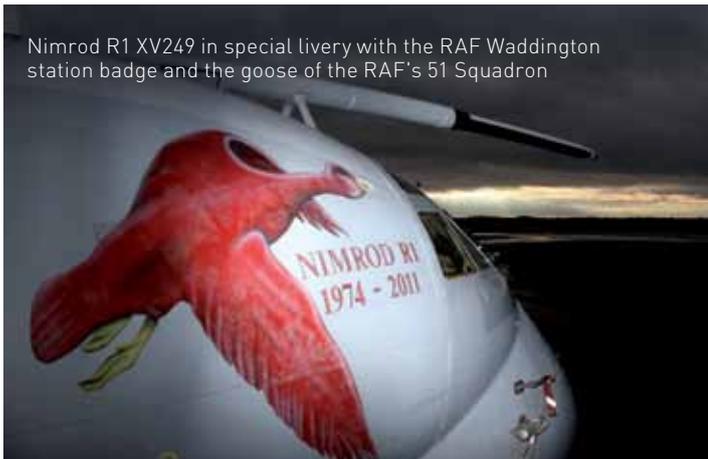
□ MR1 was essentially a Comet airframe, but with many of the Shackleton avionics ported over as a stop-gap. The plan was to introduce the MR2 within ten years with a new generation of mission systems – including the Searchwater Radar (from Racal) and the AQS-901 Acoustic Processor from GEC-Marconi.

□ 49 Nimrods were produced – 46 as MR1s and 3 as R1s. Eleven of the 46 MR1s were converted to AEW Mk3 leaving 35 to be converted to MR2 standard between 1979 and 1985.

□ The 35 MR2s were gradually eroded with attrition and withdrawals; 14 fuselages were earmarked for the now abandoned MRA4 programme – 12 being used for the programme and two more rejected because of corrosion.

□ The unique XV249, pictured below left, started as an MR1, was converted to MR2 in the early 1980s and was then withdrawn as part of a fleet reduction endeavour. When XW666 (one of the original R1s) was ditched in the Moray Firth in 1995, XV249 was considered the best of those aircraft that had been withdrawn from service and was then converted from an MR2 to an R1 under Project Anneka – so named because of the TV series *Challenge Anneka*. XV249 then served as an R1 from the late 1990s until withdrawal in 2011. It will be preserved at the RAF Museum at Cosford.

Nimrod R1 XV249 in special livery with the RAF Waddington station badge and the goose of the RAF's 51 Squadron



The eyes have it!



Squadron home as radar proves big success

THE 'EYES of the Fleet' arrived back home at Culdrose last month after more than 15 months in Afghanistan, and with a ringing endorsement of their equipment.

No 854 Naval Air Squadron returned from Camp Bastion along with its Sea King Airborne Surveillance and Control (SKASaC) helicopters.

Commander Pat Douglas, Commander Sea King Force, said: "From the 2,500 odd hours flown in theatre and the numerous hauls of drugs, weapons and explosives, to the extraordinary serviceability of their aircraft, crews have surpassed expectations at every turn."

Many miles from the sea and their 'normal' operating areas, the SKASaCs are highly reactive helicopters, able to help ground troops

at short notice. The SKASaC is fitted with a powerful and sophisticated radar - Thales UK's Searchwater 2000 airborne early warning radar - which provides valuable battlefield reconnaissance and targeting information in land operations around southern Afghanistan.

Developed to protect ships at sea, the front-line SKASaC Force (854 and 857 Naval Air Squadrons) entered Afghanistan in May 2009 and now claim to be the 'eyes of the desert'.

Last summer crews made 'finds' totalling more than seven tonnes of explosives which would otherwise have been used to make improvised explosive devices, and thousands of kilograms of drugs bound for streets around the globe.

Above: an ASaC Sea King fires off defensive flares

Ministers focus on Typhoon weapons

MINISTERS FROM partner nations have met to review future strategy for the Typhoon weapon system.

Minister for Defence Equipment, Support and Technology Peter Luff hosted the State Secretaries from Germany, Italy and Spain in London on 12 March.

Discussions covered all aspects of the programme, including, business strategy planning for future capability enhancements and reviewing export campaigns.

The meeting was timely in welcoming new State Secretaries from Italy and Spain and further developing working relationships between the European governments and their industry partners.

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Team guidance on joint working

NEW GUIDANCE has been issued for DE&S procurement teams working jointly with industry.

The Recommended Practice Guide was launched by the MOD's Partnering Support Group providing a wealth of information for teams.

Documents and guides on the Group's website include Partnering Terms of Contract, referred to in the Partnering Handbook (joint objectives; joint risk; transparency; management and governance; issue management; communication; incentivisation; exit and business relationship management).

Other material considered to be good practice includes charters, presentations, template conditions, programmes, tools, required behaviours in a joint working environment and standard wording for documents.

Material can be accessed at: <http://www.psg.dii.r.mil.uk/>



From Abbey Wood to Lapland



STRESS TESTS on thermal cameras for the proposed Scout reconnaissance vehicle carried out in hostile Arctic Circle weather have proved a success.

The three-day trials have involved DE&S staff swapping the warmth of Abbey Wood for temperatures plunging to -40 degrees Centigrade, where one wrong touch could risk frost-bitten fingers.

DE&S' Scout team was joined by the Army, Dstl, General Dynamics UK and camera suppliers Thales UK for the tests in Arvidsjaur, Lapland, a favourite extreme testing area for companies like Volvo, Saab and Scania.

Thermal imagers work by being sensitive to thermal energy radiating from a scene. The energy decreases in lower temperatures, which is a major challenge for the cameras.

Tests were to evaluate the proposed vehicle's imagers before a review of the system design, and to gather data to

improve the vehicle's sensor and image processing system.

The UK team was supported by the Swedish army's unit for cold weather operations. Thermal imagery was recorded from three cameras on targets including freezing vegetation, disturbed ground tracks, buildings, vehicles, aircraft and people.

The trials team donned snow shoes to simulate infantry in the woods. Images were sharp and detailed with superb tonal contrast, despite the challenge of showing cold scene backgrounds and warm objects at more than 50 degrees Centigrade in the same image.

Roger Braddick, an electro-optic expert from Dstl, said: "Image quality at these low temperatures was demonstrated to be significantly better than the user's current in-service equipment.

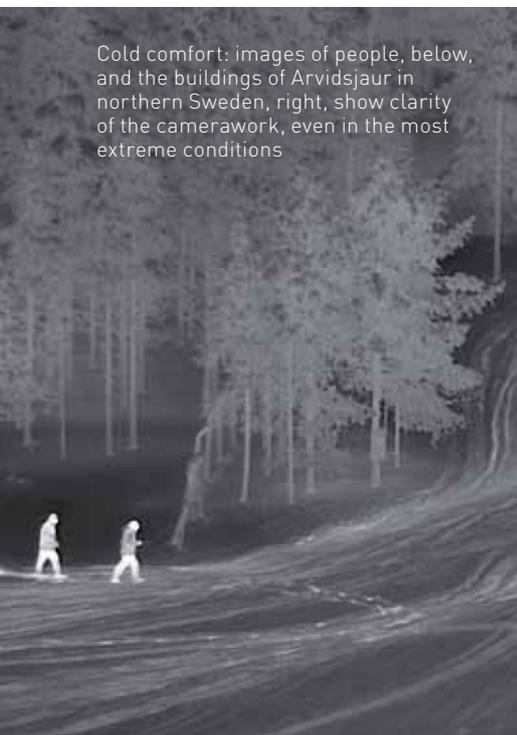
"As a consequence, the sensor will provide advantages to the Scout user at all temperatures. I was impressed with the results and Thales must be congratulated on the design work they have done."

Major General Carew Wilks, Director Land Equipment at DE&S, said: "This was one of the most stretching sub-system trials on Scout and it passed with flying colours. It is vital to note

Team dons snowshoes on thermal imaging trials to enhance Army's intelligence picture

the edge this is likely to offer the Army. Scout will be a step change in capability; its integrated recce sub-systems are unique, allowing crews to work at greater stand-off distances, taking access routes not previously available and contributing to a very advanced ground intelligence picture in real time."

Cold comfort: images of people, below, and the buildings of Arvidsjaur in northern Sweden, right, show clarity of the camerawork, even in the most extreme conditions



Images are 'the best I have ever seen'

MAJOR NICK Sutherland of 1st Battalion, The Queen's Dragoon Guards ensured tests took into account an Army operator's experience of how a reconnaissance crew sets up, adjusts and uses a thermal surveillance camera on operations, specifically seeking to contrast image detail to maximise intelligence.

Maj Sutherland said: "I have been in Formation Reconnaissance for my whole career, commanding a variety of fighting

vehicles on operations and exercises in extreme cold and hot climates. Images gathered on these trials are the best I have ever seen.

"This capability, offered to operational commanders, will make a huge difference to their intelligence picture; something we rely on greatly to maintain the military edge, especially in complex terrains and time-critical engagements."



MOD and Rolls-Royce members of the programme's management team at a benefits workshop, from left: Nigel Andrews, Kevin Earle, Matt Nadin, Roger Barnfield, Mary Sinclair, Lawton Green, Sophie Macfarlane-Smith, Andy Taylor, Capt John Newell, David McConnell, Helen Topley, Chris Rawlinson, Tomas Leahy

Supply chain relationship moves on to a new level

THE NEXT stage of a programme between DE&S and Rolls-Royce to improve project performance and delivery in the maritime sector goes live this month.

The Supply Chain Relationship in Action (SCRIA) programme between the MOD and Rolls-Royce Naval began in 2008. Its initial phase was jointly managed by Director Ships and the company to make specific improvements to project teams.

Phase two saw DE&S and Rolls-Royce develop a stronger, more long-term relationship. Teams involved with legacy gas turbine engine projects, machinery control systems as well as capital ships and destroyers were among those to develop plans for improving team relationships and project performance.

So far the programme has increased performance by between 10 and 31 per cent with benefits including better communication, more sharing of knowledge and better access to senior staff.

The SCRIA approach has now matured and will be embedded by 12 April.

Now it's 'green for go' at Corsham data centre

First part of wider network to earn full authority

THE FIRST logistic data centre – which hosts defence information and communication applications – has been given the green light to begin its work.

The first Authority to Operate was issued by DE&S' Information Systems and Services Network Operating Authority.

It allows a capability to operate continuously on the Defence Information and Communications Services Network which incorporates all computing and telecommunications to allow defence to function effectively.

The data centre at Spring Park, Corsham – Data Centre 1 – is managed by Boeing Defence UK as part of the wider Logistic Network Enabled Capability. Logistic applications from a number of legacy MOD sites are being moved to the new data centre.

The centre is the first component of the wider Defence Network infrastructure to be granted the full Authority to Operate.

The facility has passed a six-



Green for go: the Corsham data centre has its authority to operate. From left: Mr Jeff Pete (Boeing Defence UK), Brigadier Alan Clacher (outgoing Hd LogNEC), Air Commodore Tim Bishop (Head of Service Operations), Brigadier Paul Towers (Head Network Technical Authority), Mr Dave Bartlemay (Boeing Defence UK), Air Commodore Barrie Thomson (incoming Head Logistics Network Enabled Capability)

month period of monitoring by the Authority following detailed assessment by the Network Technical Authority of the impact it may have on the existing network.

This has made sure it is operating efficiently on the Defence Network.

Any project teams delivering

products which impact on the Defence Network should contact the Network Technical Authority's Task Assessment and Control Team group mailbox at DES ISS NTA-PortalMailbox (multiuser).

This will help transition of capabilities onto the defence network.

Warwick to honour munitions depot

DE&S PERSONNEL at Defence Munitions Kineton are among those to be honoured with the Freedom of Warwick.

Kineton is the biggest munitions depot in Europe and trains servicemen and women in bomb disposal.

Warwick Town Council will hand over keys to the town to Kineton in a Freedom ceremony at Warwick Castle on 18 May.

The council is honouring the barracks for supporting the town for more than 70 years.

The last time a group was given Freedom of the Town was in the 1960s when the Royal Regiment of Fusiliers received the honour.

Commanding Officer at Kineton, Lt Col Simon Hirst of the Royal Logistic Corps, said: "It is an honour to have been offered the Freedom of such a prestigious and beautiful town as Warwick.

"We have gladly accepted and will exercise the right to march through the town in the best military fashion."

Devonport dock revamp signals efficient future



A new dock caisson is floated

REFURBISHMENT OF the frigate refit complex is part of the latest investment transforming Devonport's dockyard.

New dock caissons are also being installed as Babcock looks to improve efficiency and ultimately save money as part of a long-term deal with DE&S.

Babcock site managing director Phil Jones said: "Some of the dock infrastructure at Devonport is reaching the end of its initial design life. Reviews with the MOD have confirmed the unique and strategic assets at the site for future support of the Royal Navy's surface and submarine fleet and we now have a future strategic plan. A number of projects are being implemented as a result."

Refurbishment of the frigate refit complex includes replacement of the three massive doors and re-cladding, as well as new offices for the warship support teams (see page 30).

Each 100-tonne door is 28 metres by 40 with 50 tonnes of counterbalancing weights in each tower of the dock entrance. Built in the 1970s, the doors were becoming unreliable. The first is currently being replaced with the last due to be in place this September. The new doors are around 35 tonnes.

Old cladding on the west face of the complex is being replaced and the refurbishment will help three-stream surface ship refitting, under cover, for long-term warship upgrades.

Some of the older caissons – structures at the entrance to docks that allow them to be emptied or water levels maintained – are being replaced. The latest at the entrance to Basin 2 began commissioning trials in January. Further work on penstocks which control water flow into the docks will complete in June.

Two cranes are also being relocated to 10 dock as part of the Centre for Amphibious Support Excellence being established there, with a major refit of the 40-year-old specialist and rare self-propelled floating *Devon Samson* crane.

Work is being carried out under the Terms of Business

Agreement between DE&S and Babcock. This maximises efficiency of Babcock's owned and managed infrastructure, including Devonport and Rosyth, which will help save money for the MOD. Another agreement is in place with BAE Systems at Portsmouth.

"The programme is a significant and demanding one, and will be ongoing for several years," said Mr Jones. "It will deliver significant improvements and result in an appropriate infrastructure to deliver naval support with optimum efficiency for surface ships and submarines."

Babcock ties up rope contract for the Navy

BABCOCK WILL supply ropes and technical services to all classes of Royal Navy surface ships.

Under a three-year contract, the company will provide management, new manufacture, engineering support, post-design services, technical support and training relating to High Modulus Polyethylene rope and fittings.

Smaller, stronger ropes are replacing all steel wire ropes and large, heavy and often cumbersome synthetic ropes. The new ropes will have a range of uses not previously possible. This will reduce the number of ropes carried by each vessel, reducing manpower and meaning traditionally labour-intensive tasks can be done more quickly.

The HMPE Ropes and Technical Services contract is the latest Navy-related contract for the company. Others include firefighting and damage control equipment, electrical and electronic components, electric motors, pumps, and domestic equipment.

Devon Samson gets to work as doors are removed from the frigate refit complex



MOD replies in a timely way

THE MOD meets the minimum standard of compliance for responding to Freedom of Information (FOI) requests.

The FOI process provides people with requested official information inside 20 working days.

The MOD has been monitored by the Information Commissioner's Office (ICO).

Between April and June 2011 the MOD answered 81 per cent of requests on time, and 84 per cent between July and September. October to December is expected to be 85 per cent on time.



Engine support makes the big switch as team's work comes to an end

DE&S' HELICOPTER Engines team, above, has disbanded and its work taken on by the various individual helicopter teams.

The team, responsible for engines, auxiliary power units and accessories on a number of different helicopters, formally ceased to exist on 1 April.

The move comes as a result of restructuring in DE&S and the Helicopter Operating Centre and the need to do business differently.

This move sees an end to the commodity approach for support and acquisition of helicopter engines that has existed for 18 years since the formation of the Defence Helicopter Support Authority at Yeovilton.

Relocation of staff has already begun and will continue over the coming months as desk space in the

receiving project teams becomes available.

Business benefits include closer alignment between platform and engine support, especially in programming, safety and airworthiness terms.

This will be further reinforced as engine support moves to contracting for availability arrangements that dovetail with similar arrangements for each helicopter.

Director Helicopters Adrian Baguley acknowledged the Helicopter Engines team's record in delivery, most notably in support of operations, while recognising that the team was in the vanguard of changes facing the operating centre following the Strategic Defence and Security Review.

Sessions across DE&S keep staff informed

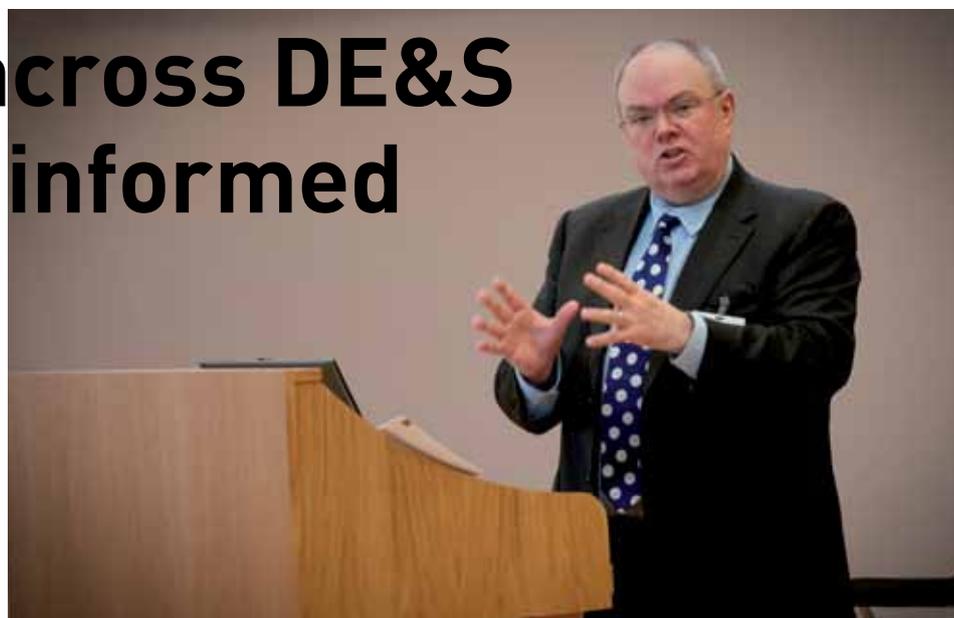
STAFF ACROSS sites with a large DE&S presence have been hearing about the Materiel Strategy and interim structure for DE&S in town hall sessions and roadshows.

Chief of Defence Materiel Bernard Gray hosted a briefing for staff from Information Systems and Services at Corsham at the end of February.

He spoke of the progress on designing an interim structure which would allow DE&S to deliver its outputs with fewer people before moving over to a new operating model.

He also touched on the voluntary release scheme, the excellent work DE&S continues to do supporting operations in Afghanistan, and the scale of bringing home the huge amounts of equipment once Operation Herrick is completed.

DE&S staff at Donnington and Bicester were briefed on the



Above: Bernard Gray addresses staff at Corsham

Materiel Strategy on 16 February. Angela Lidiard, Deputy Head Materiel Strategy Engagement, was joined by Stephanie Hislop on both visits.

The Materiel Strategy team has pledged to continue the road show programme to keep staff informed of events.

Equipment safety at Abbey Wood

THE ENVIRONMENTAL Safety Assurance Symposium (ESAS) – the MOD's flagship symposium on equipment safety and environmental management – will be at Abbey Wood on 12 and 13 June.

The symposium, in partnership with Atkins, will explore "The Challenge of Change" and will consider how the MOD and industry can continue to improve equipment safety and environmental management in the face of future sector changes.

To register as a delegate or to exhibit at this event, visit: www.esas2012.co.uk

Working in a 'one-stop-shop'



Open for business, left: Roy Brenton (Defence General Munitions assistant leader), Lee Parker, Glascoed Transformation Manager, Col Richard Aspray (DGM leader), Lee Smurthwaite (Global Combat Systems Munitions Operations Director) and Huw Samuel (General Manager, Glascoed)

Open for business, right: Babcock's COM Director Mark Lawther and Managing Director Devonport Phil Jones (left) join Vice Admiral Andrew Mathews, Commodore Steve Dearden, Naval Base Commander at Devonport, and Captain Chris Saxby, SFM Devonport (right) at the formal opening



DE&S STAFF will be working side-by-side with industry colleagues in two major sites which have opened new offices in the last few weeks.

Munitions staff will join BAE Systems in a joint office at Glascoed in south Wales, the latest milestone in the MASS partnership - Munitions Acquisition, the Supply Solution - which guarantees supply of ammunition for UK Forces' training and operations.

And in Devonport a new warship support facility will see DE&S and Royal Navy personnel working with Babcock to support the Fleet.

Col Richard Aspray, DE&S' Defence General Munitions (DGM) leader, opened the

DE&S staff work side-by-side with industry partners to deliver support

Glascoed offices on 21 February. "The facility represents a key milestone and an opportunity for developing the way we work together on the MASS Partnership," he said.

The offices, funded by BAE Systems, are reconstructed from old laboratories in the headquarters area at Glascoed. Fifteen of the 70 workstations will be DII(F)-wired to maximise the opportunity for

DE&S and the company's Global Combat Systems Munitions staff to work together in modern offices, which also include meeting rooms and a kitchen.

Although the main MOD user is expected to be the DE&S project team, the offices can be used by other MOD staff with business at Glascoed.

Under the MASS agreement, BAE Systems is investing £40 million over five years to modernise its Glascoed site. This has already seen new laboratories, a new pyrotechnics facility, installation of a new medium calibre ammunition assembly machine and enhancement of the existing bulk magazines.

DEVONPORT'S NEW offices, housing an MOD/Royal Navy/Babcock Class Output Management (COM) team was opened on 12 March by DE&S' Chief of Materiel (Fleet) Vice Admiral Andrew Mathews.

The Surface Ship Support Alliance between DE&S, Babcock and BAE Systems has revolutionised surface warship support through-life, bringing significant annual savings.

Full COM implementation involves greater delegation to industry on a performance-based 'contracting for availability' basis. Among ships the COM team looks after *Sandown* class mine-countermeasures vessels and half the Type 23 frigates.

The new Devonport COM facility in the Frigate Refit Complex brings together the industry and MOD/RN COM staff for the Babcock-led COMs in modern offices.

The new facility features full Defence Information Infrastructure connectivity, meeting rooms, video conferencing, a training facility including the Unit Maintenance Management System, along with an office for 80 people.

Babcock COM Director Mark Lawther said: "Facilities here in Devonport are much the same as those in the Portsmouth COM office, for commonality from the customer's perspective, and helping to promote the 'one-stop-shop' ethos.

"We've built an experienced COM team, and with all the necessary IT connectivity in place and the integrated team now collocated in the new waterfront office, we're ready to continue these improved ways of working."

Conference assures future of combat power

THROUGH LIFE Support - Combat Power Assured was the theme for the fourth MOD-Industry Logistics Conference at Abbey Wood.

The 2 March conference attended by more than 200 explored how industry and defence can work together to improve delivery of and support to equipment capabilities.

Major General Ian Copeland (Director Joint Support Chain) hosted the conference facilitated by Brigadier David Martin (Head of Support Chain Management).

The event drew on expertise from defence, industry and academia with Major General Carew Wilks (Director Land Equipment), Air Vice-Marshal Simon Bollom (Director Combat Air) and Commodore Brian Archibald (Head Surface Combatants) discussing procurement and support challenges. The 2013 Conference is scheduled for Thursday 7 March.



Major General Ian Copeland opens the 2012 MOD-Industry Logistics Conference

Picture courtesy *The News*, Portsmouth



Portsmouth's queen of pilots – that's Rachel

THE ONLY female Admiralty pilot has been awarded a highly prestigious award.

Captain Rachel Dunn, one of 11 Admiralty pilots in Portsmouth, now holds the Victoria Drummond award, the highest honour given to women members of the marine officers' union NUMAST.

The award recognises raising the status of women in the maritime industry and is named after Victoria Alexandrina Drummond, one of Queen Victoria's goddaughters who was the first female marine engineer in Britain and the first female member of the Institute of Marine Engineers.

Victoria served in the Merchant Navy for more than 40 years and received the MBE for her actions while under attack at sea.

Rachel started work as a trainee pilot in April 2010 and passed her final examination last September.

Her career started in 1984 with Shell Tankers and she became a second mate in 1987. She gained her Masters (unlimited) ticket in 1993 while still with Shell.

Due to impending marriage Rachel left Shell in 1994 to join Wightlink ferries in Portsmouth. She was the first female officer employed by Wightlink and began a 16-year career as Master in 1996.

Outside work, Rachel has given presentations to the Isle of Wight Sea Cadets and been involved in their promotion board.

The mother of three daughters has given further presentations to Fareham College careers days and numerous primary schools in the local area.

Rachel is a committee member with the Southampton Master Mariners Club and has also represented the club as Sea Staff Captain.



Ray Brooks, pictured left, a veteran of deployments to Iraq and Afghanistan to support DE&S clothing work, has received his operational medals.

As a retired regular officer Ray has been the operations support manager for DE&S' Defence Clothing team.

He has deployed to Operations Telic and Herrick to advise, deliver and implement new clothing equipment to Front Line Commands.

He also briefed incoming and outgoing unit quartermasters and staff on new items, returning with key operational clothing issues for further development.

RAF Air Commodore Ro Atherton is pictured presenting Ray with his operational medals.

■ Clyde base commander, Commodore Mike Wareham, was on hand to mark the retirement – and a long walk home – of a Navy Petty Officer after 30 years in the service.

Commodore Wareham presented Tim 'Yorkie' Stout, far right, with his Valedictory Certificate from the Second Sea Lord before the 47-year-old began his 252-mile walk all the way to Yorkshire.

It is all in a good cause – Yorkie hopes to raise £100 for every year he's been in the Royal Navy so that could be £3,000 for the Royal Navy and Royal Marines Charity.

Yorkie has spent a large part of his career in Scotland, at Faslane in the west and Rosyth in the east.



**DSRA Lottery winners
January**

£10,000: Paul Smyth (Craigiehall).
£5,000: Philip Eley (Aldershot).
£2,000: Peter Ginnever (Abbey Wood). **£1,000:** Deborah Hilton (RAF Cranwell).
£500: Thomas Allen (RAF Leeming). **£300:** Michael Murphy (Rosyth), Timothy Roe (London), Pamela Widdows (Andover), Ian Morris (North Colerne). **£200:** Graham Bassett (Leicester), Marian Green (Lisburn), John Hilton (Bicester), Lloyd May (Devon), Anthony Corcoran (Cheshire), Philip Doyle (Abbey Wood), Deborah Dawson (Abbey Wood), Martin Rose (Middle Wallop), John Lewis (Colerne), Lynda Perry (Larkhill), Watson Robinson (RNAD Coulport).
£100: James Clark (Babcock Marine), Alastair Goodson (Abbey Wood), Peter Williams (Upavon), Nicola Langley-Stevens (RAF Wyton), Robert Wheatley (Bicester), Colin Hawkins (Vector), Fiona Taylor (Liverpool), John Malley (Helensburgh), Derek Wheeldon (Donnington), Garry McPherson (Cove, Argyll and Bute), Vineet Paul (London), Peter Darlow (Salisbury), David Tyrer (PPPA), Anita Harrington (Corsham), Andrew Kilding (RAF Brampton).

Kevin's marathon challenge is simply four-midable



Forerunner: Kevin completes the Bath half marathon in preparation for the first of his quartet of gruelling events



Best feet forward for DE&S dozens

DOZENS OF runners from DE&S sites across the country

will be taking part in the

London Marathon on 22 April, raising many thousands of pounds for charity.

Typical of the dedication of many are two workers at Devonport, in training for their first marathons.

Chief Inspector Claire Pitcher, above left, of the MOD Police, joins Royal Naval Social worker Penny Hadfield Bennett, right on the run.

Claire's funds will go towards the Personnel Recovery Centre being built in the naval base to treat service personnel with long-term rehabilitation needs due to combat and non-combat injuries or trauma.

Penny works for the Naval Personal and Family Service organisation looking after the welfare of families and serving personnel in their hour of need.

She is running for Plymouth-based Jeremiah's Journey which supports grieving children and their parents.

FLEET LIAISON manager Kevin Watkins has set himself a punishing four-marathon target – including a Channel swim and a Transatlantic row – to stress the importance of early cancer treatment.

Kevin, a Royal Navy Lieutenant Commander, is engaged to fiancée Katherine Meyer, who works with him at Director Ships. The two met at Abbey Wood seven years ago. Katherine has terminal secondary breast cancer with a short life-expectancy.

"Katherine's breast cancer is the generation of this challenge to me," said Kevin.

"If I can inspire just one person to get themselves checked out for cancer so they don't have to go to the endgame then I will have succeeded.

"The treatment for cancer can be fairly grim but the statistics are encouraging if you get yourself checked out early enough."

He added: "I'm not a runner, I'm not a natural swimmer and I'm not a rower. But I have plenty of belief in myself, and I believe that a lot of it is mental. I'm in training and it's going very well. Katherine won't be around to see most of the events but I'm hoping she can see me run the London Marathon."

Kevin completed the Bath half marathon last month as a practice run for the London Marathon later this month.

Next year he will take to the waters of the English Channel off Dover for the swim to France.

In 2014 he has earmarked the Marathon des Sables as the next stage of his challenge. The six-day 156-mile ultramarathon – the equivalent of six regular marathons – sees runners take on the toughest foot race in the world across the sands of the Sahara.

The following year Kevin has set himself the task of rowing the Atlantic from the Canaries to Antigua, a distance of around 3,000 miles. It will be a two-person boat, and he's currently hunting around for a fellow rower.

As well as raising cancer awareness Kevin will be raising money for a number of charities, including Breast Cancer Care, and service charities.

Follow Kevin's progress at <http://www.realbuzz.com/blogs/u/FourDashes/four-years-four-challenges/posts/don-t-really-know-where-to-start/>

Victoria honoured to show at the Tate



A CLYDE worker was honoured to display some of her artwork at a prestigious London show.

By day Victoria McQueen, 39, pictured left, helps run the Submarine Command Team Trainer at the base.

In her spare time she is a keen artist who has sold more than 100 paintings.

Victoria was asked to contribute to the Secret Art Show, an event run by the Public and Commercial Services Union in conjunction with the Tate Modern to showcase creative talents of its members.

The event took place on 7 March at the Rag Factory, near London's Brick Lane, with the public having the chance to purchase original artworks.

Victoria's painting, entitled "Boomerang Nebula" and reflecting her other passion – astronomy – went for an undisclosed amount at the show.

All money raised went to the Culture

Sector hardship fund used by the Union to help members experiencing financial difficulty.

Victoria said: "I have been painting for more than 20 years and have sold all over the world during that time, mostly on a commission basis.

"A friend of mine forwarded my name to the Tate Modern Gallery representative and before I knew it I was invited to send some work.

"They also asked if I could give a talk at the show, but unfortunately I wasn't able to make it.

"I have been an amateur astronomer since the age of eight. A lot of my paintings are about my interest and the picture I donated to the show was painted from a plate from the Hubble telescope.

"It is a huge honour to be asked to provide a painting, especially as it's in conjunction with the Tate Modern Gallery."

ISS team gives Herc the big charity heave-ho!



It's an uphill task on Falklands runway

Pulling power: personnel from ISS' South Atlantic Islands unit make short work of dragging 70 tonnes of Hercules at Mount Pleasant, Falkland Islands

DE&S tri-service team members have put their backs into a Hercules pull to raise cash for charity.

The 30-strong team from Information Systems and Services' South Atlantic Islands unit dragged the 70-tonne transport aircraft a kilometre at Mount Pleasant Airfield.

More than £5,000 raised will go to the Royal Naval Benevolent Trust, ABF The Soldiers' Charity and the Royal Air Forces

Association. Team members were also raising funds for a local Falkland Islands charity, the Steven Jaffray memorial trust, which provides financial support to dependants of sick and injured islanders who require medical care overseas, so that they can accompany them.

The event was organised by WO2 John Blowes with the team managing a practice pull over 200 metres before the main event.

The runway at Mount

Pleasant has a slight gradient which increased the challenge to the DE&S team.

Following the event the team and spectators enjoyed a family day at the unit's headquarters. The unit's cable maintenance and installation section also organised a themed party at its resident bar.

Further donations can be made at www.virginmoneygiving.com/herculespull website.



Now Dan's a Royal Marine

BBC PRESENTER Dan Snow, above, now knows what it takes to be a Commando, thanks to the Royal Marines of Clyde naval base.

Dan was filming for BBC's *One Show* on wartime training, with the modern-day Marines from Fleet Protection Group putting him to the test at Achnacarry Castle.

Marines kitted out the presenter in uniform, webbing and a rifle, before taking him on a Commando speed march.

Royal Marine Captain Harry Lane, who led the march, said: "It was a cracking day and Dan handled the speed march very well."

Dan's report on Commando Training was due to be shown early this month.



Brigadier Alan Clacher, outgoing Head of Log (NEC), presents the winning award to Colin Nash of Deep-Secure.

Practice makes perfect in latest awards

DE&S STAFF are well to the fore for their application of good practice in defence work.

Much of it was commended in the third annual Good Practice Marketplace and Excellence Awards held in Bristol.

The awards are organised by the UK Council for Electronic Business (UKCeB) in collaboration with the MOD.

During the day, six finalists each had ten minutes to present their case study to compete for the Excellence awards.

The judging panel came from academia, industry, MOD and UKCeB and were presented by Brigadier Alan Clacher, outgoing Head of the Logistic Network Enabled Capability programme (Log NEC).

Overall winner was Deep-Secure Limited based on work demonstrating use in defence of signed and encrypted e-mail over the internet. This provides simple-to-use, standards-based enabling technology for e-mail that allows small and medium-sized enterprises to communicate securely with one another, with the MOD and major defence contractors.

A Highly Commended Award was made to Allan Webb for a spares optimisation solution that gives users improved visibility of spares inventory, leading to significant cost savings and improved spares availability to operations.

The MOD and industry, including Rolls-Royce and BAE Systems, were jointly

commended for a through-life supportability learning and development model that provides a framework to have supportability engineering skills standardised across defence.

Other finalists presenting were the partnership of Boeing Defence UK and the MOD for business improvements in the first 12 months of the Log NEC programme; the MOD for work on the Support Solutions Envelope refresh programme driving change across DE&S; and General Dynamics UK for work in changing the perception of human factors within a large prime systems integrator.

UKCeB members account for around 90 per cent of the budget spent by the MOD with UK defence contractors.

Peter's work tops the human league

THE FIRST 'H' Rowbotham Memorial Prize for making defence products user-friendly has been awarded.

Peter Wilkinson, Technologist Advisor for Human Factors Integration at BAE Systems, took the award after an outstanding career promoting and applying such integration in systems engineer practice at BAE Systems and across the defence community.

Peter was selected by a judging panel representing DE&S, Cranfield University, UKCeB and the MOD/Industry HFI Working Group and presented with his award at a ceremony in Bristol when UKCeB awards were handed out to DE&S and industry (see above).

The annual award honours the memory of Humphrey 'H' Rowbotham and his work in the field of human factors for the MOD and industry.

DE&S helps David to his engineer charter mark

DAVID TONGE has become the first member of Defence Engineering and Science Group's Guided Development Scheme to achieve Chartered Engineer status and promotion to C1 grade.

David, who was one of the first graduates to join the scheme when it was launched in 2010, said: "Prior to joining the DESG scheme I had worked for a couple of years as an engineer in industry.

"This previous experience, combined with my time on the DESG scheme and a challenging GDS post in the Defence Ordnance Safety Group, gave me sufficient technical and commercial experience to gain Chartered status.

"The GDS has helped kick start my career in the MOD and I hope that it will prove as successful for other GDS members."

The scheme supports and advises members as they work towards professional registration. David Diamond, who helped set up the scheme, said: "There has been a concerted effort from a variety of stakeholders to help build and support the GDS over the last 18 months and it is fantastic to see our first success.

"As the Director Technical skills lead I must ensure the continued development of our young engineers and help support the engineering strategy in delivering safe and professional engineering. I congratulate David on his personal success and will monitor his progress as one of our new Chartered Engineers."

Howard Mathers, Director Technical, added: "The scheme is a crucial component of the

training programme for the engineering specialism in DE&S.

"The advances that David Diamond and his team have made together with David Tonge's excellent achievements are the first of many positive steps towards achieving our goal of a solid foundation for engineering in the MOD."

Further information on the scheme is available from manager Wendy Stocks on 01225 449475 (9355 49475).



David Tonge, second from left, is joined by, from left Engineering Policy team leader Clive Buckley, Howard Mathers and David Diamond

A 'bottom-up' view of DE&S ship maintenance

FRIENDS OF *HMS Monmouth* have been enjoying the 'lowlights' on their latest visit to the Type 23 frigate which is currently under maintenance at Devonport.

As a result, the affiliate organisations linked to *HMS Monmouth* were invited to see 'their' ship from a unique perspective. The highlight (or 'lowlight') of the visit was the dock bottom tour, where the visitors were given the rare chance to walk under the ship as the hull towered above them in its giant 'garage'.

HMS Monmouth's affiliates travelled from Monmouth, with

which the ship is a twinned, and further afield to see the ship out of the water.

The ship left dry dock at the end of February after six weeks of vital repairs before operational sea training takes place and a return to operational tasking.

HMS Monmouth's commanding officer, Commander Dean Bassett, said: "This was an excellent opportunity for us to build on the strong links we have with 'our' town and to give our affiliates the chance to view the ship from an unusual vantage point."

Geoff's night shift gets 2012 off to an explosive start

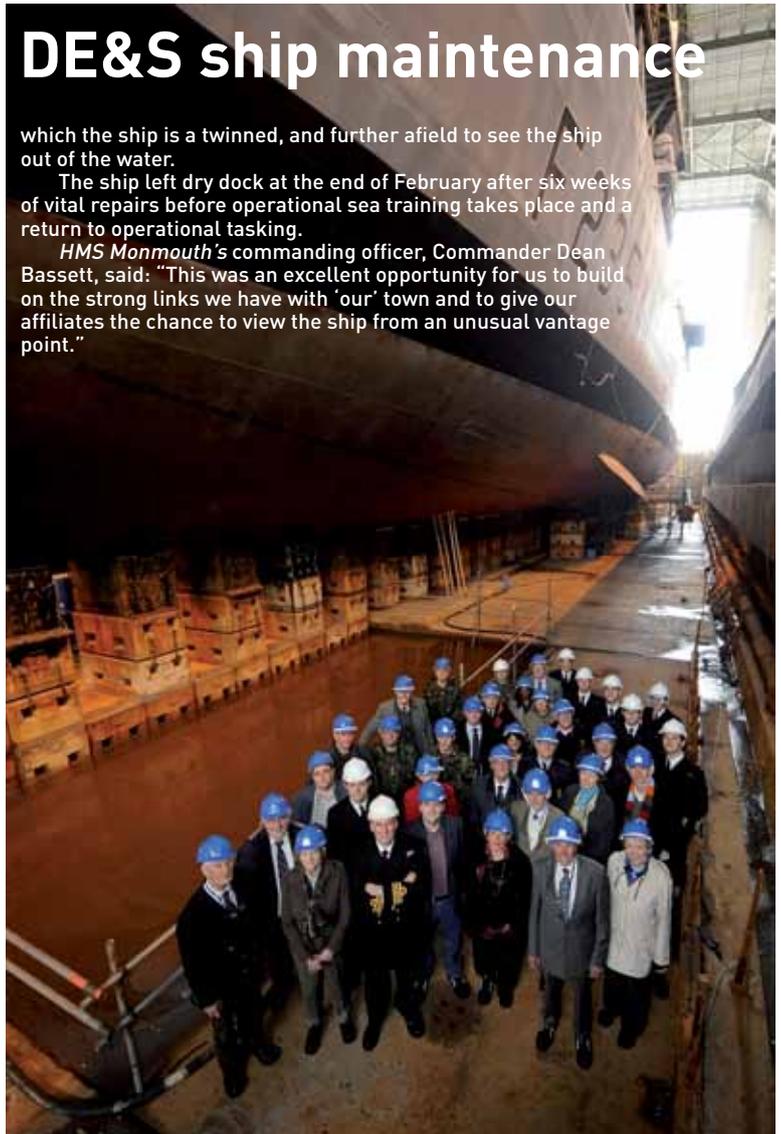
DE&S ORIENTEER Geoff Ellis outshone a strong field to take his second podium finish in 12 months at a British championships.

The New Forest hosted the British Night Orienteering Championships and the area chosen for the event provided a tough challenge on subtle terrain where small, indistinct features made the challenge of navigating at night even more pronounced.

Good strong running with accurate navigation saw Geoff, an RAF Flight Lieutenant, of DE&S Information Systems and Services' Networks team make good progress around the course, rising to the navigational problems posed.

He was only bettered by a competitor who has just moved up into the male 35-40 year old category, who eased clear by just over two minutes.

Both he and Geoff were a significant distance ahead of their rivals and sets Geoff off on the right foot for 2012 as he aims to build on his 2011 successes.



DINs - released this month

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

2012DIN04-023: Saxon patrol equipment is obsolete and the supporting Army Equipment Support Publications in this DIN have been cancelled and removed from Technical Documentation On-Line (DTOL)

2012DIN04-027: JSP 509 Management of Test Equipment has come into force. Units that deploy to locations without access to the Defence Intranet requiring access to JSP 509 during deployment may apply for CD copies at deslegsg-di-509distribution@mod.uk. Demands for CD copies should contain the UIN and quantity required.

2012DIN04-031: Disposal Services Authority has run a competitive tender to dispose of miscellaneous equipment, clothing and textiles, medical and dental, small vessels and official gifts and memorabilia. A new contract for these commodities has been placed with Disposal Services Limited and replaces previous contracts with Field Textiles and Ramco.

2012DIN04-041: This DIN announces changes to the framework contracts for supply to libraries, branches, units and establishments in the MOD of various categories of commercial publication (publications purchased from a commercial bookseller or publisher).

Further information and more details on the latest DINs see:

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

LTPA

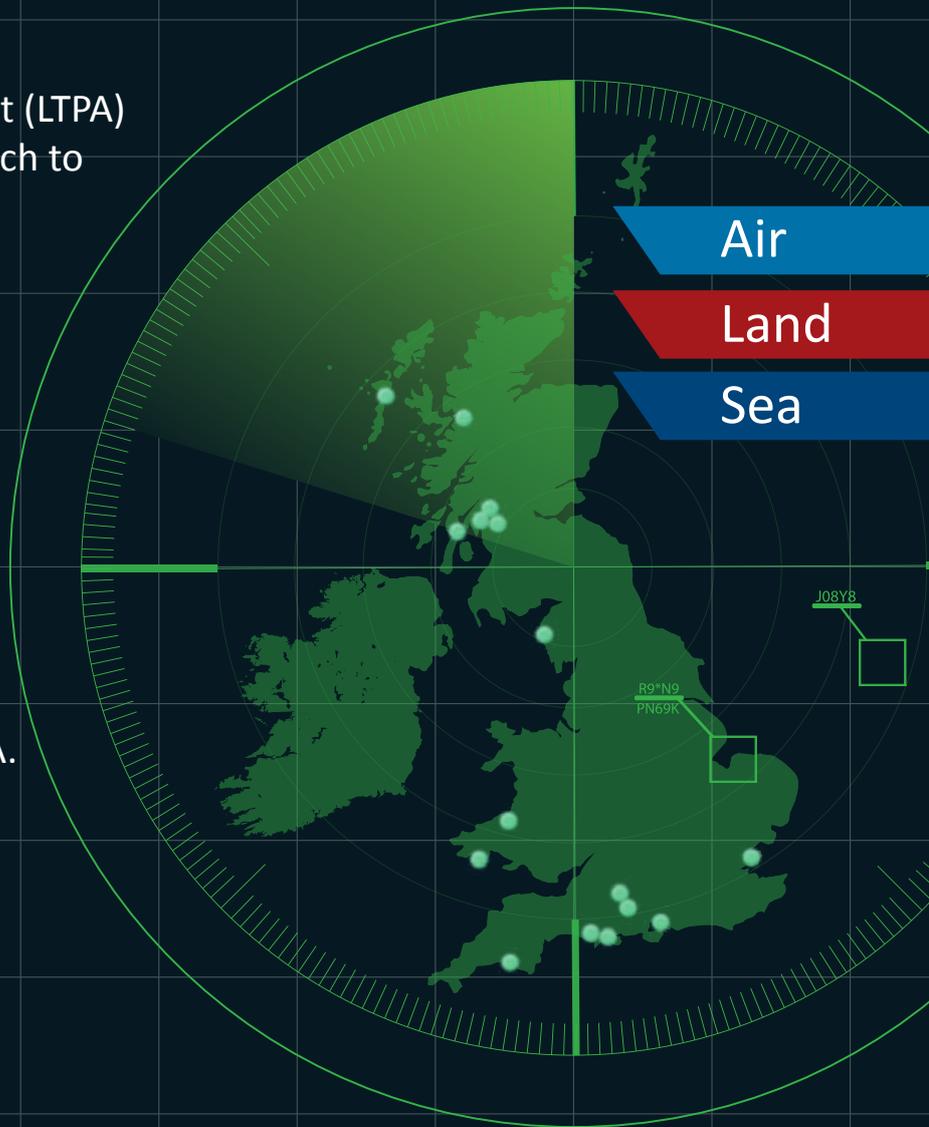
T&E begins here

Are we on your radar for T&E?

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

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

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



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