PREPARING THE BRITISH ARMY FOR FUTURE WARFARE

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
General Studies

by

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2011-02

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	**2. REPORT TYPE**	**3. DATES COVERED** *(From - To)*
16-12-2011	Master's Thesis	FEB 2011 – DEC 2011

4. TITLE AND SUBTITLE

Preparing the British Army for Future Warfare

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

Major Angus M. A. Tilney, British Army

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Army Command and General Staff College
ATTN: ATZL-SWD-GD
Fort Leavenworth, KS 66027-2301

8. PERFORMING ORG REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for Public Release; Distribution is Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Following protracted campaigns in Iraq and Afghanistan, the British Army must restructure for the future amidst significant financial restrictions. Since 9/11, the character of warfare appears to have shifted; theories of hybrid warfare are recognized by British doctrine. To a backdrop of geostrategic uncertainty and financial constraint, how should the British Army prepare for future warfare?

This research considers the future threats to British national interests and discusses how potential adversaries might employ contemporary approaches to target British national interests. By consolidating existing threat projections and analyzing the character of hybrid conflict, it suggests that by training for hybrid conflict the British Army is attempting to address the full spectrum of conflict. Instead, it is recommended that the British Army prioritizes its training towards major combat operations while recognizing the enduring changes in the contemporary operating environment. In order to create the flexibility demanded by hybrid warfare, military culture should be carefully considered to reassess approaches to education, acceptance of risk and decentralized command.

15. SUBJECT TERMS
Future warfare, British Army, hybrid warfare, military culture.

16. SECURITY CLASSIFICATION OF:

a. REPORT	b. ABSTRACT	c. THIS PAGE	**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
(U)	(U)	(U)	(U)	108	**19b. PHONE NUMBER** *(include area code)*

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

ABSTRACT

PREPARING THE BRITISH ARMY FOR FUTURE WARFARE, by Major Angus M. A. Tilney, 108 pages.

Following protracted campaigns in Iraq and Afghanistan, the British Army must restructure for the future amidst significant financial restrictions. Since 9/11, the character of warfare appears to have shifted; theories of hybrid warfare are recognized by British doctrine. To a backdrop of geostrategic uncertainty and financial constraint, how should the British Army prepare for future warfare?

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ACKNOWLEDGMENTS

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ACRONYMS

COE   Contemporary Operating Environment.

CSA   Chief of Staff of the United States Army.

DCDC   Development Concepts and Doctrine Center. British military organization responsible for developing operational and strategic doctrine and concepts.

JOE   Joint Operating Environment. A U.S. military publication that addresses future emerging threats.

UK   United Kingdom.

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CHAPTER 1

INTRODUCTION

> Want of foresight, unwillingness to act when action would be simple and
> effective, lack of clear thinking, confusion of council until the emergency comes,
> until self-preservation strikes its jarring gong–these are the features which
> constitute the endless repetition of history.
> — Sir Winston Churchill, House of Commons, May 2, 1935

The uncertain business of projecting the cause and nature of future warfare has long been the debatable shaper of how armies train for the next conflict. Evidence suggests however, that more often than not armies have failed to effectively accomplish this challenge, and that armies continue to train for what they know; the past conflict. To draw upon a contemporary example, one might consider the counterinsurgency in Iraq over the period 2004 to 2006: the British Army might be accused of treating counterinsurgency in Iraq too light handedly following experiences in Northern Ireland; conversely, the U.S. Army might be accused of being too heavy handed, basing their experiences on Vietnam or operation Desert Storm.

The paradigm that armies train to fight the last war is both enduring and unsurprising; to be shaped by one's own experiences is part of cognitive development. In the 6th Century BC, Sun Tzu wrote "do not repeat the tactics that have gained you one victory but let your methods be regulated by the infinite variety of circumstances."[1] If Sun Tzu's advice is to be heeded, then historical reference and analytical projections must be trusted beyond personal experience. This thesis seeks to address the paradigm by

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[1]Sun Tzu, *The Art of War* (Milton Keynes, UK: Filiquarian Publishing, 2010), 28.

considering the future of warfare and considering how the British Army should prepare for future conflict.

The debate on threat has developed significantly since the end of the Cold War. In the early 1990s, popular opinion heralded widespread optimism of greater global security, with the single remaining world power creating an unprecedented serenity not witnessed since the fall of the Roman Empire. Theories circulated within academic circles and there was talk of "the birth of a global nation."[2] Theorists devised new conceptual relationships during the decade after the fall of the Berlin Wall. Pivotal concepts described the "Clash of Civilizations"[3] and theories on how "scarcity, crime, overpopulation, tribalism, and disease are rapidly destroying the social fabric of our planet."[4] But if there was bloated enthusiasm for the possible emergence of a homogenized global culture, it was rudely shattered on 11 September 2001 in the terrorist attacks now colloquially known as 9/11.

Since 9/11, the theorized roots of conflict have been studied, expanded and developed. But while theories dispute the underlying causes of threat, their extrapolation leads to a largely common end state: a new form of irregular, asymmetric, networked

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[2]Strobe Talbott, "America Abroad: The Birth of a Global Nation," *Time Magazine*, 20 July 1992, http://www.time.com/time/magazine/article/0,9171,976015-4,00.html (accessed 20 March 2011).

[3]Samuel P. Huntington, *The Clash of Civilizations?* (New York, NY: Simon and Shuster, 1996).

[4]Robert D. Kaplan, "The Coming Anarchy," *The Atlantic Monthly* (1994): 44 - 76.

warfare. This warfare is recognized by Frank Hoffman[5] as hybrid warfare. For the

military, its implications are significant; they must be prepared to face an extensive range

of adversaries in an expansive field of circumstances. For the British Army this

contemporary operating environment is doctrinally modeled as a "mosaic of conflict."[6]

U.S. Army doctrine centers around the concept of Full Spectrum Operations,[7] which

largely offers an alternative visualization to the same conceptual problem.

The conundrum faced by contemporary armies is how to train for this new type of

warfare. This is by no means a new challenge, indeed President Theodore Roosevelt

recognized that "it cannot be too often repeated that in modern war . . . the chief factor in

achieving triumph is what has been done in the way of thorough preparation and training

before the beginning of war."[8] But the character of war, to consider Clausewitzian

theory, is changing, even if its nature is enduring. Full Spectrum Operations, to use the

U.S. doctrinal terminology, are so broad in their range that it is disputable whether an

army that was engaged in nothing but training would ever be able to adequately prepare

for all eventualities.

To complicate matters, current conflicts in Afghanistan and elsewhere are shaping

the experiences of a new military generation. With this in mind, it might be argued that

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[5]Frank G Hoffman, "Conflict in the 21st Century: The Rise of Hybrid Wars" (Monograph, Pontomac Institute for Policy Studies, Arlington, Virginia, 2007).

[6]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations* (London: British Ministry of Defence, 2010).

[7]U.S. Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, February 2008), 3-1.

[8]President Theodore Roosevelt, graduation address at the U.S. Naval Academy, June 1902.

the absence of a clear vision of future warfare is causing the British Army to being drawn

inextricably closer to the current war. In his speech to Chatham House in 2009, General

Sir David Richards, the former British Chief of the General Staff, stated that "whilst not a

blueprint for the future–and it must not be seen as such–Afghanistan does offer a signpost

to the future."[9] But despite Richards's warning, there is concern within the British Army

that the influence of recent counterinsurgencies in Iraq and Afghanistan is shaping the

Army's capability irrevocably.

In late 2009, the British Army initiated a dramatic policy shift to set it on a

campaign footing for Afghanistan. Rather than training for major conflict one year,

before hurriedly retraining for counterinsurgency operations in Afghanistan, the British

Army would train for hybrid conflict which would have more transferable lessons for

subsequent operational preparation. Although this change will prepare the British Army

better for current operations, the conflicting concern is that conventional capabilities will

be heavily diminished or even lost altogether.

Soon after adopting this campaign footing for Afghanistan, and moving away

from conventional combat skills, coalition forces began planning exit strategies from

Afghanistan. When considering the next war, projections of future threat indicate

growing pressures caused by demographic change, climate change and the paucity of

natural resources. In unison, these factors threaten to combine to create a far more

primeval threat than that posed by current operations in Afghanistan. The next war might

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[9]General Sir David Richards, "Twenty-first Century Armed Forces-Agile, Relevant, Useable" (Transcript from speech, *Chatham House,* 17 September 2009), http://www.chathamhouse.org.uk/ files/14815_170909richards.pdf (accessed 20 March 2011).

be far from the irregular warfare that Western militaries have become so adept at waging in the past decade.

The balance between fighting the current war and preparing for future war defines a significant problem. As hybrid foundation training[10] evolves to meet the demands of the perceived contemporary operating environment, there is a danger that the British Army is preparing to feed the paradigm of armies training to fight the last war. A popular undercurrent of discussion suggests that the metaphorical signposts[11] are leading almost exclusively towards Afghanistan and becoming a counterinsurgency focused army that may find itself ill prepared for the future conflict.

This thesis studies the strategically critical question: how should the British Army prepare for future conflict? The question is addressed through the study of future threats to British national interests, hybrid warfare, and an assessment of how training might meet the conflict of tomorrow. It recognizes the constraints imposed by the current war in Afghanistan, the restrictions on funding in the wake of the global economic downturn, and the current size of the British Army. It recognizes existing doctrine and identifies the common strands that exist across the spectrum of conflict. By considering the future threats to British national interests, and the changing character of conflict, namely hybrid warfare, the current British Army approach to foundation training is reconsidered to correlate an alternative perspective. It concludes that the British Army should train for

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[10]Hybrid foundation training (HFT) occurs during the training year of a British brigade's readiness cycle. Since its introduction in 2009/10, it prepares the British Army for hybrid conflict and as such provides a more flexible foundation from which to either train for Afghanistan, or address contingency operations in support of British national interests.

[11]Richards, "Twenty-first Century Armed Forces-Agile, Relevant, Useable."

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major combat operations as a foundation for current and future operations; these are the muscle moves that provide a training datum. This training should be situated within an operating environment that better recognizes the technologies and human interactions emerging today. In order to develop the flexibility required for contingency operations, British military culture should be reconsidered. This cultural change should focus on three key areas: education, decentralized command, and acceptance of risk.

Definitions

The following definitions are used throughout this thesis in order to establish a common understanding of potentially vague terms. Some of these definitions are widely accepted, others are derived by the author for the purpose of this thesis.

Direct Threats. Those threats that directly threaten the United Kingdom's sovereign territory.

Discretionary Threats. Those threats that call upon action as a moral obligation or as part of a collective coalition of the willing. They might serve wider political aims, but do not pose a threat to British national interests either directly, or indirectly.

Hybrid Foundation Training. Since its introduction in 2009, Hybrid Foundation Training is conducted by British brigades during the training year of their readiness cycle. It is the training designed to lay the foundation from which a brigade can either train for current operations in Afghanistan, or deploy on contingency operations as required.

Hybrid Warfare. Hybrid warfare is an approach usually adopted by the less powerful protagonist. It uses strategic, operational and tactical tools that are made available to both state and non-state actors by globalization. Hybrid warfare recognizes

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the multiple levers that influence populations, and uses them to wage an asymmetric war through a myriad of kinetic and non-kinetic means.

Indirect Threats. Those threats that indirectly threaten the United Kingdom, or British national interests.

Major Combat Operations. Conflict that occurs at the most kinetic end of the spectrum of conflict. Traditionally, this is recognized as state on state warfare. The most recent example is the Iraq War of 1991. The British army refers to major combat operations as "combat operations," but for the purpose of this thesis the US doctrinal term will be adopted.

Spectrum of Conflict. The range of military activities that might be conducted. Spectrum of conflict is a term no longer used within British Army doctrine, which now refers to military activities within the land environment, but is still a recognized term within U.S. military doctrine. Similarly, the range of military activities within the spectrum of conflict differs in terminology between British and U.S. doctrine, but in practice is identical.

UK/British. The adjective/s that relate to the United Kingdom. Colloquial use sees the two used interchangeably i.e. the British Army is the army of the United Kingdom, and the UK's perspective is the British perspective of the United Kingdom.

United Kingdom. The noun referring to the political entity of England, Scotland, Wales and Northern Ireland.

CHAPTER 2

LITERATURE REVIEW

> Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after they occur.
> — Giulio Douhet, The Command of the Air

Prologue

Armies have traditionally struggled with the problem of how to prepare for future warfare, while historians, with the benefit of hindsight, have accused them of training to fight the last war. The 21st Century presents the same challenge. Are current operations in the Middle East the shape of things to come, or should armies prepare for something altogether different? This thesis addresses the primary question: how should the British Army prepare for future conflict? It answers this question through the consideration of three subsidiary questions: what rising threats to global stability might affect Britain? How might these threats manifest themselves using the tools of hybrid warfare? How might the British Army adapt current doctrine and policy to fight future adversaries?

This chapter reviews a selection of literature relevant to this thesis, so as to create a common level of understanding and construct an opinion on given topics. The chapter consists of three sections to address each of the secondary questions. The first section considers potential causes of future conflict. The second section considers the nature of hybrid warfare. The third section reviews current opinion on the conduct of future warfare, both through doctrinal and conceptual literature.

Causes of Future Conflict

Background

To date, 21st Century conflict has been characterized by spectacular terrorist attacks and enduring campaigns in the Middle East. These events support various theories of the sources of future conflict. The political scientist, Samuel Huntington, hypothesized in *The Clash of Civilizations* that the fundamental source of conflict will be neither primarily ideological or primarily economic. Instead he saw future conflict rising from the clash "between nations and groups of different civilizations."[12] While Huntington's theory appears to have captured the spirit of the first decade of the 21st Century, it might be considered a transient threat that will be surpassed by more pressing causes of conflict. The British Ministry of Defence published a paper written by their Development Concepts and Doctrine Centre (DCDC), *Future Character of Conflict*, which recognizes that "we cannot rule out the re-emergence of a major state-led threat, but in the foreseeable future, there is no state with the intent and capability to threaten the UK mainland."[13] Despite this assumption, DCDC recognizes a series of "threat drivers" that are likely to be the cause of threat, and as such conflict, out to 2029. These "threat drivers" are listed as follows: UK Geo-Strategic Perspective, climate change, demography, globalization and its impact, energy resources, failed and failing states and ideology. This section discusses these "threat drivers," as defined by DCDC, and compares them with other perspectives.

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[12]Samuel P. Huntington, "The Clash of Civilizations?" *Foreign Affairs* (Summer 1993): 1.

[13]Development Concepts and Doctrine Centre, *Future Character of Conflict*, (London: Ministry of Defence, Strategic Trends Programme, 2010), 2.

The UK's Geo-Strategic Perspective

The first threat driver, as defined by DCDC, is the UK's Geo-Strategic

Perspective. This Geo-Strategic Perspective relates to the UK's multiple global interests

and its links with both Europe and North America.[14] While these multiple global interests

in themselves may not constitute a threat to UK interests, the precarious diplomacy of

balancing them might. CNN reporter Alan Silverleib reports the "alarming picture of an

unstable future for international relations defined by waning American influence."[15]

Similarly, author and Professor of Politics and International Affairs at Princeton

University, John Ikenberry, warns that "China's rise will inevitably bring the United

States' unipolar moment to an end."[16] In contemplating the rising tide of projected global

power swings, it might be suggested that the United Kingdom may be called upon to

consider its global affiliations. The President of the World Bank, Robert Zoellick,

recently stated that "we are now in a new, fast-evolving multi-polar world economy."[17]

To further antagonize the potential unrest posed by rising economic powers, the

United States and Europe are both suffering their own significant economic challenges.

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[14]Development Concepts and Doctrine Centre, *Future Character of Conflict,* 4.

[15]Alan Silverleib, "U.S. power, influence will decline in future, report says," *CNN Politics,* 20 November 2008, http://articles.cnn.com/2008-11-20/politics/ global.trends.report_1_china-power-report-projects?_s=PM:POLITICS (accessed 15 May 2011).

[16]John Ikenberry, "The Rise of China and the Future of the West," *Foreign Affairs.com* (January/February 2008), http://www.foreignaffairs.com/articles/63042/g-john-ikenberry/the-rise-of-china-and-the-future-of-the-west (accessed 14 May 2011).

[17]Matthew O. Berger, "Zoellick Embraces 'multi-Polar World Economy'," *Global Issues,* 29 September 2010, http://www.globalissues.org/news/2010/09/29/7111 (accessed 15 May 2011).

With US Federal debt set to pass $15 trillion in 2011, more than projected Gross Domestic Product for the same year,[18] and the Eurozone bears the pressures of underwriting failing member states such as Greece, recent campaigns in the Middle-East and the global economic downturn has highlighted the fragility of seemingly unmovable economies. How the reshaping of economic influence will affect the balance of military power is unknown, but it will certainly affect the UK's Geo-Strategic Perspective.

In considering the reshaping of global hierarchies, the importance of the global commons is recognized in a study written for the Center of New American Security *Contested Commons: Future of American Power In a Multipolar World.*[19] The global commons is a broadly used term defined by the Oxford Pocket Dictionary of Current English as "any of the earth's ubiquitous and unowned natural resources, such as the oceans, the atmosphere, and space."[20] In this context, the global commons might be thought of as the international medium upon which globalized trade relies, be it the air, seas, space, economic markets or cyberspace. Since the Second World War, these global commons have been policed by the United States, and despite the lack of recognition that this task involves, it should be recognized that without the effective policing of these domains, the globalized world would struggle to maintain its current practices. How

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[18]Christopher Chantrill, "Budgeted US Federal Debt," usgovernmentspending. com, 3 July 2011, http://www.usgovernmentspending.com/federal_debt_chart.html (accessed 3 July 2011).

[19]Abraham M. Denmark, and Dr. James Mulvenon, "Contested Commons: The Future of American Power in a Multipolar World" (Research Report, Center for a New American Security, Washington, DC, 2010).

[20]Oxford Pocket Dictionary of Current English, 2009, http://www.encyclopedia. com/doc/1O999-globalcommon.html (accessed 16 July 2011).

ownership of the considerable task of policing the global commons might develop as other nations rise in global stature and the United States is forced to reduce its expenditure is unknown. Denmark and Mulvenon suggest that a three pronged approach be taken: build global regimes; engage pivotal actors, be they state or non-state actors; re-shape American hard power to defend the contested commons.[21]

<div align="center">Climate Change</div>

DCDC's second "threat driver" is that of climate change. Climate change is widely accepted as a potential cause for future threat and is often grouped with natural disasters as in the *Joint Operating Environment* (JOE).[22] Recent natural disasters have called upon military support, with examples like Japan, Haiti, and New Orleans as an indicator not only of the likely requirement for future assistance, but also the potential destabilizing effect natural disasters might have on global security. The melting polar ice caps are another likely cause of conflict. Their receding levels will expose formerly inaccessible natural resources which could aggravate an already sensitive issue.[23] Early signs of this were discussed by *The Daily Mail* who reported the rising international competition for resources in 2009.[24] Furthermore, melting ice caps are causing a

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[21]Denmark and Mulvenon, "Contested Commons," 28-36.

[22]United States Joint Forces Command, *Joint Operating Environment* (Washington, DC: Government Printing Office, 2010).

[23]Ibid., 32.

[24]The Daily Mail Corporation, "Global warming sparks new ice-cold war: Russia plans elite army unit in race for Arctic resources," *The Daily Mail*, 27 March 2009, http://www.dailymail.co.uk/news/article-1165318/Global-warming-sparks-new-ice-cold-war-Russia-plans-elite-army-unit-race-Arctic-resources.html#ixzz1cktcMqR9 (accessed 4 November 2011).

significant rise in global sea levels; with one-fifth of the world's population living in coastal zones less than ten meters above sea level, the potential effects on global stability are evident.[25] These trends are noticed not only by the UK and U.S. but also by NATO in its paper *The Challenges of Persistent Warfare.*[26] Beyond the direct effects on global security however, global climate change is causing continued pressure amongst coalition nations in trying to resolve an issue that conflicts so profoundly with economic interests. David Victor, Director of Stanford's Program on Energy and Sustainable Development and an Adjunct Senior Fellow at the Council on Foreign Relations, wrote an article in *The Guardian* newspaper online, *Why the UN can never stop climate change.*[27] In it, Victor explains the inherent problems of negotiating an agreement between such a large number of participating nations. The article expresses the need for "smaller forums which engage just the largest countries," the natural extension of which would imply greater pressures on smaller countries. It is enough to conclude that environmental change alone will raise many global security challenges including the demand for humanitarian assistance, the competition for resources and the effects of strained diplomacy.

Demographics

Demographics are DCDC's third threat driver, based on two key concerns: the expanding global population will place increasing pressure on resources; and the UK's

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[25]United States Joint Forces Command, *Joint Operating Environment*, 33.

[26]NATO, *The Challenges of Persistent Warfare* (London: Atlantic Council of the United Kingdom, 2010), 17.

[27]David G.Victor, "Why the UN can never stop climate change," *The Guardian,* 4 April 2011, http://www.guardian.co.uk/environment/2011/apr/04/un-climate-change (accessed 15 May 2011).

increasingly multi-ethnic society, caused by increasing immigration in the globalized

world, will cause dispute and potentially extremism.[28] It is assumed that although DCDC

relates these concerns specifically to the United Kingdom, they might be considered

common to the wider developing world in which economic migrants cross ethnic

boundaries to realize the promises of wealth in the developed world. The numerical

credibility of these observations is not disputed; it is an accepted fact that the global

population is rising and that developed countries are becoming ethnically more diverse.

But while DCDC recognizes the problem in its broadest sense, a closer examination of

the areas of growth shows that population growth is far from uniform across the globe,

while demographic inertia threatens to unbalance societies in more ways than just

extremism. The extrapolation of these demographic effects can be interpreted in various

ways, but in this thesis are simply recognized their latent ability to topple fragile

societies, be it at the local or international level.

To delve a little more deeply into the character of global population rise, it is clear

to see that developed countries are less susceptible to population rise than developing

countries. It is suggested by the US DoD's *JOE* that the population of developed

countries will likely slow in its rate of expansion or even decrease.[29] What is widely

recognized as a challenge for western governments, as reported by the BBC's economics

correspondent Andrew Walker[30] is the ageing population and the decreasing percentage

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[28]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[29]United States Joint Forces Command, *Joint Operating Environment*, 14.

[30]Andrew Walker, "Ageing Populations and Fewer Workers Strain Pensions," *BBC News,* 14 September 2010, http://www.bbc.co.uk/news/business-11281670 (accessed 4 July 2011).

of working, tax paying, adults within the population. The *New York Times* suggest that globally, the current ratio of working age people to elderly is expected to increase from 9:1 currently to 4:1.[31] Increasingly more people must be supported by fewer, resulting in decisions to raise retirement ages in many developed countries including Germany,[32] Spain,[33] the United Kingdom,[34] Japan,[35] China[36] to name just a few.

The demographic trend is entirely different in developing countries where population growth is considerably higher. In her book *Beyond Economic Growth*, Tatyana Soubbotina, an education specialist at the World Bank Institute, highlights the now widely recognized nature of high population growth in developing countries as

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[31]Sam Roberts, "Population Research Presents a Sobering Prognosis," *The New York Times,* 29 July 2010, http://www.nytimes.com/2010/07/30/world/ 30population.html?_r=4 (accessed 8 July 2011).

[32]Uwe Hessler, "Controversy Over Rising Retirement Age Heats Up in Germany," *Deutsche Welle*, 2 December 2006, http://www.dw-world.de/dw/article/ 0,,1899581,00.html (accessed 4 July 2011).

[33]Daniel Woolls, "Spain's leaders OK retirement age increase," *Boston.com,* 29 January 2011, http://articles.boston.com/2011-01-29/business/29341831_1_retirement-age-regional-elections-debt-crises (accessed 4 July 2011).

[34]BBC News Corporation, "Fixed Retirement Age to be Axed," *BBC News*, 29 July 2010, http://www.bbc.co.uk/news/business-10796718 (accessed 4 July 2011).

[35]Kaho Shimizu, "Raising Retirement Ages Eases, Adds Strains," *Japan Times Online,* 7 January 2004, http://search.japantimes.co.jp/cgi-bin/nn20040107b2.html (accessed 4 July 2011).

[36]Pacific Bridge Corporation, "Retirement Age in China to Rise," *Pacific Bridge* 11, no. 4 (14 April 2011), http://www.pacificbridge.com/asianews.asp?id=501 (accessed 4 July 2011).

opposed to developed countries.[37] Soubbotina explains that fertility rates are culturally

affected by various factors including the chance of infant survival, the requirement for

children to work on the land, the need for the next generation to care for their parents in

old age, and the education of women who subsequently exploit their opportunities to

work and start families later. A RAND report recognizes that in developing countries

such as those of sub-Saharan Africa, infant mortality has dropped due to the benefits of

modern medicine, and yet fertility rates have not dropped accordingly.[38]

The population of the developing world is rising; that fact is accepted. This

burgeoning population may or may not be a single cause for conflict, but it certainly

promises to aggravate other issues. As an example, political scientist and author Brian

Nichiporuk considers the possibility that against the backdrop of rising population

numbers, resources might be used as a means of coercion.[39] Either way, the possibility of

humanitarian crises and mass migration, such as those witnessed in Zimbabwe, Rwanda,

the Congo, Libya, Yemen and other places are very likely to reoccur, but to do so

amongst a rising population.

In its paper entitled *Radicalization in the West: The Homegrown Threat*, the New

York Police Department further echoes the nature of extremism within Western nations,

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[37]Tattyana Soubbotina, "*Beyond Economic Growth: Meeting the Challenges of Global Development* (Washington, DC: The International Bank for Reconstruction, 2000), 16-21.

[38]RAND Corporation, "Falling Fertility Provides Developing Countried with Opportunities to Reap Benefit of 'Demographic Divided'," 21 January 2003, http://www.rand.org/news/press/2003/01/21.html (accessed 8 July 2011).

[39]Brian Nichiporuk, *The Security Dynamics of Demographic Factors* (Washington, DC: RAND, 2000), 24.

stating that "Europe's failure to integrate the 2nd and 3rd generation of its immigrants into society, both economically and socially, has left many young Muslims torn between the secular West and their religious heritage. This inner conflict makes them especially vulnerable to extremism." The New York Police Department also concedes that "Muslims in the U.S. are more resistant, but not immune to the radical message."[40] It seems then from these sources, as well as the numerous examples before and after the terrorist attacks on the World Trade Center in New York,[41] that extremism is indeed a very real threat; demographics have a part to play in inciting this threat.

The results of this unevenly bourgeoning global population and pressured internal demographics are widely disputed and provide the basis of various theories. This thesis does not further expand on the possible outcomes of demographic change, but instead recognizes them as a significant dynamic with the latent potential to cause dramatic sources of conflict. When contemplating the demographic concerns summarized in the past five paragraphs, this thesis considers current demographic trends as a potential source of conflict either between, or within the developed or developing world, on a national, international, regional or global scale.

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[40]Mitchell D. Silber and Arvin Bhatt, *Radicalization in the West: The Homegrown Threat* (New York, NY: New York City Police Department, 2007), 8.

[41]Audrey Kurth Cronin, "Terrorist Attacks by Al Qaeda," Memorandum to House Government Reform Committee, 31 March 2004.

Globalization and its Impact

DCDC's fourth threat driver is globalization.[42] Globalization is recognized for the economic benefits it brings; the United Kingdom is reliant on globalization and therefore the physical and virtual networks that support it. DCDC also recognizes that while globalization enforces global cooperation, which has a stabilizing effect, it can also be a source of tension that may lead to conflict. In his article *The Pentagon's New Map*,[43] international security strategist and author Thomas Barnett posits a new security paradigm: *Disconnectedness defines danger*. He defines those countries left out of the globalized world as "the gap" who therefore pose a threat. Journalist and three times Pulitzer Prize winner Thomas L. Friedman, explains in his book *The Lexus and the Olive Tree: Understanding Globalization* that globalization has broadened the share of power. Before globalization, power was balanced between states; now it is balanced between states, supermarkets and super-empowered people.[44]

In an Institute for Foreign Policy Analysis (IFPA) conference, Friedman defined globalization as "the integration of markets, finance, technology, and telecommunications in a way that is each one of us to reach around the world farther, faster, deeper, and cheaper than ever before."[45] Professor of Sociology and widely published academic

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[42]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[43]Thomas P. Barnett, "The Pentagon's New Map," *Esquire*, 2003, 1.

[44]Thomas L. Friedman, *The Lexus and The Olive Tree: Understanding Globalization* (New York, NY: Anchor Books, 2000).

[45]Thomas L. Friedman, "National Strategies and Capabilities for a Changing World: Globalization and National Security" (Research Report, Institute for Foreign Policy Analysis, 2000).

Leslie Sklair recognizes four constituent phenomena of globalization: the electronic revolution; post-colonialism; the creation of transnational social spaces; and new forms of cosmopolitanism.[46]

In considering the effects of globalization on security, it is important to crudely understand Sklair's description of the conflicting natures that globalization might adopt. Capitalist Globalization, the prevalent form, is focused on profit, managed democracy and drives a culture of consumerism. It is therefore divergent in its nature, in that it widens the gap between rich and poor. Socialist Globalization, the more attractive but largely unrealistic form, focuses on employment, participatory democracy and a culture based ideology of human rights.[47]

To summarize, capitalist globalization is likely to keep widening the gap between developed and developing countries and breeding increased discontent. The integration of markets has created supermarkets that are driven by an economic inertia. In the wake of the global financial crisis of 2008, it is now understood that controlling this economic inertia is near impossible; Friedman's supermarkets might as easily drive themselves to destruction as continued growth.

Energy Resources

DCDC's fifth threat driver recognizes the mounting pressure on the world's energy resources. It recognizes that from a British perspective, the requirement for imported energy is set to rise and securing this imported energy will be non-

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[46]Leslie Sklair, "From International Relations to Alternative Globalisations," *Journal of Critical Globalisation Studies* no. 3 (2010): 115.

[47]Ibid., 525-539.

discretionary.[48] In its paper titled *The DCDC Global Strategic Trends Programme*,

DCDC uses statistics from the International Energy Agency to assess that "Demand for

energy is *Likely* (>60% chance) to grow by more than half again by 2035 and fossil fuels

will (>95% chance) have to meet more than 80% of this increase."[49] These findings are

reflected in the Chief of Staff of the United States Army's (CSA) White Paper which

projects that by 2030 energy demand will outweigh energy supply, and that current

sources and alternatives are not expected to bridge the gap.[50] This is not a new

realization; the United Nations General Assembly met to discuss the deterioration of

environment and natural resources in 1987. They recognized the need for sustainable

development which was defined as "meeting the needs of the present without

compromising the ability of future generations to meet their own needs."[51]

But although there has been significant investment in sustainable energy supplies,

fossil fuels dominate the world's energy market and are forecasted to do so for another 20

to 30 years.[52] Moreover, peaking oil production is forecasted to be reached in the near

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[48]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[49]Development Concepts and Doctrine Centre, *The DCDC Global Strategic Trends Programme* (London: UK Ministry of Defence, 2007), 7.

[50]Chief of Staff of the United States Army, *White Paper 071107* (Washington, DC: Government Printing Office, 2007), 2.

[51]United Nations Department of Economic and Social Affairs (DESA), "42/187. Report of the World Commission on Environment and Development," 11 December 1987, http://www.un.org/documents/ga/res/42/ares42-187.htm (accessed 16 July 2011).

[52]Institute for Energy Research, "Energy Forecasts Agree on Global Fossil Fuel Domination," 22 February 2011, http://www.instituteforenergyresearch.org/2011/02/22/energy-forecasts-agree-on-global-fossil-fuel-domination/ (accessed 21 October 2011).

future, by the year 2025 according to Robert L. Hirsch PhD,[53] a senior energy advisor at Management Information Services Inc. (MISI), and as soon as 2014 according to Kuwaiti scientists.[54] The exact date at which the peak rate of oil production is reached seems uncertain, but the fact that it will be reached is not disputed in any sources found.

The only known credible alternative to fossil fuels is nuclear power, but following the Fukushima nuclear crisis in Japan in March 2011, there has been a growing adversity to nuclear power in not only Japan,[55] but also in Germany where the coalition government has reversed policy to phase out all nuclear power plants by 2022. [56] Securing supplies of fossil fuels is therefore poised as a growing source of conflict in the coming decades.

<center>Failed and Failing States</center>

DCDC's sixth threat driver focuses on those states defined as failed or failing. Their inability to provide adequate governance, economic stability and equality will create conflict which might spill over. The United Kingdom might be called to either

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[53]Robert L. Hirsch, Roger Bezdek, and Robert Wendling. "Peaking of World Oil Production: Impacts, Mitigation, & Risk Management" (Report for Science Applications International Corporation (SAIC), Sponsored by an agency of the United States Government, 2005).

[54]Jeremy Hsu, "Oil Production to Peak in 2014, Scientists Predict," *Live Science*, 12 March 2010, http://www.livescience.com/6215-oil-production-peak-2014-scientists-predict.html (accessed 21 October 2011).

[55]Justin McCurry, "Fukushima Protesters Urge Japan to Abandon Nuclear Power," *The Guardian*, 19 September 2011, http://www.guardian.co.uk/world/2011/sep/19/fukushima-protesters-japan-nuclear-power (accessed 21 November 2011).

[56]BBC News Corporation, "Germany: Nuclear Power Plants to Close by 2022," *BBC News*, 30 May 2011, http://www.bbc.co.uk/news/world-europe-13592208 (accessed 21 October 2011).

restore stability or contain the impact of instability.[57] CSA's White Paper also recognizes

the threat posed by failed or failing states, but sees the threat leading to safe havens for

terrorist groups which might export terror.[58] Recognizing failing states as the root cause

of potential conflict is widely accepted by other sources too, including the Joint

Operating Environment,[59] which recognizes the varied causes of failing states, be it tribal

and ethnic tensions, poverty, the influence of extremist Islamic groups or pure bad

governance. The Political Instability Task Force, a group of learned academics formed by

the request of US policy makers, groups the causes of political instability under four

headings: revolutionary war, in which politically organized challengers seek to overthrow

the government; ethnic war in which large scale violence erupts from communal,

religious, or ethnic groups challenging the government; adverse regime changes

involving major shifts in patterns of governance due to the collapse in central authority or

a revolutionary change in the political elite; and genocide or politicide in which sustained

policies aim to destroy a communal or political group.[60]

     The nature of ensuing conflict from a military perspective is diverse and examples

stretch across the spectrum of conflict: Sudan's failing government saw mass atrocity

response operations (MARO); Afghanistan's failing government led to the ongoing

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[57]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[58]Chief of Staff of the United States Army, *White Paper 071107*, 3.

[59]United States Joint Forces Command, *Joint Operating Environment*, 50-52.

[60]Robert H. Bates, David L. Epstein, Jack A. Goldstone, Ted Robert Gurr, Barbara Harff, Colin H. Kahl, Kristen Knight, Marc A. Levy, Michael Lustik, Monty G. Marshall, Thomas M. Parris, Jay Ulfelder, and Mark R. Woodward, *Political Instability Task Force:, Phase IV Findings* (Washington, DC: Political Instability Task Force, 2003), 9.

counterinsurgency operations (COIN); Pauline H. Baker, president of an independent educational and research organization named The Fund for Peace, sees North Korea as a failing state with "an inward looking regime and negative view of the world,"[61] that could very possibly trigger major combat operations (MCO) as happened in Iraq.

Ideology

DCDC's seventh and final threat driver is the menace of ideological groups based on religion or identity that will fight for their beliefs unbounded by geography.[62] USAID studies the reasons for this ideological threat in their paper *Guide to The Drivers of Violent Extremism.* Their study discusses the roots of ideas, beliefs, identities and faiths, but also how socioeconomic and political conditions can trigger these roots.[63] What becomes clear from the report, however, is that despite the various trends, generalizing the drivers of violent extremism is false. Identifying violent extremists from their upbringing and socioeconomic or political circumstances is impossible; there are too many circumstantial influences at play to identify those rare cases from the masses.

The most obvious source of perceived ideological threat comes from radical Islam. Many see the confrontation as the embodiment of Huntington's *Clash of Civilizations*, as the Islamic world seeks to redefine a new caliphate following the demise of the Ottoman Empire. As explained by Dr. Jaquelyne K. Davis, principle investigator

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[61]Pauline H. Baker, "Fixing Failing States: The New Security Agenda" (Research Report, The Whitehead Journal of Diplomacy and International Relations, Washington, DC, 2007).

[62]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[63]United States Agency for International Development, *Guide to The Drivers of Violent Extremism* (Washington, DC: USAID, 2009).

for the Institute for Foreign Policy Analysis (IFPA) document titled *Radical Islamist Ideologies and The Long War*, not all leading groups in the realization of a new caliphate, such as the Muslim Brotherhood, endorse violence as a means to success.[64] Many suggest that Islamic texts inherently call upon violence to achieve their objectives. Dr. Patrick Sookdheo, Director of the Institute for the Study of Islam and Christianity, writes in his article in the Spectator *The Myth of Moderate Islam*:

> What happens . . . depends on which of the two main religious traditions among Pakistani-background British Muslims gains the ascendancy. The Barelwi majority believe in a slow evolution, gradually consolidating their Muslim societies, and finally achieving an Islamic state. The Deobandi minority argue for a quicker process using politics and violence to achieve the same result.[65]

And so the future military implications will depend upon the development of these conflicting religious narratives.

The debate on how the Quran should be interpreted dominates the discussion but this might be largely academic: if one adopts Huntington's theory then this is a clash of civilizations rather than a matter of interpretation. As Davis writes, "the Long War can be portrayed as a struggle between modernity and tradition, or between western cultures and values and Islam's rejection of individual rights over the greater welfare of society."[66] The U.S. Joint Forces Command recognizes in its *Joint Operating Environment* that either way there are certain groups, such as Al Qaida, who "are driven by an

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[64]Dr. Jaquelyne K. Davis, "Radical Islamist Ideologies and The Long War: Implications for U.S. Strategic Planning and U.S. Central Command's Operations" (Future Strategic Context Report, Institute for Foreign Policy Analysis, Washington, DC, 2007) 2-3.

[65]Patrick Sookhdeo, "The Myth of Moderate Islam," *The Spectator* (2005).

[66]Davis, "Radical Islamist Ideologies and The Long War," 5.

uncompromising, nihilistic rage at the modern world, and accept no middle ground or compromise in pursuing their version of the truth. Their goal is to force this truth on the rest of the world's population."[67]

Others, such as Robert Satloff, executive director of The Washington Institute, will argue that this type of Western rhetoric is counterproductive and that in the war of ideas strategic messaging must be better considered.[68] In her paper for the Strategic Studies Institute titled *Precision in The Global War on Terror: Inciting Muslims Through the war of ideas,* Sherifa Zuhur, a national security expert on the Middle East writes:

> It is time to abandon the assumptions of a clash of civilizations between Islam and the West, which are funding a well-meant but arrogant and misconceived program for rehabilitation of the Islamic world based on the idea that the West knows best. Policymakers should rethink the wisdom of a U.S. policy that aims to alter a world religion, Islam, so as to produce an ideological current favorable to U.S. interests in territories of the Muslim world.[69]

So although current strategy uses military intervention, it is certainly not a universally popular approach to solving ideological clashes.

And so to recognize the extremes, there are two schools of thought on the matter of how to address the apparent "clash of civilizations." One extreme demands active engagement with Islamic nations, probably involving military intervention,[70] the second

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[67]United States Joint Forces Command, *Joint Operating Environment*, 52.

[68]Robert Satloff, "How to Win The War Of Ideas," *Washington Post*, 10 November 2007, http://www.washingtonpost.com/wp-dyn/content/article/2007/11/09/AR2007110901897.html (accessed 1 October 2011).

[69]Sherifa Zuhur, "Precision in The Global War on Terror: Inciting Muslims Through the War of Ideas" (Monograph, Strategic Studies Institute, Washington, DC, 2008), 115.

[70]Sookhdeo, "The Myth of Moderate Islam."

explores common interests and favors acceptance rather than interference.[71] What is

certainly of current relevance to the British Army, and is likely to remain so for the

foreseeable future, is that current policy supports expeditionary campaigns to address the

root causes of radical ideology.

Summary of Future Conflict

Using DCDC's threat drivers as listed in their paper *Future Character of

Conflict,*[72] this section has examined various perspectives on those sources of conflict.

The list is by no means exhaustive, but uses selected sources to frame some of the

considerations within an incredibly broad topic. It should be recognized that other

organizations include other headings to consolidate the nature of future threat and there

are many opinions available. One such noteworthy additional heading included in the

JOE is the effect of technology, which not only gives rise to concepts such as "Network-

Centric Warfare"[73] but also creates ever more developed weapons and robotic systems.[74]

The fight for technology, or technological superiority, could well become a conflict not

unlike nuclear non-proliferation. What is not disputed, however, is that there appear to be

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[71]Zuhur, "Precision in The Global War on Terror: Inciting Muslims Through the War of Ideas," 115.

[72]Development Concepts and Doctrine Centre, *Future Character of Conflict*.

[73]Arthur K. Cebrowski, *The Implementation of Network-Centric Warfare* (Washington, DC: U.S. Department of Defense, Office of Force Transformation, 2005).

[74]Jon Cartwright, "Rise of the Robots and the Future of War," *The Guardian*, 10 November 2010, http://www.guardian.co.uk/technology/2010/nov/21/military-robots-autonomous-machines (accessed 4 November 2011).

numerous sources of future conflict brewing. The well-recognized suggestion that we have entered an "era of persistent conflict" seems profoundly true.

Hybrid Warfare

"It is now time to recognize that a paradigm shift in war has undoubtedly occurred: from armies with comparable forces doing battle on a field to strategic confrontation between a range of combatants, not all of which are armies, and using different types of weapons, often improvised."[75]

Background

Frank G. Hoffman introduced the concept of hybrid warfare in his monograph *Conflict in the 21st Century: The Rise of Hybrid Wars.*[76] Amidst the ongoing academic debate on the developing nature of warfare since the end of the Cold War, the concept of hybrid warfare as a model has gained traction and enlivened the debate. As armies struggle to adapt to tomorrow's wars, the debate on hybrid warfare has shaped the conceptual image of tomorrow's enemy. This section starts by reviewing Frank Hoffman's concept of hybrid warfare and discusses the supporting evidence and opinions for its relevance. Secondly, it considers how the concept of hybrid warfare fits within the spectrum of conflict.

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[75]General Sir Rupert Smith, *The Utility of Force-The Art of War in the Modern Age* (London: Penguin Books, 2006), 3.

[76]Hoffman, "Conflict in the 21st Century: The Rise of Hybrid Wars."

What is Hybrid Warfare?

Hybrid warfare is difficult to define succinctly. In his monograph *Conflict in the 21st Century: The Rise of Hybrid War*, Hoffman does not offer a distinctive definition of hybrid warfare, but describes its nature. To draw upon Hoffman's own wording, an extended definition of hybrid warfare incorporates the following considerations: hybrid warfare uses "unique combinational or hybrid threats that are specifically designed to target U.S. vulnerabilities."[77] It involves "competitors who will employ all forms of war and tactics, perhaps simultaneously."[78] It does not replace conventional warfare or indeed interstate conflict, but instead "blurs regular and irregular warfare."[79] "Hybrid threats incorporate a full range of different modes of warfare including conventional capabilities, irregular tactics and formations, terrorist acts including indiscriminate violence and coercion, and criminal disorder."[80] There are no limitations on who might conduct hybrid warfare, be it state or non-state actors, and they are "generally operationally and tactically directed and coordinated within the main battlespace to achieve synergistic effects in the physical and psychological dimensions of conflict."[81]

In his later article *Hybrid Warfare and Challenges*, Hoffman writes:

the evolving character of conflict that we currently face is best characterized by convergence. This includes the convergence of the physical and psychological, the kinetic and nonkinetic, and combatants and noncombatants. So, too we see the

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[77]Hoffman, "Conflict in the 21st Century: The Rise of Hybrid Wars," 7.

[78]Ibid.

[79]Ibid.

[80]Ibid., 8.

[81]Ibid.

convergence of military force and the interagency community, of state and nonstate actors, and of the capabilities that they are armed with. Of greatest relevance are the converging modes of war.[82]

This convergence of modes and capabilities is observed by Dr Jack D. Kem, a professor at the US Command and General Staff College, as the "comprehensive approach" adopted by adversaries to counter the western "comprehensive approach."[83] The comprehensive approach, is explained by the UK's Joint Doctrine and Concepts Centre in their publication *The Comprehensive Approach*: "The realisation of national strategic objectives inevitably relies on a combination of diplomatic, military and economic instruments of power, together with an independent package of developmental and humanitarian activity and a customised, agile and sensitive influence and information effort."[84]

In analyzing the nature of this hybrid warfare, it is important to recognize the Joint Doctrine and Concepts Centre's reference to humanitarian activity, and to the requirement for an agile and sensitive influence and information effort. If hybrid warfare reflects the comprehensive approach, as suggested by Dr. Kem, then humanitarian activity and influence implicitly become key elements of this new hybrid threat. This relationship is recognized by Nathan Freier, a senior fellow in the International Security Program at the Center for Strategic and International Studies. Freier points out the

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[82]Frank G. Hoffman, "Hybrid Warfare and Challenges," *Joint Force Quarterly* no. 52 (1st Quarter 2009): 34.

[83]Dr. Jack D. Kem, "*Reflections From the Front,*" 14 November 2008, http://usacac.leavenworth.army.mil/BLOG/blogs/reflectionsfromfront/archive/2008/11/14/hybridwarfare (accessed 5 February 2009).

[84]Joint Doctrine and Concepts Centre (JDCC), *The Comprehensive Approach,* (Joint Discussion Note, London: UK Ministry of Defence, 2006), 1-2.

diversity of the defense portfolio: "DoD in totality–its subordinate service departments and agencies, varied capabilities, and mosaic of existing military and nonmilitary missions – is a complex hybrid national security institution."[85] It is proposed therefore, that to develop these trains of thought, hybrid warfare might be considered to mimic Western defense capability. This proposal might be supported by General Sir David Richards, the British Chief of the Defence Staff. In 2009, when Chief of the General Staff, Richards argues in a speech to Chatham House that both state and non-state actors might conform to the same model of warfare. His explanation, in summary, runs as follows: if states select to oppose militarily more powerful states then "they will first seek to employ other levers of state power: economic and information effects, for example? Attacks are likely to be delivered semi-anonymously through cyberspace or the use of guerillas and Hezbollah style proxies."[86] Richards reasons that the skill sets and weapon systems used will also look very similar whether they are sourced by non-state actors or by a disgruntled sponsoring state. He refers to this finding as "a virtuous congruence, between non-state and inter-state war."[87]

To contextualize the discussion, the best example of hybrid warfare to date, is the 2006 war between Israel and Hezbollah. Hoffman uses the 2006 Lebanon campaign as a case study, noting that "Hezbollah demonstrated a number of state-like military capabilities, including thousands of short and intermediate-range rockets and missiles.

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[85]Nathan Freier, "The Defense Identity Crisis: It's a Hybrid World," *Parameters* (Autumn 2009): 82.

[86]Richards, "Twenty-First Century Armed Forces - Agile, Relevant, Useable," 8.

[87]Ibid.

This case demonstrates the ability of nonstate actors to study and deconstruct the vulnerabilities of Western style militaries. Hezbollah, abetted by the adoption of erroneous strategic concepts and some intelligence filters by Israeli officials, devised and implemented appropriate operational and tactical measures for its security objectives."[88]

In their paper discussing the implications of the Lebanon campaign on future warfare, Stephen Biddle, a Senior Fellow at the Council on Foreign Relations, and Jeffrey A. Friedman, a doctoral student in public policy at the John F. Kennedy School of Government, also conclude that Hezbollah defined a new approach: "the Lebanon experience suggests a future of less clarity and more diversity. Lebanon in 2006 shows us a concrete example of a nonstate actor whose military behavior was far from the classical guerrilla model."[89] The US Institute for National Strategic Studies broadens the endorsement for Hezbollah's hybrid mode of warfare in its 2009 Global Strategic Assessment: "Hizballah represented the rising tide of hybrid threats. Combining an organized political movement with decentralized cells that used adaptive tactics in areas outside Lebanese government control, Hizballah demonstrated that it could inflict as well as take punishment. Specifically, highly disciplined, well-trained, and distributed cells contested ground against modern conventional forces with a mixture of guerrilla tactics and technology in dense urban centers."[90]

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[88]Hoffman, "Conflict in the 21st Century: The Rise of Hybrid Wars," 36.

[89]Stephen Biddle and Jeffrey A. Friedman, "The 2006 Lebanon Campaign and the Future of Warfare: Implications for Army and Defense Policy" (Monograph, Strategic Studies Institute, Washington, DC, 2008), 87.

[90]Patrick M. Cronin, Institute for National Strategic Studies, and National Defense University, eds., *America's Security Role in a Changing World* (Washington, DC: US Department of Defense, 2009), 147.

To conclude the discussion therefore, this thesis attempts to define what Hoffman himself did not define: Hybrid warfare is an approach usually adopted by the less powerful protagonist. It uses strategic, operational and tactical tools that are made available to both state and non-state actors by globalization. Hybrid warfare recognizes the multiple levers that influence populations, and uses them to wage an asymmetric war through a myriad of kinetic and non-kinetic means.

<div align="center">Current Doctrine</div>

> The central idea of an Army is known as its doctrine, which to be sound must be based on the principles of war and which to be effective must be elastic enough to admit of mutation in accordance with change in circumstances. In its ultimate relationship to the human understanding this central idea or doctrine is nothing else than common sense–that is, action adapted to circumstances.[91]

<div align="center">Background</div>

British doctrine is split hierarchically into the strategic, operational and tactical levels. At the strategic level, *British Defence Doctrine* is the Joint Capstone Publication that provides the "broad philosophy and principles underpinning the employment of the British Armed Forces."[92] It is supported by the Joint Doctrine Publication *Campaigning*, which is the keystone publication that "provides guidance to a Joint Force Commander on contemporary military operations and how best to understand operational level challenges."[93] At the operational level, Army Doctrine Publication *Operations* "builds on

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[91]J. F. C. Fuller, *The Foundations of the Science of War* (Fort Leavenworth, KS: U.S. Army Command and General Staff College Press, 1993).

[92]Development Concepts and Doctrine Centre, Joint Doctrine Publication 0-01, *British Defence Doctrine* (London: British Ministry of Defence, August 2008), v.

[93]Ibid.

foundations laid by the highest Defence doctrine to provide the philosophy and principles

for the British Army's approach to operations." It is the "primary source of UK higher-

level tactical doctrine for the land operating environment."[94] This section reviews British

military doctrine to recognize the relevant concepts applicable to training for future

warfare. It compares these concepts with US military doctrine and reviews selected

opinions on the preparation of western forces for future warfare.

<div align="center">British Military Doctrine</div>

British military doctrine recognizes the requirement to prepare for a wide variety

of future warfare, to include expeditionary warfare: "The UK's security goals are shaped

by a complex combination of geo-strategic factors, which include geo-spatial, resource,

social, political, science and technology, and military aspects."[95] These geo-strategic

factors are further illuminated in the following explanation:

> Although the UK's geographic position is currently more remote than any other European country from direct sources of threat, the UK is a prominent international player, with numerous interests overseas and a role in the maintenance of international stability and law. The nation's stability, prosperity and well-being depend on international trade and investment more than most other developed economies. The UK is one of the world's largest outward investors and most important sources of capital to the developing world. The country is reliant on the supply of raw materials from overseas, on the secure transport of goods by sea and by air, and on a peaceful and stable world situation, conducive to trade. The UK's global perspective is also shaped by its responsibility for more than 10 million British citizens who live and work overseas, and by its large immigrant population.[96]

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[94]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations,* 1-2.

[95]Ibid.

[96]Ibid.

The UK's strategic doctrine, therefore, accepts the broad range of factors that might call upon the military to respond in support of security goals.

The breadth of security interests that may call upon military action lead to a wide range of campaigns that might be undertaken. *Campaigning* explains that British Armed Forces are likely to be employed throughout a continuum of activity within which war and peace are not easily identifiable.[97] Despite the recognition of this continuum of activity, however, it is stated that:

> no conflict is likely to be played out entirely at a single point along this continuum; its scale and intensity varying between war (*in extremis* a war of national survival), through inter- and intra-state conflict, ultimately to peace. A Joint Force Commander may confront a variety of threats, both state and non-state, potentially at the same time and in the same place.[98]

This theme is recognized by US Army Doctrine, in which "violent conflict does not proceed smoothly from unstable peace through insurgency to general war and back again. Rather, general war and insurgencies often spark additional violence within a region" and therefore the "level of violence may jump from one point on the spectrum to another."[99] These projected trends sound very similar to the concepts of hybrid warfare discussed in the previous section. DCDC's warning that "a JFC may confront a variety of threats, both state and non-state, potentially at the same time and in the same place,"[100] implies that

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[97]Development Concepts and Doctrine Centre, Joint Doctrine Publication 01, *Campaigning*, 1-3.

[98]Ibid.

[99]U.S. Army, FM 3-0, *Operations*, 2-1.

[100]Development Concepts and Doctrine Centre, Joint Doctrine Publication 01, *Campaigning*, 1-3.

hybrid warfare, or something very similar to it, is indeed the doctrinally accepted

perception of what future conflict might entail.

Of key importance to this thesis is recognizing the types of military activity that

are doctrinally associated with modern conflict; this is the activity that the Army must

train for. Despite the very similar understandings of threat and future conflict shared by

British and US doctrine however, it is at this point that thoughts appear to diverge

somewhat, at least in their conceptual analogies. These varying conceptual depictions

should be considered in some depth:

British doctrine has moved away from the spectrum of conflict as an analogy.

Instead, *Operations* now visualizes the environment as a mosaic in which each piece of

the mosaic represents a military activity. Within this visualization, there are five principle

drivers that affect this mosaic environment:

> The first is **globalization** (the internationalization of markets and
> communication). The second is the **breakdown of boundaries** between
> environments and between traditional state and non-state activity. The third is
> **innovation**, leading to exponential technology progress and widening access to
> technology. The fourth is **acute competition** caused by scarcity of resources and
> global inequalities. The fifth is the development of multiple and concurrent
> **hybrid threats** in conflict.[101]

Figure 1 shows DCDC's illustration of military activities within this mosaic of conflict. It

explains how within a single operation there might be numerous coincidental and

overlapping military activities taking place, creating a complex mosaic within which the

military must operate. As described in *Operations*, this military activity takes place

within an environment in which threats emanate from all around, time and space are often

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[101]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 3-9 - 3-10.

limited, technology empowers the adversary as well as the joint and multinational forces with who the soldier fights and coherent narratives become increasingly important in realizing victory.[102]
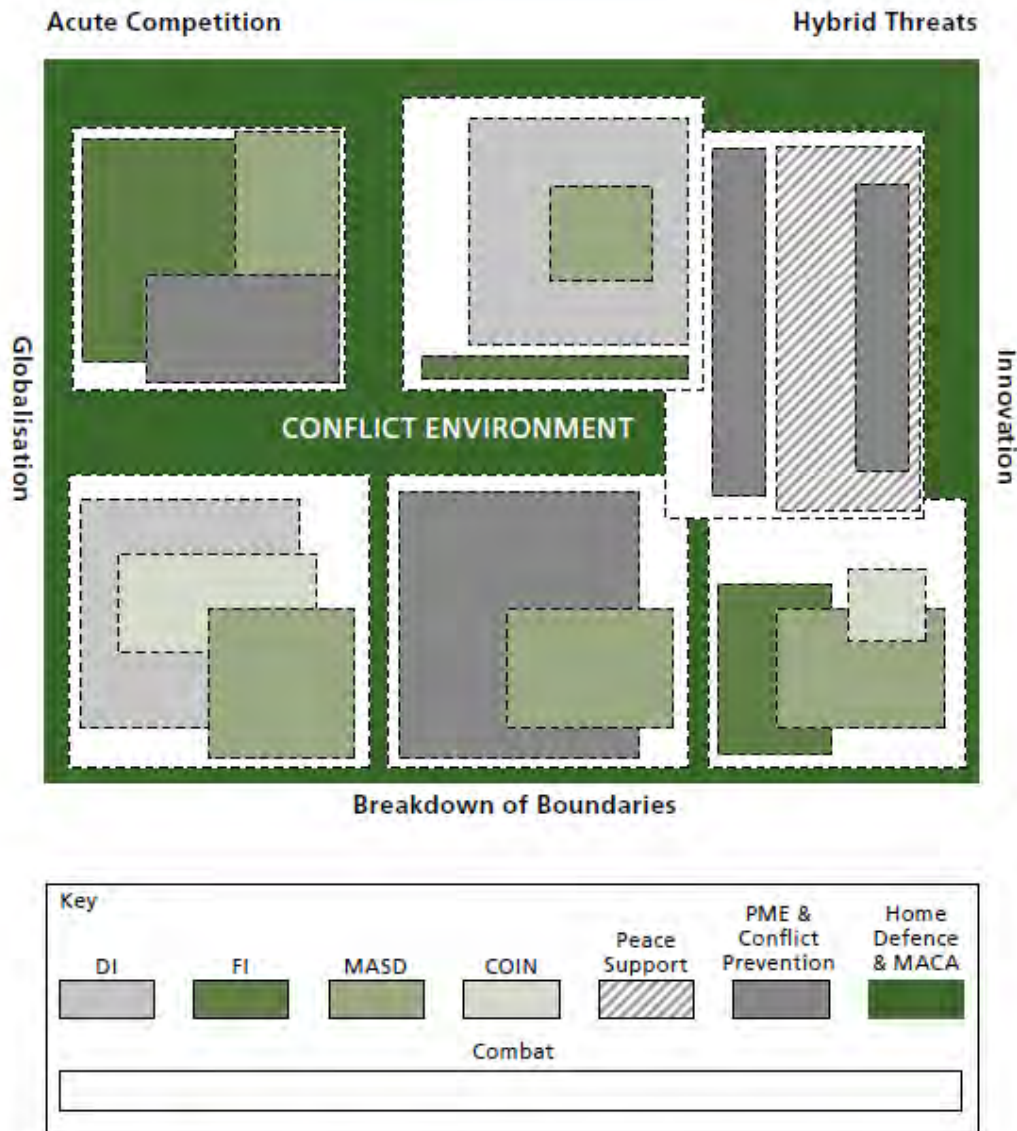
Figure 1.   Illustrative Military Activities in a Mosaic of Conflict
Source: Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations* (London: British Ministry of Defence, 2010), 3-10.

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[102]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 3-9 - 3-11.

U.S. doctrine adopts a different conceptual model to visualize military activity; full spectrum operations. Full spectrum operations is the U.S. Army's operation concept and is defined within FM 3-0: "Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an independent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results."[103] The concept of full spectrum operations is easier to grasp conceptually; no matter what type of operation an army is engaged in within the spectrum of conflict, they will be conducting a combination of offensive, defensive and stability or civil support operations. The thing that will change is the relative proportions of each element of full spectrum operations, as explained in Figure 2.

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[103]U.S. Army, FM 3-0, *Operations*, 3-1.
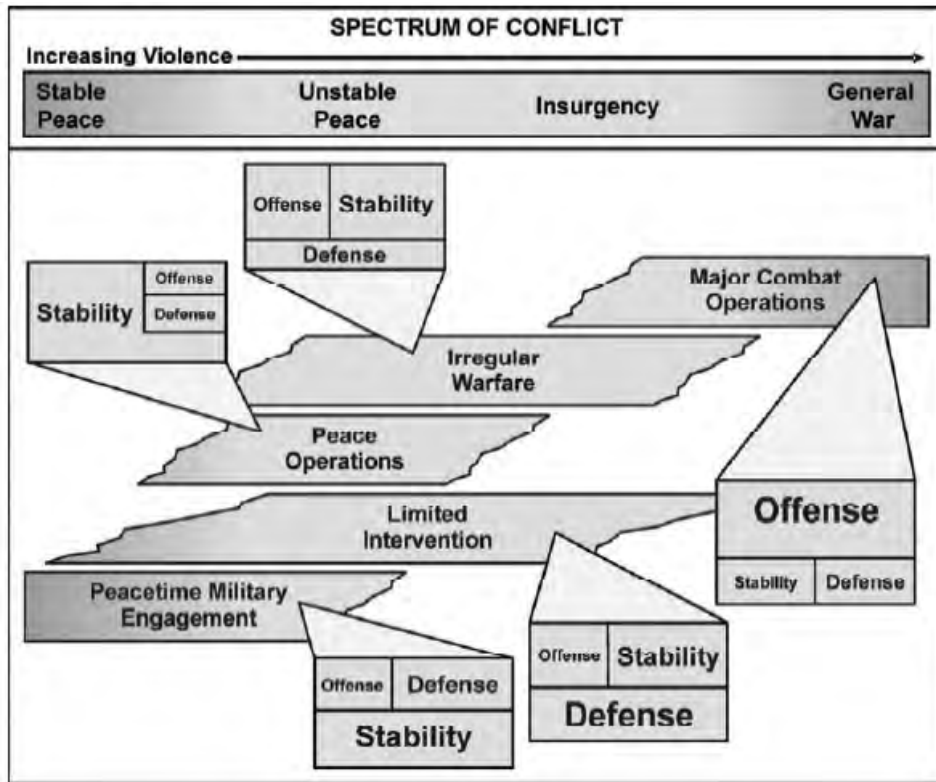
Figure 2.   Examples of combining the elements of full spectrum operations within operational themes
Source: U.S. Army, Field Manual (FM) 3-0, *Operations* (Washington, DC: Government Printing Office, February 2008).

Conceptually the U.S. Army model seems more straightforward and intuitive, but despite the increasing complexity of warfare, as acknowledged in both British and US doctrine, the principles of war remain universally applicable. In *British Defence Doctrine*, it is explained that the enduring principles of war, namely Selection and Maintenance of the Aim; Maintenance of Morale; Offensive Action; Security; Surprise; Concentration of Force; Economy of Effort; Flexibility; Cooperation; and Sustainability, should be applied

to all types of military activity and not just warfighting itself.[104] The importance of legitimacy is also stressed, explaining that "legitimacy is broader than legality, and encompasses political, moral, and ethical propriety as well."[105]

And so to follow doctrinal advice, the nature of modern warfare is far from simplistic and requires the requisite degree of mental application in the corresponding approach. As stated in Campaigning, "complex problems faced by commanders do not lend themselves to straightforward analysis; the relationship between cause and effect, for example, is hard to predict. Therefore, too much effort spent on analysis of intractable problems, may be time wasted."[106]

Summary of Doctrine

Both British and U.S. doctrine recognize the increasingly complex nature of contemporary warfare. British doctrine analogizes this complexity as a mosaic of conflict in which various military activities overlap and change rapidly.[107] U.S. doctrine describes the military activity within this complex environment as full spectrum operations; a mixture of offensive, defensive, and stability operations, happening in concert throughout the spectrum of conflict.[108] Ultimately, these depictions amount to the same problem: a

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[104]Development Concepts and Doctrine Centre, *Joint Defence Publication 0-01* , 2-3.

[105]Development Concepts and Doctrine Centre, Joint Doctrine Publication 01, *Campaigning*, 1-1.

[106]Ibid., 1-3.

[107]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 3-10.

[108]U.S. Army, FM 3-0, *Operations*, 3-1.

highly complex operating environment within which armies must be prepared to conduct the full range of military tasks interchangeably and in rapid succession.

Synopsis

This chapter reviews the future threats to British national interests, using DCDC's recognized threats as the framework for discussion. It examines the concept of hybrid warfare, as posited by Frank G. Hoffman, and develops a definition of hybrid warfare that will be used in this thesis. Finally, it reviews the way in which current British military and army doctrine recognizes the contemporary operating environment, and compares it to the U.S. Army's perspective. This literature review establishes a common understanding of contemporary theory and knowledge, from which the thesis can analyze the primary research question: how should the British Army prepare for future conflict?

CHAPTER 3

METHODOLOGY

Prologue

Armies have traditionally struggled with the problem of how to prepare for future

conflict, while historians, with the benefit of hindsight, have accused them of training to

fight the last war. The 21st Century presents the same enduring challenge. Are current

operations in the Middle East the shape of things to come, or should armies prepare for

something altogether different? This thesis addresses the primary question: how should

the British Army prepare for future conflict? This chapter explains the methodology used

by the author to address the primary research question. It explains the conceptual design

of the methodology and the way in which this is applied to the problem. This chapter

allows the reader to follow the author's thought process in researching and developing

this thesis.

Research Design

Theoretical Approach

This section describes the theoretical approach adopted by this thesis in

addressing the primary question: how should the British Army prepare for future

conflict? The answer to this primary question is entirely subjective: it depends on the

perspectives, political stance, assumptions, extrapolations and priorities of the individual.

As such, this thesis is approached from a qualitative perspective.

In adopting a qualitative approach, the author has attempted to mentally cleanse

any preconceptions that may have been held, before restructuring thoughts based upon

the research conducted. Nonetheless, the author's background and experience has had an unavoidable effect on the thesis. Having joined the University Officer Training Corps in 1997, the author attended the Royal Military Academy, Sandhurst, between September 2001and August 2002. Since commissioning in August 2002 into the Royal Armoured Corps, the author has deployed on one operational tour of Northern Ireland and three operational tours of Iraq, working at troop, battlegroup, brigade and divisional levels of command. Beyond these operational tours, the author has completed three training years at troop, battlegroup and brigade levels, and spent a year as an aide de camp to a divisional commander, both during training and when deployed. All of these experiences have, inevitably, shaped the author's personal perspectives. But despite these personal perspectives, the author has approached this thesis from a strategic perspective, answering secondary questions that have not been a direct element of his military experience. As such, it is hoped that the conclusions to this thesis are derived from an angle not overly influenced by personal experience.

<div align="center">Research Construct</div>

In order to develop a coherent approach on which to build this qualitative analysis from the bottom upwards, three secondary questions are defined as a starting point for research and analysis:

1. What are the future sources of threat to British national interests that would warrant engaging in conflict?

2. If conflict should occur, what would be the nature and character of that conflict?

3. How does current doctrine direct that the British Army should approach conflict?

These secondary questions are selected to address the roots of the primary question, so that analysis can be built upon the broad perspectives of contemporary opinion. The secondary questions are analyzed and synthesized in order to approach the primary question. A schematic representation of this research construct is shown in figure 3.
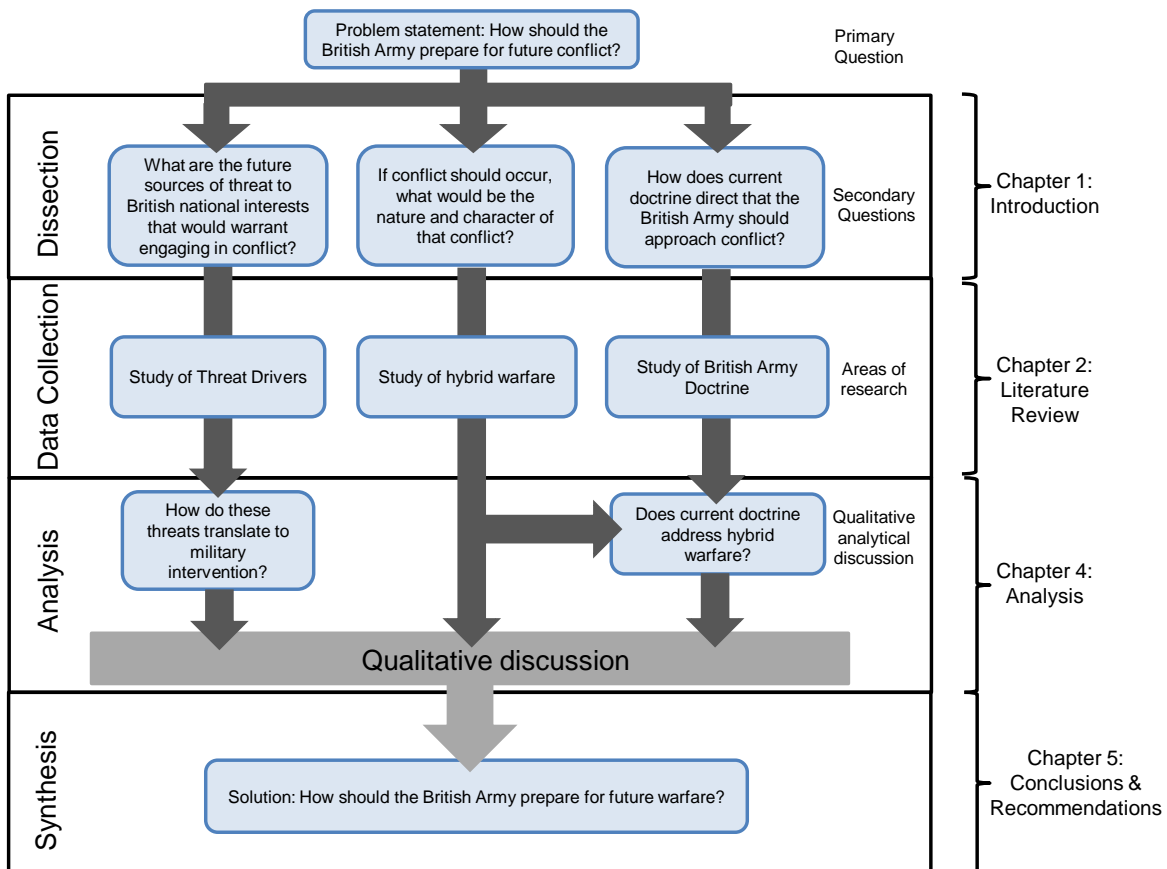
Figure 3.   Methodology flow diagram
Source: Created by author.

Selection of Research Sources

In terms of selecting the sources used to research this thesis, it should be noted that there are numerous commentators, with various perspectives, on most of the researched topics. The sources selected for research have been selected on the breadth of their perspective, as well as the credibility of their authors. This breadth of perspective sought is designed to break down any preconceptions held by the author, as well as recognizing the broad base of opinion on which this thesis is based.

The first area of research answers the first of the secondary questions. It builds an understanding of what threats to British national interests might create future conflict. In order to connect this research to the current British strategic mindset, it uses the opinions of the British Ministry of Defence's Development Concepts and Doctrine Centre (DCDC) as a framework for this research. It uses DCDC's "threat drivers" as the starting points for research, and then compares the wider opinions of other credible sources to expand upon the ideas.

The second area of research answers the second of the secondary questions. It examines contemporary theories on the nature and character of modern conflict. This research is focused around the concept of hybrid warfare. Hybrid warfare, a theory derived by Frank G. Hoffman in 2007, is not only the most recent conceptual theory of modern warfare to have gained popular traction, but is also now widely recognized by military practitioners. British military doctrine recognizes the concept of hybrid warfare and since 2009 uses it as a conceptual model for its training.

The third area of research answers the third of the secondary questions. It considers current British doctrinal models of conflict and compares them with US

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doctrinal approaches. The reason for comparing British doctrinal models with US models is that "US forces are pre-eminent in contemporary coalition operations involving the UK and are particularly effective at developing and absorbing doctrine and putting it at the heart of education and capability development."[109]

<p style="text-align:center">Scope</p>

In order to focus the analysis on a point in time, the thesis projects future warfare ahead to the year 2029. This timeframe reflects the period covered by DCDC's study titled *Future Character of Conflict*,[110] and provides a tangible period over which training might focus. It also recognizes the protracted timeframe required to remodel military strategy, largely due to the constraints of defense spending and the procurement process, but also due to the challenge of managing cultural change.

In order to root the analysis within realistic constraints, it is assumed that current British Army constraints will endure. These constraints are focused around the political circumstances within which the British Army exists and the availability of resources. Therefore the following constants are assumed concerning the British Army of today and the political environment within which it operates:

1. Britain's continued participation in global alliances.

2. The size of the British Armed Forces.

3. The levels of defense expenditure relative to GDP.

4. The relative size of the British Army relative to other services.

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[109]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 2-6.

[110]Development Concepts and Doctrine Centre, *Future Character of Conflict*.

5. The mission of the British Armed Forces.

6. The continued support of the British population to the Armed Forces.

7. The availability of training estates in the United Kingdom, Canada, Kenya, Belize, and those offered by other allies.

8. Any other variables that would imply significant change to the British Army's autonomy and freedom of decision.

CHAPTER 4

ANALYSIS

<u>Prologue</u>

Armies have traditionally struggled with the problem of how to prepare for future warfare, while historians, with the benefit of hindsight, have accused them of training to fight the last war. The 21st Century presents the same challenge. Are current operations in the Middle East the shape of things to come or should we prepare for something altogether different? This thesis addresses the question, how should the British Army prepare for future warfare?

This chapter develops the perspectives and information considered in the literature review, by analyzing the perspectives within the three secondary questions:

1. What are the future sources of threat to British national interests that would warrant engaging in conflict?

2. If conflict should occur, what would be the nature and character of that conflict?

3. How does current doctrine direct that the British Army should approach conflict?

Having considered these secondary questions it synthesizes the analysis to address the primary research question: how should the British Army prepare for future warfare?

<u>What Are the Future Sources of Threat to British National Interests</u>
<u>that Would Warrant Engaging in Conflict?</u>

Analysis of Threat Drivers

Chapter 2 reviews the likely anticipated threats, as perceived by the British

Development Concepts and Doctrine Centre (DCDC), which face the United Kingdom in

the future. It reviews varied opinions of the seven "threat drivers" recognized by DCDC.

Those threat drivers are listed as the UK's geo-strategic perspective, climate change,

demographics, globalization and its impact, energy resources, failed and failing states,

and ideology. This section engages in a brief analysis of these threat drivers, in order to

consider their potential relevance to British National interests, and the consequences that

might be of relevance to the British Army.

<u>The UK's Geo-Strategic Perspective</u>

The UK's geo-strategic perspective seems likely to change amidst the economic

maelstrom that has been unfolding since 2008. The current British balance between

Europe and the United States may require review as rising powers in the East show

relative expansion. During the Cold War and the subsequent unipolar world, British

alignment to the United States has seemed politically intuitive. But given the perceived

emergence of a multipolar world, primary affiliations may by necessity split. To imply

that multiple affiliations will derive conflict would be a hasty assumption, but it is

certainly more likely to present political dilemmas in which secondary powers, like the

United Kingdom, are faced with a clash of interests. Of more direct military relevance is

a multinational and multi-organizational solution to sharing the burden of policing the

global commons. The inevitable shrinking of U.S. military projection will preclude them

from their current unilateral ownership of the task. This multilateral solution could quite possibly call upon the United Kingdom to perform a more active role in global policing its own interests.

Climate Change

Climate change is causing the polar ice caps to melt, sea levels to rise, and increasing the chances of drought. The second order effects of these changes are potentially far reaching. Drought and the shrinking of habitable landmass create greater chances of humanitarian disaster and mass migration, while the uncovering of previously inaccessible natural resources provides a source of dispute in light of the shortage of natural resources. For the British Army this raises the likelihood of expeditionary operations to conduct humanitarian missions and Military Assistance to Security and Development (MASD). Due to the United Kingdom's temperate climate and general topology, the direct effects of climate change are unlikely to be as severe as in other parts of the world, and can probably be managed. The resultant military tasks are therefore more likely to remain expeditionary in nature, although the potential for mass migration and other geo-strategic consequences cannot be underestimated.

Demographics

Demographic change is reported to be creating a greater imbalance between the developed and developing worlds, as well as an imbalance within developed countries such as the United Kingdom. On a global scale, this imbalance creates a greater likelihood of immigration, or even mass migration, both of which might bear second order threats to the United Kingdom. Increased immigration or mass migration could call

upon more stringent border security for the United Kingdom, but could also call upon proactive solutions to avoid the likelihood of such events developing. Such solutions could involve military support through the expeditionary provision of humanitarian aid and capacity building.

To analyze the internal threats created by demographic change, consider DCDC's concerns over a multi-ethnic society breeding extremism. This concern appears to follow the political scientist Samuel Huntington's thesis[111] that cultures will clash along the fault lines between them. It would follow therefore, that when immigration mixes these cultures within a nation state, the fault lines would clash within that state rather than between states as is more historically recognizable. This clash might raise conflict which is initially localized, but could spread to like-minded civilizations within other nation-states, similar to the theories of tribalism described by Robert D. Kaplan.[112] To further support these concepts, Dr Patrick Sookhdeo, founder of the Institute for Islam and Christianity, explains that the growing number of Muslims living in Britain form ghettos in which the interpretation of Islam leads to an anti-British narrative. The bellicose interpretation of the Koran, aided and fuelled by the tools of global networking, feed these ghettos and prevent their Islamic culture cooperating with the native way of life as recognized by common British culture.[113] An example might be found from the London bombings in 2005, when a much loved and trusted school teacher was amongst the suicide bombers. This example supports the views of an unattributed distinguished

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[111]Huntington, *The Clash of Civilizations?*

[112]Kaplan, "The Coming Anarchy," 44-76.

[113]Sookhdeo, "The Myth of Moderate Islam," 12-14.

professor who stated that "one manifestation of the tension between structural

globalization and the cultural fragmentation is the conflict between Western and Islamic

traditions" [114] and that a homogenized global culture is not possible.

And so from the British Army's perspective, the potential conflicts arising from

global or British demographic change, are broad ranging. Conflict might erupt in

developing parts of the world, especially when antagonized by other threat drivers, or

could even lead to problems within the United Kingdom. The potential tasks branching

from these demographic changes might cover all doctrinal activities. Once again, the

future seems uncertain, and calls for a flexible army.

Globalization

Chapter 2 presented Barnett's concept of the "gap," namely those parts of the

world lagging behind the globalized progression of the developed nations, and Sklair's

models of socialist and capitalist globalization. To merge these concepts of globalization,

Barnett's "gap" might be closed and satisfaction realized through globalized opportunity,

but only if Sklair's socialist form of globalization is the dominant form. If this were

achievable, then the homogenizing effects of an interconnected world might soothe the

jealousy and danger caused by the disconnectedness of the developing world.

Unfortunately, this seems unlikely; socialist globalization would be unable to dominate in

a capitalist world of free trade, unless there was global legislation to drive it that way at

the expense of profit. Friedman's supermarkets and super empowered people would be

unlikely to allow such legislation, even if the G20 endorsed it.

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[114]Unattributed Distinguished Professor of International Studies, C211 additional
readings (ILE, 2010).

So capitalist globalization, the divergent form of globalization, seems certain to prevail over socialist globalization due to the unstoppable inertia of Barnett's "supermarkets." Unless ethical decision making is legally imposed upon these supermarkets so as to share globalized opportunity, then they will continue to support capitalist growth and the "gap" will continue to widen between rich and poor. To extend this argument to its military conclusion, diverging opportunities in the globalized world will breed increased dissatisfaction, and conflict will emerge as a second order product. The nature of resultant conflict is impossible to project, but anti-capitalism protests in London and New York[115] highlight the potential for adversity both within the United Kingdom as well as globally.

Energy Resources

Chapter 2 reviewed alarming projections for rising oil demand against peaking oil supply, combined with DCDC's declaration that securing imported energy will be a non-discretionary task. To extrapolate these projections highlights the critical relevance of the looming energy crisis: there will be an unanswered shortage in global energy resources and the United Kingdom will take a non-discretionary approach to securing necessary energy imports. If it is assumed that other nations will take a similar non-discretionary approach, then conflict seems inevitable. And the inevitability of this conflict is well known. Michael Ratner, an analyst in energy policy and Neelesh Nerurkar, a specialist in energy policy, discuss the effects of Middle East and African unrest on energy markets,

[115]Ha-Joon Chang, "Anti-capitalist? Too simple. Occupy can be the catalyst for a radical rethink," *The Guardian*, 15 September 2011, http://www.guardian.co.uk/ commentisfree/2011/nov/15/anti-capitalist-occupy-pigeonholing?newsfeed=true (accessed 16 September 2011).

and how policy makers might consider addressing the sources of unrest as an approach to securing resources.[116] Even if there are alternative approaches that might be used in the short term to control access to affordable energy resources, such as tapping into strategic oil reserves, the longer term leads inexorably to conflict. In his book *Blood and Oil: The Dangers and Consequences of America's growing Petroleum Dependency*, author Michael T. Klare, a Five Colleges professor of Peace and World Security studies, states that "Centcom forces . . . occupy the front lines in the war against terrorism and play a critical role in efforts to prevent the spread of weapons of mass destruction. From its very inception, however, Centcom's principle task has been to protect the global flow of petroleum."[117]

If there is to be a war for resources, the critical question will be with whom the United Kingdom will fight. A logical assumption would see the war beginning as a price war in which the highest bidder wins. But this price war might logically lead in various directions. It might see developed nations using military force to prevent soaring energy prices and secure resources. Alternatively, it might see less affluent nations, who are priced out of the market, responding with violence as a last resort. The nature of this violence is uncertain, but asymmetric means would seem most accessible. If the demand in the developed and developing world continues to rise then presumably a point will be reached at which developed nations, with strong military forces, might conceivably clash.

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[116]Michael Ratner and Neelesh Nerurkar, *Middle East and North Africa Unrest: Implications for Oil and Natural Gas Markets* (Washington DC: Congressional Research Service, 2011), 8.

[117]Michael T. Klare, *Blood and Oil: The Dangers and Consequences of America's growing Petroleum Dependency* (New York, NY: Metropolitan Books, 2004), 1.

So the battle for energy resources is well under way, and has been for some time. Moreover, trends in supply and demand are set to heighten the imperatives on a battle whose outcome must be non-discretionary. The Arab Spring that has seen such turbulence in the Middle East and Northern Africa, might therefore, given the region's richness in oil, pose a very real threat to the United Kingdom's national interests. Depending on the developments in the region, it could provide a very real source of future conflict way beyond intervention in Libya.

Failed and Failing states

Failed and failing states are the reason for ongoing operations in Afghanistan and are a reason attributed to the recent operations in Libya. Due to the danger of failing states breeding terrorism and conflict, both of which might affect British national interests, intervention in such states will warrant the use of military power. Recent interventions support the perceived threat to British national interests posed by failing states and might provide an indicator for future policy.

What might be more pertinent to the discussion, when considering future threats, is reflecting on current failed or failing states that might require future intervention. Following the Arab Spring, from which there are still considerable pressures on a number of governments, there appear to be a number of potential causes for intervention. When considering the national interests that might be linked to these Arab nations through energy security, or ideology, the chances of calling upon military intervention seems highly credible.

There are other states, beyond those Arab states already mentioned, that might also be considered fragile, but which might also threaten British national interests.

Consider North Korea for example, whose potential to spark conflict in the Western Pacific might call upon British support for her allies. Similarly, the fragility of Eastern Africa, and in particular Somalia and the newly established Southern Sudan, might warrant military intervention to save further escalation in the region.

There are plenty of fragile governments around the world, and more so at the end of 2011 than at the beginning. Each of them has the potential to ignite wider conflict or become the home of terrorist groups that threaten British interests. As proven in recent examples, these failing states can provide a convincing case for military intervention, and have the potential to flare up into something even more dramatic. Although military intervention is likely to be expeditionary, rather than in Europe, the type of military activity that might result is limitless.

Ideology

Chapter 2 discussed the opposing views on ideology and its relevance. While some, such as Dr. Patrick Sookhdeo,[118] argue that we are witnessing Huntington's *Clash of Civilizations*, others such as Sherifa Zuhur[119] argue that the very suggestion is antagonistic. There is strong evidence for both schools of thought, as presented in chapter 2, and this thesis does not attempt to solve the ongoing debate.

What is a fact, is that ideology has been the apparent motivation behind terrorist attacks around the globe. It is also worth noting that there are many other ideologies, beyond radical Islam, that have given rise to terrorism, such as the right wing extremist

[118]Sookhdeo, "The Myth of Moderate Islam."

[119]Zuhur, "Precision in The Global War on Terror: Inciting Muslims Through the War of Ideas," 115.

Anders Behring Breivik who murdered 69 people in Norway. While terrorism remains the principle responsibility of the police force, the British Army will remain on call to support them in extreme cases. More pressing at present are expeditionary operations in support of proactive strategies abroad. It is uncertain whether this strategy will endure following the announced draw down from Afghanistan.[120] It certainly might be considered, however, that there are various fragile or failing states in which ideology might incite terrorist threats and which might warrant further chapters to the War on Terror.

Categorizing Threat

In terms of their capacity to cause conflict, DCDC's threat drivers raise credible concerns; any one of them could, conceptually, give rise to conflict on a scale that would require inter-governmental resolution. In considering future threats to British national interests, and the resultant response required, this section categorizes threats in order to gauge their severity and nature. Three categories of threat are defined: direct threats, indirect threats, and discretionary threats.

<u>Direct Threats</u>

Direct threats might be those threats that directly threaten the United Kingdom's sovereign territory, such as the German air offensive during the Second World War, or terrorist attacks by the IRA during the twentieth century and more recently by Al Qaida.

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[120]Karla Adam, "Cameron Announces British Troop Drawdown from Afghanistan," *The Washington Post*, 6 July 2011, http://www.washingtonpost.com /world/cameron-announces-british-troop-drawdown-from-afghanistan/2011/07/06 /gIQA1o0d0H_story.html (accessed 21 November 2011).

It should be noted that their scale might vary considerably, in that a conventional or nuclear threat could destroy the United Kingdom as we know it, where a terrorist threat might threaten a limited number of individuals. To consider the direct threats to the United Kingdom, DCDC's threat drivers seem unlikely to initiate large scale direct threats to the nation. Conventional homeland defense therefore, while the most severe threat imaginable, appears to be unlikely. Smaller scale direct threats however remain highly likely. When considering the threat drivers, many of them might breed reason for terrorist attacks, as has already happened in cases such as the 7th July 2005 London bombings. Ideology is a likely contributor to terrorist threats, and while Islamic fundamentalism is recognized as the most prolific supplier of terrorism, the Oslo bombing and island massacre of 22 July 2011 in Norway served as a reminder that there are plenty of other ideologies that can trigger terrorist attacks. Ideology itself is fueled by other threat drivers; global communications serve to politicize more people, while climate change, demographic change and energy policy create fertile sources of ideological discontent.

Indirect Threats

Indirect threats might include things that indirectly threaten the British way of life, or British national interests. Energy security, failing states and economic security might constitute indirect threats to the United Kingdom and her interests. Indirect threats are probably the most common threats that have marked the past decade. Military intervention into Afghanistan was aimed at combating the indirect threat of terrorist training rooted in the country. Depending on the varying opinions as to the cause of intervention in Iraq in 2003, energy security was a major driving influence. Intervention

into Libya was strongly influenced by energy security as well as the potential

destabilizing effect that Libya could have on Northern Africa with consequent indirect

effects on the United Kingdom. When considering the nature of these threats, as well as

recent examples, it is highly likely that indirect threats will continue to demand foreign

intervention, and as such the capacity for expeditionary warfare.

Discretionary Threats

Discretionary threats are those threats that call upon action as a moral obligation

or as part of a collective coalition of the willing. They might serve wider political aims,

but do not pose a threat to British national interests either directly, or indirectly. Author

and professor of strategic studies Colin Gray, argued that British political leadership has

recently shown the propensity for overly moral leadership at the expense of strategic

vision:

> For several years in the late 1990s and early 2000s, the British political leadership
> was unduly in thrall to its moral compass, at the expense of paying due diligence
> to the political and strategic compasses. To be blunt, a policy of forceful
> intervention to do good in distinctly foreign lands may well suit admirably the
> implicit advice of your moral compass. But, if the policy goals are not achievable,
> indeed can be predicted to be unachievable, a fairly pure heart will not save you
> from political and strategic disaster.[121]

While Colin Gray's accusation is noted, the burden of history might be taken as a

weighty consideration when defining international perceptions of Britain today. When

considering the profound impact that the British Empire had in shaping so many parts of

the world and its problems today, the moral obligation to provide solutions is vastly

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[121]Professor Colin S. Gray, "Maritime Strategy And British National Security."
(Transcript of speech, RUSI Future Maritime Operations Conference, London, 3-4 June
2009), 4.

amplified. Moreover, it must be recognized that the personal links held between British citizens and members of these former colonies creates incentives beyond the moral obligation. When deciding strategic direction therefore, perceived morality and strategic imperatives might often share common ground; in other words Britain's bellicose history might force moral intervention into situations that might otherwise be considered discretionary.

Categorizing Future Threat

To consider the future threats that might face Britain, using the categories defined above, the range of potential threats appears to be potentially broad. Table 1 categorizes some of the more likely threats that might face the United Kingdom by the scale of response required.

Table 1.   Potential Threats and their Categorization

Category / Scale of response	Direct	Indirect	Discretionary
Small	Terrorist attacks. Riots. Localized floods or other natural threat.	Small scale threats to British national interests. Might be solved through diplomatic or economic means, or small scale military operations (i.e. Sierra Leone).	Natural disasters. Humanitarian disasters.
Medium	Large scale terrorist attacks. Medium scale civil uprising. Medium scale natural disaster.	Medium scale threats to British national interests. Might call upon medium scale expeditionary military intervention (i.e. Iraq, Afghanistan)	Military operations in support of other nations.
Large	Military offensive against Britain. Attempted coup or revolutionary war. Major scale natural disaster.	Major threat to British national interests which calls upon large scale military intervention (i.e. war with Iran or North Korea).	MCO in support of other nations.

Source: Created by author.

To discuss the nature of these threats, it might be considered that according to DCDC's threat drivers, direct threats are unlikely to happen at anything beyond the small or possibly medium scale. Medium scale terrorist threats on the scale of the attacks on New York in September 2001 might be possible, but are not the inherent domain of the military within the current British security framework. Britain has suffered localized flooding in the recent past, but beyond uncharacteristic rainfall is seemingly safe from medium scale natural disaster. Large scale direct military threats seem highly unlikely, especially given the nuclear deterrent that Britain possesses. The stability of the government and relative cultural harmony, make civil uprising or revolutionary warfare

unlikely in Britain. Britain's geographic position far from tectonic plates and volcanic activity make large scale natural disaster less likely than many parts of the world.

Despite the minimal likelihood of a large scale direct threat however, the catastrophic risk that it entails makes it imprudent to ignore the eventuality entirely. Maintaining a nuclear deterrent comprises an important part of Britain's defensive strategy, but having the capability to wage conventional warfare for homeland defense, as well as to support the civil authorities during natural disaster, remains a primary objective for the British Army. How training for these eventualities is balanced with other more probable eventualities is discussed in due course.

Indirect threats constitute the most likely cause for military action in the future as projected by DCDC and other authorities. In considering the threats that might force a military response, the relevance of international organizations is key. Britain's position as a member of the UN Security Council, the G8 and G20, the EU and OSCE make indirect threats more likely to occur. Equally, it might be considered that although membership of these international organizations increases the chance of indirect threats, it should also limit the scale of response required, due to the number of troop contributing nations available to intervene. Membership of international organizations might also have the potential to make threats that would otherwise be considered discretionary, into indirect threats, in that it is in Britain's interest to support internationally approved operations. Whether on a small, medium or large scale, these internationally approved threats are likely to call upon a multilateral military response.

Internationally approved indirect threats might be triggered by any of the threat drivers described by DCDC, implicitly meaning that they could entail military operations

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anywhere in the spectrum of conflict. The important characteristic to recognize within the context of this thesis is the importance of working as part of a coalition, in operations that might span the spectrum of conflict. Given Britain's continued global ambition, policy makers are likely to protect the capability to contribute to coalition responses. This capability must be flexible and diverse if it is to offer political options when the circumstances present themselves.

Although it remains most likely that indirect threats will warrant multinational responses, it remains critical to maintain the ability to respond unilaterally if Britain is to govern its destiny personally, rather than trust it to the goodwill of others. DCDC's threat drivers might also be extrapolated to raise greater and more pressing tensions between nations. Changes in current geo-strategic affairs are likely to create fractures in currently shared perspectives. Take for example the threat of stretched resources, and in particular the forecasted peaking of oil production.[122] Given the inevitable competition for resources, it seems likely that nations who rely so heavily upon oil will have inherently competing interests, which will pressure the shared values that unite them today.

The global nature of many of DCDC's threat drivers, environmental change, energy resources, ideology, globalization, demographics, jeopardize the current harmony created by the globalized ideal of shared values. Sir Christopher Meyer, Former Ambassador to the United States, stated in a speech to Royal United Services Institute (RUSI) that "common problems does not equal common interests and it does not equal

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[122]Hirsch, *Peaking of World Oil Production: Impacts, Mitigation, & Risk Management*.

common values."[123] So although the past decade has been characterized by operations in seemingly undisputable support of the United States, maintaining unilateral capability will protect political flexibility in the future, just in case values diverge.

The Changing Nature of Threat

To once again consider the categorization of threats to the United Kingdom, it might be proposed that the threats of the past fifty years, which have been largely discretionary, or at worst indirect, might move towards the indirect or even direct. This relationship might be considered as a spectrum along which previous conflicts can be plotted and future threats can be projected, as shown in figure 4.

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[123]Sir Christopher Meyer, "What is the British National Interest?" (RUSI Future Maritime Operations Conference 2010, London, 2010).
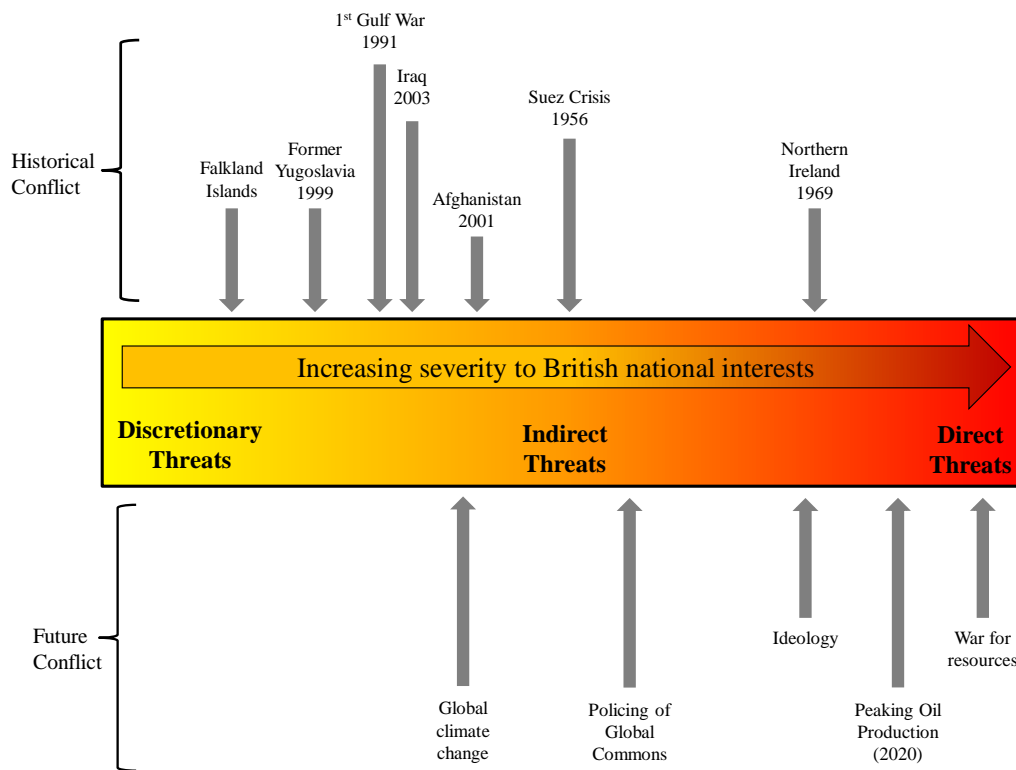
Figure 4.   Spectrum of Threat

Source: Created by author.

To project DCDC's threat driver's effect on future conflict therefore, suggests that many of the threat drivers contain more latent severity to British National interests than the conflicts of the past fifty years.

Summarizing Future Threat

To summarize, there is no clear and distinguishable answer to the question, "what are the future sources of threat to British national interests that would warrant engaging in conflict." Careful consideration of the future global context, however, does highlight a number of alarming trends that might lead to more direct threats than the United Kingdom has been called upon to address within the past fifty years. Direct threats to

Britain, beyond terrorism, may seem unlikely in the short term, but might well increase

with the changing nature of the UK's geo-strategic position. Indirect threats to British

interests are numerous, and while their causes might be summarized by DCDC's threat

drivers, the list of potential military campaigns that might arise as a result is seemingly

endless. From these indirect threats we can assume that the nature of future warfare is

likely to be expeditionary, and is likely to be part of a multilateral response. That said, to

rely on multilateral solutions and take risk on the ability to intervene unilaterally may be

ill advised given the projected competition for limited resources. As stated by DCDC,

"The UK will be critically dependent upon energy imports and securing them will be

non-discretionary."[124] Discretionary threats may well occur more frequently due to the

environmental, demographic and resource based trends developing, and Britain's

imperial history will continue to add moral gravity to the case for intervention.

<u>If Conflict Should Occur, What Would Be the Nature
and Character of that Conflict?</u>

Chapter 2 examined the theory of hybrid warfare, recognizing its relevance to

British military doctrine. As the generic threat against which the British Army now trains

during hybrid foundation training, developing an understanding of hybrid warfare

becomes imperative. As depicted in British Army doctrine, hybrid warfare is a mosaic of

conflict,[125] in which all elements of conflict might coexist within the same battlespace.

Hoffman describes this characteristic as the convergence of various elements of more

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[124]Development Concepts and Doctrine Centre, *Future Character of Conflict*, 5.

[125]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 3-10.

traditionally defined warfare. This section considers the concept of hybrid warfare, the British Army's selected concept for generic future warfare. By recognizing the breadth of potential threats that might face the United Kingdom, it considers the nature of hybrid warfare that might develop.

The nature of warfare, as defined by Carl von Clausewitz, is considered by British Military doctrine to be enduring: "War therefore is an act of violence to compel our opponent to fulfill our will." Contemporary anecdotes might however challenge Clausewitz's definition: there are aspects of hybrid warfare, such as cyber war, which do not necessarily involve violence, but still compel the opponent to fulfill our will. Such an example is the Stuxnet worm launched against Iran in 2010.[126] The United States now recognize cyber-attacks as an act of warfare that will be treated as any other attack on the country.[127] Similarly, in this the information age, national defense structures have expanded to recognize other elements of warfare that although not violent, constitute a serious threat to national security. Economic warfare and information warfare might be

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[126]John Markoff, "A Silent Attack, but Not a Subtle One," *New York Times*, 27 September 2010, http://query.nytimes.com/gst/fullpage.html?res=9B05EED61030 F934A1575AC0A9669D8B63&ref=stuxnet (accessed 31 October 2011).

[127]Ed Pilkington, "Washington Moves to Classify Cyber-Attacks as Acts of War,"*The Guardian.* 31 May 2011, http://www.guardian.co.uk/world/2011/may/31/ washington-moves-to-classify-cyber-attacks (accessed 20 September 2011).

considered within these categories and are recognized by the Pentagon[128] and Secretary of Defense[129] respectively.

If this argument is to be accepted therefore, it may be appropriate to contemporize Clausewitz's definition to incorporate acts of aggression, as well as violence. Hybrid warfare therefore, is an act of aggression to compel our opponent to do our will. This definition offers clarity to the military practitioner, whose role is more likely to address the violent aspects of hybrid warfare, while recognizing that the military must often work in concert with those national organizations that address non-violent means of aggression. Critical to the military understanding is that hybrid warfare's lines of effort and lines of operation will inevitably be closely intertwined. As such, the military must understand its environment and context while executing operations alongside non-military partners.

Whether the nature of war has changed or not, however, may be considered pure semantics to the military practitioner. After all, the military will still be called upon to address the violent elements of this nature. For British Army doctrine to accept Clausewitz's definition of violence to compel an enemy to do our will is not misleading. What is of greater significance is that since 9/11 the character of war has changed; that is widely accepted. Indeed hybrid warfare, with its constantly changing character, has such variety that it could be considered schizophrenic.

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[128]Eamon Javers, "Pentagon Preps For Economic Warfare," *Politico*, 9 April 2009, http://www.politico.com/news/stories/0409/21053.html (accessed 1 October 2011).

[129]Roger C. Molander, Peter A. Wilson, David A. Mussington, and Richard F. Mesic, "Strategic Information Warfare Rising" (Research Report, Office of the Secretary of Defense, RAND, 1998).

Does Current Doctrine Address Hybrid Warfare?

The character of hybrid warfare poses a dilemma for the British Army in its attempt to confront the violent aspects of its schizophrenic nature. Which doctrinal approach should be adopted at any point in time? Clausewitz reminds us that "the first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish . . . the kind of war on which they are embarking." At the strategic level the kind of war on which the British Army might embark might be declared as a hybrid war. But for the operational or tactical commander, declaring hybrid war gives little doctrinal clarity given its rapidly morphing character. Addressing this dilemma deserves some considered thought if tactical commanders are to have a coherent doctrinal handrail with which to approach hybrid warfare.

Hybrid warfare might be considered, in line with Hoffman's analogy of convergence, as the entire spectrum of conflict squeezed into a coincident battlespace. The predominant type of conflict that exists within that battle space will depend on the specific circumstances and might vary with time. It might be proposed therefore, that to effectively fight hybrid warfare an army must be able to both recognize the mode, or modes, of warfare that are present at any point in time, and be able to adjust their own approach accordingly. For the operational leader this creates a significant challenge in defining the approach to be taken. For the tactical commander, this demands incredible flexibility, combined with the ability to plan, adapt and disseminate orders at a rate equivalent to the changing nature of the conflict. In other terms, to apply current doctrine, the tactical commander must be able to continually switch between tactical doctrinal approaches within a constantly changing battlefield.

So if the character of hybrid warfare is fast, flexible, and comprehensive in its means and character, it follows that doctrine should meet its demands. For current doctrine to meet the demands of hybrid warfare, however, the commander must switch between doctrinal models, a feat that is very difficult to achieve at best. Instead, it would make sense for British Military doctrine to develop a singular approach to hybrid warfare, one that like hybrid warfare itself is comprehensive in its approach. A single doctrinal handrail would mean that commanders could operate within a single set of principles and against a single consistent approach.

If it is to be accepted therefore, that current doctrine needs to be developed to offer a singular approach to hybrid warfare, then the character of hybrid warfare must be fully recognized. To reflect upon the discussion on hybrid warfare in Chapter 2, it is proposed that counterinsurgency doctrine would make a good starting point for development of hybrid doctrine. Critically, the center of gravity in both counterinsurgency and hybrid warfare is likely to be the population. This was defined by General Sir Rupert Smith in his book, *The Utility of Force – The Art of War in the Modern Age*, when he defined a new paradigm of "war amongst the people."[130] Indeed this paradigm might be considered to define hybrid warfare and therefore warfare in the information age. That is to say that Hoffman's concept of hybrid warfare is not a new concept, but a development of Smith's concepts. Given due consideration, Hoffman's concept is not a dramatic development of Smith's ideas, but it does offer a name to Smith's concept: "It is now time to recognize that a paradigm shift in war has undoubtedly occurred: from armies with comparable forces doing battle on a field to

[130]Smith, *The Utility of Force-The Art of War in the Modern Age*.

strategic confrontation between a range of combatants, not all of which are armies, and using different types of weapons, often improvised."[131]

So hybrid warfare is a modernized form of revolutionary warfare, using modern communications as the enabler. As Smith recognizes, the set piece battle of the industrial age is becoming an anomaly, and as the influence of nations wane in a world of super empowered individuals and organizations, then it is the narrative that is fought over, not physical terrain or equipment.[132]

To summarize, modern warfare sees a mosaic of military activities from across the spectrum of conflict occurring concurrently within a defined battlespace. Although current doctrine recognizes hybrid threats and what it terms the "mosaic of conflict,"[133] it does not offer the tactical or operational commander a single doctrinal approach to addressing this multifaceted conflict. If doctrine is to model the COE as this mosaic of conflict, then it should develop a singular doctrinal approach referred to as hybrid doctrine. To consider Smith's concepts described in *The Utility of Force*, which are largely the same as Hoffman's hybrid warfare, this hybrid doctrine might be based upon current counterinsurgency doctrine, and critically the centrality of the people.

<u>How Should the British Army Prepare for Future Warfare?</u>

To the military, the concept of hybrid warfare is awkward to address. As explained in Chapter 2, it is the comprehensive approach conducted against a nation.

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[131]Smith, *The Utility of Force-The Art of War in the Modern Age*, 3.

[132]Ibid.

[133]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 3-10.

Given that the comprehensive approach, by its nature, requires national organizations beyond the military, implies that hybrid warfare, as with all warfare, should be directed at the strategic level by the nation. The military's part in fighting hybrid warfare, as part of a comprehensive response, will depend upon the specific context. Moreover, the military will be just one part of a wider strategic plan that involves many other elements of state power. To recognize the growing impact of globalized communications, strategic messaging must be the overarching focus of this wider plan, and the military must understand how to communicate this message through the means available to it.

In terms of translating the concept for those at the tactical level, hybrid warfare, as discussed, implies conducting a succession of military activities within the same theatre. The difficult question is whether or not it is possible to train for hybrid warfare, given that the mosaic of conflict that it describes contains such a broad range of military activities. The implicit implication is for the British Army to train for all types of warfare so as to be prepared for the many elements of hybrid warfare.

But "he who defends everything, defends nothing."[134] Similarly, to train for everything is to train for nothing. Reality suggests that there is neither the time, nor the resources, to train for every type of warfare that might prevail within the spectrum of conflict, and therefore within hybrid warfare. In order to resolve this difficult balancing act therefore, training must be prioritized to meet the requirements of the COE within the restraints of available resources, both temporal and financial. It is this prioritization that constitutes the central challenge in the question, "how should the British Army train for future warfare?" This analysis considers four means of prioritizing training for hybrid

[134]Frederick the Great.

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warfare: a conflict centric approach; an environment centric approach; a doctrine centric approach; and a frequency and severity based approach as used in risk assessments.

The first means of prioritizing training is through a conflict centric approach. By considering the nature of warfare itself, training can be prioritized to meet the inherent violence it entails. But when considering the nature of hybrid warfare, this violence might occur through very different types of conflict; at one moment conventional clashes between sophisticated forces at another a fleeting strikes from guerilla forces or untrained terrorists. To apply Clausewitzian logic however, although the exact character of conflict will change within hybrid warfare, its enduring nature intends mortal injury upon its opponent. As such, the British Army should train to apply the maximum use of force; training to apply limited use of force would be naïve given the intent of the enemy. Training for the application of maximum force implies training for combat using all available weapon systems. This is just one element of hybrid warfare. To once again consider Clausewitz, he teaches us that "The maximum use of force is in no way incompatible with the simultaneous use of intellect."[135] Simultaneous use of intellect, while training for major combat operations, will allow the British Army to apply its training to hybrid warfare, and in doing so understand when the maximum use of force is applicable and when it is not.

The second means of prioritizing training is through an environment centric approach. Consideration of the COE shows a complex mixture of urban and rural terrain, conventional forces mixed with terrorists and guerillas, all working amongst the

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[135]Carl von Clausewitz, *On War*, ed. and trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1984), 75.

population. More importantly, the COE focuses on Network Centric Warfare,[136] and the human networking that it implies within the given population. In this network-centric warfare the first principle is the need to fight first for information superiority. To prioritize training with this environment in mind, the focus on intelligence development and human terrain mapping would become central. This would call upon training designed to interact with the population, probably through a focus on patrolling and cultural awareness. The application of force in this environment is through targeted strikes as an offensive means, and reaction to contact and ambush as defensive means. However this approach fails to recognize the possible requirement to engage in major combat, and must be balanced accordingly if the Army is to train comprehensively for hybrid warfare.

The third means of prioritizing training is through a doctrine centric approach. British Army doctrine recognizes six military activities that occur within the land environment, all linked by the primary purpose of combat. Following previous analysis, it is known that hybrid warfare might encompass all six of these military activities, as well as combat. To train doctrinally therefore, the British Army must either train for all military activities, or develop new doctrine that recognizes hybrid warfare as a discreet military activity. As discussed in the previous section, this doctrine might be similar to counter-insurgency doctrine, but incorporating more of the kinetic response to state manufactured weapons and training, and globalized capabilities. But this is recognized by British Army doctrine, which defines combat as the primary purpose; "combat is

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[136]Cebrowski, *Implementation of Network-Centric Warfare*, 8.

ultimately what armies are for."[137] To train for hybrid conflict, therefore, appears to betray Army doctrine; it diminishes the primary purpose of combat in support of the unrecognized military activity of conducting hybrid warfare.

The fourth means of prioritizing training is through a frequency and severity based approach, as used in most risk assessment models. This approach considers the likelihood of any type of conflict occurring and comparing the dangers that each type of conflict presents to British national interests. This approach is highly subjective, as it requires an accurate quantitative assessment of the likelihood and nature of future conflict, as well as a quantitative assessment of the risk posed by that type of conflict to British national interests. Establishing the quantitative data required is little more than educated guesswork. A crude risk assessment, based on the author's own research, is shown in table 2.

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[137]Development Concepts and Doctrine Centre, *Army Doctrine Publication Operations*, 8-2.

Table 2.   Military Activities Risk Assessment

Military Activity	Threat Drivers most likely to cause activity	Likelihood of Occurrence (1 = low, 5 = high)	Danger to British National Interests (1 = low, 5 = high)	Risk to the UK (likelihood x danger)
Deliberate/focused intervention	UK Geo-Strategic Perspective, energy resources, failed states	Low, but increasing as resources become more strained 1 - 3	High 5	Medium/High 5 - 15
Military assistance to stabilization and development	Demography, climate change, globalization	High 4	Medium 3	Medium 12
Counter-Insurgency	UK Geo-Strategic Perspective, demography, globalization, energy resources, failed states, ideology	High 4	Medium 3	Medium 12
Peace Support	climate change, demography, globalization, failed states	High 4	Low 2	Low 8
Peacetime military engagement and conflict prevention	climate change, demography	High 5	Low 1	Low 5
Home defense and aid to civil authorities	climate change, ideology	High chance but on a limited scale 2	Medium 3	Low 6

Source: Created by author.

However crude its analysis, table 2 highlights concerns over the nature of future conflict: DCDC's threat drivers suggest an increased requirement for direct or limited intervention in defense of British national interests. When combined with the inherent danger such situations might pose to British national interests, the importance of training for major combat operations becomes evident.

<u>Summary</u>

All four approaches to discerning the best means of training for future warfare have relevance and are supported by compelling evidence. But reality does not allow a singular approach to designing a training policy, nor does it accept the inflexibility of adopting a single perspective. The strategic reality is that by selecting a limited approach to training, an Army becomes limited in its credibility and employability, inviting a hybrid enemy to exploit its weaknesses and the gaps in its training. Instead, the British Army must develop a means of providing a credible and flexible force, capable of deploying globally and operating at the highest intensity within the complexity of the COE.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

<u>Prologue</u>

Armies have traditionally struggled with the problem of how to prepare for future warfare, while historians, with the benefit of hindsight, have accused them of training to fight the last war. The 21st Century presents the same challenge. Are current operations in the Middle East the shape of things to come or should we prepare for something altogether different? This thesis studies the sources of future threat, the nature and character of conflict resulting from these threats, and the applicability of current doctrine to this threat. It uses qualitative analysis to derive a solution to the challenges of future conflict.

This chapter draws conclusions from the analysis applied to the following secondary questions:

1. What are the future sources of threat to British national interests that would warrant engaging in conflict?

2. If conflict should occur, what would be the nature and character of that conflict?

3. How does current doctrine direct that the British Army should approach conflict?

Having answered these secondary questions, it answers the primary research question: how should the British Army prepare for future warfare? Recommendations are made relating to these conclusions, which suggest a three pronged approach to preparing for future warfare.

<u>What Are The Future Sources of Threat to British National Interests</u>
<u>That Would Warrant Engaging in Conflict?</u>

When analyzing DCDC's threat drivers, it becomes evident that future threats to British national interests are potentially wide ranging. Moreover, these threats appear to constitute a more direct peril to the British way of life. Where the past fifty years have seen a number of conflicts fought at the discretionary or indirect end of the threat spectrum, the next thirty years may see the emergence of more dangerous threats that appear at the indirect to direct end of the spectrum. These more direct threats emanate from the pressure of global resources, the clash of ideologies and the reshaping of geo-strategic perspectives. For the British Army, the potential source of future conflict is uncertain and broad ranging. More concerning however, is the projection that global trends are creating the capacity for more aggressive and combat focused operations in direct defense of British interests than have been faced in recent history. It appears highly possible that future warfare will be fought to preserve the British way of life.

<u>If Conflict Should Occur, What would be the</u>
<u>Nature and Character of that Conflict?</u>

When conflict does arise, its character appears to be changing. Hybrid warfare is the en vogue term whose broad acceptance of warfare's multifaceted character draws together various contemporary concepts. Hybrid warfare incorporates concepts of war amongst the people[138] to network centric warfare.[139] But as far as the military is concerned, in line with Clausewitzian thought, the nature of warfare remains constant; it

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[138]Smith, *The Utility of Force-The Art of War in the Modern Age*.

[139]Cebrowski, *Implementation of Network-Centric Warfare*, 8.

involves a violent struggle against an armed opponent. Appreciating the enduring nature

of warfare is critical to the British Army's preparation, as it considers its changing

character. The contemporary challenge is adapting to the complex environment in which

this violent struggle takes place, such that the byproducts of military violence do not

detrimentally affect the strategic aims of the campaign, while simultaneously securing the

center of gravity through whatever means possible.

How does Current Doctrine Direct that the British Army Should Approach Conflict?

Current British Military doctrine recognizes the complexity of the contemporary

operating environment (COE), and depicts how a wide range of military activities occur

concurrently within the same area of operations. If this wide range of activities is

considered to reflect the hybrid warfare of the future, however, it presents the operational

or tactical commander with an impossible doctrinal task. Not only must commanders

train for all military activities, but they must switch seamlessly between them with

unrealistic alacrity in order to counter a hybrid enemy. In order to present doctrinal

coherence for the COE, the recognition of hybrid warfare deserves hybrid doctrine that

can be adopted to address it. This hybrid doctrine may, for the large part, reflect

counterinsurgency doctrine, but should reflect the challenges of technological change and

the effects of conventional state sponsored capabilities.

How Should the British Army Prepare for Future Warfare?

In deriving the best means of preparing for future warfare, there may be various

approaches that inspire a solution. The traditional Clausewitzian thinker would recognize

the violent nature of warfare and train for major combat. The environment focused

thinker might recognize the network-centricity within the COE and focus training on the fight for intelligence and information dominance. The doctrinal thinker would proscribe the development of hybrid doctrine and train accordingly. The risk analyst would recognize the fundamental dangers imposed by geo-strategic change and the potential war for resources, and train for major combat operations in order to prepare for the worst case scenario. There is credibility in all of these conceptual approaches, but the correct answer must consider them all.

In considering a solution to preparation for future warfare, it is also critical to recognize an enduring strategic dilemma. To view the British Army from an adversary's external perspective, it must maintain credibility in all forms of warfare; to do otherwise would invite an attack on its weaknesses. If the Army configures solely for one military activity, then his hybrid opponent will strike him through another means. As such, the British Army must train flexibly to address the full range of threats that might confront it, not just the most likely or the most dangerous. This problem defines a paradox: it is impossible, within resources, to train for everything, but you must train for everything if you are to avoid exploitable weaknesses.

The proposed solution to meeting these varied criteria is to train physically for the violent nature of warfare; that is for major combat. This combat must however be trained for within a realistic and contemporary setting, namely the COE. In order to mitigate against the risks of other natures of warfare, which although more likely are less dangerous, the British Army should focus greater time and resources on conceptual training in all military activities. In order to enable this multifaceted training, the use of time and resources will need careful reapportionment. This reapportionment will imply

subtle cultural remodeling in order to remove the bureaucratic workload on commanders and refocus them on the business of preparing for future warfare.

Recommendations

The research, analysis and conclusions in this thesis echo an age old dilemma: how to create a flexible army that is prepared for uncertainty and in touch with contemporary issues? The proposed solution is that the British Army differentiate more clearly between physical and conceptual training, and resource each element accordingly. The physical training, the physical exercises that consume resources, occupy soldiers and use training areas, should concentrate on major combat operations, but within the COE. The conceptual training, which only demands academic resources, should study all elements of the mosaic of conflict. In other terms, the body and muscles should train for combat, while the brain studies more broadly.

Although this proposal sounds intuitive, and might be considered no different from previous solutions, it is suggested that an appropriate level of conceptual training would demand a dramatic reapportionment of time for tactical leaders. Achieving this reapportionment of time is unfortunately more complex than simple programming; it demands cultural remodeling.

Major Combat Operations within the Contemporary
Operating Environment

Training for major combat operations satisfies various criteria from the conceptual approaches used to solve the primary question presented by this thesis. In order to maintain wider military credibility, the British Army must train unequivocally for the violent nature of warfare, no matter what type of warfare may prevail; violence is

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the common denominator. Training for major combat operations also prepares the British Army to defend against the increasing risk of more direct threats to national interests that are predicted by this thesis.

But this training must be conducted within a realistic contemporary environment. The COE is characterized by technological advances, and indigenous populations comprising of complex cultural networks with global reach. Although wars have always been fought amongst the people, the recognition of this seemingly obvious fact was largely absent from major combat training in the latter part of the twentieth century. More recently, on the other hand, hybrid foundation training has recognized the COE but moved away from comprehensively addressing major combat operations. Instead, recent training has tried to address the innumerable facets of hybrid warfare, at the loss of many elements of major combat operations.[140]

The enemy force that operates within this simulated COE should have state sponsored capabilities combined with the support of militias who use those manufactured and improvised weapons it can gather. The enemy will make use of social networking and mobile communications, and will therefore be able to enjoy intelligence equal to established armies, be it gathered through different means. The simulated COE should mix both urban and rural terrain and be inhabited by a free thinking population. This simulated COE has already been created, and is used by the British Army to train in Canada, Germany and the United Kingdom.

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[140]These observations are based upon the author's personal experiences of British Army training throughout his career, and most recently in 12th Mechanised Brigade (2007–2009) and 20th Armoured Brigade (2009–2010).

But within this COE, training must remain focused on major combat and not get drawn into the realms of counterinsurgency or conflict prevention. That means training to fight amongst the complex terrain while limiting collateral damage, but not to focus on influencing the surroundings as might be done when training for counterinsurgency. In other words, the focus should be on the enemy that exists within the COE, not the narratives that influence the COE. Most importantly, the major combat training should practice all elements of combat that might be conducted against another state's army. War against another established army is likely to be the most challenging and most kinetic conflict that the British Army might face, and the lessons learned in this context can be applied to less sophisticated enemies as required. The old adage of "train hard, fight easy" is still relevant.

But a conceptual hurdle has been erected in the past decade that triggers the British Army to focus on the environment more that the threat. When faced with the human traffic of the COE, then the assumption is to configure for counterinsurgency. Only when this human traffic dissolves, and the threat dictates it, do commanders configure for major combat operations. This response might be considered a natural consequence of training one year for major combat operations on a deserted prairie, followed by deploying the following year to fight counterinsurgencies in Iraq and Afghanistan. To blend these mindsets, and to fight major combat operations, amongst the population, will require mental recalibration.

Flexible Command

If "train hard, fight easy" is the mantra for physical training, then "train complex, fight complicated" must be the mantra for conceptual training. Ultimately, the Army's

business is executed by the soldier on the ground; this is where the rubber meets the road. If execution is to be flexible therefore, the importance of educating tactical commanders is critical. If the Army is to physically train soldiers capable of major combat operations within the COE, then it must also train commanders who have the breadth of education required to understand the intricacies of this COE and the effects of their actions. They must be conceptually comfortable with the breadth of military activities that might arise within the COE. In the author's experience, there is a current lack of conceptual training that addresses this intellectual flexibility, leading to an organization that is confined to training for the last war; the last war is all it knows.

It is only through a broad education, much of which must be doctrinally focused and historically illustrated, that the British Army might satisfy the age old problem of training for all eventualities. While trained for the nature of warfare, that is the common denominator of violence, enhanced education can adapt this violence to the prevailing conflict. The result is flexible command: educated and empowered junior commanders, who can direct and temper an Army trained predominantly for major combat operations in the COE.

Despite suggestions to the contrary, the author believes that junior officers are lacking in this breadth of military education. While the British Army fully advocates and encourages an expansion of military education amongst the officer corps, it does little to resource it within the working day. It becomes the burden of the individual to broaden their education within their personal time. Instead, the British Army must support military education and find the resources to do so. To employ U.S. Army vernacular,

reconsidering the "profession of arms"[141] might support a greater emphasis on expert education.

An expansion of education might also be considered attractive during times of austerity; thinking is free. Similarly, in times of uncertainty, conceptual training is attractive; it can cover more ground. And if facing hybrid warfare, conceptual training is also attractive; it is the only way of comprehensively addressing the range of military activities involved. To support this perspective, one might consider the German army's development in the inter war period, 1918 - 1938. Despite severe financial constraint, the restrictions of the Treaty of Versailles, the uncertainty of what lay ahead, and the rapid development of technology, they underwent the dramatic conceptual preparation that set the conditions for their military transformation. Under the guidance of General Hans von Seeckt, doctrine was developed and leaders educated so as to prepare the German Army for rapid mobilization as soon as financial and political restrictions were lifted. This example might be related to the financial, technological and geo-strategic conditions of today, and advocate a similar approach to conceptual development.

The Central Enabler: Military Culture

The author recognizes that proscribing major combat training supported by expanded conceptual education is far from a revelation. But, like Plato's Utopia, the model is hard to realize when faced with the strains of reality. It is this reality, or culture, which requires consideration. British military culture is the reality in which training must be conducted, and it is proposed that with due consideration and leadership, military

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[141]U.S. Army, *The Profession of Arms* (Washington, DC: Government Printing Office, December 2010).

culture can be reshaped to provide a realistic environment in which to best achieve the military utopia of preparing flexibly for future warfare.

From the personal experiences and observations of the author, organizational culture in the British Army has changed dramatically in the past decade. This change is, no doubt, a result of numerous weighty influences, most notably operations in Iraq and Afghanistan, technological advances, and national culture. To accentuate these culture changes, the British Army now faces considerable financial constraint.

In the past decade, conflicts in Iraq and Afghanistan have become the reality for the British Army, and a generation of soldiers have grown up knowing only this reality. The nature of counterinsurgency has encouraged tactical caution. Stringent rules of engagement and the development of "courageous restraint" have encouraged a legally defensive mindset. The British Army has become reliant on intelligence, on ubiquitous fire support, on superior armor, and on modern communications and situational awareness. These are significant, and highly potent, technological advances, but they have brought cultural side effects. Junior commanders have the legal motives, and the connectivity, to refer decisions up the chain of command. Similarly, senior commanders have the ability to observe tactical situations unfold, and influence them directly. Similarly, tactical commanders can call upon overwhelming fire support in case of difficulty, creating a reliance on fires at the cost of maneuver. This observation is shared by Col Rupert Jones who warns that "We have become seduced by the easy availability

of air and artillery support. Commanders are giving up maneuver in favor of fire support.
. . . We need to break our dependence on fires."[142]

While on the battlefield the British Army has been shaped by technological solutions to counterinsurgency, the arrival of ubiquitous e-mail and logistic management systems has shaped military culture away from the front line. E-mail has seen a stratospheric increase in information circulation, which is forwarded largely unfiltered. Additionally, e-mail has increased accountability immeasurably. The result is a surfeit of information that must be read, just in case it is important. Moreover, the speed of e-mail breeds the expectation of immediate answers to questions. Equipment management systems allow senior commanders to track the whereabouts, serviceability, and maintenance schedules of individual vehicles. Other commodities and equipment are accounted for on a variety of additional systems, none of which communicate with each other. Activities to the lowest level are programed into an accounting system, which is used to allocate finances, but not resources; equipment, transport and logistics supplies must be demanded through other systems. The result is an Army increasingly fixed by systems and processes. Leaders have all too often been changed into bureaucrats.

Beyond the effects of enduring operations and technological increase, wider national culture has had an unavoidable effect on the British Army. Society calls for greater accountability which drives a zero-defect blame culture. These effects have unavoidably encouraged societal risk adversity. But to draw upon the teachings of great

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[142]Lt Col Rupert Jones, "COIN in Afghanistan: The Tyranny of Fires," *Defense Tech,* 26 May 2010, http://defensetech.org/2010/05/26/coin-in-afghanistan-and-the-tyranny-of-fires/ (accessed 14 April 2011).

military commanders, risk adversity sits uncomfortably in the army. The Duke of Wellington commented to his brother, "in all great action there is risk,"[143] while Clausewitz wrote "boldness in the army is as important a factor in military planning as any other military virtue."[144] General George S. Patton wrote to his son "Take calculated risks. That is quite different from being rash,"[145] while Field Marshall von Moltke, in a similar vein, succinctly wrote "first reckon, then risk."[146]

Risk adversity has wider effects on the Army's culture and effectiveness. It fuels a lack of trust, which in turn encourages micromanagement down the chain of command, and upward referral of decisions in response. Risk adversity raises the pressure on accountability and increases the resultant bureaucracy that underpins process. And all of these factors combine to absorb the time available for the things that really matter. In the context of this thesis, releasing commanders from this bureaucracy will create the time required for conceptual education. As a positive byproduct, it will encourage risk acceptance and trust and as such the philosophy of Mission Command

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[143]Arthur Wellesley, 1st Duke of Wellington, *The Greenhill Dictionary of Military Quotations*, edited by Peter G Tsouras (London, UK: Greenhill Books, 2004), 424.

[144]Clausewitz, *On War*, 191.

[145]General George S. Patton, *The Patton Papers 1940-1945*, Compiled by Martin Blumenson (Washington, DC: Houghton Mifflin, 1974).

[146]Field Marshall Helmuth Graf von Moltke, *The Greenhill Dictionary of Military Quotations,* ed. Peter G Tsouras (London, UK: Greenhill Books, 2004), 424.

Recommendations for Future Research

There are two main areas of future research that might be conducted to extrapolate the research carried out in this thesis:

The Development of Hybrid Doctrine

Hybrid doctrine would consider a singular approach to the mosaic of conflict as defined by *Army Doctrine Publication Operations*. Hybrid doctrine should offer a coherent and consistent handrail to commanders engaged in hybrid warfare, rather than expecting them to switch between the mosaic of doctrines currently on offer. It seems likely, from the research carried out in this thesis, that this hybrid doctrine might look similar to counterinsurgency doctrine, but with a greater emphasis on the kinetic operations that might be an element of hybrid warfare.

A Study of Military Culture for the Future Army

Current structural changes underway will reshape the British Army. In parallel with these changes, it is suggested that the organizational culture be reconsidered to create an Army that is flexible and streamlined in its processes. This thesis suggests that military culture has been changed in recent years as a result of contemporary operations, developing technology and adjustments in national culture. Structural remodeling of the Army presents an appropriate time to conduct a critical self-analysis of this culture, and using historical case studies and management consultancy theory, reconsider the existing culture.

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