TRANSFORMING TO EFFECTS-BASED OPERATIONS: LESSONS FROM THE UNITED KINGDOM EXPERIENCE

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FOREWORD

The United Kingdom has remained one of the oldest and closest U.S. allies. It has continued to engage in a variety of operations across the globe in countries ranging from Afganistan and Iraq to the Balkans and Sierra Leone and has undertaken these tasks within a defense budget that has continued to decline as a percentage of gross domestic product. This has meant a series of changes to the traditional approach to defense that has gone much further than that of the United States and many of its European counterparts. As part of this process, the United Kingdom's Ministry of Defence and Armed Forces have officially sought to adopt an effects-based approach to operations within the context of an overall "comprehensive approach" that supposedly brings together the various organs of government. The author of this monograph, Dr. Andrew M. Dorman, evaluates the relative success the United Kingdom has had in adapting to this change, identifying a number of successes and pitfalls from which other countries could well learn.

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SUMMARY

Outside the United States, the United Kingdom (UK) has led the way in seeking to transform its military forces to meet the new strategic context in which it finds itself. Like so many of its counterparts, it has sought to do this within a defense budget that has continued to decline as a percentage of gross domestic product. This has meant a series of changes to the traditional approach to defense that have gone much further than the United States and many of its European counterparts. In essence, for good or ill, the UK has pushed ahead with changes to areas such as the use of contractors, both at home and on the battlefield; acquisition reform involving leasing and Public-Private Partnerships; the disposal of surplus defense real estate; and the role of sponsored reserves. As the same time, a considerable amount of attention has been given to how operations are conducted. As part of this process, the UK's Ministry of Defence and Armed Forces have officially sought to adopt an effects-based approach to operations within the context of an overall "comprehensive approach" that brings together the various organs of government.

For the United States, the UK's approach to military operations is important for a number of reasons. First, the UK frequently engages in a variety of similar type operations from which there are lessons that may be applicable to the United States either now or in the future, such as counterinsurgency in Northern Ireland or nation-building in Sierra Leone. Moreover, a number of authors have argued that there is a distinctly "British way in warfare" which is particularly suited to such unconventional operations.Second, since the

United Kingdom is one of the United States' closest allies, the UK armed forces are frequently engaged in operations in partnership with the United States. These have ranged recently from the Balkans to Afghanistan to Iraq. In fact, the only noticeable time the British were not involved in a U.S.-led operation since the end of the Cold War was in Somalia. The vast majority of these operations have involved sizable British commitments and a close integration of the British military in all the stages from planning through to nation-building. Interest in future British policy was most recently evident in the debate surrounding the transition of power from Prime Minister Tony Blair to Prime Minister Gordon Brown.

Third, the UK is a member of various military alliances, coalitions, and partnerships which place it in a strong position to influence how others conduct operations. These include the North Atlantic Treaty Organization (NATO); the European Union (EU); America, Britain, Canada, Australia, and New Zealand (ABCA); the Five Power Pact in the Pacific; and the Commonwealth. In the case of NATO, it was General David Richards, the commander of the largely British Allied Rapid Reaction Corps (ARRC) headquarters, who deployed to Afghanistan in 2006 and oversaw the expansion of NATO's role, including, for the first time since the end of World War II, leading a significant U.S. contingent.

This monograph therefore seeks to examine the extent to which the UK has transitioned to effects-based operations to ascertain (1) areas where the U.S. Army could draw lessons from UK policies; (2) areas where the U.S. Army and the British Ministry of Defence could develop integrated or complementary approaches and doctrines towards transformation for future alliance/

coalition operations; and (3) implications for the U.S. Army for working with the UK.

This monograph has been subdivided into four parts. Section 1 undertakes a review of the evolution of British defense policy since the end of the Cold War and evaluates the degree to which it has adopted an effects-based approach. Section 2 examines the British operational experience since the end of the Cold War, including an analysis of the lessons learned and its experiences in working with allies. Section 3 analyses the UK's capability development through its doctrine and acquisition strategies. Finally, Section 4 evaluates the implications of these findings for the U.S. Army and makes 17 main recommendations.

TRANSFORMING TO EFFECTS-BASED OPERATIONS: LESSONS FROM THE UNITED KINGDOM EXPERIENCE

INTRODUCTION

Outside America, the United Kingdom (UK) has led the way in seeking to transform its military forces to meet the new strategic context in which it finds itself.[1] Like so many of its counterparts, it has sought to do this within a defense budget that has continued to decline as a percentage of gross domestic product.[2] This has meant a series of changes to the traditional approach to defense that have gone much further than those of the United States and many of its European counterparts. In essence, for good or ill, the UK has pushed ahead with changes to areas such as the use of contractors, both at home and on the battlefield, acquisition reform involving leasing and Public-Private Partnerships, the disposal of surplus defense real estate and the role of sponsored reserves.[3] At the same time, a considerable amount of attention has been given to how operations are conducted. As part of this process, the UK's Ministry of Defence and Armed Forces have officially sought to adopt an effects-based approach to operations within the context of an overall "Comprehensive Approach" that brings together the various organs of government.[4]

For the United States, the UK's approach to military operations is important for a number of reasons. First, the UK frequently engages in a variety of similar type operations from which there are lessons that may be

applicable to the United States either now or in the future, such as counterinsurgency in Northern Ireland or nation-building in Sierra Leone. Moreover, a number of authors have argued that there is a distinctly "British Way in Warfare" that is particularly suited to such unconventional operations.[5]

Second, as one of the closest U.S. allies, the UK's armed forces are frequently engaged in operations in partnership with the United States. These have ranged recently from the Balkans to Afghanistan to Iraq. In fact, the only noticeable time the British were not involved in a U.S.-led operation since the end of the Cold War was in Somalia. The vast majority of these operations have involved sizeable British commitments and a close integration of the British military in all the stages from planning to nation-building. Interest in future British policy was most recently evident in the debate surrounding the transition of power from Prime Minister Tony Blair to Gordon Brown.

Third, the UK is a member of various military alliances, coalitions, and partnerships that place it in a strong position to influence how others conduct operations. These include the North Atlantic Treaty Organization (NATO), the European Union (EU), and the Five Power Pact in the Pacific and the Commonwealth (America, Britain, Canada, Australia and New Zealand, or ABCA). In the case of NATO, it was British commander General David Richards who led the largely British Allied Rapid Reaction Corps (ARRC) headquarters that deployed to Afghanistan in 2006 and oversaw the expansion of NATO's role, including, for the first time since the end of World War II, leading a significant U.S. contingent.

This monograph therefore seeks to examine the extent to which the UK has transitioned to effects-based

operations to ascertain: (a) Areas where the U.S. Army could draw lessons from UK policies; (b) Areas where the U.S. Army and the British Ministry of Defence (MoD) could develop integrated or complementary approaches and doctrines towards transformation for future alliance/coalition operations; and, (c) Implications for the U.S. Army for working with the UK.

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SECTION 1

Introduction.

Like most of the countries of the west, the UK has found that its defense policy has undergone profound changes since the end of the Cold War. Indicative of this is the title of the most recent defense white paper, "Delivering Security in a Changing World,"[6] which emphasizes that the armed forces contribute to the provision of security rather than provide defense. In other words, the UK has moved to a position in which defense is competing alongside other government

departments, such as the Foreign and Commonwealth Office (FCO) and the Department for International Development (DFID), for resources to provide for Britain's security and achieve the effects the government wants. The MoD is no longer a monopoly supplier of security, with defense being only one tool in the government's toolbox. Yet, it is worth noting that it is defense, rather than any of the other departments of state, that is driving the British Government towards adopting the so-called "Comprehensive Approach," which seeks to coordinate all the various levers of national power to maximum effect. In other words, as part of its adoption of an effects-based approach, defense is also trying to drive the rest of government in the direction of a similar comprehensive and coordinated response.

To understand how the UK has reached this position, it is necessary to review the evolution of British defense policy. To undertake this task, the analysis within this section has been subdivided into four parts: (1) Cold War context (1945-89)—the Soviet threat; (2) First wave of defense reforms (1989-96)—continuation of the threat-based approach; (3) Second wave of defense reforms (1997-2001)—the shift towards a capabilities-based approach; and, (4) Third wave of defense reforms (2001-)—the move towards an effects-based approach.

Defense Policy in the Cold War.

For the UK, the Cold War was one of immense change. By 1989 only a few vestiges remained of what was once the world's largest empire. Europe, rather than the Empire, had become the focus of British foreign and defense policy.[7] The perpetual challenge

for policymakers lay in Britain's financial weakness. As a result, successive British governments concluded that the only way to deter the Soviet Union was to use the United States as a counterweight.[8] Thus, emphasis was given to the creation and maintenance of NATO. Moreover, as the political landscape became increasingly bipolar, it was inevitable that Britain's relations with the United States became a major determinant of British defense policy in Europe. The price of the NATO commitment was a significant part of the defense budget being allocated to support forces allocated to NATO at the expense of other areas.

At the same time, it was also recognized by successive governments that the United States might not be prepared to sacrifice itself for the defense of the UK, and therefore the UK must have its own nuclear capability. The basic requirement was to be able to inflict sufficient damage on the Soviet Union to deter any attack on the UK and its interests. To achieve this, the requirement was set to successfully target Moscow as the center of government, along with a number of other Soviet cities and military and industrial targets.[9] The initial system comprised an indigenously developed force of manned bombers equipped with freefall bombs.[10] These were subsequently replaced by nuclear submarines equipped with U.S.-built *Polaris* missiles in 1968 and by the *Trident* force in the 1990s.[11]

Successive British governments have also seen the UK having a wider role in the rest of the world, and this, in a sense, is what Blair alluded to in his 1999 Chicago and 2007 Plymouth speeches.[12] The 1948 Defence Estimates highlighted this world view: "the United Kingdom, as a member of the British Commonwealth and a Great Power, must be prepared at all times to fulfil her responsibility not only to the

United Nations but also to herself."[13] While not a superpower in its own right, Britain's military and civilian presence throughout the world, particularly through its continuing Empire, led many to assume that the world role would continue, particularly given the relative inexperience of the United States in many regions.[14] However, this assumption about influence was undermined by events between 1945 and 1989, particularly the Suez Crisis of 1956.[15] It was the 1982 Falklands War that arrested this decline and led to the reemergence of the idea of a world role.[16]

During the Cold War, events and ongoing fiscal pressures produced a series of defense reviews in the UK. In general, they aimed to support the existing defense policy within a steadily decreasing proportion of total government expenditure earmarked for defense.[17] Periodically significant capabilities were lost, such as the decision in 1966 not to build a new generation of large fixed-wing aircraft carriers,[18] and these reviews left the UK with the following priorities for its armed forces by 1989:

- Maintaining an independent nuclear deterrent of four *Polaris* submarines.
- The defense of the Central Front in Europe.
- The defense of the United Kingdom.
- The protection of transatlantic shipping.
- Maintaining a minor out of area (beyond Europe) power projection capability.[19]

The irony of this list of priorities is that in the 18 years that have followed, this has effectively been reversed. British armed forces are now focused on expeditionary warfare—the idea of "going to the crisis before it comes to you." Home defense has a secondary role, and although there continues to be an army

presence in Germany, this has been much reduced and looks set to end. Debate remains about the role of the strategic nuclear deterrent.[20]

First Wave of Post-Cold War Change, 1989-96.

Following the end of the Cold War the UK effectively conducted three reviews between 1990 and 1996 as part of its first wave of change. They continued to adopt a threat-based approach fearing some form of resurgent Soviet Union and comprised of Options for Change, 1989-91;[21] Modifications to Options for Change, 1992-93;[22] and Frontline First: The Defence Costs Study, 1994.[23]

"Options for Change" focused on achieving considerable defense savings set against the background fear of a resurgent Soviet Union returning towards a more antagonistic relationship to the west. It therefore left the armed forces with the same basic mix of forces but on a significantly reduced scale. Almost as soon as the main decisions of the "Options for Change" process were announced in July 1990, Iraq invaded Kuwait. The subsequent lessons drawn from this campaign, an increase in the commitment of military forces to Northern Ireland, and the beginning of deployments to the Balkans, raised question marks about the review.[24] What emerged was a defense policy officially based on three defense roles, each comprising a series of Defence Tasks.[25]

Defence Role One was largely about home defense and the defense of Britain's dependent territories. In reality, it was almost entirely about the preservation of an independent nuclear deterrent and support for the civil authorities in Northern Ireland. Other aspects, such as the air defense of the UK, were further

reduced.[26] Defence Role Two proved to be the main role and focused on the defense of Europe through NATO. Planning revolved around coping with some form of resurgent Soviet Union and the development of NATO's new UK-led ARRC. Defence Role 3 swept up the remaining missions, in particular the out-of-area role and support for United Nations (UN) peacekeeping missions. It was viewed as the least important although, ironically, it would prove to be the most significant in terms of operational deployments and long-lasting commitments.

With the economy still in recession, further savings were required and a further review was undertaken.[27] Three main elements can be identified from this review. First, there was the recognition that future operations were likely to be joint, i.e., involving more than one service. There was, therefore, a need to improve the ability of the services to operate together, and the relative size of the U.S. Marine Corps made it a potential role model. Thus a number of initiatives were undertaken to increase jointery within the armed forces and save money. These included the creation of a permanent joint headquarters (PJHQ) and the formation of a single joint staff college. In addition, the Joint Rapid Deployment Force was formed as the UK's rapidly deployable land force. It was based on 3 Commando and 5 Airborne Brigades and comprised some 20,000 personnel in all.[28]

Second, the review concluded that the management of the MoD could be made far more efficient. Designed to consider all aspects of the department, 20 major and 13 minor studies were commissioned.[29] Significant savings were identified, and cuts were made to the defense budget, including staff reductions of 7,100 by 2000.[30] The most controversial of these was the study

on medical care, and its implementation had a serious impact on retention of medical personnel.[31]

Third, the pace of contractorization of many of the support functions was to be increased and the Private Finance Initiative (PFI) applied to defense.[32] It was hoped that this would free personnel for front line tasks, allow improvements to be brought forward by using the private sector to raise the necessary capital, and reduce the cost of defense in general. Initially, the most controversial area in which this was followed was defense housing, with virtually the whole of the defense housing estate handed over to a commercial company, which then leased the accommodation back to the MoD.[33]

Second Wave of Post-Cold War Change, 1997-2001.

The election of Labour into office in 1997 led to the *Strategic Defence Review* (SDR) being published in 1998. It represented a shift away from specific threat-based planning towards a more capabilities-based approach.[34] In many ways, SDR was the first fundamental post-Cold War defense review. It aimed to look ahead to 2015, i.e., a little further than U.S. *Joint Vision 2010* of 1996 but not as far as the 2000 *Joint Vision 2020*. It reflected a much broader vision of security and defense related issues than previously. It built on a conference run by the MoD in 1995 that embraced a broader security agenda.[35] The armed forces were no longer to be constructed to deal with specific threats, such as from the Soviet Union or a nuclear attack against NATO, instead they were to have a series of capabilities that would enable them to be used in a variety of circumstances.

To achieve this, it was decided that the armed forces should be capable of conducting one large

scale operation (divisional level) or two medium scale operations (brigade level) within 6 months of one another. However, the type of operation in which these were formulated was entirely predictable. The large scale operation focused on a rerun of the 1991 Gulf War, and the medium level deployments were based on the deployments to the Balkans. In other words, they represented what had happened before rather than any consideration of what might happen. Moreover, relatively little attention was paid to either network centric warfare or asymmetric warfare. Instead, the MoD chose to ignore the latter and maintain a watching brief over the Revolution in Military Affairs debate in the United States, which was still in its relative infancy.[36]

Nevertheless, SDR's changes were also linked to other elements of government reorganization. This included the removal of the Overseas Development Administration from the Foreign and Commonwealth Office and its reconfiguration into the Department for International Development (DFID) as a separate department of state.[37] This bureaucratic change raised the profile of international development and issues of humanitarianism assistance, with consequential challenges for defense.[38] More significant was the changed outlook of DFID compared to its predecessor. It now saw itself as an international aid organization rather than a department of state charged with pursuing the national interests, and this has had a considerable impact on subsequent operations.

Third Wave of Post-Cold War Defense Policy Change, 2001-.

Almost as soon as the SDR was published in 1998, the UK found itself involved in Kosovo as part of the NATO operation.[39] The British-led ARRC was deployed and controlled the international ground forces that went into Kosovo in June 1999. The UK also found itself involved in Operation DESERT FOX with the United States against Iraq in 1998, and in May 2000 the UK conducted an operation in support of the government of Sierra Leone and the UN, which involved the largest purely national deployment of forces since the 1982 Falklands War.[40] All these raised questions about the validity of SDR. However, it was the events of September 11, 2001 (9/11), that had the most profound impact.

In the aftermath of the 9/11 attacks in the United States, the MoD published *The Strategic Defence Review: A New Chapter* in 2002.[41] The goal was to "Move away from always assessing defense capability in terms of platforms or unit numbers. It is now more useful to think in terms of the effects that can be delivered—we must consider what effect we want to have on an opponent and at what time."[42] While the new chapter took a number of steps forward, notably embracing network-enabled capability (NEC) and the threat posed by asymmetric warfare, it did not fully embrace the concept of effects-based warfare.[43] This was not fully undertaken until the two-part defense white papers, *Delivering Security in a Changing World*, that followed in 2003 and 2004.[44] They drew on the experience of Kosovo, Sierra Leone, Afghanistan, and Iraq and argued that only by adopting a comprehensive security approach,

of which defense was but a part, would British interests be best served.

This has led to a number of changes. The first shift was the overt move in approach from input-based measures to output-based measures of effectiveness. For many commentators, this was little more than a smokescreen for further defense cutbacks as some unit numbers were reduced. For defense and the armed forces, it meant a major rethink of what they were there to achieve and what was needed to achieve this. Perhaps inevitably, they quickly tried to resort to input measures such as infantry regiments, fighter squadrons, and ships, and the process has not been completely successful.

The second shift was a change in focus within the forward defense strategy. Up to and including the SDR, the focus had primarily been on Europe and an "arc of concern" stretching from North Africa to the Middle East. This arc had effectively become Britain's post-Cold War variant of the Inner-German border. However, the experiences of Sierra Leone, and especially Afghanistan, showed that such a geographical limitation was inappropriate, as the challenges to Britain's defense and security policy have become more diffuse and more widespread. It was recognized that no British government can ignore parts of the world that are failing because they may become bases for international terrorism, as Afghanistan showed. Moreover, the UK's need to trade provides an obvious requirement for Britain to remain fully involved internationally[45] while the moral dynamic, outlined in the 1999 "Doctrine of the International Community" speech of Tony Blair and typified by the operation in Sierra Leone in 2000, will continue to play a part in future operations.[46]

The third shift was a focus away from traditional interstate war to other challenges. The belief is that traditional interstate warfare is likely to occur far less often because of western advantages in traditional warfare. This assumption clearly reflects the ongoing commitment of British forces to operations in Iraq and Afghanistan. In the longer term, the assumption is more questionable, and it would seem that the MoD is tending towards the Rupert Smith view of future conflict rather than that espoused by the likes of Colin Gray.[47] That said, the MOD's acquisition strategy, as section 3 will show, is more ambiguous.

The fourth shift was the emphasis now placed on the speed of response and follows the line of thinking espoused by the likes of former U.S. Secretary of Defense Donald Rumsfeld. Emphasis is now on acquiring three key elements: sensors capable of identifying targets; a communications network able to transfer this information to commanders to decide on a response; and the strike assets capable of accurately hitting the target within the requisite timeframe.[48] This, in part, explains the drive towards developing an NEC that brings these elements together.[49]

The fifth shift was in the relative balance in British interests between America and Europe, and between its formal and informal alliances. In other words, given the choice between working with the United States and the rest of Europe, the British government has chosen the former.[50] However, it does not believe in practical terms that it has had to make this choice, simply because it cannot envisage Europe agreeing to a significant deployment without America. Instead, the new working assumption is that any that any European involvement will most likely be on a much smaller scale in Africa and explains the British emphasis on the

Anglo-French initiative to create rapidly deployable EU battle-groups of around 1,500 personnel.[51] Less publicized has been the shift towards more informal alliances. In announcing the 2003 defense white paper, then Defence Secretary Geoff Hoon referred to Britain as having two special relations, the traditional one with the United States and a second one with Australia. What we have also witnessed as part of the transformational process has been a shift away from NATO towards a more traditional informal alliance involving states such as Australia, Canada, and New Zealand working alongside the United States. In other words, a return to its more traditional alliances based on the English speaking world.

SECTION 2

Introduction.

Since the end of the Cold War, the UK has found its forces engaged in virtually continuous and increasingly complex operations around the globe. These have ranged from traditional war fighting in Iraq in 1991 and 2003 to so-called low intensity operations in places such as Sierra Leone, Northern Ireland, and the Balkans to humanitarian operations and nation-building in places such as the Balkans, Northern Iraq, East Timor, and Afghanistan. The frequency, intensity, complexity, and geographical spread of these operations has increased over time. The result has been that Britain's armed forces now find themselves engaged in a series of simultaneous operations that they struggle to fully support even with the normalization of the security situation in Northern Ireland and their drawdown in Bosnia.[52] A leaked memo of the Chief of the General

Staff was published by *The Daily Telegraph* and outlined the current plight of the army.[53]

A number of lessons have been drawn from these experiences that have influenced defense policy and capability development. It is not the intention of this section to examine each individual operation in turn. Rather, the general lessons drawn by the British armed forces are examined together with their implications. While it has always been known that the general configuration and balance of units in an army for armored warfare and low intensity operations was different, it remained the assumption within the British Army that forces configured for World War III on the North German Plains could always be reconfigured for other lower intensity operations. During much of the second half of the Cold War, the army regularly used armored, artillery, and other units in the infantry role in Northern Ireland to sustain the operation. In fact, the British Army's first and last fatalities were suffered by the Royal Artillery, and reconfiguring specialists to the infantry role was continued as the commitment to Bosnia began. However, Bosnia and subsequent operations have shown that while the likes of Northern Ireland was relatively infantry heavy and forces could be switched to this role, humanitarian or cosmopolitan style operations place far higher demands on the specialists and it was not possible to switch infantry towards these roles. The result has been certain specialists, such as engineers, medics, logisticians, and intelligence, have been confronted with an unsustainable level of commitment, which has led to poor retention rates exacerbated by the fact that they are also the areas with skill sets that are easiest to transfer to the civilian sector.[54] This has raised fundamental questions about the army's overall force

structure and where its focus should be, given the inevitability of resource constraints.

The second lesson drawn was that significant advantages may well follow from the early and effective use of military capabilities. The most frequently cited example of this remains the deployment of British forces to Sierra Leone in May 2000.[55] Here the official line is that British troops deployed over the course of a weekend succeeded in evacuating all the entitled personnel who wanted to leave the country; restored order in the capital, Freetown; restored the crumbling UN peacekeeping mission; and prevented the Revolutionary United Front (RUF) from occupying the capital and carrying out further atrocities. The reality is a little less certain, with doubts still remaining about what the RUF actually intended.

The tragic events of 9/11 in the United States appeared to reinforce this view about preemptive action. Moreover, the early operations in Afghanistan reinforced the view first set out in the 1998 *Strategic Defence Review* that it is better to go to the crisis than wait for it to come to you. The events of July 7, 2005, in London have again shown the vulnerability of western societies to terrorist attacks. It has, therefore, been concluded that it is better to try to preempt the crisis by using the full range of measures available to government, including the military dimension. However, the buildup to war in Iraq in 2003 also reminded ministers that the military tool also brings its own range of limitations.[56] For the UK, the deployment of a 3-brigade division to Kuwait in March 2003 was unsustainable in anything but the immediate short term. As a result, while the French Government and others pushed for an extension in the time given to the weapon inspectors, British ministers were aware

that their armed forces either had to be used or the numbers in theater significantly reduced. Iraq clearly showed the problems of directly linking the threatened use of military force with the diplomatic process, and it is unlikely that there will again be such a willingness to so tightly link a military buildup with the diplomatic process.

Third, the use and/or threatened use of the military is not nearly as neat as political leaders would wish. The British Armed Forces are frequently deployed in situations where policy has failed and they are the default last resort. This is nothing new. The initial deployment of troops onto the streets of Northern Ireland in 1969 was for 48 hours to restore law and order and protect the catholic minority. Some 39 years later, normalization has finally happened. In Bosnia, the first British troops were deployed simply because the UK needed to be seen to be doing something, although what, no one was sure. Thus, the idea of effects-based operations is problematic when the forces are invariably deployed in a political vacuum with no clearly articulated end state. It also means that the character of any military contribution will vary depending on its context and will definitely change over time. An effects-based approach means dealing not only with the effects but also the causes of the conflict, and this was articulated in the discussion document that preceded "The Strategic Defence Review: A New Chapter."[57]

Fourth, the ability to react rapidly and use force decisively involves the acquisition of three key elements: sensors capable of identifying targets; a communications network able to transfer this information to commanders to decide on a response; and the strike assets capable of accurately hitting the

target within the requisite timeframe.[58] This explains the emphasis on a NEC.[59] However, past operations have shown that such a speed of response requires rapid decisionmaking processes, both military and civilian, which has not always proven to be the case.[60] It has also meant that increasingly commanders in the field have had authority delegated to them. Where possible this has been shared by a senior diplomat or political figure in theater such as an Ambassador or High Commissioner.

Fifth, in future there will be a balance to be struck between peacetime presence and the ability to deliver a surge capability. There are a number of arguments in favor of maintaining a forward presence. These include the role of military assets in support of defense diplomacy through training missions, visits, and the diplomatic signals that are sent by having units in a particular region. Moreover, a forward presence allows a more rapid response to a crisis. For example, the presence of the Amphibious Ready Group in the Mediterranean and the *Illustrious* carrier group in the Eastern Atlantic was vital to rapid deployment to Sierra Leone in May 2000. The maritime deployment to Iraq in 2003 was built on the back of a previously planned deployment of a carrier group and Amphibious Ready Group to the Indian Ocean and Pacific region scheduled for the first half of 2003. The surface ships deployed in the Northern Atlantic were able to support humanitarian operations in the wake of the various hurricanes that struck the Caribbean during the summer of 2004, while those in the Indian Ocean supported Sri Lanka in the immediate aftermath of the tsunami in December 2004. In addition, having units permanently in theater can reduce this response time as was evident in September 2000 during the hostage rescue mission in Sierra Leone,

where the lack of a staging point immediately off-shore for the CH-47 *Chinooks* meant that they had to be held back until the last minute to avoid detection.

Equally, the maintenance of a permanent presence ties up a considerable number of forces. Various estimates have been made of the number of ships required to maintain one deployed ranging from three upwards. There are other dangers, such as reduced surge capability, which was the lesson drawn from the 1956 Suez Crisis where British forces were so overcommitted elsewhere that there was little available capability to respond immediately to President Nasser's nationalization of the Suez Canal.[61] Such forces may also act as targets for terrorists. Presence frequently brings with it knowledge and understanding of the operating environment that rear basing can lose. For example, prior to May 2000 the British military had lost its understanding of the peculiar operating constraints of West Africa, and these had to be rapidly relearned. Recourse to mass documentation dated back to literature produced between the two world wars when helicopters, for example, were not in use.

Sixth, as early as 1994 "Frontline First: the Defence Costs Study" emphasized the importance of jointery—the ability of the UK's three separate services to work together routinely—which was identified as being of increasing importance for future operations. During the latter years of the Cold War, interaction between the different environments—sea, land and air—had effectively been coordinated through Britain's commitment to NATO. In both the Falklands Campaign and the 1991 Gulf War, the UK had used an ad hoc command structure to manage the respective campaigns.[62] It was realized that this situation was unsatisfactory and that the armed forces had to be

brought together at all three levels of war—tactical, operational, and strategic.

Seventh, recent operations have highlighted the importance of host nation support—the provision of bases or facilities by other countries to facilitate the conduct of operations. The creation and support of the International Security Assistance Force (ISAF) commitment in Afghanistan has been undertaken entirely by air, and, without these transitory rights, the operation would not have been possible. Even where a country is not landlocked, such as Sierra Leone or Iraq, there is frequently the requirement to transit over another state's territory to be able to get there with any degree of speed, as well as the requirement for a fallback should aircraft need to divert. Turkey's decision not to allow British forces to pass through Turkey caused a major readjustment in the plan against Iraq in 2003. The initial deployment to Sierra Leone saw permission to transit other states' territory being obtained literally while the helicopters and aircraft were in the air because of the speed of the military response. This required close cooperation between the MoD and the Foreign and Commonwealth Office.

Overseas bases have the benefit of host nation support without the conditions that may be attached to their use. British bases in Cyprus and Gibraltar continue to provide an invaluable resource for the UK. They can act as Forward Operating Bases for operations in and around the Mediterranean; provide a useful staging point on the way to the Middle East and beyond, or as a means for staging forces further forward and beginning the acclimatization process for warmer climates.

Eighth, Kosovo, Afghanistan, and Iraq have shown both the benefits and limitations of operating within

a coalition. No country wants to be isolated when it undertakes military operations, and the benefits of membership of an alliance or coalition are clear. The weight of a number of states coming together and calling for or undertaking action is far more significant than those by an individual state, even if that state is a superpower. Moreover, there are times when the wider world community cannot achieve consensus, as was the case in both Kosovo and Iraq, when a coalition or regional organization can provide the unifying element. Such agreements are particularly important in both the buildup to and following a conflict when the diplomatic and military dimensions are brought together.[63] From a military perspective, the value of additional partners can include the provision of additional or supplementary capabilities. Moreover, the military importance of coalitions and alliances lies not only in the conduct of warfighting tasks. They also help to sustain continuing commitments such as those in Kosovo, Afghanistan, and Iraq.

Alliances or coalitions do, however, come with a cost. Decisions can be slowed or reach deadlock. Working with others brings added military risk, as different militaries have to coordinate with one another. This partly explains the examples of so-called friendly fire in Iraq and elsewhere.[64] The challenge for the UK will be in anticipating in advance which countries are likely to be involved and what force capabilities they are prepared to allocate.[65]

For the UK, forming a coalition with the world's only superpower is an increasing technological challenge. Nevertheless, for the short term at least, the British Government has concluded that:

> The most demanding expeditionary operations, involving intervention against state adversaries, can only plausibly be conducted if U.S. forces are engaged, either leading a coalition or in NATO. Where the UK chooses to be engaged, we will wish to be able to influence political and military decisionmaking throughout the crisis, including during the post-conflict period. The significant military contribution the UK is able to make to such operations means that we secure an effective place in the political and military decision-making processes. To exploit this effectively, our Armed Forces will need to be interoperable with U.S. command and control structures, match the U.S. operational tempo and provide those capabilities that deliver the greatest impact when operating alongside the U.S.[66]

This assumption is not new. It was first enunciated in 1966 in terms of Britain's use of force East of Suez, but in practice, it had been accepted policy since the Suez disaster of 1956.

SECTION 3

As indicated in section 1, there has been a considerable change in Britain's defense capabilities. In 1989 the defense priorities were, in descending order:

1. Maintaining an independent nuclear deterrent of four Polaris submarines.
2. The defense of the Central Front in Europe.
3. The defense of the UK.
4. The protection of transatlantic shipping.
5. Maintaining a minor out of area (beyond Europe) power projection capability.

Today this has effectively been inverted, with priority given to expeditionary warfare followed by

home defense and the maintenance of a strategic nuclear capability. To achieve this, there has been a massive outpouring of doctrine and acquisition reforms. This reprioritization has come with some risks. Funding has continued to dominate defense policy with the result that, as emphasis has been given to developing an expeditionary capability, there have consequently been considerable reductions elsewhere, particularly in terms of home defense.

Doctrine and Concepts.

No longer does the UK rely almost exclusively on memory and NATO. The creation of the Joint Doctrine and Concepts Center (now DCDC) as the center piece reflects the importance of adapting doctrine to the changing circumstances in which the UK finds itself committing its forces.[67] The UK now has a fairly complete framework from the grand strategic to the tactical levels geared towards a variety of contingencies.

Two main weaknesses remain. The first is in the cross-governmental arena where other departments of state have failed to agree on an integrated doctrine. There has been much conversation across government about the idea of a "comprehensive approach," and ministers regularly use the term. There has also been a good deal of practical experience as members of the MoD, FCO, and DFID have worked together in places such as Iraq and Afghanistan, with the Provincial Reconstruction Teams in Afghanistan being examples of this. However, the reality has been far less satisfactory. At the strategic level, there is a clear ideational difference between the MoD and DFID, with the latter having a fundamentally different view of their role as a department of state from the MoD.

Operationally, this has proven to be difficult, with DFID personnel, for example, being quite circumspect about operating in potential war zones. Moreover, much of their funding is committed a number of years into the future, resulting in relatively small available funding for Iraq and Afghanistan. This has had a significant effect on nation-building work, and British forces have been forced to resort to U.S. funding to help bridge some of the deficit.

The second area lies in the tension between DCDC, which views itself as the central repository for all doctrine and concepts, and the various environment warfare centers (air, land, and maritime), which see themselves having an important role at the tactical and operational levels. The overlap, largely at the operational level, has not been universally harmonious, and concern has been raised that DCDC is not best placed to develop environment specific doctrine. This has led to a good deal of institutional rivalry. Moreover, as Colin McInnes has argued, there has been a tendency for doctrine to become too dogmatic, with an assumption that the British have a particular expertise towards these nontraditional conflicts.

Nevertheless, at the operational and strategic levels recent operations have shown that significant progress has been made in terms of command and control. The creation of the Permanent Joint Headquarters as a mechanism for managing joint and combined operations has been remarkably successful. In 2000, Brigadier Richards was able to use his Operational Reconnaissance and Liaison Team from Permanent Joint Headquarters as the basis for his operational headquarters in Sierra Leone. Although in Kosovo the command system operated through NATO, the Permanent Joint Headquarters was intimately

involved in force generation and the planning for ground operations. Most recently in Iraq, an entirely joint national component command was deployed and overseen by Permanent Joint Headquarters with agreed joint procedures. This has been assisted by the culture of jointery that has developed in part through the creation of the Joint Services Command and Staff College.

At the more tactical level, there have previously been joint initiatives. After the 1982 Falklands War, there were moves to try to create an out-of-area division combining 3 Commando Brigade with the then 5 Airborne Brigade. This failed for a number of reasons, including interservice rivalry. Yet by 2003, 3 Commando Brigade formed an integral part of 1 (UK) Division in Iraq. It was delivered into combat by helicopters of the UK's Joint Helicopter Command comprising helicopters from all three services, having launched in part from the sea and also from bases ashore in Kuwait. The brigade included an armored reconnaissance squadron from the army and later a squadron of the army's *Challenger* main battle tanks. More recently it has been agreed to place an army infantry battalion permanently within 3 Commando Brigade's order of battle to give it a fourth maneuver unit and thus conform to current land doctrine.

Defense Acquisition.

Acquisition policy has been the subject of constant change since the early 1980s. A number of trends are clearly evident. Firstly, while there is an implicit assumption that all contracts should be competitively tendered, there is now growing recognition that a purely market-driven approach is not always in Britain's best

interests, and there will be occasions where Britain's wider interests rather than purely defense interests may be served through the acquisition of a particular product. For example, a previous Secretary of State for Defence intervened in the acquisition of the program to begin acquiring the next generation of advanced trainer aircraft. He directed that instead of the cheapest option being taken, it was in Britain's wider interests to acquire new *Hawk* trainer aircraft from BAE Systems in order to preserve the production line and secure an Indian order for these aircraft. More recently, giving the defence secretary the portfolio of Scotland, as well Prime Minister Gordon Brown, has created a potential clash of interests. For example, the recent naval base review has left things as they were when many within the navy had pushed for the closure of the base on the Clyde.

Second, there is an increasing need to outsource contracts as a mechanism for saving money but rather than outsource individual elements to different contracts, it is now better practice to outsource support services as a whole to an overall contractor who can then subcontract as necessary. The reasons for this are three-fold. It avoids issues of responsibility when contracts fail, it allows an overall contractor to achieve economies of scale, and it reduces the level of the MOD's capital stock, thereby reducing the overall interest charges the MoD has to pay to the Treasury.[68]

The issue of contractorization or the "privatization of defense" has been the subject of much political debate on both sides of the Atlantic.[69] The questions for defense in the UK include: Can the allocation of work outside the MoD be more cost effective and free resources for reinvestment in other areas of defense? Can such policies free up military personnel and reduce

the overall pressure on personnel of maintaining existing commitments? Are there skills or services that only the private sector can provide? In more complex operations, are there certain capabilities that the military simply do not have or contractors are better able to provide?

In Kosovo the armed forces quickly built refugee camps but then handed them over to nongovernment bodies, such as the UN High Commissioner for Refugees (UNHCR) and Red Cross, who had far greater experience of running them. In Iraq, oil workers capable of dealing with oil fires accompanied the forces as they seized the key oilfields and infrastructure. These capabilities are most likely to be used in humanitarian operations and the post-hostilities phases of conflicts, as the military are used outside their traditional warfighting roles.

There is a delicate balance to be drawn, bearing in mind the need to maximize the resources, both personnel and financial, available to defense, while minimizing the risk that the use of contractors may entail. To help lock in contractor support, the MoD has signed a 7-year enabling contract for Contractor Logistics Support with Kellogg, Brown, and Root to help facilitate rapid response.[70] The obvious risk in using contractors is what happens when they fail to meet the agreed contract terms. Litigation may eventually provide financial compensation, but it is not the ideal means of redress on the battlefield. While contractor support for Operation TELIC was generally excellent, there were two examples of contractor personnel refusing to deploy to theater prior to the commencement of the combat phase. This is an obvious area of concern.[71] Moreover, the experience in Iraq highlighted that there is increasingly less likelihood of there being a

definite frontline. As opponents increasingly resort to asymmetric tactics, the targeting of contractors is likely to be of growing concern. In Iraq, two Kenyans working for the MoD's main food supplier were captured and displayed on Iraqi television.[72] The increased targeting of contractors by opponents could be used to exploit vulnerable areas and domestic public opinion.

The over-provision of equipment in one area necessarily means that in a world of finite resources, there will be insufficient resources available elsewhere. That is the central dilemma for policymakers. Operations in Iraq showed this when the requirement for desert equipment proved greater than that previously envisaged and held in stock. In its review of Operation TELIC, the National Audit Office concluded that:

> We found that Operation TELIC was a significant military success, particularly in the deployment and combat phases, and the MoD has identified lessons that could reduce the risks associated with future operations. Planning for the Operation was responsive and flexible, reacting quickly when it was decided to enter the main UK force through southern Iraq rather than the north. A large and capable force was deployed quickly to the Gulf and within four weeks of the combat phase starting the Ba'athist regime fell. Overall, UK personnel and their equipment performed impressively. There are, however, important lessons for future operations, mostly about the need to review what our forces should be ready to do at short notice, ensuring that frontline forces receive appropriate levels of equipment and supplies and in managing the transition from conflict to the post-conflict phase.[73]

But the report also noted that:

> For Operation TELIC, forces were stretched to make good gaps in the much shorter time available than was expected. This raises questions about the link between current planning assumptions and holdings of operational stocks and whether the balance between stocks on shelves and "just-in time deliveries' was drawn in the right place.[74]

One mechanism that the MoD has chosen is to rely on industry to provide some capacity at short notice by issuing Urgent Operational Requirements (UORs).[75] This allows the MoD to place urgent orders for equipments for specific operations using money provided by the Treasury for that operation. In Afghanistan, 155 million pounds was spent on urgent military capability enhancements to fund the initial warfighting and ISAF set up.[76] This necessarily involves risk. The delivery of equipment immediately before the outbreak of hostilities also minimizes the amount of training time available to acquaint personnel with the new capabilities.[77] Moreover, the Sierra Leone operation literally occurred over a weekend, resulting in the forces deployed using their existing equipment.

Moreover, the recourse to off-balance sheet finance via mechanisms such as Public-Private Partnerships is having further complications. While such contracts tend to fix the price of assets and allow defense to gain capabilities earlier than they might otherwise have been able to, it comes with three further costs. First, the contractor will have included a profit element within the contract with substantial fees for any contract variation. Inevitably the MoD, having found a capability useful, wants more. Second, as assets are transferred to the private sector, there are less and less quiet jobs that operational personnel can be switched to when they

are on down time. Moreover, it also means that there is no spare capacity, and the defense will have lost the know-how for a particular asset. Third, the fixed nature of fees means that an increasingly large proportion of the defense budget is effectively mortgaged for years ahead, thereby reducing defense planners' flexibility in the event of change.

Third, there is a need to preserve certain core capabilities, and this can only be achieved through a partnership relationship with industry.[78] Defense remains a key element in the UK's remaining manufacturing base, and, if the MoD wishes to ensure that its UORs can be met, then there is a need to retain certain surge capacity. The existing Defence Industrial Strategy listed a series of areas, but this is thought insufficient and the current revised strategy due out by the end of the year is likely to be significantly larger. However, the reliance on UORs is problematic. Industry has responded as best it can, but the lead times have left personnel vulnerable in various operational theaters and meant that the services have suffered a higher casualty rate than they need have.

Fourth, technology transfer with the United States remains a big issue. As the UK looks to increasingly integrate its forces with those of the United States, there is a great push to allow a greater flow of information between companies. The UK is not alone in this, and it has caused problems in coalition operations where various units have not been able to integrate with one another.

Defense Capabilities.

Overall, these changes have impacted on Britain's armed forces in a number of ways. At the warfighting end of the spectrum, the challenge is to focus on "the

way we want to use our forces against a determined, mobile, often disparate, and elusive enemy."[79] To achieve this requires the ability to find, to decide on action, and to strike an opponent accurately and very quickly. Kosovo highlighted weaknesses in the UK's precision attack capability. This was in large part corrected by the time of Operation TELIC some 4 years later.[80] The UK had been limited in its ability to support air operations over Kosovo, and this diminished its overall influence on the entire campaign as the European members of NATO looked to the United States to provide the requisite capability.

For the navy, the emphasis on delivering effects from the sea was first articulated in 1995 in the navy's doctrine *BR-1806: the Fundamentals of British Maritime Doctrine*.[81] To achieve these effects, the doctrine argued that the navy needed to focus on three core capabilities: maritime air, nuclear-powered submarines (SSNs) equipped with *Tomahawk* Land Attack Missiles (TLAMs), and its amphibious capabilities.[82] The navy believes that only by retaining all three core capabilities can it provide the full range of naval effects that any British government would need. The incoming Labour government has clearly bought into this agenda as part of its Strategic Defence Review, and all three are being developed at different rates. However, the short-term need to service the deployments in Iraq and Afghanistan has meant that the navy has, along with the air force, been pushed to find savings for investment in the land forces.

Nonetheless, the government remains committed to the acquisition of two large aircraft carriers to replace the existing force of three smaller *Invincible*-class vessels. These were formally announced in July 2007 and will be some 65,000 tons, i.e., each will be

more than the combined displacement of the existing force.[83] Originally the in-service dates were set at 2012 and 2015, but this has been deferred to 2014 and 2016. It is envisaged that these will be equipped with the Short Take-Off and Vertical Landing (STOVL) variant of the new Joint Strike Fighter under development with the United States.[84] Concern has been expressed about whether full operational independence would come with this acquisition, and Minister for Defence Procurement Lord Drayson indicated that if access to the relevant source codes was withheld, then the British long-term commitment of the UK to the project would end. This situation appears to have been resolved. However, doubts remain about this whole capability. There are several reasons for this. First, a number of commentators have questioned why such a program is going ahead, given the UK's official line that no large-scale operations would be undertaken without express U.S. involvement. They argue that this mean that a U.S. carrier would therefore be available. Lesser scale operations, such as the 2000 deployment to Sierra Leone, can be conducted with smaller carriers and even assault carriers such as HMS *Ocean*. The proponents of the carrier program argue that such a capability is needed if a Falklands-type operation were to be undertaken again although it is difficult to see where this would happen.

Second, there is a query over the acquisition of the STOVL version of the JSF. Critics have argued that, given the size of these carriers, it would be far better if the conventional take off and landing (CTOL) version were acquired which has a far greater range and capacity to return unused munitions. The reasoning for not adopting this option represents the coming together of a series of interests. Within the navy, there is concern

about the catapult technology (they lost their expertise with steam when HMS *Fearless* left service), and doubts remain about the unproven electro-magnetic catapults. Moreover, this would increase the crew size marginally which adds up over the 50-year life cycle. The air force is equally adamant that the STOVL variant should be adopted. To adopt the CTOL variant would provide a capability very similar to that which the air force wants to replace—its existing *Tornado* strike force—and they do not want JSF. Thus, the variant adopted may well be suboptimal in terms of capability but placates various factions within the armed forces.

Third, there are doubts that the navy would ever be able to crew both ships and that a single carrier would have little chance of being in the right place at the right time. Moreover, given the investment in it, there will be insufficient protection for it, and it will therefore have to remain far out to sea and rely on shore-based air-to-air refuelling aircraft, especially with the adoption of the STOVL version of JSF. Thus the arguments about the need for independence of foreign basing are weakened as the carriers become tied to the availability of land-based support aircraft. Moreover, as there will have been close to a decade's gap between the *Sea Harrier* leaving service and JSF entering service, there remains a big question mark about why such a sophisticated air defense system is needed.

Fourth, there is a question mark over the size of the air group. The current *Harrier* force comprises 4 squadrons equipped with a mixture of Royal Navy and Royal Air Force personnel. These are almost exclusive tied to supporting operations in Afghanistan, and the navy is currently borrowing a USMC squadron to exercise one of its carriers.[85] Even if the *Harrier* force loses its Afghanistan mission, the overall size of the

force, even if replaced on a one-for-one basis, is barely sufficient to support a single carrier air group. In other words, it is extremely unlikely that either of the new carriers will ever go to sea with a full air group, which raises a further question mark over their size.

The second core capability is that the UK's nuclear-powered attack submarines will be equipped with *Tomahawk* Land Attack Missiles. The existing force of eight boats is becoming old, and the next generation of nuclear-powered attack submarines—the *Astute* class—is late in delivery, with the first having just recently been launched.[86] Neither the existing force or the new *Astute* force have vertical launch tubes for these missiles, so their capacity to carry these weapons remains limited, as does the overall fleet stock acquired to date. To help maintain this capability into the future, the United Kingdom is co-funding with the United States studies into equipping the next generation of TLAM for firing through existing torpedo tubes. The size of the submarine force looks set to continue to fall as costs continue to rise, and there is concern whether the size of the force has become unsustainable, given the cost of the associated nuclear infrastructure.[87] At the moment, there are three *Astute* class SSNs under construction with long lead items ordered for a fourth. Even if the four strategic nuclear boats are included, the total force numbers a mere 12 boats.[88]

The amphibious warfare capability has seen the greatest change of any military capability since the end of the Cold War. From being a Cinderella part of the Royal Navy, it has now become one of its two core components. The capability continues to be modernized with the entry into service of the second Landing Pad Dock, *HMS Bulwark*, designed to embark, transport, and deploy as well as to recover troops and their equipment

by air and sea and provide the headquarters for the Amphibious Assault Force. In addition, four *Bay*-class Auxiliary Landing Ship Dock, which are twice the size of their predecessors, are also entering service.[89] Their principal role is to carry personnel and equipment and deploy them by air and sea. There are also six roll-on/roll-off ships available for the rapid deployment of forces and their equipment by sea. When matched with 3 Commando Brigade, this capability is significant. The current problem facing the navy is the virtual continuous use of elements of 3 Commando Brigade on operations ashore as specialized mountain warfare infantry. This means that at best it has an Amphibious Ready Group based around a single battalion available at any point in time.

In the background, the balance between presence and surge capacity is tending to favor the latter and a reduction in the overall size of the destroyer/frigate fleet was announced in July 2004 from 31 to 25. The new Type 45 destroyer will provide more capability with six ordered and plans for a total of eight ships. The Type 45 class "will be the largest and most powerful air defense destroyers ever operated by the Royal Navy and the largest general purpose surface warships (excluding aircraft carriers and amphibious ships) to join the fleet since World War II cruisers."[90] However, these ships look remarkably underarmed, being fitted for but not equipped with TLAM for example. Concern has already been expressed as overall fleet numbers have fallen below those of France.

Land.

The *Strategic Defence Review* created a land force of six heavy brigades—three armored and three mechanized, together with an air assault brigade. It

had been intended that the three mechanized brigades would ultimately become medium-weight brigades and that all six heavy brigades would be placed within two divisions (the three armored in 1 Division in Germany and the three mechanized in 3 Division in the UK) and rotated in their mission allocation over a 3-year period. In addition, there is 16 Air Assault Brigade and the Royal Marines (RM) 3 Commando Brigade in the light role. At any point, the Joint Rapid Reaction Force could, in theory, call on 16 Air Assault Brigade, 3 Commando Brigade, plus the high readiness armored and mechanized brigades.

These recent operations have shown that the overall structure of the army is not appropriately balanced in a number of respects. The *Strategic Defence Review* focused operational command at the divisional level. While this may be right for larger operations such as Iraq, it is not always appropriate. In Kosovo, Lieutenant-General Mike Jackson chose not to use the deployed 3 Division headquarters to command the two British brigades but instead commanded them directly from the Allied Command Europe ARRC. This was again being replicated with the ARRC deployment to Afghanistan, although 6 Division headquarters is currently being set up to support the Afghanistan deployment.[91] Earlier in 2001 in Afghanistan, a much smaller force was deployed, which included elements of both 16 Air Assault and 3 Division headquarters. Given the constraints on lift, a single headquarters capable of commanding the ISAF force would have been more useful. In Sierra Leone Brigadier Richards effectively operated with just a single battalion overseen by the Operational Reconnaissance and Liaison Team, with a brigade headquarters taking over in the campaign.

This question of the right command level has placed a practical limitation on the number of

British deployments, with only two active divisional headquarters and seven army brigade headquarters. The new White Papers reflect a change in emphasis towards the brigade level of command. This level of command is likely to be the principal one except on large-scale operations. It will now be given greater independence with its own integrated logistic and engineer capabilities along the lines of the Royal Marines Logistical Regiment. The Royal Marines, with army support and assistance, have created a third divisional headquarters and the recent announcement of the formation of 6 Division will make a fourth.

The army equipment program continues to largely revolve around the Future Rapid Effects System (FRES) program and a series of UORs to provide in-theater capabilities in Iraq and Afghanistan. It is also hoped to improve their target and information gathering capabilities through the acquisition of unmanned aerial vehicles. The army recognized that it needed to be able to provide more balanced forces over the full conflict spectrum and that the force construction developed by the *Strategic Defence Review* needed to change. It plans to move one of its armored brigades to the light role and to partially lighten the medium brigades through the transition of one of their armored squadrons to the armored reconnaissance role. It is envisaged that the FRES of armored vehicles will create a highly capable, fully networked medium weight force, which is more rapidly deployable.[92] The lack of available of light forces and operational headquarters has also led to the commitment of one of the home-based regional brigades, 52 Brigade to succeed 12 Mechanized Brigade in Afghanistan.[93] This means that with 3 Commando Brigade there are 9 maneuver brigades with effectively two deployed on operations at any one time.

The Iraq experience has also highlighted the problems of having different peacetime and wartime configurations. According to Paul Beaver, "What you have to remember is that our force structures are wrong in the UK. We have a peacetime structure and a war fighting structure, we should only have a war fighting structure, because that is what we do."[94] Most infantry battalions, for example, have only three companies in peacetime and have to borrow a fourth from another regiment for wartime. Similarly, the armored brigades have three 3 maneuver groups (armor/infantry battalions) in peacetime but their doctrine envisages four in wartime.[95] Thus when 7 Armored Brigade deployed to the Gulf in 2003, it had to borrow an additional armored regiment. Moreover, the army has operated the "Arms Plot" system in which it has sought to rotate its infantry battalions between roles over time to ensure that its personnel can obtain different training experiences.[96] The fundamental problem with this system was that at the time of the Iraq deployment in 2003, 19 of the infantry battalions were in the process of retraining and therefore unavailable for operations.[97] The army has decided therefore to abandon the Arms Plot and reconfigure its existing regimental structure to provide more readily available forces capable of deploying throughout the world.[98] The aim is to return to a more traditional regimental structure containing multiple battalions and to rotate individuals over time rather than whole units, thereby maintaining units at their wartime strength. In theory this will allow regiments to fight together and maintain regimental ethos rather than be cut and pasted together under nominal titles. In practice this is not so clear, the process threw up a series of exceptions, and units are still not being manned to their wartime configurations, which means they continue to borrow from one another.

The important role that Special Forces play has been recognized in the 2004 *Defence White Paper* which stated "We are increasing the strength of our Special Forces and investing in new equipment for them."[99] A number of initiatives are currently underway. These include the creation of the Special Reconnaissance Regiment, a new unit in the Special Forces Group, tasked with meeting the growing need for special reconnaissance capability. In addition, the army's reorganization has involved the refocusing of 1st Battalion of the Parachute Regiment into a new Joint Special Forces Support Group something akin to the U.S. Ranger role.[100] This means that it can provide more direct support to Special Forces as elements of 45 RM Commando did in Iraq.

Air.

Under the latest *Defence White Paper*, the Royal Air Force has recognized the need for change and has chosen to move away from an emphasis on having main operating bases in the UK supporting forward deployments, in favor of operating with a much more expeditionary focus along the lines of the U.S. Air Force Air Expeditionary Force concept.[101] This aims to create a balanced air force capable of deploying overseas and sustaining itself on operations for a specified period of time. In response the air force has created nine expeditionary air wings. That is only one aspect of the changes that have taken place. Reflecting on recent operational experience, Chief of the Air Staff Air Chief Marshal Sir Jock Stirrup has highlighted some of the changes that have been occurring:

> In Telic last year, we deployed about 30 percent fewer fast jets than we did for the Gulf War in 1991, and yet the force was far more powerful and capable than in 1991 because we focused on the right things over that period, modern sensors, particularly precision, and we will see the same sort of gearing through investing in network capability.[102]

The air force is therefore focusing on an effects-based approach. This is having a considerable impact on its force makeup and overall size. While the *Tornado* was the main strike platform both in 1991 and 2003, its capabilities had been transformed. New highly accurate missiles and bombs have given it a far greater capability. There is a new emphasis on the ability of platforms to exchange information. As the 2003 Iraq War showed, there is now a requirement for a much more rapid and accurate response. The UK forces must be capable of operating in the same airspace as its principal allies, particularly the United States, without undue risk.

Some changes will be fairly predictable. The limitations of the UK fighter force have been recognized for some time. The *Tornado* F3 was designed for the Cold War scenario of intercepting Soviet bombers equipped with cruise missiles at long range. Its replacement, the *Typhoon*, is just entering service and will now give the armed forces a highly agile fighter aircraft. Moreover, the new *Typhoon* will be multirole, having the capability to perform several tasks, sometimes simultaneously. Other changes will be less predictable. The potential for unmanned aircraft is still being explored and developed while the RAF Regiment is moving away from providing for the air defense of RAF airfields towards a focus on the need to protect them from surface attack.

Recent operational examples have highlighted the continuing importance of timely information. There is nothing new about this fundamental aspect of war. Operation TELIC, however, showed that new technologies are providing the opportunity for a step change in capability. This was partly recognized during the *Strategic Defence Review*, but recent operations have reinforced the requirement to further improve UK capabilities. Improvements to UK airborne surveillance capabilities include the acquisition of the Airborne Stand-off Radar (ASTOR) ground surveillance system which links into the American Joint Surveillance and Attack Radar System (JSTARS) program. For the *Tornado* GR4 force the Reconnaissance Airborne Pod for Tornado (RAPTOR) long-range reconnaissance sensor pod has been acquired, providing both a day and night time capability. Modifications are also in hand on the UK fleet of E-3D *Sentry* airborne early warning aircraft to give them a command and control capability. The United Kingdom is also updating the electronic reconnaissance capability of its *Nimrod* MR2 force.[103] The *Nimrod* MR2 force is also being heavily used, and it is clear that none of these capabilities is sufficient to sustain the current levels of commitment.

The *Strategic Defence Review* emphasized logistics including air and sealift. The importance of such capacity is clearly evident, and the Government has decided that the short-term lease of four C-17s will be followed by their permanent acquisition and the purchase of an additional two aircraft. These aircraft will work alongside the A400M when it enters service, representing a significant enhancement in airlift capacity to a level last seen in the early 1970s.[104] However, the A400M has been further delayed until 2011. The replacement strategic tanker aircraft program

has been delayed, and the RAF continues to struggle to support its commitments. Worst still is the problems with the support helicopter force, which is insufficient for current requirements. Some short-term measures have been taken, such as the purchase of 6 EH101 *Merlins* from Denmark and the planned modification of 8 Special Forces *Chinook* helicopters, which have been in store for several years. However, much of the fleet, especially the *Pumas* and the navy's *Sea King* HC4s are very old and struggling to cope with the climates in which they are now operating.

SECTION 4

The ongoing transformation of British defense policy and its impact on Britain's armed forces has been examined. This section reviews the implications of this transformation for the U.S. Army and the wider U.S. defense community.

Areas where the U.S. Army Could Draw Lessons from UK Policies.

1. While a good deal is spoken about jointery, the British have found that through force of circumstance, both operational and financial, they have had to become increasingly joint, and that this only really works when the issues of understanding and culture are addressed. For example, it is worth noting here that the traditional tension between the Royal Marines and British Army has largely been set aside as operational needs and overstretch have forced compromise. The British Army has actively supported increases in the capabilities of 3 Commando Brigade by adding a fourth army infantry maneuver unit to it, together with

enhancements to various areas of combat service support. It has also assisted in creating a third divisional headquarters (HQ) from HQ Royal Marines and thus, with the raising of the new 6 Division headquarters, has created 4 divisional level headquarters to sustain ongoing operations. This has largely been achieved through restructuring and effectively making elements from the three services work alongside one another. For example, the creation of the Joint Helicopter Command responsible for overseeing the deployment of the tactical and support helicopters for all three services immediately allowed rationalization of the number of helicopters deployed to the Balkans theater and thus eased the overall pressure on the helicopter force. This cultural change has been facilitated by the creation of the Joint Services Command and Staff College which has brought together staff training at the war college level. The result has been the production of a generation of officers who have been affected by a joint culture and developed their own personnel networks that stretch beyond their own service. This familiarity has enhanced understanding and trust and broken the worst elements of inter-service prejudices.

2. While a technological lead can have great benefits, transformation and achieving an effects-based approach is highly dependent on the individuals involved, frequently at a very junior level. Quite often UK forces have lacked capabilities and have sought to compensate through the quality of their people. Mission command is very real, particularly in the land dimension, where the experience of Northern Ireland has encouraged a decentralized approach to operations. It is also a legacy of Empire where small detachments were dispatched on individual missions and explains why in the British Army, for example, individual com-

panies are commanded by majors and not captains. Moreover, much of the core experience lies within the senior noncommissioned officer cadre, and it is also worth noting that approximately one-third of the British Army's officer corps were formerly ordinary soldiers.

3. There is, however, a fundamental difference between knowledge and information and one of the biggest challenges is to convert information into knowledge and thus provide understanding. It is clear that the British system of post-action reports and lessons learned continues to provide important learning tools. However, a cultural problem has also been shown. Too often such reports identify what went wrong in order that this might be corrected. Too few reports actually identify what went right and thus the knowledge that is provided by such exercises is negative knowledge—what went wrong—and there is a need to capture the positive knowledge of what went right to avoid this going wrong in the future. The issue of corporate memory is not solely a military one, but it is clear from successive British operations that there is a poor procedure for retaining the inherent knowledge. The standard procedure after a successful campaign is to break up the team that ran it and dismantle the associated infrastructure. Rebuilding knowledge sets is difficult, and there is not always time. For example, the British had forgotten about the unique challenges associated with operations in West Africa and literally had to rediscover them in the midst of their no-notice deployment to Sierra Leone. Fortunately the opposition proved to be far less problematic than was first thought, and thus the British weaknesses were not exploited. The U.S. Army would be wise to reflect on how it captures and maintains the knowledge set associated with its own operations.

4. Nevertheless, technology is a clear force multiplier. Without it, the U.S.-led forces would not have been so successful in the conventional phase of the war in Iraq in March-April 2003. It also means that commanders can take greater risks knowing that they can exert escalation dominance, as the operation in Sierra Leone showed. It is therefore important that key U.S. allies are fully integrated with U.S. forces. This needs to occur at a variety of different levels including the defense industrial. In Iraq and on a number of other operations British forces did not have a full operational picture, and there were a number of ways in which coalition forces sought to get around these problems. Nevertheless, their efforts were suitably hamstrung, and this, in part, explains the emphasis that has been placed by the British government on addressing the transatlantic technology transfer issue. It is also clear that some of the blue-on-blue incidents might have been prevented if the relevant technology had been available. For example, if the British forces had continued to use *Blue Force* Tracker, the tragic loss of 6 Royal Military Police might have been prevented by other forces coming to their assistance. It is noteworthy that the British media were particularly vociferous when such incidents involved U.S. forces, and this sensitivity is likely to be reflected across coalitions. It is therefore important that U.S. Army plays its part in assisting in and encouraging interoperability of ideas and equipment.

5. It is also clear that interoperability of equipment is not enough. Militaries often do things in different ways as a result of their history. A number of commentators have noted that, for example, the Australian Army transformed itself from one that eschewed a British ethos to one that adopted an American one as a result of the British withdrawal from East of Suez in

the early 1970s. This is not to say it was wrong, merely that if forces do not regularly train together and understand their differences, it will make little difference whether their equipment is the same or not. One of the reasons why U.S. and British land forces were able to work so well together in the 1991 left hook was their familiarity through NATO and preparing to fight the Soviet Army. It is therefore essential that key allies regularly train together. The danger of sustaining ongoing operations is that this is an area that is often neglected.

6. As a result of financial limitations the British defense community has been quite creative in its use of private contractors to release personnel and assets for operations. These have ranged from the use of contractors close to the battlefield to major elements of defense infrastructure. However, as identified in this monograph, this remains a two-edged sword and needs to be handled with care. In the case of the UK, the various public-private partnerships (PPPs) have enabled a whole series of updates and capabilities to be funded earlier than they might otherwise. There are a number of potential dangers associated with such contracts. First, it means that the defense budget is increasingly mortgaged ahead with a sizeable part earmarked to support these contracts, thus removing some of the flexibility that defense planners had. Second, while such contracts release service personnel for operations, it also means that there is an overall net reduction in service personnel in nonoperational assignments. The major limiting factor on ships' time at sea remains the human one. As the Royal Navy has reduced in size, an increasingly larger proportion of it is assigned to sea billets, which means that these ships are limited in their levels of deployment by their crews. Third, there

is an issue relating to the vulnerability of contractors. For the British, there are important legal restrictions on their ability to bear arms, which may mean that they are more vulnerable than regular forces. Finally, there is a longer term concern. As private contractors take areas of responsibility, the knowledge associated with these areas is lost and the customer becomes totally dependent on the service provider.

Areas where the U.S. Army and the UK MoD Could Develop Integrated or Complementary Approaches and Doctrines towards Transformation for Future Alliance/Coalition Operations.

1. The challenge for any military is to maintain the breadth and depth of experience and knowledge to cover the myriad of activities that today's armed forces are expected to undertake. Clearly some militaries have a greater lead in some areas than others. In terms of low intensity operations, the United Kingdom has clear advantages drawn from its greater combat experience in this area. This was reflected in an Office of Force Transformation and MoD cosponsored study on NEC and British low intensity operations that highlighted a great number of tactical and operation lessons.[105] Nevertheless, the U.S. military forces have shown their ability to rapidly adapt, although the approach taken needs to reflect the circumstances in which forces find themselves. For example, the deployment of the *Black Watch* battlegroup to relieve U.S. Marines for operations against Fallujah highlighted the inappropriateness of British rules of engagement (ROE) designed for the Basra area to their new operating environment.

2. The EU's battle group concept has been largely based on the UK *Spearhead* Battalion, an on-call light

infantry battalion with supporting arms capable of deploying anywhere on light scales at very short notice. The clearest example of its successful use was in Operation PALLISER, the deployment to Sierra Leone in May 2000. Encouraging the other members of the European Union to adopt this and also contribute to NATO's Response Force (NRF) is a sound means of inculcating a culture of change within Europe's militaries. Moreover, it gets them to think increasingly about expeditionary warfare, including the resourcing and sustaining of such operations over long distances.

3. The MoD's ideas about a Comprehensive Approach make a good deal of sense and the concepts and ideas behind them are useful. However, the extent to which they are actually implemented is more limited. There is little support for this initiative outside the MoD, with the Foreign and Commonwealth Office and Department for International Development markedly cool about the idea. Nevertheless, these ideas are increasingly being adopted, at least notionally, within NATO, and it is in the interests of both the United States and the United Kingdom.

Implications for the U.S. Army for Working with the UK.

1. For the United Kingdom, an effects-based approach is about achieving its national interests. If this involves coalition operations, then the United Kingdom, like other coalition partners, will be concerned not only with how it affects the enemy. It will also be concerned about influencing third party opinion. In the case of Iraq, this included the general Arab world, its coalition partners, particularly the United States, and also its own domestic audience. For the coalition

to work, the UK government will expect to be listened to. If this does not prove to be the case and the United Kingdom is not seen to have a significant impact, this will directly impact British public opinion and, hence, British support for an operation. The British public remain proud of their military and its capabilities; in the main warfighting stages of the Iraq War in 2003, they were very sensitive to blue-on-blue losses.

2. As probably the second transformational power after the United States, the United Kingdom has developed quite significant power projection or expeditionary warfare capabilities. These are being matched to an understanding of an effects-based approach, but this thinking remains in its infancy. Nevertheless, the United Kingdom struggles to retain interoperability, particularly with U.S. ground forces. The allocation of Basra and the southeast sector of Iraq in 2003 was one way of limiting the problems of lack of interoperability, and it is worth noting that if the United Kingdom is struggling, then other U.S. allies are likely to be in a far worse position.

3. In developing capabilities with the United States, Britain will expect to receive access to the full technology data so that it can continue to maintain and adapt its forces into the future. Operational independence remains a key requisite for the British government, and dependence is a tricky and sensitive issue for the United Kingdom to deal with. This attitude, in part, explains the sensitivity felt over access to the codes of the Joint Strike Fighter.

4. British forces, like their American counterparts, have been supporting two major operations simultaneously. This has had a major impact in terms of recruitment and retention and there is serious concern, particularly within the army, whether this is

sustainable for much longer. There is a considerable danger that these forces might break in some form.

5. The British forces will continually suffer from resource restrictions. Current force development and investment plans do not appear fully sustainable, despite the planned increase in defense spending in real terms projected for the next 3 years. The Ministry of Defence will continue to have to make hard choices about its priorities, and it is limited in its ability to reallocate resources by the number of Public-Private Partnerships it has entered into and some previous defense decisions, such as the Tranche 3 buy of Eurofighter *Typhoon*.

6. In general, the British are able to recruit sufficient personnel to support the current size of their armed forces, but the retention of personnel is of concern. The sustaining of significant overseas commitments, with Afghanistan being the largest, is affecting retention levels. This means that there is a degree of diminution of experience as less experienced personnel are required to act above their grade. Among certain specialist areas, the situation is of far greater concern.[106]

7. Of the three environments, the air and sea dimensions remain most wedded to traditional capabilities rather than those most needed for current operations. For example, in examining effects-based operations, the Royal Air Force is now moving towards "effect" being defined purely in terms of kinetic effect. This focus on traditional capabilities is likely to lead to suboptimization in acquisition strategies as some capabilities are acquired with a particular relevance to history, service preferences, and/or domestic labor employment. For example, current defense policy assumes that only large-scale operations will be undertaken in conjunction with the United States.

This has raised serious questions about the navy's rationale behind the acquisition of two 65,000 ton aircraft carriers. Nevertheless, the decision to acquire these behemoths has been approved as part of the shipbuilding acquisition strategy.

8. It is also worth noting that while official policy continues to emphasize the importance of NATO and the European Union in practice, British defense policy is increasingly moving away from its links to its European counterparts. Increasingly, the most important partners are those within the ABCA community (including New Zealand, which is often forgotten about) and Australia has officially been named as UK's second special relationship.

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