

### **Foreword**

#### INTRODUCTION BY ADMIRAL SIR JONATHON BAND KCB ADC

#### FIRST SEA LORD AND CHIEF OF NAVAL STAFF

I am very pleased to be writing the introduction for Broadsheet 2007. Following some constructive criticism of previous issues, this year's publication concentrates on factual articles, written in plain English, to provide a more straightforward and tighter focus on our business. The opening article on operations demonstrates in spades that the naval service is working exceptionally hard across the globe, delivering significant capability. We are still engaged in live operations in two theatres, maritime security operations, intelligence support to operations, capacity building around the world and provision of the continuous at sea deterrent. We are working to improve interoperability with coalition and NATO forces, as well as conducting fishery protection, counter drug operations, and surveying in 3 of the 5 oceans. As I was writing last year's foreword, 3 Commando Brigade and 800 Naval Air Squadron were about to deploy to Afghanistan. They did a fantastic job and achieved much, but sadly we lost 12 men in the intense fighting with the Taliban. 800 Naval Air Squadron is back out there now, as part of the Naval Strike Wing, this time with 40 Commando RM and Sea King helicopters from the Commando Helicopter Force, along with many headquarters and support staff from all branches of the naval service. We are still very busy in Iraq, too, providing support helicopters, support staff and force protection teams. We are committed to training the fledgling Iragi Navy, developing their capability substantially. Most importantly, as part of a strong afloat presence in the Gulf region, we provide protection for the offshore oil and gas platforms, through which flows 90 per cent of Iraq's GDP. And we are back doing boarding operations in the Northern Arabian Gulf. Up-gunned, with better cover and a revised posture, we have learnt much from the incident involving HMS Cornwall last March. You can be reassured that the Navy has taken some very decisive steps in force generation, collective and individual training, mission rehearsal, intelligence

handling and knowledge exploitation, to ensure we are far better prepared for the specific challenges of every theatre of operations in which we are involved.

The pace of change ashore is no less demanding and creates its own pressures. The Defence Equipment and Support organisation has been formed as the single through-life procurement and logistic support organisation for all defence equipment. The Fleet HQ in Whale Island continues to transform the way it generates and supports naval forces for operations. MOD centre, as well as providing strategic direction for our Armed Forces, is engaged in a streamlining process that will continue the drive to realise efficiencies and release resources to the front line. We are also removing some of the duplication that exists in the Fleet HQ and the Naval Staff to provide a single naval staff that will support me as I take on responsibility as the Navy's top level budget holder in April 2008. Many of you will be aware of the pressure the defence budget is under this year. It will come as no surprise that we have some hard choices ahead. Equally, some recent key decisions make it clear that the Royal Navy will continue to provide significant capabilities based around the concepts of littoral manoeuvre, using the hugely improved amphibious task group, and of course, carrier strike. Our challenge now is to squeeze every ounce of capability from the available resources and in particular, to drive down the costs of our support infrastructure. But it is not simply about resources. We have to ensure that we offer clearheaded, strong leadership for our people as the Royal Navy continues to change and help them to deal with the demands placed upon them. The Royal Navy has an enviable, well-deserved reputation that we must protect and uphold. Above all, I am mindful that we must maintain a coherent, hard-edged, war-fighting capability, underpinned by a resilient, confident warrior spirit. This Broadsheet offers a snapshot of how we are doing and I trust you will find the content interesting.



#### Dear Reader

Welcome to *Broadsheet 2007*, which is primarily targeted this year at the retired community and interested members of the general public, whilst also providing a record for those still serving and contributing to our great Service.

This edition includes accounts of the Royal Navy's global contributions to joint operations, significant deployments, capability and support updates and highlights a number of anniversaries celebrated in the year.

The accompanying DVD contains an interview given by the First Sea Lord to the BBC presenter Kate Silverton. It is a personal, frank and open view of the highs, lows, successes and achievements of the Royal Navy in 2007.

I would like to thank the contributors, who in very busy times and to very tight deadlines, allowed this issue to go to print on time. I hope it informs and sparks discussion. I look forward to receiving your comments and suggestions, which allow the magazine to evolve as its readership would like. Please pass it to a colleague, friend or family member when you have finished with it.

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HMS Westminster

## Striding towards the future Navy

2007 has been a breakthrough year. Last year's Broadsheet article on the future Navy outlined the First Sea Lord's vision. He emphasised the need for a future maritime capability structured to deliver Maritime Force Projection (taking the fight to the enemy) and Maritime Security (protecting our own forces) and stressed that this must be enabled by effective Maritime Manoeuvre (command and control of the sea), both in littoral and oceanic waters. This year we have made significant strides towards realising his vision. The most telling of these was the announcement in July of the government's decision to build the two Future Aircraft Carriers HMS Queen Elizabeth and HMS Prince of Wales. These are planned to enter service in 2014 and 2016 and – along with the cutting edge Joint Combat Aircraft – will provide defence with a world-class, versatile capability that will enable the UK to deliver flexible and potent air power from the sea on a sustained, global basis. Supporting this is the outcome of the Naval Base Review, which has committed the Royal Navy to retaining bases in Portsmouth, Plymouth and Faslane, and guarantees the required support infrastructure - although this must be made much leaner and more efficient.

Further positive steps include the launch of HMS Astute; the first nuclear submarine to be launched in the UK for almost a decade and one that is far more capable than the current generation of attack submarines. The launch of the new destroyers HMS Dauntless and Diamond this year provided more good news, which was given added resonance by the outstanding performance of HMS Daring during her sea trials in the summer of 2007. The Daring-class are the most proficient air defence ships in the world today, and will set a new benchmark of maritime excellence when they enter the fleet. Looking

further ahead, concepts are taking clear shape for the Future Surface Combatant – which will take forward the capabilities currently held in our frigates and some of our minor-war vessels – and of course for the Future Deterrent force.

On the back of such positive progress and, at a time when the Royal Navy rightly maintains its primary focus on the realities of current operations, there remains an imperative to look to and plan coherently for the future – not just for our hardware, but also in how we will man, operate and employ it. We must continue to promote, confidently, those enduring and unique aspects of maritime power that enable naval forces to contribute to the UK's expeditionary strategy across the spectrum of conflict. We must be clear and consistent in our vision, and in its advocacy. This view is mirrored in the recent publication of the New Maritime Strategy by the United States Navy, US Marine Corps and US Coast Guard. The USN's strategic approach parallels UK initiatives such as the Comprehensive Approach (for cross-government co-ordination in managing crisis) and the commitment to act as a 'force for good' in strengthening international peace and stability. The reality is that lower intensity operations that foster stability require enduring commitment, and are fundamental to underpinning the UK's wider security interests. Preventing wars is as important as winning them, and powerful navies are good at both. So we must be clear that in order to achieve lasting effect we need our people and our ships to be actively employed around the world at all times. When conflict breaks out, we of course need to be able to surge the fleet to bring fighting power resolutely to bear. But you cannot surge enduring relationships, trust and habit of co-operation: these need to be developed and nurtured carefully in peacetime to draw on in crisis and war.



It remains axiomatic that the Royal Navy must retain the capability to fight and win in combat. During conflict, the capability of our ships, submarines and aircraft, and the competence and fighting spirit of our people, are the key determinants of success. The Royal Navy's new ships, submarines and aircraft are not only more sophisticated in warfare terms, but also offer higher availability than their predecessors. Since they require less time in routine maintenance and require smaller, if more technically competent ship's companies, they are also more cost-effective through life. And the quality of the sailors manning them continues to impress. To that extent, and certainly in terms of combat capability at the unit level, the Navy is in sound shape with some exciting new prospects around the corner. That said, we must also ensure that the unglamorous but indispensable maintenance and logistic support dimension of our technologically advanced Navy remains in similarly good health. Capabilities that are allowed to become hollow may struggle to fight and win when needed.

Returning to the theme of conflict prevention, naval forces provide a politically and militarily flexible tool, adaptable across the entire spectrum of activity and capable of a very wide range of tasks. The Royal Navy routinely demonstrates this breadth of utility with frequent, low-intensity operations providing presence, humanitarian assistance, disaster relief, defence diplomacy and maritime security. In so doing, we are able to exploit the uniquely permissive nature of the sea, both physically and legally. This allows the Royal Navy to operate globally and persistently with a minimal geographic and physical footprint, offering an unmatched degree of political flexibility to support UK Foreign and Security Policy objectives at all times.

But it is in these routine operations that limited hull numbers are felt most acutely. Day-to-day, the fleet supports and delivers national strategic effect through deterrence, reassurance, stabilisation, protection and capacity building. When things go wrong, like tsunamis or hurricanes, or when our citizens require evacuation, the Royal Navy is there to lead and



provide assistance. Some recent events around the world bear clear witness to the nature of such activity to the UK government and the wider public. This 'soft power' is further borne out today, for example, in the work of the Naval Advisory Training Team (NATT) in Iraq, the UK Maritime Trade Organisation (MTO) in Dubai, the training of Yemeni Coastguards in Aden and the demonstrable impact of regular Task Group deployments off West Africa. Our operational commitments in the Gulf continue, as do our operations in the Far East, South Atlantic, Mediterranean and the Caribbean.



In short, to be strategically effective the Royal Navy needs to be out there at sea preparing for high-intensity conflict but able to respond less intensively at any time. Previous assumptions that routine tasks could be delivered from irreducible spare capacity no longer hold good across the range of likely demands on our smaller fleet. We are entering an era where high-intensity conflict demands a defined number of highly capable platforms, yet global instability requires that higher levels of routine global presence be maintained, with the capability to surge as events dictate. Consequently, we could be approaching

a 'tipping point' where further reductions in hull numbers, capability or logistic support could have a disproportionate impact on the effectiveness of the fleet to support government policy in the round. Clearly, we must keep this very much to the fore in our thinking and planning for the future. The age-old debate over capability versus numbers remains as intractable as ever. But while the Royal Navy is today meeting all its funded requirements and continues to deliver good work against all of its mandated military tasks, we must be sure that this can continue into the future in sufficient quantity as well as quality.

### Diary of events 2007

#### **JANUARY**

RN/RM personnel constitute more than 50 per cent of UK forces in southern Afghanistan

HMS *Exeter* and HMS *Edinburgh* swap ships companies in the Falkland Islands as part of 'Sea Swap' manning trial

Launch of Dauntless, the second Daring-class destroyer

2 Search and Rescue Seaking helicopters from RNAS Culdrose rescue 26 sailors from stricken MSC Napoli

HMS Sutherland rescues Iraqi fishermen in Arabian gulf

Search and Rescue Seaking from RNAS Culdrose rescues 7 fisherman 150 miles west of Isles of Scilly

HMS *Endurance* rescues passengers of Antarctic cruise ship MS Nordkapp

Aintree deployment of MCMs enter Central Arabian Gulf and Forward Operating Base in Bahrain

HMS *Blyth* and *Ramsey* enter Central Arabian Gulf and Forward Operating Base in Bahrain for prolonged operations

HMS Clyde, the first warship to be built in Portsmouth Naval Base for almost 40 years, is accepted into the Royal Navy

857 Naval Air Squadron (Sea King Mk 7) deploys to the Gulf of Oman, the Gulf of Aden and around the Horn of Africa, operating from the Royal Fleet Auxiliary ship, RFA *Fort Austin* 

#### **FEBRUARY**

HMS Talent rejoins the fleet, following a £386 million upgrade

#### **MARCH**

HMS *Tireless* takes part in operation ICEX 2007 conducting classified testing on submarine operability and war fighting capabilities in the Arctic waters of the North Polar Ice Cap region

HMS *Monmouth* takes part in a dramatic sea rescue in the eastern Mediterranean saving the lives of sailors from sinking cargo vessel the 'Afrodite S'

Two Royal Navy personnel killed in an accident onboard HMS Tireless

As part of the national commemorations of the 200th anniversary of the abolition of the slave trade act, HMS *Northumberland* escorts a replica of the 18th century slave ship Zong up the Thames

Members of Parliament vote to endorse a Government White Paper which proposes to renew the UK's nuclear deterrent

HMS Ark Royal rededicated following two-year refit

HMS Ocean deploys for the Caribbean

The last naval hospital, Royal Naval Hospital Haslar, passes control to Portsmouth Hospitals Trust (PHT)

#### **APRIL**

HMS *Montrose* rescues 11 Turkish sailors after their ship sinks in the Mediterranean

3 Commando Brigade returns from Operation Herrick 5 in Afghanistan

25th anniversary of the invasion of the Falkland Islands marked in United Kingdom and Argentina

15 Royal Navy and Royal Marines personnel, detained by Iranian authorities, released and returned to the UK. Two subsequently sell stories to national newspapers

#### MAY

HMS *Ocean* seizes half a tonne of cocaine during maritime security patrols in the Atlantic and Caribbean

Royal Navy Hydrographic & Oceanographic Survey Vessel HMS *Echo* returns after a year-long deployment to the Arabian Gulf, the Indian Ocean and the South China Sea

Crew swap for HMS *Blyth* and *Ramsey* with HMS *Pembroke* and *Penzance* in the Gulf as part of the Aintree deployment which rotates crews from the class

MoD places a £200 million contract with British industry for the fourth Astute-class submarine, to be named *Audacious* 

Single training Command formed – FOST responsible for all sea and shore training

RFA *Sir Bedevere* relieves RFA *Diligence* in the Arabian Gulf as mother ship for the Naval Assistance and Training Team

#### **JUNE**

Ice patrol ship HMS *Endurance* returns to Portsmouth following a nine-month deployment to Antarctica

Royal Navy's newest submarine, *Astute*, launched by HRH The Duchess of Cornwall at the BAE Systems shipyard in Barrow in Furness, Cumbria

The 25th anniversary of the end of the Falklands Conflict commemorated across 8,000 miles (12,875km) and five time zones, in London and the Falkland Islands on Sunday 17 June 2007

HMS *Portland* participates in Exercise FRUKUS off East Coast of US with ships from Russia, France and the USA

100th anniversary of the Brickwood Field Gun Competition

HMS *Seahawk* (Culdrose) celebrates the 60th anniversary of the air station

#### **JULY**

Sailors from HMS Ocean, Northumberland, Drake, Cumberland, Campbeltown, Gloucester and submarines Tireless and Turbulent assist with flood defences in the West Country

HMS Trenchant successfully fires new Block IV Tomahawk longrange land attack missile (TacTom) in a live firing trial off the United States' coast

HMS Clyde commissioned into the Royal Navy

14 US AV8B Harrier Jets and a US Marine Corps Bell/Boeing MV-22 Osprey embark in HMS *Illustrious* for a joint exercise off the United States

Decision to retain Clyde, Portsmouth and Plymouth Naval Bases announced

MOD announces intention to procure two aircraft carriers, HMS *Queen Elizabeth* and HMS *Prince of Wales* to be in service by 2014 and 2016 respectively

Project FISHER launched by Navy Board, aimed at more flexible and sustainable manpower structures to serve in tomorrow's more advanced and demanding fleet

HMS Vengeance completes the 300th deterrent patrol

#### **AUGUST**

HMS Clyde sails for the Falkland Islands for at least five years

HMS *Portland* and RFA *Wave Ruler* provide assistance to the remote village of Xaibe in Belize, following Hurricane Dean

Royal Navy's newest destroyer *Daring* successfully completes first sea trials

HMS Cornwall returns to Devonport from the Gulf

#### **SEPTEMBER**

HMS *Victory* is proclaimed the second best historical tourist attraction in the UK

40 Commando RM deploys to Afghanistan

Two Chinese Navy ships visit Portsmouth

MoD announces contract for six Daring-class destroyers

#### **OCTOBER**

National memorial unveiled in Staffordshire, dedicated to UK service personnel who have lost their lives since the Second World War

Exercise Noble Midas – Spanish and Italian Harriers operate from HMS *Illustrious* in the Mediterranean

Royal Marine chef Corporal Jeremy Hooper wins BBC Two's reality TV show 'The Restaurant'

HMS *Sceptre* returns to HM Naval Base Clyde after one of the longest patrols in submarine history

HMS *Portland* recovers more than three tonnes of cocaine in the North Atlantic

Astute takes her first dive for an underwater test of her systems

Prince Harry (Commodore-in-Chief of Small Ships and Diving) conducts first official visit to Royal Navy

Naval Strike Wing (GR9 Harriers) deploys in support of operations in southern Afghanistan

#### **NOVEMBER**

Change of CINCFLEET to Admiral Sir Mark Stanhope KCB OBE

Launch of HMS Diamond, the third Daring-class destroyer

HMS Richmond foils an attempt to smuggle human cargo into Yemen

845 NAS (Sea King Mk 4), the longest serving helicopter squadron on Operation Telic, returns to RNAS Yeovilton after 3 ½ years of intense sustained operations

Antarctic patrol ship HMS Endurance deploys for 18-month mission

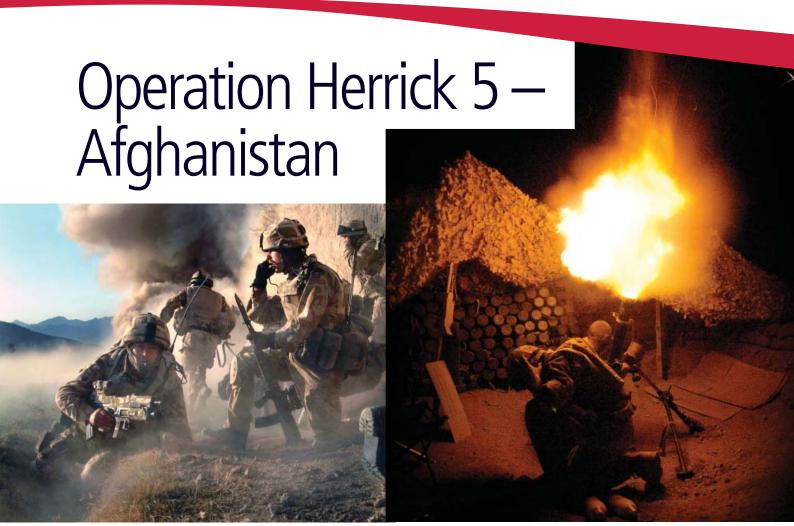
Falklands veteran warship HMS *Dumbarton Castle* returns to Portsmouth home for the last time before retiring from service

#### **DECEMBER**

HMS *Vengeance* returns from record deterrent deployment for the class (103 days)

HMS *Monmouth* returns from nine-month solo round-the-world deployment

RFA Largs Bay intercepts over half a tonne of cocaine in Caribbean



3 Commando Brigade Royal Marines, under Brigadier Jerry Thomas DSO MBE, deployed to Helmand Province in Southern Afghanistan in September 2006 for a six-month tour as the core of the 4,500 strong UK Task Force (UKTF). Part of NATO's International Security Assistance Force (ISAF), the UKTF was a truly joint and multinational force with the Brigade Commander commanding a significant ground element<sup>1</sup> linked in with both attack and support helicopters from the Joint Helicopter Force, close air support from Joint Force Harrier and other multinational partners, as well as assistance from a multitude of other agencies.

The Brigade deployed to a highly complex, volatile and often ambiguous environment, in which the Taliban, the narco-trafficker, the tribal warlord and the local Afghan farmer were often indistinguishable. Success demanded a sophisticated and multi-faceted approach to land operations, and the Brigade sought to operate in conjunction with other developmental partners to help ensure the progress of governance and reconstruction in Helmand. The aim was, and

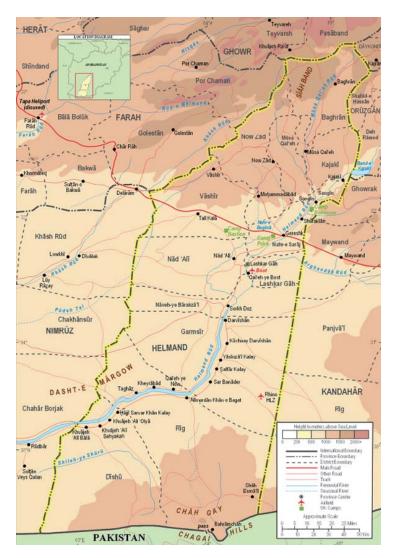
still is, to impose and then extend a stable security situation within the province. To achieve this, military activity was conducted in order to influence, reassure, inform and persuade the local population of the benefits of good governance and reconstruction. In doing so, our marines and soldiers also sought to build consent among the local population, thereby marginalising the enemy and impressing upon him the futility of his cause. Where necessary, targeted and proportionate action was taken to defeat and destroy the enemy. Training and mentoring the Afghan security institutions, in order to build both their capacity and credibility, was an essential parallel activity to ensure that progress on security would be sustainable in the long term: a key step toward overall campaign success and the coalition's eventual withdrawal from Afghanistan.

In order to achieve these objectives, combat units of the Brigade had to detach themselves from the urban district centres and locate, target and destroy the enemy, deliberately creating a 'dynamic unpredictability' across the province. The intention

was to ensure that the enemy never knew when and where coalition forces would appear. Key to this concept were Mobile Operations Groups, centred on a Royal Marine Company size force, ideally with Viking armoured vehicles. Supporting assets were attached, including Unmanned Airborne Vehicles, 105mm light guns, mortars, Royal Engineer search and Explosive Ordnance Disposal teams, combining to make versatile, highly manoeuvrable fighting units. There were frequently and very ably assisted by helicopters and fast-jets by day and night.

After an initial phase of reconnaissance, the Task Force was able to conduct a number of targeted operations, which were synchronised to optimise the forces available, reduce concurrency and minimise the effect of weather. The IX Gp<sup>2</sup> focused on the Helmand provincial capital, Lashkar Gar, and the key enemy concentrations and supply routes that threatened from the south. The main Helmand Battlegroup, 42 Commando Royal Marines, set about easing the pressure on the commercial capital, Gereshk, by dominating the lower Sangin Valley. Attention was then turned to setting the security conditions for a major international development project centred on the Kajaki dam. This required the seizure of key high ground as well as both company and commando level operations to clear the enemy from surrounding villages. The tour culminated in a successful Brigadelevel attack to secure the key town of Sangin itself.

Throughout the tour, the Task Force was in contact with the Taliban for an average of ten hours a day with threats from mines, suicide bombers, ambushes and all out assaults from a battle hardened and often well-led enemy. The term High Intensity Counter Insurgent Operation was coined to reflect this mix of activity. Inevitably, there were casualties on both sides but the far greater portion inflicted on the enemy. The success of 3 Commando Brigade's tour and its impact across the whole spectrum of operations has been universally acknowledged: no Taliban spring offensive emerged in 2007, with enemy operations significantly disrupted; the Afghan National Army made significant progress to becoming a genuinely capable and sustainable force; a great deal of security



infrastructure was put in place; and significant reconstruction and development was enabled in both Lashkar Gah and Gereshk. An example in the education sector is that the number of schools in Gereshk increased from 15 to 105.

Following Operation Herrick 5, 39 members of the Brigade were honoured for their gallantry, including one Conspicuous Gallantry Cross, two Distinguished Service Orders, ten Military Crosses and two Queen's Gallantry Medals. Regrettably, 12 men were killed and 78 were wounded in action during the tour. At the time of publication, 40 Commando Royal Marines, as part of 52 Brigade, hold the Sangin Valley and in September this year the Commando Brigade will relieve 16 Air Assault Brigade to hold the ring once again in Helmand.

<sup>&</sup>lt;sup>2</sup>The Information Exploitation Group – A second manoeuvre HQ formed form the HQUKLF CSG commanding the Brigade recce Force, C Squadron Light Dragoons, India Company and ZuLu Company 45 Cdo RM

## United Kingdom Maritime Component Commander (UKMCC) – Middle East

Royal Navy contributions to operations in Iraq (Operation Telic) and the Indian Ocean (Operation Calash) have been conducted at an intensive tempo throughout 2007, with increasing numbers of units in theatre and an uplift in staff at the headquarters of the United Kingdom Maritime Component Commander (UKMCC) in Bahrain.

Key to UKMCC operations continues to be the Royal Navy's support of Coalition Maritime Security Operations across 2.5 million square miles of ocean East of Suez, and the UK units under UKMCC's Operational Control.

#### Coalition Task Force 158 – Northern Arabian Gulf

Despite the negative media spotlight on the Iran hostage incident in March 2007, the Royal Navy has continued to carry out its vital security task in the northern Arabian Gulf, providing (along with US and Australian units) protection to Iraqi territorial waters and – in particular – the offshore oil installations that are indispensable to Iraq's economy. RN ships and personnel have also conducted training for the Iraqi Navy and Marines that has brought significant improvements in their capability.

In addition to the permanent presence of a Royal Navy frigate, patrolling sectors around the oil platforms to protect them from rogue incursions, the Royal Fleet Auxiliary has provided essential logistic and training support for Iraqis in the shape of RFA Sir Bedivere (and her successor from early 2008, RFA Cardigan Bay).

#### Naval Assistance and Training Team – Iraq

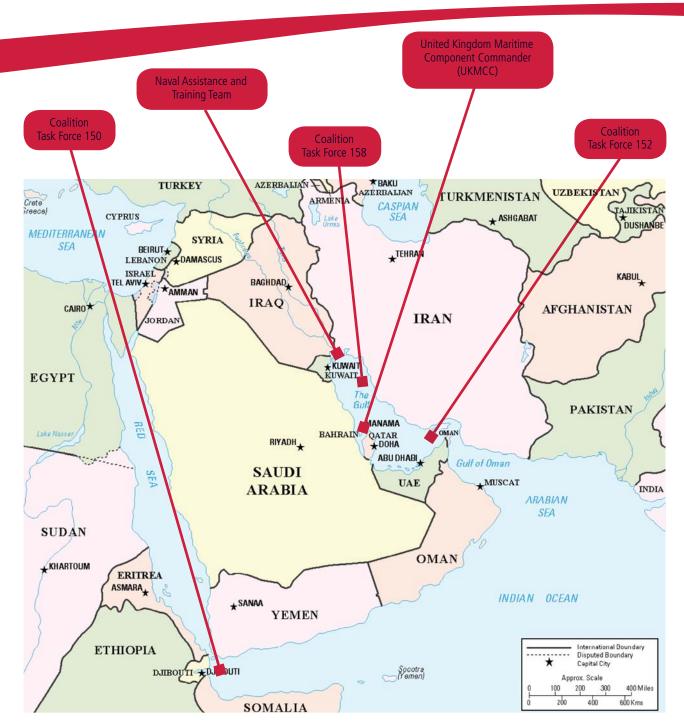
RFA Sir Bedivere has been an excellent platform from which the RN-led Naval Assistance and Training Team based at Umm Qasr has provided training at sea for the Iraqi Navy and Marines. Based onboard with their own fast attack boats, the Iraqis are now able to play their own part in defending Iraq's maritime flank, including carrying out security sweeps of tankers coming into their territorial waters, heading for the oil platforms. This was not the case 12 months ago and is a significant success that has taken the Iraqi personnel to a skill level they simply would not have been able to achieve without the capability provided by the RFA ship.

The Iraqi Navy is now much better placed to support coalition operations in the North and will be well prepared to take delivery of the first of their new patrol ships towards the end of 2008.

#### Survey

Also in the northern Arabian Gulf, HMS Enterprise sails quietly about her business, conducting critical survey operations around the oil platforms and in former mine danger areas. As with several units now deployed East of Suez, she is planned to remain





deployed away from the UK for years rather than months to maximise the utility offered by her high rate of availability.

#### Mine countermeasures

The minehunters HMS Blyth and HMS Ramsey, based in Bahrain, have significantly developed their operational skills in mine-countermeasures within the demanding Middle East environment since they transited the Suez Canal in November 2006. Regular crew rotations have enabled the ships to remain on station while steadily expanding the skill and experience base across a significant proportion of the RN's Sandown-class MCM cadre. On current plans, the ships will be joined by HMS Atherstone and HMS Chiddingfold in early 2008, thus extending this

principle to the Hunt-class cadre. Plans for future such deployments remain under development. Elsewhere in the Gulf region, the Royal Navy continues to work in support of Coalition Task Force 152 in the Central and Southern Arabian Gulf. The focus here remains working with Gulf Cooperation Council nations on relationship and capacity building, and the development of military interoperability and skills. Regular exercises are conducted with neighbouring nations – including the Saudis, Omanis and the Bahrainis who are preparing to take over command of CTF 152 in early 2008. This is another significant milestone as the Kingdom of Bahrain, which is increasingly engaged in wider regional maritime security operations, will be taking this command for the first time.



#### Coalition Task Force 150 – East of Suez

In the Gulf of Aden, Gulf of Oman, the Arabian Sea, Red Sea, and the Indian Ocean, Coalition Task Force 150 has conducted Maritime Security Operations (MSO) continuously since late 2001, setting the conditions for security and stability in the wider Middle East maritime environment. This area includes the main shipping routes from the Far East to Europe and the US, but is also the scene of considerable ongoing illegal activity, which includes human, narcotics, weapons and contraband trafficking, terrorist attacks (as with the USS Cole and MV Limburg in and off Yemen) and an increasing incidence of piracy in the region. Coalition MSO through TF 150 seeks to suppress, deter and interdict such activities, while also engaging with regional governments to better understand 'pattern of life' and develop greater security capabilities at a local level. A notable success has been in the training and mentoring of the fledgling Yemeni coastguard force, now operating effectively in a key area of maritime interest to the RN.

All this activity is supported again by the RFA through the provision of the Arabian Gulf Ready Tanker, RFA Bayleaf, now in her 5th continuous year on station.

Royal Navy engagement in the Middle East is enduring. The UK's Maritime Component Commander Commodore Keith Winstanley, who is also the Deputy Coalition Forces Maritime Component Commander, explains:

"It is in the UK's national interest for us to remain committed to this complex, crucially important operational area. Regional stability here equals global security and stability. I believe we, the 20 maritime coalition nations, need to stay engaged in this region for as long as we retain long-term strategic interests in this area, for as long as our regional allies want us here and for as long as there is a threat, in whatever shape or form, to our collective maritime interests."

Royal Marine boarding team embarking the tanker United Gallant





Key to UKMCC operations continues to be the Royal Navy's support of Coalition Maritime Security Operations across 2.5 million square miles of ocean East of Suez, and the UK units under UKMCC's Operational Control.

## Changing, but ever steady

THE ROYAL NAVY SUBMARINE SERVICE IN 2007

Silent, stealthy and enduring, the Royal Navy
Submarine Service continues to form a unique element of the British Armed Forces. In recent years, it has faced the dual challenges of meeting the requirements of today's regional conflicts, while maintaining a steadfast commitment to global security. RN attack submarines deploy regularly around the globe, undertaking tasks far removed from their traditional anti-submarine roles of the Cold War, while the Vanguard-class continues its custodianship of Continuous At Sea Deterrence, unbroken for nearly four decades.

circumnavigation of the globe, in which she made significant contributions to current operations in several theatres.

The RN's ability to conduct deep strike at a time and place of its choosing has also been improved during 2007 with HMS Trenchant's successful test firing of the latest variant of the Tomahawk Land Attack Missile – TacTom

 at the Atlantic Underwater Test and Evaluation Centre (AUTEC) in the Bahamas. TacTom has a significantly greater range than the current weapon and will be able to loiter in flight as well as receive targeting updates, enabling it to be used against time-sensitive targets.

Also in 2007, HMS

Tireless provided

In common

with the rest of the Royal

Navy, the Submarine Service has adapted the skills previously learned during the Cold War and is now applying them to counter global terrorism and international tension. Whereas these roles would have been challenged by the traditional submarine 'Achilles Heel' of exchanging real-time information, recent technological advances have broken this barrier down. New secure communication links and improvements in digitisation, miniaturisation and information processing have allowed RN submarines to evolve successfully into these new roles,

including maritime contributions to joint operations

in 2007 during her ground breaking nine-month

ashore. This was amply demonstrated by HMS Sceptre

HMS *Tireless* surfaced at the Arctic Ice Cap

continuing
evidence of the RN
Submarine Service's ability to operate
under the Arctic polar ice cap, though sadly the
operation was curtailed owing to the tragic loss
of two members of the ship's company, following
a minor explosion onboard. The accident reminds
us of the dedication of the special breed of people
that make up submariners, and the professionalism
they exhibit on a continuous basis and particularly in
difficult situations.

This year has also seen the successful completion of the RN's 300th deterrent patrol, and the unstinting commitment in achieving this is something of which the Submarine Service can be justifiably proud.

Work in bringing the first of a new generation of submarine to the fleet continued throughout the year with the roll-out and launch of HMS Astute and commencement of basin trials. The latter proved that the water stayed where it needed to...on the outside of the hull! More on Astute elsewhere in this Broadsheet.

This year has also seen the successful completion of the RN's 300<sup>th</sup> deterrent patrol, and the unstinting commitment in achieving this is something of which the Submarine Service can be justifiably proud. As Admiral Sir Jonathon Band, the First Sea Lord explains:

"It's very easy to forget or not mention the primary naval role (of operating the UK's strategic deterrent). We don't go on about it, but it is actually the underpinning, number one role in the Navy. If there's nothing else that I do today, it would be to worry about that."

2007 has also seen the parliamentary debate on the decision to build a replacement for the Vanguard-class, and the decision by the British government to commit



to providing the UK with an independent strategic deterrent until about the mid-21st century.

"In addition to sorting out the Astute programme, it is what I call a half-century decision," added Admiral Band. "It means that we will have a nuclear engineering capacity in this country and be able to deploy both fleet and deterrent submarines for the next 50 years."

"Next year we'll have kept this continuous at sea deterrent for 40 years – a pretty impressive achievement in terms of the people, support and equipment involved. Submariners are the unsung heroes but in the end our final strategic insurance policy for this country."



## Commando Helicopter Force

The Commando Helicopter Force (CHF) comprises a headquarters, four Naval Air Squadrons (NAS) and a Combat Service Support Squadron (CSS) based at the Royal Naval Air Station Yeovilton in Somerset. It is a combined RN/RM force that operates Sea King and Lynx helicopters. Working under the command of the Joint Helicopter Command it specialises in amphibious warfare. Over the past year, CHF has been engaged in demanding and varied operations in the searing heat of Iraq and Afghanistan, as well as training in the frozen wastes of Norway and the humid jungles of Sierra Leone.

In Iraq, the Commando Sea King Mk 4 helicopters of 845 and 846 NAS have operated from Basra International Airport for four years with the primary role of supporting the Multinational Division South

East (MNDSE) area. Regular tasking includes movement of troops, airborne surveillance, road convoy protection and insertion of personnel to establish 'vehicle control points', where searches are conducted for illegal weapon trafficking or terrorist activity. Airborne surveillance has been an especially valuable and sought-after task, with the highly capable electro-optical camera system providing an exceptionally good service to ground troops. In Basra, the NAS are also constantly on stand by to provide a rapid response to medical emergencies and to transport casualties to local army field hospitals: a capability that has saved many civilian and military lives.

In Yeovilton, the Commando Sea Kings of 848 NAS are contributing to operations by training all CHF personnel for the requirements of the front line





regardless of their rank, branch or specialisation prior to deployment. Pilots undergo Advanced Flying Training to prepare them for a variety of emergency scenarios and to fly solely with reference to instruments. They then learn how to operate aircraft in a tactical environment during their operational flying training. The squadron also trains personnel on operating in the field and has a commitment to support UK Special Forces.

In March 2007, 846 NAS returned to the UK to begin preparations for combat operations in Afghanistan and to improve aircraft and defensive systems for function in hot temperatures and at altitude. On 15 September, the Squadron took delivery of the newly upgraded Commando Sea King helicopters fitted with improved-life Carson main rotor blades, the Agusta-Westland five-bladed tail rotor, new Display Night Vision Goggles and enhanced Defensive Aids. The rotary blade enhancements significantly increase aircraft speed and

troop carrying capability at high altitude. In November, 846 NAS left the UK to take part in Operation Herrick, whilst the Lynx Mk 9 helicopters of 847 NAS were deployed to Iraq in support of Operation Telic. All four squadrons are currently engaged in conflict areas around the world. Their aircrews and maintainers have been hard pressed to maintain the high operational tempo of the past few years – not least given the harsh environmental conditions and everpresent threat from insurgents, while the helicopters themselves are inevitably suffering from sustained, hard use in unforgiving conditions. But the squadrons are sustaining very impressive work rates, and the professionalism and unquestioning commitment of CHF's RN/RM personnel continue to make an indispensable contribution to the effectiveness of UK forces deployed in both Iraq and Afghanistan.



Formed in March 2007 from elements of 800 and 801 Naval Air Squadrons, the Naval Strike Wing (NSW) is the Fleet Air Arm's front line fixed-wing capability. In line with current joint service doctrine, although the NSW is RN heavy, it also includes a small number of Royal Air Force personnel.

Following the retirement of the Sea Harrier in 2006, the Fleet Air Arm commenced operations with the Harrier GR7 and GR9 aircraft, within Joint Force Harrier (JFH) based at RAF Cottesmore. JFH provides the necessary support training and expertise for the Harrier, and acts as a parent for the UK's current three front line Harrier units: NSW, No 1 (Fighter) Sqn RAF and No IV (Army Cooperation) Sqn RAF.

The aircraft is very different from the Sea Harrier. The GR7 is considerably more advanced in construction, power plant and avionics. It has bigger wings, greater endurance, and a wider air-to-ground payload which delivers far greater capability in the strike role, albeit at the expense of an air defence capability. Its cockpit ergonomics are also a vast improvement on the old 'Sea jet'. The GR9 builds on the GR7's strengths, introducing further avionics upgrades that aid the aircraft's overall capability. The GR7 and GR9 are not fighters. The aircraft are optimised for close air support and precision strike roles and do not possess radar or an integrated long-range air-to-air capability. The unique performance characteristics of the Harrier allows continued operation from both ashore and afloat utilising existing platforms and infrastructure, and providing a bridge in capability pending the entry into service of the Joint Strike Fighter during the next decade.

NSW deployed to Afghanistan again in early October 2007. Operating from a fixed base at Kandahar Airfield (KAF), NSW contributes directly to the international air component that supports the operations of the NATO International Security Assistance Force (ISAF). The majority of sorties are within the area of Regional Command South,

with many directly supporting British Armed Forces

deployed in Helmand Province.

KAF provides a well-equipped and, given the circumstances, a surprisingly well-found base for the NSW. The excellent facilities mean that all but the most complex engineering tasks can be undertaken, supported by a robust and efficient logistics chain back to the UK.

The tasking undertaken by NSW can be very varied and is usually generated by the Combined Air Operations Centre in Al Udeid, Qatar, which coordinates the overall coalition air effort within the entire Middle East Theatre. In general, NSW is tasked with the provision of aircraft to meet a designated number of sorties per day. Standard tasking consists of close air support or tactical reconnaissance, with a number of aircraft kept at high readiness to respond to events as required by our forces on the ground. This latter role is simply termed 'ground close air support' and has been called for on many occasions to add weight to the effect of land-based operations against the Taliban in particular.

The NSW has now flown over 200 missions in Afghanistan, and deployed the complete range of



weapons available in support of ground forces. In addition to kinetic action, where bombs and rockets have actually been dropped, the GR9s have been used for numerous non-kinetic, deterrent activities, usually flying very fast and very low, and with surprisingly effective results on the will power of the baddies.

Afghanistan deployments are, of course, very serious business. Environmental conditions are harsh, and

and ground staff. KAF is also relatively exposed to insurgent threats. Nevertheless, the commitment and team spirit of NSW – along with colleagues of other services and nations – are palpably strong, and morale is high. There have been many challenges in standing up the NSW, but it is now well established, combat proven and looking forward to delivering effective air power from both land and sea into the future, while meeting the unique challenges that each environment presents.



# HMS *Ocean* tackles the drugs trade

HMS Ocean, the Royal Navy's 21,000 tonne commando helicopter carrier, was deployed for four months to West Africa and the Caribbean in 2007 to target the drugs trade in the North Atlantic. On board were Sea King Mk7 helicopters from 854 Naval Air Squadron and the Merlins of 700M Naval Air Squadron. Typically, frigates and destroyers conduct this type of role so this represented an unusual deployment for a capital ship.

HMS Ocean proved well equipped for the task of disrupting air and sea routes used by drug traders from South America and Hispaniola (Haiti), in conjunction with the US Coastguard and the UK Serious Organised Crime Agency (SOCA). Suspicious aircraft were tracked by ship's sensors and aircraft to the point at which packages were dropped for support craft to collect. The crews were apprehended and craft and goods seized. HMS Ocean netted drugs worth approximately £60 million, but success must be measured in deterrence as well as hauls and this was confirmed by a rise in the price of cocaine.

This role was certainly innovative for a helicopter carrier, which has never been used to counter the drugs trade in this way before. Despite her primary drug-busting duties, the ship was still able to get involved in joint training exercises, a defence industry day, hurricane watch and the 400th Jamestown Anniversary celebrations in Norfolk, Virginia. Moreover, it proved that counter drug activities and defence diplomacy can be carried out at the same time, not least because disrupting illegal trade remains an important subset of maritime security. HMS Ocean is now undergoing a £30 million maintenance and upgrade programme and will return to the fleet in September 2008 following extensive sea trials.







## The 'Black Duke' goes global

The Andaman Islands, Aden, Hawaii, Manila, Qingdao, Pyongtaek, Surabaya, Sydney, Wellington – just some of the places HMS Monmouth visited during a ground-breaking circumnavigation of the globe that ended in December 2007. By the end of the nine-month deployment, the Plymouth-based Type 23 frigate had sailed 40,000 miles, participated in many exercises with foreign warships and visited 28 ports in 19 countries. HMS Monmouth, or the 'Black Duke' (so named after the blacking out of the Coat of Arms of the Duke of Monmouth in 1685 following his rebellion against James II) is the seventh warship to bear the name and has 16 battle honours, more than any other ship in the Royal Navy's fleet.

Having left Devonport for the Mediterranean in February, the early stages of the deployment saw participation in NATO's Operation Active Endeavour in the Mediterranean, which is focused on deterring and interdicting illegal use of the high seas by systematically monitoring, interrogating and boarding merchant trade, local fishermen and suspect shipping. Operation Active Endeavour is one of the measures resulting from NATO's decision after 9/11 to implement Article 5 of the Washington Treaty, improving the availability and readiness of resources to engage in the campaign against terrorism. HMS Monmouth continued Maritime Security Operations (MSO) in the Arabian Sea, under the banner of the multinational naval Operation Calash. Further east, operations and exercises encompassed the Five Powers Defence Arrangements with Australia, New Zealand, Malaysia and Singapore, and re-established a Royal Navy footprint in areas that have seen the White Ensign only too rarely in recent years.



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Visits to India, Malaysia, Singapore and Brunei also provided a valuable opportunity for the ship to operate with foreign navies and support UK industry ashore, exhibiting the best of British naval technology. HMS Monmouth then hosted boarding demonstrations in Indonesia and the Philippines, displaying to these nations the Royal Navy's ability to carry out the sharp end of MSO.



#### Despite the exceptional ninemonth deployment, crew morale remained high

In a diverse and challenging deployment, notable achievements included being the first major

British or American warship to visit Aden since the terrorist attack on the USS Cole in 2000, and, in March, the ship's Merlin helicopter 'Blackbird' rescued five people from a cargo ship foundering in gale force winds near Greece.

After an impressively productive two months in Australia and New Zealand, HMS Monmouth visited Japan, China and South Korea, and exercised with the US Seventh Fleet, Chinese North Seas Fleet and

Korean Second Fleet. During a final visit in the Far East, the ship was the key participant in a high-profile international Proliferation Security Initiative exercise in Tokyo Bay, demonstrating the Royal Navy's MSO and boarding capability to the world's media.

The Black Duke's long homeward journey included crossing the Pacific Ocean, a stop in San Diego and the transit of the Panama Canal. There was time for a final visit to Antigua before the return trans-Atlantic leg and a UK homecoming in time for Christmas.

This was a highly valuable and significant deployment that reflected extremely well on the endurance and resilience of both ship and crew. Current operational tasks around the world have placed a very high demand on the fleet, and there was no option but to send a single ship, without dedicated tanker support, to service the global defence relationships that are so vital to the RN and the UK's wider security interests. Despite the exceptional nine-month deployment, crew morale remained high throughout and the ship was able to meet every task she was set – a tribute to the durability of the Type 23 frigate and the quality of UK logistic support provided en-route. This was no 'jolly', but certainly served as a reminder of how much is achieved by maintaining an RN presence – even if far less frequently than in the past - in far-flung parts of the world.





## People – still our most important asset

"Any endeavour that only looks to the present will fail in the future. So we must make sure that the right people are available in the years to come."

In last year's Broadsheet, the Second Sea Lord discussed his vision for naval personnel in his article, 'Intent for Naval Service Personnel'. This intent - delivering the right teams with the right people, with the right skills; in the right place and at the right time - remains firmly in our minds as we try to balance operational demands with individual aspirations, while recognising the wider needs of the nation. We must make improvements: changes are being driven through dedicated work and with the full involvement of our people. Some of the biggest change initiatives are featured here and in separate articles on the Navy Board's Personnel Change Programme, Project Fisher, the Integrated Recruitment and Retention project, Naval Training and Bringing the Navy to the Regions.

#### **Operations**

Our people are the single most vital contributors to providing naval operational capability and they support operations with a huge range of skills. Earlier articles have already highlighted the work our people are doing all around the world, including in the South Atlantic, Caribbean, Pacific, Indian Ocean, the Gulf and the Far East. We continue to contribute in the key operational theatres, with between 1,000-3,000 personnel routinely deployed on hard-edged operations, including providing up to 55 per cent of all UK service personnel in Afghanistan. Increasingly, we are also providing additional augmentees to land operations: more than 300 in August 2007. We can expect this commitment to rise steadily over the next 12 months and beyond. In addition to the Royal Marines Reserve, it is perhaps less well known that the Royal Naval Reserve (RNR)

also has a significant role with typically over 40 RNR personnel being mobilised at any one time in Iraq, Afghanistan and elsewhere in support of global counter-terrorism.

#### Operational pinch points and critical manning constraints

Important work is under way in areas where manning is fragile, threatens operational capability or impinges on individual Personnel Functional Standards and harmony. Operational pinch points exist widely in all arms of the Royal Navy and in the Royal Marines, and we are investigating or implementing a range of measures to reduce their impact. These include increasing the numbers of trainees joining the Trained Strength, granting Extensions of Service and implementing Financial Retention Initiatives and targeted "golden hello" bonuses: the key is to incentivise our skilled, experienced people to serve for longer, as well as improving on our recruiting performance.

#### Our operating environment

We work not only in a tri-Service and multinational environment, but also must take full account of wider societal changes in the UK. In tandem with this, we must take account of rapid advances in technology. Smaller numbers of more powerful and technologically advanced ships require a much greater proportion of skilled personnel, not only in equipment operation but also maintenance and defect repair. This generally translates into fewer junior rates and more senior rates than in the past, with an inevitable knock-on effect on sustainable branch structures.



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#### The moral component and the Dark Blue Line

We are giving renewed emphasis to leadership and moral courage. The Dark Blue Line (DBL) project pulls together issues on command, leadership and management (CLM) at all levels, encouraging greater understanding of naval ethos, core values and warrior spirit. Leaflets have been issued on 'RN Ethos – The Spirit to Fight and Win' and the 'Naval Service Core Values'. A number of measures implemented in 2007 have already had an effect. These include identifying Unit CLM champions, and amalgamating the Command Training Group at Collingwood with the Leadership School at BRNC Dartmouth to form the Royal Naval Leadership Academy; this will improve and sustain leadership training for all RN personnel throughout their careers. This additional training and leadership development will eventually extend to all layers of the naval service.

#### **Equality and diversity**

Our equality and diversity work is very much alive, as headlined in last year's edition of *Broadsheet*. We are determined to support our people and treat them as individuals; putting them and their families at the heart of our policies and actions, which must be fair, free from discrimination and recognise diversity. The Commission for Racial Equality and the Equal Opportunities Commission are working closely with us to ensure the inclusiveness of our policies and, more importantly, the effect of those policies 'on the ground'.

#### Recruitment

This is where it all starts for our people and, supplementing the Integrated Recruitment and Retention project (see the separate article in this *Broadsheet*), we are pursuing many other initiatives. These include working more actively with ethnic communities, local groups, schools and community centres to demonstrate the

opportunities available in the naval service. Additionally, the new-look Royal Navy recruiting website with an embedded, interactive RM site is attracting more visitors each day. The naval 'viral campaign' is a world first in utilising video interactive messaging from computer to mobile phone and has had unprecedented success in reaching 16-24 year olds. Many of you will have seen our cinema advertising, but work is also underway in other areas such as empowering 'active veterans' to speak with our target audience and demonstrate that an RN/RM career can be a fantastic springboard for a successful second career. We are also working with the Football Association, Rugby Football Union and Amateur Boxing Association to promote naval careers opportunities.

The recent award of a combined 'outreach' contract with Defence Public Relations (Navy) has for the first time provided a coherent approach to our engagement with the public.

#### Remuneration

Underpinning all of this work is the remuneration package we offer our personnel. We need to ensure there is an appropriate and affordable package that supports recruitment and retention, and maintains an attractive standard of living for service personnel. We also need to develop an improved pay and allowance structure that offers sufficient flexibility to enable us to reward skill as well as rank. To this end, the Strategic Remuneration Review was initiated in late 2005 to examine the Services' remuneration package. It is currently focused on assisting service personnel to get onto the property ladder, but other work strands include basic pay, incentives, and mobility and location allowances. Refined proposals are being prepared for the Defence Management Board to consider in February 2008, with the outcome to be delivered over the next two years.



Engaging personnel through change

The Navy Board Personnel Change Programme (NBPCP), owned and directed by the Navy Board, provides the means of ensuring that the many strands of change in our personnel policies are kept coherent and in step with each other. In 2007, Branch Development, the Service Police Review and the Engineer Officer of the Future study were all completed. By the end of 2007, six separate projects remained in the NBPCP, with a number of new projects expected to be identified by Project Fisher (see separate article in this Broadsheet).

The Integrated Recruitment and Retention strategy is explained in a later article, and our work on the moral component and the Dark Blue Line was outlined in the main article on Personnel. A brief description of the four other projects currently in the NBPCP follows below, illustrating the wide range of programmes that are addressing the need for change.

Naval Aviation – This project aims to ensure the required number of naval personnel, with the right skills to support all aspects of operating aircraft from the sea, will be available when the first new carrier (CVF), HMS Queen Elizabeth, enters RN service in Oct 2014. The project therefore looks at aircrew recruitment as well as identifying the organisation, competences and mechanisms required to provide the aviation-related personnel required for CVF. It involves a close-working relationship between the MoD, naval staff and relevant commercial experts through the Aircraft Carrier Alliance<sup>1</sup>.

Evolved RFA (Project Darwin) – This focuses on delivering coherent seagoing logistic support with improved capability, financial efficiencies and, importantly, bringing the Royal Fleet Auxiliary (RFA) and RN closer in terms of practice, training and ethos, drawing together the best of both Services. It aims to improve flexibility and effectiveness by amalgamating the current RFA Supply and Stores/Transport functions to make logistic training and governance common to both the RN and RFA.



**Reserves Integration** – This project addresses the relationship between the naval regular and reserve forces. It will propose developments in management and organisational structures so that the Naval Reserves continue to play a meaningful part in an evolving navy. As an example, work is in hand to align the RNR branches to the RN in order to increase interoperability and the utility of our reservists. The project will also suggest ways of improving the twoway flow of personnel between regular and reserve service to allow for greater life/career flexibility. Changes have already been made to the uniforms of RNR officers and ratings deployed on operations to reflect their closer integration; officers no longer wear the 'R' in the Executive Curl and ratings' shoulder insignia have been removed, making reservists visually indistinguishable from their regular counterparts.



#### **Lateral Recruitment**

 A feasibility study considering the direct entry of recruits into 'leading hand' or 'senior rate' positions depending on prior experience and qualifications. It is not without precedent; the US has conducted research in this area and the French Navy 'Maistrance' programme selects recruits for their aptitude and then accelerates them through the training system to join the trained strength as Leading Hands. We must similarly examine whether this could help ease gaps and instability in some of our branches at those levels, to improve the overall resilience of our manpower structure.



## FOST — Changing times for naval training

These are demanding but exciting times for Flag Officer Sea Training (FOST), who took all forms of naval training under a single command on 15 May 2007. FOST is now directly responsible for all sea and shore-based training, commanding some 4,000 service personnel and 500 civil servants, and responding more effectively to the needs of front-line operations through delivery of coherent, end-to-end instruction.

FOST aims to qualify more Phase 1 and 2 trainers by April 2008 to the new standards recommended by the Adult Learning Inspectorate (ALI). A mobile 'Train the Trainer' team will provide Naval Reserves with the same quality of training. The ALI Report and the Chief Inspector of Adult Learning for England have welcomed the improved management of firearms and ammunition, the greater involvement of families in transition from civilian to military life, and the inclusion of welfare and risk management as integral parts of initial selection and training.

FOST is committed to education, lifelong learning and the personal development of naval personnel, ensuring they have the knowledge and skills necessary to meet current and future operational challenges. Service training and education is increasingly being aligned with civilian awards and accreditation – over the last 12 months naval personnel have completed over 15,000 Civilian Awards in Basic Skills, NVQs, GCSEs, A Levels, Leadership Awards, City and Guilds Awards, and undergraduate and postgraduate degrees.

A new Naval Education and Training Service (NETS) was formed by merging the Base Education Centres, Waterfront Learning Centres and Fleet Education and Development Officers. NETS provides a single, coherent organisation, promoting, sustaining and delivering personal and professional development through Basic Skills Tutors and Learndirect courses. FOST also receives funding from the Learning and Skills Council to provide around 2,000 apprenticeship frameworks each year.

FOST continues to support young people through uniformed youth organisations, including the Sea Cadets, the Combined Cadet Force and the RN-recognised Scout Units. On 1 May 2007 a new Memorandum of Understanding between the Ministry of Defence and the Marine Society and Sea Cadets was signed, heralding a new era of co-operation and support. The Youth Training Directorate is also engaging with young people in other organisations, developing projects with youth inclusion charities such as The Football Foundation, Centrepoint and Women in Science, Engineering and Construction.

By identifying and implementing best practice, FOST is delivering relevant and timely training, while revisiting values and standards as part of its approach to honing the fighting edge. Training programmes are underway to prepare naval personnel for new vessels like the Daring-class destroyers, Astute-class submarines and the recently announced Queen Elizabeth-class aircraft carriers. It is internationally recognised that FOST continues to offer world-class defence training and assessment facilities, as demonstrated by the number of foreign navies (approximately 25) that send their ships to train under FOST; the portfolio includes Dutch, Germans, Greeks, Portuguese and South Africans. Many more nations want this training. As such, FOST instruction provides a key instrument in the UK's defence diplomacy mission, helping to support alliances, build maritime capability, aid interoperability and promote British influence abroad. In all of these areas, FOST benefits from its close relationship with its business partner, Flagship Training Ltd.







# Project Fisher tackles the difficult issues

There is no doubt that our people are busy and working hard at present and, in a number of areas, our personnel system is heavily stretched. However, there are also a number of personnel challenges related to the size and shape of the future Royal Navy and the types of people and skills it will require. These issues threaten our long-term sustainability. Put simply, if we don't act now, we may not have the people we need in ten years' time. In response to this, after a wide ranging strategic look ahead, the Navy Board initiated a project, now named Project Fisher, to tackle these difficult issues. Led at 1 star level and reporting directly to 2SL, a multi-disciplinary project team was formed in July 2007, comprising 14 officers and senior rates. In many ways, Project Fisher is a natural progression from TOPMAST (Junior Rate Squad Manning) and more recent Branch Development initiatives.

At the heart of the matter is the way ships and other front-line units are manned. Greater flexibility, agility and responsiveness will all be key in the future if we are to get the best of our ships and people. As observed recently by the First Sea Lord, our ships "will stay at sea longer than even the keenest person in the Navy will want to stay at sea. So we're going to have to do something like Merchant Navy manning or some form of rolling of watches. The old principle of one ship, one ship's company, I don't think will fit the whole Navy into the future because I just don't think we will get the use out of the Navy that the capital asset allows us to do". These are the challenges that Project Fisher is seeking to resolve: increased operational tempo; potentially longer deployments; but balanced with making sure people have quality time to recover between operational deployments, the opportunity to plan their lives, family stability, and time to prepare fully for the next tour of duty.

During a widely consultative concept phase, the Fisher team has examined a variety of manning regimes ranging from the extension of existing squadding arrangements, through the provision of additional watches, to a range of more innovative manning options. As a fundamental principle, these all treat people as the most important factor, wherever possible employing them rigorously to support either operational outcomes, professional/personal/team development, or gaining quality personal/family respite. Improving retention will be critical, and generating a rewarding career experience, including the right balance between personal and professional life, is a major focus of the project.

Full assessment of the manning concepts identified by Project Fisher commenced in January 2008. There is unlikely to be a single answer – rather a mosaic of solutions that reflects the differing aspects of the fleet, all of which will be very carefully trialed and evaluated before being considered for final implementation. In the words of the First Sea Lord, "There is no 'quick fix' to how we could best man the front line over the next few years. It is likely to be a progressive and evolutionary roll-out of a number of manning regimes to meet a number of manning and capability requirements – 'one size will not fit all'."



## People *are* the Service

The Royal Navy still suffers from manning imbalance (the Black Hole) caused by the mid-90s recruiting pause, although we expect to be broadly in balance within the next few years. Some branches, however, have significant, long-term shortages. One thing is clear – undesirable levels of notice-giving make the situation worse. We are therefore implementing an Integrated Recruitment and Retention strategy. There are two key elements to this.

## Recruiting

The first is to refine further our recruiting strategy and focus on those with the aptitude and attitude to progress quickly and remain in the Royal Navy long enough to reach Leading Hand/Corporal or Petty Officer/Sergeant. The aim is to identify the individual and group characteristics likely to lead to longer service and use these in recruit testing and marketing respectively. This will feature in our targets for the quality as well as quantity of newly-trained personnel. The intention is to shift the focus from potential recruits' ability to complete training to their likelihood (based on reasonable evidence) of serving long enough and progressing far enough to meet the wider Service need.

### Retention

The second element is an increased strategic focus on retention. Recognising that our trained and experienced people are extremely valuable to us, we must adopt an 'internal recruitment' mindset – to retain a 12-year length of service (LOS) sailor/marine, we must 'recruit' an 11-year LOS sailor/marine to serve another year.

## The integrated approach

Increasing recruitment and retention can benefit from an integrated approach, underpinned by a number of supporting strategies. The most important of these is increasing the understanding of the psychological contract (the unwritten set of mutual expectations) between the serving individual and the Service. We need to be better at establishing, delivering and sustaining this psychological contract; to do so, we must increase its understanding, improve our ability to measure its delivery and, most importantly, we must provide the resources to maintain it.

Another supporting strategy will be to build a strong employer brand to improve consistency in marketing the naval life package to civilians we seek to recruit, to the sailors/marines we seek to retain and to others whom we seek to influence. We will adopt a total reward approach (remuneration, job satisfaction, career development/training and work-life balance) so that the full benefit of serving in the RN/RM is appreciated. We expect maternity support and childcare issues to be a key focus within this strategy in order to reduce the disparity between the length of time men and women remain in the forces and to make the Naval Service more attractive to the female recruit pool.

The scoping and feasibility phase completes in early 2008, with main work packages being developed by Summer 2009 to support investment decisions in Planning Round 2010.

This project is not about retaining people who want to leave: it is about attracting the right people; then sustaining and supporting them so that they will want to stay.

## Bringing the Royal Navy to the regions



Royal Navy Presentation Team

Four new regional Royal Navy Headquarters (RNHQs) are playing a central role in developing greater public awareness and understanding of the Royal Navy's range of tasks in support of the UK. Launched in April this year under the command of Flag Officer Scotland, North of England and Northern Ireland (FOSNNI), the four HQs are based in Liverpool, Bristol, London and Rosyth.

Together, these new HQs aim to improve the coordination and efficiency of naval activity across their respective regions by bringing together the endeavours of the Naval Regional Commanders, the Naval Recruiting Field Force (based largely in Armed Forces careers offices nationwide), and the local Royal Naval Reserve and Royal Marines Reserve units.

Initially forged by blending the former naval regional officer and recruiting staffs, they have been augmented by newly formed Joint Support Units. In addition to integrating naval recruiting, representation, maritime reserves and cadet forces, the HQs are making an operational contribution to UK military operations. A key 'quick win' was the establishment of operations rooms as the focal points within the HQ's. These galvanise the HQ's corporate knowledge, specialist experience and mutual understanding to drive regional priorities and activities.

A particular area of success is the greater use of visiting vessels to support recruiting activities, where the vessels host visits by potential recruits to provide an essential taste of life on board a warship. During

any particular visit the ship may also host receptions and presentations to which influential people and groups are invited so they can better understand the Royal Navy's vital work around the globe in support of the UK. This is all about maximising and synchronising the impact of scarce resources – and it is already delivering real success.

The RNHQs' contribution to UK military operations has also been improved by extending the role of the Commanding Officer of a Royal Marines Reserve unit in each region to include contribution to UK Resilience, supported by an RN regional liaison officer. This structure is designed to provide a first response from the Royal Navy to the civil powers in times of emergency or crisis.

The regional teams are also better co-ordinating their work with the Royal Navy Presentation Team by enabling them to meet and influence key local target audiences, including representatives of local authorities, businesses, teachers, careers officers and employers of reservists.

Looking to the future, each regional HQ will soon complete its own Rapid Improvement Event as its contribution to the Fleet Top Level Budget's ongoing transformation process, and the Maritime Reserve Units will be further integrated into the Joint Support Units. The aim is that each HQ will also look to create its own opportunities for outreach and Royal Navy in the Public Eye to bring the RN message to their local communities in a way that is most effective to local needs.

## Sport and adventurous training

Sport and adventurous training continue to contribute to the operational capability of the Royal Navy through fitness, engendering team spirit, developing the competitive edge and improving morale. Yet again, this year, naval adventurers and sports men and women have performed at all levels from novice to world class.



# Equipment Capability Customer (ECC) and Through Life Management

It is worth starting any article about the Equipment Capability Customer (ECC) by making it clear that the ECC does not buy 'kit'. There are others in defence who do that. The ECC establishes, maintains and develops the necessary capabilities to ensure that HM Government's military effects are delivered in a timely and cost effective manner.

Addressing this constantly changing challenge demands a philosophy that embraces all of the Defence 'Lines of Development' (Training, Equipment, Personnel, Information, Concepts and Doctrine, Organisation, Infrastructure, Logistics). The ECC aims to achieve a balance between delivering equipment to UK forces, to time and cost, and remaining ahead of the ever developing capabilities of our nation's enemies and potential enemies; it is an interesting balancing act. The department is often publicly criticised for changing its requirements, but whenever an opponent or likely opponent improves their military capability, we must of course react appropriately.

It has become increasingly evident that if defence is to have the equipment that is both of high quality and affordable, then we must be able to work and cooperate more effectively with the industries, inventors and innovators who supply us. In order to manage these relationships better, the department has developed, and is continuing to develop, the concept of Through Life Capability Management (TLCM). Along with this, it has established MOD as a 'single, unified customer'. The TLCM approach to acquisition is one where every aspect of new as well as existing military capability is planned

and managed coherently from cradle to grave, taking a comprehensive view. Fundamental to such an approach is a greater understanding between the various parties of the pressures each of them is under, along with an acceptance that each needs to be successful in their endeavours. Mutual respect and clear communication play an important part here. New kit is more often than not needed as part of a capability continuum when the in service equipment becomes obsolescent. Considering capability in this way incentivises the ECC to consider improving delivery by investing in other lines of development other than procurement. Updates and upgrades can keep capability at a high level, whilst also smoothing the orders and loading placed with our industrial partners.

There have been a number of instances of improved practice over the last few years, which show both how difficult defence procurement can be and why such huge effort has been put into reinforcing the need for all parties to 'communicate, communicate and communicate'. The Astute-class submarine project went through a very difficult period between 2001 and 2004, with high profile media coverage of budgetary overspends and project delay. Many of the risks associated with the project were not anticipated because, amongst other reasons, there was an eleven year gap between managing the Astute and the previous Vanguard-class, and many lessons of design and production had been forgotten. The recovery, which has generated a far greater level of communication and mutual trust, has the programme back up and running to a tight revised time and cost programme.



This revised, more agile approach will not stop at the structural aspects of capability delivery. With the wave of software driven solutions now available, for example, defence no longer needs to be tied to bespoke computer equipments, where a piece of kit can only perform a single task. The development of an open systems architecture approach to our various computer needs, where programmes run on commercially available hardware using widely used (and readily available) languages, protocols and formats, allows easy upgrade of both software and hardware when necessary. This approach also allows the inclusion of specialist functionality from non-standard suppliers as and when it is needed.

As the delivery of defence capability becomes more flexible, the number of equipment types can also be reduced, easing the pressure across all of the Defence Lines of Development (training, infrastructure, logistics and organisation are obvious examples). Such development is of course fully coherent with

the intrinsic flexibility of warships which have always been capable of delivering a wide range of effects from a single platform.

In this regard, it is especially appropriate that the Navy's Future Combatant project should be in the vanguard of the Through Life Capability Management approach to procurement and support. These ships, which are planned to carry forward from late in the next decade many of the capabilities currently vested in our frigates, patrol craft, mine countermeasures and hydrographic vessels, have been conceived from the outset within the context of TLCM. Industrial partners were integrated into the very first stages of the programme's Concept phase, and good progress is being made towards a class of warships which, by exploiting maximum commonality of hulls and equipment, flexibility of design, and deliberate provision for throughlife support and upgrade, should deliver both affordability and much better value for our increasingly scarce money.

## Changes to Maritime Support and Capability

The following article is based on an interview with Vice Admiral Trevor Soar who carries the titles Chief of Material (Fleet) and Chief of Fleet Support. He is the Royal Navy's senior representative in Defence Equipment and Support (DE&S), the organisation which was formed in April 2007 following the merger of the Defence Logistics Organisation and the Defence Procurement Agency.

I think it wise if I start by setting the scene before moving onto what I do within this new organisation. In doing so I should mention the events that, as part of the Defence Acquisition Change Programme (DACP), led to the formation of DE&S in April 2007. To recap: you will undoubtedly recall the Defence Industrial Strategy (DIS), published in December 2005, provided a route map for continued acquisition reform within UK defence. In essence, the DACP set out to identify and deliver the internal structure, organisational process, culture and behavioural change required to facilitate sound Through Life Capability Management (TLCM). It built upon the success of previous acquisition reform programmes, in particular Smart Aguistion, to deliver better, more cost effective and timely capability to our Armed Forces. The Enabling Acquisition Change (EAC) study, which also cascaded from DIS and is being progressed in parallel with DACP, recommended the merger of the Defence Procurement Agency and Defence Logistics Organisation into a single organisation, the DE&S.

As an organisation, DE&S aims to provide outstanding support to operations and inspire front-line confidence in its equipment, support and logistics. It continuously strives to be agile in output and delivery, responding effectively to evolving threats and technological opportunities. To achieve all of this it has to be commercially

astute and key to this is the transformation of its business relationship with the UK Defence Industrial Base.

As a business in its own right, DE&S has some 65 locations across the UK and abroad. It employs 29,000 staff and has an annual spend of £16 billion, which equates to 43 per cent of the Defence budget. During the year the priorities have been to develop a stronger operational focus, whilst migrating from the old DPA/DLO construct to that of DE&S. Looking further ahead the organisation is embracing project PACE, which is aimed at delivering improvements in Performance, Agility, Confidence, Efficiency, and the establishment of a truly through life approach to acquisition. All this is underway against the backdrop of increasing financial and operational pressure, as well as streamlining, the exercise to reduce numbers within the MoD Headquarters. Together, these initiatives will create a more effective business, deliver better performance on operations and improve the value for money for the taxpaying public.

My job within DE&S is about setting the right conditions for others to succeed and my aim is to ensure that DE&S Maritime outputs are delivered in a coherent and cost effective way. In my role I have a unique overview of the MoD Unified Customer role through membership of various Boards including the DE&S, Admiralty, Fleet Executive and Enhanced Joint Capabilities. I also have responsibility for oversight of the three Naval Bases and the Defence Logistics Transformation Programme.

A significant challenge for defence is the seemingly incessant rise in the cost of support. Fixed costs are consuming a disproportionate amount of our equipment and support budget and are forecast to increase over the next few



years. This is very much an unwanted overhead which can impact our ability to become more agile in delivery, so I am exploring ways of unlocking these costs.

Intrinsically linked to the rise in the material cost of equipment is the underlying rate of defence inflation which is somewhat above the advertised and can be dependent upon project type and its stage in the acquisition cycle. This is a difficult issue to deal with as it is driven by a number of pressures which include the unwillingness of industry to accept a proportion of risk. This issue is attracting much debate but is fundamental to understanding the true through life costs of our new and legacy equipment.

An associated issue which we are working hard to improve upon is the length of time it takes to deliver our equipment upgrades and new projects. At present this is far too long and results in increasing project cost. Part of the solution lies in defining our long-term need and creating a more transparent and balanced relationship with our industrial partners. Industry in turn is responding to these change initiatives and defence companies have been rethinking the way they do their business and in particular partnerships and alliances with the MoD.

Because of the number of diverse maritime initiatives, I have formed a governance and oversight structure within DE&S called the



Maritime Change Programme (MCP), which is a Stakeholder Board chaired by myself. It assures coherence across a range of DE&S initiatives linking, where appropriate, to the other defence change initiatives in Fleet, within our manpower structure and in the MoD Headquarters. Board membership includes those directly responsible for change initiatives including the BAES/VT Joint Venture (JV), the purchase of Devonport by Babcock Marine and Naval Base Implementation along with those from the wider Defence Maritime Community including the Capability Manager (Precision Attack), Assistant Chief of the Naval Staff and Fleet's Chief of Staff Capability.

All this work is being carried out within a framework called the Maritime Support Principles. These define a principal direction of travel for all such initiatives to ensure that those engaged on maritime transformation can apply a common set of principles which underpin the department's intent. From discussions with industry it is clear that this

approach meets some of their concerns on making sure we are driving change in a joinedup and coherent manner.

The challenge I now offer to the UK defence industry is to jointly develop an enduring maritime enterprise, commensurate with DIS that delivers affordable, sustainable and efficient maritime build, equipment and through life support to meet the operational needs of the Royal Navy today and in the future.

In doing this I have made it clear that the long term sustainability of a healthy, efficient and value for money business arrangement requires a move away from a philosophy based primarily on turnover to one where profit is based on performance.

As we enter 2008, I see we are very much on the cusp of delivering this challenge, the delivery of which is absolutely essential if we are going to deliver affordable support, through-life, to the Royal Navy.



## Carrier Strike

"There is no more pivotal project than this in Defence today."

Minister for Defence Procurement - Royal United Services Institute, 18 September 2006



What's in a name? Actually, more than some people might expect, since Carrier Strike is not just about future embarked aviation; it is about our national capability to strike with global reach, at a time and place of the government's choosing. Combining the weight of the Fleet Air Arm and RAF's future strike capability with an aircraft carrier that provides flexibility, mobility and real clout, this is truly Joint Effect.

It is a key component in the continuing shift towards expeditionary forces as envisaged in the 1998 Strategic Defence Review and the 2003 Defence White Paper 'Delivering Security in a Changing World'. The 2004 'Future Capabilities' White Paper built on that vision, with a premium on the deployability and sustainability of our forces, strengthening the focus on Carrier Strike.

Carrier Strike is based on the Joint Combat Aircraft (JCA), two new aircraft carriers and associated enablers, including support vessels in the Military Afloat Reach

With a target total procurement cost of some £3.6 billion, HMS *Queen Elizabeth* and HMS *Prince of Wales* are expected to enter service in 2014 and 2016.

and Sustainability programme, and the Maritime Airborne Surveillance and Control system. The total package will provide a fast jet capability for expeditionary operations, where access, basing and overflight cannot be guaranteed. It will fuse the inherent strengths of air and sea power, delivering offensive air effort from land or from sea with weight and precision, in the most demanding of combat environments.

Central to Carrier Strike is the JCA requirement, for which the US-designed Joint Strike Fighter (JSF) and

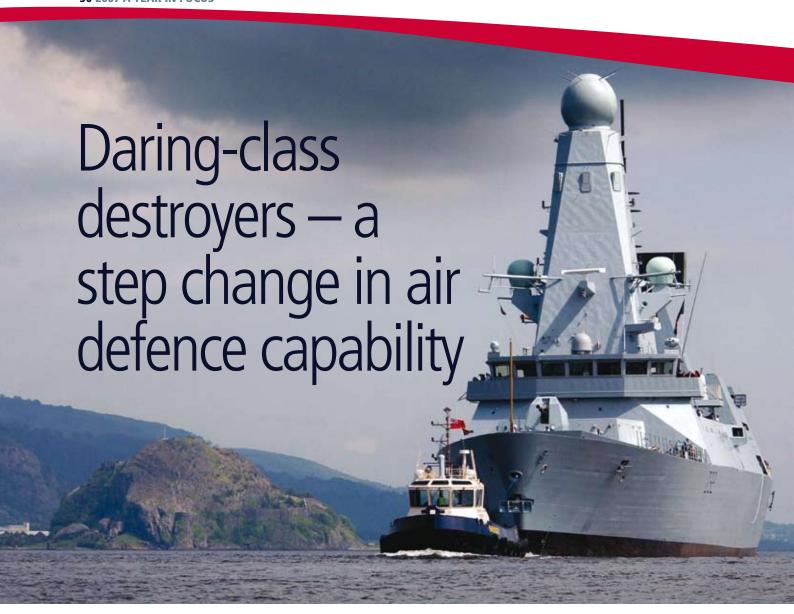


its Short Take-Off and Landing (STOVL) variant is the preferred solution for the UK. This supersonic, stealthy, '5<sup>th</sup> generation' aircraft will provide longrange precision strike, along with a potent air combat capability that will restore the carrier-borne air defence that was lost to the UK when the Sea Harrier was paid off in 2006. The JSF development phase continues to progress satisfactorily, and the flight test programme is well underway with the 'lead' Conventional Take-Off and Landing (United States Air Force) variant. The first flight for the STOVL is expected in May 2008. Depending on the number of aircraft required, the JCA procurement cost for the UK is likely to be up to £10 billion.

The government's announcement on 25 July 2007 to commit to the manufacture of two aircraft carriers was a significant stepping stone towards achieving the Carrier Strike capability. These will be the largest warships ever built for the Royal Navy. With a target total procurement cost of some £3.6 billion, HMS *Queen Elizabeth* and HMS *Prince of Wales* are

expected to enter service in 2014 and 2016. Each carrier is three times the size of the Invincible-class ships they will replace, with HMS Ark Royal and HMS *Illustrious* being withdrawn as the new ships enter service. As an indicator of how technology has advanced, the new carriers will have smaller crews than Ark Royal and Illustrious, despite their increase in the ships' size, complexity and capability. Although they will enter service fitted for STOVL operations, the carrier design will allow for a shift to conventional catapult-and-arrester flight operations, should this be required during the carriers' service life. With the ability to operate up to 36 JSF fast jets, along with other, rotary-wing aircraft, the carriers will be able to deploy a significantly larger and highly versatile Joint Strike Force. Pending arrival of the JCA, the new carriers will also be able to operate GR9 aircraft from the RAF/RN Joint Force Harrier.

Carrier Strike – a joint capability that will meet the challenges of the future with flexible, expeditionary offensive air power from the sea.



This year has seen the launch of a further two Daringclass destroyers, HMS *Dauntless* and HMS *Diamond*. The first of class, HMS *Daring*, has successfully completed her initial manoeuvrability sea trials, achieving a top speed of 31.5 knots that was beyond all expectations. Three more ships, HMS *Dragon*, HMS *Defender and* HMS *Duncan* are at various stages of construction, with *Dragon's* launch scheduled for November 2008. There are plans for a further two ships to complete an overall class of eight.

The hulls have been built in blocks, with the bow section and masts being completed by VT Shipbuilding in Portsmouth and the remaining blocks by the prime contractor, BAE Systems on the Clyde. This concept firmly supports the Defence Industrial Strategy, and the overall deal is worth more than £6 billion.

Over 150m long and displacing 7,000 tonnes, the ships are much larger than the Type 42 destroyers they replace. They will also be much more capable and,

while their primary role will be to escort and defend our carrier and amphibious task groups against air attack, they will fulfil a wide range of defence needs, integrating powerfully into the joint battlespace.

The destroyers' principal armament is the worldbeating Principal Anti Air Missile System (PAAMS), incorporating the Aster missile and UK-designed Samson tracking and fire control radar. This will enable the Darings to engage several demanding targets simultaneously, providing area defence against the most sophisticated modern airborne threats. The ships are also equipped with a 4.5 inch medium-calibre gun for shore bombardment, and will normally operate either a Merlin or Lynx helicopter. A hull-mounted sonar is fitted for anti-submarine detection. They have planning and domestic facilities for up to 60 embarked troops or Special Forces and – especially important - can operate a Chinook-size helicopter from the flight deck. The ships can also control and direct aircraft over a wide area for both attack and defence. An efficient,



mess area, while senior rates will be in single or twoberth cabins and officers will have single cabins.

HMS Daring is planned to join the fleet in 2009, and will provide a step change in maritime capability. These will be enormously valuable ships within the Royal Navy's order of battle, and will be indispensable to the future Navy's ability to fight and win. There is, however, no denying that this has been a very costly programme, with numerous delays and hurdles caused by the technical and financial risks associated with working with such advanced technology. It is a tribute to both UK industry and the Ministry of Defence that the programme is now delivering a product of such obvious and impressive quality. Equally, though, we need to learn the lessons that will better serve the need for more affordable warships in future, to sustain a balanced Fleet of sufficient numbers of hulls to meet all of the Navy's mandated operational tasks in both peace and war.

agile, all-electric propulsion system replaces the traditional power-plant and gearbox arrangement, and improvements in fuel economy give the class a range of 7,000 nautical miles. This compares very favourably with the Type 42 destroyers, with their range of 4,000 nautical miles. The Daring hull is designed for stealth, with canted sides and superstructure, very smooth lines and featuring large boat bays on both sides, which are closed off with conformal shutters. A further, very attractive feature of the design is that there is considerable space both above and between decks for future capability growth, offering real prospects for the through-life development and enhancement of the ships' fighting power and their overall utility to defence.

Life for the 190 men and women on board will be exciting and challenging. It will also be more comfortable, with the size of the hull allowing for a much higher standard of accommodation for all. Junior rates will have six-berth cabins with a separate



## Astute — A class of her own



The Astute programme continues to gather exciting momentum following the successful launch of the First of Class at Barrow-in-Furness in June 2007. *Astute* has since undergone a number of trials, including a successful trim and basin dive and the test firing of dummy weapons. Now returned to the Devonshire Dock Hall for reactor fuelling and final fitting-out work, Astute will enter service with the Royal Navy in 2009 and will be based at HM Naval Base Clyde.

Meanwhile, the build programmes for *Ambush* and *Artful*, the second and third of class, are progressing well and they are planned to enter service in 2010 and 2012 respectively. In May 2007, the order was placed to start initial construction work of the fourth of class, *Audacious*, which is due to enter service in 2015.

'Fuelled for life', the Astute-class will be the most technologically advanced attack submarines ever operated by the Royal Navy. Equipped with the highly capable Sonar 2076 system, which has been proven at sea in the Swiftsure and Trafalgar-class Update programme, and fitted with greatly improved communication systems for better support to joint operations, they will have a much greater weapon load capacity (6 tubes and 36 stowages)

and will be armed with Spearfish heavyweight torpedoes and the latest variant of the Tomahawk Land Attack Missile, TacTom, which is able to strike targets with astonishing precision over 1,000km away. Furthermore, traditional periscopes have been replaced by non-hull penetrating 'optronic' masts, which are able to transmit images to multiple screens simultaneously throughout the submarine. Progress has also been made with habitability – each member of the ship's company will now get their own bunk, with a few to spare for riders, consigning so-called 'hot-bunking' to the history books. That said, the accommodation spaces will inevitably remain very tight – a feature of submariners' lives that is unlikely to change much in the foreseeable future.

With a construction and trials programme extending to around 2019, the design of the Astute-class cannot stand still, and better joint working between industry and the MoD is continuing to develop simplified systems, incorporating commercial off-the-shelf equipment and improved construction techniques. This ongoing work is essential to ensure that the SSN capability is delivered at an affordable cost, while also refining the UK's submarine design and build capability in readiness to support the Successor



## Royal Marines Armoured Support Group

THE VIKINGS ARE COMING...



Viking, the Royal Marines' new all-terrain vehicle, has provided a significant increase in capability in the Brigade's ability to move around the battlefield in Afghanistan, including a degree of protection against land mines and enemy fire. Rarely have Royal Marines been so well equipped, and it has significantly increased the operational success delivered to coalition forces in Helmand.



Having taken delivery of 108 Vikings from Sweden in 2005, the Royal Marines has now established the organisation and framework required to support the deployment of this new capability on operations. The Viking consists of two linked, tracked vehicle units, which can carry up to eight fully-armed Royal Marine Commandos. It is equipped with the Bowman secure communications system, and individual vehicles can be modified to perform specific tasks, including command, recovery or troop carrying. The vehicle can reach speeds of 55 mph, negotiate some of the most arduous terrain on earth and, on top of all that, swim across rivers or through the sea up to a sea state 2. It can be deployed quickly from amphibious ships by their landing craft or under-slung from a support helicopter. With the addition of urgent operational equipment such as bar armour and a day/night vision capability, 3 Commando Brigade's deployment to Afghanistan successfully proved the vehicle on operations and it was heralded as a battle-winning asset.

Royal Marines crew all of the vehicles, and the demanding in-theatre engineering support programme, combined with daily maintenance conducted by the crews, has seen an average of 96 per cent of Vikings available for operations. Organisationally, the Armoured Support Company delivers the training while the Armoured Support Group (only formed on 10 December 2007) currently operates the vehicles in support of in-theatre units and will reconstitute as a 3 Commando Brigade capability. They are continuing to develop their organisational framework and, crucially, will train army personnel to operate Viking, thereby facilitating the draw down of the enduring RM commitment in Afghanistan.

In the future, the brigade will set about developing and refining tactical operating procedures with Viking for both the cold weather environment and amphibious arena so that the Lead Commando Group is fully prepared for any future contingency operations.

The Royal Marines' new Viking vehicle has exceeded expectations on front-line operations in the deserts of Afghanistan. Viking was originally designed for cold weather and amphibious operations, at which it also excels, but it has coped admirably with desert terrain, including plains and rocky wadis. Crews have been able to use the vehicles for long-range desert operations for ten to 12 days at a time, covering terrain that would normally defeat most other vehicles. Viking played a key enabling role in Mobile Operations Groups in Helmand Province and has contributed significantly to the tactical success of Operation Herrick.

Viking has proved its versatility in Afghanistan as a troop carrier, weapons platform and front-line recovery vehicle, and has been used to evacuate casualties from point of wounding back to safety. In fact, Viking has proved so successful that both the Helmand Task Force and the Permanent Joint Head Quarters in the UK decided to retain the vehicle in the field after 3 Commando Brigade's deployment ended. Viking has proved particularly effective not least because, thanks to its manoeuvrability, it keeps the enemy guessing at all times.

Lt Col Matt Holmes DSO RM, Commanding Officer 42 Commando RM





Ask the man on the Clapham Omnibus what he thinks of Britain's Navy and he is likely to reply that it is either the best in the world or amongst the best in the world. Ask him what the Royal Navy does and he is likely to scratch his head and draw a blank. In truth, that is the problem that the First Sea Lord lies awake at night and worries about. Reputation good; relevance uncertain.

Not so, perhaps, in March/April 2007. For an organisation normally struggling to gain national visibility of its significant, but understated, contribution to operations in Iraq and Afghanistan, let alone around the globe, the events of 23 March and the following 12 days were an unwelcome exception to this norm. Reputation not so good; relevance remains uncertain.

And therein lies the problem: it is often only bad news that





makes the headlines, and a reputation that has been established over 400 years suddenly takes a bashing. Fortunately, the media recovery plan established in the early Summer 2007 had the words 'Don't Panic' plastered all over it. An acceptance that mistakes had been made and a desire to not make excuses, coupled with the belief that the intrinsically highly professional nature of naval personnel would naturally 'bubble to the surface', was the core of the strategy. And nine months on, the assessment is that it broadly worked. Certainly, the only objective measurement of general public favourability conducted on the RN, the IPSOS MORI poll, pointed to that result. Reputation getting better; relevance still uncertain.

So how does the naval service improve awareness and recognition of its roles and its utility? Not easy perhaps, when the very nature of naval operations is normally well out to sea, out of sight; when the Royal Marines' operational clothing is the same as that of the British Army, so that more often than not they are referred to as soldiers or troops; when significant elements of the Fleet Air Arm are commanded by joint rather than RN organisations; and when submarine operations remain unreportable on security grounds. If it was easy, this conundrum would have been solved by now.

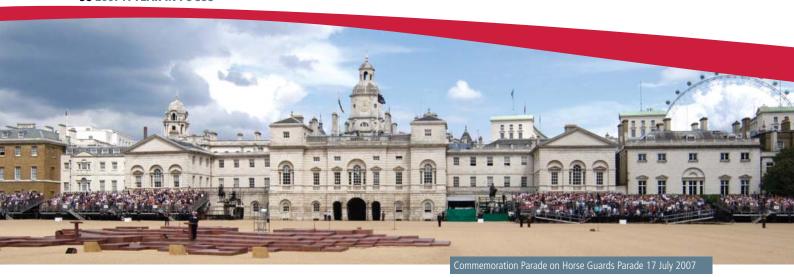
Yet there are signs the tide is turning. This is a world where the very way people get their news is changing, with the printed press experiencing a 2 per cent decrease in sales, year on year, and fewer than 1 per cent of under 30s regularly buying a newspaper, replaced by the online phenomenon and rise of the citizen journalist. It also means that there is now an unmissable opportunity to broadcast the Navy's exceptional story through the medium of the internet. During 2007, visitors to the RN website increased by 48 per cent, registrations for the online newsletter more than doubled in December alone, and a significant number of serving personnel are now established as regular bloggers. The nature of the RN's

global commitments is being illustrated better on a refreshed Global Ops section, and a new section, 'RN Live', has been created so more dynamic content can be posted online. You Tube – watch out.

Traditional channels are not being ignored though. 'Commando: On the Front Line' (ITV1, autumn 07), broke several records for audience appreciation surveys, so much so that it has generated huge interest in further projects and has spawned both DVD and book spin-offs. In 2006 there were four or five nonnews media projects being considered; by the end of 2007 there were 30 – 35. And despite the reduction in print sales, the printed press is still important, amongst opinion-formers and influencers, so engagement with the press has been increased. That doesn't mean that there hasn't been the odd speculative article in the newspapers, which is wide of the mark and gets a disproportionate amount of negative feedback from friends and foes alike. But a new initiative to revitalise and indeed increase the output to regional media, generally regarded as significantly less politicised than the national media, has been reaping considerable success amongst the wider UK populace.

But there is plenty of room for improvement still. Some of the best advocates for the maritime case, the retired community, are probably under-utilised. With better briefing of the current key messages, they can speak with one voice and thereby help significantly to influence and educate wider sections of the UK public. This in itself would undoubtedly reap big dividends in spreading the Navy message. To that end, the First Sea Lord is instituting a termly newsletter to that community. There may be other things we haven't yet thought of – please let us know!

None of this, of course, will produce instant results – but putting the RN in the media spotlight for all the right reasons is everyone's job, even if it is a 'game of inches' that won't be won overnight.



## 25 years on — The Falklands anniversary

Commemorations took place across the UK and in the South Atlantic throughout 2007 to mark the 25th anniversary of the Falklands Conflict. Two hundred and fifty-five British Servicemen lost their lives during Operation 'Corporate', a campaign which saw a joint Task Force fighting to reclaim British sovereign territory over 8,000 miles from home. As primarily a maritime and amphibious operation, the Royal Navy, Fleet Air Arm, Royal Fleet Auxilliary and Royal Marines of 3 Cdo Brigade made a very significant contribution within the campaign to recapture the Islands, mounting and sustaining

the amphibious assault that demonstrated the continued strength and reach of British maritime power at a time when its future was in some doubt, following the 1981 Nott Defence Review. One of the most remarkable of the naval contributions was the performance of the largely untried Sea Harrier FRS1 squadrons operating from HMS *Hermes* and HMS *Invincible*. Their undisputed air superiority paved the way for the success of the landings, the determined thrust towards Port Stanley, the brave efforts of Marines, soldiers, sailors and airmen and ultimately, the British victory.





## The tone was invariably one of thoughtful commemorations: this was not an occasion for triumphalism.

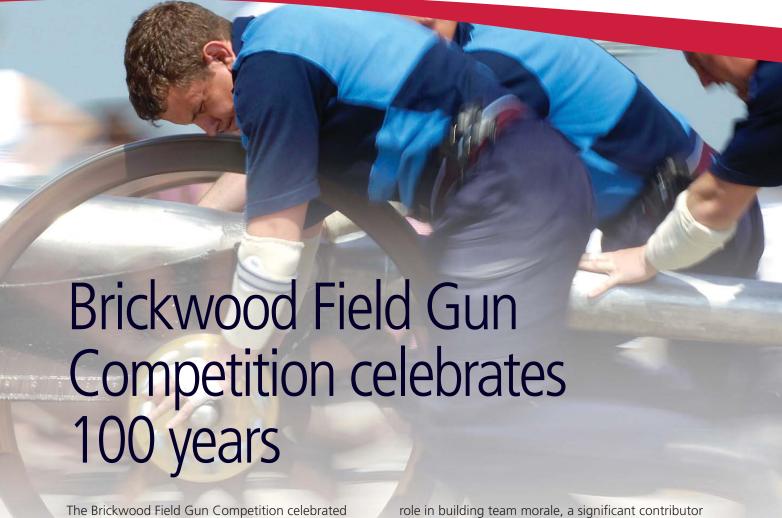
To commemorate the anniversary, the Ministry of Defence, Royal Navy and South Atlantic Medal Association planned a variety of exhibitions, reunions, ceremonies of remembrance, ship visits and parades. As expected, these were very well supported, since the memory of the war is still fresh for a large proportion of the British public. In May, HMS Exeter, the last surviving warship veteran of the conflict, visited Newquay, Cornwall, where the Royal Marine Band from HMS Raleigh performed in the harbour before a dramatic flotilla of Cornish fishing boats, gigs, coastguard vessels, lifeboats, tugs and yachts sailed past in salute. She later provided the backdrop to commemorative events in Edinburgh and Dundee. Meanwhile, HMS Edinburgh took passage to the South Atlantic, where she played a central role at remembrance services on the Islands themselves, including wreath-laying ceremonies for HMS Ardent and Coventry attended by HRH Earl of Wessex. Ironically, Edinburgh had the entire ship's company of Exeter onboard (and vice versa) as part of Fleet's "Sea Swap" manning trial!

Back in the UK, HM the Queen attended a service of remembrance on 14 June at the Falkland Islands Memorial Chapel, Pangbourne College, while the Princess Royal spoke later that day at a "Heroes" Dinner at the Old Royal Naval College, Greenwich to mark the liberation of Port Stanley. The culmination of the celebrations saw 10,000 veterans and their families gather in London on 17 June for the National Commemorative Event. HRH Prince of Wales took the



salute as servicemen conducted a Drumhead ceremony on Horse Guards Parade, before marching up the Mall to salute the VIPs now assembled at the Victoria Memorial. Finally, a fly-past of 49 aircraft representing the squadrons that flew in 1982 culminated the event. Present at the celebrations were both military chiefs and politicians past and present, including the Task Force Commander, Admiral Sir Sandy Woodward and Baroness Thatcher, who reflected: "The members of our Task Force restored our nation's spirit, they restored our nation's standing, and they gave us back our nation's sense of pride and purpose." There was a live TV link to the simultaneous events in the Falkland Islands, which centred on a ceremony at San Carlos Water, and HMS Ark Royal was moored on the Thames at Greenwich in support. Broadcasts of the events were made all the more poignant by the personal recollections of many veterans and islanders telling their personal stories. The tone was invariably one of thoughtful commemoration: this was not an occasion for triumphalism.

The Royal Navy continues to protect the waters around the Falklands, and a new patrol vessel, HMS *Clyde* has recently arrived to take over the inshore elements of these duties from HMS *Dumbarton Castle*. A frigate or destroyer is also continuously on station in the South Atlantic, along with an RFA tanker, in support of British forces deployed to the Islands.



The Brickwood Field Gun Competition celebrated its 100th Anniversary in 2007 and has a unique and proud heritage.

The event traces it origins to the Boer War and the 119-day siege of the British garrison at Ladysmith in 1899 in northern Natal, South Africa. During the siege, the Royal Navy provided heavy field artillery to support the beleaguered British Army. Sailors from HMS *Terrible* and HMS *Powerful* transported 4.7-inch guns, mounted on field carriages devised by Captain Percy Scott, across difficult and dangerous terrain.

This artillery was a powerful force in the field, but the Boer War was a serious jolt for the British Army, whose tactics of single shot firearms, fired in volleys controlled by company and battalion officers, had to be rethought against the Boers who were armed with modern weapons.

The Field Gun competition embodies this spirit to fight and win against adversity, an ethos that has been the cornerstone of the Royal Navy's success over many centuries. Between 1907 and 1999, the competition was held annually at the Royal Tournament until the latter was discontinued, but it survives today as a voluntary event and continues to play an important

role in building team morale, a significant contributor to the core ethos of naval service.

The competition is predominantly a Royal Navy event, but some teams have been drawn from the British Army, and there are composite teams with members from the RAF. Teams of 18 personnel must dismantle, reassemble and fire a field gun against the clock and each other, with time penalties added for any drill or positioning inaccuracies. The gun and limber (ammunition cartridge) must accelerate and stop with the axles astride a series of lines, where upon the gun is disassembled and reassembled and then pulled by the team to the next action point. Because of the reduced time for training and the voluntary nature of the competition, there is no longer the "cliff and chasm" element.

HMS *Collingwood* hosted commemorative events on 9 June to celebrate the competition's 100th anniversary, attracting teams from across the UK, Gibraltar and Italy, as well as personnel from HMS *Ark Royal*.

HMNB Portsmouth beat 19 other teams to win the coveted Brickwood Trophy this year, while second and third places went to HMS *Heron* and HMS *Collingwood* A respectively.

## The Royal Navy: From slave trade to humanitarian aid



For centuries Britain was part of a lucrative transatlantic trade which enslaved millions of Africans. But this year marked the bicentenary of the landmark 1807 Act of Parliament for the Abolition of the Slave Trade, championed by William Wilberforce. Although a pioneering piece of legislation, the Act was only the 'beginning of the end' for slavery, and it would take another sixty years of tireless diplomacy and naval patrolling to suppress and then abolish Atlantic slave trafficking.

Slave-based agriculture had for years underpinned the economies in America and the Caribbean, driving the demand for slaves from Africa. Because mortality rates were so high among slaves both during transit and then when put to work, this further fuelled what became an enormously profitable market for slave traders. It is estimated that the total number of slaves transported by Britain, the world's largest maritime trading nation at the time, was 2,300,000 over some 12,000 voyages. Despite the ban on slave trading in 1807, Britain did not have the support or co-operation of other countries in the battle to outlaw the trade, with many governments opposing British action for economic or ideological reasons. The French paid lip service to the Act, while the Americans would not allow British boarding parties to search their ships. Spain, Portugal and Brazil continued their human trafficking openly.

The Royal Navy's long-standing reputation for humanitarian relief began in earnest with its contribution to the policing and suppression of the slaving industry. At the time of the Act, Britain had been at war continuously for 14 years, so the initial anti-slavery patrols conducted by the West Africa squadron comprised just two ships. By 1845, this patrol had increased to more than 30 vessels, manned by 3,000 men. Between 1819 and 1869 the RN presence was permanent, and the squadron captured more than 500 slave ships. The enforcement of the Act was a very demanding task and the campaign cost the lives of many British sailors – in a large part through disease – so it is fitting that the Royal Navy marked the bicentenary with commemorative events around the country. One such event saw HMS Northumberland escort a replica of the 18th century slave ship Zong up the River Thames to London. The Zong, a wooden square rigger, was at the centre of an infamous court case in 1783 after 133 slaves were thrown overboard in an insurance scam. The outrage it caused gave impetus to the abolition movement and created a public uproar against slavery. As well as other ship visits around the UK to support commemorative events, the Royal Naval Museum in Portsmouth also ran a popular and successful exhibition – 'Chasing Freedom: The Royal Navy and the suppression of the Transatlantic Slave Trade'.

The Royal Navy is still involved in many operations today to disrupt people trafficking and other illegal use of the high seas. The UK is a signatory to the 1982 UN Convention on the Law of the Sea which prohibits the transport of slaves by sea and the Royal Navy supports the full compliance of the Convention's requirements. Working closely with other UK government agencies and international partners, 200 years on, it still operates worldwide to prevent people trafficking while also deterring piracy, intercepting illegal narcotics and delivering a wide range of humanitarian assistance, for example to countries that have been affected by natural disasters, such as the Asian tsunami in 2004, the refugee evacuation in Lebanon in 2006, and the more recent hurricanes in the Caribbean.

## Senior appointments

## **AS AT 1 JAN 2008**

### **NAVY BOARD**

Chief of Naval Staff and First Sea Lord Admiral Sir Jonathon Band KCB ADC Commander-in-Chief Fleet Admiral Sir Mark Stanhope KCB OBE Second Sea Lord and Commander-in-Chief Naval Home Command Vice Admiral Sir Adrian Johns KCB CBE ADC

Chief of Fleet Support

Vice Admiral T A Soar OBE

Controller of the Navy

Rear Admiral P Lambert

Assistant Chief of Naval Staff

Rear Admiral A M Massey CBE, tbrb

RAdm R G Cooling in Feb 08

Second Permanent Under-Secretary of

State and Secretary of the Admiralty

Board

Sir Ian Andrews CBE TD

## MINISTRY OF DEFENCE AND OVERSEAS

Chief of Naval Staff and First Sea Lord Admiral Sir Jonathon Band KCB ADC Chief Executive Defence Estates Vice Admiral T J H Laurence CB MVO Deputy Chief of Defence Staff (Personnel)

Vice Admiral P J Wilkinson CVO
Assistant Chief of Naval Staff
Rear Admiral A M Massey CBE, tbrb
RAdm R G Cooling in Feb 08
Capability Manager (Precision Attack)
Rear Admiral P Lambert
Senior Directing Staff (Navy), Royal
College of Defence Studies
Rear Admiral M Kimmons CB
Director General Medical Operational
Capability
Surgeon Rear Admiral P I Raffaelli QHP

Director General Capability (Carrier Strike)

Rear Admiral N C F Guild CB
Chief Executive Service Personnel and
Veterans Agency
Rear Admiral T A Spires

Commandant Joint Services Command & Staff College, Shrivenham

Rear Admiral N Morisetti

Director General Development, Concepts and Doctrine

Rear Admiral C J Parry CBE, until Jan 08
UK Hydrographer & Deputy Chief
Executive UK Hydrographic Agency
Rear Admiral I Moncrieff
Assistant Chief of Defence Staff (Policy)
Rear Admiral A D Richards
Director General Intelligence Collection
Major General J G Rose MBE
Commander British Forces Gibraltar
Commodore M J Parr Royal Navy

### **FLFFT**

Commander-in-Chief Fleet Admiral Sir Mark Stanhope KCB OBE Deputy Commander-in-Chief Fleet Vice Admiral R P Boissier CB Chief of Staff (Capability) Rear Admiral P L Wilcocks CB DSC **Commander Operations** Rear Admiral D J Cooke MBE Commander UK Maritime Forces Rear Admiral G M Zambellas DSC Commander UK Amphibious Forces and Commandant General Royal Marines Major General G S Robison **Deputy Chief of Joint Operations** (Operations) Major General J B Dutton CBE **Command Secretary** Miss E G Cassidy

## SECOND SEA LORD

Chief Naval Home Command

Vice Admiral Sir Adrian Johns KCB CBE

ADC

Naval Secretary and Chief of Staff
(Personnel)

Rear Admiral C P R Montgomery CBE

Flag Officer Sea Training

Rear Admiral R J Ibbotson DSC

Flag Officer Scotland, Northern England

& Northern Ireland/Flag Officer Reserve

Forces

Real Admiral C A Johnstone-Burt OBE

Director General Naval Chaplaincy

Service/Chaplain of the Fleet

The Venerable J Green QHC

Second Sea Lord and Commander-in-

### NATO

Commander Allied Maritime Component Command Northwood

Admiral Sir Mark Stanhope KCB OBE

United Kingdom Military Representative to NATO and the European Union

Vice Admiral A K Dymock CB

Chief of Staff to Maritime Commander

Allied Forces Southern Europe

Rear Admiral A J Rix

Deputy Commander Striking Force NATO

Rear Admiral C A Snow CBE

Deputy Chief of Staff (Transformation Support)

Rear Admiral R D Leaman OBE

## **DEFENCE EQUIPMENT & SUPPORT**

Chief of Materiel (Fleet)

Vice Admiral T A Soar OBE

Director General Submarines

Rear Admiral A D H Mathews CB

Director General Weapons

Rear Admiral A M Hussain

Director General Safety & Engineering

Rear Admiral I P G Tibbitt CBE

CVF Integrated Project Team Leader

Rear Admiral R T Love OBE

## NAVAL BASE COMMANDERS

Naval Base Commander Portsmouth
Commodore D G Steel ADC Royal Navy
Commodore Portsmouth Flotilla
Commodore A J B Cameron Royal Navy
Naval Base Commander Devonport
Commodore S R Lister OBE Royal Navy
Commodore Devonport Flotilla
Commodore P K Walpole ADC Royal
Navy
Naval Base Commander Clyde
Commodore C L Hockley Royal Navy

Commodore C J Hockley Royal Navy Captain Faslane Flotilla Captain S W Garrett OBE Royal Navy

## SEA COMMANDS Maritime Operational Commanders

Commander UK Maritime Forces
Rear Admiral G M Zambellas DSC
Commander UK Amphibious Forces
Major General G S Robison
Commander UK Task Group
Commodore D L Potts Royal Navy
Commander Amphibious Task Group
Commodore P A Jones Royal Navy
Commander 3 Commando Brigade Royal
Marines
Brigadier D A Capewell OBE Royal
Marines

Commander UK Carrier Strike Group Commodore T C Cunningham Royal Navy

Commander UK Maritime Component Commodore K Winstanley MBE Royal Navy

## **HEADS OF FIGHTING ARMS**

Rear Admiral Fleet Air Arm

Vice Admiral Sir Adrian Johns KCB CBE ADC

Rear Admiral Surface Ships

Rear Admiral P L Wilcocks CB DSC

Rear Admiral Submarines

Rear Admiral D J Cooke MBE

Commandant General Royal Marines

Major General G S Robison

Commodore of the Royal Fleet Auxiliary/

ACOS Flexible Global Reach

Commodore R C Thornton Royal Fleet

Auxiliary



### OTHER COMMANDS

Commander Maritime Reserve Commodore S P Thorne RD\* ADC Royal Naval Reserve RNAS Yeovilton Commodore C L Palmer Royal Navy **RNAS** Culdrose Captain P J Thicknesse Royal Navy Fleet Protection Group RM Colonel R A W Spencer OBE Royal Marines 40 Commando RM Lieutenant Colonel S M Birrell Royal Marines 42 Commando RM Lieutenant Colonel M J Holmes DSO Royal Marines, tbrb Lt Col C R Stickland RM in Jan 08 45 Commando RM Lieutenant Colonel D A Dewar Royal Marines, tbrb Lt Col J A J Morris RM in Dec 07 Senior British Military Adviser US Central Command Major General J H Thomas DSO

## SHORE COMMANDS

Britannia Royal Naval College

Commodore M B Alabaster Royal Navy

HMS SULTAN

Commodore A R Rymer Royal Navy

Maritime Warfare School

Commodore S R Kirby Royal Navy

Commando Training Centre Lympstone

Brigadier A Salmon OBE Royal Marines

HMS RALEIGH

Captain S J Woodcock Royal Navy

HMS Cornwall