



Future Land Operational Concept



THE FUTURE LAND OPERATIONAL CONCEPT 2008

Dated October 2008

Authorised by the Joint Doctrine and Concepts Board

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Director General
Development, Concepts and Doctrine

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PREFACE

1. The role of the British Armed Forces, and by extension United Kingdom (UK) Land forces,¹ is to deter and defeat threats to the UK and its allies, as well as to promote its interests and act as a force for good in the wider world. The future land environment² is predicted to be dynamic, complex and uncertain and the period to 2030 will continue to see wide-ranging employment of the military instrument, including Land forces, in the national interest. Hitherto military capability has been benchmarked to major combat operations optimised for inter-state conflict and designed to destroy the opponent's military capability. However, the requirement to conduct complex operations, where political stability is the goal, is most pressing and directly challenges previous assumptions regarding existing structures, training and the demands on our people.

2. Globalisation continues to change the nature of the threat to the UK's national interests - and the associated response demanded of Land forces. The risk of state on state conflict will persist, although its likelihood should be re-balanced with other threats. The complex nature of global interdependency and the reliance of developed nations on a stable and secure environment for access to energy and other vital resources will make it impossible to ignore certain crises. The continually evolving impact of non-state actors, linked to the increasing dependence of developed states on regional stability, may demand trans-national military responses to instances of regional conflict, the purpose of which will be to establish stability. This will demand more than the traditional defeat of armed forces and will encompass a broad range of capabilities, and will be executed amongst the people in whose region they are conducted. Conflict and stabilisation are unlikely to be sequenced; such challenges may well demand concurrent conflict and stabilisation operations against a hybrid or compound threat. The frequency and persistency of these stabilisation operations will necessitate Land forces that are configured and optimised to deliver the military contribution to stability. We must however, remain alert to the likelihood of surprise - it is likely that our assumptions about the future may well be wrong.

3. The nature, unpredictability and likely frequency of future crises and conflicts in the land environment will demand both home-based and intervention forces and capabilities that can conduct a diverse, often simultaneous range of activities, in complex, multi-dimensional situations. Land forces and their unique fighting power will remain crucial to the ability to engage partners, coerce opponents, to control instability and insecurity, and to defeat opponents deploying mass and manoeuvre in novel ways. Land forces, conducting activities within a joint structure, will meet new

¹ United Kingdom (UK) Land forces are all those elements of UK military power that might be employed in land environment operations. It does not purely refer to those within UK Land Forces Command.

² The land environment consists of the UK Home Base and the ground area of overseas territories, other sovereign states and lands overseas, both above and below the surface.

and enduring commitments, maintain obligations to allies and partners and underpin the UK's permanent membership of the United Nations Security Council.

4. To provide the contextual basis for military activity in the Land environment, through to 2030, in order to guide capability development and further force structure work.

PROVENANCE

5. *'The Future Land Operational Concept 2008'* (FLOC) takes its provenance from Policy - as outlined in the *'National Security Strategy'*³ and *'Defence Strategic Guidance'* and is informed by *'Towards an Army 2025'*.⁴ It flows from the High Level Operating Concept⁵ (HLOC), is broadly coherent with the other environmental concepts and has been influenced by Strategic Trends⁶ work and British Defence Doctrine.⁷

³ The National Security Strategy of the United Kingdom, March 2008, The Cabinet Office.

⁴ *'Towards an Army 2025'*, ECAB endorsed 19 February 2007.

⁵ *'The High Level Operational Conceptual Framework'*, DCDC, 2007.

⁶ *'DCDC Global Strategic Trends Programme 2007-2036'*, 3rd Edition.

⁷ JDP0-01 *'British Defence Doctrine'*, 3rd Edition.

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PART 1 - THE STRATEGIC CONTEXT

GLOBAL CONTEXT

101. The global context for Defence is contained in the '*The High Level Operational Conceptual Framework*' (HLOC). Over the next 10 years, a direct conventional threat to the United Kingdom (UK) mainland is considered unlikely, but global and regional imbalances will impact on our national security due to continuing tension and conflict between sovereign states, exacerbated by inequalities in resources and development, and the prevalence of irregular threats. Urbanisation, fluid population movement, the consequences of climate change, state failure, demographic shifts, disenfranchisement, economic growth for some, increased poverty for others and scarce resources will all contribute to future insecurity and shape the character of conflict. Although inter-state war may be unlikely in the near term, the risks of inter-state war may increase from 2020 when intensifying competition for resources, particularly energy and possibly food, and continued population growth may result in heightened tension. United States (US) power is, arguably, dissipating and a realignment of the major powers may see the US' hegemonic status challenged by China and India, a more confident Japan, regional aspirants like Iran, Brazil and South Africa and a resource rich and increasingly assertive antagonistic Russia. The US, however, will remain the predominant military power for the next 30 years. Nuclear proliferation is likely to be an increasing challenge to global security, initiating regional arms races and increasing the Chemical, Biological, Radiological and Nuclear (CBRN) threat to the UK; such developments may increase the risk of pre-emptive conflict. As a leading member of the international community, the UK will act to counter both direct and indirect threats to the UK and its overseas territories, to support allies and partners and to exert influence in the promotion of national interests and uphold international conventions.

102. **Strategic Shock.** A Strategic Shock is something unanticipated that may fundamentally alter our strategic outlook and behaviour. Land forces will continue to assist with managing the consequences of strategic shocks and other extreme natural and man-made events. The increasing proliferation of CBRN weapons and disruptive technologies, amongst state and non-state extremist actors, will add to the risk of strategic shock during this period. Therefore, Land forces, including specialist capabilities such as Special Forces (SF), must be prepared to deploy to pre-empt, or help to respond to, a CBRN attack, both against the UK and in a wider expeditionary context, while ensuring their own protection and survival.

103. **Governance and Order.** Future operations are likely to involve deployment to locations where indigenous societies will be characterised by crime, corruption, terrorism, collapsed infrastructure and armed, deprived populations. Ultimately, within broader international engagements and utilising a Comprehensive Approach

(CA), Land forces must be prepared to preserve, or assist in the early restoration of governance, human security and the building of institutional capacity, if Other Government Departments (OGDs), International Organisations (IOs) or Non-Governmental Organisations (NGOs) are initially absent, reluctant or incapable. Delivering this will include upholding law and order and helping the restoration of civil authority. Where governance is weak, in an operational theatre, Land forces will continue to be required to establish security in order to enable broader national and international engagement.

104. **Legitimacy and Legality.** The sacrifices which UK society considers acceptable will be directly related to the perceived legitimacy of the operation and the impression of progress. Effectively communicating the goals and legitimacy of UK Land forces actions to the public and the international community, through the development and delivery of persuasive strategic narratives, will be essential elements of any successful discretionary operation. Land forces must ensure that their actions are appropriate and proportionate in order to demonstrate to indigenous societies that military activities are legitimate, and to wider domestic and international scrutiny. Future adversaries are likely to operate in unpredictable and irregular ways, and be unconstrained by law. Achieving common understanding with allies and host nations regarding the legal framework for operations, including rules of engagement, will remain an important interoperability objective and is essential if legality, and wider legitimacy, is to be preserved. Particular challenges will be presented by the conduct of operations, particularly by SF, in areas of ungoverned space or where jurisdiction is disputed.

105. **Technology.** The rate of global technological innovation will continue, and the proliferation of existing and emerging military technology will be a major factor within unstable regions. The Science and Technology Trends - Defence Implications Programme¹ highlights that the period will witness a significant increase in the use of unmanned, autonomous systems, with integrated lethal and non-lethal weapon technologies. Moreover, novel weapons including Directed Energy Weapons and high-powered microwaves will proliferate and provide the ability to incapacitate personnel and systems, while minimising fatalities and collateral damage. Stealth technology, coupled with active systems (including low emissive paint and coatings), will enhance system concealment. Miniaturised, lightweight, low power and low cost sensors are likely to improve data collection, logistic visibility and tracking and health monitoring. Sensor technologies will allow enhanced perimeter or border protection performance. Network Enabled Capability (NEC) will need to be supported by increased bandwidth, allied with advances in data compression technologies. Power and energy will be an area of significant technological advance with reduced volume and weight. Major advances in battery systems, hybrid fuels and energy management techniques, will increase mobility, aid concealment and power tomorrow's battlefield.

¹ STTDI Study Report Part 1, CR28573, dstl, dated March 2008.

Logistical improvements are likely to include the ability to self-produce water, provide advanced asset management, and enhance mobility and distribution. Medical care is a particularly important area of technological advance. Combat casualty care is likely to improve through use of novel regenerative therapies and haemorrhage control. The use of nano-technologies and advances in computing will increase, and their effect will be seen widely in Defence applications. Land forces will benefit from advances in miniaturisation of communications, processing and 'find' technology but must guard against exclusive dependency on vulnerable networked systems, possibly from attack by viruses or Electromagnetic Pulse (EMP). The most discriminating capability is likely to remain the well-equipped soldier.

NATIONAL CONTEXT

106. Transnational risks and the violent consequences of global and regional imbalances and tensions that may threaten UK security and interests will persist and could intensify. In most cases, British Armed Forces will operate within the political and military framework provided by established allies and partners. Consequently, the UK's positive engagement with the North Atlantic Treaty Organization (NATO), the European Union (EU) and especially with the US, will be key to developing future UK security and maintaining its influence as a Permanent Member of the United Nations Security Council. Within this context, Her Majesty's Government (HMG) will wish to retain a balance and weight of forces required to meet its security requirements and ensure its continuing influence with the US and other allies. These forces must be ready to undertake expeditionary operations at distance and within challenging timelines. Future operations are unlikely to be restricted to the core regions² and may need differing force levels committed on up to 3 separate operations concurrently - and occasionally more. SF will continue to be required to operate on a global basis to protect the UK and its strategic interests. Security of the homebase will not be confined to deterring or defeating external threats; security and protection against internal threats, in collaboration with OGDs and civil agencies, will continue to be a defence task. As the largest, and often the most visible of the Services, it will be incumbent on Land forces to ensure that their response to threats to the homebase are in line with public expectations. Societal shifts in the UK, the impact on public opinion of an on-going military campaign, and trends such as growing multi-culturalism, obesity in Western societies and demographic troughs, will make the recruiting climate more challenging. This will place increased demands on the recruitment, training and retention of personnel. Greater financial resources and focused effort will be needed for recruitment, retention and conditions of service if the volunteer force is to develop more robust and fully manned establishments in the face of enduring operations and new challenges.

² Defence Strategic Guidance (DSG) 2005, Part 2, Section 3.

107. **Comprehensive Approaches.** Success in complex stabilisation tasks, humanitarian and disaster relief operations will require a coordinated interagency approach, coordinating the 3 critical instruments of power: diplomatic, economic and military. Integrated approaches are further complicated in multinational responses, where national agendas and caveats, and the absence of a single overall authority for a CA impacts on delivering the campaign plan and objectives. A CA recognises that the military may support another lead department and Land forces activity may thus be subordinate to a civilian lead at times, but without them being given command of military forces. At other times the military will play the leading role. There will be occasions when the involvement of proxy actors is sought or imposed, whether global corporations, contractors, regional military forces or even Private Military and Security Companies (PMSC). However, Land forces must be prepared to play a wider role in the difficult period when public expectations of normalisation are raised, but in a hostile security environment which prevents the full engagement of non-military agencies. This may necessitate Land forces providing capabilities which are intrinsically civilian in nature during these periods. It cannot be assumed that this support can be produced from within irreducible spare capacity. Delivering tangible results in such environments may require commanders to be allocated both greater resources - including money - and the authority to use it to achieve the effects required.³

108. **Joint.** Secure sea lines of communication (LOCs), air dominance and effective sustainment are pre-requisites of successful expeditionary combat operations against a physically and technologically capable opponent. The Maritime and Air component underwrite Land forces' ability to concentrate combat and manoeuvre, thereby achieving an asymmetric edge. Integration across Air/Land seams is a priority. Joint training and education, although expensive, will assist in developing understanding, will reduce friction, and enhance agility across environmental seams, specifically in terms of air support to land operations and littoral manoeuvre, optimising the use of joint force elements. Therefore, joint training and exercises need to be incorporated into staff training, far earlier than is currently the case. Furthermore, Land forces will remain reliant upon the other Services to enable land based operations during the launching and recovery from an operation where strategic lift and support by sea and air will be vital; in providing air or sea control, and in sustaining the campaign.

109. **Inter-agency.** Land forces will be used increasingly with other instruments of national power and international agencies.⁴ It will be crucial for Land commanders to develop increased familiarity with the aims, priorities, culture and status of some IOs, NGOs, OGDs and non-military lines of operation, while recognising the constraints of relationships with these entities. These constraints may mean that some agencies and

³ Such as the Commander's Emergency Response Programme (CERP), which makes money available to deployed commanders to respond to urgent humanitarian or reconstruction requirements in support of campaign objectives.

⁴ Ranging from supra-national organisations such as the United Nations to Non-Governmental Organisations of all sizes.

organisations will wish to distance themselves from overt military linkages and activities and may have differing threat assessments with concomitant lower risk thresholds. Unity of effort may therefore only be possible at the tactical level, given the range and variety of competing interests. The aim of this collaborative planning is to achieve timely decision making and associated action. A benefit of increased inter-agency working may be a greater willingness and ability to share information and intelligence, but this will require a compartmentalised security system, where processes that balance the requirement to share information across organisational boundaries with the requirements of operational security exist. A multi-agency committee mindset risks affecting military operations, confusing operational command and diffusing coalition effectiveness.

110. **Multinational and Coalition.** The US will remain the UK's pre-eminent ally and the probable lead for major combat operations and a likely candidate for large stabilisation operations. This has implications for a CA model; unity of command will remain the aspiration for effective coalitions. However, national caveats and occasionally competing strategic goals make such unity hard to achieve, thus making doctrinal conformity and technological interoperability, principally with US Land forces, essential for major combat operations, and highly desirable for demanding irregular warfare operations. Combined training and experimentation, principally with the US but also with other allies in NATO, the EU or ABCA,⁵ will be essential to develop relationships and expertise, and will aid in the mitigation of potential differing levels of military capability. Opportunities for liaison and operational exchanges with key allies will enable deeper understanding of how best to conduct effective coalition operations. The difficulties of operating viable coalitions in the modern world will remain. Although NATO, the UN and EU are distinct organisations, in practice they remain organisations or groupings of individual nations each with differing interests and national constraints. Coalition cohesion cannot be taken for granted; greater emphasis needs to be given to understanding the pressures and motivations of our potential allies. Land forces must also be prepared to understand the culture of, and operate with, indigenous agencies and forces as a fundamental part of the operational environment, from capacity building up to and including major combat in order to deliver interoperability for all types of operations. Unity of command must remain the goal; unity of effort must be the minimum achieved. Mechanisms that are tailored to the context and circumstances may need to be implemented in order to achieve this.⁶

LAND CONTEXT

111. **Continuum of Conflict.** Conflict, and the associated Land forces response to it, will continue to occur across a spectrum of activities, from humanitarian and

⁵ The American, British, Canadian, Australian and New Zealand Armies (ABCA) Program.

⁶ An example is the Policy Action Group (PAG) which was used by International Security Assistance Force (Afghanistan) (ISAF) IX in Kabul in 06/07 as a mechanism to support unity of command.

disaster relief through stabilisation operations⁷ to major combat operations. The characteristics of these operations are likely to overlap. Major combat, characterised by the conduct of operations in 3 dimensions, divisional manoeuvre and an inherent risk to the force, will inevitably have as their purpose the stabilisation of a country following change within it. These tasks will require planning that is concurrent with the combat operations to enable an effective transition to the post-combat environment. Stabilisation operations, while focused on the restoration of security and governance, may include high intensity combat, requiring the full spectrum of joint capabilities and could require greater force levels than major combat operations. UK Land forces may be deployed with a stabilisation mission that is not preceded by a major combat operation.

112. **Land Contribution to Operations.** While warfare and military activity will take place across environments, the final resolution of conflict is likely to result from actions on the ground.⁸ A consideration that touches on force structures, equipment and people, is the relationship between ‘impact’ and ‘footprint’. Across the spectrum of operations, the inherent political and military desire to conduct proportionate, precise and discriminatory operations will need to be balanced against the need to be able to deploy and sustain sufficient mass (in terms of both numbers and firepower) to achieve success. A re-balance may therefore be required between agile forces for major combat operations that provide high impact, small footprint solutions, optimised at high readiness for operations of varied duration, and those forces that can undertake low impact, large footprint operations requiring sustainment for enduring periods and often more manpower intensive tasks. The notion that major combat operations will always be settled decisively within short duration should be challenged and may have a significant impact on many of our planning assumptions. More widely, this balance has implications for the integration of reserves into the overall force structure, as well as for training of both regulars and reserves and the organisation and command of forces. Experiences on current operations require us to re-examine our concepts of intensity⁹ related to scales of effort. Operations that have traditionally been viewed as low intensity have necessitated the employment of ‘high-end’ capabilities (such as attack helicopter, joint fires, offensive support, armour and intense fighting at battle group and sub-unit level). Standardised scales of effort, which assist in defence planning, force attribution, and the derivation of structures, rarely match the demands of military campaigns and the imperatives for success on operations. Further, the demands of stability operations have blurred the distinction between divisional and

⁷ A stability operation imposes security and control over an area while employing military capabilities to restore services and support civilian agencies to develop accountable organisations and mechanisms of government. Stability operations involve both coercive and cooperative actions. They may occur before, during and after defensive operations, or as the primary objective of a campaign. Stability operations provide an environment in which the other instruments of power - diplomatic and economic - can predominate, in cooperation with a lawful government.’ Army Doctrine Publication (ADP) ‘*Land Operations*’ paragraph 0146

⁸ ‘*The High Level Operational Conceptual Framework*’, Paragraph 102.

⁹ Intensity describes the frequency and the degree of violence encountered in conflict, and is a measure of the rate of consumption of resources. (FLOC)

brigade functions and generated Headquarters (HQ) that contain greater capability, often acting within an operational or strategic remit, yet are static and less agile, so rendering our structures less suited to manoeuvre.

113. **Persistent Nature of the Land Contribution.** The combination of security threats in the Future Operating Environment (FOE) are likely to persist after military intervention. Decisions regarding intervention will need to take into account: public impatience with regard to longer campaigns and casualties; the significant levels and costs of Force Protection (FP) required; the increased complexity resulting from engagement with multinational coalitions and pervasive media attention and questions of legitimacy. However, while current policy only envisages a limited number of enduring operations,¹⁰ current experience suggests that future expeditionary commitments are likely to endure, with an overlap between previously discrete combat and stabilisation tasks, as military force is engaged in persistent stabilisation tasks in support of effective governance. These operations are likely to vary in intensity.

114. **The Nature of the Threat.** The number and diversity of potential adversaries are likely to continue to increase, placing pressure on the overall capacity and adaptability of Land forces. Failed states and ungoverned space, which lack constitutional legal order, will provide havens and bases for armed irregular groups. Land forces must therefore be prepared to seize or re-take the initiative to counter surprise and be equipped to face compound or hybrid threats where the enemy chooses to use a mixture of all of the levers of response available to him, regular forces and/or irregular forces supplemented by influence activities, political or economic activities, to achieve his goals. What will remain a constant is that combat in the Land environment will at times remain a bloody, brutal, personal business.

a. **Irregular Threat.** Irregular threats include insurgents, militias, warlords, criminals and other armed groups whose motivation challenges the recognised national authority. Irregulars will present a series of political, legal, moral, cultural and tactical dilemmas and may be unconstrained by rules of engagement and even considerations of self-preservation. These threats may challenge the UK mainland directly, or be confined to resisting expeditionary stabilisation operations. Land forces may find themselves conducting operations within armed societies. Irregular forces may operate on several fronts and in multiple theatres, potentially networked together, adopting a long-term approach in the pursuit of their beliefs and ideologies. They will be prepared to undermine the security and quality of life of their own populations and disrupt civilian services in order to delay or provoke conventional forces. Irregulars will seek to negate our conventional superiority by operating in urban areas or in other complex terrain, while drawing on high-end capabilities. They adapt quickly and so the tempo of land capability

¹⁰ Only 25% of the Scenarios assessed by the Studies Assumptions Group (SAG) are enduring.

development may be higher than traditionally has been the case. Irregulars will seek to break friendly forces' cohesion by exploiting the information environment and extracting an operational cost that is politically unacceptable. This cost will be measured in political will, public support, financial expenditure, forces committed and, ultimately, lives lost. Such irregular threats will routinely require an enduring 'large footprint' response that is not restricted to the immediate crisis area but addresses the complete networked threat. Such a response will usually aim to create the conditions for effective governance, so attacking the underlying causes of the irregular threat.

b. **State Centric Threat.** The likelihood of inter-state war could increase from the end of the next decade in response to increased resource and global systemic pressures. It presents an intermittent, but significant challenge. Several well-equipped and capable military forces, some in areas of significant strategic interest, may seek to influence events and decisions by resorting to the threat or direct use of force. These conflicts could involve one or more parties armed with nuclear weapons or other weapons of mass effect. Future adversaries will also seek to engage developed nations' armed forces by acquiring denial, anti-technology and anti-space systems, while developing a range of conventional and irregular approaches that attack our perceived vulnerabilities, such as LOCs, and the limitations inherent in the employment of force within democratically minded coalitions. Major combat operations, when they do re-emerge, are unlikely to resemble what has gone before, as traditional boundaries between warfighting and stabilisation become blurred. Within major combat operations it is likely that state-centric forces will choose to use a mixture of conventional and unconventional methods of attack while adopting symmetric and asymmetric approaches. It is also likely that major combat planning and execution will have to take greater account of the requirements of concurrent and subsequent stabilisation, than was previously assumed.

c. **Hybrid Threats.** Hybrid, or compound, conflict will occur where states or non-state actors choose to exploit all modes of war simultaneously and use advanced conventional weapons, irregular tactics, terrorism, and disruptive criminality to destabilise an existing order. It is likely that complex stabilisation operations could feature hybrid threats. Such challenges will require combat capabilities to defeat irreconcilable opponents, who may be hard to distinguish from the local population. Increasingly likely will be the use of novel weapons, cyber attack and potentially radiological weapons of mass effect, creating strategic shock. The potential exists for adversaries to use state centric, non-military capabilities to achieve strategic effects, which counter the UK's national interests. This will present significant challenges for Land forces in responding appropriately. In hybrid or irregular war the enemy

may not be destroyed, but he can be defeated or made irrelevant in the eyes of the population. Consequently, undermining the credibility and legitimacy of the enemy in the perception of the domestic population should be a key focus for Land forces influence activity.

115. **Complex Environments.** Complex environments and terrain offer potential adversaries camouflage and security and, in certain circumstances, the ability to exert influence and exploit local support on ground of their choosing.

a. **Urban.** Increasing urbanisation,¹¹ and our growing involvement in stabilisation tasks, will increase the likelihood of urban operations. Land forces must be prepared to operate routinely within urban areas, developing special techniques, training and equipment, in an environment where cultural understanding and sensitivity, as well as discrimination, actionable intelligence and a range of precise lethal and non-lethal weapons will be crucial to delivering success. Land platforms will need to be designed and developed to optimise survivability and manoeuvre potential within urban terrain and be supported by integrated, intelligent, miniaturised unmanned combat vehicles and autonomous Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) systems that can alleviate the constraints and risks of the urban environment.

b. **The Littoral.** The littoral will continue to present Land forces with a primary means of theatre entry and sustainment, balanced by the potential demands of the environment. The increasing urbanisation of the littoral will present significant challenges and will demand the sophisticated coordination of assets across environments and the possible exploitation of ideas such as Joint Sea Basing.¹²

c. **Air/Land.** Effective integration of find and precision strike capability for air and aviation platforms to enable fire and manoeuvre, and support intra-theatre agility, will be critical for operations in the land environment.

d. **Terrain Extremes.** Land forces must remain proficient in operating in terrain extremes if true global reach and agility are to be maintained. The emphasis should be on operational capability in desert and mountainous terrain. Operations in jungle and arctic weather environments are considered to be less likely, but an irreducible minimum of core expertise should be maintained.

¹¹ By 2035, 60% of the world's population will live in Urban areas. *'The DCDC Global Strategic Trends Programme 2007-2036'*, dated January 2007.

¹² See *'Future Maritime Operational Concept'*, November 2007, page1-21.

e. **Cyberspace.** The electromagnetic spectrum and cyberspace will become increasingly congested. Novel technologies will exploit this spectrum for both kinetic and non-kinetic effect while cyberspace, and information warfare, presents new threats and opportunities. Land forces will be required to develop specific doctrine, train specialists and procure equipment to maximise or mitigate their impact.

PART 2 – IMPLICATIONS FOR LAND FORCES

116. **The Demands on Land forces.** Through to 2030, Land forces will need to project suitably configured, scaled and trained forces at appropriate readiness, in order to intervene at a time and place of choice. The commitment of Land forces will provide a visible demonstration of UK capability, intent and resolve and is a highly effective way to exert strategic influence. Where deterrence fails or a crisis escalates, Land forces need to confront opponents and situations with a broad range of capabilities that retains the ability to conduct sustainable and protracted major combat operations after the required preparation period. Land forces must be capable of major combat, yet be optimised for simultaneous or discrete stabilisation tasks,¹³ often at significant levels of intensity. Responding resolutely to these diverse global challenges will require Land forces that combine sufficient personnel, flexibility, technological edge and capacity for decisive action to both deter and defeat potential opponents. The implications from the analysis in Part I have been grouped within the framework of fighting power, the conceptual and physical components underpinned by a strong moral component. ‘*The Future Land Operational Concept 2008*’ (FLOC) will provide a headmark¹⁴ to help shape the balanced force. The steps taken in the next 5 years will shape what can be achieved in 2030.

THE CONCEPTUAL COMPONENT

117. **The British Approach to Military Operations.** At the heart of the British Approach to military operations is the retention of a warfighting ethos and a flexible and pragmatic state of mind. This approach is enabled by mission command, which is conducive to seizing the initiative and obtaining the advantage of tempo and surprise, requires an intelligent application of the principles of war, and the freedom for commanders to prosecute their objectives using methods of their own choosing. Additionally, Land forces will rely upon small unit cohesion, developed through the Regimental system, and the flexibility provided by ‘battlegrouping’ according to mission or task. Stable and cohesive teams are critical to effectiveness on the battlefield and the conduct of effective, sophisticated training and retention. Effective unit cohesion requires fully manned and robust establishments in order to avoid constant regrouping and augmentation. Force development will focus on greater modularity of structures to enable small unit cohesion to be retained while enabling flexible force structures to be generated.

118. **Campaigning at the Operational Level.** At this level, Land forces must maintain the ability to operate successfully across the continuum of conflict, often on

¹³ The 2* Draft DSG 2008 includes a new Military Task - Military Assistance to Stabilisation and Development (MASD). This will cover many of the capability requirements currently conducted under the heading of stabilisation operations.

¹⁴ Headmark: as resources ebb and flow this concept provides clarity regarding the direction of travel. (FLOC)

concurrent tasks. They must be prepared to operate under a US lead, or as framework nation,¹⁵ to lead multinational operations, and conduct expeditionary operations, independently when necessary. Targeted engagement with historical allies, through organisations such as NATO, EU and ABCA, needs to be enhanced, so that collective capability keeps pace with operational change, national standpoints are reconciled and common doctrines are developed. Most important will be achieving technological interoperability between the UK and US. For example, the coordination and application of joint fires and battlefield situational awareness in operations require UK Land forces to adapt to, and configure with, US standards. The ability to manoeuvre with US forces may increasingly become dependent on blue forces situational awareness, which in turn will come from interoperability of Communications and Information Systems (CIS) and specific capabilities such as Combat Identification. The need for conceptual and procedural compatibility, and the ability to ‘plug and play’ capabilities according to operational requirements, will also be essential as experience and skills in major combat operations decline in the early part of the era. Investment will be required to restore capacity for major combat operations as the burden of current operations eases and the US resets.

119. **Multiple Lines of Operation.** The complexity and scope of likely stabilisation operations calls into question previous assumptions about the size and capability required of the land component. Planning abstractions have assumed a smaller force will suffice for enduring operations while size and complexity will be a feature only of major combat operations against a matched opponent. It seems likely that the size of a stabilisation force, and the capabilities it requires, will ebb and flow depending on the activity of our opponents, our partners and military allies. It will require commitment of ‘large-scale’ forces on occasions and the demands of integrating many lines of operation will make it complex for commanders and their staffs. Similarly, joint and organic firepower and freedom of manoeuvre will remain features of intervention operations particularly against conventional opponents and in situations where significant numbers of armed combatants remain while stabilisation operations are taking place. Ultimately, if deterrence and coercion fail, major combat operations to defeat or destroy an adversary may prove necessary. Subsequently, military activity after conflict will seek to prevent crises re-occurring by a combination of measures promoting security and stability, building institutional capacity, security sector reform (SSR) and regeneration. Progress in these circumstances may require Land forces to contribute to the delivery of power, water, food and other essential services where civilian agencies are constrained or are absent. Concurrently, Land forces must remain able to provide supporting Command and Control (C2), specialised infrastructure and emergency capabilities, especially reserve forces, in support of the civil power, at home and abroad. Defence will increasingly rely on reserves to provide

¹⁵ The demands of hybrid warfare suggests the requirement for a headquarters (HQ) capable of exercising theatre or operational level command of an enduring complex stability operation will be pre-eminent. The tactical requirements of a LCHQ or Corps command cannot be ruled out.

the broad range of capabilities needed for the above tasks, while retaining capability within their structures to provide some of the regenerative capability needed for generating some major combat operations capabilities.

120. **The Adaptive Foundation.** Recent experience suggests that it is no longer sufficient to train for major combat operations and rely on this to provide the competencies necessary to operate across the spectrum of operations, particularly given the likely frequency of future stabilisation tasks in comparison to major combat operations. Instead, the demands and complexity of recent stability and counter-insurgency operations, linked to the potential concurrent nature of combat and stabilisation tasks, have necessitated the *ad hoc* adaptation of skills and capabilities that should, in future, be included as core elements in adaptive foundation training. In addition, more attention will have to be paid to the coordination, training and operating aspects of the environmental seams, in particular the Land/Air and Land/Maritime elements, making increased use of simulation. Land forces will have to address substantial complexity, deconfliction and prioritisation issues, as well as force integration and allocation problems to operate effectively within and across these seams. Training should therefore reflect these challenges and develop specific intellectual, technical and leadership competencies. Pre-deployment training, tailored to mission, environment and role, will remain critical prior to operational commitment, as will the commitment to the 'fighter first' mentality. The infrastructure to conduct such training will need to replicate the complex terrain and operating environment. It is likely to require a training estate with greater investment in urban landscape, underground tunnels and other features of likely stabilisation environments. However, it will also be necessary to maintain and develop our major combat operations training facilities, such as BATUS.¹⁶ The challenge will be to prepare Land forces to conduct concurrent operations along multiple lines of operations, while preserving core major combat capabilities.

121. **Intellectual Preparation.** Training for Land forces will remain targeted and specific, seeking to focus on developing collective capability for defined tasks. It is not possible to train for every eventuality so Land forces will continue to rely upon a broad education process. It is therefore evident that a coordinated long-term approach to intellectual preparation and education, including cultural and language familiarity, will be required for our people, complemented by focused recruitment of qualified reservists. It will continue to be based on the firm understanding of tactics, techniques and procedures underpinned by a grounding in adaptive land and joint doctrine. This needs to complement a sound understanding of the principal cultural characteristics of the most likely operating regions. Language training, underpinned by effective Management Information Systems to help teach and retain soldiers' currency, will be critical to enable trained people to be employed where their skills can be put to best persistent effect. Officer development must provide sound training in combined arms

¹⁶ BATUS – British Army Training Unit Suffield.

operations for battlegroup staff and a thorough grounding in the integration of joint capabilities (joint fires, ISTAR, and airborne early warning) for sub-unit commanders and formation staff. They must be prepared to operate in a Joint, Interagency and Multinational (JIM) context, possibly subordinated to an OGD lead. Preparing future junior commanders will have significant resource, education and training implications. It may be necessary to consider novel approaches to address some of the implications of enduring operations. These include ideas such as developing a cadre of area experts in a similar manner to the US Army's Foreign Area Officer (FAO) concept, which generates officers with sophisticated understanding of the language and culture of targeted countries or regions. These area experts will fulfil simultaneous functions. They will act as the primary mechanism to enable partnership - often at senior levels within indigenous forces. Additionally they will provide much of the cultural awareness and understanding for the deployed UK Land forces and also contribute to the broader intelligence gathering requirements of the force through their contacts and local knowledge. Delivering these specialists will require long training, additional resources and innovative approaches such as a dedicated career stream and in part, possibly by recruiting and training reserve officers with relevant qualifications or experience. It is vital that we educate our personnel to understand how the future enemy will respond. The future adversary will be adaptive; he will study to understand our concepts and procedures and adapt to them. He will seek to negate our strengths in terms of firepower overmatch and networked C2 capabilities. Therefore, there will be an educational requirement to ensure that we maintain a tempo of education for our personnel, which is greater than that used by the enemy. Finally, the significant gap in divisional level warfighting skills needs to be addressed in the education of our officers. Commanders will need to understand the complexities of military operations in the context of a CA and coalition environment.

122. **Partnering.** Land forces must be prepared for deployment in preventative roles and effective partnership with indigenous security forces by empowering commanders to alter the security environment by employing targeted projects, employment and information to achieve influence within their Area of Operations. Although this partnership will be an essential element of the FOE and may feature the deployment of specialists, such as Operational Mentoring and Liaison Teams (OMLTs) and advisers, it will remain but a discrete part of a CA to partnership, which will be necessary to achieve wider campaign objectives. It is through unlocking indigenous force capabilities that our Land forces can achieve the mass and situational understanding required to achieve success when the size of our own Land forces are relatively small in relation to the commitments that they face. Partnering will be required at all levels, underpinned by cultural understanding of the strengths, and limitations, of the partner. This increased understanding, and dependence, on partners' capabilities will come at a price, both in resources and in terms of increased cultural, linguistic and doctrinal development for UK Land forces. These complex demands will lead to an increase in training for Land forces which in turn will place greater

demands on our personnel. Developing partnering capability can either be delivered through *ad hoc* organisations, such as the current OMLTs and Military embedded Training Teams, or through attributing specific force elements to this role on a more permanent basis. These organisations could form the spine of our enduring cultural education and understanding, forming a multi-disciplined and inter-agency force that could be capable of both fighting alongside local forces, and delivering reconstruction and development tasks in areas where the civil agencies cannot operate. Developing indigenous force capability within a coalition will provide challenges to consistency across the theatre.

123. **Integrated Training.** Sufficient, integrated, joint, combined and inter-agency training opportunities need to be scheduled to improve collective awareness, performance and understanding. In sustaining core competencies, training must be designed to deliver the appropriate mix of simulation and live preparation in order to prepare and test Land forces to be successful in fighting and winning in the most demanding circumstances, from major combat to stabilisation and reconstruction activities. Although joint training, given the likely pressures on resources, will remain expensive, there may be relatively quick win solutions available, such as Networked Distributed Training.¹⁷ Similarly, commanders must be afforded opportunities to exercise command and control over the size of forces or formations that they may be expected to command in major combat and other operations.

124. **Balance between Major Combat and Stability Capabilities.** It may no longer be possible to structure Land forces to maintain a balance between stabilisation and major combat. The relative likelihood of stabilisation operations, matched with their potential intensity and frequency, suggests that they will place greater, and more routine, demands on Land forces than major combat operations. Stability activities often require SSR, governance, reconstruction and development expertise and may require greater numbers than major combat operations. This will have implications for manning levels, training and future structures, not only for regular forces but also the reserves, and will have an impact on force generation and timelines.

125. **Influence Activity.** Influence activity will grow in significance in stabilisation operations, despite the difficulties involved in targeting a single audience and the challenges of assessing effectiveness. While success in combat may be achieved in short order, longer-term success may take time to realise. There will be pressure for immediate results, most evident in public expectations of the time taken to achieve campaign success. The Government, in harmony with partners, will develop a persuasive strategic narrative and commanders, even at comparatively junior levels, must be trusted and empowered to deliver the resulting information strategy in their own area of operations. These commanders should have access to the means to shape perceptions if messages are to be tailored to inform hostile, neutral and friendly

¹⁷ A system to link stand alone simulation systems to enable tactical training.

audiences and the resources, and means to deliver the information plan must be made available to them. In addition to crafting a strategy which reaches across all lines of development and key stakeholders, counter command activity will be critical to ensure that our own information is secured from adversaries. Communicating our willingness to engage, and ultimately to fight, to our adversaries will be critical and our psychological operations messages, and their means of transmission, will have to be carefully attuned to the capabilities and needs of the intended audiences. The expanding use of Contractor Support to Operations (CSO), and other non-military agencies within a force, increases the potential for these elements to exert either a positive or negative effect on influence activities. Commanders must therefore consider them as part of their overall campaign plan. The importance of information continues to grow; technological advances and the internet provide our own forces, and adversaries, with the tools to conduct an effective information campaign and enable more precise targeting.

126. **Information Management.** Over the period, the British Armed Forces will need to acquire, interpret and distribute ever-expanding amounts of information. Land forces will need to access, process and disseminate all source information and intelligence via robust systems, information management and information exploitation protocols, simple processes and secure networks. Networks will require resistance to disruption, including: EMP; directed energy weapons; high power microwave capabilities; and viruses for wired and wireless sources. Information communication systems, with collaborative working capabilities and versatile software tools, will offer capability improvements in the near term. These capabilities will focus on enabling speedier and smarter decision-making to compensate for increased tempo and greater complexity.

127. **Legal Environment.** Major combat activity will continue to be governed by the Law of Armed Conflict. In other operational scenarios, the principle of self-defence will remain the primary legal basis for protective fires. Based on recent operational experience, the requirement for integral legal support is likely to increase. Reachout can only provide limited support, as legal advice must be based on a proper understanding of the operational context, including environmental and particularly cultural subtleties. Such awareness comes through deployed lawyers, who can ameliorate the legal frictions of operating with allies and provide direct legal advice to commanders. Land forces must be prepared for wider FP responsibilities to include those civilians within their care, ranging from contractors deployed on operations to internees and detainees. Military operations will continue to be subject to media and judicial scrutiny; accordingly, Land forces must be prepared and structured to maintain clear audit trails to assist with post-event investigations and review.

128. **Contractor Support to Operations.**¹⁸ The recent trend of employing contractors and Private Military and Security Companies (PMSCs)¹⁹ on operations, in all stages of conflict, is likely to increase. In part, this growth is born of demand, the shortage of military resources and an increasing willingness to contract out tasks associated with some military operations. Understanding the scale, scope, constraints and risks of this non-military involvement in specific contexts will be essential, especially in relation to responsiveness, guaranteed availability and accountability.

a. **Private Military and Security Companies.** The use of PMSCs may expand further into areas of activity previously deemed to be the preserve of military forces. PMSCs will have specific utility in those circumstances where the delivery of non-military lines of operation demands personnel to have security awareness and operational understanding. PMSCs can relieve Land forces from mundane security and escort tasks, as well as providing a source of in-country intelligence. However, numerous factors will impact on PMSC interaction with Land forces, such as: interoperability of C2 and CIS; the legality and status of PMSCs; the procedures required for UK Forces to work with approved companies; and how they should be regulated, both by the British government and by fledgling indigenous governments. Clearer policy, which sets out required professional standards and ensures that PMSCs are accountable for their actions, is required for the future to ensure that PMSCs provide positive rather than negative effects.

b. **Contractor Logistic Support.** Contractor Logistic Support (CLS) will continue to be a feature of the FOE and will almost certainly increase. In future the presence of contractors will no longer be at the discretion of commanders; they will be constituent parts of joint forces, with the implications that come with their use (associated FP responsibilities for Land forces resulting from moral obligations and national legislation). Protracted operations will demand international and local contractor support to reduce the burden on heavy lift, extended LOCs and security.

THE PHYSICAL COMPONENT

129. **Formation Structures.** Major combat operations will be characterised by the deployment of 'high-end' military capability against a broadly matched, conventional adversary. The land component of such a force will probably be of at least divisional size, and operations will feature fire and manoeuvre at formation level. The nature of

¹⁸ Contractor Support to Operations (CSO): 'Includes all forms of contractor support replacing what was previously known as CONDO. CSO encompasses CONDO, Contractor Logistic Support (CLS), where in-service equipment is maintained under contract with the equipment provider and the use of contractors through the PJHQ Contractor Logistic (CONLOG) contract where a range of services can be provided from a long term commercial contract.' (JDP 4-00 'Logistics for Joint Operations', 3rd Edition)

¹⁹ Includes Private Security, Private Logistics and Risk Management Companies.

manoeuvre at this level brings greater scale, volume, complexity and potential violence, the totality of which is far more than simply the sum of 3 brigades.²⁰ It also requires the integration of inter-agency, joint and multinational capabilities and may demand planning for the development of indigenous military capability. This level of command is commonly characterised as the lowest level of tactical command which can plan the integration of joint effects while in contact, which can plan and execute concurrently and is capable of sustaining itself for extended periods with its own organic Combat Service Support (CSS). The close, tactical battle, which will be fought by brigades needs to be shaped in time and space beyond their reach and influence, and is only achieved through use of organic divisional planning staff and supported by divisional Combat Support (CS) and CSS assets. The requirement of span and scale and extended functionality of C2 at divisional level is therefore significantly greater than exists at brigade level, both to handle the simultaneity, but also to orchestrate the considerable range of additional capabilities needed to fight more than one tactical engagement at a time. This capacity will enable a divisional HQ to adapt from the conventional role to deal with the wider range of challenges in stabilisation operations.

130. **Headquarters.** The operational level will be characterised by increased complexity and tempo in terms of activity, objectives and the effect at the strategic level and it is likely that the operational space (urban areas being an exception) will become less dense, more widely dispersed and less precisely defined. This will, in turn, lead to greater requirements for modular structures, which are better matched to dealing with this unpredictability than current conventional operations focused HQs. The benefits that can be delivered through these modular structures will only be enabled with robust establishments, which allow genuine cohesion to be delivered through systematic training and team building over time. Additionally there will be a continued need for structures that are optimised to command, control and coordinate activity beyond the tactical level. The scale and scope of operations may require that even a medium or small-scale force is commanded by a HQ or land component HQ at 3* level. The UK also requires the capacity to field a Land Component Commander above divisional level and the nucleus of a shore based Joint Task Force Headquarters (JTFHQ) at 3* level. Therefore, for major operations involving a wide range of contributing parties (both military and non-military), retention of a UK led corps-level HQ through the auspices of NATO will be essential, thus securing strategic influence. The level of the land component HQ will continue to be dependent on the complexity of the operation or situation, not the size of the deployed force. In the most demanding operations, it is unlikely that a HQ will be able to provide simultaneously the functions of theatre or JTFHQ and tactical HQ, due to the differing requirements involved, and therefore modular structures will be required. Specifically, stabilisation operations have resulted in brigade HQs assuming responsibilities that have been the

²⁰ The Division's decision action cycle is routinely in the order of 48 to 96 hours, while its brigades fight one tactical engagement at a time within a 0 to 24 hour decision action cycle.

remit of the divisional level of command in the past. These include greater planning capacity, the ability to conduct multiple engagements simultaneously and the integration of CS and CSS capabilities. New functions including joint fires, Civil-Military Cooperation (CIMIC), infrastructure and influence activities are required. HQs for stabilisation tasks will be increasingly capable and static, operating from within a protected base. This contrasts with the characteristics of a brigade HQ in major combat operations where the premium will remain on relatively small HQ, capable of manoeuvre, and where the planning capabilities and horizon remain limited. This tension will drive a requirement for 'reversibility' and modularity where brigade HQs are able to re-configure for highly manoeuvrable combat operations with little notice or additional augmentation.

131. **Modularity.** A modular approach to HQ structures will be necessary, incorporating the optimum use of Reachout,²¹ disaggregation and flexible operating arrangements. In future there will be an increasing variance in scale and tasks between the demands of major combat operations and those capabilities required for stabilisation. The divisional HQs will take on many more operational and strategic level functions than previously delivered. In particular there will be greater multinational and inter-agency demands on the HQs, many of which would previously have defaulted to a higher HQ. Partnering, both developing a partnership plan with indigenous forces and execution, will routinely fall to the division. The divisional HQs can expect to increase in size as it is 'fitted with' many of the stabilisation capabilities which become a routine feature of these operations. Similarly the brigade HQs will look very different to its major combat operations counterpart. It can expect to deliver many aspects of joint and air land integration as well as take on some operational level activities, including partnering. It is likely to be 'fitted for' specific stabilisation capabilities and will be required to absorb and integrate a variety of functions and capabilities into the HQ, which in turn will also drive its structure upwards.

132. **Balance.** The breadth of tasks that Joint Forces will undertake in the Land environment across the spectrum of operations calls for Land forces that balance people, equipment and enablers in proportion to the potential risks and possible scenarios including those articulated in current policy. Success in these tasks will require a balance of equipment between the demands of protection, manoeuvre and firepower. Land forces will increasingly adopt a modular approach to their grouping, which mixes and matches these capabilities to meet the requirements of different operations.

- a. **Heavy Capability.** An all-arms heavy major combat operations capability needs to be retained to counter the re-emergence of state-centred

²¹ Reachout is defined as the ability to access, through NEC, expertise, information and functions in distributed locations and from wider organisations. Command Endorsed Interim Concept, November 2007.

conventional threats that base their offensive fighting power on mass and manoeuvre. Sufficient core expertise, firepower, protected mobility and mass should be maintained, albeit at levels of readiness agreed by Government, within readiness planning yardsticks, in the event of the unexpected and as seed corn for regeneration. In addition, these forces provide a substantial deterrent to would-be aggressors, as well as the explicit capacity for overmatch in relation to irregular opponents. Consequently, these forces need to be progressively modernised and proactive in responding to novel technologies that could enhance capabilities while remaining aware of significant anti-armour and anti-manoevre capabilities available in the commercial market.

b. **Medium Capability.** Land forces will be required to achieve early effect across a range of complex, and frequently occurring, scenarios. This requirement will necessitate an increase in Land forces flexibility and the development of forces capable of rapid deployment, yet with integral firepower and levels of protection that are matched to the likely threat. These are described as ‘medium forces’ in this paper and they are characterised, in part, by their air deployability. Medium forces will need higher levels of mobility and protection than currently available to ‘light’ forces as well as greater deployability and agility than ‘heavy’ forces. The acquisition of an integrated suite of modern platforms, and the streamlining of some existing capabilities, will increase current Land forces capability to respond to crises. The Joint Medium Weight Capability (JtMWCap) concept highlights how this capability can be progressed; exploiting the capabilities of wider joint assets and scaled for rapid deployment, recovery and re-allocation. The Land core of JtMWCap must be capable of strategic movement by air and sustained ground manoeuvre, exploiting the advantages of firepower, mobility, increased levels of FP and access to wide area and specific ISTAR. Additional support from battlefield helicopters, joint fires, robust, networked Command, Control, Communications, Computers and Intelligence (C4I) and optimised logistics should allow a reduced expeditionary overhead, and connectivity with allies. JtMWCap Land forces should be designed primarily for rapid intervention potentially within urban terrain, with the adaptability to meet other Land priorities²² and be directly applicable to major combat operations.

c. **Light Capability.** The speed of response of light forces will add flexibility to the national contingent capability. Better suited towards operations in complex terrain, as part of an all arms grouping, light force capability and mobility is continually developing. For strategic deployability, light forces will rely on the provision of theatre entry capabilities by land and sea, but light force elements will have to be trained, equipped and resourced

²² Although not configured for theatre entry, the JtMWCap will be available for a broad range of military tasks, with a highly responsive small-scale element able to deploy to the Core Regions by air within 14 days.

appropriately if they are to be launched into volatile operations from high readiness. It will be increasingly challenging to provide the FP and protected mobility requirements for light forces in high intensity stabilisation tasks. Migrating SF capabilities²³ and developing threats will necessitate a review of training, equipment and structures.

133. **Special Forces.** UKSF are a 'high value', strategic asset that delivers effects out of proportion to their size. UKSF will continue to maintain the capability to conduct surveillance and reconnaissance operations to provide strategic insight into the intent and actions of both state and non-state actors who present threats to UK security and interests. Specific threats include those posed by the potential acquisition of weapons of mass effect by irregular actors. UKSF will continue to work to build the capacity of indigenous security forces in enduring stabilisation operations. The capability of SF to operate covertly, discretely and with a low logistic footprint will continue to be in high demand. Their versatility, agility and global reach will continue to surpass that of conventional forces, making them particularly well suited to the conduct of asymmetric engagements against flexible, informally-structured opponents. While they will maintain their ability to operate independently, or in support of OGDs, they are increasingly likely to operate with the support of, or in support of, conventional forces in a joint construct. Organic support assets, permanently provided to UKSF from the front line commands, may need to be increased to support UKSF operations by task-organised forces under UKSF command that are comprised of a majority of non-SF personnel.

134. **The Third Dimension.** Land forces will continue to depend on the integration of air and aviation capabilities (combat air support, air transport, forward air controllers, battlefield helicopters and attack helicopters) to deliver potent operational effect. Pressures on these scarce assets will continue to constrain Land force planning and execution of operations. While it is likely that demand for aviation assets will continue to grow it is not inevitable that force structures will be increased. As air and aviation platforms are used in demanding environmental conditions and at intensities beyond those initially planned it is likely to be necessary to expend greater resources both in financial and equipment support terms to maintain these platforms. It is likely that Land forces will place an increasing importance on such platforms, particularly in stability operations where threat levels and force dispersion necessitates Land forces reliance on air and aviation assets to provide precision strike capability, which would otherwise be the preserve of integral offensive support.

135. **Force Protection.** Stabilisation operations will require that proper consideration be given to protecting personnel, equipment and accommodation. The fixed bases, required to enable stability operations, which in the FOE may need to be in the heart of population centres, will attract attacks and indirect fire from irregular

²³ The recent move of many, previously SF, tasks to mainstream infantry will continue.

threats. Additionally, the relative lack of manoeuvre inherent in framework stabilisation operations will often ‘fix’ personnel and create opportunities for the enemy to exploit. This will drive the requirement for higher levels of FP for Land forces. Contractors, and other civilians, attached to the force create additional FP requirements that the MOD is obligated to provide. Effective protection of these personnel is necessary to ensure that they are able to make their intended contribution to operational success. The increased use of anti-armour weapons and improvised explosive devices by irregular opponents will restrict the use of unprotected vehicles and both hard and soft system solutions will be required to protect personnel and assets. Similarly, there are likely to be increasing political and public expectations that all possible measures have been taken to reduce fratricide. There is a balance between protecting Land forces from these increasing threats and imposing penalties to their flexibility and responsiveness. Protected mobility within the construction of the flexible balanced force is essential, and equipment programmes such as Future Rapid Effects System (FRES) will remain a critical component in providing the requisite FP.

136. **Countering Irregular Threats.** Land forces will support the Government’s Counter Terrorism (CT) Strategy.²⁴ The military contribution to UK CT operations will be in support of the civil power and Home Office. Future threats, particularly when delivered by an enemy using a hybrid response to our perceived strengths, may require Land forces to provide greater support to CT and broader resilience in the UK. A strong history of Counter Insurgency (COIN) experience, blended with new thinking associated with modern situations, has resulted in doctrinal principles from which Land forces can develop the more wide-ranging requirements of Countering Irregular Activity (C-IA) further afield, which may encompass aspects of domestic CT strategy. Devolved decision making will be critical to counter the challenges presented by the dexterity of irregular adversaries to hierarchically organised forces. Land forces commanders involved in C-IA will require a greater degree of empowerment to achieve a fuller range of effects than is currently possible.

137. **Coping with Strategic Shocks.** Although it is not a ‘force driver’, a spectrum of capabilities across Defence needs to be available to ensure sufficient expertise, resilience and on-call emergency response to strategic shocks, including CBRN attacks; this will necessitate a corresponding increase in Land forces CBRN capabilities. As a pool of readily available and trained manpower, Land forces will have the capacity to play a larger role in assisting with international crises while also reinforcing domestic resilience, possibly building on the model of Civil Contingency Reaction Forces that aligns with the UK regional chain of command. Although OGDs may have the political lead for response and consequence management, it will remain a public expectation that Land forces are committed in substantial numbers, probably

²⁴ ‘*Countering International Terrorism: The United Kingdom Strategy*’ (CONTEST), July 2006, The Cabinet Office.

beyond those envisaged in planning assumptions, to deal with the effects of a major incident within the homebase.

138. **Battlespace Management.** Improved resolution of the battlespace and enhanced situational awareness will assist in Battlespace Management (BM). However, the limitations on effective BM precipitated by the proliferation of Unmanned Aerial Vehicles (UAVs), which currently complicate low level BM, and increased numbers of remotely targeted rockets and missiles, mean that control, especially in congested, urban or JIM environments, will remain problematic. The requirement to exert effective C2 over non-military elements of the force adds to the complexity of the situation. Instances of electronic attack will place greater demands on spectrum management. Managing the impact of a busy battlespace will require an increase in resources, while the time available for decision making is likely to decrease. Increasingly it will also involve managing and integrating the requirements of the non-military force elements. Moves from procedural airspace control to positive control will produce a dichotomy where there is both a demand for greater automation of BM systems, while simultaneously retaining the requirement for 'man in the loop' decision-making.

139. **Intelligence, Surveillance, Target Acquisition and Reconnaissance.** The demand for ISTAR systems and products to aid commanders in their decision making process will continue to grow exponentially, and this will have the corollary impact on an increase in organic intelligence capabilities and intelligence positions within HQs. Recent structural enhancements, such as the Operational Intelligence Support Group, will develop in importance as issues such as collection, analysis and dissemination of ISTAR product, impact on Land forces. The ISTAR product will in future be improved through a mixture of organic, more persistent ISTAR and more flexible and assured access to integrated or directly supporting assets that can detect, locate and track adversaries and events in real-time. Although ISTAR will continue to provide situational awareness through these 'count' and 'track' functions, commanders will still require other human factors to deliver situational understanding. Complex terrain - especially operations in urban areas and the environmental seams - will mean that a mix of capabilities that incorporate controlled and autonomous systems, with 'floodlight' and 'spotlight' capability and a high degree of redundancy, will be needed. Land forces also require the means to neutralise opponents' ISTAR capability through destruction, Operations Security (OPSEC) and counter-information techniques. Unmanned and autonomous systems will present both opportunities and threats and Land forces need to embrace the idea of a more complex battlespace, with all the implications for bandwidth availability and deconfliction management that this level of integration requires.

140. **Increased Targeting Discrimination and Sensitivity.** In countering regular and compound threats, the military will need to harness technology to achieve greater

precision and discrimination between hostile and non-hostile. In particular, operations will continue to require the prosecution of targets in close proximity to civilian infrastructure, while minimising collateral damage, requiring a balance of precision and area strike, with precision fires, capable of delivering pre-planned and dynamic targeting. In particular it is essential that the capabilities delivered through joint action are available in a timely and responsive manner to a more junior level of commander than has previously been the case. Additionally the deliberate targeting process must not be allowed to unduly constrain the lower tactical level of command. Furthermore, Land forces will need to develop less than lethal weapons. On occasions, increased discrimination may only be achievable by employing more soldiers. This will require an improved understanding of less than lethal effects and influence activities and how they can shape, both positively and negatively, local levels of consent.

141. **Acquisition.** Reconciling a military technology horizon reaching out several decades with a civilian technology horizon often measured in months will be especially demanding for conventionally structured and resourced Defence establishments, although it is hoped that these may converge in the future. It is probable that future adversaries will access the global systems and weapons market, while Land forces may remain tied to an extended acquisition process for both equipment and systems, which will be vulnerable to cost growth and progressive obsolescence, and this challenge must be mitigated. Conversely, adversaries may have the resources and potential to acquire technologically advanced and increasingly lethal and sophisticated systems, possibly matching, or even exceeding, UK technological capability. Land forces will also need more dynamic processes for procurement, commercial off-the-shelf acquisition and capability integration to avoid an over-reliance upon the Urgent Operational Requirement (UOR) process. The latter is characterised by greater realism in stating requirements, a focus on commercially proven technology and a pragmatic balance between time and capability. This highly responsive process should be taken into the core of the acquisition process and shape the behaviours of all within the Unified Customer. Engaging in conflict is a race. Each side innovates and adapts; agile acquisition is key to tempo and establishing advantage. Adversaries will increasingly seek to migrate ideas, tactics and equipment between operational theatres in an effort to unhinge the Land forces' response, making traditional procurement processes inappropriate and unresponsive. Land forces need to have more flexible ways of contracting for availability, delivering sustainment for equipment procured and ensuring future equipment has the growth potential to absorb technological enhancements. Of increasing importance will be the requirement to ensure that the acquisition strategy genuinely captures the through life capability requirements which will seek to reduce support costs, drive commonality and ultimately ensure that the correct equipment is in the hands of the user when it is needed. Increasing integration of CSO into the deployed Land force is required and will involve activities such as ensuring greater consideration of their capabilities and limitations throughout the operational estimate and planning process.

142. **Responsiveness.** Force generation will continue to be affected by the realities of political decision-making and the difficulties of maintaining force elements at readiness and sustainment. Therefore, Land forces must optimise responsiveness within the constraints imposed by the timelines for activating reserves, the implications of long-term equipment contracts and continuing manpower and resource restrictions. The likely continuing reliance on reserves (including Sponsored Reserves) and CSO to complete Land capability makes early political decisions a prerequisite of timely intervention. More imaginative coordination and rationalisation in the strategic base with regard to the location of force elements, their vehicles (whole fleet maintenance), their initial sustainment priming equipment packs and their mounting locations would improve responsiveness, as would concepts such as global reach, lean logistics and established partnership arrangements. CSO-dependent contracts must ensure that the deployment of contractors satisfies the readiness requirement of the Land forces they are intended to support. It is also likely that increased modularity across our force structures and HQs will, in turn, lead to increases in responsiveness. More integrated arrangements for expeditionary lift, by sea or air, from service or commercial sources, would improve the routine and surge capacities and options for Land forces.

143. **Projection.** Land forces will remain largely dependent upon air and maritime strategic lift capability to launch, sustain and recover from expeditionary operations. There are pressing deadlines at small scale which requires that certain equipments must be air portable in order to meet deployments at range within demanding timelines, while sealift will be required for heavy and medium forces. The development of the primary Airport of Embarkation (APOE)²⁵ and Seaport of Embarkation (SPOE) will be fundamental in ensuring that the UK can effectively project the future forces (including current and future Joint Rapid Reaction Force (JRRF) force elements) required for expeditionary operations. Optimising the procedures by which tailored forces such as the JtMWCap can be delivered rapidly into theatre will aid agility. In all instances of power projection, Land forces will depend on secure air and maritime domains, occasionally supplemented by relatively long intra-theatre land LOCs. Acknowledgement of a continued dependency on commercial assets to augment military strategic lift capabilities must drive the optimisation of a seamless interface with the civil sector, in order to minimise delays when approaching the market for assets.

144. **Logistics and Sustainment.** The FOE will present significant threats and challenges to the logistic function; not least of these will be the requirement to support a less dense military footprint along extended LOCs. This risk to land logistics must be matched by significant improvements to the protection, equipment and training afforded to this function. The pervasive nature of the threat in the FOE will drive the need for firepower and FP to enable logistics to be 'fought through' when required. At

²⁵ Project CATARA is investigating enhanced Airport of Embarkation (APOE) facilities at RAF Brize Norton from 2012.

the same time, sufficient investment in logistics C4I, incorporating effective asset visibility and management, remains vital to the realisation of Directed Logistics.²⁶ CSO contracts should ideally be backed by residual military capability to mitigate against the possibility of the contractor failing to deliver the operational service or support required. Future operational success will depend on flexible and directed logistic support capable of servicing highly dispersed forces operating at tempo. Matching the required improvements to acquisition, designed to make that process more agile and responsive, demands similar advances to the sustainment of our forces and equipment. It will become increasingly important to reduce both the logistic footprint and logistic demands of the deployed forces, which should in turn lower the operational costs of the deployment. Given the uncertainty of the FOE, the ability to satisfy unforeseen surge requirements will remain an essential consideration in all future Land force decisions. Even so, the character of operations will see a shift in emphasis from reactive to predictive sustainment planning and it will be necessary to incorporate Health and Usage Monitoring Systems to improve diagnostic and prognostic capability. Additionally, sustainment planning must consider logistic support from joint and commercial entities. In sustaining the force, consideration must also be given to equipment. A legacy from current operations will be the higher usage and instances of battle damage than anticipated resulting in shorter equipment lives than forecast.

145. **Medical Care.** Advances in health technology will improve medical care through: enhancements to the deployed medical capability (including to non-combatants); treating psychological injuries; addressing the injuries caused by novel weapons; and improving continuity of care from theatre to the home base. This will require continued investment in mission critical medical equipment in order to keep pace with advances in clinical treatment and types of wounding. Expectations for survival and rehabilitation will grow, which will demand greater investment in the range and quality of medical services provided. The relatively high number of wounded personnel requiring long term care will place significant demands on support services. Planners for future operational medical support must be appraised of the size of the total force dependency. The use of contractors on operations has currently increased the number of potential dependents by up to 40%.

THE MORAL COMPONENT

146. **Command and Leadership.** Future operations will continue to demand the selection and development of mentally responsive commanders who are equipped to deal with complexity, uncertainty and the demands of technologically advanced systems and networks across the spectrum of operations. There is a need for commanders with the experience of operating in a JIM context, possibly as

²⁶ Directed Logistics, a Sub-Concept to FLOC 03 dated 27 February 2004.

subordinates to an OGD lead. Preparing junior commanders for the more diverse challenges they face, in relation to future opponents and situations, as well as to emerging technologies and diverse cultures, will have significant resource, education and training implications.

147. **Values and Standards.** Land forces will continue to derive strength from their ethos, culture and heritage. The moral component of fighting power will be underpinned by a strong ethical base, together with clearly understood and strongly held values and standards. It will remain critical to inculcate personnel with appropriate values and standards, not least in order to protect and enhance both the operational capability and the reputation of Land forces. This reputation will be especially important in relation to the perceptions of allies, adversaries and UK society, and in engendering a level of trust and authority with indigenous populations and the global audience. The rigorous enforcement and maintenance of legal and moral conventions under the pressure of operations and dynamic events will remain essential to maintain legitimacy. The excellent reputation which Land forces broadly enjoy throughout society will remain reliant on Land forces being seen to be beyond reproach in their conduct on expeditionary operations and readily available to respond to a wide range of military assistance tasks throughout the UK.

148. **The Human Dimension.** The provision of sufficient, capable and motivated personnel will be an enduring requirement. People will remain the vital component at the heart of all military capability. An all-volunteer force, without significant reliance on PMSCs, requires resilient structures and full manning to retain its cohesion and maximise operational effectiveness.

a. **Sufficient.** Delivering the robust establishments, which are critical for enabling small unit cohesion, is essential. Achieving and maintaining full manning will be key in minimising the malign influence on the moral component caused by undermanning. It will remain a fundamental that recruiting, selection and training of suitable Land forces personnel will cost more than retaining current serving personnel. In order to identify, recruit and retain sufficient people a number of measures will be necessary, including maintaining the appeal of the military lifestyle and also broadening the spectrum of society to which the military will appeal, and from which we will recruit. Land forces should seek to retain more for longer, reduce reliance on recruit inflow, introduce more flexible working arrangements, and accommodate people's expectation for longer working lives. Terms of service should be developed which meet military demands and the expectancy of society. Fully manned Land forces comprising full and part-time personnel, with resilient yet flexible manning structures, will be an enduring requirement.

b. **Capable.** Land forces will continue to require high calibre resilient people, who are well trained and educated, able to exploit increasingly

complex and technologically demanding equipment. However, while acknowledging the hi-tech demands, the FOE will still require soldiers to be courageous and to fight and win; maintaining a war-fighting ethos must continue in individual and collective training. There will be benefit in increasingly grouping our people in peace, as we will for operations. Capable people will remain central to success in conflict.

c. **Motivated.** The nature of the FOE will lead to a high tempo of operational deployments and demands upon personnel. The maintenance of high morale and operational effectiveness will rely on adequate provision of resources and continued public support and understanding. Safeguarding a balanced Military Covenant will remain fundamental to maintaining well-motivated Land forces, and is an important condition for ensuring a strong moral component of fighting power. Recognising the contribution that our soldiers make to the Service and the nation is key in this respect and will be demonstrated by the delivery of attractive and supportive terms and conditions of service, which benefit not only Service personnel but also their families. This offer must include a fair and attractive remuneration package, improved working and living conditions, health care which is 'second to none', and effective and timely welfare support. 'Retaining the family' will grow in importance, and so affording families greater opportunities for home ownership, spousal employment and integration within civilian communities will all contribute to high morale, motivation and the retention of experienced trained personnel. Accompanied service, too must be a viable and attractive option if Defence is to retain the motivation of its personnel and their families. The provision of through life support to our people, their families and our veterans will be key in demonstrating the nation's commitment to its Land forces.

149. **Reserves and Society.** Adequately configured and trained reserves need to be available to supplement and complement regular Land forces if a sustainable expeditionary posture is to be maintained. Integration of reserve forces, primarily attributed against major combat operations, with their regular counterparts for lower scales of effort, will be challenging. There is a tension between developing flexible and modular structures, which are robust enough to not require augmentation, and a requirement to better integrate reserves into force structures required for enduring operations. In future, this will mean that more flexible modes of employment will be needed to ensure that reservists are able to contribute in the most appropriate way and that employer support is safeguarded. Building on recent operational success there is a need to examine how reserve force capabilities are developed to enable support of the regular force with more emphasis on scales of effort below large scale. Some of the capabilities needed to mount enduring operations will continue to be provided by reserves, either because there are not enough regular units available or because the

skills required are not primarily military - and this will be a continued requirement in stabilisation operations. Additionally, given that the regular Land forces' UK footprint is very light, and Land forces are generally not as visible to society, then there will be an essential role for reserve forces (Territorial Army, Sponsored Reserves, University Officer Training Corps and Cadets) to develop or bolster that essential bond between Land forces and wider society.

CONCLUSION

150. The likely future land environment suggests that a re-balance of focus, structure and training is now required of UK's Land forces. Globalisation and growing competition for energy and other critical resources suggests that a UK response, probably in coalition with our allies, may be demanded in a range of potentially unstable regions. Their objective will be the establishment of effective governance and stability and this may require a military component. The threat of state-on-state conflict will persist, but its form is likely to be more complex as adversaries adapt, often generating hybrid threats, to negate our conventional capabilities. Stabilisation will be no less demanding in its own way, and the Land forces response will see military personnel employed across a range of tasks which they are not currently structured to deliver. It is also likely to be more frequent and should therefore be the principal force driver for Land force structures and other capabilities, but acknowledging that the concurrent demands of major combat and stabilisation operations require complementary capabilities and cannot be seen as alternatives. State on state conflict will be managed using readiness mechanisms, underpinned by an instinctive understanding of the inter-agency skills required to achieve the political purposes for which military force may be applied.

151. As part of a balanced, fully manned, agile, deployable and sustainable force, Land forces will: train for unpredictable situations and complexity; equip to ensure the maintenance of capabilities that will enable them to prevail in the most demanding circumstances; and achieve success through implementation of advanced operational and conceptual design. Throughout we must guard against surprise - the risk that the requirements of the next conflict are markedly unexpected. Future operational success will be dependent upon Land forces' ability both to produce sufficient, capable and motivated individuals, and to ensure a balanced military covenant. In this latter regard, the moral and intellectual support of the British public will be essential. Our soldiers will remain the most potent and flexible Land force asset; they will remain central to operational success in the land environment.

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EXECUTIVE SUMMARY

CONTEXT

152. The future land environment is predicted to be dynamic, complex and uncertain, and the period to 2030 will continue to see wide-ranging employment of Land forces in the national interest. The complex nature of global interdependency and the reliance of developed nations on a stable and secure environment for access to vital resources is likely to increase United Kingdom (UK) international engagement and will make it impossible to ignore certain crises. The United States (US) is likely to remain the predominant military power for the next 30 years. The continually evolving impact of non-state actors, linked to the increasing dependence of developed states on regional stability, may demand trans-national military responses to instances of regional conflict, the purpose of which will be to establish stability. This will demand more than the traditional focus on defeat of armed forces and will encompass an intellectual approach and a broad range of capabilities specifically aimed at providing support to the restoration of governance and order. Current experience suggests that future expeditionary commitments are likely to endure, with an overlap between previously discrete combat and stabilisation tasks as military force is engaged in persistent stabilisation tasks in support of effective governance.

153. Urbanisation, fluid population movement, the consequences of climate change, state failure, demographic shifts, economic growth for some, increased poverty for others and scarce resources will all contribute to future insecurity. Conflict, and the associated Land forces' response to it, will continue to occur across a spectrum of activities, from humanitarian and disaster relief through stabilisation operations to major combat operations. The complexity and persistency of stabilisation operations suggests that these are likely to be more frequent and should therefore be the principal force driver for Land force structures and capability development, acknowledging, however, that the concurrent demands of major combat and stabilisation operations require complementary capabilities and cannot be seen as alternatives. The military will require to engage and operate, in conjunction with other government departments and agencies, using coordinated inter-agency and Comprehensive Approaches (CAs) to harness niche and generalist capabilities. In many circumstances the security situation will continue to act as a constraint on the ability of non-military actors to fully engage in some stages of stabilisation operations, and consequently the military will still need to deliver some civil effects capabilities, possibly for extended periods. Delivering tangible results in such environments will require trust and commanders to be allocated both greater resources - including money - and the authority to use it to achieve the effects required.

154. We should expect our state and non-state adversaries to be adaptive and to seek to negate our forces' conventional capabilities, use complex environments with which he is familiar, and to employ novel means of attack. This form of hybrid, or compound, warfare will see the enemy choosing to use a mixture of all of the levers of response available to him, regular forces and/or irregular forces supplemented by political, economic or information activities, to achieve his goals. The increasing proliferation of Chemical, Biological, Radiological and Nuclear (CBRN) weapons and disruptive technologies amongst state and non-state actors will add to the risk of strategic shock during this period, and the UK will seek to increase its CBRN defensive and response capabilities. The rate of global technological innovation will continue and the enemy will seek to employ emerging technologies against us. Secure sea Lines of Communication (LOCs), air dominance and effective sustainment will remain pre-requisites of successful expeditionary combat operations against this type of physically and technologically capable opponent.

Land Forces Response

155. Responding resolutely to these challenges will require Land forces that combine sufficient personnel, flexibility and technological edge with the capacity for decisive action. The future operating environment outlined above, leads to a series of broad deductions for Land forces. These deductions have been grouped within the framework of fighting power, the conceptual and physical components underpinned by a strong moral component.

156. Critical to the **conceptual component** is the British approach to operations, which seeks to retain a warfighting ethos and a flexible and pragmatic state of mind - characterised by focus on the sub-unit building blocks which are vital for unit cohesion and mission command. Experience is highlighting that it is no longer sufficient to train for major combat operations and rely on this to provide the competencies necessary to operate across the spectrum of operations. However, while refocusing effort for stabilisation operations, it will be critical to retain Land forces' ability to prevail in major combat operations within policy determined readiness timings. Given the scale of likely stabilisation operations, and the relative size of UK Land forces, decisive effect is only likely to be delivered through coalitions and partnering. Partnering will be required at all levels, underpinned by cultural understanding of the strengths, and weaknesses, of the partner. It is through unlocking indigenous force capabilities that our Land forces can achieve the mass and situational understanding required to achieve success when the size of our own Land forces are relatively small in relation to the commitments that they face. The importance of providing the appropriate level of human intelligence capabilities, in support of these partnering capabilities, is not yet fully understood. This is primarily a land environment area and better capabilities, both quantitative and qualitative, are needed.

157. Planning abstractions have assumed that, after intervention, Land forces will decrease in size over time and they assume that greater size and complexity will be a feature only of major combat operations against a matched opponent. It seems likely that the size of a stabilisation force will ebb and flow, depending on the activity of our opponents and the nature of the environment and indigenous population and will require commitment of 'large-scale' forces on occasions. Additionally, the military may be required to deliver effect across a range of traditionally non-military tasks in challenging security environments where international and non-governmental organisations are unable to fully participate. The demands of integrating many lines of operation will make it increasingly complex for commanders. More attention will have to be paid to the coordination, training and operating aspects of the environmental seams, with sufficient, integrated, joint, combined and inter-agency training opportunities scheduled to improve collective awareness, performance and understanding. The infrastructure to conduct such training will need to better replicate the complex terrain and operating environment in future. Land forces must be prepared for wider Force Protection (FP) responsibilities to include those civilians within their care - ranging from contractors deployed on operations to internees and detainees. The use of contractors and Private Military and Security Companies (PMSCs) on operations, in all stages of conflict, is likely to increase. Understanding the scale, scope, constraints and risks of this non-military involvement in specific contexts will be essential, especially in relation to responsiveness and accountability.

158. Within the **physical component**, Land forces will seek to implement structural changes and improvements to Headquarters (HQs). Homogeneity of structures will improve force generation processes. In turn, this will support the increased modularity of structures and particularly HQs, which are likely to increase in size and scope. Future HQs will increasingly be 'fitted for' and 'fitted with' many capabilities which are currently held beyond formation level. These include: greater planning capacity; the ability to conduct multiple engagements simultaneously; joint fires; Civil-Military Cooperation (CIMIC) and governance, infrastructure and influence activities; and the ability to integrate Combat Support (CS) and Combat Service Support (CSS) capabilities. This modularity will make these organisations ever larger and more capable, but increasingly fixed, which contrasts with the requirements of a manoeuvre formation in major combat operations. The nature of operations at the divisional level brings greater scale, volume, complexity and potential violence, the totality of which is far more than simply the sum of 3 brigades. It also requires the integration of inter-agency, joint and multinational capabilities and may demand planning for the development of indigenous military capability. The scale and scope of future operations may require that even a medium or small-scale force is commanded by a national joint contingent HQ at 3* level. The level of the land HQ will continue to be dependent on the complexity of the operation or situation, not the size of the deployed force. The nature of the threat in stabilisation operations may require enhanced protection for personnel, equipment and accommodation. Protected mobility will

remain a critical aspect associated with tactical and operational level mobility. Land forces will continue to assist with managing the consequences of strategic shocks or a major incident within the homebase, where there will remain a public expectation that Land forces should be committed in substantial numbers, probably beyond those envisaged in planning assumptions.

159. Some, currently niche, structures will expand in usage and overall capability. UK Special Forces (UKSF) will continue to be used as a high value, strategic asset that delivers effects out of proportion to their size. UKSF will conduct surveillance and reconnaissance operations to provide strategic insight into the intent and actions of both state and non-state actors who present threats to UK security and interests. The migration of some previously SF conducted tasks to general purpose forces will continue and this will have training and equipment implications. Land forces will still depend on the integration of air and aviation capabilities to deliver potent operational effect. A balance of precision and area strike using a mixture of pre-planned and dynamic targeting will support the delivery of this effect. Pressures on these scarce assets will continue to constrain Land force planning and execution of operations. The demand for Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) systems and products to aid commanders in their decision making process will grow, while managing the impact of a busy battlespace will require an increase in resources. ISTAR will provide situational awareness, but commanders will still require other human factors to deliver situational understanding.

160. The current acquisition processes must become more agile. Engaging in conflict is a race. Each side innovates and adapts; agile acquisition is key to tempo and establishing advantage. Adversaries will increasingly seek to migrate ideas, tactics and equipment between operational theatres in an effort to unhinge the Land forces' response, making traditional procurement processes inappropriate and unresponsive. The risks to land logistics in a space, which features a less dense military footprint but where LOCs are routinely extended, have yet to be matched by the protection, equipment and training afforded to this function. The pervasive nature of the threat in the future operating environment emphasises the need for firepower, protected mobility and FP to enable logistics to be 'fought through' when required. Future operational success will depend on flexible and directed logistic support capable of servicing highly dispersed forces operating at tempo. In tandem with this will be a requirement for improved responsiveness. Land forces must optimise their responsiveness within the constraints imposed by the timelines for activating reserves, the implications of long-term equipment contracts and continuing manpower and resource restrictions.

161. Finally, a strong **moral component** will continue to underpin Land forces capability. The complexity and demands of future operations requires that we develop mentally agile and flexible commanders experienced in operating in a Joint,

Interagency and Multinational context. Preparing junior commanders for the challenge will have significant resource, education and training implications. The moral component of fighting power will be bolstered by a strong ethical base, with clearly understood values and standards that must be inculcated into our personnel. This, with the strong enforcement of legal and moral conventions, will enhance the reputation of Land Forces and reinforce the legitimacy of their actions.

162. People remain central to the delivery of operational capability and there will be an enduring requirement to provide sufficient, capable and motivated personnel. Achieving and maintaining full manning will be a key requirement, demanding a combination of appropriate remuneration, effective recruitment and more flexible engagements, allowing us to draw from the widest range of societal groups and better facilitating the selected retention of experienced personnel. Land Forces will need high calibre, resilient personnel, who are well trained and educated, able to exploit increasingly complex and technically demanding equipment. The nature of the Future Operating Environment will place high demands upon personnel; maintaining high morale and operational effectiveness will require them to be properly rewarded and to receive public support and understanding. A balanced Military Covenant, with an attractive remuneration package, health care and welfare provision that meets the operational need, offering an appropriate work-life balance and high quality accommodation, with the needs of the family recognised, will remain fundamental to maintain well-motivated Land Forces. Additionally, the provision of through life support to our people, their families and veterans will be key in demonstrating the nation's commitment to its Land Forces. Reserves will continue to play an essential role in supporting the Regular component. Integration with their Regular counterparts will be challenging and will require more flexible employment terms if the capability they bring is to be fully exploited. There will be an essential role for Reserve Forces to deliver or bolster the key bond between Land Forces and wider society.

163. In conclusion, the likely future land environment suggests that a re-balance of focus, structure and training is now required. The threat of state-on-state conflict will persist, but its form is likely to be more complex as adversaries adapt, often generating hybrid threats, to negate our conventional capabilities. Stabilisation will be no less demanding in its own way. It is also likely to be more frequent and should therefore be the principal force driver for Land force structures and other capabilities. As part of a fully manned, agile, deployable and sustainable force, Land forces will prepare for unpredictable situations and complexity and equip to ensure the maintenance of capabilities that will enable them to succeed in the most demanding circumstances.

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LEXICON OF ACRONYMS AND ABBREVIATIONS

ABCA	The American, British, Canadian, Australian and New Zealand Armies Program
AOO	Area of Operations
APOE	Airport of Embarkation
BATUS	British Army Training Unit Suffield
BM	Battlespace Management
C-IA	Countering Irregular Activities
C4I	Command, Control, Communications, Computers and Intelligence
CAS	Close Air Support
CBRN	Chemical, Biological, Radiological and Nuclear
CERP	Commander's Emergency Response Programme
CIMIC	Civil Military Co-operation
CIS	Communications and Information Systems
CLS	Contractor Logistic Support
COIN	Counter Insurgency
CONDO	Contractors Deployed on Operations
CONLOG	Contractor Logistics
CSO	Contractor Support to Operations
CS	Combat Support
CSS	Combat Service Support
CT	Counter Terrorism
EMP	Electromagnetic Pulse
FAO	Foreign Area Officer
FOE	Future Operating Environment
FRES	Future Rapid Effects System
HMG	Her Majesty's Government
HLOC	High Level Operational Concept
IO	International Organisation(s)
ISAF	
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
JIM	Joint, Interagency and Multinational
JRRF	Joint Rapid Reaction Force
JtMWCap	Joint Medium Weight Capability
JTFHQ	Joint Task Force Headquarters

LOCs	Lines of Communication
MASD	Military Assistance to Stabilisation and Development
MCO	Major Combat Operations
NEC	Network Enabled Capability
NGO	Non-Governmental Organisation(s)
OGD	Other Government Department(s)
OMLT	Operational Mentoring and Liaison Team(s)
OPSEC	Operations Security
PAG	Policy Action Group
PMSC	Private Military and Security Company(ies)
PSYOPS	Psychological Operations
SF	Special Forces
SO	Stability Operations
SPOE	Seaport of Embarkation
UAV	Unmanned Aerial Vehicle
UKSF	UK Special Forces