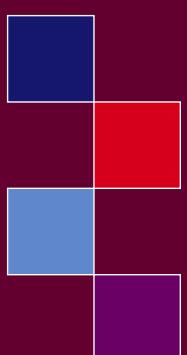




MINISTRY OF DEFENCE

## **Delivering Security in a Changing World**

### **Supporting Essays**







# **Delivering Security in a Changing World**

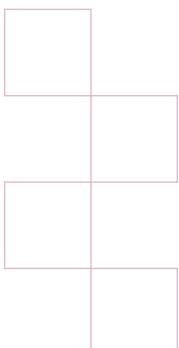
## **Supporting Essays**

Presented to Parliament by  
The Secretary of State for Defence  
By Command of Her Majesty

December 2003

**£11.50**

**Two volumes not sold separately**  
**Cm 6041-II**



<b>Essay 1</b>	
<b>International Organisations</b>	1
<b>Essay 2</b>	
<b>Scales of Effort and Military Tasks</b>	4
<b>Essay 3</b>	
<b>Developing the Reserves</b>	8
<b>Essay 4</b>	
<b>MOD Strategy for Defence Relations</b>	12
<b>Essay 5</b>	
<b>People</b>	17
<b>Essay 6</b>	
<b>Defence Management</b>	21
<b>Essay 7</b>	
<b>Making Defence Industrial Policy Work for the Armed Forces and UK Industry</b>	26

© Crown Copyright 2003

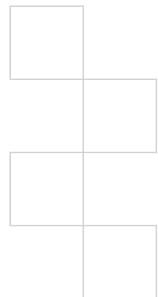
The text in this document (excluding the Royal Arms and departmental logos) may be reproduced free of charge in any format or medium providing that it is reproduced accurately and not used in a misleading context.

The material must be acknowledged as Crown copyright and the title of the document specified.

Any enquiries relating to the copyright in this document should be addressed to  
The Licensing Division, HMSO, St Clements House, 2-16 Colegate, Norwich, NR3 1BQ.  
Fax: 01603 723000 or e-mail: [licensing@cabinet-office.x.gsi.gov.uk](mailto:licensing@cabinet-office.x.gsi.gov.uk)

# Essay 1

## International Organisations



### Introduction

1.1 The trans-national threats presented by international terrorism, the proliferation of Weapons of Mass Destruction and the destabilising effects of failed and failing states cannot be countered by states acting alone. In fulfilling our own strategic interests, we must seek to work with others to overcome these threats through a range of collective measures and actions. The UN will remain the forum through which much of this activity will be debated and suitable action authorised. However, experience from such crises as Rwanda, Bosnia, Kosovo and Iraq shows that while members of the international community often share similar goals, it is more difficult to agree on the means to achieve them. This is particularly so when military intervention is needed and only a few countries have the highly-developed military capability required. We must be prepared and plan to operate through a number of differing multinational fora to counter different problems. NATO and the EU are likely to be the organisations of choice through which we develop responses to international crises. Both can also be effective bodies through which to engage non-member countries; Russian involvement in the NATO-led force in Bosnia having been a good example. Established relationships and military capability provide a strong base from which to assemble a military response and facilitate planning, deployment and operations. However, as discussed later, both organisations are still working to develop the range of expeditionary and crisis management capabilities required to meet their stated aspirations fully, and ensuring that nations deliver remains a significant challenge.

1.2 The conflict in Iraq has illustrated both the potential for a breakdown in international consensus on the handling of crises and some of the risks arising from such a breakdown. Institutional coalitions, such as NATO and the EU (through the European Security and Defence Policy (ESDP)), require a large degree of consensus among all member states in order to act but can unlock the most substantial military resources and reinforce wider international support. Ad hoc coalitions of the willing will, however, remain appropriate in many scenarios. NATO will remain the cornerstone of our collective defence but it must continue to become more flexible – institutionally, politically and militarily – if it is to deliver effective force relevant to the evolving security environment. At the same time, the UK is committed to an ESDP that complements NATO and to the development of an EU military capability that can fulfil humanitarian and rescue tasks, peacekeeping and crisis management operations (including peace-making). Both NATO and the EU should help to develop member states' defence capabilities, with transparent and coherent approaches that are mutually reinforcing.

### NATO

1.3 Over the past five years, NATO's composition and function has changed to reflect better the post-Cold War security environment. This change is set to continue, with expansion of the Alliance to 26 members in the near future providing a larger number of contributors of military capability.

1.4 We must continue to build on NATO's proven strengths in offering robust multinational chains of command and a forum for the development of common standards for interoperability. NATO will continue to be the only effective guarantor of Western collective defence. Furthermore, the Alliance has already demonstrated a commitment to greater political and military flexibility in underpinning broader coalitions to meet a wide range of expeditionary operations, as in the Balkans and, most recently, Afghanistan. The Prague Summit in November 2002 embraced this concept and initiated, among others, the Transformation process, the Capabilities Commitment, a new streamlined command structure, and the creation of a NATO Response Force (NRF). If properly supported by nations, these initiatives should enable the development of a military Alliance that offers more capable forces that are more readily available to meet crises and contingencies as they arise. The UK continues to make significant contributions to NATO capabilities, and making a success of the Prague Capabilities Commitment, and of the NRF in particular, will be a litmus test of the Alliance's commitment to implement Transformation. It will take time both for new members to integrate and develop appropriate military capabilities and for some of the concepts identified at Prague to reach fruition. But there is a strong will to drive forward quickly, transforming the military capabilities available to the Alliance through sharing best practice within the new concepts and under the new NATO Allied Command for Transformation. The UK will do its utmost to help realise an early implementation of these initiatives.

# Delivering Security in a Changing World

## Supporting Essays

1.5 There are also some larger challenges that stem both from expansion of the Alliance and from undertaking crisis management roles. These changes are likely to impact on achieving timely political consensus, both on the future roles of NATO and on the specific missions it should undertake. The Transformation programme, which includes internal reform as well as changes to the military structures, will address some of these challenges but external events will continue to shape NATO's development.

### NATO Transformation:

NATO's Transformation process includes a new response force and the streamlining of its command arrangements. The NATO Response Force (NRF) will be a robust, credible and technologically advanced joint force that is held at very high readiness. Its roles could include deployment as a show of force and solidarity to deter aggression; as a stand alone force for operations in the NATO area or beyond; and as the initial entry force for a larger formation. It will be flexible and self-sustaining for up to 30 days. The NRF will require the most capable of the Alliance's forces. It will be a catalyst for focusing and promoting improvements in NATO's overall military capabilities as nations prepare their contingents to meet the rigorous standards required for participation and against which they will be evaluated before becoming part of the NRF. The timelines for the development of the NRF are ambitious. An interim capability was established in October 2003, an Initial Operating Capability is due by October 2004, and Full Operational Capability by October 2006.

The new command structure will be leaner, more flexible, more efficient and better able to direct future military operations. At the strategic level, there will be only one command with operational responsibilities (rather than three in 1990). A new functional command, Allied Command for Transformation, has taken responsibility for promoting and overseeing the transformation of Alliance forces and capabilities. Below the strategic level, the structure will be significantly streamlined, with a reduction in the number of headquarters from 19 to 11. The UK strongly supports the drive for a more effective and efficient operation of the Alliance in the future. As part of the new NATO Command Structure, the UK will retain the major maritime Headquarters at Northwood (HQ NAVNORTH), but the co-located RHQ EASTLANT will close. In addition, the reduction in the overall number of Combined Air Operations Centres (CAOCs) will result in the withdrawal of the NATO element of CAOC9 at High Wycombe. The remaining national "Air Policing" task, including the element related to rogue aircraft, will be absorbed by the existing UK Air command and control structure.

### EU

1.6 The EU also is going through a period of expansion and change. Since the SDR, the ESDP has been established with strong UK support. ESDP deals with the types of crisis management missions specified in the Petersberg Tasks<sup>1</sup>, where NATO as a whole is not engaged. Military operations have already been launched in both Macedonia (in strategic partnership with NATO) and the Democratic Republic of Congo (in support of the UN). These are major milestones in the development of the ESDP. A significant achievement has been the agreement of a strategic partnership in crisis management with NATO through the Berlin Plus arrangements which provide the EU with ready access to NATO planning, command and other facilities. These avoid unnecessary duplication with NATO structures and enable the most efficient use of European defence resources to meet EU aims in crisis management operations. It also means that ESDP will maintain a close partnership with NATO and help promote interoperability within European forces and between them and other NATO allies.

1.7 Significant progress has been made towards ensuring that ESDP offers a capable and credible military capability under the Helsinki Headline Goal. The two operations launched so far have been at the smaller scale, lower intensity end of the spectrum; shortfalls remain in the assets required for rapid deployability and for higher intensity operations. These shortfalls are similar in many cases to those in the capabilities identified in NATO's Prague Capabilities Commitment and the two organisations are working closely together to satisfy the shortfalls coherently and efficiently. These aspirations for NATO and ESDP can only be fulfilled through the generation of credible military capabilities and we will continue to work with our partners to ensure targeted investment.

<sup>1</sup> The Petersberg Tasks are humanitarian and rescue tasks, peacekeeping tasks and tasks of combat forces in crisis management, including peacemaking. (Article 17(2) TEU).

## **ESDP:**

### **Improving European Defence Capabilities**

In 1999 at Helsinki, member states agreed a Headline Goal, committing themselves to develop the ability to deploy within 60 days a force of up to 60,000 people and to sustain that force in theatre for at least a year and, within this, to provide smaller rapid response elements available and deployable at very high readiness. Work is now underway to define in greater detail the requirements for rapid reaction and for conducting multiple operations simultaneously. It will also take into account the changes to the Petersberg Tasks envisaged in the proposed new European Constitution<sup>2</sup>. The Berlin Plus agreement with NATO includes a process to ensure coherency and transparency in the two organisations' capability development processes. This will allow EU Headline Goal development and the NATO Transformation and NRF initiatives to be considered in each organisation and thereby ensure that both unnecessary duplication and unhelpful incoherence are avoided.

The UK has also taken a leading role in developing plans for a new intergovernmental EU agency to promote efforts to improve capabilities. The agency will focus on identifying EU capability needs, promoting solutions to meet those needs, and evaluating the progress of member states in developing their capabilities. In due course it will incorporate existing arrangements for collaborative procurement and research. We expect to see the agency launched in 2004.

### **New EU Constitutional Treaty**

In October, the member states of the EU launched an Intergovernmental Conference (IGC) to agree a new Treaty for the EU. The draft Constitutional Treaty drawn up by the Convention on the Future of Europe provided the starting point for these negotiations. The Government has recently published a White Paper spelling out the Government's position on the draft Treaty and the issues for the IGC.

On defence, the Convention proposed a number of innovations which the Government supports. Updating the Petersberg Tasks will mean that the stated objectives of ESDP more closely reflect the security challenges we now face. A new "solidarity clause" should give us a robust mechanism to ensure a swift, co-ordinated, response to a member state's request for help in dealing with the consequences of a disaster or terrorist attack. And the creation of an intergovernmental agency to support defence capability development should ensure that improved, more cost-effective, capabilities are made available to support ESDP as a result of increased transparency and co-operation among member states.

As laid out in the IGC White Paper, we will not, however, support all the proposals as currently set out in the Convention text. We believe that a flexible, inclusive approach and effective links to NATO are essential to the success of ESDP. We will not agree to anything that is contradictory to, or would replace, the security guarantee established through NATO. Similarly, we already have detailed, militarily robust, arrangements (which were agreed by all member states at the Nice European Council) to provide for flexibility in ESDP. Any provisions for new forms of co-operation must not undermine these arrangements.

## **UN**

1.8 A strong international demand for consensual approaches to regional crises, based on international law, is likely to continue and will form the basis for international action to deal with regional crises. However, while a rapid consensus formed over Afghanistan in 2001, events in Kosovo (1999) and Iraq (2003) demonstrated that broad consensus on goals is often difficult to translate into specific agreement on actions to pursue them, particularly where proactive military intervention is concerned. In the post-Cold War period, European powers have sometimes found themselves more inclined than the US to favour such intervention and on other occasions less so. Ultimately, debates on the handling of major security crises will continue to crystallise in the UN, reinforcing the UK's key responsibilities as a permanent member of the Security Council. We therefore wish to foster a strong Council and will remain at the forefront of efforts to implement the UN's desire to improve its performance in the conduct of peace support operations, but we also need to be realistic about the limitations of the UN. In terms of the UK's military contribution to UN-authorised action, the UK offers the capability to lead and organise coalitions of the willing that can rapidly implement UN mandates in challenging circumstances. For example, in Afghanistan the leading British elements of the International Security Assistance Force constituted a significant presence on the ground within four weeks to implement UNSCR 1386. Few other countries can offer this capability, so the UK is likely to pick up more expeditionary, 'first-in' roles. We remain committed to helping strengthen 'blue helmet' peace-keeping operations, but would expect to play a lesser part in enduring operations where many other countries can contribute.

<sup>2</sup> The updated tasks proposed in the draft are: "joint disarmament operations, humanitarian and rescue tasks, military advice and assistance tasks, conflict prevention and peace-keeping tasks, tasks of combat forces in crisis management, including peacemaking and post-conflict stabilisation. All these tasks may contribute to the fight against terrorism, including by supporting third countries in combating terrorism in their territories."

# Essay 2

## Scales of Effort and Military Tasks



### Military Tasks

2.1 The Military Tasks provide a framework for the MOD on which to base its detailed defence planning for the size, shape and capabilities of the Armed Forces. The Tasks reflect the broad types of tasks and operations in which we are likely to be involved and then provide an output-focused framework for developing force structure requirements.

2.2 The SDR laid out a main Defence Mission, the eight subordinate Defence Missions and the 28 Military Tasks<sup>1</sup>; we have reviewed this structure to improve its utility in planning military capability. While still largely valid, experience revealed that the structure was too cumbersome and repetitive to be easily used in internal planning. Work on the SDR New Chapter<sup>2</sup> also highlighted the potential value of an effects-based approach to future capability planning, which needed to be incorporated into our planning structure.

2.3 The structure of the Defence Missions and Military Tasks has therefore now changed. We concluded that a simpler structure, comprising a single Defence Aim and 18 Military Tasks, would help to focus the rest of the planning process by reducing duplication and complexity. The new Defence Aim, which is reflected in our Public Service Agreement, is based on the original SDR Defence Mission but recognises explicitly the threat posed by international terrorism:

**To deliver security for the people of the United Kingdom and the Overseas Territories by defending them, including against terrorism, and to act as a force for good by strengthening international peace and security.**

2.4 The 18 Military Tasks are categorised under the four generic headings of Standing Strategic Commitments, Standing Home Commitments, Standing Overseas Commitments and Contingent Operations Overseas. The Strategic Effects required to deliver Contingent Operations Overseas are spelt out in the next section. The Military Tasks are set out below:

### Standing Strategic Tasks

This group of Military Tasks covers the strategic elements of UK Defence Policy, including the nuclear deterrent and strategic intelligence gathering. It also encompasses the provision of specialised contracted services vital to our Armed Forces' effectiveness. The Standing Strategic Tasks are:

**Military Task 1.1 Strategic Intelligence.** The collection, analysis, fusion and distribution of strategic defence intelligence. (Operational and tactical intelligence forms an integral part of other tasks.)

**MT 1.2 Nuclear Deterrence.** The provision of an operationally independent strategic and sub-strategic nuclear capability, including its protection.

**MT 1.3 Hydrographic, Geographic and Meteorological Services.** Hydrographic survey supports the strategic deterrent, anti-submarine warfare and mine countermeasures operations, geographic mapping and survey support operations (such as precision targeting) and emergencies. The Meteorological Office provides meteorological services and weather forecasts for the Armed Forces.

### Standing Home Commitments

These Tasks encompass protection of UK sovereignty, security at home in support of Other Government Departments (OGDs), and maintaining the Armed Forces' public profile:

**MT 2.1 Military Aid to the Civil Authorities.** The provision of military support to the civil power, OGDs and the community at large. This can be either on an infrequent or emergency basis (such as assisting with the restoration of law and order, a Chemical, Biological, Radiological or Nuclear incident/accident, support to counter-drugs operations or a natural disaster), or as a routine commitment such as Explosive Ordnance Disposal (EOD), Fishery Protection, and search and rescue cover in the UK. It also includes support to the maintenance of government in times of crisis and conflict.

**MT 2.2 Military Aid to the Civil Power in Northern Ireland.** For the time being, we still require a separate task to reflect the Armed Forces' role in providing Military Aid to the Civil Power in Northern Ireland and encompassing support to the police in maintaining law and order and combating terrorism through the conduct of operations to deter terrorist activity.

**MT 2.3 Integrity of UK Waters.** To demonstrate British sovereignty within and ensure the integrity of the UK's territorial waters and, where necessary, to protect the UK's rights and interests in the surrounding seas, including port and route survey, renegade shipping, and maritime counter-terrorism.

<sup>1</sup> Supporting Essay Six, *The Strategic Defence Review: Supporting Essays*, dated July 1998.

<sup>2</sup> *The Strategic Defence Review: A New Chapter*, Cm 5566 Vol 1, dated July 2002.

**MT 2.4 Integrity of UK Airspace.** A continuous recognised air picture and an air policing capability, providing for interception and possible destruction of rogue and hostile aircraft, is needed to maintain the integrity of the UK's airspace.

#### **MT 2.5 Public Duties and VIP**

**Transport.** The Department provides military capabilities for state ceremonial, routine public duties, and to promote the Armed Forces in the public eye and secure air transport for the use of the Royal Family and senior members of the Government.

#### **Standing Overseas Commitments**

These long-standing Tasks describe obligations to the 13 Overseas Territories, our commitment to international alliances and partners as a means of safeguarding UK interests overseas and the promotion of UK influence and support around the world:

**MT 3.1 Defence and Security of the Overseas Territories.** The MOD is responsible for the external defence and security of Britain's Overseas Territories, and provides support and assistance to the civil authorities as required.

**MT 3.2 Defence and Security of the Sovereign Base Areas of Cyprus.** The defence and security of the Cyprus Sovereign Base Areas, including the provision of strategic communications facilities and a base for operations in the Eastern Mediterranean and beyond.

**MT 3.3 Defence Diplomacy, Alliances and Support to Wider British Interests.** The provision of defence capabilities to support:

- Our key alliances and partnerships.
- Arms control, Outreach and other confidence and security building measures.
- The promotion of British interest and influence abroad, such as British Military Advisory and Training Teams (BMATTs) and support to Foreign and Commonwealth Office (FCO) activities.
- Defence exports.
- Support to counter drugs operations.

#### **Contingent Operations Overseas**

These seven Tasks define the range of contingent commitments that may demand a contribution from the UK's Armed Forces. The tasks range from humanitarian assistance and evacuation operations, through peace support operations to the most demanding military operation, deliberate intervention. These Tasks are by no means mutually exclusive; indeed an operation may shift from one task to another during its lifespan. For example an operation may start as a peace enforcement operation and then shift to peacekeeping once a level of stability has been achieved. Included in the descriptions of Tasks 4.3 to 4.7 in bold type are the high level effects required to be delivered for each. These effects are defined more fully in the next section. The Contingent Operations Overseas are:

**MT 4.1 Humanitarian Assistance and Disaster Relief.** Natural disasters, which may create or exacerbate existing humanitarian emergencies may, if not addressed rapidly and effectively at an early stage, lead to regional instability. When appropriate, and at the request of the Department for International Development, the Armed Forces contribute to humanitarian and disaster relief operations, either on a national basis or as part of a co-ordinated international effort.

**MT 4.2 Evacuation of British Citizens Overseas.** In cases where civil contingency plans prove insufficient, defence capabilities held for other purposes may be used to evacuate UK-entitled personnel from countries where their lives may be at risk.

**MT 4.3 Peacekeeping, Prevention, deterrence, containment and stabilisation** of conflict are vital elements in the maintenance of international security. We may therefore wish to make an appropriate contribution, in concert with other nations, to international peacekeeping operations. Such operations are conducted with the consent of the disputing parties in order to support the achievement of a peace settlement and to oversee implementation of the terms of such a settlement.

**MT 4.4 Peace Enforcement.** The UK may wish to make an appropriate contribution, in concert with other nations, to international peace enforcement operations. These are conducted in circumstances where there is a peace agreement and/or mandate in place but where the level of consent and compliance from all parties to a conflict is uncertain, and are therefore coercive in nature. Such operations may involve a range of military activities, possibly extending beyond the immediate zone of the conflict, designed to **coerce** belligerents into full acceptance of the provisions of the peace agreement and/or mandate and thereby facilitating conflict **prevention** and **stabilisation**.

**MT 4.5 Power Projection.** Rather than directly intervening directly, the UK, in concert with allies, might wish to deploy stand-off military capabilities that are able to deliver significant force to **deter** or **coerce**.

**MT 4.6 Focused Intervention.** Dealing with the increasing prevalence of WMD and asymmetric threats (some non-state) requires the ability to **disrupt** or **destroy** the threat with the rapid and localised use of force, by intervening in the region of occurrence.

**MT 4.7 Deliberate Intervention.** Britain may wish to respond, along with other nations, to conflicts or crises, in order to support other allies and partners, to protect our national interests, to maintain international security and stability or to uphold international law, by directly intervening with as much combat power as is necessary to **defeat** or **destroy** an adversary.

# **Delivering Security in a Changing World**

## **Supporting Essays**

### **Strategic Effects**

2.5 The SDR New Chapter identified a number of effects that the Armed Forces should be able to bring to bear against our opponents. We have continued to develop this approach and have identified eight high-level “Strategic Effects” that we should be able to deliver in the Contingent Operations Overseas Military Tasks outlined above:

#### **a. Prevent**

To stop or limit the emergence and development of crisis and conflict through fostering regional and national security by helping to:

- Address the underlying causes of instability, such as poor governance, political repression, social inequality and economic hardship.
- Implement agreements to reduce weapons proliferation, particularly WMD.
- Encourage and assist with security sector reform.
- Build local capacity to deal with emerging crises.
- Encourage the international community to act against emerging crises.

#### **b. Stabilise**

To set the secure and stable conditions required for political and economic action so as to bring a situation under control and return to a state of equilibrium and normality. By and large this cannot be achieved without adopting a wholly interagency approach, tackling the underlying causes as well as the symptoms of the instability so as to meet political, legal and basic humanitarian needs. Military involvement might include the apply force to assist with the return of political control, and may be involved in helping with the provision of reassurance, reconstruction and aid.

#### **c. Contain**

To actively limit or restrain the spread, duration or influence of an adversary or crisis. This will often enable the application of other military and non-military effects in achieving an overall resolution of the problem.

#### **d. Deter**

To dissuade an adversary from a course of action that he would otherwise embark upon, by diminishing his expected gains and/or raising his expected costs. Military involvement primarily revolves around convincing the opponent that entry into armed conflict will add significantly to the costs of his action and would outweigh the potential gains. This requires the demonstration and communication of a credible military capability and strategy (often aided by a physical military presence), with the clear political will to use it, so as to back up the use of other political and economic levers.

#### **e. Coerce**

The distinction between deterrence and coercion is a fine one and they share many of the same characteristics. The key difference is that coercion aims to use force, or the threat of force, to persuade an opponent to adopt a certain pattern of behaviour, against his wishes, rather than deterrence which is about dissuasion. Both effects might well be used in concert.

Coercion relies on the effective communication of the desired course of action, backed up by the threat of credible military force, which will be applied to punish the opponent if he does not follow it. It is also likely to be used in conjunction with other political and economic levers, and the ability to escalate punitive measures will often be required.

#### **f. Disrupt**

To disable an adversary’s capability, military activity can be undertaken to prevent him from functioning effectively by denying him his freedom of action. This can be through direct targeted action against his own offensive forces or via a more indirect approach. Such action would serve either to isolate him both physically and psychologically from his support or to dislocate and disorientate him.

#### **g. Defeat**

To reduce the effectiveness of an adversary so that he is no longer able to conduct combat operations. It should consequently bring about the cessation of hostilities and thus facilitate the delivery of our political objectives.

#### **h. Destroy**

To so damage an enemy state or non-state adversary that he is no longer militarily viable. This effect therefore goes beyond disruption or defeat, by ensuring that there remains no real immediate potential for the adversary to return to conflict. It might include the removal of an enemy’s military capability or the elimination of terrorist organisations.

### **Implications for Planning**

2.6 The new structure of Military Tasks will be used, as the SDR version was, in our planning to determine what forces we need in the future. The new approach is aimed more at adaptive long term force planning, recognising that the force structure needed to deliver effects may change over time as threats, technology and coalitions evolve. The effects-based, output approach is intended to encourage flexible consideration of the capability required, rather than the fixed force structure approach of the past.

## **Planning Assumptions For Contingent Operations**

2.7 The SDR recognized that, in the absence of a direct military threat against which UK and allied roles and capabilities could be precisely mapped and developed, generic planning assumptions were required which set out in broad terms the types of operation which the Armed Forces should be capable of undertaking. These planning assumptions guide the development of capability over the medium to long term and are not intended either to constrain or precisely describe the actual pattern of operational commitments at any one point in time. But there clearly has to be a relationship between the planning ideal and reality if the assumptions are to be useful and credible. The SDR assumptions stated that our Armed Forces should plan to undertake:

- a single enduring peace support commitment at Medium Scale whilst providing suitable training and leave to all our forces;
- or
- an enduring peace support commitment at the Medium Scale plus a limited duration Medium Scale intervention commitment;
- or
- a one-off Large Scale commitment.

2.8 These assumptions have proved their worth in driving the development of a genuinely expeditionary force structure. But the experience of the last five years and an increasingly sophisticated approach to long-term planning both demanded that we look at them again. In reviewing these planning assumptions we have taken into account developments and evidence available since the SDR and the New Chapter, and looked again at the security challenges we foresee in the future, out to about 15 years hence.

## **Changing Nature of Operations**

2.9 Since SDR our Armed Forces have conducted operations that have been more complex and greater in number than we had envisaged. We have effectively been conducting continual concurrent operations, deploying further afield, to more places, more frequently and with a greater variety of missions than set out in the SDR planning assumptions. We expect to see a similar pattern of operations in the future, with the emphasis on multiple, concurrent Medium and Small Scale deployments. A major lesson of the last five years is that the Department and the Armed Forces as a whole have to be structured and organised to support a fairly high level of operational activity at all times, not as a regular interruption to preparing for a Large Scale conflict.

## **Revised Scales of Effort**

2.10 Our planning assumptions now reflect the level and frequency of deployments for this more complex and demanding pattern of operations which are necessary to deliver the required military effect. Based on our analysis we have refined our concurrency assumptions as follows:

- That as a norm and without creating overstretch we should be able to mount
  - an enduring Medium Scale peace support operation simultaneously with an enduring Small Scale peace support operation and
  - a one-off Small Scale intervention operation.
- That we should be able to reconfigure our forces rapidly to carry out
  - the enduring Medium Scale peace support operation and
  - a Small Scale peace support operation simultaneously with
  - a limited duration Medium Scale intervention operation.

- That, given time to prepare, we should be capable of undertaking
  - a demanding one-off Large Scale operation while still maintaining a commitment to
  - a simple Small Scale peace support operation.
- Additionally, we must also take account of the need to meet standing commitments with permanently committed forces eg Quick Reaction Alert Aircraft for integrity of UK Airspace and contingent forces.

## **Capability Elements**

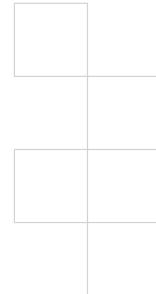
2.11 Building on the methodologies used during SDR New Chapter, we now divide military capability into six key capability elements: Maritime, Land, Air, C4ISR<sup>3</sup>, Special Forces (SF) and Logistics. This enables us to have a more detailed picture of the impact of conducting operations across the full capability spectrum. Even when small combat forces are deployed on operations, it is apparent that a relatively heavy burden tends to fall on certain key enablers, particularly in the C4ISR and logistics components. This new approach, therefore, gives us a clearer idea of the implications of planning assumptions on key joint capabilities.

2.12 Our analysis suggests that in some respects – particularly for enabling assets such as deployable HQs, communications and deployed logistical support – several Small Scale operations are potentially more demanding than one or two more substantial operations. This is particularly the case if they are in locations that are geographically remote from each other and the UK. Given the signs that multiple concurrent smaller operations are becoming the norm, our concurrency and endurance assumptions need to focus on each of the six capability elements to ensure that our force structures can cope with this pattern.

<sup>3</sup> Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance

# Essay 3

## Developing the Reserves



### **Introduction**

3.1 In the last 10 years there has been a major change in the role and structure of the UK's Reserve Forces as they have evolved from a large but little used force to one that is structured to support more frequent expeditionary operations. To date, over 7,500 Reservists have been mobilised for Operation TELIC and they continue to perform a key part in ongoing operations in Iraq. This represents a significant contribution to Defence and we recognise that we must continue the process of development in order to meet not only the requirements of future operations but also the needs of Reservists and their employers.

### **Future Developments and Policy**

3.2 Our strategic intent is for Reserves to be a part-time but professional force, underpinned by a strong volunteer ethos, reflecting the Government's desire to encourage a strong voluntary culture in the United Kingdom, which is fully integrated into Defence and the community and held in high regard by the Nation. We aim to achieve this by encouraging the widest possible participation through offering as much flexibility in the types of Reserve as possible, while meeting Defence needs. We also seek to maintain the support of Reservists' employers through an open and informed dialogue.

3.3 This policy sees the Reserves providing an integrated, ready and capable component of Defence, capable of being mobilised for any type and scale of operation. We look to Reserves to provide:

- Forces (for both contingent and enduring operations) which cannot always be justified as full-time parts of the Regular establishment on grounds of cost or the need for specialised transferable skills;
- A further step in strategic coercion or deterrence through the act of mobilisation.

3.4 There will continue to be a role for ex-Regular Reservists and the Services are examining ways of enabling parts of the Regular Reserve to play a more active role on a voluntary basis. For the Army, recent experience has shown that the Territorial Army (TA) is the reserve of first choice (see box) and it will form an integral part of the future Army structure.

### **Army Reserves**

Operations in Iraq and Afghanistan have marked the development of the TA as the Reserve of first choice to support our land forces, with the Regular Reserve a further valuable resource where needed. The Army has good reason to be grateful both to the TA soldier and to employers for enabling the TA to be deployed with such striking results. The Department will be looking at the support the law gives Reservists in reinstatement in their civilian employment and at the package of support for employers and their employees when mobilised. Further investigation of the most effective way to make use of the skills of Regular Reservists is also taking place.

Whereas the Regular Army and the TA were formerly two separate organisations, they are now regularly used in concert. The TA is an integral part of the future structure of the Army and TA soldiers:

- Can expect to be called out to work alongside Regulars on operations as an integrated part of a larger scale deployment.
- Will contribute on a voluntary, planned, basis to enduring commitments, capitalising on the volunteer ethos that underpins the TA.
- Will have increasingly clearly defined roles in routine or enduring operations through the provision of trained individuals and composite sub-units and elements.

- Will provide the balance of specialist capabilities for specific operations, including those not routinely required in the Regular Army in any quantity, and those that exploit the civilian qualifications and skills in which the TA is so rich (examples would include civil/military co-operation and other nation-building skills, and media operations).
- Continue to provide an essential link between the Army as a whole and civil society through their nationwide presence and local connections.
- As part of their nationwide presence, contribute through Civil Contingency Reaction Forces (CCRFs) to the provision of a readily accessible local source of trained and organised manpower to assist the emergency services in managing the aftermath of a serious terrorist or natural emergency.

Closer integration of the TA with the Regular Army will increasingly involve the provision of composite sub-units and elements for specific, planned deployments. TA units in the UK will continue to provide and develop the essential functions of recruiting, training, force generation, administration and welfare matters, links with the local community, and close relations with their Regular Army counterparts.

3.5 Generating genuine readiness and being properly prepared in the right timescale are the keys to integrating future Reserves. Most Reservist units are held at low states of readiness at present. In order to better meet the demands of future operations, some units and individuals will remain at higher states of readiness than parts of the Regular Forces. This will apply in particular to certain logistic, medical and other specialists. This reflects the need for them to be able to respond rapidly, as their services will be among those more likely to be required.

3.6 As part of the reorganisation of the higher management of Reserves, we are examining the requirement for a new senior part-time post in the rank of two-Star to underline the prominence now being given to Reserve matters. The staff and committee structure within the MOD will also be strengthened to provide a joint forum for policy generation and authoritative direction on Reserves issues at the highest level.

3.7 Recent experience has demonstrated the importance of integrated Reserves representation during the operational planning process in the MOD, at the Permanent Joint Headquarters (PJHQ), and in the Front Line Commands. The Army's force generation process will also be improved by new management information systems, which will identify civilian skills possessed by Reservists that are transferable to the military environment.

### **Improving Support to Reservists**

3.8 Practical experience of mobilisation on the scale of Operation TELIC and more general experience since SDR has highlighted a number of areas where support to Reservists can be enhanced. For instance, we are examining ways in which we can improve specific aspects of training. The Reserves Training and Mobilisation Centre (RTMC) at Chilwell was established following the SDR and has been a great success. However, many Reservists were unfamiliar with the role of the Centre and what was expected of them on arrival. Training for mobilisation will make the process less daunting and enable it to run more smoothly.

# **Delivering Security in a Changing World**

## **Supporting Essays**

3.9 Experience from Operation TELIC suggests that the financial assistance scheme for Reservists requires attention. This provides automatic payment of the difference between a Reservist's military pay and civilian earnings, up to a set ceiling based on the rank and specialist skill of the Reservist concerned, with provision for essential outgoings over this level. Making claims is not easy at present, and we are developing proposals to simplify and speed up the process.

3.10 The Reserve Forces Act 1996<sup>1</sup> (RFA 96) introduced the right for Reservists and their employers to seek exemption from or deferral of call-out. From January to August 2003 just under 2,900 applications for exemption or deferral were made by Reservists and employers, with around three-quarters being granted. RFA 96 also introduced an appeals process and over the same period there were 89 applications for appeals. Sixty-five of these have been withdrawn, and all but one of the 11 heard found in favour of the MOD. This reflects the positive attitude from Reservists and their employers during Operation TELIC. However, improvements in the procedures concerned will be needed if this level of goodwill is to be sustained.

3.11 A key concern to Reservists was re-instatement in their civilian jobs on demobilisation. The relevant legislation (the Reserve Forces (Safeguard of Employment) Act 1985) is effective, although we need to make its provisions more widely understood amongst Reservists and employers. It requires an employer to reinstate a returning Reservist in their previous employment, subject to some limitations. There is an appeal procedure, which can order re-instatement and/or compensation. We recognise the need to reassure Reservists about the availability of such protection and to ensure that the overall package of legislation continues to protect their interests. As part of the ongoing work following Operation TELIC, we will be examining the effectiveness of this package and the other measures that go with it.

### **Improving the Relationship with Employers**

3.12 One critical area for Reservists is the support they receive from their employers, which requires a three-way partnership between MOD, the Reservist, and the employer. Recent deployments have revitalised our dialogue with employers but the prospect of continuing Reservist support to future operations means that we must work hard to ensure that this mutually beneficial partnership endures. This process includes the need to foster greater involvement of employers in 'intelligent mobilisation', which recognise that if there is time it is better to seek volunteers for specific posts. We will also endeavour to provide reasonable notice of mobilisation plans and improve the flow of information to employers about mobilised Reservists.

3.13 Preliminary research suggests employers value their Reservist employees for their transferable skills, leadership and teamwork qualities. The SaBRE campaign (Supporting Britain's Reservists and Employers), launched last year, aims to inform employers about the many benefits of employing members of the Reserve Forces, and to gain their support for Reservists' training and operational commitments. SaBRE also acts as a source of information for both employers and Reservists and it has operated a call-centre and website ([www.sabre.mod.uk](http://www.sabre.mod.uk)) for mobilisation and other queries. The site recorded over 150,000 visits during Operation TELIC. We recently established a network of regional Employer Support Executives who, working in conjunction with the Reserve Forces and Cadets Associations, are tasked with engaging directly with employers.

3.14 Reservists are a small proportion of the United Kingdom's workforce, and mobilisation is relatively infrequent. Employers are therefore not familiar with mobilisation of employees and the effect it will have on their business. The employer support package, including the right to claim financial recompense for the expenses associated with employing a temporary replacement for their employee, attracted criticism from some employers and we will be examining this package to see what improvements can be made.

### **Conclusion**

3.15 The Reserves are an integral part of the UK's military capability for operations at home and overseas. Their impressive contribution to recent operations is summarised in the box on page 11. As Operation TELIC has shown, they face the same risks when mobilised as their Regular counterparts, and have more than met the challenge demanded of them. We must now continue the process of development that started with SDR to confirm the contribution of the Reserves to all types of operation and ensure that the correct measures are in place for their support. Achieving this will involve engaging Reservists, their employers and the wider community.

<sup>1</sup> RFA 96 came into force on 1 April 1997. It updated previous Reserve Forces legislation (the Reserve Forces Act 1980) and introduced new call-out powers, new forms and categories of Reserve service and new safeguards for Reservists and their employers.

## **RESERVE FORCES ON OPERATIONS**

Since NATO operations in the former Yugoslavia began in December 1995, the Reserves have consistently provided 10-14% of the United Kingdom's manpower there. Nearly 5,400 members of the TA and over 2,100 ex-Regular Army Reserves have served in the Balkans. Reservists have also served on other small-scale operations in Afghanistan, Sierra Leone and the Democratic Republic of the Congo. Their role in the campaign against international terrorism following the events of 11 September 2001, when TA intelligence specialists and members of 4624 Movements Squadron RAuxAF were called out, involved the first use of compulsory mobilisation since the 1950s.

### **Operation TELIC**

The call-out of Reservists for Operation TELIC is the latest and most dramatic demonstration that our Reserves are an essential part of the Armed Forces, showing that a large-scale and short-notice compulsory call-out is achievable. The initial Reservist build-up had to be completed by the time operations commenced in mid-March, less than 10 weeks after the Secretary of State had announced the call-out in Parliament. Their contribution to the operation has been impressive, as has been the co-operation received from their employers.

Contributions to individual Services were:

### **Royal Naval Reserve and Royal Marines Reserve**

In its centennial year, the RNR mobilised 359 Reservists who filled posts in communications, logistics, interpreting, interrogation, media, maritime force protection, field hospitals, and on RFA Argus. 112 members of the RMR were also called-out and deployed as part of 3 Commando Brigade. The speed and ease of the Reserves' integration with the regular Royal Marines was noteworthy.

### **TA and Regular Army Reserve**

5,925 members of the TA and 266 ex-Regulars from the Regular Army Reserve were mobilised between January and August 2003. They served in a wide range of roles, from infantry and logistics to medical tasks in field hospitals, intelligence and engineering. Formed units and sub-units of Reservists, including 131 Independent Commando Squadron Royal Engineers, 202 (V) Field Hospital, 165 Port Regiment, and the Royal Yeomanry (as part of the Joint NBC Regiment), deployed successfully. Many other Reservists served as individuals within Regular units. Army Reservists continue to undertake a key role in stabilisation and reconstruction tasks in the aftermath of Operation TELIC.

### **RAuxAF and RAF Reserve**

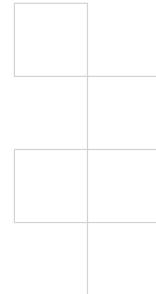
1134 members of the RAuxAF and 165 ex-Regulars were mobilised for Operation TELIC, undertaking key roles including air movements, intelligence, medical, force protection and aircrew augmentation.

### **Sponsored Reserve**

Some employees of firms that provide contracted specialist support to the Armed Forces in peacetime become uniformed members of the Reserve if support is required to a deployed operation. During Operation TELIC, individuals from this Sponsored Reserve were mobilised to provide members of the RAF's Mobile Meteorological Unit, crews for the Ro-Ro Strategic Sealift Vessels, and engineering support personnel for 32 (The Royal) Squadron.

# Essay 4

## MOD Strategy for Defence Relations



### Introduction

4.1 Defence Relations activities define the range of non-operational international engagements conducted by the Ministry of Defence and the Armed Forces in support of the UK's long-term foreign, defence and wider security policy objectives.

4.2 These activities make an increasingly important contribution to:

- Sustaining the security of the UK and overseas territories;
- Strengthening international peace and security;
- Enabling military operations;
- Supporting wider British interests

In order to maximise this contribution, the MOD has developed a robust strategy for focussing and prioritising its Defence Relations activity and resources. By developing an understanding of what can be achieved, where and with whom, the UK is now better placed to meet its responsibilities in helping shape the future international security situation.

### Background

4.3 In the 1998 Strategic Defence Review (SDR) the wide range of activities conducted in support of conflict prevention and peacetime diplomacy were acknowledged as being core defence activities. We created a formal Defence Diplomacy Mission to give these tasks greater priority and coherence. Defence Diplomacy activities

have succeeded in making an enormous contribution to improving stability, particularly in Europe, helping to prepare new and aspirant NATO members for their collective security responsibilities and forging new ties with former Cold War adversaries.

4.4 Building upon this success, we have evolved our understanding and application of Defence Diplomacy since 1998 and have now developed the broader concept of Defence Relations. There is a clear prioritisation of aims and objectives for the broad spectrum of politico-military engagements. There is an improved focus on countries and regions important to the UK, with improved co-ordination of activities across Government. And through better understanding of what Defence Relations activities can achieve, we have widened their application.

### ACHIEVEMENTS

#### Outreach

In the SDR we said we would help Poland, Hungary and the Czech Republic integrate effectively into the NATO structure. Through Defence Diplomacy we made significant contributions to their progression and they are now becoming increasingly important and active members of the Alliance. The Polish deployment to help post-conflict stabilisation and re-construction in Iraq is one example of their increasing contribution.

#### Education and Training

UK is rightly acknowledged as a world-leader in the provision of defence education and training. They are vital enablers in helping promote UK defence reform principles abroad and increasing the professionalism and competence of foreign officials involved in the defence and security field. Approximately 4,000 overseas students from some 120 countries undertake defence education and training courses in the UK each year.

#### Joint Exercises

Exercises with our Allies and partners are fundamental to the success of UK Defence policy. They contribute to the military effectiveness of NATO, the development of the EU's defence dimension and the success of the UK's Outreach and wider defence relations programmes. We undertook seven such joint exercises in 2003: two in connection with the Five Powers Defence Arrangements in South East Asia (Suman Warrior & Flying Fish) and five with our European allies and Partnership for Peace countries (Cooperatives Baltic Eye, Best Effort, Partner, Key and Support).

## **Conflict Prevention**

4.5 Striving to create a truly joined-up approach across Whitehall, the Government conducted cross-cutting reviews of conflict prevention in 2000. They led to agreement between MOD, the Foreign and Commonwealth Office (FCO), the Department for International Development (DFID), HM Treasury and the Cabinet Office to work together to develop a more formal, collective approach to addressing conflict prevention. As a result, pooled budgets were set up to facilitate more joined-up policymaking, bringing together the activities of the MOD, FCO and DFID to achieve maximum impact on conflict.

4.6 Two Conflict Prevention Pools were created in 2001; one focuses on Sub-Saharan Africa, whilst the other concentrates its efforts on the rest of the world. Both pools share common strategic aims:

- To reduce the number of people whose lives are affected by conflict.
- To reduce the potential sources of future conflict.

In order to achieve these aims MOD, FCO and DFID agreed to work in partnership with others to:

- Strengthen international and regional systems' capacity for conflict prevention, early warning, crisis management, conflict resolution/peacemaking, peacekeeping and peacebuilding.
- Contribute to global and regional conflict prevention initiatives, such as curbing the proliferation of small arms and the diversion of resources to finance conflict.
- Promote initiatives in selected countries, including indigenous capacity building, to help avert conflict, reduce violence and build sustainable security and peace.

These inter-Departmental arrangements have, after initial teething, helped to ensure a more holistic response to conflict prevention. The initiative has led to improved understanding and awareness of each of the Department's conflict prevention activities, ensuring increased programme coherence across Government.

4.7 The MOD's contribution to conflict prevention through Defence Relations is significant. Long-term politico-military links with regional actors can be exploited in crises when dissuading parties from resorting to military action. Conventional arms control and counter proliferation activities help to stabilise conflict-afflicted regions by restricting the availability of weapons and technology. Confidence and Security Building Measures help create transparency and trust, preventing regional desires to acquire new capabilities from escalating. MOD contributions to Security Sector Reform promote good governance within the defence establishments and military forces of emerging democracies and transitional countries, by influencing the development of their accountability, management, efficiency and conduct, thus reducing the potential for both internal and external conflict. Further MOD education and training initiatives develop and enhance the conflict prevention and peacekeeping capacity and skills of foreign armed forces, with the aim of producing local solutions to local problems.

transparency, through broadening and strengthening the UN Register of Conventional Arms.

## **Security Sector Reform**

The Defence Advisory Team has been heavily engaged in providing security sector and defence reform advice and assistance in Afghanistan, Uganda, Sierra Leone, Indonesia, Sri Lanka, Serbia and Montenegro and Iraq. In the Middle East and North Africa, the UK has continued to engage actively with friendly states to promote good governance and democratic accountability within their Armed Forces. And we reinforce this engagement through an extensive programme of UK-based training and educational courses, for key foreign security sector personnel, to help improve their professionalism, effectiveness and efficiency and to underpin the values of security sector accountability and transparency.

## **Defence Training**

UK military training teams have continued their work to develop the military capability of central and eastern European countries; and to enhance the capacity of African nations to conduct peace support operations. UK military and civilian experts have been seconded to the Kofi Annan International Peacekeeping Training Centre in Accra, Ghana, to support its establishment and help with course development and co-ordination of donor funding. The UK is also directly supporting the Jordanian Peace Operations Centre, which provides Arabic-based training for nations in the region. By providing places for Middle-Eastern officers on UK-based peacekeeping courses and through UK officers attending the Jordanian Centre, the UK is assisting in developing and promulgating best practice across the region.

## **Peacekeeping**

The UK is currently engaged in numerous peacekeeping or peace-building operations around the world. They range from assisting the return to normalisation and democratic civilian control in areas within the Balkans to post conflict stabilisation and security support to President's Karzai's administration in Afghanistan.

# Delivering Security in a Changing World

## Supporting Essays

### Counter-Terrorism

4.8 In response to the terrorist attacks of 11 September 2001, the SDR New Chapter recognised that our Defence Relations activities needed to be additionally targeted towards countering international terrorism.

4.9 It became clear that building relationships with international partners upon common interests and values would help to address both the causes and symptoms of conflict and terrorism. Building regional confidence, reducing tensions and deepening understanding on all sides through greater mutual trust will help address the causes. Along with enhancing local conflict prevention and peacekeeping capacity, we are now similarly improving regional counter-terrorist capabilities to deal internally with the symptoms. And when there is the need for the UK to operate overseas to counter threats to its or its allies' interests and security, Defence Relations can help secure operational access and local political and military support.

4.10 Of course, the MOD response to terrorism must be part of a much broader and co-ordinated UK response. We are therefore developing a holistic approach, working with a wide variety of Government departments and agencies, national experts, international organisations and foreign partners. Defence Relations levers have now become essential tools with which to initiate counter-terrorist as well as wider conflict prevention activities.

### Defence Relations Strategy

4.11 We have neither the resources, nor the need, to support these activities in every part of the world. We cannot support engagements for engagements' sake. We must therefore have a clear understanding of where we need to act and where we are able to act, and a comprehensive strategy to achieve these aims whilst prioritising our resources. To this end MOD has recently conducted an appraisal, starting from fundamental principles, on what we do, how we do it and with whom. This will ensure that our Defence Relations efforts are focused on regions important to the UK, prioritised on a global as well as regional and country level, and conducted effectively.

4.12 As discussed, Defence Relations activities can prevent or contain the emergence and development of crisis and conflict. In addition there is now an increasingly operational focus for Defence Relations, which aims to create the right politico-military conditions to secure regional access, interoperability and support from capable regional forces, for possible future UK deployments. Strengthening relationships therefore creates the vital conditions for enabling military operations. It is this broadening of focus that defines the increasing importance and proactive contribution of Defence Relations to contingency planning and operations.

4.13 We have identified what we wish to achieve, namely the following strategic goals:

- Sustaining the security of the UK and overseas territories, encompassing our efforts to defeat international terrorism and counter the proliferation of WMD.
- Strengthening international peace and security, including by acting as a force for good through conflict prevention and conflict resolution.
- Enabling military operations, as necessary to achieve the first two goals.
- Supporting wider British interests, through strengthening our international relationships.

We have then established how to achieve these goals by developing seven overarching objectives, upon which to focus our activities, and identifying the conditions, enablers and locus for such activities, as described in Figure 1.

4.14 Strategic insight and politico-military influence are critical to facilitating and focussing overseas engagement. Strategic insight is the comprehensive understanding of a country or region's security dynamics, enabling the identification of the most appropriate points of contact and the most effective defence levers. It can also provide early warning of potential crises allowing timely, preventive measures to be taken. Politico-military influence is developed through direct high-level inter-governmental, academic and military contacts. This influence is crucial if we are to help shape global responses to emerging crises, so significant effort is being placed on developing such relationships.

4.15 It is clear then that we need to act with, support and influence a variety of different powers in order to construct a more peaceful, stable global security climate. We therefore need to sustain and develop our collective defence and security alliances and engage with our vital bilateral partners, key regional players and emerging or transforming states.

4.16 To have any significant impact in stabilising the security climate our activities must not be conducted on an ad hoc basis; our Defence Relations efforts must be focused and prioritised and our resources must be allocated effectively. To achieve this, all activity is centred on meeting the following objectives:

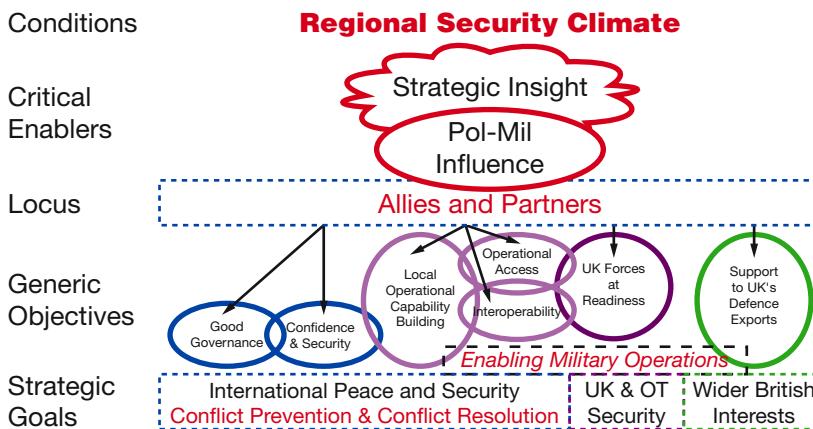


Figure 1 – Effects-based Defence Relations Objectives

- Building Confidence and Security** within regions to enhance stability, to reduce hostility and to replace military confrontation with transparency and trust.

- Promoting Good Governance** throughout foreign governments, and armed forces in particular, in order to improve prospects for sustained peace and prosperity by developing public and legal accountability and an understanding of human rights and accepted norms of behaviour.

- Building Local Operational Capacity** to ensure that allies, partners and appropriate key regional players are able to contribute to local conflict prevention and counter terrorist activities.

- Securing Operational Access and Support** for any action that we may need to take in order to defend our interests from terrorist or other threats.

- Improving Interoperability** with other forces (in essence NATO and other key partners) to enable effective joint operations to be conducted as necessary. In the case of NATO accession states, there is a need to create interoperability in the first instance.

- Generating UK Forces at Readiness** in order to sustain a high level of fully trained and prepared Armed Forces to respond to any situation. Good relationships with certain countries afford our Armed Forces access to specialised training areas around the world, thus enhancing our flexibility in operating in a variety of environments.

- Supporting UK Defence Exports** and promoting British scientific, economic, industrial and political interests amongst key partners, in order to contribute to the prosperity of the UK and strengthen collective defence relationships, whilst reflecting wider defence and security policy objectives.

Within this framework we conduct a broad range of Defence Relations activities. Figure 2 details how the most significant of these international engagements are mapped to the objectives, with the colour codes indicating the effectiveness of an activity in generating particular effects. This tool ensures that a broad programme of appropriate activities is conducted to address the full complement of objectives.

**Figure 2 - ACTIVITIES TO DEVELOP DEFENCE RELATIONS EFFECTS**

**Effectiveness Categories**

- |   |   |
|---|---|
| 1 | Makes an extremely effective contribution on its own to delivering the strategic effect |
| 2 | Contributes in part to delivering the strategic effect                                  |
| 3 | Makes little or no contribution to the strategic effect                                 |

Strategic Insight	International Defence Training & Education	Multi-National Defence Cooperation	Defence Exercises	Wider British Interests	UK & OT Security								
					Generating UK Forces at Readiness	Interoperability	Operational Access & Support	Building Local Operational Capability	Good Governance (incl SSR)	Confidence & Security Building	Pol-Mil Influence	Strategic Insight	
High Level Pol-Mil Visits				1	1	3	1	3	1	3	3	1	
Defence Staff Talks				1	1	2	2	2	2	2	2	3	2
Defence & Service Attachés/Advisers				1	1	2	3	3	2	2	2	3	2
Special Defence Advisors (Civilian and Military)				1	1	3	1	2	1	3	3	3	3
Defence Advisory Teams				1	2	2	1	2	2	2	2	3	2
Royal College of Defence Studies				1	1	2	1	3	3	3	3	2	
Command and Staff Training				2	1	3	2	3	3	2	3	2	
UK Students at Overseas Staff Colleges				1	3	3	3	3	3	2	3	3	
Chevening Scholarships				2	2	2	2	3	3	3	3	3	
Defence Diplomacy Scholarships (MSc and 7 Week Course)				3	2	2	1	3	3	3	3	3	
Defence Management Export Course				2	1	2	1	3	3	3	3	3	
English Language Training				3	2	2	3	2	3	1	3	2	
Foreign Language Training				2	1	2	2	2	2	2	2	3	
International Defence Training				3	2	2	2	1	2	1	3	2	
Formal High-level Single Service Staff Talks				2	1	2	3	2	2	1	3	2	
Exchange & Liaison Officers				2	2	3	3	2	2	1	3	3	
Loan Service Personnel				2	2	3	3	1	2	2	3	2	
S&T Research & Collaboration				2	2	2	3	2	3	1	2	1	
Bi-/Multi-national formations/doctrine				2	2	2	3	2	2	1	2	2	
Defence Exercises: Joint & Combined warfighting				2	2	2	3	1	1	1	1	2	
Provision of Training Areas overseas				3	2	2	3	2	2	2	1	2	
Combined & Inter-Agency Peace Support Exercises				2	2	1	3	3	3	2	3	2	
Unit Visits Overseas (RN/RAF)				2	2	2	3	3	2	2	3	2	
Arms Control & Counter-Proliferation Activities				2	3	1	2	3	3	3	3	3	
Wider British Interests	Defence Export Sales & Support			2	2	3	3	1	2	1	2	1	
	Gifts of Military Equipment			3	1	2	3	1	2	1	3	2	

# **Delivering Security in a Changing World**

## **Supporting Essays**

4.17 However, we recognise that Defence Relations activities will not always achieve the desired effects in all regions, nor will certain initiatives generate significant added value above that of other activities already being conducted. Effort must therefore be directed towards identifying with whom we should conduct each activity. We have therefore identified which effects we aspire to generate within different regions, and subsequently matched these with the most appropriate and effective of our engagement capabilities.

4.18 Throughout our planning we have attempted to avoid short-term quick fixes and have focused on longer-term solutions. This vision has been the foundation of our policy, ensuring that we develop strategies that will not threaten UK interests and international stability in the future. In this same context, we will ensure that Defence Relations objectives also complement similar objectives and related activities conducted across Government, avoiding duplication and de-conflicting where necessary. Consultation with other departments will be central to our process as we continue to progress, ensuring a coherent UK Governmental approach to strengthening international peace and security.

### **Evaluation and Further Work**

4.19 The fluidity of the global security environment requires that we continue to monitor and evaluate our strategies and activities to ensure that we continue to optimise resources to meet our strategic priorities and objectives. Our processes and policies need to be regularly reviewed to ensure efficiency, relevance and continuous improvement, to inform future policy and to provide an audit trail of decision making. We therefore plan to formalise our evaluation processes.

4.20 Assessment frameworks, criteria and metrics produced, alongside analysis of the annual evaluations, will be used to better inform future Defence Relations policy making and strategic decisions. Continuous improvement of our approaches will ensure better use of resources and will optimise their effects. This is a significant step in improving our business processes and the benefits will increase our ability to make a difference to international peace and security.

### **Conclusions**

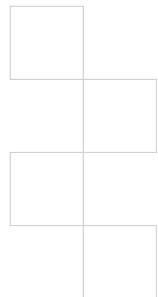
4.21 Since 1998 the Ministry of Defence has developed the Defence Diplomacy concept. Following a thorough analysis of our work we have defined clearer objectives and priorities, coherent with UK foreign and security policy, thus increasing and improving our focus for Defence Relations activity beyond the empirical Defence Diplomacy Mission.

4.22 We are striving to address both the causes and symptoms of conflict and terrorism, through improved understanding of the effects that our activities can achieve and the influence that can be gained. We aim to be more proactive in using these activities in support of possible future operations by developing local capacity, improving interoperability and increasing the possibility of regional support and access. And we will continue to update our priorities and objectives through evaluation of our activities.

4.23 Significant importance has therefore been placed on Defence Relations; strengthening key international relationships will improve our ability to effectively prevent future conflict and help shape the security environment in pursuit of UK security and defence objectives.

# Essay 5

## People



### THE CONTEXT

#### Strategic context

5.1 As the White Paper makes clear, our Armed Forces face a broader range and frequency of tasks than assumed in SDR, across a greater geographical area. This operational tempo will maintain the pressures and demands on our service men and women (and their civilian counterparts). Flexibility and rapid mobility will therefore remain key requirements. Our people also need to possess exceptional skills to deal with the complexity and scale of modern operations. In addition, increased levels of integration and joint working between military and civilian personnel in many areas of Defence is vital for us to achieve our shared goals as effectively as possible.

#### Social Context

5.2 The population of the United Kingdom is ageing and the numbers of 16-25 year olds that the Services especially need to recruit is set to tail off after peaking in 2009. A growing proportion of that recruiting pool will be women and ethnic minorities – groups that we have struggled to attract. Innovation in recruitment and retention is vital if we are to continue to recruit the best individuals from across society.

#### Strategic Direction of Policy

5.3 Numbers, skills, age and experience are essential ingredients of being able to provide people to sustain operational capability in the short and long term. We need more timely and accurate information to target investment and evaluate its success.

5.4 We are, therefore, developing a plan which will allow us to judge the extent to which we are on track to deliver ‘sufficient’, ‘trained’ and ‘motivated’ personnel for the short, medium and the long term. The plan, which will be in place in April 2004, will define, for the first time, the ‘personnel capability requirement’ and will provide decision makers with solid grounds on which to develop effective policies and make balance of investment decisions. This will represent a step change in our ability to direct the people agenda.

#### THE CHALLENGES

##### Recruiting

5.5 The Armed Forces need about 25,000 new recruits every year but our traditional recruiting pool is shrinking, with the competition for labour growing. Increasing numbers of young people are staying on in education and employment patterns are also changing, with less emphasis on a job for life. Combined with a decline in general levels of fitness and other factors, this makes the recruiting challenge increasingly difficult. The challenge to recruit from across all parts of society remains an important one for both the military and the MOD civil service.

#### Retention

5.6 Given their very marketable skills, our personnel represent an attractive recruitment target to other employers. Consequently, the deal we offer our people has to be competitive with the unique challenges of a service career (notably the requirement for many to be mobile and spend considerable time away from their families), balanced by the unique opportunities, and well supported with a fair employment package. Our service personnel need to feel confident that they are individually valued and respected, that complaints from them will be dealt with effectively and fairly, and that harassment and bullying have no place in service life and that any perpetrators will be dealt with firmly. And we need to have policies in place to support the eventual transition of our service men and women to careers outside the Forces on completion of their service.

5.7 On the civilian side, the challenge is to achieve the right balance between retaining valuable experience and ensuring a suitable level of refreshment and renewal of the workforce, bringing in new skills and perspectives. Maintaining employee motivation, and offering flexibility in the way individuals are able to manage their careers, while also equipping people with the right skills for the contemporary workplace, are key objectives.

# **Delivering Security in a Changing World**

## **Supporting Essays**

### **Skills and Training**

5.8 Having the right people with the right skills is the single factor most critical to future operational and organisational success. High quality training and education will be both a key recruiting and retention tool. Network Enabled Capability will require more IT literate Armed Forces. For the individual, we will need to offer a range of educational and vocational opportunities throughout their career.

5.9 The skills required of our civilian staff are also changing, with traditional skills needing to be supplemented with improved IT, project delivery, change management, and leadership and commercial skills.

### **The Pattern of Operations and their Impact**

5.10 Recent years have seen an increasing demand to carry out concurrent Small to Medium Scale operations – often at short notice. This means that we must be able to deploy personnel rapidly and the current pattern of frequent, but relatively short, deployments away from the home unit, and the consequent degree of separation from families, is likely to continue. Our policies for life management issues (for the individual and the family) to compensate for the increased turbulence of military service will therefore be all the more important. We need to continue to pay close attention to the extent of individual separation, to ensure that the operational tempo does not lead to increased voluntary outflow from the Forces. This means maintaining a balance between manning measures, financial compensation and family support.

5.11 Civil servants are deployed on operations alongside our Armed Forces to provide policy and administrative support. We need to ensure that we have a pool of trained people who are willing and able to carry out these demanding roles.

5.12 More frequent operations will place a premium on training time. We will need to scrutinise training requirements to find more innovative ways of meeting our training requirements and reducing time spent away from duty and home on residential courses.

5.13 Our people will continue to undertake difficult and dangerous tasks – often in circumstances of extreme personal risk. Success in these circumstances depends on the training and discipline, underpinned by ethos, the sense of team spirit and esprit de corps. In delivering reform we must ensure that we preserve these vital ingredients.

### **THE RESPONSES**

#### **Recruitment**

5.14 Recruitment activities differ widely, from presentations to schools and colleges to away days or longer periods spent with the Armed Forces such as the Royal Navy's week-long personal development courses. To address the lack of applicants from the London area in recent years, we have refurbished an existing MOD building to create a flagship Recruiting Office, supported by a converted double-decker bus to penetrate those areas where it would be uneconomic or difficult to locate new offices. Each Service maintains popular websites, with for example, the Army's online recruiting office conducting some 32,000 dialogue or chat sessions annually. Recruiting outreach initiatives work with diverse areas of society and make a valuable contribution to the Government's social exclusion agenda. An example of this is the short personal development courses run by the RAF for the Asian and other communities in the inner city schools and community centres of the North West of England. The sustained effort over the last few years in recruitment and recruit marketing is starting to deliver results. Last year was the best recruiting year for a decade and the Services recruited some 26,220 (103% of their annual intake target - an improvement on the 95% of the year before).

5.15 Recruitment also plays an important part in the drive for greater diversity. All three Services have specialist teams aimed at promoting careers in the Armed Forces to minority ethnic communities. The ethnic minorities proportion of total recruitment has risen from 1.2% in 1998 to an estimated 6.5% in 2003. We have also recently signed a new three-year partnership agreement with the Commission for Racial Equality to make further progress in this area and in promoting race equality. The proportion of women recruited has been slowly increasing and, as at 1 April 2003,

women made up nearly 8.6% of Armed Forces personnel compared to 8.3% in April 2002. The Armed Forces recruited 3,230 women in 2002/03, an increase of 540 over the previous year, representing 12.3% of the total intake.

5.16 In our civilian recruitment activities, we are developing innovative approaches to attract applicants and making greater use of e-recruitment. This year we ran our first major e-recruitment campaign, and of 3,246 applications, 3,062 were received and processed online. We are also building on the contacts we have made in London Further Education colleges during the pilot stages of the 'Education Outreach' scheme to ensure that recruitment material reflects the diversity of the UK's population. In addition we are targeting future corporate recruitment activity at universities recognised as containing high levels of undergraduates from those groups currently under-represented in MOD.

### **RETENTION**

#### **Pay**

5.17 Armed Forces' pay is underpinned by comparability based on job weight, with the independent Armed Forces' Pay Review Body (AFPRB) providing an objective assessment and helping to maintain the trust and confidence of a workforce that has no trades union to press its case. In 2003, the recommendations of the AFPRB were again accepted in full. Targeted remuneration initiatives have been developed and applied to encourage retention in specific areas where the manning situation is fragile and threatens operational capability; recent examples being those for pilots, RAF aircrew, submariners and Royal Signals personnel and the introduction of new pay arrangements for Service Medical and Dental Officers.

#### **Pensions and Compensation**

5.18 The new service pension scheme provides common, defined benefit arrangements for officers and other ranks, with major improvements to dependants' benefits, and entitlement to widows' benefits for unmarried partners in substantial relationships. The Immediate Pension will be replaced by a system of compensation payments to meet expected changes in tax law, with some reduction in value to pay for improvements elsewhere in the new scheme and to help cover the cost of

people living longer. Those currently serving will be offered the choice of remaining on their current terms or entering the new scheme.

5.19 The new injury compensation scheme is better focused on need. It will offer a stream of income where earnings capacity is significantly affected and, for the first time, lump sums for pain and suffering; both of these will be graduated according to seriousness of injury. Claims will need to be made within five years of the incident or leaving the service, and scheme decisions will be taken using the balance of probabilities' standard of proof. For the first time, it will be possible to receive injury compensation while remaining in service.

#### **Accommodation**

5.20 We remain committed to the provision of good quality accommodation for service personnel but individuals' expectations are changing and many seek greater choice as to how they are accommodated. To meet these changing aspirations, a Defence Housing Strategy will direct the future provision of housing for service personnel and their families worldwide. Key components of this are the provision both of good quality service family accommodation in the right locations to support mobility and a choice for those individuals who choose greater stability. The strategy will be delivered through a mix of housing types (eg owned, leased, Private Finance Initiative, hirings and rentals) together with the provision of more help and advice for service personnel on their housing options and facilitating moves into the housing market for service personnel who wish to make that choice.

5.21 For single personnel, considerable progress has been made with the Single Living Accommodation Modernisation programme (Project SLAM). Work at the first sites began in April 2003. Combined with other parallel projects in the UK and overseas, a total of 60-70 establishments will see work on their sites by the end of the current financial year. Although the full impact will not begin to take effect until 2005, the Defence programme is on target to deliver 30,000 new bed spaces over the next five years, rising to 60,000 by 2013.

#### **Resettlement**

5.22 A robust and effective system of resettlement provision is a fundamental pillar of personnel support, and is an important element of retention. It allows military personnel to serve, secure in the knowledge that they will receive ample assistance when the time comes for them to leave the Armed Forces. The Career Transition Partnership was formed in 1998 between the MOD and a civilian outplacement group, to ensure that this assistance is provided, and has achieved a strong record of resettlement success.

#### **Retaining and motivating Civil Servants**

5.23 Our civilian workforce must have the right balance of skills to offer effective support to the Armed Forces now and in the future. The key issues are the implementation of the comprehensive change and modernisation programmes and the continuing improvement of performance. We have developed a new civilian Human Resources (HR) strategy that will provide a framework through which to achieve this and which includes a radical transformation to the way HR activities will be carried out in future.

5.24 As part of that strategy, several key steps have already been taken. Civilian staff below the Senior Civil Service have agreed a competitive four-year pay deal running from 2002-2005. This was brought in alongside new appraisal arrangements, which place an increased emphasis on development, to meet both individual aspirations and Departmental needs. To assist individuals in managing their careers, we shall have a new package of career and development advice and support with better information on what is available and greater clarity on the skills and experience the Department is seeking.

5.25 Work-life balance is high on many personal agendas and helping people achieve it is an important factor in maintaining staff motivation. We are looking at ways to publicise our policies and encourage innovative approaches to satisfy individual needs.

#### **Diversity**

5.26 We have appointed a Departmental Diversity Panel, jointly chaired by the Chief of the Defence Staff and the Permanent Secretary, which includes

external Panel Members, senior officers and officials. The Diversity Panel is developing a unified MOD diversity vision, mission and business case that will make clear to all the benefits of working in an organisation that represents the broadest possible sweep of British society. Our response to new legislation has been positive and our recently introduced Race Equality Scheme was seen as a significant factor in winning Gold Awards from Race for Opportunity this year. Operating the Race Equality Scheme requires us to look for ways to promote good race relations in every key working practice and process.

#### **Skills and Training**

5.27 MOD is a major provider of training and education: 11,435 Modern Apprenticeships, 13,128 NVQs and 708 first and postgraduate degrees in 2002/03 for Service personnel alone. The quality of the training and education we provide to both civilian and military staff is of critical importance – it underpins operational capability, improves retention and enhances personal development. In addition, through the Learning Credits scheme (Enhanced Learning Credits from April 2004), service personnel receive generous through-career support to aid their personal development. For postgraduate study and research, the Defence Academy of the United Kingdom was formed in April 2002 and is a national and international centre of excellence, providing civilian and military personnel with a high quality education.

#### **Operations**

5.28 We are currently gathering data on separation for all service personnel as excessive levels of separation are demoralising and retention-negative. This data will help us to identify and introduce alleviating measures. We shall be able to use this information in constructing future planning assumptions and in planning commitments and to evaluate the effectiveness of manning measures (recruiting, retention, restructuring) against increased financial compensation or welfare support.

5.29 The Operational Welfare Package (OWP) remains key here for both regulars and reservists. During Operation TELIC this was implemented in stages and included: e-mail and postal facilities; welfare telephones;

# **Delivering Security in a Changing World**

## **Supporting Essays**

newspapers; radio and TV broadcasting; Internet access and shop facilities. We also organised, with the support of the Royal Mail Group, a free scheme for families and friends to send letters and packets of 2kg or less, to personnel deployed on Operation TELIC. The OWP has also been extended to help home units provide communications and welfare for families, such as through the improvement of Internet access at unit community centres. Additionally, the specific requirements of reservists and their families were catered for by the chain of command (regional command chain in the case of the Army), Reserve units and the welfare briefings provided on mobilisation and demobilisation.

### **Planning for the future**

5.30 For both our civilian and military workforces, major modernisation programmes are in hand to deliver better value-for-money and more effective personnel services, making the most of new technology.

5.31 Of particular note is the Joint Personnel Administration (JPA) initiative. This will provide the Services with a common system to administer Regular and Reserve personnel (and pensioners) underpinned by modern, commercial off-the-shelf software. Policy and processes are being harmonised to simplify and reduce the existing complex personnel regulations and to remove single service differences wherever possible. JPA will, however, bring wider benefits to the Department, the Services and to our people. New legislation will be implemented more quickly and the provision of a single, authoritative source of management information (which, crucially, allows a better understanding of our people) will enable production of evidence-based policy with greater ability to target solutions to problems and to measure impact. This, together with improved joint military personnel planning tools, will allow us to respond more effectively to new situations at home and overseas. JPA will bring a new efficiency to our personnel administration with a wide range of outputs and expert advice being delivered by a single, tri-Service Centre. This, together with the planned self-service facility, will allow personnel to play a direct role in their own administration. Plans to implement JPA in all three Services between 2005 and 2007 are on schedule.

5.32 The new HR strategy for civilian personnel is leading to a similar transformation in the management of our civilians. A similar shared services approach to the future delivery of HR services will offer improved, more consistent support to individuals and line managers through a single Service Delivery Organisation from 2006. The roll-out of a new Human Resources Management System is the first step in this transformation, using a commercial off-the-shelf system, and is now well underway. As well as enabling self-service and e-transactions for individuals and managers, it will provide much improved management information to support planning and decision making. Policies and processes are being streamlined and simplified as well, in support of the aim of helping managers to manage their people effectively as an integral part of managing their business. We are also actively engaged in the Government-wide Modernising People Management Project, which is seeking to raise the standard of people management across the Civil Service, to enable improved delivery of public services.

### **Contribution to the Government's Wider Agenda**

5.33 Every year almost 20,000 trained and experienced personnel leave the Armed Forces. This represents a tremendous pool of talent for the UK economy. More specifically, the Armed Forces and the MOD play an important role in the delivery of the Government's wider social and educational agenda. Paragraph 5.27 notes that the MOD is a major education and training provider. In this and other ways, the MOD makes a substantial contribution to the Government's drive to raise standards of education and skills, working closely with the Department for Education and Skills (DfES) in a number of areas. The MOD is seen as an exemplary employer in improving the literacy, language and numeracy skills of its personnel. The Adult Basic Skills Strategy Unit highlights this work as good practice. The MOD contributes significantly to the Government's drive to improve the basic skills of 1.5 million people by 2007. Each of the Services is engaged in the broader DfES-led Skills Strategy, with its emphasis on investment in skills and training of personnel and on sector-led vocational training and qualifications. The 130,000-strong, MOD-funded Cadet Forces, together with initiatives such as Skill Force or Cadet Outreach, also have a direct and beneficial impact on the prospects of many disadvantaged young people.

5.34 Civilian staff are encouraged to undertake voluntary work in the community, and can take up to three days' Special Paid Leave a year for volunteering their skills to assist charitable organisations. Training activities supported by the Department, such as Prince's Trust ventures and Raleigh, also enable our people to develop and use their skills for wider social benefit. Finally, as part of the Veterans Initiative, we are working with the Department of Health and the Department of Work and Pensions to explore incapacity among veterans.

### **Summary: Change And Modernisation**

5.35 We face considerable challenges on the personnel front. As we increasingly compete with other employers for recruits, our personnel costs will necessarily rise. As we continue to demand more of our people, we owe it to them to offer a fair employment deal.

5.36 This means that we need to be as efficient as possible in managing our people – taking advantage of any opportunity to eliminate any unnecessary differences and distinctions between the three Services.

5.37 The Services and their civilian counterparts also need to work more closely together, as do the separate organisations within the MOD, to add value, and avoid competition with each other. It also means that we have to prosecute the change agenda aggressively. The Defence Training Review, JPA, the Defence Housing Strategy and the studies falling out of this year's Service Personnel Process Review will also provide us with opportunities to provide a better deal for our people and free up resources that we can reinvest elsewhere.

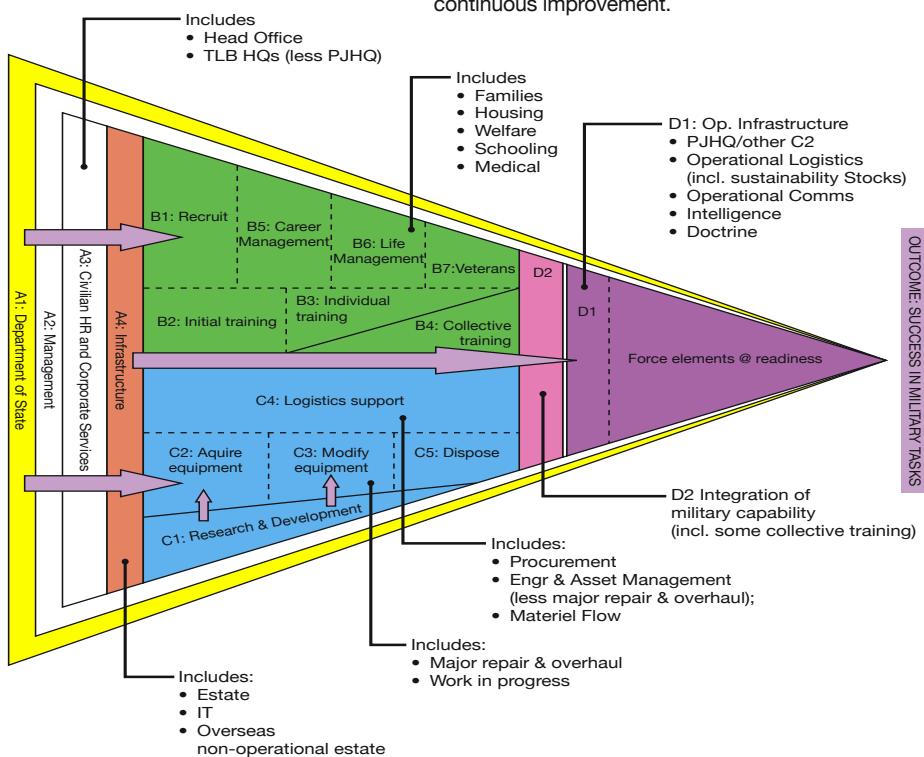
# Essay 6

## Defence Management

### Military Capability Enhancement – The Defence Management Role

6.1 Throughout Defence our people are working to deliver our core output of military capability as effectively and efficiently as possible. We do this by ‘joining up’ the many things which go together to make a battle-winning deployed force – for example, people, training, equipment and logistic support. This can be illustrated pictorially in the form of an ‘arrowhead’, the Departmental Business Model, below.

### Departmental Business Model



6.2 Deployed military forces are at the ‘sharp end’, with all the processes that go into delivering that force behind it. The components identified are delivered by means of a complex set of processes, which cut horizontally across a number of management areas in Defence. To make sure that the ‘joining up’ happens most effectively and efficiently, we have assigned each high-level process a single Process Owner. This makes one person accountable for ensuring that the support organisations and infrastructure – the ‘back end’ - operates in a high performing way. It will help us apply the most effective management tools and techniques across all sectors of Defence to enable us to deliver greater military capability. It also requires strong leadership, effective management of the Department and commitment to continuous improvement.

### The Defence Management Board

6.3 The Defence Management Board (DMB), jointly chaired by the Permanent Under Secretary (PUS) and Chief of the Defence Staff (CDS), provides senior leadership and strategic management of Defence on a day-to-day basis. Specifically, the Board is responsible for directing Defence, setting targets and objectives, high level resource allocation, performance and risk management. In fulfilling these roles, it uses several tools to ensure the business of Defence is operating as effectively as possible and for assessing and measuring performance.

# **Delivering Security in a Changing World**

## **Supporting Essays**

### **Defence Management Tools**

6.4 The MOD has a series of Departmental Objectives, supported by a number of targets, which are embedded in the Department's Public Service Agreement with the Treasury. Responsibility for the delivery of these Objectives is delegated to 11 Top Level Budget (TLB) Holders through Service Delivery Agreements that act as contracts between the Head Office and our 'Delivery Units'. Although the TLBs are responsible for the achievement of specific outputs, delivery of the core output – effective military capability – can only be achieved through integrating the components of military capability delivered by each TLB individually. The adoption of Process Owners will improve accountability for that integration.

6.5 Since April 2000, the Department has been using the Defence Balanced Scorecard, which provides a framework for the management of Defence. Progress against objectives is managed through a balanced set of measures, allowing the Board to consider whether we are delivering our outputs, whether our business and resource management processes are effective and, importantly, what we are doing to build for the future. We have analysed each of the main business processes and identified targets to drive improvements in efficiency and effectiveness. These targets relate to both inputs and outputs.

6.6 The progressive introduction of Resource Accounting and Budgeting (RAB) is providing a new range of financial management tools for use in delivering performance improvement. It will enable us to have a clearer view of the activities on which we spend our money, and how we might spend it better. In particular, it will help us identify and focus our efforts on the key cost drivers in the process. RAB is providing better data on which to base and inform decision-making and resource allocation. In essence, it will enable us to attach costs to the Departmental Business Model and identify our key drivers in the process.

6.7 More effective delivery of projects and programmes – both to acquire new capabilities and deliver change – is also a key feature of Defence management reform. We have, therefore, adopted the concept of the Senior Responsible Owner (SRO), which was established in the McCartney Report of May 2000, and has since been embraced by the Office of Government Commerce. This was aimed at driving improved performance in the delivery of Information Systems (IS)/Information Technology (IT) projects, and requires the nomination of a single SRO for each project, to provide strong leadership, streamline decision-making and banish confusion as to who is responsible for what, and to whom. The SRO is personally accountable for ensuring that a project or programme of change meets the objectives and delivers the projected benefits. He or she owns the overall business change that is being supported by the project and ensures that the change maintains its business focus, and that the context - including risks - is actively managed.

6.8 The MOD has recognised that there are benefits to be gained from broader application of this concept, beyond just those projects that are IS-enabled. Implementing the Process Owner and SRO construct will be a significant endeavour in ensuring delivery of new and enhanced military capability. The Carrier-Strike delivery programme will be used as a pathfinder for the SRO process because of its complexity and significance.

6.9 The management tools described above are designed to ensure that we deliver military capability as effectively and efficiently as possible. To test our overall delivery capacity, and as part of a cross-government exercise, MOD has carried out a strategic review of its 'delivery landscape' - the organisations and processes involved in delivering military capability, and the mechanisms for managing the delivery process as a whole. The findings of the review have been encouraging. It highlighted MOD's long track-record of success on operations and military tasks, and concluded that the structure and status of organisations within the Department's delivery landscape, and the framework of business processes in which they operate, is well-suited to the delivery of military capability. MOD's top-level management mechanisms were also judged to be good. The review underlined the importance of the key tools described above, in particular the important steps MOD has taken to improve its management of business processes.

6.10 Finally, risk identification is central to our planning and to the effective corporate governance of the Department. We use risk analysis to manage obstacles to the delivery of our objectives and to exploit opportunities. The introduction of Risk Registers at DMB and TLB level, in a cascade approach, ensures a mix of top-down and bottom-up identification and management of risk. The DMB considers risk on a quarterly basis as a fully integrated part of the performance management regime. More widely, active risk consideration, which has long been a part of military and project planning, is now included as part of better policy development and change delivery work.

## Defence Change Programme

6.11 The MOD has a strong record of accomplishment in improving efficiency and service delivery, but we are not complacent. We attach a very high priority to driving forward continuous improvement in all aspects of our business, so that the maximum investment can be made in our key output: operational capability. A vital element of this strategy is a vigorous, prioritised, centrally-driven Defence Change Programme, which pulls together all the major current or planned change initiatives across the MOD as a whole, ensuring that between them, they deliver the required business improvement in a coherent and measurable way. This is achieved through:

- Testing, challenging tracking the benefits of business improvement initiatives, to ensure that each individual initiative is worthwhile, and has the necessary framework within which to deliver benefits as quickly as possible.
- Understanding the initiatives in totality, and prioritising where necessary, building confidence that we have the capacity to deliver the programme overall, and are focusing our change capacity on those programmes that are mission-critical and provide the greatest benefits.
- Ensuring a clear understanding of what the MOD will look like once all the current initiatives bear fruit, allowing us to match this picture against our future vision for the MOD.

Key change programmes are shown below in the context of the Departmental Business Model:

KEY CHANGE PROGRAMME	OUTPUT
The Defence Training and Education Change Review	Service Personnel
Joint Personnel Administration	
Defence Health Change Programme	
The Defence Logistics Organisation Change Programme	Fighting Capability and Support
Whole Fleet Management	
End to End Logistics Review - Air and Land	
Broadening and Deepening Smart Acquisition	
The Head Office Change Programme (HOME)	Management Infrastructure
Improving the MOD's planning processes	
Defence Information Infrastructure	
Estates Services Modernisation	
The Civilian HR Transformation Programme	Corporate Services
Financial Systems Modernisation	

## Information Management

6.12 Underpinning the successful implementation of these change initiatives – and crucial to their overall success - is the Defence Information Infrastructure (DII) programme. Exploitation of IT is pivotal to delivering high capability integrated forces, backed up by a cohesive set of business and support systems designed to enable increased capability at reduced cost. This is achieved through better use of information itself. The DII programme is designed to provide a common computing platform across Defence that will transform the way information is created, communicated and exploited, to provide our people with the right information, at the right time and in the right place. The DII will ultimately replace 300 diverse information systems across 2,000 locations worldwide.

6.13 In ‘joining up’ the business of Defence, the DII programme will:

- Provide a single coherent interoperable Information Infrastructure service at less cost than discrete, function-specific legacy systems, through economies of scale and optimum use of off-the-shelf computing technology.
- Enable the delivery of benefits and increased capability resulting from the Defence Change Programme and the equipment acquisition programme, as well as ensure compliance with statutory information requirements and Government policy.
- Help deliver process, common core services, security and resilience improvements that will be key to more effective and efficient ways of working.

6.14 The benefits, which we will actively measure, will be lower support costs resulting from rationalisation of services and modern centralised network management, delivered through common access devices, and leading to economies of scale with a minimum 10% saving in cost of ownership by 2006. This will also achieve reductions in a range of network gateways, software and training costs (delivered through better governance and tighter control of IT spend) and in the multiplicity of computing infrastructure interdependencies.

6.15 The DII will therefore provide the vital underpinning to virtually all of the associated Defence Change Programme initiatives, which, coupled with on-going investment in capability improvements, form the core of our Defence Management transformation and improvement efforts. Delivering DII is therefore essential to successful reform.

## Improving Personnel Management

6.16 Two major ongoing change programmes, the Joint Personnel Administration Programme (JPA) and the Civilian Human Resources Transformation Programme are both concerned with the introduction of management systems enabling us to manage our people better.

6.17 The Defence Training Review (DTR), which was completed in 2001, set the agenda for an integrated training and education system, which is aligned to operational and business needs, responsive to change and cost-effective. DTR recommendations are being driven forward by the Director General Training and Education, who provides a focus for individual training and education across Defence, delivering both MOD and Government-wide initiatives. The Defence Academy, formed in April 2002 as a centre of excellence, provides civilian and military personnel with high quality education, primarily at the postgraduate level, and conducts research into Defence-related subjects. The new Defence Leadership Centre is an integral part of the Defence Academy.

# Delivering Security in a Changing World

## Supporting Essays

6.18 Medical support is vital to operational capability. The modernisation of the Defence Medical Services (DMS) will generate resources for the more effective delivery of deployable medical operational capability to the front line. The Defence Health Programme sets the strategic and policy context, and details objectives, performance indicators and targets to deliver improved performance across the DMS. The Defence Medical Education and Training Agency (DMETA), launched on 1 April 2003, will focus on providing more cost-effective delivery of medical training, working closely with the single Services. The Royal Centre for Defence Medicine in Birmingham is being developed as a centre of excellence for military medicine.

### Equipment and Logistics Management

6.19 The Smart Acquisition programme was implemented as a result of the Strategic Defence Review (SDR). The aim is to enhance defence capability by acquiring, integrating and managing assets and services more effectively and efficiently, in terms of their performance and through life cost. Projects are managed by Integrated Project Teams (IPTs) which ensure that investment decisions take account of longer-term support requirements. Strong customer focus is provided and the approvals and scrutiny process has been enhanced to provide increased rigour, more effective risk management, and increased delegation.

6.20 To build on this success, we are now considering options for further improvements to deliver greater business benefit in areas such as risk reduction, through-life management and our relationship with industry. Parallel improvements to the business and acquisition processes are also under review. It is intended that the changes will be in place by April 2004.

6.21 The Defence Logistics Organisation (DLO) was set up following the SDR to improve the effectiveness and efficiency of logistic processes by combining many of the single-Service elements.

The DLO Strategic Plan has established the process for achieving this. It is currently undertaking the DLO Change Programme, one of the biggest change management programmes in the UK, aimed at delivering efficiencies in the key logistics processes of engineering and asset management, procurement, and materiel flow. This will allow reduced asset holdings, smaller spares purchases, and cheaper procurement through, for example, reduced unit costs. There will be knock-on implications for DLO infrastructure and organisation, with its size likely to reduce both as a result of process streamlining and through the move from 'provider' role to that of 'decider', where this is deemed operationally suitable and cost-effective.

6.22 The DLO's achievements to date include:

- **Lean Support.** DLO IPTs work to optimise stock holdings, benchmarking performance across the DLO and making best practice comparisons with the private sector. By March 2003, savings of several million pounds had been made in the air environment alone and, given the further stock reductions planned, considerable additional savings are anticipated during 2003/04.
- **Warship Support Modernisation.** There has been a fundamental reappraisal of the way in which we support and maintain the fleet. Since Autumn 2002, 3,000 posts have transferred to contractors and 1,600 RN personnel seconded to work in partnership with contractors, ensuring that military standards are properly understood and safeguarded, and essential skills maintained. This is another area where real savings are being realised.
- **Procurement.** The Non-Project Procurement Office (NPPO) seeks to achieve economies of scale by using innovative techniques based on Smart Acquisition. A wider review of procurement reform is being coordinated across the DLO and DPA and this should result in significant savings. Once again, it is expected that significant savings will be achieved from these innovations, as part of a wider review of procurement reform being coordinated across DLO and DPA.

• **Front Line Focus.** The DLO has played a key role in supporting an unprecedented level of operational activity. It has worked with industry to provide improved equipment for Operation TELIC, achieving a similar scale of logistics deployment in almost half the time taken for Operation DESERT STORM, together with an eight-fold increase in communications bandwidth, essential to effective operational command and control.

6.23 The End to End Review of logistics, which reported recently, was tasked with examining existing logistics support processes in the air and land environments in order to propose more effective and efficient ways of providing logistic support to land and air forces. The Review identified a substantial range of opportunities for improvement, though given the scale and scope of the change necessary, evolution to an End to End approach to logistics is likely to take several years. Work is in hand to take forward the recommendations, including more detailed appraisal and demonstration of benefits where necessary. This will include work with industry to deliver better value for money solutions. Formal engagement with Trades Unions is underway, as the work to demonstrate, develop and implement the detailed proposals is taken forward.

### Improving Infrastructure & Sustainable Development

6.24 In June 2000, MOD published 'In Trust and On Trust', the overarching and comprehensive strategy for the Defence Estate. In line with this strategy, Project Alexander, activated in April 2003, has provided more coherent estate management by separating the supply and demand functions. New customer estate organisations will define, prioritise and formalise requirements, whilst a re-launched Defence Estates will fulfil the supply functions. More effective mechanisms for putting together a more coherent estate programme have also been put in place.

6.25 These organisational and programme changes support the introduction of Prime Contracting, placing Defence Estates at the forefront of Government initiatives to improve public sector relationships with the construction industry. The initiative is already delivering results, including the award of the first of five regional contracts in Scotland in March 2003, and for the modernisation of Armed Forces single living accommodation – Project SLAM. As part of the estate strategy, the Core Site Rationalisation initiative will focus future investment on sites with a long-term future, with further disposals of surplus property being made.

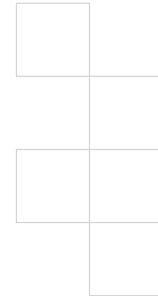
6.26 The MOD complies with the Government's strategy for sustainable development detailed in the Framework for Sustainable Development on the Government Estate and undertakes environmental policy appraisals of all new or revised policies and equipment acquisitions. A pan-MOD group drives the development of performance indicators and action plans to meet the Framework's targets. Former MOD land is being returned to both industrial and residential use - land in Farnborough has been developed as a Business Park and in Burtonwood, Warrington, a former storage site is to be developed as the centre of a new village. The MOD is also committed to the UK Biodiversity Action Plan and the Government's Better Quality of Life key objective to reverse the decline in UK wildlife and its habitats.

### **Conclusion**

6.27 Effective Defence Management plays an important role in maximising military capability. It is a continuous process, kept under constant review. The drive to deliver greater efficiencies and embrace a culture of performance improvement is fundamental to our success. Using the tools described above, and applying them across the business of Defence, will enable the UK's Armed Forces to continue to deliver the final outputs required of them, with the best people, training, equipment and support.

# Essay 7

## Making Defence Industrial Policy Work for the Armed Forces and UK Industry



### A Pro-active and Flexible Policy to Support Modern Forces

7.1 The MOD manages a large number of programmes that not only deliver new equipment and capabilities but crucially also support a large inventory of equipment that is already in service. The performance of these programmes is dependent upon us working with industry to deliver the required capabilities on time and within budget. The enormous changes and restructuring of the global defence industry over the last 20 years prompted us to review our relationship with industry, culminating in the publication of the Government's Defence Industrial Policy (see text box for key conclusions). Our policy recognises that we place ever more demanding requirements upon our Armed Forces which can only be delivered by maintaining access to cutting-edge capabilities; it is to industry that we look for these advanced technologies and for their rapid development into capabilities which meet the diverse threats that we, and our allies, face in the world today.

### Key Principles of Defence Industrial Policy (published October 2002)

- MOD is responsible for providing the Armed Forces with the equipment that they require, on time, and at best value for money for the taxpayer and at a price we can afford. The Government also seeks to maximise the economic benefit to the UK from defence expenditure, to sustain a healthy and globally competitive defence industry and to develop a high value technologically-skilled industrial base.
- The UK defence industry embraces all defence suppliers that create value, employment, technology or intellectual assets in the UK. This includes both UK and foreign-owned companies.
- We will be more transparent and inclusive, from the early stages of a procurement project, about the factors that affect acquisition decisions. As far as possible, we will declare them to potential bidders at the outset. We will assess the aggregate impact of decisions on the defence industrial and technological base.
- Open and fair competition remains the bedrock of our procurement policy. But we will not use the competitive process beyond the point where it can offer long-term advantage, and we will use other approaches where these offer better long-term value for money. We will seek to provide a more appropriate risk/reward ratio for programmes with high technological risk.
- We will continue to press for freer access to overseas markets. We aim to improve the legitimate flow of defence information and technology across borders, and to enable the UK defence industry to compete on merit in other markets. We will continue strongly to support defence exports.
- Investment in research and technology (R&T) is crucial to the future prosperity of the defence industrial base and the capability of the Armed Forces. We will work with industry and academia to co-ordinate our joint resources, to maximise exploitation of civil technology, and to target our investment into areas of military importance in which UK industry can be global leaders. We will also seek to avoid duplication of effort with our allies, improve access by industry to foreign technology, and increase the proportion of research collaboration.
- We are committed to maintaining a close dialogue with industry, through the National Defence Industries Council, to implement our industrial policy, maintain a comprehensive view of UK defence industrial capabilities, monitor progress and deliver results.

7.2 We now work with an industry that is dominated by a small number of very large international prime contractors. These prime contractors are often the only companies capable of undertaking our largest and most complex programmes as only they are able to bear the financial and technical risks involved. It is important that we avoid adversarial or one-sided relationships. Unrealistic contracts will not deliver good programmes now or sustain capabilities into the future. It is equally important that industry recognises the Government's imperatives – to equip the Armed Forces at best value for money and at a price we can afford. Ultimately, whatever the contractual or legal redress for poor performance, it is the Armed Forces that carry the operational risk.

7.3 We must increase the flexibility and adaptability of our systems and processes so that we can move quickly to deliver new or adapted capabilities when they are needed. Our emphasis on expeditionary forces means that capability modifications are likely to be more frequent in future. We must adapt and develop relationships that react swiftly to integrate new capabilities into the networked battlespace of the future.

7.4 Our October 2002 Defence Industrial Policy addressed these issues by seeking to develop an environment which helps promote innovation and efficiency and the global competitiveness of the UK defence industry. The measures that we advocate address acquisition processes, market access and delivering better returns from our investment in research and technology. Our work in these areas has highlighted the need to develop our relationship with industry to promote dialogue and understanding to foster the new levels of cooperation that are necessary if we are to succeed in the long-term. Developing these relationships will be key to our mutual success during the next decade.

### **Developing Relationships and Processes**

7.5 The relationship between the Government and industry affects all aspects of defence capability, and to a large extent, determines the success of programmes. We have moved towards longer-term relationships aimed at delivering new capabilities and supporting them throughout their lives. We have engaged with industry through the National Defence Industries Council to identify the areas in which we should concentrate our resources to implement our industrial policy. Together we are looking at the capabilities of industry and promoting a fuller understanding of our future capability requirements. At the same time we are considering how to overcome skills shortages and to improve the risk/reward ratio in a way that contributes to timely delivery of capabilities within agreed cost limits.

7.6 Improved relationships and increased responsiveness also support faster and incremental acquisition – key elements of Smart Acquisition. Incremental acquisition has allowed us to embark on an ambitious programme of capability acquisition whilst also managing the huge levels of technological risk that accompany such ambition. By employing incremental acquisition we are able to challenge our suppliers whilst setting realistic goals. This requires responsiveness and cooperation in the supply chain to enable technology to be pulled through quickly into applications. Higher levels of early experimentation allow us to keep our options open for longer and avoid entering into firm contracts before all parties have an adequate understanding of the risks and benefits involved in a programme. Consistent with this approach is our willingness to undertake concurrent developments that allow us to firm-up designs at a later stage.

7.7 The dominance of commercial technology has attracted skilled workers away from the defence industry, resulting in a shortage of key skills and competition for specialist resources. The result can be dysfunctional, with key personnel being taken from successful programmes to turnaround those that are experiencing difficulties, almost inevitably resulting in a drop in performance on previously successful programmes. There is no short-term solution to skills shortages. The long-term solution involves a stable equipment programme against which future resource requirements can be planned. We are making particular progress in the area of shipbuilding where we have one of the largest programmes of shipbuilding in recent times. In partnership with industry we are comparing our resource requirements against capacity and evaluating the options to smooth out our demand for resources. In this way we can look at ways of avoiding large peaks and troughs. It is equally important that we avoid our programmes competing over the available shipbuilding capacity and thereby compromising the overall level of ship-borne capability being delivered to the Royal Navy.

7.8 The move from platform-centric to network enabled capabilities brings new challenges for us all. The complexity of the relationship between our systems will be magnified and we will need to respond by developing new ways to work together. Such complex 'systems of systems' integration issues that are brought about by networking our capabilities need greater cooperation within industry and the creation of an environment by Government that permits this. Contractual relationships will need to be more adept at aligning rewards with tangible progress towards our goals and encouraging innovation. We will need to access talent and skills from across industry and manage them to work towards shared goals.

# Delivering Security in a Changing World

## Supporting Essays

### Developing International Co-operation and Market Access

7.9 The recent conflict in Iraq has demonstrated once again that the level of co-operation between allies at an operational level is good. We expect that in the future we will usually be operating as part of a coalition and to support such operations we must have high levels of industrial co-operation to deliver much improved interoperability.

7.10 We place a high priority on improving market access. We benefit from an open defence market – this brings competitive pressures to bear resulting in efficiency and innovation and gives us access to a wide pool of technologies and capabilities. It also fosters an industrial environment in which the UK defence industry is able to co-operate with overseas suppliers. Although we secure a high level of defence exports that help to sustain our industrial base, our open market is not matched by the same levels of openness in our allies' markets. There are numerous barriers to legitimate trade that restrain our industry's ability to supply technologies and capabilities to our allies. Trade barriers impact on our allies' capabilities and constrain industrial co-operation. No single nation can expect to supply all technologies and capabilities from indigenous sources. We shall therefore emphasise to our allies the benefits to be gained from reducing such barriers and the penalties if such steps are not taken.

7.11 There are encouraging developments in our efforts to break down barriers to co-operation, most recently with the US. We have agreed with the US Administration a waiver for the UK from the International Traffic in Arms Regulations (ITAR), which will facilitate transfers of unclassified defence goods, technology and information, and hope that the necessary Congressional approval will soon be in place. The regulatory and administrative implementing measures, about which we are consulting with UK industry, are now being worked through. The Prime Minister agreed with the US President in July changes to facilitate a more timely sharing of defence information between our Governments. This will involve a cultural change, shifting the emphasis to justifying when information should not be shared.

7.12 These developments are complementary to the US/UK 'Declaration of Principles'. Under this framework we have improved co-operation on developing and harmonising military requirements to facilitate identification of common requirements and opportunities for collaboration. We have also agreed measures to give confidence in the security of supply of defence equipment and services.

7.13 In Europe OCCAR (UK, France, Germany, Italy and now Belgium) provides a common framework and procurement processes, aiming at minimising hitherto institutional delays in European collaborative programmes and replacing rigid workshare quotas with the more flexible concept of 'global balance' across a range of programmes. The Letter of Intent Framework Agreement with France, Germany, Italy, Spain and Sweden is facilitating the restructuring of the European defence industry. We have improved the system for arranging classified visits, allowed the use of commercial encryption products by industry and introduced a Global Project Licence system that permits a single export licence to cover all aspects and phases of a programme. We are also working within the EU to shape the creation of a new body that has been proposed to oversee the development of European capabilities, R&T and equipment acquisition.

### Research Partnering with Industry

7.14 Technological superiority is a key driver of military capability and success. It is crucial to achieving the speed, accuracy and precision that we demand from our operations. We must rapidly exploit emerging technologies. We are in the process of radical reform, ensuring that our substantial science and technology (S&T) investment is optimally focused on delivering our defence needs. Re-orientating ourselves towards delivering specific fundamental S&T 'outputs' will help ensure that stakeholders have access not only to critical decision making advice, but also ensure that both we and our industry have access to future technology; are able to swiftly develop innovative solutions for use by our Armed Forces; and that technological capability is built up in our equipment supplier base.

7.15 Within the context of this new approach to S&T the MOD and industry must broaden and deepen our research partnerships. In an age where US defence S&T spending is 12 times that of the UK and where civil S&T spending far exceeds defence expenditure, it is important that we focus our efforts. Industry, via the National Defence and Aerospace Systems Panel, is currently working on updating their list of technology requirements, the National Defence Industry Technology Strategy. In parallel, we are updating our technology strategy and will then work with industry to identify areas of mutual benefit. In each area we aim to become a world-class source of technological excellence.

7.16 Once these focus areas have been identified we can put in place a mechanism for deepening our partnership with Industry. Defence Technology Centres (DTC) and technology Towers of Excellence (TOE) are two models we are using to partner with industry and academia on fundamental and applied research respectively:

- DTCs<sup>1</sup> are designed to be world-class centres of excellence bringing together industry and academic experts to generate specific basic level technologies vital to the delivery of future UK Defence capabilities. Each DTC comprises one or more S&T work packages, funded jointly by the participants and MOD. The MOD will benefit from a source of expertise in specific areas of basic level S&T, industry will see a return on their investment through exploitation in future defence equipment, and academia will have greater opportunities to develop their ideas. The first contracts for DTCs launched in the early part of 2003 covered the following areas:
  - BAe Systems-led consortium for Electromagnetic Remote Sensing
  - General Dynamics-led consortium for Data and Information Fusion
  - Aerosystems International-led consortium for Human Factors Integration

<sup>1</sup> More information on Defence Technology Centres can be found at [www.mod.uk/dtc](http://www.mod.uk/dtc)

### **Research Partnering**

A good example of research partnering is the means used to select a DTC research area. Comparison of industry and MOD technology strategies led to the identification of defence systems engineering/integrated systems and autonomous/semi-autonomous vehicles as high priority topics. As a result we are holding a competition for a DTC in the area of Systems Engineering & Integrated Systems for Defence: Autonomous & Semi-autonomous Vehicles which could attract MOD funding of up to £5 million per year over a maximum of six years.

- Towers of Excellence are collaborative partnerships between industry, academia and the MOD. They aim to better co-ordinate S&T research in areas of sub-system technology of high priority to military capability.

Towers of Excellence have been launched in the areas of Guided Weapons, Radar and Underwater Sensors. Each Tower aims to include the whole of the UK defence equipment supplier base in the area concerned. Research is either fully funded by the MOD and the results made available to all firms in the relevant supplier base, or is privately funded. In the latter case industry has the advantage in being able to build upon the MOD-funded research to obtain better value from its private capital. Two further focus areas are planned for the first phase of this initiative - Synthetic Environments and Electro-Optic Sensors. More information on Towers of Excellence can be found at [www.mod.uk/toe/](http://www.mod.uk/toe/).

Once the ongoing review of focus areas is complete, further research partnerships such as Technology Centres and Towers are expected to be set up in the new focus areas identified.

### **Tower of Excellence: Guided Weapons Tower**

The Guided Weapons Tower seeks to maximise the benefits of UK's research programme by promoting active consultation between MOD, industry and academia. MOD benefits through better focused research with maximum possibilities for pull-through into the Equipment Programme; industry benefits through opportunities for exploitation, a clearer view of emerging needs and the opportunity to align private venture activities with MOD; academia benefits through involvement in world-class research with practical applications. The Tower is pioneering new ways of co-operative working with particular emphasis on addressing Intellectual Property issues.

7.17 Historically we have placed most of our research with in-house research suppliers. Following the formation from DERA of the Defence Science and Technology Laboratory (Dstl) for sensitive research, which should only be done within government, and the private company QinetiQ, it is now no longer appropriate for there to be a monopoly prime supplier of defence research. We are therefore progressively putting more research out to competition. If one excludes research that can only be done in Dstl then, by 2007, some 70% of our research programme will be let competitively. UK industry will routinely receive the results of all research contracts let on normal MOD terms and all of Dstl's work that is releasable, ensuring that the overall level of the UK's defence technological capability is raised. Further information on the MOD's research competition can be found at [www.mod.uk/business/excel](http://www.mod.uk/business/excel).

7.18 We have seen a shift in technology leadership – whilst defence technology would once have led the field and resulted in commercial spin-offs, the reverse is now more likely to be true. In many fields, commercial technology leads the way, with defence needing to become more adept at exploiting it, for example, in the fields of communications and information technology. In many technology areas, the commercial viability of investment is underpinned by the size of the potential civil market and the speed with which products can be delivered. These technologies are not appropriate for our investment, although we must maximise our ability to exploit them. It is on areas that do not attract commercial investment that we must concentrate, avoiding duplication of research efforts through collaborative programmes and focussing on areas where we can be at the forefront of developments. We seek to maximise the contribution of collaborative programmes and secure access to the widest possible portfolio of technology. Technology watch has become a key activity, enabling us to be aware of developments in emerging fields and exploit them as the technology matures.

7.19 We have also worked with industry to introduce commercial standards and commercial best practice into defence systems wherever possible. The move to open architectures has made equipment programmes accessible to a wider pool of talent within the industrial base. It makes the task of integrating systems easier. Crucially it allows new sub-systems to be integrated faster, allowing us to be more responsive to urgent operational requirements and to upgrade capabilities as required. More fundamentally, we have been looking at how to make it easier, quicker and cheaper to incorporate new technologies into our systems. This is likely to go beyond open architectures alone, and require a philosophy of modular design at all levels in our systems. The Defence Scientific Advisory Council has recently produced a thought-provoking report on this topic.

# **Delivering Security in a Changing World**

## **Supporting Essays**

### **International research co-operation**

7.20 Within the European context the UK's investment in research, technology and development is very significant. In fact the UK and France together spend three quarters of the European total. The US's investment, however, dwarfs that of the whole of Europe and it is unrealistic to compete with the US across the full spectrum of technology. Instead we are seeking mutually beneficial technological partnerships with allies through International Research Collaboration (IRC). Our main partner for such collaboration remains the US, and it is our aim to deepen this long-standing and trusting collaboration, particularly in regard to the generation of technology which both US and UK industries can access.

7.21 IRC is not limited to one partner only, and the UK is privileged to enjoy such co-operation with many other allies. For example, French and British industry share a number of cross-border defence companies (e.g. MBDA and Thales) and IRC is beneficial in avoiding duplication of effort and in gaining financial support for joint research. In addition, we have a highly productive co-operation with Sweden, a country which has shown very original and focused approaches to defence technology issues.

### **Future Power Sources**

The future soldier, as part of the UK Future Integrated Soldier Technology (FIST) programme, will act as a mobile platform, carrying a variety of electrical devices (for example, thermal imagers, head-up displays, GPS, radios, and computers). The energy requirement for all this equipment will be around 10 times that achievable through current rechargeable battery technology.

To help address this problem, the UK entered into a bilateral Information Exchange Agreement with the US in the areas of fuel cell design and performance, battery design and technology, novel power sources and power management systems.

This collaboration has helped identify fuel cell technology as a means of addressing future battlefield power requirements. These fuel cells are capable of producing over eight times more power than current state-of-the-art lithium batteries and have a potential life of up to five years.

To generate a commercial supplier base that can meet our defence needs, the MOD is funding a programme with involvement from QinetiQ, Ineos Chlor, Black and Decker and Intelligent Energy, aimed at producing a hand-held fuel cell for recharging batteries.

7.22 The potential gains from co-operation with European nations should not be underestimated. In order to enhance the chances of benefits being realised, the UK is participating with the other five Letter of Intent Framework Agreement nations on removing obstacles to collaborative research endeavours. In addition, the Research Directors of these nations maintain a common database of their research and technology programmes, and meet regularly to identify areas for co-operation. Another promising instrument is the Europa MOU of the 19 nation Western European Armaments Group (WEAG). This enables any grouping from two nations upwards to undertake co-operative research, and avoids the requirement for strict 'juste retour' that has constrained many other arrangements. It has been adopted by the Research Directors of the Letter of Intent nations as their co-operative instrument of choice. As on the national level, it is key to focus on those areas that will have the biggest impact on military capability. However, for Europe overall to achieve a breadth and depth of defence technological excellence commensurate with its economic strength, all European nations will need to commit a similar proportion of their national wealth to defence S&T as does the UK and France.

### **The Future**

7.23 We are committed to achieving our industrial policy objectives and to developing our ideas where necessary. As part of this process we have reviewed progress during the first full year of implementing the policy. The review has been conducted in conjunction with industry and assesses how we have performed against our undertakings. The results of the review were published in November. We will consider with industry the findings of the Aerospace Innovation and Growth Team which, having analysed the aerospace industry in detail, reported in the summer on the industry's vision for the next 20 years. This acts as a guide for developing a national strategy for the industry. We will continue to work closely with industry in achieving the primary objective of the Defence Industrial Policy: getting the Armed Forces the equipment they need at value for money to the taxpayer and at a price we can afford.





MINISTRY OF DEFENCE



Published by TSO (The Stationery Office) and available from:

**Online**

[www.tso.co.uk/bookshop](http://www.tso.co.uk/bookshop)

**Mail, Telephone, Fax & E-mail**

TSO

PO Box 29, Norwich, NR3 1GN

Telephone orders/General enquiries: 0870 600 5522

Order through the Parliamentary Hotline Lo-call 0845 7 023474

Fax orders: 0870 600 5533

E-mail: [book.orders@tso.co.uk](mailto:book.orders@tso.co.uk)

Textphone 0870 240 3701

**TSO Shops**

123 Kingsway, London, WC2B 6PQ

020 7242 6393 Fax 020 7242 6394

68-69 Bull Street, Birmingham B4 6AD

0121 236 9696 Fax 0121 236 9699

9-21 Princess Street, Manchester M60 8AS

0161 834 7201 Fax 0161 833 0634

16 Arthur Street, Belfast BT1 4GD

028 9023 8451 Fax 028 9023 5401

18-19 High Street, Cardiff CF10 1PT

029 2039 5548 Fax 029 2038 4347

71 Lothian Road, Edinburgh EH3 9AZ

0870 606 5566 Fax 0870 606 5588

**TSO Accredited Agents**

(see Yellow Pages)

and through good booksellers

ISBN 0-10-160412-2

9 780101 604123