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*Low Intensity Conflict:
Contemporary Approaches and
Strategic Thinking*

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of the requirements for the degree
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Abstract

Low Intensity Conflict (LIC) is a significant feature of the contemporary world and it is a particular challenge to the armed forces of many states which are involved in such conflict, or are likely to become so. This thesis is not concerned with how such difficult conflict situations arise. Rather it is concerned with how, from the point of view of the state, they may be contained and ultimately brought to a satisfactory resolution. The work is thus concerned with the practicalities of ending LIC. More specifically, the purpose of this research is to establish a framework of doctrinal and military principles applicable to the prevention and resolution of LIC.

The principles of this thesis are based in numerous historical examples of LIC and six in depth case studies. These distilled principles are analysed in two central chapters, and are then applied in two latter defence force chapters so as to ensure their practicality and resilience. Numerous defence academics and military practitioners have been consulted in the production of this thesis; their contribution has further reinforced the functionality of the principles examined in this research.

The research illustrates the criticality of a holistic approach to LIC. The function of this approach is to guarantee the stability of the sovereign state, by unifying civil, police, intelligence and military services. The effectiveness of the military elements must also be ensured, as military force is central to the suppression of LIC. Consequently, the research makes strategic and operational prescriptions, so as to improve the capability of defence forces that are concerned with preventing or resolving LIC.

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Acronyms and Abbreviations

AA	Anti-Aircraft
AAR	Air-to-Air Refuelling
AAV	Amphibious Assault Vehicles
ABCA	American, British, Canadian, Australian Armies' Standardisation Program [sic]
ABCCC	Airborne Battlefield Command and Control Center [sic]
ADDP-D	Foundations of Australian Military Doctrine
ADF	Australian Defence Force
ADFP	Australian Defence Force Publication
AEW&C	Airborne Early Warning and Control
AFS	Australian Force Somalia
AGL	Above Ground Level
AIG	Afghan Interim Government
ALV	Armoured Logistics Vehicle
AMPS	Advanced Mobile Phone Service
ANZUS	Australia, New Zealand, and United States
AO	Area of Operations
AOR	Auxiliary Oiler Replenishment
APC	Armoured Personnel Carrier
APFSDS-T	Armour Piercing Fin Stabilised Discarding Sabot – Traced
ARH	Armed Reconnaissance Helicopter
ARRC	Allied Rapid Reaction Corps
ASCC	Air Standardisation Coordinating Committee
ASLAV	Australian Standard Light Armoured Vehicle
ASV	Armoured Security Vehicle
ATACS	Army Tactical Communications System
ATGM	Anti-tank Guided Missile
ATV	All Terrain Vehicle

AUSCANNZUKUS	Australia, Canada, New Zealand, United Kingdom, United States agreement [on] Naval Command, Control and Communications Board
AWACS	Airborne Warning and Control System
BASB	Brigade Administrative Support Battalion
BCO	British Colonial Office
BCSS	Battlefield Command Support System
BIG	Bougainville Interim Government
BMD	(Russian) Airborne Infantry Fighting Vehicles
BMP	(Russian) Infantry Fighting Vehicle
BPC	Bougainville Peace Conference
BRA	Bougainville Revolutionary Army
Brahimi Report	United Nations Peace Operations Report
BRITBAT1	British Battalion 1
BTR	(Russian) Armoured Personnel Carrier
C2	Command and Control
C2I	Command, Control and Initiative
C2ICI	Command, Control, Initiative, Communications and Intelligence
C3	Command, Control and Communications
C3I	Command, Control, Communications and Intelligence
C4ISR	Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance
C4ISTAR	Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance
CA	Civil Affairs
CALL	Centre for Army Lessons Learned
CAS	Close Air Support
Cav	Cavalry
CDF	Chief of Defence Force
CDF-Ops	Chief of Defence Force – Operations
CDT	Clearance Diving Team

CENTCOM	Central Command
CER	Combat Engineer Regiment
CFG	Combined Force Group
CFLC	Combined Force Land Component
CI	Counter-Intelligence
CIA	Central Intelligence Agency
CMA	Civil-Military Affairs
CMDS	Countermeasure Dispensing Systems
CNR	Combat Net Radio
CPA	Coalition Provincial Authority
CP-PCC	Contingency Planning Policy Coordination Committee
CSS	Combat Service Support
DB2000	Inquiry into Defence Beyond 2000
DBFI	Deployable Bulk Fuel Installation
DIO	Defence Intelligence Organisation
DJFHQ	Deployable Joint Force Headquarters
DJFHQ – (M)	Deployable Joint Force Headquarters – Maritime
DLOC	Directed Level of Capability
DMO	Defence Materiel Organisation
DOC	Department of Commerce
DOD	Department of Defence
DOJ	Department of Justice
DOS	Department of State
DSCS	Defence Satellite Communications System
EAAK	Enhanced Appliqué Armour Kit
EBB	Effects Based Bombing
EC	Employment Contexts
ECS	Expeditionary Civil Service
ELINT	Electronic Intelligence
ERA	Explosive Reactive Armour
EU	European Union
EW	Electronic Warfare
EWSP	Electronic Warfare Self-Protection

ExCom	Executive Committee
Falintil	Forces for National Liberation of East Timor
FATA	Federally Administered Tribal Area
FEBA	Forward Edge of the Battle Area
FFTTAA	Find-Fix-Track-Target-Attack-Assess
FLIR	Forward-Looking Infrared System
FM	Frequency Modulation
FM 3-0	Field Manual 3-0
FSB	(Russian) Federal Security Service
FSB	Force Support Battalion
FSG	Force Support Group
FST	Forward Surgical Team
FW	Fixed Wing
GLDS	Ground Laser Designator System
GPMG	General Purpose Machinegun
GPS	Global Positioning System
GRU	Main Intelligence Directorate
HAMAS	Islamic Resistance Movement
HE	High Explosive
HEAT	High Explosive Anti-Tank
HEI-T	High Explosive Incendiary – Traced
HF	High Frequency
HMAS	Her Majesty's Australian Ship
HMMWV or Humvee	High Mobility Multipurpose Wheeled Vehicle
HMNZS	Her Majesty's New Zealand Ship
HQ	Headquarters
HQAST	Headquarters Australian Theatre
HQJOC	Headquarters Joint Operations Command
HSS	Health Support Service
HUMINT	Human Intelligence
IDF	Israeli Defence Force
IED	Improvised Explosive Device
IFV	Infantry Fighting Vehicle

IGSW	Indirect Ground Support Weapon
IMG	Issue Motivated Group
INMARSAT	International Maritime Satellite
INTERFET	International Force East Timor
IO	International Organisation
IR	Infrared
IRA	Irish Republican Army
IRR	Incident Response Regiment
IS&R	Intelligence, Surveillance and Reconnaissance
ISI	Inter-Services Intelligence
ISR	Intelligence, Surveillance and Reconnaissance
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
JC	Joint Commander
JDAM	Joint Direct Attack Munition
JLC	Joint Logistics Command
JP	Joint Project
JSF	Joint Strike Fighter
JSTAR	Joint Surveillance Target Attack Radar
KDP	Kurdish Democratic Party
KGB	(Russian) Committee of State Security
KHAD/WAD	Afghan Intelligence Service
LAMS	Light Armoured Mortar System
LAN	Local Area Network
LAV	Light Armoured Vehicle
LCH	Landing Craft Heavy
LHD	Landing Helicopter Dock
LIC	Low Intensity Conflict
LNO	Liaison Officer
LOV	Light Operational Vehicle
LRAS	Long Range Advanced Scout (Surveillance System)
LZ	Landing Zones
MAWS	Missile Approach Warning System

MBT	Main Battle Tank
MEF	Marine Expeditionary Force
MEU	Marine Expeditionary Unit
MFA	Ministry of Foreign Affairs
MFAT	Ministry of Foreign Affairs and Trade
MI6	Military Intelligence 6
MLOC	Minimum Level of Capability
MNF	Multinational Force
MOD	Ministry of Defence
MOUT	Military Operations in Urban Terrain
MPS	Maritime Pre-Positioning Ship
MRA	Multi-Role Auxiliary
MRLS	Multiple Rocket Launcher Systems
MRTT	Multi-role Tanker Transport
MRV	Multi-Role Vessel
MVD	(Russian) Ministry of Internal Affairs
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organisation
NCO	Non-Commissioned Officer
NCW	Network-Centric Warfare
NGO	Non-Governmental Organisation
NMRB	Naval Material Requirement Branch
NOE	Nap-of-the-Earth (close-to-ground flight)
NORCOM	Northern Command
NRO	National Reconnaissance Office
NSC	National Security Council
NSE	National Support Element
NSPD-XX	National Security Policy Directive XX
NVG	Night-Vision Goggles
NZBATT	New Zealand Battalion Group
NZDDP-D	Foundations of New Zealand Military Doctrine
NZDF	New Zealand Defence Force
NZFOR	New Zealand Force

ODESC	Officials Committee for Domestic and External Security Co-ordination
OEF	Operation Enduring Freedom
OGF	Operation Golden Fleece
OIF	Operation Iraqi Freedom
OLOC	Operational Level of Capability
PA	Palestinian Authority
PA	Public Affairs
PDD-56	Presidential Decision Directive 56
PDPA	People's Democratic Party of Afghanistan
PGM	Precision Guided Munition
PHOTINT	Photo Intelligence
PLF	Palestine Liberation Front
PMG	Peace Monitoring Group
PNG	Papua New Guinea
PNGDF	Papua New Guinean Defence Force
PRT	Provincial Reconstruction Team
PSYOPS	Psychological Operations
PUK	Party for a Unified Kurdistan
QRF	Quick Reaction Force
RAAF	Royal Australian Air Force
RAF	Royal Air Force
RAN	Royal Australian Navy
RAR	Royal Australian Regiment
RCR	Royal Canadian Regiment
RDF	Ready Deployment Force
Recon	Reconnaissance
RF	Regular Force
RFA	Royal Fleet Auxiliary
RMA	Revolution in Military Affairs
RN	Royal Navy
RNZAF	Royal New Zealand Air Force
RNZIR	Royal New Zealand Infantry Regiment

RNZN	Royal New Zealand Navy
ROE	Rules of Engagement
RPG	Rocket Propelled Grenade
RTO	Radio Telephone Operator
RWR	Radar Warning Receiver
RWS	Remote Weapons Stations
SAM	Surface-to-Air Missile
SAR	Search and Rescue
SAS	Special Air Service
SASR	Special Air Service Regiment
SBS	Special Boat Service
SF	Special Force
SFG	Special Forces Group
SFTG	Special Forces Task Group
SIGINT	Signals Intelligence
SNM	Somali National Movement
SNO	Senior National Officer
SOCOMD	Special Operations Command
SOF	Special Operations Forces
SOG	Special Operations Group
SO/LIC	Special Operations and Low Intensity Conflict
SOP	Standard Operating Procedures
SP	Self-Propelled
SPM	Somali Patriotic Movement
SPPKF	South Pacific Peace Keeping Force
Sqn	Squadron
SSDF	Somali Salvation Democratic Front
STOL	Short-Take-Off and Landing
TAC	Tactical Air Controller
TACP	Tactical Air Control Party
TADS	Target Acquisition and Designation System
TDRS	Tracking and Data Relay Satellite
TF	Task Force

TF	Territorial Force
TFR	Task Force Ranger
TGP	Terminally Guided Projectile
TMG	Truce Monitoring Group
TNI	Indonesian Military
TNT	Trinitrotoluene
TOW	Tube-Launched, Optically-tracked, Wire-guided missile
TRANSCOM	Transport Command
TTH	Tactical Transport Helicopter
TTP	Tactics, Techniques and Procedures
TUAV	Tactical Unmanned Air Vehicle
U.S.	United States
UAV	Unmanned Air Vehicle
UCAV	Unmanned Combat Air Vehicle
UD	Unauthorised Discharge
UHF	Ultra High Frequency
UK	United Kingdom
UN	United Nations
UNAVEM	UN Angola Verification Mission
UNITAF	United Task Force
UNOSOM	United Nations Operations in Somalia
UNPOL	United Nations International Police
UNPROFOR	United Nations Protection Force
UNSCOM	United Nations Special Commission
UNTAET	United Nations Transitional Administration in East Timor
USAF	United States Air Force
USAID	United States Agency for International Development
USC	United Somali Congress
USMC	United States Marine Corps
USN	United States Navy
USS	United States Ship
USSOCOM	United States Special Forces Command

VHF	Very High Frequency
WMD	Weapons of Mass Destruction
WW2	World War Two

Chapter One

Introduction

The geopolitical vacuum left by the disintegration of the Soviet Union has been replaced by an abundance of intrastate instability and interstate, as well as intrastate, violence. Such violence is perpetrated as a means to a political end (generally by sub-state groups who oppose the political foundation of the state); and is described henceforth as insurgency. The suppression of such violence has become an operational reality for Western defence forces. To overcome the complex challenges of insurgency, Western defence forces must possess tailored, conflict specific, doctrines, strategies and operational guidelines. However, as indicated by Francart and Patry, “no such strategy [or guidance] has ever been officially formulated or expressed; the employment of forces has to be adapted on a case-by-case basis”.¹ Consequently, this research was designed to provide the practical foundation for Western defence force operations opposing insurgency.

The central purpose of the research is to present doctrinal and operational procedures applicable to the prevention and resolution of Low Intensity Conflict (LIC). Briefly and as an aside, LIC is an actor neutral term used to define intra-state conflict between an insurgent and counterinsurgent (insurgent and counterinsurgent describe the belligerents in LIC). The thesis consists of three main sections: first, six case studies provide a practical foundation for the thesis; second, the core principles for a successful counterinsurgency (guidelines for governments fighting insurgency) are presented and analysed, within two central chapters; third, the key assumptions outlined in the research are applied to the Australian and New Zealand Defence Forces, and policy and procedural proposals are suggested.

The principal rationale for including the analysis of the New Zealand and Australian Defence Forces was to test the doctrinal and military principles examined in the earlier sections of the thesis. More specifically, the New Zealand and Australian Defence Forces were included for following three reasons. First, New Zealand and Australia have been heavily tasked with operating as counterinsurgency forces in LIC since the end of the Cold War, which is the

primary scope of the research. Second, the New Zealand and Australian Defence Force chapters illustrate how the principles of this research can be applied to small and medium sized defence forces. Therefore many of the world's defence forces (of small and medium states) will be able to directly exploit the recommendations made within the New Zealand and Australian chapters. Many of the recommendations made are universally applicable; however, other recommendations require the resources that are available to medium sized (and larger) states. Basically, this research has been designed to be of maximum beneficial value to a broad number of states. Third, New Zealand and Australia are isolated maritime states without land borders. This means that power projection is complex and demanding, in that forces must at times be projected over tremendous distances, disembarked through difficult points of entry and then sustained over these extended lines of communication. The means with which these challenges have been overcome and the recommendations made so as to enhance those means will be of assistance to states faced with similar mission objectives.

The thesis shows a counterinsurgent must take a holistic approach to ensuring the stability of the sovereign state, by unifying civil, police, intelligence and military services. This holistic approach is shown to require a unified command and the formation of, what might be called, an Expeditionary Civil Service. An Expeditionary Civil Service would emulate a territorial force of civilians. On operation, the Expeditionary Civil Service would provide those functions of the civil state that had been destroyed by conflict. A unified command would ensure unity of effort, while the Expeditionary Civil Service would guarantee that the civil units, which are essential in opposing an insurgency, were as capable as, and fully integrated with, their military counterparts. These assertions are supported by senior New Zealand and Australian Defence Force personnel.

Consequently the rationale for this thesis is to further the understanding of modern LIC, so as to bring about the cessation of such conflicts as effectively and economically as possible by the counterinsurgent. For, as van Creveld has commented, 'much has been written about Low Intensity Conflict – what it is and what it is not – but there is very little on how to fight one'.² This analysis will begin to fill this void.

Definition

LIC appeared as a widely used term in the 1980s. LIC was initially used to loosely describe an emergent combination of complex security threats. Paramount in the political consciousness of the West was: (1) the defeat in Vietnam; (2) the Iranian hostage crisis; (3) the Soviet intervention in Afghanistan; and (4) the regionally destabilising effect of communist movement into countries such as Grenada.

In the United States (U.S.), the inability to effectively and efficiently surmount such threats resulted in the Goldwater-Nichols Defense Reorganization Act of 1986. This piece of legislation and the Cohen-Nunn Amendment to the Department of Defense Authorization Act of 1987, “established USSOCOM [the United States Special Operations Command] and the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (SO/LIC)”.³ These organisations were established to create a unified and effective approach to countering insurgency.

Significantly for this analysis, the current SO/LIC definition of LIC is widely accepted and is as follows. LIC is a “[p]olitical-military confrontation between contending states or groups below conventional war and above the routine, peaceful competition among states; frequently involves protracted struggles of competing principles and ideologies. Low-intensity conflict ranges from subversion to the use of armed force. It is waged by a combination of means, employing political, economic, informational, and military instruments. Low-intensity conflicts are often localized but contain regional and global security implications”.⁴

The definition above effectively encapsulates the enigma which is LIC. Primarily, insurgent operations within the context of LIC are a complex phased array of violence and coercion, with the objective of challenging the sovereignty of the state. As is indicated above, LIC encompasses a broad collection of operational types or phases. The phases of LIC include organisation (cadre/support), terrorism, guerrilla warfare and mobile warfare. This amalgamation of operations is the reason why LIC is so complex, and why insurgent operations are so difficult to defeat. Hence a strategy designed to bring about the cessation of violence in LIC by the counterinsurgent must in itself be

sophisticated and comprehensive. The counterinsurgent's practical means within LIC must consist of military, police, intelligence and civil elements, operating cohesively under a central command. The unification of these means will enable the counterinsurgent to dominate the political, economic, informational and military dimensions of the conflict. As is indicated above, an insurgency will project instability regionally and globally. However, LIC will also generally be contested by numerous regional and global actors, in addition to the principal actors involved. This can create further complexity for the counterinsurgent to surmount.

There is also a secondary meaning of the term LIC; this refers to the intensity of the conflict. The Australian Army's doctrine, *Fundamentals of Land Warfare*, defines intensity as follows. "Intensity refers to the overall tempo, degree of violence and technological sophistication of the violence employed... [The intensity] will also often vary at the level of individual participants, depending on their particular situation and perspective at any one time".⁵ At the strategic level, the intensity of LIC is generally low. This is because the number of contacts, technological sophistication and hence level of violence is low, when compared to other forms of warfare. For example, the number of contacts and violence caused by the Soviet and German Army Groups fighting on the Eastern Front in World War Two was high. However, the intensity of LIC does not refer to the tactical level contact. All force element contacts are intense for those directly involved.

Issues of Morality

It is traditionally accepted that innocent civilians (non-combatants) should not deliberately be subjected to violence in war.⁶ Essentially, this issue of morality protects the insurgent. The insurgent's combatant status is camouflaged by the insurgent assuming a civilian guise. However, this analysis leaves aside the morality and combatant status of the insurgent.

Traditional just war theory also distinguishes between the cause of war and the way in which the war is fought.⁷ This research accepts the distinction. However, the research does not consider the cause espoused by the insurgent or the morality of the tactics used by the insurgent. The research is only concerned

in practical terms with how the counterinsurgency is conducted. In the latter context, morally justifiable courses of action must be foremost in a counterinsurgent's strategy. The rationale for this approach is prudential rather than moral. Moral courses of action generate support for the counterinsurgent, whereas immoral courses of action undermine the counterinsurgent. Prudentially, providing security and support for the civilian population will win their hearts and minds. Winning the population's hearts and minds will generate support for the counterinsurgent and undermine support for the insurgent. Essentially, if the counterinsurgent can gain the support of the population, the insurgent cannot use the population to camouflage his combatant status.

Conversely, the insurgent will use means that are indiscriminate, conflate combatant and non-combatant status and exploit the constraints imposed by the counterinsurgent's rules of engagement. Such actions on the part of the insurgent will encourage the counterinsurgent to act in a similar way. Basically, the weak version of the Golden Rule emerges: do as you are done by. However, adopting the weak version of the Golden Rule would be both hypocritical and counterproductive. First, the counterinsurgent's main function is to protect the civil population from violence, not commit violence against the civil population. Second, it is counterproductive to act violently toward the population, as this will undermine the support of the counterinsurgent. The counterinsurgent must always operate with restraint and respect for the rules of war. In essence, the counterinsurgent must operate within the boundaries of the strong version of the Golden Rule; do as you would be done by. This is a prudential strategy, as the counterinsurgent will then acquire the support of the population.

The aforementioned moral approach is not descriptive of all the actions taken by the counterinsurgents in the operations studied. Rather, the moral approach outlined above is prescriptive: the counterinsurgent must act with restraint and respect for the conventions of conflict. Given the subject of this analysis, there are many instances where moral argument could be entered into. However, this analysis is an objective examination of the most effective and efficient means of quelling the violence that occurs in LIC.

Theoretical Approach

A theory, as defined by Kenneth Waltz, is “a mental picture of a domain – a picture showing how the domain is organized and how its parts are connected”.⁸ Waltz goes on to say that so as to “display important causes and effects, the picture has to omit most everything that goes on in [the designated domain]”.⁹ Much like a map of the Underground in London or the *Metropolitain* in Paris, theory ignores a great deal of what is reality, but nevertheless is of great assistance in navigating through an environment. Conversely if too much is added to the map, it becomes inoperative because essential elements are masked by less-consequential information. Herein lays the difference between theory and an account; an account incorporates less-consequential information. With an understanding of what constitutes a theory, it is possible to specify what theory or theories constitute the foundation of this research.

This research deals with how to end conflict. Barry Buzan and Eric Herring, in *The Arms Dynamic in World Politics*, argue that an answer to this question of ending conflict from a purely strategic studies perspective would focus on creating conditions that ensure successful outcomes from contacts with the enemy.¹⁰ This is one potential theoretical map for this research, but it is not the right one. War is not a self contained entity. As is indicated by Carl von Clausewitz, in *On War*, “[w]ar is not merely a political act, but also a political instrument, a continuation of political relations, a carrying out of the same by other means”.¹¹ Conflict cannot be solved by exclusively focusing on contacts with the enemy. Wars are fought over the political domination of territory. Wars occur so as to: (1) change the politics of an existing state; (2) enlarge an existing state; or (3) create a new state. If it is accepted that war is about changing a state, then politics must be an instrument of war as much as war is an instrument of politics. The idea that politics is an instrument of war is reflected in General Tao Hanzhang’s translation of Sun Tzu’s book, *The Art of War*. Tao states that “Sun Tzu believed [...] a military struggle was not only a competition between military forces, but also a comprehensive conflict embracing politics, economics, military force, and diplomacy”.¹² It is therefore an imperative that conflict, broadly speaking, be approached through a cohesive and inclusive politically based doctrine. More simply, this politically based doctrine should encapsulate politics,

economics, military force and diplomacy as strategic tools in ending conflict. This inclusive and cohesive politically based doctrine is, therefore, one of the major themes that link this research together.

There are a variety of reasons why state forces find themselves at war with non-state forces. First, conflict may arise over a request for autonomy that cannot be reconciled. This scenario has been an operational reality for the Russian Government and Armed Forces, which have been at war with Chechen insurgents who have demanded autonomy that cannot be granted due to certain political and strategic considerations. Second, conflict may occur in a post-invasion situation where interested actors within or outside the occupied state continue fighting in an irregular fashion. Such a situation occurred in Iraq, where American-led coalition forces were engaged by domestic and foreign insurgents. Third, conflict may occur in a state that has failed and when international forces set out to re-establish order in that state. In the early 1990s Somalia became a failed state when internal cohesion was lost; the United Nations forces that subsequently attempted to re-establish order in Somalia were engaged by various non-state forces. Notwithstanding the reasons that caused these situations to arise, there are characteristics in all of these cases that can be used as a basis for specifically tailored strategies, tactics and procedures that can be applied generically by counterinsurgency forces in LIC. It is these conflict resolving practicalities that this research is primarily concerned with.

It should be observed that this research is not concerned with how LIC arises. This research is concerned with the problems that insurgency creates for counterinsurgents and how counterinsurgents can best create peace where there is conflict. More specifically, this research analyses operational, tactical and strategic level actions by insurgents, the ramifications of these insurgent actions, and the most appropriate reactions and counter-actions to be taken by counterinsurgents in response to these insurgent actions. Just as humanitarian law is only concerned with means, this research is not concerned with the causes of LIC, but rather with the prudential issues involved in ending such conflict. The objective of this research was not to defend the actions taken by the counterinsurgents analysed, but rather to recommend effective courses of action that should be implemented by counterinsurgents operating in LIC. The analysis and coordination of these operational, tactical and strategic guidelines, that are

intended to be used by counterinsurgents in LIC, are the major thematic threads that bind this research coherently. The other thematic threads that bind this research are four doctrinal and ten military principles that are essential in counterinsurgency operations; these doctrinal and military principles are delineated below in the subsection entitled Thesis Outline.

It is also important to note at this point the reason why this research is defined as political science. Conflict or strategic studies is a sub-field of politics. In researching conflict, it is a misperception to extract the subject from the political realm within which it occurs. Basically, this research agrees with Sun Tzu's explanation of conflict being political, economic, diplomatic and military. Therefore this research was undertaken as political science and not purely as strategic studies. The reverse would remove the research from reality, making it abstract and of less value.

Methodological Approach

This thesis utilised the following qualitative research methodologies. First, thirteen domestic and international defence force personnel and academics were interviewed individually. Second, two group interviews were conducted with foreign defence force personnel. The individual and group in-depth interviews were tape-recorded, other than when consent to tape-record was withheld on the basis of military security. The recorded materials were transcribed verbatim. These transcripts were then analysed to extract information and ideas relating to policy, strategy, doctrinal concepts, defence equipment, systems and organisation. This analysis contributed to the latter five chapters. Third, a range of academic and military literature was collected and analysed. This included: (1) primary literature, such as government policy and defence force doctrine; and (2) secondary literature, such as published journal articles and books, to unpublished private documents. This combined approach adds validity to the research, through the sequential and continuous testing of LIC theories and assumptions.

This thesis also utilised a cross verification technique to substantiate the validity of the information used. This technique was required for two reasons. First, the information obtained in interviews can be subjective; interviewees may be conditioned by their environment, constrained by security issues, or give

overly sympathetic personal or organisational accounts when questioned. Hence, information collected in interviews was critically analysed, with reference to other interviews and information sources. For example, interviews were held with all three services of the Australian Defence Force, as well as the Australian Department of Defence. By interviewing personnel from all sections of the Australian Defence Organisation, cultural dissonance or bias was minimised. Second, documentary information obtained from governments, organisations or the internet can be subjective, inaccurate or wrong. Consequently, multiple sources of information were correlated, so as to ensure analytical accuracy. For example, when analysing the impact of Australia's future amphibious vessels, information was gathered from the internet, the vessels' manufacturer, newspaper articles and the Australian Defence Force. In so doing, the accuracy of individual articles of information was verified by other separate pieces of information.

Thesis Outline

As is indicated earlier, the thesis is divided into three sections. The initial section of this thesis contains three chapters: (1) the Russian Experience in LIC: Afghanistan and Chechnya; (2) the American Experience in LIC: Somalia and Afghanistan; and (3) the Iraq War of 2003: the Coalition's Experience in LIC. These conflicts have been analysed because: (1) within each there are aspects of LIC; and (2) they are contemporary. Phases of each of these conflicts correlate with LIC. Moreover, the analysis of LIC examines aspects of military capability that are in common with generic modern war. Furthermore, contemporary conflicts enable analysis of modern weapons, military structures, principles and strategies. Each of these chapters mentioned above has a dual function. First, each individual conflict is analysed separately. Second, lessons are drawn from each conflict. The lessons from each of these conflicts are then analysed collectively in the subsequent two chapters.

The central chapters of the thesis are a collection of normative realities and prescriptive requirements. The doctrine and military force chapters analyse and collate policies, procedures and tactics that have been proven in practice. The doctrinal chapter draws on empirical examples of LIC, including those analysed in the first three chapters of the thesis. The doctrinal chapter consists of two

sections: (1) the phases of LIC are analysed to enable a clear understanding of the subject; and (2) the principles for a successful counterinsurgency are examined. LIC is a complex and challenging form of war. Hence, the doctrinal chapter presents a comprehensive and task specific set of principles relevant to the containment of insurgency. The initial section of the chapter, structures the incomprehensible nature of LIC into a phased array of violence. The components of this phased array are as follows: (1) organisation (cadre/support); (2) terrorism; (3) guerrilla warfare; and (4) mobile operations. The significance of the phased array is that individual phase threats can be countered by precisely targeted strategies. In doing so, all aspects of the insurgency will be defeated. The latter section of the chapter outlines four principles that the counterinsurgent must apply in LIC. These principles include the control of international interference, the provision of internal security, the application of civil operations, and the installation of a unitary command. These four principles form a holistic approach to defeating an insurgency. This holistic approach is applied by four force elements: civil, military, police and intelligence. The purpose of uniting these four force elements is to gain the support of the civil population, who in turn will provide the intelligence required to defeat the insurgent. A prerequisite for this holistic approach is an Expeditionary Civil Service, or functional equivalent. The function of such an organisation is to ensure the civil elements are operationally effective and integrated with their military counterparts.

Military force is the core counterinsurgent element in providing security in LIC. Moreover, counterinsurgent military force has a dual purpose in LIC. The counterinsurgent's military force elements must concurrently overcome the insurgent and win the hearts and minds of the population. In accordance with this dual function, the military force chapter analyses and makes recommendations on the organisation of counterinsurgent forces. The military force chapter is based on the case studies of the thesis, and other empirical examples of LIC. The chapter analyses the following topics: doctrine; infantry; armour (armoured vehicles); artillery; helicopters; aircraft; command, control, initiative, communications and intelligence (C2ICI). The chapter also examines military principles that are critical for the counterinsurgent to apply in LIC and bind the aforementioned topics together. These military principles include: doctrinal precision, professionalism, independence, initiative, force precision, restraint,

combined arms, joint force, integrated communications, and accurate human intelligence. These principles and topics form the foundation of effective counterinsurgent military force in LIC.

The latter two chapters analyse the implications of LIC for the New Zealand and Australian Defence Forces. The chapters concomitantly make recommendations concerning the New Zealand and Australian Defence Forces' approach to counterinsurgency. The sections of these two chapters correlate with the core elements of counterinsurgent military force in LIC, as analysed in the doctrine and military force chapters. Some of these core elements of military force are as essential to conventional warfare, as they are in LIC. However, there are a number of sections in these two chapters that are distinct to LIC. These chapters conclude that the New Zealand and Australian Defence Forces are relatively effective in LIC. Due to the irregularity of LIC, however, there are a number of areas where both Defence Forces could improve their respective counterinsurgency capabilities. Principally, both Defence Forces need to: improve joint LIC doctrine; enhance command and control, communications and intelligence elements and processes; and direct more resources towards civil-military affairs. These requirements for capability development may be derived from the principles identified and analysed in the research.

Notes

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² Van Creveld, M. 2001, *Defence of Israel*, Rothberg International School, Hebrew University, Jerusalem.

³ Special Operations and Low Intensity Conflict, 2004, *The Special Operations Forces Posture Statement*, p. 9, Special Operations and Low Intensity Conflict, Department of Defense.

⁴ Special Operations and Low Intensity Conflict, 2004, *The Special Operations Forces Posture Statement*, p. 113, Special Operations and Low Intensity Conflict, Department of Defense.

⁵ Australian Army, 2002, *The Fundamentals of Land Warfare I*, p. 22, Australian Army, Canberra.

⁶ Smith, R. 2004, *Violence, Politics and Morality: Ethical and Political Issues in War and Peace*, Fourth Edition, Hillcrest Books, Hamilton.

⁷ Smith, R. 2004, *Violence, Politics and Morality: Ethical and Political Issues in War and Peace*, Fourth Edition, Hillcrest Books, Hamilton.

⁸ Waltz, K. 2004, 'Neorealism: Confusions and Criticisms', p. 2, *Journal of Politics & Society*, vol. 15, no. 1.

⁹ Waltz, K. 2004, 'Neorealism: Confusions and Criticisms', p. 2, *Journal of Politics & Society*, vol. 15, no. 1.

¹⁰ Buzan, B. & E. Herring. 1998, *The Arms Dynamic in World Politics*, Lynne Rienner Publishers, London.

¹¹ Von Clausewitz, C. 1943, *On War*, trans. O. J. Mathias Jolles, Random House, New York.

¹² Sun Tzu. 1993, *The Art of War*, trans. General Tao Hanzhang, p. 19, Wordsworth Editions Ltd, Ware.

Chapter Two

The Russian Experience in LIC:

Afghanistan and Chechnya

Imperial Russia, the Soviet Union and the modern Russian Federation have all faced the realities of Low Intensity Conflict (LIC) internally, on the periphery and at a distance. Thus, it would be inappropriate to ignore the Russian approach to counterinsurgency operations in LIC.

The Russian approach to counterinsurgency is dissimilar, but is converging with the Western approach. The Russian Armed Forces emphasise mass armoured mobility, overwhelming firepower and the widespread use of reservist troops. However, the capability of the Russian Armed Forces is degraded by on-going corruption and a lack of training and logistical capabilities.

Russia's two Chechen campaigns will be the focus of this analysis. However, these campaigns will also be compared to the Soviet intervention into Afghanistan. Central to this analysis is the question as to why the Soviets, and later the Russians, did not absorb the contemporary Western lessons of LIC learned after World War II.

The previous chapter introduced the major themes of this research. The principal research theme is to analyse, collate and present operational, tactical and strategic guidelines that can be used by counterinsurgent forces in LIC. This chapter is the first in a series of three case study chapters that form the basis for an effective theoretical approach to counterinsurgency operations in LIC. The principal research theme elucidated above is in itself a holistic combination of four elements of conflict. This derivation is in recognition of the four basic tools of warfare, that is to say politics, economics, diplomacy and military force. These four elements are therefore sub-themes of this research. These four tools (or sub-themes) are the means to achieving the four principles of counterinsurgency: the control of international interference, the provision of internal security, the application of civil operations and the installation of a unified command. These four principles are further themes that run through this research. It is important, however, to observe at this point that the major focus of this research is on the

actions of the armed forces of states (counterinsurgents) involved in LIC. This is not a prescriptive theory, as a whole-of-government approach to counterinsurgency is the most effective option. It is rather a normative reality; this is because armed forces are the principal actors involved in counterinsurgency. Given this primacy of armed forces in counterinsurgency operations, there are ten critically important military force principles that run through this research as a further thematic thread. These ten military force principles include doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence.

The structure of the following analysis is initially a historical chronology. This is designed to provide an understanding of the conflict's participants, processes and outcome. The chronology is divided into sections, which analyse a specific phase or operation within the conflict. At the end of each of these sections, initial implications are presented and examined. After each conflict is presented, general implications are highlighted and analysed. This general analysis is part of the foundation for the broad theoretical analysis of LIC, contained in part two of this thesis.

The Soviet's Afghan Intervention 1979 - 1989

The geopolitical imperatives that led to the 1979 Soviet invasion of Afghanistan are multifaceted and ambiguous at best. This chapter will briefly analyse the significant factors leading to the invasion.

The Soviet-Afghan entente of the 1970s was a product of the Krushchevian era. Beginning in 1954, Soviet policy toward Afghanistan was akin to that directed towards Turkey and Iran and was based overtly on benevolent civil projects. The policy's purposes were to undermine American containment, parry Chinese interaction, showcase the benefits of Soviet relations in the third world and reinforce Soviet spheres of influence. However, in July 1973 Mohammad Daoud overthrew King Zahir. Daoud attempted to assert greater national independence and limit Soviet influence. This rejection of Soviet suzerainty angered Afghan communists. Subsequently, Daoud was deposed in a bloody coup on April 27, 1978. This coup brought the People's Democratic Party

of Afghanistan (PDPA) to power. The PDPA was led by Nur Mohammad Taraki. However, internal division within the party caused Taraki, the leader of the majority group Khalq, to purge the party of the pro-Moscow minority group Parcham. Babrak Karmal, the leader of Parcham, took refuge in Eastern Europe. Subsequently, the domestic policies of Taraki caused the Mujahedeen insurgency. This led to the initial dispatch of Soviet military advisors to Afghanistan.

The PDPA remained divided, and in September 1979, Taraki was killed and replaced by the then Prime Minister, Hafizullah Amin. Amin's internal policy was characterised by rigorous application of force. This policy intensified Mujahedeen resistance and triggered a Soviet reaction. On December 27, 1979, Amin was killed and replaced by Babrak Karmal. This change came at the behest of the Kremlin, and effectively gave control of Afghanistan to the Soviet Union.¹

The subsequent decision to invade Afghanistan was caused by four primary factors. First, the Soviets were emboldened towards military intervention by two successful actions in the late 1970s: Angola's civil war and Ethiopia's annexation of the Ogaden. Both interventions incorporated direct and indirect Communist bloc support for the African regimes. Moreover, these Soviet actions were virtually unopposed, even rhetorically, by the West. Second, due to Western geopolitical weakness, the Soviet Union had established a degree of power parity with the West. Chairman Leonid Brezhnev used this power parity as a foundation for a more assertive Soviet foreign policy. This assertive policy was supported by the aggressive and mutually contentious Soviet intelligence agencies: the General Staff's Main Intelligence Directorate (GRU) and the Committee of State Security (KGB). Third, the 'Brezhnev Doctrine' obligated intervention in states where socialism was threatened. This doctrine had been formalised in a 1978 alliance between the Soviet Union and Afghanistan. Hence, the invasion was justified on the grounds of repelling "outside armed intervention".² Fourth, Afghanistan's geopolitical situation was destabilised by the replacement of the Shah of Iran with Ayatollah Khomeini. Consequently, it is suggested that the Soviet Union expected American intervention in Iran.³ This was an erroneous assumption, given the Carter administration's inactivity and rhetorical appeasement of the Tehran regime following the seizure of hostages at the American Embassy in Iran on 4 November 1979.

The final decision to invade Afghanistan was made by five or six men, including President Brezhnev, Dmitri Ustinov (Minister of Defence), Andrei Gromyko (Minister of Foreign Affairs), Mikhail Suslov (Head of the International Department of the Central Committee),⁴ and potentially Yuri Andropov (Head of the KGB).⁵ The decision to invade Afghanistan was made without the support of the Soviet General Staff. This was to the detriment of the Ministry of Internal Affairs (MVD), which was the organisation that provided most of the troops for deployment to Afghanistan. Moreover, the KGB only supported the invasion, due to coercion from the GRU.⁶ This internecine rivalry, between intelligence and military agencies, was to become a central feature of the Soviet-Afghan war. This rivalry greatly restricted intelligence collection and distribution, which contravenes the basis laws of counterinsurgency.

The initial Soviet invasion of Afghanistan was a conventional operation. The initial operation achieved complete surprise and occupied all strategic objectives within 48 hours. This preliminary success was followed by a decade of LIC. This eventually undermined the Soviet will to remain in Afghanistan.⁷

The Red Army in Afghanistan

The initial difficulty the Soviet military faced in Afghanistan was a complete lack of credible counterinsurgency doctrine. This was primarily due to a Soviet inability to see the conflict as anything but the defence of the revolution against Chinese or Western intervention. The reality was the people of Afghanistan despised socialist government.

Soviet doctrine employed in Afghanistan was a universal theatre concept of war. This doctrine made no distinction between the technology, tactics or scale of enemy operations. Furthermore, the doctrine did not emphasise the impact of topography, terrain, endogenous infrastructure and support, culture, class structure, temperature or weather in the theatre of operations. The doctrine viewed the Six Day, Yom Kippur, Ogaden, Lebanon, Falklands, Gulf, and Afghan wars as fundamentally comparable.⁸ This Soviet universal concept of war, and the ardent rejection of LIC as a concept, condemned the Afghan war to failure before it had begun.

Soviet planners were unwilling to accept that guerrilla operations could successfully defeat regular forces. This can partly be explained by the Soviet contempt towards the Afghans, both enemy and allied. The Soviets saw Afghans as “corrupt, backward, violent and uncivilised”,⁹ “whose main motive was greed and whose main modus operandi was treachery”.¹⁰ This was not a useful attitude, as it clouded Soviet judgement of the enemy. The Soviets contravened Sun Tzu’s principle of knowing the enemy. In terms of doctrinal principles, the Soviets were unable to create internal security because they lacked a unified command and they contravened the military force principle of doctrinal precision.

The Initial Invasion

The initial invasion used the conventional theatre war concept. Thus, airmobile, paratroopers and Spetsnaz (Special Forces) were used to seize logistic links, border areas and command, control, communication and intelligence infrastructure. Armoured and mechanised reinforcements then occupied the positions seized by the shock troops. This tactical success quickly degenerated into a frontless quagmire. There was no unity of command between Afghan and Soviet forces, nor unity of command between Soviet military, political and intelligence assets in theatre. Soviet doctrine prevented initiative, mobility and small scale offensive operations. Most Soviet forces in theatre were under equipped, poorly trained and predominantly Muslim. Afghanistan, as an area of operations (AO), was not sealed against foreign intervention. Significantly the enemy gained initiative and could choose the point of contact.¹¹

The Soviet troops deployed in Afghanistan came mainly from the Soviet Central Asian republics. Since the Central Asians were predominantly Muslim, Moscow assumed the Afghans would receive these soldiers positively. The Soviet troops were advised to expect a foreign enemy, American or Chinese. This was not the case. Instead the enemy was indistinct and in many ways culturally identical to the Soviet Central Asians. Consequently, the Soviet Central Asian Muslims, serving in the Red Army, began to associate with the Mujahedeen. Moreover, due to general financial hardship, poor living standards in-theatre and low morale, Central Asians in the Red Army began supplying weapons to the Mujahedeen.¹²

Due to the lack of Soviet counterinsurgency doctrine, concepts of small unit mountain and desert warfare had been neglected. Soviet equipment was ineffective in Afghanistan's harsh weather conditions, even though these conditions are in common with the former Soviet republics of Uzbekistan and Tajikistan. Afghanistan lacked roads, maintenance and health facilities. Significantly, the Soviet logistics train could not sustain basic support, like food and water, for the troops in Afghanistan. Soviet tactical mobility was hampered by the lack of roads and tactical airlift in theatre. Thus, surprise and deception, core components of Soviet strategy were surrendered to the enemy.¹³

The conflict was promoted as a popular defence of communism, against a capitalist or Chinese threat. Due to this ideological spin, inadequate training and lack of counterinsurgency doctrine, Soviet soldiers were in a perpetual state of surprise, relying on and repeating basic and outmoded techniques. The Soviet's so-called Afghan 'allies' also provided the Mujahedeen with Soviet manuals, and information on Soviet tactics. Hence, the enemy was able to learn and then anticipate Soviet tactics. Moreover, Soviet doctrine espoused armoured reconnaissance, surveillance and actions, and initially discouraged air mobility and strike. These tactical concepts, in mountainous Afghan terrain against a determined enemy, caused heavy casualties. In one such incident an entire motorised battalion was destroyed in an ambush.¹⁴ In counterinsurgency, small unit operations are critical. These small units must be highly independent, highly trained, invested with authority and trusted to use it, and prepared to take the initiative. Thus, sergeants and corporals are the leaders of counterinsurgency war. A lack of training at this level will cause discipline, self-confidence and faith in superiors to degenerate. Consequently, operational stagnation rather than enterprise will develop.

The majority of regular Soviet troops in Afghanistan were reservists or conscripts, with a low standard of training. Troops were also sent to Afghanistan as punishment, or volunteered due to a sense of bravado. These motivations are highly destructive to the effectiveness and cohesion of military units, especially in a small unit counterinsurgency role. In addition, Soviet non-commissioned officers (NCOs) were rotated often and received limited training. The lack of capable NCOs reduced unit cohesion. Soviet officers were often attracted to Afghanistan by financial inducements and unwarranted career advancements.

Hence, there was a lack of professionalism and determination among Soviet forces in Afghanistan. Alcohol and drug abuse, ethnic rivalry, poor living conditions, insufficient medical care, isolation, smuggling and widespread corruption were also synonymous with Soviet operations in Afghanistan. These factors reduced morale, discipline, and military effectiveness, and resulted in excesses being perpetrated against the populous.¹⁵

Elite Soviet troops (including airborne, reconnaissance and Spetsnaz) in the Afghan theatre were not afflicted by the same deficiencies that applied to the regular troops. All elite troops were highly trained or received augmented training. Although regular troops operated in a conventional role, elite troops performed the Soviet equivalent of counterinsurgency operations. Elite troops conducted raids, infiltration, mining and disruption operations, which proved highly effective against the Mujahedeen.¹⁶

Critical to a successful counterinsurgency are politico-military operations, otherwise known as 'hearts and minds' or Civil-Military Affairs (CMA) operations. These operations target the critical vulnerability or centre of gravity within LIC, that is to say the population. Conceptually, the legitimacy of the government is being fought for, and the insurgent is attempting to undermine this legitimacy. The objectives of CMA operations are: (1) to gain the support of the population; and (2) reduce population-based support of the insurgent. The Soviet invasion initially weakened the Afghan people's respect for the Afghan Government, as the government was unable to independently provide security for the people. The Soviets weakened central government control further by bombing and menacing rural areas and attempting to starve the dissident population. These actions forfeited any remaining support the government had in rural areas. Basically, the Soviets provided the Mujahedeen with support, through violence.¹⁷

In terms of doctrinal principles, the Soviets did not establish a unified command, seal the theatre of operations from international interference or undertake civil operations. The infringement of these doctrinal principles was further compounded by the Soviet contravention of certain military force principles, which are critical to counterinsurgency operations. Specifically, the force deployed was largely incompatible with the task of counterinsurgency. Many of the personnel deployed were not professional soldiers, and therefore lacked the capabilities needed to operate effectively in counterinsurgency operations. The

problem of force imprecision was exacerbated by doctrinal guidelines that prevented these non-professional personnel from acting with initiative and independence. Hence Soviet military commanders were left with only a small cadre of professional personnel (airborne, reconnaissance and Spetsnaz), able to operate with initiative and independence, who could undertake true counterinsurgency operations.

Reclaiming the early Initiative with Airpower

To overcome the aforementioned problems, especially the lack of operational and tactical mobility, the Soviets began to rely upon operational and tactical airlift and air-strike. The application of airborne warfare enabled the Soviets to bring greater force, in terms of troops and ordnance, to bear at the point of contact. Soviet strategy had again secured the initiative, and at the time, the Mujahedeen had no effective response. However, in theatre, air assets require guarded airbases and approaches, and require significant logistic support. Thus, combat troops had to be assigned to the static defence of infrastructure. These critical infrastructures became fortified and reliant on air re-supply. Thus, strategic, operational and tactical airlift and land transport became essential to Soviet strategy.¹⁸

Initially, Soviet air operations were highly successful, almost defeating the Mujahedeen between 1984 and 1986. However, this effectiveness generated apathy towards the development of innovative operational concepts. This conceptually insular approach undermined the resilience of the Soviet strategy in Afghanistan. Conversely, the success of Soviet air operations forced the Mujahedeen to seek effective countermeasures.

The Central Intelligence Agency (CIA) and the Pakistani Inter-Services Intelligence (ISI) Agency attempted to provide the Mujahedeen with an anti-aircraft capability. Initially, the Mujahedeen was supplied with the commercially available British Blowpipe surface to air missile (SAM). This however was a marginally effective weapon, and attempts to train the Mujahedeen with this weapon ultimately failed. Consequently, the American Stinger SAM was supplied to the Mujahedeen in 1986. This action officially signalled American involvement in Afghanistan. Blowpipe and Stinger are both man-portable systems, weighing 12.7 and 15.8 kilograms respectively. Stinger is an all-aspect,

fire-and-forget passive infrared guided missile, while Blowpipe is an optically guided missile. The inherent technological superiority of the Stinger accounts for its effectiveness in Afghanistan.¹⁹ The consequence of Mujahedeen employment of effective SAMs was that the Soviets lost the freedom of airborne manoeuvre. Fundamentally, the interdiction of Soviet air operations basically defeated the Soviet forces in Afghanistan.

The lessons learned from Soviet air operations in Afghanistan are as follows. Air operations are essential for a counterinsurgency, where instantaneous force must be brought to bear upon elusive targets. Most significant are air assets that can loiter upon the battlefield. To remain on station, fixed and rotary wing aircraft must be equipped with an electronic warfare (EW) suite, onboard infrared (IR) and radar jamming capabilities. In addition, all-aspect signature-suppression (noise, radar and heat) is essential for aircraft endangered by SAMs. Fixed wing aircraft provide immediate force, with little warning and can survive battle damage. Troop-lift helicopters enable infantry to be deployed and extracted. This capability is indispensable in a counterinsurgency. However, arming such helicopters is a mixed blessing. The armament provides force multiplication, at little cost upon a known airframe. However, such aircraft are generally slow, less manoeuvrable, less armoured and less technologically advanced than specifically designed helicopter gunships. Gunships can escort transport helicopters, providing force protection in flight and field suppression when the transports are embarking and disembarking troops. A gunship's armour, manoeuvrability and technological edge all increase survivability in hostile environments. This enhanced survivability improves accuracy, discrimination and reduces collateral damage.

Combined Arms

Afghanistan forced the Soviet Union to develop combined arms strategies and tactics more suited to counterinsurgency operations in LIC. This is a critical lesson to learn from the Soviet experience in Afghanistan. Soviet strategy emphasised firepower and force protection over mobility. Thus, heavy armour was deployed in mountainous terrain with disastrous results. The ineffectiveness of armour was primarily due to a lack of combined arms operations and tactics.

Soviet troops did not disembark when engaged, even when enemy positions were exposed. Ground reconnaissance was ignored, high ground was forfeited. Hence, armour and soldiers were lost.

Consequently, the use of armour declined. Armour was replaced as a primary combat unit by airborne assault and combat element, motorised rifle units, and Spetsnaz troops. In addition, anti-sniper mountain units were also formed. Smaller scale infantry sweeps were supplemented with the use of Airborne Infantry Fighting Vehicles (BMDs). The BMD provided greater ground mobility to field elements, as these vehicles were more manoeuvrable than other armour. In addition, anti-aircraft (AA) guns were fitted to armoured units, so as to provide enhanced field suppression. Howitzers and Multiple Rocket Launcher Systems (MRLS) were also concentrated in fire bases. This augmented the indirect fire available to mobile forces. Small mountain artillery, heavy mortars and Automatic Grenade Launchers (AGS-17) were decentralised among field elements. This decentralisation improved the organic firepower available to combat troops.

In valleys, inhabited areas and where Command, Control, Communications and Intelligence (C3I) assets were stationed, the Soviets maintained a static defence. However, static defence reduced the number of personnel available to patrol. Hence, large areas of Afghanistan were conceded to the Mujahedeen. So as to reassert influence in Mujahedeen controlled areas, the Soviets bombarded rebellious cities, scattered mines and booby traps. These actions crystallised the population's support for the Mujahedeen.

Nevertheless, between 1982 and 1984 the Soviet military gained the initiative. Soviet operations included sophisticated search and destroy missions, smaller scale ground operations and extended ground and airborne sweeps of cities. This strategy was heavily reliant on the unhindered use of airborne mobility and combat assets. However, reconnaissance was neglected, especially that based around infantry. The Soviets were effective in Afghanistan until their airborne operations were interdicted. This interruption began in 1984. Initially, the Mujahedeen began to deter airborne operations with the SA-7 SAM. However from 1986 onwards, the use of Western air defence systems including Blowpipe, Stinger and the 20mm Oerlikon-Buhle AA cannon, significantly undermined Soviet action.

Heavy armour, such as the T-55/62/72 and the Infantry Fighting Vehicle (BMP) proved to be ineffective in Afghanistan's mountainous terrain. Light armour, notably the highly manoeuvrable BMD, was more effective. Wheeled vehicles, such as the Armoured Personnel Carrier (BTR) were not suitably manoeuvrable or armoured for many operations. The most significant impediments and risks to armour were; (1) lack of visibility; (2) engine overheating problems; (3) poor maintenance; (4) the propensity of tracked vehicles to lose their tracks in harsh terrain; and (5) the inability of armour to operate without air cover. Significantly in mountainous terrain, most tank and BMP main guns could not be aimed at enemy positions. This was due to a constrained firing envelope. Simply, the elevation and depression ranges of the weapons were limited. Later, chain guns, AA guns, AGS-17 grenade systems and Anti-Tank Guided Missile (ATGM) systems were fitted to armoured vehicles. These weapons were more versatile, as their firing envelope was less constrained. The first three aforementioned weapon types were effective at saturation fire, which caused more casualties than aimed fire. Alternatively, ATGMs were useful against fortified targets.

The two most important Soviet combat air assets were the Su-25 fighter bomber and the Mi-24 armed helicopter. These aircraft were: (1) highly armoured and armed; (2) able to loiter over the target; and (3) had airspeeds low enough to engage small scale targets. Older helicopters such as the Mi-4 and Mi-8 were used as C2 battle managers, increasing the battle effectiveness of the air strike assets. Early Soviet helicopter tactics were rigid and put aircraft and their crew at risk. Subsequently, pop-up and terrain hugging tactics were improvised by Soviet pilots. This improved survivability and accuracy. However, Soviet helicopters were less able to perform these tactics compared to Western helicopters, due to poor manoeuvrability. Decentralised control also improved Soviet airborne operations. For example when Mi-24s were employed as convoy defenders, decentralised control enabled their pilots to take the initiative. Embarked assault troops could be deployed to control the high ground over the convoy routes. These Soviet tactics markedly decreased the ability of the Mujahedeen to ambush convoys.

This section illustrates that combined arms and joint operations are critical in counterinsurgency. In addition, tactics and equipment must be matched to the

operational environment. Wheeled BTRs were unsuited to mountainous combat. This was due to poor manoeuvrability and deficient armour. BMPs and tanks were also operationally impaired by the mountainous terrain, but to a lesser degree. BMDs were most suited to Afghan conditions. Although, they required the combined arms protection offered by dismounted infantry and indirect fire support. Heavy artillery and MRLSs centralised in firebases were significant, due to their ability to provide support for mobile operations. When the Soviets exploited these tactics, operations were more effective. This was especially so when airborne manoeuvre was utilised. High ground, reconnaissance, training, tenacity and resourcefulness were key concepts in effective Soviet operations. Suppression was also an important aspect of Soviet operations. As indicated earlier, medium-calibre rapid-fire weapons were highly effective in providing suppressing fire. These systems were predominantly deployed on armoured units, in a supportive field saturation role. As was demonstrated by the Soviets in Afghanistan, joint operations improve operational effectiveness. Soviet land force elements were most effective when provided with airborne mobility and cover. However to be effective, air and land integration was critical. In addition to land force elements, tactical fighter bombers and helicopters were relied upon to perform surveillance and reconnaissance missions. In addition, command and control (C2) aircraft and helicopters were essential to relay this information to combatant units. Airborne C2 was especially important in Afghanistan, as the natural environment restricted ground-based forms of communication.

Planning from Intelligence

The lack of strategic and timely tactical intelligence undermined the Red Army in Afghanistan. This situation was created by: (1) mutually obstructive intelligence agencies; and (2) corruption. This situation was exacerbated further by a scarcity of troops able to instantaneously react to intelligence and a lack of delegated authority.

The initial invasion of Afghanistan was impeccable planned and executed. However, planning had not included counterinsurgency and pacification missions. Thus, the Mujahedeen gained the initiative. The lack of contingency planning has been a deficiency in Russian operations since the days of the Czar. The Soviets

should have learned the importance of contingency planning from the 1973 Yom Kippur war. In this conflict, the Egyptians crossed the Suez Canal, taking Israeli field elements unaware and without an immediate means of defence. The Egyptians then stopped, as per instructed by their Soviet war plans. This relinquished the initiative to the Israelis, who proceeded to defeat the Egyptian Army. Similarly, Czarist war plans did not extend past the initial cavalry charge or infantry assault. Helmuth Graf von Moltke, a nineteenth century Prussian general, stated that 'no war plan survives initial contact with the enemy'. This statement however does not imply that contingency planning should not occur. This example indicates contingencies must be planned for in advance. This is important because commanders must have the resources to react effectively in unexpected situations.

At a tactical level, indigenous and Soviet field operatives were often successful in gathering intelligence in Afghanistan. However, the interpretation and dissemination of raw intelligence was deficient. Bureaucratic filtration and politicisation of information further debilitated the organisationally isolated flows of intelligence in Afghanistan. Basically, the GRU, KGB, Ministry of Defence (MoD) and the Ministry of Foreign Affairs (MFA) operated in isolation. The Afghan Intelligence Service (KHAD then WAD) was also ineffective. KHAD/WAD staff loyalties were questionable; often intelligence was supplied to the enemy. Moreover, clan rivalry further diminished the Soviet's faith in Afghan information.²⁰

The initial effectiveness of Soviet Signals Intelligence (SIGINT) was very limited. This was because the Mujahedeen had few electronic communications assets. The collection of Photo Intelligence (PHOTINT) was partially successful. This was primarily due to low-level tactical reconnaissance by airborne units. However, the introduction of the Stinger hindered this method of intelligence collection. Electronic Intelligence (ELINT) was irrelevant in Afghanistan, due to the absence of electronic emissions. Conversely, Human Intelligence (HUMINT) was critical in Afghanistan. The Soviets had significant informant nets, and so did the Mujahedeen. However, the Soviets lacked real time correlation analysis that could turn intelligence into targets. Correlation analysis is equivalent to mosaic theory; where disparate and, potentially false information is evaluated simultaneously to create complete and reliable intelligence, in real time. This

process requires advanced communications assets. These communications assets: (1) collect information from dispersed sources; (2) provide the information to a C2 facility, which performs the correlation analysis; and (3) disseminate usable and reliable intelligence to appropriate units.

This section indicates the significance of HUMINT in counterinsurgency. PHOTINT is secondary, but still significant. Strategic intelligence must be gathered prior to the deployment of combat troops, so that appropriate forces can be assembled for the correct type of war. Mutually antagonistic, self promoting intelligence agencies will undermine their own existence. Integrated, personnel focused, mutually supportive, decentralised structures are ideal in LIC. Moreover, raw intelligence is ineffectual without: (1) real time correlation analysis; and (2) combat forces that can react to the information promptly.

Command, Control, Communications and Surveillance

Soviet Command, Control, Communications and Surveillance were undermined by Afghanistan's terrain. Soviet C2 was gradually decentralised following the initial invasion. This better enabled greater initiative in small scale, combined arms and joint operations. For example between 1984 and 1986: (1) elite force operations were highly successful; (2) indirect fire support was more mobile and immediate; and (3) combat air support was highly effective. However, large scale, regular troop operations and passive base defence continued. The tempo of these operations was constrained and so was any combat initiative. After 1986, Mujahedeen proficiency with air defence systems caused three significant changes in Soviet strategy. First, C2 was centralised. This caused low tempo, large and basically ineffective operations. Second, helicopter support for ground operations was restricted. Third, strike aircraft were forced to fly high, reducing their effectiveness.

The centralisation of planning and C2, effectively inhibited Soviet troops from reacting to tactical intelligence. In addition, the Soviet neglect of proxy militias also inhibited the use of intelligence. Militias were not inclined to act on the basis of intelligence, due to the fear of inciting an enemy reaction and then being abandoned by the Soviets.²¹ This section illustrates that decentralised C2 is critical in counterinsurgency. However, decentralised C2 must be supported by

mobile combat units. Furthermore, these mobile combat units require timely and accurate intelligence to guide their operations.

In terms of doctrinal principles, the Soviets attempted to employ military force as a counterinsurgency panacea. The Soviets gradually improved their military capabilities, including joint force, combined arms and communications. Despite these improvements in military capabilities, the Soviets were unable to provide adequate internal security, control international interference, create a unified command, or apply civil operations. In terms of the final point, Soviet military operations were so injurious of the civil population that the population became the enemy of the counterinsurgent. At a strategic level, the Soviets failed to unify the intelligence and military capabilities that were deployed in theatre. Furthermore, the Soviets did not effectively apply the political, diplomatic and economic tools that are essential in warfare.

The Russian Intervention in Chechnya 1994 – 1996

Russian operations in Chechnya have consisted of both urban and mountain campaigns. Most significantly, however, Military Operations in Urban Terrain (MOUT) have predominated. As noted earlier, the initial Soviet invasion of Afghanistan was a superbly orchestrated surprise. Significantly, Afghanistan's urban terrain was occupied within the first days of war, against negligible resistance. However, the Soviets lost control of rural and mountainous terrain to the Mujahedeen. Initial Russian expectations, tactics and strategy employed in Chechnya, were a product of the initial occupation of Afghanistan's urban areas. The Russian Government and Armed Forces believed Chechen urban areas would be seized with ease, as occurred in Afghanistan. Moreover, it was assumed that a show of force would subdue unruly enemy irregulars. Realistically, however, the Chechen insurgents had over three years to prepare for the Russian intervention. Defensive Chechen preparation occurred between the Chechen leader, General Dzhokhar Dudayev's, declaration of independence in November 1991 and the inevitable and much heralded Russian intervention in December 1994. This preparation made the weaknesses of the Chechens irrelevant, and disabled Russian strengths by selecting fortified, urban terrain as their battlefield.

Strategically, Chechnya is as vital to the Russian Federation as to the Chechens themselves. There are four major reasons for this. First, national cohesion was at stake for the Russians. The independence of Chechnya could have encouraged other segments of the Russian Federation to secede. Potential threats to Russia's internal cohesion existed: (1) within Russia's North Caucasian autonomous areas of North Ossetia, Ingushetia and Dagastan; and (2) within Russia's central autonomous areas of Tatarstan and Bashkortostan. Second, Russian security could have been threatened by the destabilisation of Russia's near abroad. If Chechnya became an enclave for Islamic extremists, the trans-Caucasian states of Georgia, Armenia and Azerbaijan may have fallen to Islamic extremists. Third, a major financial and strategic asset was in jeopardy. The Baku (Azerbaijan) to Novorossiysk (Russian Federation) oil pipeline was threatened. Fourth, the security of the ethnic Russians in Chechnya was threatened. These four reasons mandated the Russian response.

The Russian forces deployed were unsuited to MOUT. Furthermore, Russian forces exhibited manifestly similar limitations in tactics, operational thought, training and weapons, as was apparent in Afghanistan. However, in rural and mountainous terrain the Russian army effectively implemented the lessons learned in Afghanistan. Subsequently in the second Chechen war, Russian forces improved their approach to MOUT by incorporating tactics acquired in the first Chechen war.

Doctrine, Strategy and Tactics

The lack of counterinsurgency doctrine applicable to LIC once again undermined the Russian military and claimed the lives of many Russian soldiers. Russian military thought concerning conflict in urban terrain was based in the context of a European war. In this context, it was expected cities would not be subjected to conflict. This idea was based on the assumption that the North Atlantic Treaty Organisation (NATO) states would rather concede their cities freely, rather than having them destroyed in combat. The disregard for urban combat was widespread among Soviet military planners by the early 1980s. The lessons of World War Two and intense study of urban warfare in the subsequent two decades had been lost. By 1994 there were no troops within the Russian armed

forces specifically trained for urban warfare. Accordingly, the Russian urban strategy was essentially a display of force, as conflict was not expected. Essentially, the Russians were planning for the previous war. The Russians should have considered their own tenacious and bloody defence of Leningrad, Stalingrad and Moscow, and obstinate German resistance demonstrated in Cherbourg, Konigsberg and Berlin.

Due to these erroneous expectations and the consequent false sense of security, Russian forces had failed to blockade or reconnoitre Grozny. Hence, Russian forces lacked reliable intelligence. This problem was aggravated by land force commanders, who preferred aerial reconnaissance over Grozny, rather than risking their own troops in Grozny. Furthermore, poor weather limited these airborne reconnaissance operations, which are inherently not well suited to surveillance over complex terrain. Consequently, Russian forces lacked intelligence and dispensed with contingency planning almost entirely.²²

Columns of Russian tanks and BMPs entered Grozny on 26 December 1994. Many of the BMPs were operating without embarked troops. Moreover, this ingress was 20 days behind schedule. This armoured thrust into Grozny occurred after: (1) three abortive coups de main by pro-Moscow forces in Grozny; and (2) a combative ingress into Chechnya by the Russian forces. Hence surprise had been lost. Grozny was the known target of Russian actions, and had been turned into a fortress. Moreover, this fortress was defended by the Soviet trained, highly motivated Chechen insurgents. These fortifications and tenacious urban tactics should have been expected by the Russians. This is because they were utilised in the previous conflicts, between loyalist Chechen militias and the Chechen insurgents. The Russian forces entering Grozny had been hurriedly cobbled together, from minimally trained disparate forces. This was a consequence of many Russian battalions being at approximately half strength. In addition to this lack of defence force cohesion, troops from the MVD and Federal Security Service (FSB) were combined with MoD troops. Moreover, tanks were not supplied with machine gun ammunition, BMPs were operated without full complements of crew and embarked soldiers. Those embarked soldiers sent into Grozny, were themselves occasionally without even weapons. Thus, the initial assault on Grozny was repulsed, with the loss of 105 of the 120 armoured vehicles which entered the city.²³

This initial action against Grozny indicated six critical lessons for the Russians. First, cities must be isolated. Second, effective infantry reconnaissance is essential. Third, the occupation of key positions on the outskirts of cities requires pre-emptive artillery bombardment. Fourth, sectors of cities must be taken sequentially. Fifth, all insurgent positions must be cleared of troops and residual weapons. Sixth, collateral damage is a significant consideration in modern conflict. Some of these factors were effectively internalised by the Russians. However, the high turnover of conscripts in the Russian forces meant skills continually had to be relearned.

In terms of military principles, the Russians again lacked a coherent doctrine applicable to counterinsurgency operations. The Russians also initially failed to conduct effective combined arms and intelligence gathering operations. As in Afghanistan the Russians deployed a principally non-professional force that was imprecisely structured for the conflict in Chechnya.

Chechen Strategy and Tactics

Chechen insurgent operations were based upon highly independent squads, applying close-quarter anti-armour tactics. The Chechen utilisation of urban terrain was a product of the availability of weapons. The small arms and man-portable support weapons available, suited urban terrain. Furthermore, these tactics in urban terrain undermined Russian mobility and firepower. The lack of dismounted infantry support for the initial Russian armoured columns suited Chechens tactics perfectly. Chechen insurgent squads were made up of an antitank gunner with a RPG-7 or 18, two riflemen with AK-47 or derivatives and a sniper. These squads could move with relative impunity within Grozny's infrastructure.

The combination of three such squads equated to the main force elements of a 25 man cell. Each cell was supplemented by medics, logistics personnel, litter bearers and, predominantly Dragunov 7.62mm (SVD) armed, snipers. Three 25 man cells combined to form a 75 man unit, with attached mortar team. The mortar teams, and certain other units (SAM and some RPG), were mechanised (in modified cars). This mechanisation reduced the chance of Russian counter-fire.

The basic Chechen tactic involved numerous squads concentrating around Russian columns, so as to achieve situational superiority. The antitank gunners would aim to disable or destroy the lead and final armoured vehicle in the column. Hence, the remaining armoured vehicles became trapped. The sniper and riflemen could either eliminate supporting infantry, or pin down large Russian forces making them vulnerable to antitank fire. Chechen tactics also relied upon decentralised control. Chechen cells were either alerted by the sound of advancing armour, or basic communications via Nokia and Motorola hand-held radios.

The Chechens had also acquired a few T-62 and T-72 tanks, BTR-70, BM-21 multiple rocket launcher systems and antitank cannon. These direct fire weapons were either deployed behind defensive berms or within buildings. Such tactics enabled surprise and had high propaganda value when news crews showed Russian forces firing on 'civilian buildings'. The porous blockade of the city further hindered Russian operations. Chechen reinforcements, supplies and wounded were able to move within, and to and from, the city.

Chechen operations indicate that the combined use of basic weapons, such as the AK-47, RPG and sniper rifle, can be highly effective in urban combat. Furthermore, urban fortification can drastically multiply the combat power of defensive units. Future insurgents, if confronted with poorly defended armour, will surely endeavour to exploit the aforementioned tactics and weapon systems. Moreover, counter-communication is important in LIC. The counterinsurgent must jam cellular and radio communications.

Russian Infantry, Armour and Direct Support Weapons

The embarked infantry in the initial assaults on Grozny were poorly trained conscripts, who were instructed to fight from within their BMPs. However, embarked infantry could not engage the Chechens because: (1) they could not identify the insurgents hiding within buildings; and (2) they could not fire upon the enemy as the arc of fire from within the BMPs was limited. Similarly, the tank crews could not bring their main guns to bear upon the insurgents. This was due to the restricted depression and elevation envelopes of the main guns.^A This

^A Main Gun Elevation (°) T-72: -6 to +14 T-80: -7 to +20 BMP-2: -5 to +74

situation was exacerbated by the Chechen propensity to fight from basements and elevated floors. Moreover, the Russian tank crews could not adequately defend themselves with machine gun fire, as the Chechens presented simultaneous, scattered targets. Furthermore, tests at the Kubinka test range showed that if the tanks had been fitted with their reactive armour, fewer would have been lost to RPG rounds.

As was the case in Afghanistan, Russian units lacked adequate junior officers or NCOs. Furthermore, training had reduced since the fall of the Soviet Union. Supplies and operational funding had also dissipated. The MoD, MVD and FSB had severe problems working together. Cohesion between the various arms of the said agencies was also poor. Commanders and procedures of the aforementioned agencies were numerous. There were also many conflicts between these organisational protocols and personnel. This caused intelligence blocks, divergent planning, operational confusion, and caused friendly fire incidents.

In response to the initial losses, Russian tactics evolved. Dismounted infantry was given the primary role of retaking Grozny, supported by armour. The armour was fitted with reactive armour. Furthermore, ZSU23-4 and ZSU-2S6 tracked and armoured anti-aircraft guns augmented mobile field units. These weapon systems were capable of high rates of suppressing fire, and possessed less restrictive firing envelopes.^B In addition, armoured vehicles were supplemented with protective wire cages. These cages were fitted 25-30 centimetres proud of armour hulls, so as to ameliorate the threat posed by shaped charges. Hence, the risk presented by RPG-7 rounds, Molotov cocktails and bundles of anti-tank grenades and explosives was reduced. When stationary, Russian armour would be protected by previously destroyed armoured vehicles, sandbags and other battlefield debris.²⁴

As the conflict continued, naval infantry and Spetsnaz units were deployed to Grozny. These units were trained in urban warfare, and were highly effective in Grozny. These forces were also better equipped than the conscripts they replaced. Significantly, night vision equipment and specialist training enabled night reconnaissance, rescue and assault. The Russians also reduced the size of

^B Main Gun Elevation (°) ZSU-23-4: -4 to +85 ZSU-2S6: -10 to +87

deployed combat units. This promoted greater operational freedom in battle. In addition, the firepower of infantry units was substantially increased with supplementary flame throwers, RPGs, AGS-17s and RPO-A thermobaric rocket launcher systems. Specifically trained MVD and FSB snipers were deployed in Grozny to supplement the under-trained MoD snipers. Secure communication techniques were also improved.²⁵ Russian artillery became more effective with greater planning and communications. This allowed for the increased use of white phosphorous rounds to incapacitate insurgents and cover friendly movement. However, attempts to create combined assault groups were ineffective. This was due to low unit cohesion and the lack of prior combined arms training. A further problem for the Russian soldiers was the ability of Chechen combatants to blend into the non-combatant population.²⁶

This section clearly illustrates that infantry are central to effective urban combat. Armour is only effective in a support role, and if possible should be fitted with reactive armour. In addition, an improvised cage can provide some supplementary protection. Firing envelopes are a critical consideration in urban terrain. Main guns must be able to depress and elevate sufficiently to fire on targets in basements and upper floors of buildings. Thus, the broad firing envelope and high rates of suppressing fire provided by armoured, self-propelled AA guns is highly effective in urban terrain. A shortage of funding, supplies or training, especially for NCOs and junior officers will severely reduce unit cohesion and combat effectiveness. Professional soldiers, with a high degree of urban training are crucial to operations in urban terrain. Moreover, night reconnaissance and assault are significant capabilities these soldiers should possess. The firepower of urban troops must also be supplemented with weapons systems analogous to flame throwers, RPGs, AGS-17s and RPO-As. The latter is particularly capable of neutralising sniper threats.

Russian Aviation

As in Afghanistan, the Mi-24 attack helicopter provided effective close air support (CAS). However, helicopters were vulnerable over Grozny until appropriate tactics were developed. These tactics involved the helicopters using the urban terrain. Simply, helicopters could advance below the cityscape to safe areas

behind friendly buildings, then 'pop up' to fire on the target before hiding again. Precision Guided Munitions (PGMs) were also highly effective in Grozny. Unmanned Air Vehicles (UAVs) presented an effective technical answer to the Russian problem of gaining real time intelligence. UAVs, while expensive, enabled situational awareness without risk.

Initially, Russian aviation assets were utilised to gain air control over Chechnya. On 1 December 1994, Russian combat aircraft destroyed 266 aircraft based in Chechnya. Although half of these aircraft were in a state of disrepair, the remainder were being readied for combat in November 1994. The threat these mostly antiquated trainer aircraft posed, was primarily unconventional. The aircraft were being readied to act as piloted cruise missiles, utilised against civilian infrastructure in Russia. The Russians were also successful in isolating Chechnya from air re-supply. A-50 Airborne Warning and Control Systems (AWACS) and MiG-31 interdiction fighters denied the potential for external air links.²⁷ Chechen C2, communications and other key infrastructure were not destroyed in the Russian preparation of the battlefield. This potential failure was attributed to deficient planning and intelligence.²⁸ However, Russian forces may have planned to occupy these facilities for their own use. This occurred in Afghanistan, and would seem consistent with Russia's initial Chechnya strategy.

The Chechen antiaircraft threat was not insignificant in the first Chechen war. The Chechens possessed ZU-23 anti-aircraft cannon, DShK machine guns, and utilised RPGs in an improvised antiaircraft role. In addition, ZSU-23-4 self-propelled antiaircraft guns, SA-14, SA-18 and Stinger SAMs were potentially in the possession of the Chechens. These systems, and small arms fire, partially suppressed Russian helicopter operations. Chechnya's partially mountainous terrain and poor flying conditions further degraded helicopter operations. The Russian's attempted to reduce the risk posed by Chechen air defences with complicated target approach manoeuvres, high speed, low level approaches, complex attack formations and mutual covering fire. These tactics were partially effective. However, they could not make up for the antiquated Russian equipment, weapons and limited pilot training. Consequently, each sortie resulted in 10% loss and 25% damage of participating aircraft.²⁹ A significant issue for the Russians in Chechnya was obsolete equipment; the Mi-24, Mi-8 and Mi-6 helicopters were so designated by their crews. More modern or upgraded

helicopters, such as the Mi-8MTV2/3 and Mi-26, performed well in Chechnya. However, there was a need for gunships like the Ka-50 or the Mi-28, which can locate and engage targets from a safe distance, at night and in any weather.³⁰ There were six significant operational lessons learned from helicopter CAS operations in Chechnya. First, enhanced target acquisition and PGMs are required to reduce collateral damage. Second, pilot proficiency is central in alleviating risk and improving capability. Third, the provision of ground based intelligence is critical for helicopter operations, especially around fortified villages. Basically, helicopter gunships are becoming too vulnerable to operate in some environments independently. Rather, helicopter gunships should support land force elements. Fourth, the intelligence provided by UAVs can be effectively utilised by helicopters. Fifth, night operations functionally dislocated the Chechens insurgents. Hence, night vision equipment is a force enhancer. Sixth, CAS must be prompt, otherwise targets can escape.

Ground based reconnaissance, in support of Russian airborne operations, was a critical deficiency in Chechnya. Air inserted or regular reconnaissance troops were often unable to communicate with other infantry or air units. These land force elements often lacked radios, night vision devices, silencers and binoculars. Due to the lack of ground based intelligence, gunships often failed to eliminate targets or understand Chechen air defence strategies. Due to this lack of synergy between land and air units, Russian strategy often called for general counter-fire. This strategy was ineffective, as the Chechens would fire and withdraw. Furthermore, counter-fire lacks accuracy and increases the chance of collateral damage.³¹

Russian CAS was predominantly performed by the Su-25. The Su-25 is the Russian equivalent of the American A-10. The Su-25 is a subsonic, manoeuvrable aircraft with heavy armament and armour. These characteristics enable the aircraft to survive in unfriendly environments. The manoeuvrability of these aircraft enabled reasonably precise strikes against small targets, in any non-urban environment. The aircraft could also loiter on the battlefield for extended periods. Due to the significance of this aircraft in combat, the Su-25 has been upgraded and re-designated the Su-39. The upgrade enabled night operations with precision weapons, and reduced the vulnerability of the aircraft with improved electronic countermeasures. The other significant Russian fighter-bomber in

Chechnya was the Su-24M. The Su-24M performed two essential functions. First, the Su-24M provided all weather and night aerial reconnaissance information. Second, the Su-24M was capable of delivering of PGMs.³² The Su-24M was employed frequently over Groznyy, dropping KAB-500/1500 TV and laser guided bombs and Kh-25 ML laser guided missiles.³³

This section illustrates that the effectiveness of air assets in counterinsurgency is dependent on timely intelligence. Hence, combat aircraft, helicopters and land force elements must be well integrated. This integration is a product of realistic training. Personnel training and a synergistic approach to joint air-ground operations are vital. Another source of effective intelligence was UAVs. UAVs were used with good results in Groznyy. However, the primary intelligence source in urban terrain is the infantry unit. This section also illustrates the effectiveness of CAS in counterinsurgency. The use of combat aircraft was essential to Russian operations in open terrain. However, combat air assets were of little value in urban terrain, without the use of PGMs. CAS was essential in Chechnya. However, aircraft providing CAS must be: (1) well armed and armoured; (2) constantly on station; (3) able to apply precise firepower; and (4) possess countermeasures against AA threats. Air control is also important in LIC. The airborne isolation of a conflict is critical, so as to deter airborne re-supply missions.

Command, Control and Non-Urban Terrain

Command, Control and Communications were key weaknesses of Russian operations in non-urban terrain. Centralised C2 was a central impediment to Russian operations in Chechnya. This prevented initiative and independence on the battlefield. Inter-unit communication was also restricted. This reduced situational awareness and the capacity for units to reinforce one another. Russian personnel also lacked communications encryption training. Hence, Russian communication provided the Chechen insurgents with intelligence on Russian positions and intentions.

However, open non-urban terrain illustrated Russian strengths, that is to say mobility and superior firepower. Russian doctrine emphasised deception, surprise, resoluteness and audacity. These concepts proved worthwhile in

Chechnya's rural areas. Moreover, Chechnya's mountainous terrain proved less of a problem for the Russians than did urban terrain. Significantly, in non-urban terrain, Russian forces demonstrated greater independence and initiative. Subunits, divested with authority, were able to decide entire battles by taking high ground or attacking the insurgents flank by surprise. As in Afghanistan, the Russians relied upon airborne mobility. This was an effective means of manoeuvre. However, as in Afghanistan, SAMs endangered airborne operations.

Communications and counter-communications were significant aspects of the Chechen strategy in rural and mountainous terrain. Chechen forces mostly used radios for tactical communications. The Chechens also made efforts to jam Russian communications, and hunted Russian forward air controllers through radio triangulation. As indicated earlier, open Russian communications provided the Chechens with an effective source of intelligence. Force protection, in the form of mobility, was also an important component of Chechen operations. Hence, assets such as antiaircraft weapons were constantly moved to ameliorate the effective capability of Russian counter-fire.

This section illustrates the importance of initiative and independence in counterinsurgency. However, secure communication, situational awareness and the ability to mutually reinforce is also critical. Small unit tactics also require prompt CAS and artillery support. Armoured and mechanised units are highly effective in open terrain. However, battles are still decided by audacious small unit tactics.

The Psychological War

The psychological aspect of the first Chechen war was decisively won by the Chechens. Chechen forces effectively demoralised Russian field elements in the following ways. The Chechens made widespread use of human roadblocks and woman's protests to halt Russian convoys and tactical troop movements. Chechens dressed in Russian uniforms, posed as Russian guides and Red Cross workers for mobility and surprise attacks. Disinformation was broadcasted on the Russian radio net. Russian officers were threatened that their families would be killed. The Chechens would hang Russian dead and wounded in the windows of buildings to discourage Russian fire. Russian prisoners were also decapitated and

their heads placed on spikes along reinforcement routes. Russian dead were also booby trapped.

Strategically, Chechens demoralised the Russian public with threats of Islamic terrorism, including nuclear and radiological attack. Chechen psychological operations were disseminated by broadcasting on seized Russian television and radio stations. In addition, Chechen insurgents exploited Non-Governmental Organisations (NGOs) to pressure the Russian Government. Simply, NGOs allowed themselves to be an unwitting conduit to Chechen propaganda. President Yeltsin's political position was also undermined by information warfare directed at the Russian people. The Chechen conflict was presented as a diversion from Russia's economic and political problems.

As in Afghanistan, Russia did not effectively seal Chechnya's land borders. The Chechens exploited this by widening their operations. The Russian towns of Budennovsk, Kizlyar and Pervomaiskoye were both occupied by Chechen insurgents. Consequently, many of the inhabitants of these towns were killed. In Budennovsk, the Chechen insurgents occupied key government facilities, of which the hospital became operationally the most significant structure. The Chechens used similar defensive tactics as in Grozny. These tactics were partially effective at repulsing a commando attempt to retake the town. Russian Delta commando teams were able to retake some positions, but were initially unnerved by Chechens using non-combatants as human shields. The Delta commandos, and the elite anti-terrorism Alpha group, were held responsible for non-combatant deaths. This damaged the morale and reputation of the units.³⁴ Russian Prime Minister Chernomyrdin negotiated a settlement, popular at the time for saving lives.³⁵ However, this allowed the Chechens to escape and created an expectation of political appeasement in exchange for acts of terrorism. The Russian Government also claimed that the special force troops, who had stormed Budennovsk, were acting without government approval. This critically undermined morale, and caused widespread resentment of the government by the elite units.³⁶

After taking the town of Kizlyar, the Chechens were able to escape with 100 hostages, but were counterattacked in Pervomaiskoye. The Russians used artillery and air strikes before assaulting the Chechen positions. These positions were well guarded with improvised brick barricades, trenches and raised machine-

gun positions. The defenders were able to survive the air and artillery fire, as they had intercepted Russian communications describing the impending operation. Once again, the Chechens were able to escape.

The Chechens also conducted acts of international terrorism. A Black Sea ferry, the *Eurasia*, was hijacked and a threat to sink the vessel was made if the Chechen insurgents in Pervomaiskoye were not freed. Similarly, Chechens hijacked a Turkish Cypriot Airlines Boeing 727, in an attempt to get the Russians to leave Chechnya.³⁷ In comparison, Russian psychological operations were minimal. The Russians interfered with Chechen radio and made leaflet drops in Chechnya.

This section clearly demonstrates (if that were necessary) that insurgents do not act in accordance with the rules of war. Non-combatants are critical to insurgents, both in a support role and operationally as physical protection. Dressing as non-combatants, counterinsurgent soldiers or Red Cross workers are common insurgent tactics. These actions enable infiltration and mobility. Insurgents will threaten and kill non-combatants, dismember or booby trapped the dead and use captured counterinsurgents as human shields. Insurgents will attempt to use the media as a psychological tool. Future insurgencies will foster regional and international terrorism, perpetrated by insurgents, disaffected foreign nationals and unrelated terrorist organisations.

It also should be observed, that governments must not negotiate with terrorists. For reasons that are well understood, negotiation encourages further terrorist operations. Negotiation may seem expedient in the short term, but will lead to long term terrorism. Governments must only negotiate with terrorists in bad-faith; governments must only entertain discussions that purport to be negotiations, so as to gain time to prepare for counterterrorist operations. Obviously there are many factors to take into account. However, this discussion is not central to the thesis, and will not be discussed here.

The End: Russian Defeat

On 6 August 1996, 600 Chechen insurgents began to retake Grozny, which they had infiltrated in advance. MVD troops were completely surprised, notwithstanding Chechen leaflets advising Russian soldiers to defect and civilians

to accumulate stocks of food and water in advance of the battle. The Chechen insurgents successfully impeded access to the city, blocking MVD reinforcement. When MoD forces finally reacted, they repeated the ineffective tactics of the initial 1994 invasion of Grozny. This occurred primarily because of the rotation of conscripts. Armour was destroyed, helicopters were ineffective and friendly fire incidents occurred. Basically, Russian forces had failed to internalise the lessons learned in Grozny about urban terrain. This forced recruits to learn for themselves, in the face of a hardened enemy. The loss of Grozny illustrates the need for soldiers (MoD), as well as policemen (MVD), in the defence of urban terrain. In addition, lessons must be internalised and specialised pre-deployment training is critical.

In terms of a holistic approach to the conflict in Chechnya, Russia failed to effectively apply political, economic and diplomatic forms of force. In fact at times, Russian political and diplomatic moves undermined their own military forces operating in Chechnya. Alternatively, the Chechens effectively used political and diplomatic means to strengthen their position in the conflict. In terms of doctrinal principles, Russia effectively sealed Chechnya from external airborne interference, but failed to seal the Chechnya's land borders. Russia did not effectively install a unified command or undertake valuable civil operations. Furthermore, Russian forces had difficulty in providing internal security. In addition to the doctrinal issues listed above, the lack of internal security can be explained by limited application or contravention of the military principles outlined in this research. As in Afghanistan, the Russians gradually improved the levels of professional personnel deployed to Chechnya, and encouraged these troops to use their initiative and to act independently. Following the initial and unsuccessful forced ingress into Grozny by the Russians, combined arms procedures and operations were vastly improved. However, critical deficiencies in terms of military principles included a lack of human intelligence and poor communications, which combined to undermine joint operations.

Russian Evolution between the Wars

The Russian Army attempted to institutionalise the lessons gained within the first Chechen war. The key strategic lessons included: (1) the need to effectively

blockade of theatres of conflict; (2) the need for efficient coordination between armed agencies, and arms of those agencies; and (3) the need for an effective propaganda war.³⁸ Training was improved to facilitate these objectives. Specifically, coordination was enhanced, mountain and counterinsurgency warfare were practiced in exercises, crew training was improved to enhance the survivability of armour, and sniper training was reintroduced. Unfortunately, urban combat was not seen as inevitable, but as something to be avoided. Due to the strategic imperative to avoid urban warfare, urban warfare training was unfortunately neglected.

Chechen Insurgents and Foreign Interference

Between the Chechen wars, the Chechen insurgents were highly active in obtaining external training and assistance. There were approximately 100 foreign instructors in six significant training camps: (1) Alos Abudzhafar camp taught partisan tactics and marksmanship; (2) Yakub camp specialised in heavy weapons training; (3) Davlat camp taught psychological and ideological warfare; (4) Abu Baker camp instructed personnel in diversionary and terrorist tactics; (5) Said ibn Abu Vakas camp, which maintained links with the Pakistani Dzhamaat Isalami group and its military arm Hizb – ul’ – Mujahedeen; and (6) the Caucasian Islamic Institute (IIK), where religion and Arabic was taught. The IIK also allegedly maintained links with the Muslim Brotherhood. In addition to Hizb – ul’- Mujahedeen, there were a number of other Pakistani groups that trained soldiers and supplied weapons to the Chechen insurgents. These groups included Kharakat –ul’- Mujahedeen, Al’ Badr, Lashkar-e-Taiba, Sepakhe Pakistan and the International Islamic Front. Furthermore, a number of sources assert financial assistance flowed to Chechnya from Saudi Arabia, the United Arab Emirates, Turkey, Qatar and Jordan. In return, Chechen insurgents hosted and trained extremist students from Jordan, Saudi Arabia, China, Egypt, Malaysia and Palestine.³⁹ Mercenaries from Sudan, Niger, Nigeria and the Ivory Coast were also present in Chechnya, some of whom disguised themselves as International Islamic Relief Organisation workers.⁴⁰ Direct state support was provided by the Taliban in the form of combat troops.⁴¹ In addition, Iraqi combat engineers,⁴² and

intelligence operatives from Saudi Arabia, Lebanon and Iran also supported the Chechen insurgents.⁴³

Al Qaeda's influence in Chechnya is undoubted, but its significance is highly contested. Al Qaeda appears to have sent up to 300 personnel from Afghanistan and Yemen to fight alongside the Chechen insurgents.⁴⁴ The Russians also allege Al Qaeda provided US\$25 million in financial support to the Chechen insurgents. Chechen insurgents had also gained much experience in other international conflicts. Many Chechens had previously fought in Afghanistan, alongside the Taliban, or within Al Qaeda. Chechen insurgents had also fought in other wars in the former Soviet Union, including: (1) the civil war in Tajikistan; (2) the Armenian-Azerbaijani conflict; and (3) the Bosnia-Herzegovina conflict.

This section illustrates the globalisation of terrorism and insurgency. This globalisation of political violence will have a significant influence on the future of LIC. Future insurgencies will commence with an established form of effective combat, international support linkages and battle hardened combatants.

The Caucasus Revisited 1999 – 2000: Russia's War

The interwar period heightened Russian concerns with regard to Chechnya. Russia in 1999 was plagued by an economic meltdown, faced Chechen incursions into Dagestan and Chechen terror bombings in Moscow. These concerns steeled Russia's resolve to contain and thwart Chechen insurgence.

Russian operations in Chechnya commenced in October 1999, with a long and determined Russian siege of Grozny. This siege was supplemented with heavy air strikes and artillery bombardment of the city. Skirmishes by the Russians to take key suburbs and positions occurred. However, these Russian actions were countered by Chechen night raids, with the Chechens invariably wearing Russian uniforms.⁴⁵ Furthermore, Russian assessments of Chechen troop strength were again erroneous, partly due to the porous siege of the city.⁴⁶ An end to the Russian preparation was signalled by: (1) advisories issued to the population to leave Grozny; (2) intensification of reconnaissance missions; and (3) the seizure of Grozny's airport.⁴⁷

Russian forces entering Grozny on 23 December 1999, numbered between four and five thousand troops. This force included two MVD brigades and an Army regiment with associated armour, artillery, air assets, Spetsnaz, snipers, combat engineers and Nuclear, Biological and Chemical (NBC) troops. The Russian forces were supplemented by Bislan Gantimirov's pro-Moscow loyalist Chechen militia. In opposition, Russia estimated two to two and a half thousand Chechens with limited stocks of armour, BM-21 MRLS, 152mm howitzers, 120mm mortars and SAMs.⁴⁸

Russian planning for the occupation of Grozny in 1999 was comprehensive, unlike the 1994 war. The strategic plan described the division of Grozny into fifteen sections. Reconnaissance assets would locate enemy positions and call in air and artillery strikes. These operations would be followed by combat engineers clearing corridors of advance with sniper and mortar support to suppress the enemy. Spetsnaz and Gantimirov's militia would then advance down the corridors, so creating a 'spider's web' of Russian presence. In theory this latter tactic would deprive the Chechens of mobility. Any Chechen resistance that did occur, was then to be overcome by a Russian motorised division in 'storm detachments', with air and artillery support.⁴⁹

Organisationally, these storm detachments of 30-50 men were a product of Russian experience in the first Grozny war. These detachments basically replicate the Chechen fighting cell. The core of the storm detachments were groups of three soldiers, equipped with a RPG, an assault rifle and a sniper rifle. These troops were generally supported by two other soldiers with assault rifles. Additional support was provided by troops armed with RPO-A thermobaric rocket launchers, forward air and artillery observers, combat engineers and reconnaissance troops.⁵⁰

The Russian forces entering Grozny in 1999 were not conscripts, as in the previous war. These forces were a mix of elite, specialised and professional troops with urban training. Spetsnaz, paratroopers and naval infantry were central to operations in Grozny. These forces were cohesive and demonstrated the value of superior training. Lower casualties, adequate re-supply, reinforcement and rotation also aided morale. The effectiveness of the troops was vastly improved due to: (1) enhanced and simplified C2; (2) small unit independence; and (3)

coordination between air and ground force elements. Further, pre-deployment urban training was conducted prior to the assault on Groznyy.

The Russian advance was deliberate, vigilant and cautious. Infantry was supported by armour. Correspondingly, armour was protected by disembarked personnel, who were under orders to avoid close contact. To minimise Russian casualties, artillery strikes preceded infantry advances. In addition, further air and artillery strikes were called in after contact was made with the enemy.⁵¹

However, organisational problems remained between MVD and MoD troops, and Russian and Chechen loyalist troops. Communications remained an issue for Russian forces, as some equipment was incompatible. In addition, MVD commanders were still poorly trained at directing air strike, artillery and armour.⁵² Bislan Gantimirov's pro-Moscow Chechen loyalists also complained of insufficiently Russian support when under fire. Furthermore, Gantimirov's forces sustained friendly fire casualties caused by Russian troops, due primarily to poor communications.⁵³ The duration of combat in Groznyy, further reduced the fighting capacity of the Russian troops. This was because recruits had to be used as reinforcements, since there were few professional soldiers in reserve.⁵⁴

In general, Russian communication, anti-communication and counter-communication were vastly improved. Better training and equipment insured more effective operations. However, some soldiers, due to a lack of training still broadcast in the open. Electronic Warfare was used throughout the Caucasus by the Russians. Chechen communications were hunted electronically, then jammed or destroyed, or Arabic and Chechen interpreters were used to glean information from Chechen broadcasts.⁵⁵

A wholly new aspect of Russian national security doctrine was successfully implemented in the second Chechen war: the control of the media. The media in Chechnya had to be accredited and escorted. The Russian Government allowed officers and soldiers to be interviewed, and portrayed Chechnya as a counterterrorist operation. Bravery, low casualties and successful missions, also reinforced a positive public perceptions of the Russian Government and Army.⁵⁶ These psychological operations assisted in the successful conclusion to the conflict.

Aviation was far more effective in the second Chechen war. Similar aircraft and weapons were used. However, air-ground cohesion, C2,

reconnaissance and information sharing improved firepower and accuracy. Airpower accounted for 80 percent of all indirect fire support and helicopters assumed 50 percent of all surveillance, supply, extraction and deployment tasks, especially in mountainous terrain. As in the previous Chechen war, Su-24Ms performed night and foul weather strike missions, while Su-25s and Mi-24s constituted the primary daytime strike assets. Pairs of roving Mi-24s conducted effective, independent search and destroy missions against enemy positions, columns and supply depots. Reconnaissance was gathered by Su-24MRs, Su-25s, MiG-25RBs, An-30Bs and A-50s. C2 was maintained by An-26s and Il-20s, while search and rescue (SAR) was accomplished by Mi-8s. UAVs once again performed a much needed function, while new night capable, PGM equipped Su-25Ts made their debut.

Poor weather, fog and deliberate oil fired smoke screens restricted the utilisation of airborne units in Groznyy. This situation was exacerbated by the lack of adequate night flying and navigational aids. Airborne operations were also limited by a lack of supplies and technicians. Communication and real time information from ground commanders to Mi-24s still required improvement. However, Mi-8 pilots could often operate as C2 managers to improve situational awareness.⁵⁷

The decentralisation of artillery C2 to junior infantry commanders, and the junior commanders' confidence in requisitioning artillery support, notably demonstrated the essential nature of assigned indirect fire support. Indirect fire support was provided by an assortment of: (1) 122mm and 152mm towed guns and self propelled howitzers; (2) BM-21 and BM-22 MRLSs; and (3) 82mm and 120mm mortars. The Krasnopol laser guided 152mm artillery round was first used in the second Chechen war. The Krasnopol was highly effective, due to the accuracy provided through terminal guidance.⁵⁸ However, when indirect fire support was inappropriate, inadvisable or unavailable, direct fire PGMs performed an essential role in pacifying enemy positions.

The definitive Russian operation, which expelled Chechen insurgent forces from Groznyy, occurred in February 2000. This operation has been

described as a well planned FSB 'Black Op'.^C The operation generated heavy Chechen casualties, including approximately 1700 Chechen dead.⁵⁹

This section illustrates a number of lessons learned by the Russians. The Russians came to recognise the vulnerability caused by unit isolation, and the combined resilience generated by situational awareness. Hence, thorough reconnaissance and effective communications became central to the second Chechen conflict. Furthermore, the Russians identified the force multiplication effect of highly trained and professional combat engineers, snipers, Spetsnaz, forward air and artillery observers and reconnaissance troops, upon general units. The Russian's also demonstrated the essential nature of organic heavy firepower, within small infantry units. This heavy firepower was provided by RPGs, RPO-As and AGS-17s. In addition, logistics, C2, air-ground synergy, EW and secure communication was improved by the Russians in the second Chechen conflict. Once again, Russian fixed wing and rotary wing CAS was critical in Chechnya. However, the Russian's still required: (1) improved night and foul weather visual and navigation aids (2) more supplies and technicians; and (3) quicker communication of real time intelligence from ground units to air units. The Russians also demonstrated the critical nature of public affairs in Chechnya. Basically, the media must be managed and public opinion must be reinforced by accounts of bravery, low casualties and successful missions. Clearly, managing the media may appear to contravene liberal democratic principles. However, there are obvious problems if the counterinsurgent does not manage the media, which were clearly demonstrated in the Russian case. Basically, if a counterinsurgent does not manage the media, the insurgent will fill the void with propaganda. The truth will only be told if the counterinsurgent manages and assists the media in obtaining facts. Importantly, this is not an argument for censorship and counterinsurgent propaganda as such controls are undesirable in liberal democracies. It should also be recognised that such controls are difficult to suspend, following their institution. That said counterinsurgents need to

^C FSB Operation Wolf Hunt: An FSB agent offered to organise a breach in the Russian blockade of Groznyy, so the Chechens could escape, in exchange for US\$100,000. Subsequent radio transmissions persuaded the Chechens that Russian forces were moving to create the breach. A small group of insurgents were allowed to escape, the main insurgent force then followed. The main force then encountered a significant force of Russian land force elements, with gunship support.

appreciate this problem, because if they do not, they will be undermined by the insurgent's use of the media as a conduit of propaganda.

From the outset of the second Chechen conflict, the Russians used political and diplomatic forms of force to supplement their military capability. Due to this more holistic approach the Russians attained greater levels of national and international support in the conflict. The Russians were also careful to ensure all military operations would have positive political consequences. The Russians focused greater attention in the second Chechen conflict on controlling international interference and ensuring that their command systems were unified. In terms of military principles, the Russian's strategy more precisely corresponded with the conflict, as were the combat and support forces that deployed to the theatre. The use of professional personnel, enhanced intelligence and communications, and enhanced combined arms and joint warfare were all central to the improved Russian operations that occurred in the second Chechen conflict. The forces deployed were also encouraged to use their initiative and act independently. The Russians were more effective in the second Chechen conflict because they applied doctrinal and military principles more precisely tailored to the conflict they faced.

Chechen Resistance

Chechen tactics had evolved little since the first Chechen conflict. Primarily, the Chechens utilised the previously examined column ambush tactics. However, the effectiveness of these tactics had reduced due to improved Russian tactics. As an example, only one Russian tank was lost in Grozny throughout the second war.⁶⁰ This is a significant Russian improvement, given 105 Russian armoured vehicles were destroyed on day one of the first Chechen war. However, the Chechen forces were highly effective at infiltration tactics. The Russians found Chechen forces infiltrating buildings and positions that had been cleared, and in some cases were defended. In addition, Chechen forces were often able to break out of surrounded positions, and then surround Russian forces.⁶¹ The Chechens also effectively utilised subterranean networks for logistics, reinforcement and medical requirements.⁶² A significant change to Chechen operations in the second Chechen conflict was improved communications and electronic warfare

capabilities. Communications were improved with the establishment of an analogue cellular network, with two base stations in Chechnya, and an Advanced Mobile Phone Service (AMPS) provider in Ingushetia. International Maritime Satellite (INMARSAT) and Iridium satellite communications systems were also used for intercity and international exchanges. Chechens also used electronic, acoustic, radio-technical and radar as means of gaining intelligence.⁶³ However, as aforementioned, extensive Russian EW and the potential for covert SIGINT against Chechen communications and electronic assets significantly reduced the effectiveness of these assets.

This section indicates the significance of Russian force protection and constant situational awareness. This was because of the Chechen's abilities at infiltration and disguise. In addition, Chechen communications and electronic intelligence capabilities clearly indicated the need for the Russians to wage EW and have the potential to gather signals intelligence. Moreover, the significance of intelligence agencies and armed forces possessing interpreters was illustrated. Without these interpreters raw intelligence would have been worthless.

Conclusion – Doctrine

The rejection of LIC as a separate form of warfare was the primary impediment to effective Soviet operations in Afghanistan. This same mistake was again made by the Russians in the 1994-1996 Chechen war. However, the Russians accepted the reality of LIC in the second Chechen war. Correspondingly, operations improved considerably in the second Chechen conflict. The doctrinal lessons here is simple: militaries must train for all possible contingencies and doctrines must reflect the unique nature of differing types of conflict. If they do not, weaknesses will be revealed for the enemy to exploit.

Intelligence

Interagency rivalry between intelligence and military agencies is: (1) highly disruptive; and (2) will vastly reduce military effectiveness, especially when coalitions are formed. The Russian GRU and KGB, MVD and MoD, and later FSB, all lacked unity in command and created mutually detrimental obstructions in planning, intelligence gathering and sharing, and in the application of force.

These problems were not overcome until the 1999 intervention into Chechnya. Human intelligence is the leading form of intelligence in counterinsurgency, as was demonstrated in Afghanistan and both Chechen campaigns. The use of photo intelligence improved throughout the Soviet/Russian campaigns, generally enabling intelligence gathering without risk. However, photo intelligence is not well suited to human targets or urban warfare. Signals intelligence and electronic intelligence were completely irrelevant in Afghanistan, and poorly utilised in the first Chechen war. However, with the increased use of advanced electronic communications by the Chechens in the second war, and the deployment of Russian interception means, these intelligence gathering forms became more relevant. In addition, Arabic and Chechen speakers were widely used in the second Chechen war, so as to exploit intercepted Chechen signals intelligence. Accurate intelligence is one of the key principles in counterinsurgency.

Small Scale Operations

Small scale operations are fundamental to counterinsurgency. Independence, training, authority, trust, secure communications, mobility and the confidence to take the initiative must be conceptual imperatives in any counterinsurgency doctrine. All terrain types must be planned and trained for. Small scale mountain and desert warfare were neglected by the Soviets in Afghanistan, and similarly urban warfare was neglected by the Russians in Chechnya. These deficiencies led to casualties and the loss of equipment. Once these training issues were resolved, Russian operations became far more successful. The Soviet/Russian equivalent of counterinsurgency troops, which proved most effective in Afghanistan and Chechnya were airborne, reconnaissance and Spetsnaz. Their operations included raids, infiltration, mining, search, disruption and destroy missions. Moreover, these forces were invariably inserted and extracted by air. Airlift and strike enabled the application of greater force at the point of conflict, this reclaimed surprise, deception and the initiative. C2 improved in the second Chechen war, becoming decentralised and enabling initiative, situational awareness and mutual reinforcement. Thus elite operations were successful when combined with prompt aerial or land based indirect fire support. The use of conscripts was detrimental to Russian urban operations. This was because urban training was not

widely disseminated. In addition, the skills learned in combat were lost when soldiers were rotated. Moreover, NCOs and junior officers were continuously in short supply, so were radios, night vision devices, silencers and binoculars.

Terrain

Topography, weather and infrastructure are critical factors in effectively planning and conducting counterinsurgency operations. The extremes of temperature in Afghanistan severely hampered the use of mechanised equipment and the durability of troops. Given that air mobility and air strike are important in counterinsurgency, adverse conditions caused by smoke, wind, fog, cloud or rain highly are highly significant issues. This is particularly the case when all weather, night capable aircraft are unavailable or scarce. Air strike assets in LIC must be armoured, heavily armed, able to loiter on the battlefield and be slow enough to acquire targets. However, these requirements can be discounted or disregarded if air-launched PGMs are utilised. This is because PGMs can be launched further from the target than unguided ordnance, which in turn means aircraft can remain outside the range of enemy fire. Moreover, heavier munitions (especially those launched from the air) that are to be utilised in cities should be limited to PGMs. There are two reasons for this: (1) so as to limit collateral damage and harm done to civilians; and (2) prevent urban terrain from being turned into rubble, which is a terrain better suited to defence than undamaged urban structures. This of course is an ideal principle that may be impossible to achieve in certain circumstances. Consequently and importantly, this principle should not prevent the use of those weapons that are available, if the ideal weapon is unavailable.

Aviation

The Mi-24 and the Su-25 proved versatile and decisive in both Afghanistan and Chechnya. The survivability of attack helicopters in both conflicts was improved with the introduction of defensive manoeuvres. These manoeuvres included terrain hugging and pop-up tactics, complex target approach manoeuvres, high speed approaches and mutual cover fire. When utilised as convoy defenders, Mi-24 pilots were granted operational independence. This enabled the use of embarked infantry to deny the enemy key tactical positions. The Mi-26 and Mi-

8TV2/3 were found to be effective and reliable helicopters. However, there is a need for an all-weather, day and night, PGM-capable replacement for the Mi-24. The Ka-50 and the Mi-28 constitute the likely replacements. The Ka-50 was deployed in field trials in Chechnya, although cost is prohibiting the widespread introduction of this aircraft. The Su-24M provided all weather and night reconnaissance and strike capabilities. However, the most significant requirement for the effective use of airborne assets is timely intelligence. Tactical intelligence is most effectively provided by UAVs, the integration of helicopter and strike aircraft and synergy between air and ground units. However, these requirements can only occur after realistic and extensive training. Within such a complex environment, C2 and long-range surveillance assets, analogous with the A-50 were also required. In terms of military principles, air assets must be viewed as tools that perform most effectively when seamlessly connected to intelligence and command nodes in a joint environment.

Armour

The initial use of armour in Afghanistan's mountains and in Chechen urban areas provides analogous operational lessons. The least suited armoured vehicle in Afghan and Chechen close terrain was the wheeled BTR. This vehicle lacked armour, firepower and manoeuvrability. Absolute vigilance, impenetrable infantry escort and stand-off support tactics must be maintained if such vehicles (wheeled BTRs) are deployed in mountainous or urban terrain. The T-55/62/72/80 tanks and BMP also lacked manoeuvrability and had a constrained firing envelope. The airmobile BMD was lighter and more manoeuvrable, while the self propelled AA ZSU series performed a critical field suppression role. In general, Russian armoured vehicles suffered from a lack of visibility, a propensity to overheat, track loss in mountainous terrain, poor maintenance and an inability to survive without air cover. When fitted with chain guns, AA guns, AGS-17s and ATGMs, armour became more adept at creating suppressing fire and was thus more suited to LIC. The importance of reactive armour became apparent in the Chechen campaigns, as armoured units were predominantly destroyed by fire on non-protected surfaces. One effective Russian improvised defence for armoured

units, against RPG and other shaped charges, was a wire mesh cage installed 25-30cm from the hull.

Combined Arms

The use of armour in close terrain requires skilled procedure. Soldiers must be trained to disembark, if not already disembarked, to defend armour and strike at targets of opportunity. Ground reconnaissance and the control of high ground (and subterranean structures in cities) are critical. AA guns provide effective suppression fire against ground targets, and have an unconstrained fire envelope. Overlapping indirect fire support is essential for shielded mobility. Thus, fire bases with heavy artillery or MRLSs are important. In mountainous and urban terrain, the essential combat element is the soldier. However, in contemporary engagements their firepower should be supplemented with compact artillery pieces, heavy mortar, automatic grenade systems, forward air and artillery observers, combat engineers and reconnaissance troops. Combined arms is an important military principle because the combination of differing weapons systems amalgamates individual strengths and diminishes individual vulnerabilities.

Combat Service Support

Logistics, health care, living conditions, isolation and maintenance problems will detract from morale, discipline and effectiveness. LIC generally occurs in underdeveloped countries, which have underdeveloped internal road and rail networks. This underdeveloped nature of the road and rail networks has two consequences. First, tactical airlift will have to facilitate a high degree of combat service support. This in turn will reduce the availability of these tactical airlift aircraft for combat missions. Second, the initiative and flexibility of the counterinsurgent will be undermined and the insurgent will be able to more effectively anticipate operations. Therefore strategically, air mobility will become more significant for strike, reconnaissance, surveillance and transport. However over-reliance on a single system, to the detriment of a combined arms approach, will enable single weapon counter-tactics. Furthermore, air units require guarded

bases and approaches, considerable logistics trains and create static base defence. These issues were consistent problems for the Russians.

Civil-Military Affairs

Domestic and theatre civil affairs operations are critical to counterinsurgency, as the legitimacy of the government is being fought over. The Soviet operations in Afghanistan were so appalling that the allegiance of the Afghan people was forfeited to the Mujahedeen. However, the Russians won the media war in the second Chechen conflict, by more effectively managing the media. The Chechens were described as terrorists, reporters were controlled and events were shaped to maintain public support and reduce international condemnation of the war. The Chechens fought their own public affairs war, exploiting non-combatants, committing acts of terrorism, spreading disinformation and booby trapping wounded and dead Russian combatants. The objective of these Chechen operations was to intimidate Russian soldiers and the Russian public. However, the Chechen public affairs operations were unsuccessful, as support for the Chechen cause was alienated and support for Russian operations in Chechnya was fortified. Civil operations are an important doctrinal principle in counterinsurgency. The Russians applied political and diplomatic forms of force in the second Chechen war, which can be partly viewed as civil operations. However, the Russians failed to use social and economic tools to win the hearts and minds of the civil population in the aforementioned conflicts.

Urban Dominance

The Russian example of urban dominance in the second Chechen conflict emphasised the following. Theatre isolation and ground based reconnaissance are critical aspects to preparation of the urban battlefield. Key positions on the outskirts of cities must be occupied before the principal assault is made, and in doing so infantry movements should be preceded by artillery bombardment. All sections of the city must be occupied sequentially and individually cleared of enemy personnel and weapons. The most significant lessons the Russians learned in the second Chechen war, was to know the enemy. Once the Russians comprehended the Chechens, the Russians achieved victory.

Nationalism versus Clan, Blood or Sect

Knowing the enemy's loyalties is also critical in counterinsurgency. National identity, in both Afghanistan and Chechnya, was a veneer. Loyalty to the family and the clan are the paramount considerations for the average Chechen and Afghan. Outside the capital cities, vestiges of modernity fade, economically, politically and socially. Set in virtually a feudal environment, loyalty to the clan is the foundation for internal tension and struggles for power. The semblance of nationalism is predominantly discernible when external threats bond the mutually antagonistic clans together. Counterinsurgents must be aware of how their actions will disparately influence the concerned clans, how this will alter internal power structures, and how these factors will influence the long term stability of the state and region. Counterinsurgents must also be aware of clan motives behind both detrimental and constructive actions, these actions may have everything or nothing to do with the counterinsurgency.

Summary

Soviet operations in Afghanistan and Russian operations in the first Chechen war were relatively ineffective. This ineffectiveness in counterinsurgency principally occurred due to: poor doctrine; internecine rivalry among intelligence and military authorities; a neglect of small scale operations, combined arms and joint warfare; as well as an application of military force that was so indiscriminate and harmful that it actively reduced the support of the population for the counterinsurgent. Many of these problems were solved by the second Chechen conflict and because of these changes Russian counterinsurgency operations were far more effective.

Notes

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Chapter Three

The American Experience in LIC: Somalia and Afghanistan

This chapter provides an analysis of the American intervention into Somalia, from 1992 to 1994, and the American involvement in Afghanistan, from 2001 to 2004. The Somali example illustrates the complexity of ethnic division and cultural values, and how these can adversely influence forces committed to counterinsurgency operations. The Somali example also demonstrates the adverse influence rules of engagement (ROE) can have on coalition operations, and how these ROE can be exploited by opposition forces. In terms of tactics employed by the American led coalition, Somalia illustrates the importance of projectable forces, and the absolute requirement for jointness, combined arms, speed and intelligence for counterinsurgency operations in Low Intensity Conflict (LIC). The Somali case also shows how coalition partners both should and should not operate together, and exemplifies the critical nature of training to create coalition synergy prior to deployment.

Operation Enduring Freedom (OEF), or the Afghan War, is demonstrative of many of the same cultural complexities, as in the Somali case. However, OEF was a highly effective campaign, and is indicative of the capabilities of a modern coalition led by the United States. The critical nature of joint operations, transformational weapons, airpower, technological and command improvements were proven in OEF. So too was the effectiveness of psychological operations in modern warfare.

The principal research theme of this thesis, as elucidated in the previous chapters, is to analyse, collate and present operational, tactical and strategic guidelines that can be used by counterinsurgent forces in LIC. It is important to note that these guidelines combine four basic forms of force: political, economic, diplomatic and military. These four forms of force, which are sub-themes within this research, are tools that can be applied so as to achieve the four primary principles of counterinsurgency: the control of international interference, the provision of internal security, the application of civil operations, and the

installation of a unitary command. This research is mainly focused on the military force sub-theme elucidated above. So as to analyse the effectiveness of specific military force actions in counterinsurgency, there are ten military force principles that form a normative standard that bind this research. These military force principles include doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence.

Each of the subsequent sections is initially historical, broadly examining the background of the aforementioned conflicts. This background is further deconstructed, so as to analyse specific aspects of each conflict. Within each section, initial implications are examined. These initial implications are then analysed collectively. This collective analysis is a component part of the broad theoretical analysis of LIC, contained in the second part of this thesis.

The American Intervention in Somalia 1992-1994

The risk of embarking upon peace enforcement missions was illustrated by the American intervention into Somalia between 1992 and 1994. In this conflict, the promotion of peace descended into the confounding violence of LIC. Somalia has been characterised by, and embroiled in, violence, almost since its inception as a state in 1960. The reign of Somalia's fourth president, Mohamed Siad Barre, epitomises the apparent futility of central governance in Somalia. Nationalism, as a uniting force, has eluded the state because of clan loyalty and nepotism. Moreover, nationalism in Somalia has only been genuinely recognised in times of international conflict. For example, nationalism was most evident in Somalia, while Somalia was at war with Ethiopia. Somalia's failure in this war signalled the end of Somalia's age of nationalism. The diffusion of power in Somalia was only slowed by the despotic nature of the Barre regime. The clan basis of Barre's regime and the political/clan organisation of the state are analysed, with reference to the American led intervention.

All Somalis can be categorised into one of the following six clans: Darod, Digil, Dir, Hawiye, Issaq or Rahanwin. However, each of these clans is further segregated into subgroups. For example, the Darod clan is comprised of the Dolbahante, Majerteen, Marehan and Ogadeni family clans. Barre was of the

Darod clan, and specifically the Marehan family. Hence, Marehan family members held the majority of key government appointments. Members of the Darod lineage were, almost without exception, also elevated to positions of economic and political prominence in Somalia. The exception was the Majerteen family, who were excluded from central political power. However, the Majerteen family held positions of power in the army, and were behind the failed 1978 coup. A relationship was also maintained with the Dolbahante and Ogadeni clans due to Barre's family connections. The Ogadeni clan maintained significant political power, as it constituted the majority of the officer corps in the armed forces. This concentration of the state's power and resources in the hands of a few inevitably created intense opposition from the other clans.

As has been elucidated above, there was resistance to the Barre regime from within the Darod clan. Specifically, the Majerteen family opposed Barre, under the aegis of the Somali Salvation Democratic Front (SSDF). However, Barre's main opposition was constituted by three clan based insurgent groups: (1) the Somali National Movement (SNM) established by the Issaq of Northern Somalia; (2) the United Somali Congress (USC) based on the Hawiye of Central Somalia; and (3) the Somali Patriotic Movement (SPM) of the Ogadenis.

Barre's old age and ill health signalled the end of the Darod dynasty. The Darod sub-clans all vied for political power. At the time a peace agreement with Ethiopia was proposed by the Somali Prime Minister, Ibrahim Egal. This agreement was designed to remove the SSDF's and the SNM's cross border sanctuary. This infuriated the Ogadeni clan and Somali nationalists, who saw the action as giving away their homeland. In a move to ward off the impending destruction of the Barre regime by the Darod clan, the President refused Ethiopian reconciliation and decentralised power within Somalia.

Due to Barre's increasingly severe subjugation of all non-Darod clans, a major armed uprising began in 1989. Formations of the SNM and USC thrust south-east from the Ogaden through central Somalia, while a SPM force advanced from the south. As the USC and SNM advanced on Mogadishu, armed civilians under USC control began an armed revolt on December 31, 1990. Barre's regime was overthrown on January 26, 1991.

A new president, Ali Mohammad Mahdi, and prime minister, Omar Arteh Galib, along with new ministers, were installed. Many of these new politicians

were of the Hawiye clan. General Aideed, the leader of the USC, was greatly angered by the new distribution of power, as he coveted the position of president for himself.

The anti-Barre alliance of the three main insurgent groups (SNM, USC and SPM) split immediately after the downfall of the Barre regime. These groups hated each other as much as they hated Barre. The ensuing internecine conflict between the insurgent clans, in conjunction with a severe drought, caused over three hundred thousand casualties, displacement of two million refugees, and the destruction of all government functions and most of Somalia's infrastructure. Some of the worst fighting occurred in Mogadishu between rival factions of the USC. The strongest faction was Habr Gedir, led by Aideed.¹

United Nations Involvement

The humanitarian crisis in Somalia caused the United Nations (UN) to intervene. This operation was not only a humanitarian mission, but ultimately was intended to rectify the political and economic causes of the famine.² The latter United Nations Operations in Somalia (UNOSOM) were "to take appropriate action, including enforcement measures, to establish throughout Somalia a secure environment for humanitarian assistance. To that end, UNOSOM II was to complete, through disarmament and reconciliation, the task begun by UNITAF [United Task Force] for the restoration of peace, stability, law and order. Its main responsibilities included monitoring the cessation of hostilities, preventing resumption of violence, seizing unauthorised small arms, maintaining security at ports, airports and lines of communication required for delivery of humanitarian assistance, continuing mine-clearing, and assisting in repatriation of refugees in Somalia. UNOSOM II was also entrusted with assisting the Somali people in rebuilding their economy and social and political life, re-establishing the country's institutional structure, achieving national political reconciliation, recreating a Somali State based on democratic governance and rehabilitating the country's economy and infrastructure".³ To accomplish this objective, the UN mission was augmented militarily and politically, with the aim of disarming the militias. This UN action directly contravened the interests of the Habr Gedir clan and Aideed.

Significantly, discussing intervention in Somalia is akin to discussing intervention in Germany before the Bismarkian unification. As applied in the instance of Somalia, the notion of the state as a single entity is an erroneous belief and will corrupt any consequent reasoning.⁴ Since external action will redistribute power between divergent groups in the state, their interests must be understood to anticipate their reactions. Correspondingly, the UN's prescribed actions took on an unintentional character.

UNOSOM and UNITAF: Provide Relief and Restore Hope

As of April 1992, UNOSOM was tasked primarily with monitoring the ceasefire in Mogadishu and protecting the delivery of humanitarian supplies, personnel, and logistics hubs and links. These operations were extended, in August of 1992, to envelope all of Somalia. By December 1992, security in Somalia had degenerated to a point whereby, humanitarian assistance and the function of daily life were impeded. Thus, UNITAF was created to enforce a peaceful environment.

On March 27 and 28, 1992, ceasefire agreements were signed between the factions fighting in Mogadishu. This allowed the first deployment of observers and security personnel, for the protection of humanitarian relief staff. 50 observers and 500 infantrymen were deployed to enable humanitarian assistance to reach five million people. This humanitarian and security effort was extended to the rest of Somalia, beginning on September 8, 1992. UNOSOM strength was projected to increase to 4,219 troops and 50 observers. The humanitarian effort: (1) provided food, water, medical provisions, shelter, seeds and tools; and (2) attempted to halt refugee flows and rebuild institutions and civil society.

These efforts were undermined by continued disagreements between Somali clans throughout the country. However, the most significant conflict occurred in Mogadishu. General Aideed, on October 28, 1992, ordered the UNOSOM humanitarian coordinator and Pakistani battalion to leave Mogadishu. Aideed then attacked Pakistani forces at the Mogadishu airport, while his opponent Mohammed Mahdi shelled a merchant vessel bringing food into the port at Mogadishu. Unlike Aideed, Mahdi wanted UNOSOM to take full control of the port facility. Due to these circumstances the UN adopted a resolution on December 3, 1992, for UNITAF to be formed. This action was taken to create a

secure environment in Somalia for aid to be distributed. The United States (U.S.) offered to lead the force.

UNITAF's objectives included securing ports, key installations and food distribution points. In addition, UNITAF was to provide protection for humanitarian relief personnel. These operations were to be accomplished by 28,000 U.S. troops and 17,000 troops from 20 other nations. UNITAF improved the security environment in Somalia significantly. However, threats were still posed to humanitarian staff, especially in Mogadishu. As a product of the improved security environment, national reconciliation began, whereby 14 Somali political units agreed to ceasefires, disarmament and general reconciliation. As a result UNOSOM II was established, to rebuild political, economic and social order in a new democratic Somali state.⁵

UNOSOM II

Beginning in March 1993, UNOSOM II had integrated the operations of UNITAF with the reconstruction of Somali infrastructure, mine clearance, arms seizure tasks, the repatriation of refugees and the enforcement of peace. On March 27, 1993, in Addis Ababa, all 15 of the warring Somali factions signed an agreement for national reconciliation. The agreement was a framework for disarmament, reconstruction, the restoration of property rights and a means for social transition toward peace. Although Aideed had signed the agreement, it became clear in May 1993 that he would not abide by the agreement.

On June 5, 1993, while undertaking a disarmament operation in Mogadishu, Pakistani soldiers were attacked by Aideed's United Somali Congress/Somali National Alliance (USC/SNA) militia. This attack resulted in significant Pakistani losses, including 25 dead, 54 wounded and 10 soldiers missing in action. As a result of this ambush, SNA weapons facilities and caches were disabled or destroyed and Mogadishu Radio was removed from Aideed's control. Aideed was asked to surrender by an UNOSOM II representative, while a civil affairs operation was undertaken to explain these actions to the population of Mogadishu.

The U.S. Quick Reaction Force (QRF) was deployed in support of UNITAF. QRF was augmented by Task Force Ranger (TFR), which incorporated

130 Delta commandos, a Ranger company and elements of the Army Special Operations Aviation Unit. This deployment was provoked by continued SNA attacks on UNOSOM II personnel, and specifically after a U.S. Military Police convoy was ambushed, causing the death of 4 U.S. soldiers.⁶

At the strategic level, political, economic, diplomatic and military tools were being used by UN forces in Somalia to bring about a resolution to the conflict. However, as illustrated below, the political ramifications of military losses taken in an attempt to create internal security and establish an environment conducive to civil operations can cause operational failure.

Blackhawk Down: Mogadishu, Somalia, 3-4 October 1993

On October 3, 1993, a company of 75 U.S. Rangers and a squadron of 40 U.S. Delta commandos fast roped (deployed via hovering helicopter) into Mogadishu. Their objective was to: (1) envelope a meeting between Habr Gedir leaders; (2) secure all hostages, especially two of Aideed's lieutenants; and (3) escort them back to the U.S. base via military convoy. Initially the raid was successful, until two UH-60 Blackhawk helicopters were lost to enemy fire. The downing of these two helicopters caused U.S. units to be immobilised within Mogadishu.

The SNA appeared to be a relatively insubstantial enemy. The SNA were only equipped with AK-47/74 assault rifles and Rocket Propelled Grenade launchers (RPGs). Moreover, SNA tactics relied principally upon the ambush. However, their sheer weight of numbers caused U.S. positions to be overrun. Furthermore, the SNA knew their enemy. The SNA had come to understand the U.S. order of battle, as six similar U.S. raids had been performed in Mogadishu. The previous raids had been executed at night, without success. Hence, U.S. planners decided a daytime raid was worth the extra risk to capture Aideed. Consequently, when TFR fast roped into Mogadishu, the SNA was aware a relief convoy would be sent to extract the TFR soldiers and their hostages. As a consequence, the SNA began to set up ambushes along the expected routes of the convoy. After the first helicopter was shot down, Super 6-1, TFR was able to manoeuvre to and control the first crash site. The relief convoy was despatched, but was unable to reach the crash site of Super 6-4. A further convoy was

despatched from the U.S. base. However, it too was continually ambushed and forced to exit Mogadishu.

The inadequate nature of the mechanised assets under American control (five-ton trucks and lightly armoured High-Mobility Multipurpose Wheeled Vehicles (HMMWVs) rather than armoured vehicles) forfeited the American's ability to gain control of the Super 6-4 crash site. The lack of armour also caused heavy American casualties due to unimpeded Somali rifle and RPG fire. Eventually, the Super 6-4 crash site was overrun by SNA militiamen, whilst the Super 6-1 crash site and TFR were extracted on the morning of October 4. The extraction force included 4 Pakistani T-55 tanks and 28 Malaysian commanded, German Condor Armoured Personnel Carriers (APCs).⁷ This rescue did not proceed without incident and will be discussed below. The rescue was further undermined by the scarcity of American mechanised assets. Simply, the extraction troops could not be transported quickly back to the main American base at the airport to further their mission.

The Extraction of U.S. Forces: Mogadishu, Somalia, 3-4 October 1993

On October 1993, Companies A and C of the 2nd Battalion, 14th Infantry Regiment, 10th Mountain Division were ordered to force an ingress to and extract American forces from Mogadishu. Company A was tasked with extracting the American forces from Super 6-1's crash site, while Company C performed the same function at Super 6-4's crash site.

Following the embarkation of American troops into the APCs, the Pakistani led column proceeded towards the first waypoint, the Super 6-1 crash site. Mid way to the first waypoint the T-55s left the column. At this point RPG shrapnel hit the first APC, unnerving its driver, who proceeded to speed away from the remainder of the column. The first two APCs, which were separated from the column, deviated from the original plan. These two APCs were stopped by a Somali ambush, which immobilised both vehicles.

Following the immobilisation of the two APCs, the embarked American forces dismounted and formed a secure perimeter. This force consisted of approximately two squads of dissimilar troops. The force was unable to establish a communications link, due to the urban environment. Due to incoming enemy

fire and wounded personnel (Malaysian), the American forces entered a building and deployed in defensive positions.

The squad's Radio Telephone Operator (RTO) was still unable to establish communications, until a PRC-77 radio was used in the clear (non-encrypted) to establish communications. Hence a further force of Americans was separated within Mogadishu, requiring extraction. Company C was then tasked to move towards the separated forces, and an AH-1 Cobra gunship was deployed as fire support. However, Company C was unable to change positions due to excessive resistance. The separated forces attempted to reach Company C, but took further casualties and were immobilised. At this point, transport was confirmed inbound (two Condor APCs). Concurrently, an AH-6 Little Bird gunship arrived on station to provide fire support. When the APCs arrived a smoke screen was laid, the soldiers embarked and were transported to safety.

For this specific mission, the American forces were not provided with sufficient information concerning the route between waypoints and the composition of the column. The American forces could not communicate with the Malaysian APC crews. The Americans were not familiar with the German Condor APC. They were disoriented and unaware of their separated status from the column until disembarkation. Communication between American units was also dysfunctional, due to the urban environment. Fortunately, training and professionalism and airborne fire support saved the soldiers lives.

Tactics, Communications and Intelligence: American and Somali

American tactics in Mogadishu consisted primarily of urban infantry tactics, devoid mostly of combined arms support. Manoeuvre was facilitated by squads fighting in tandem, one generating suppression fire, while the other would move. The movement of American vehicles was constrained by continual Somali ambushes. These ambushes often forced vehicles to stop on intersections, which consequently drew considerable enemy fire.

Somali tactics utilised urban terrain and non-combatants for concealed movement, ambushes for surprise and dispersion of personnel to enable survivability. Not only did the SNA use non-combatants as human shields, but also to gather intelligence. For example, Somali civilians would often point out

U.S. positions to concealed Somali gunmen. However, these tactics were not as effective as they could have been. Somali gunmen caused unintentional friendly fire deaths, as they would fire from both sides of streets simultaneously. Unlike Chechen insurgents, the Somali's did not attempt to disable lead and tail vehicles in convoys, in an effort to trap the rest of the convoy. RPGs were used both as an anti-vehicular and anti-personnel weapon, and against low flying helicopters.

American intelligence in Mogadishu was little better than Russian intelligence in Groznyy, estimating SNA troop strength between one and twelve thousand. Somali anti-intelligence efforts were simple but effective. As the U.S. helicopters closed upon Mogadishu airspace, fires were lit to summon SNA fighters. A secondary effect of these fires was to reduce airborne visibility, and command and control of ground forces by airborne units.

Tactically, the October 3 mission was a success for the U.S. Hostages were taken and 18 U.S. casualties occurred, while approximately 500 casualties were inflicted on the SNA. Strategically though, the U.S. was defeated since: (1) the U.S. withdrew from Somalia; and (2) U.S. resolve was questioned by adversaries and this continues to be the case.

Coalition warfare proved non-cohesive. Communication was completely inadequate, and disparate goal orientation undermined personnel survivability and the potential for success. Interoperability must be addressed prior to the deployment of coalition troops. Even seemingly simple exercises, like loading troops into troop transports must be trained for. Moreover, transportation is a force multiplier. Thus, there must be a sufficient supply to address the needs of entire units.⁸

Restraint and Civil Resolve

The fallacy of restraint in war was Clausewitz's first dictum. The side that imposes self restraining principles will cede the advantage.⁹ Restraint undermined U.S. tactical, strategic and public resolve to remain in Somalia. This restraint was indirectly imposed by way of the media's unrestrained and imbalanced broadcasting, which was accepted by the administration. For a counterinsurgent operating in LIC, public resolve will always be an issue, since national interests may not be central to the engagement. In Somalia, millions of

lives were at risk of starvation and subjection to violence, yet the U.S., and as a result, the UN, would not remain in Somalia.

Unrestrained media coverage of the Somali conflict focused public opinion directly upon *jus ad bellum* and *jus in bello*. As a result, combatant and non-combatant casualties and excessively constrained firepower options were forced upon the U.S. forces. This translated into restrictive ROE for U.S. forces, and the exploitation of non-combatants by the SNA.

The conclusion here is that Civil Affairs (CA) –relations with the population in the war zone- and Psychological Operations (PSYOPs) are absolutely essential to: (1) undermine the morale of the insurgent; (2) reduce the support of the population for the insurgent; (3) remove non-combatants from the battlefield; and (4) foster an environment conducive to Human Intelligence (HUMINT).

ROE must be flexible. There must be limits to the ROE, but they must be applied at the discretion of commanders, throughout the command structure. ROE must balance non-combatant casualties and collateral damage against friendly casualties. The outcome will have a direct bearing upon the Public Affairs (PA) –relations with the home population – campaign. ROE will also have a direct bearing on tactics, but should not prevent the combined arms effect of armour, artillery and airpower.¹⁰ Walzer's adage remains salient "soldiers must feel safe among civilians if civilians are ever to feel safe from soldiers".¹¹

Counterinsurgent PA operations cannot simply compete with the insurgent's use of the media; the counterinsurgent must manage and assist the media in obtaining facts. The media can polarise perceptions and prescribe popular public debate about conflicts. The media should be managed on the battlefield and assisted in reporting insurgent transgressions against human rights and just war conventions. But this should not undermine the perception of honesty which the public has for the military. Images of dead soldiers and a lack of clear national interest will undermine any PA strategy. The media has become highly significant in LIC, as has been outlined in the previous chapter. The counterinsurgent must manage and assist the media, because if they do not the insurgent will use the media as a conduit of propaganda. The counterinsurgent must also make clear their objectives to the media and public. If the public understands the objectives of the counterinsurgent, they will be more likely to

support a lengthy conflict. Exit strategies that are not directly related to objectives should be avoided. This is because exit strategies can appear as concessions to the insurgent, which will only foster further violence.

Hardware and HUMINT

The 10th Mountain Division were constrained by ROE in their use of firepower, so much so that standard operating procedures were undermined. Specifically, the 10th Division was prevented from deploying tanks or Infantry Fighting Vehicles (IFVs), which are essential to urban manoeuvre warfare. Air cover was restricted to AH-6 Little Birds and AH-1 Super Cobras, while AC-130 Spectre gunship operations were grounded. The use of artillery was also prevented.

Adequate situational awareness eluded the U.S. forces in Somalia. This was due to a lack of intelligence, and an urban environment non-conducive to effective command, control and communications (C3). Intelligence was provided by UN military forces, including special forces, CA operations, in addition to 20 Somali Central Intelligence Agency (CIA) operatives, humanitarian agencies and Non-Governmental Organisations (NGOs). Despite these intelligence sources, Aided eluded capture. There was a further obstruction to real time intelligence, one of dissemination. The effectiveness of wireless communications was severely reduced by urban terrain. Interference from structures and other electromagnetic traffic undermined tactical communications. This meant units were artificially separated, and thus, unable to achieve objectives, or support and reinforce friendly units. Furthermore, aerial reconnaissance by aircraft, satellites and unmanned air vehicles (UAVs) was underutilised, due to an inability to communicate gathered information to combat units. The SNA used runners, beat drums and flashed lights as a means of communication.

Airpower in Mogadishu was constrained by ROE, Somali air defences, urban terrain, poor visibility and difficulties with precision engagement. However, this belies the psychological and physical significance of CAS and airborne manoeuvre. The AH-1 Cobra and AH-6 Little Bird attack helicopters had a positive psychological effect on American infantry, while deterring Somali vehicles and personnel. Of the weapons systems deployed on the American attack helicopters, the Cobra's Tube-Launched, Optically-tracked, Wire-guided missile

(TOW) and AIM-120mm laser designated cannon proved highly effective due to their ability to provide precision firepower. However, within urban terrain, slow moving helicopters become vulnerable to small arms fire and RPGs.¹²

Combined arms operations are essential for counterinsurgents operating in LIC, as combined arms reduces the opportunity for the enemy to cause friendly casualties (Although, combined arms may lead to collateral damage). However, if the insurgent chooses urban terrain and if non-combatants tacitly and overtly assist combatants, it is impossible to reduce collateral damage. Issues such as this, concerning the distinction between combatants and non-combatants will be discussed in the subsequent section of the thesis. There is another conclusion that might be drawn here and that is that CAS and airborne manoeuvre are critical for a counterinsurgent operating upon the LIC battlefield, even in urban terrain.

Joint operations depend upon effective and timely communications. However, this was negated by the lack of tactical communications, electromagnetic interference, and the inability for different services to communicate directly.

Acting upon non-military sources of intelligence can also create vulnerabilities within a counterinsurgent's strategy. Private individuals who supply information may not be acting out of altruism. They may be attempting to manipulate military operations to further their own interests or undermine the counterinsurgency. Humanitarian agencies may be an effective source of information. However, they too may be vulnerable to exploitation by the indigenous employees working for them, who remain loyal to their country or clan.

An effective Coalition Task Force: Kismayu, Somalia, February-March 1993

Within the operational period of the UNITAF mission (Restore Hope) major clan warfare erupted in Kismayu, southern Somalia. American Task Force (TF) 2-87 was redeployed to Kismayu to replace TF 3-14 and reinforce the Belgian 1st Parachute Battalion. Once deployed in Kismayu, TF 2-87 and the Belgian forces conducted a combined search of all buildings, hunted insurgents and treated wounded Somalis.

Integrated command and control is critical to coalition warfare. To facilitate an integrated approach to operations in Kismayu, the American and Belgian forces exchanged liaison officers (LNOs) between command posts and down to company level. To effectively coordinate the joint forces, LNOs must be provided with equipment capable of communicating with all friendly forces. All coalition communications should operate at a similar standard in all combat environments. Most significantly, the LNO must be fully versed with the use of the equipment.

In Kismayu, integrated command and control (C2) was further enhanced by the utilisation of a coalition crewed Allouette observation helicopter. This helicopter was on station throughout the major coalition operations. The helicopter enabled integrated actions, prevented friendly fire incidents, tracked insurgents and identified potential enemy positions. Due to the dearth of Somali electronic countermeasures the C2 platform could operate efficiently and effectively. However, when planning for the provision of C2 platforms, a consideration must be made for enemy countermeasures. It is possible that insurgents may have the means to listen to clear communications, and will attempt to interfere with electronic communications.

Indirect agency was a central tenet of the Somali insurgent's tactics. Insurgents would fire upon counterinsurgent forces or non-combatants and then flee the scene. Counterinsurgent tactics developed which stressed cordons and flanking movements to inhibit the insurgents' escape. Due to the urbanised operational environment, counterinsurgent forces were deployed with a light kit. This included body armour, weapon, five magazines, water and a first aid kit. This, increased mobility and the probability of successfully apprehending the insurgent/s. In these circumstances, counterinsurgent units only have a matter of seconds to engage their targets. To train for such an environment, rapid movement followed by instantaneous enemy recognition and engagement proved essential. Due to the soldier's light kit, it was essential to have logistics assets close to each unit to supply water, ammunition and first aid. It would also be essential in such an environment to have a rapid reaction force, which could be deployed if any unit was outnumbered or surrounded, as occurred in Mogadishu.

In Kismayu, combat support missions were limited to illumination missions (heliborne lights) and counter-mobility missions. Both of these were

significant, however, the latter was indispensable for effective sector searches. Counter-mobility was accomplished by placing concertina wire around city blocks. This needed to be done at speed to encircle enemy combatants and weapons.

Intelligence sources were predominantly human, voluntarily provided or acquired through interrogation. Information provided by special forces and intelligence personnel was the most accurate, while voluntary information was generally provided to enhance the informant's position vis a vis an enemy clan. Local translators were also suspected of nefarious objectives. Thus, counterinsurgent forces require dependable translators or endogenous linguists.¹³

There are important considerations, in terms of military principles outlined in this research, which can be drawn from the aforementioned operations in Somalia. The professionalism of counterinsurgent personnel involved in these operations was the key factor that enabled success or minimised failure. In Mogadishu, there was a lack of force precision, and joint and combined arms operations because of restrictive ROE. The urban environment in Mogadishu also undermined the capacity for units to communicate. There was also a lack of intelligence available on insurgent strength in Mogadishu. Notwithstanding the aforementioned statements, when effective joint force and combined arms operations did occur, they were highly significant. Operations in Somalia also illustrated the critical nature of force cohesion between coalition members.

The American Intervention in Afghanistan 2001-2004

The American intervention into Afghanistan was precipitated by the September 11, 2001 terrorist attack against the World Trade Centre and the Pentagon. This part of the thesis will examine the background to the American intervention in Afghanistan, and explain why Afghanistan and this act of terrorism are connected. This is undertaken to set the context of the intervention.

February 15, 1989 marked the end of the Soviet withdrawal of forces from Afghanistan. Expectation at that point predicted the imminent overthrow by the united Mujahedeen forces of the Afghan Interim Government (AIG), of the People's Democratic Party of Afghanistan (PDPA), the then ruling communist regime. However, the initial AIG campaign to take control of Jalalabad, on the

Pakistani border meet with stubborn, well planned resistance, which caused the AIG to begin to disintegrate. The various Mujahedeen groups preferred thereafter to attack logistics routes, which was an effective tactic perfected against the Soviets. The PDPA's presence in Afghanistan's urban environments remained relatively stable until October 1991. This date marked the end of Soviet Union, the PDPA's sponsor, whereas Saudi and Pakistani resources continued to flow to the Mujahedeen. By April of the following year Kabul had fallen, but to Tajik and Uzbek forces from the north of Afghanistan rather than the southern, historically dominant Pashtun. The Tajik forces were commanded by Ahmed Shah Massoud and the Uzbek forces were commanded by Abdul Rashid Dostum.

In 1993 the Tajik-Uzbek alliance was bolstered by Ismail Khan, the warlord of Herat, and Burhanuddin Rabbani, the Tajik head of the Islamic Society. This new alliance subsequently fortified its dominance across the north of Afghanistan. In 1994 two significant events occurred in Afghanistan. First, Iran coerced the Hazaras, a Shi'a group from the Hindu Kush, to unify. They swiftly joined Gulbuddin Hekmatyar, the foremost Pashtun commander, in assaults against the Tajik-Uzbek held Kabul. Dostum then swapped allegiances, deserting Massoud for Hekmatyar. However in the face of adversity, Massoud's forces repulsed the combined forces from Kabul and made advances in the north. Second, the Taliban appeared, under Mullah Mohammed Omar, amid the anarchy which reigned in southern Afghanistan.

From the south, Taliban forces occupied a swath of cities, applying strict and brutal Islamic Sharia law where there was anarchy, amassing captured and surrendered arms, and massing a horde of volunteers or defeated Mujahedeen that changed sides. Hekmatyar's forces were defeated by the Taliban, who then focused upon Kabul and Massoud. Massoud repulsed their advance towards Kabul. The Taliban then focused their efforts in the west of Afghanistan. Ismail Khan, Massoud's ally, thrust south from Herat, imposing a second defeat upon the Taliban. These actions were to show that the Taliban possessed poor logistics when operating far from Pakistan. In addition, Iran preferred to support Ismail Khan.

Ismail Khan attacked the Taliban again, driving them to the Helmund River. However, unbeknown to Khan, the Taliban had been reinforced by new religious recruits. The Taliban counterattacked, ultimately destroying Khan's

forces. The Taliban then returned their concentration to Kabul. The Taliban did not attempt to directly force Massoud out of Kabul, but instead began to encircle him, cutting his supply lines. On September 26, 1996, Massoud evacuated Kabul and returned to the Panjshir Valley, along the border with Tajikistan. Under Massoud's direction, all groups opposing the Taliban were united under the auspices of the Northern Alliance. The Northern Alliance included Tajiks, Uzbeks, Turkmen and Hazaras. Despite the formation of the Northern Alliance, the Taliban had expanded its presence over all of Afghanistan by 2001, bar the Panjshir Valley.

Al Qaeda terrorists of Algerian extraction killed Massoud on September 9, 2001, while pretending to be journalists. Since its inception, Al Qaeda had utilised Afghanistan as its primary base of operations. Al Qaeda taught jihad and the art of insurgency, and exported terror worldwide. September 11, 2001 marked the turning point for both Al Qaeda and the Taliban, leading to the American intervention into Afghanistan. However, it was not the only determinant for the invasion.

Osama bin Laden endangered the Taliban, by becoming America's most reviled adversary, and having turned Afghanistan into Al Qaeda's base of operations. It had taken bin Laden ten years and eleven terrorist attacks to fully infuriate America; 3,000 civilian deaths on home soil were too much to bear.

The first of these terrorist attacks was a failed attempt to destroy the World Trade Centre in 1993. The second was perpetrated against American soldiers in Somalia in 1993, killing 18. The third was a successful attack on the Egyptian Embassy in Pakistan, occurring in 1995, killing 15 and injuring 60. The fourth and fifth attacks were on further U.S. troops stationed in Saudi Arabia in 1995 and 1996, which killed 24 and seriously strained Saudi-American relations. In addition, these attacks put a further strain on maintaining a U.S. presence in a vital area.¹⁴ The last six terror attacks are described in the remainder of the chapter.

Afghanistan's ruling Taliban and Al Qaeda maintained a mutually dependent relationship. The Taliban was supplied with material, financial and military support from Al Qaeda, in exchange for terrorist training camps and protection. This relationship also benefited from the drugs trade that the Taliban allowed, and Al Qaeda nurtured. The territorial integrity of Afghanistan, under the Taliban, was instrumental to Al Qaeda. Al Qaeda functions as an international

supporter of Islamic terrorism wherever it resides, but this function was augmented by the physical and secure base it had in Afghanistan. Al Qaeda's camps in Afghanistan trained terrorists from many of the forty countries, with which Al Qaeda had links. Furthermore, through the training of foreign terrorists, Al Qaeda had garnered sympathy from individuals who would undertake Al Qaeda's operations.

In 1998, the culmination of five years planning came to fruition with the bombing of the U.S. Embassies in Kenya and Tanzania, killing 224 and injuring nearly 5000. The next two Al Qaeda attempted terrorist actions were foiled. The first foiled attack occurred in 1999, when an Algerian was stopped at the Canadian-U.S. border, with over one hundred pounds of explosives in his car. This bomb was designed for an attempted attack on the Los Angeles International Airport. The second failed attempt occurred in 2000, when a group of Al Qaeda members tried to attack a U.S. destroyer with a small boat full of explosives. However, the Al Qaeda boat sank without the desired effect. The United States Ship (USS) Cole was not so fortunate, in late 2000 a boat packed with explosives detonated beside its hull, killing 17 and injuring a further 40.¹⁵

Operation Enduring Freedom

By the 17th of September 2001, the American Government had assembled a mosaic^A of evidence, which indicated Osama bin Laden and Al Qaeda were behind the 9/11 terror attacks. The Taliban misjudged the American resolve to apprehend bin Laden. Initially the Taliban refused to surrender bin Laden, for reasons of self-interest rather than altruism. Basically, bin Laden was a critical source of hardened and dependable soldiers, as well as a source of financial and political support. A Pakistani delegation was then dispatched to persuade the Taliban to relinquish bin Laden. Mullah Omar, head of the Taliban regime, then attempted to use bin Laden as a bargaining chip. Omar demanded political recognition of the Taliban regime, a cessation of aid flows to the Northern Alliance and a resumption of foreign aid.

The U.S. believed the Taliban's negotiation was duplicitous, merely intending to delay and cause the coalition to vacillate. Also, much of the

^A Mosaic Theory refers to the compilation of diverse intelligence material into a coherent whole.

international community was ready to eliminate the threat posed by Al Qaeda and the Taliban. America's historic allies promptly joined the coalition, having viewed the evidence of Osama's guilt. Significantly, Pakistan, Russia, the former Soviet central Asian republics and Iran all supported, in varying degrees, Operation Enduring Freedom. The Taliban had created in Afghanistan, circumstances conducive to the destabilisation of the region. Russia's interest in removing Al Qaeda and the Taliban from Afghanistan was due to the destabilisation of the former Soviet Central Asian states, which were menaced by Afghan-based terrorist support. Pakistan's northern tribal provinces and internal cohesion was also jeopardised by the fundamentalist influences of the Taliban and Al Qaeda. Iran's discreet support for the coalition was provided because of the Taliban's abuse of the Iranian's religious and ethnic brethren in Afghanistan. Thus, at the outset of Operation Enduring Freedom, the Taliban had no allies, bar Al Qaeda. However, the Taliban was faced by a military coalition of 15 nations,¹⁶ endorsed by much of the international community and the United Nations, ready to intervene in Afghanistan.

On October 7, 2001, Operation Enduring Freedom began. 40 American aircraft and 50 British and American cruise missiles destroyed the Taliban's rudimentary Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance (C4ISTAR) assets and air defence forces to gain battlefield dominance and air superiority. Strategic battlefield preparation was accomplished by United States Air Force (USAF) B-1 and B-2 bombers, AC-130 Gunships and United States Navy (USN) F-14 and F-18 fighter-bombers. The first reported large scale American Special Forces raid occurred on October 19, for the purpose of reconnaissance. Front line tactical bombing of Taliban troops commenced on October 21. The initial sorties were predominantly delivered by U.S. fighter-bombers, employing an unprecedented high level of satellite and laser guided munitions. These strikes were later supplemented by B-52 strikes. In total, 60 percent of all air launched munitions used in Afghanistan, were Precision Guided Munitions (PGMs). The psychological and physical effect of the aerial bombardment of Taliban positions was decisive. It ensured a Northern Alliance victory in Afghanistan.

Initial reports from the Northern Alliance and the Taliban asserted the air strikes were of marginal utility. Allied ground forces had not been deployed to

Afghanistan and the front lines had not moved. At the time, Ismail Khan returned to the west of Herat to remobilise his Tajik forces. Abdul Rashid Dostum regrouped his Uzbek forces around Mazar-i-Sharif. In addition, Haji Mohaqiq mobilised the Harazas of the Hindu Kush. Unfortunately, the first attempt to destabilise the Taliban's support in the Pushtun south was undermined, when Abdul Haq was caught and hung by the Taliban. The future leader of Afghanistan, Hamid Karzai, was more fortunate in his attempts to undermine the Taliban in the south.

By November 10, it was shown that the initial stage of the war had paid off. Taliban began to desert their units, evacuate cities and fortifications or defect to the Northern Alliance. Mazar-i-Sharif was the first city to fall to the Northern Alliance. Within an hour of fighting for the city the Taliban garrison defected, surrendered or fled. Taloqan was taken by the Northern Alliance on November 11, without serious fighting. However, north of Taloqan, Northern Alliance troops were repulsed by foreign Taliban volunteers. The foreign volunteers, unlike their Afghan comrades, were more determined to fight rather than defect or surrender. Herat fell on 12 November, after a Taliban defection of over six thousand men to Ismail Khan. Kabul was occupied on 13 November, after the Taliban had deserted the city. Kunduz, a city near Taloqan, did not fall until 26 November, due to a garrison of foreign Taliban volunteers and Al Qaeda members. By December 9, all remaining vestiges of Taliban rule had surrendered.¹⁷

The factors that caused the collapse of the Taliban were as follows: (1) the internalisation of Afghan victory through the prudent employment of the Northern Alliance as combat forces; (2) the precision application of combat air support, guided by elite ground forces; (3) CIA finances; (4) the renunciation of overt official Pakistani support; (5) the Afghan people's detestation of the Taliban; (6) the prohibition of opium cultivation; and (7) potentially the delay in deploying allied regular forces.

The promotion of the Northern Alliance as the main combatant force was critical to the victory in Afghanistan. Had the Northern Alliance been disregarded and allied forces deployed to defeat the Taliban, the result may have been very different. The Northern Alliance was adept at fighting within Afghanistan. Northern Alliance participation internalised the victory and enabled former

Taliban soldiers to surrender or defect. This may not have occurred if allied forces were used. If allied troops had been deployed, resistance may have built against another 'foreign invader'. Conversely, the Northern Alliance troops were welcomed as internal liberators. Allied troops may have been more effective as an out of theatre threat, than a deployed offensive force. Thus, rather than a Vietnam syndrome fear of casualties, the delay in deploying allied forces, may have enabled the overthrow of the Taliban to be as unproblematic as it was. The significance of the defection of Taliban troops cannot be underestimated. Without this there would have been a far greater loss of life and property.

Although regular allied military forces were not deployed, Combat Support was critical to defeating the Taliban. Close Air Support was the overt application of allied military force, reaching previously unprecedented levels of precision. This precision increased the number of legitimate targets struck, while reducing collateral damage and unintended casualties. Target designation for these weapons was provided by allied Special Forces. Without their elite soldiery, the war could not have proceeded as it did. The cause of the disintegration of Taliban forces also owed a great deal to CIA personnel. The CIA, prior to the war, had bought the defection of Taliban commanders and troops. This enabled the occupation of cities and regions with minimum violence. The ending of Pakistani support for the Taliban was also invaluable in the Afghan victory. It cannot be understated, that the ultimate victory was largely due to the absence of popular Afghan support for the Taliban. The extreme theological nature of the Taliban had alienated most of the Afghan populace. There was also tension between those who were not ethnically Pushtun and the Taliban. A further action of the Taliban, that undermined their legitimacy, was the prohibition of opium cultivation. Opium, before its partial prohibition, was the key source of income for rural Afghans, international traders, corrupt regional officials and the Taliban.

At the strategic level, Operation Enduring Freedom was a holistic military operation, in that political, economic, diplomatic and military force was combined to achieve a successful outcome. It should also be observed that in terms of military principles, doctrinal precision, force precision and professionalism were critical elements in achieving the outcome.

Operation Anaconda

The first significant ground operation undertaken by coalition troops, following the demise of the Taliban, began on 2 March 2002 and was codenamed Anaconda. This operation is important because it demonstrates the strengths and weaknesses of the coalition in a situation of LIC.

The objective of the operation was to encircle and destroy or capture a joint Al Qaeda and Taliban force (hereon noted as Al Qaeda force). This force was positioned near the town of Gardez, in the Shah-i-Kot Valley of eastern Afghanistan. The combatants involved in the operation were: (1) approximately 1,000 Al Qaeda troops; (2) hundreds of friendly Afghan troops led by American Special Forces; and (3) 1,500 American soldiers from the 101st Airborne and the 10th Mountain Divisions.¹⁸ The combat environment was characterised by extreme mountainous terrain, reaching heights of around 10,000 feet, with limited vehicular access. The terrain provided Al Qaeda with means of concealment and mobility. Conversely, the terrain limited the coalition's mobility, communications, intelligence and firepower.

Simply, the operational plan was akin to the Soviet 'hammer and anvil' approach, used widely in Afghanistan. The 1,500 American troops were deployed along the western boundary of the valley. Concomitantly, the Afghan forces were tasked with advancing from the east to force the Al Qaeda troops out of their positions and into the American line. However, the battle did not proceed as the plan prescribed. The terrain had concealed from the allied Intelligence, Surveillance and Reconnaissance (ISR) assets the majority of the Al Qaeda forces, half of their positions and the strength of their fortifications. Allied intelligence had also identified civilians in the valley. However, this information proved to be incorrect when hostilities commenced.¹⁹

Due to this intelligence weakness in locating concealed Al Qaeda positions, a Special Force unit was deployed via MH-47 Chinook helicopter on top of an active Al Qaeda position. The position, on the crest of Takur Ghar Mountain had previously been bombed by American aircraft and evaded reconnaissance sweeps. Upon disembarking the MH-47 the American forces came under heavy fire. The MH-47 sustained damage and vacated the scene. However, on doing so, an American soldier fell from the aircraft.²⁰

To save the lost soldier an extraction force was dispatched, comprising of a heliborne Army Ranger unit and Apache helicopters. In the ensuing extraction attempt the Ranger unit was shot down, and several AH-64 Apache helicopters were disabled. Additional attack helicopters were deployed, including the AH-1 Super Cobra. However, due to the extreme altitudes in the Shah-i-Kot Valley, the helicopters were unable to remain on station for extended periods. In addition, the helicopter's handling was negatively influenced and their accuracy was reduced. To remedy the situation a further Ranger unit was tasked with ascending the mountain on foot, this force was successful in their mission. However, the operation revealed issues regarding inappropriate equipment, clothing and footwear. In addition, airpower alone performed inadequately when opposing personnel in concealed positions, upon difficult terrain in bad weather.²¹ Ground forces had also become completely reliant on airpower, as artillery had not been transported to the battlefield.

The Afghan forces, which were to evict the Al Qaeda forces from their positions, were instead ambushed and repulsed. American soldiers were then deployed by CH-47 and MH-47 helicopters. However, upon disembarkation they were attacked by heavy rifle, RPG and Surface-to-Air Missile (SAM) fire. Once again, the adverse nature of the combat environment attributed to a lack of effective intelligence. This operation clearly demonstrates that electronic imagery and SIGINT is not an intelligence panacea in LIC. It must be supplemented by sound HUMINT. However, HUMINT is far from infallible. The Americans found local Afghan intelligence to be imperfect.²²

Due to the coalition ground force's initial lack of success, heavy aerial bombardment was resumed. Subsequently, allied ground forces were able to operate more effectively. The need for major aerial bombardment illustrates the reliance of ground forces upon airpower. In addition, the vulnerability of ground forces that lack air support was also illustrated.²³ Air support was constrained in Operation Anaconda primarily because of the mountainous terrain and poor flying weather. However, there were also human, technical and procedural difficulties. First, the Combined Air Operations Centre was given only two hour prior warning about the operation. Second, after the operation began, air controllers and their systems lacked capacity to handle the quantity of requests for close air support. Third, intelligence requirements stipulated cave entrances were not to be bombed

(in order to facilitate access to intelligence after the caves were taken). Fourth, rules of engagement forbade pilots from engaging certain targets (such as civilian vehicles used for military purposes) without authorisation. Fifth, battlefield preparation by aerial bombardment was not undertaken, as surprise was seen as critical for the operation. These factors, when combined with the ground force's lack of endogenous firepower and fire-support, put coalition soldiers at risk from enemy fire.²⁴ In addition, the deployment of helicopters in this terrain put them at risk from small arms fire. Thus, A-10 Warthogs were deployed to support helicopter operations.²⁵

By March 18, 2002, Operation Anaconda was over and had been hailed an “unqualified and absolute success” by General Franks, the commander of United States Central Command (CENTCOM).²⁶ Eight American troops were killed in the operation and 76 were wounded. 2,500 bombs were dropped in the operation, while the number of enemy killed or escaped was disputed.²⁷

In terms of military principles, the extreme terrain on which the operation took place limited the coalition's ability to collect intelligence and communicate effectively. The terrain also discouraged the use of combined arms and elevated the need for seamless joint force operations. It should also be noted that the professional nature of the personnel deployed played a significant role in making the operation a success.

Suppressing Fire

Operation Anaconda was executed without artillery, degrading suppression and fire support. This was partially due to a lack of logistics capability. In short, artillery units could not be brought to the field. Neither could some of the 101st Division's UH-60 Blackhawk helicopters. General Shinseki, the U.S. Army's Chief of Staff, stated that artillery could provide security for ground forces, through area suppression, within 3 minutes, rather than an average of 25 minutes for aerial support. Battlefield suppression was also constrained, by the lack of dumb bombs carried by aircraft. Smart bombs require precise coordinates, and ground forces could not always provide these coordinates, as their targets were often concealed. This further congested communications systems between airmen and soldiers, which had in fact failed on the first day of operations.²⁸ In addition,

suppressive mortar fire caused 28 American casualties, while the use of artillery could have minimised these friendly fire casualties.²⁹ General Franks contested Shinseki's argument, stating mortars were more appropriate for Operation Anaconda, due to the incompatibility of artillery and altitude. These problems, caused by altitude, included a lack of lift capacity and poor munitions trajectory characteristics.³⁰ The lack of roads in the Shah-i-Kot Valley, understandably constrained the 101st Division's ability to deploy their M-109 Self propelled howitzers. However, it does not fully explain why towed 105mm or 155mm artillery could not have been airlifted into position. Moreover the 82nd Airborne Division, who replaced the 101st Division, did deploy their artillery unit.

Soldier's Kit

Operation Anaconda demonstrated that the weight of a soldier's kit must be reduced. Extreme terrain and lack of oxygen at altitude significantly limited soldier mobility, causing equipment, including body armour, to be discarded. Coalition soldiers were routinely carrying 30 to 40 kilograms of equipment, which was reported to have felt like 60 kilograms at 2,500 to 3,000 metres. The U.S. Army intends to reduce equipment weight by 50 percent, through the Objective Force Warrior project. Planned kit improvements include a uniform with a climate conditioning system that will also protect against chemical and biological weapons. Interceptor body armour has been introduced, which weights 8 kilograms, 4.5 kilograms less than previous body armour. This new body armour is credited with significantly reducing severe injuries and deaths. A new generation of weapons is envisioned to replace the M-16 Rifle, M-4 Carbine and the M-249 Squad Automatic Weapon, and will be approximately 35 percent lighter.³¹ Operations in Afghanistan have once again signalled the lack of stopping power of the 5.56mm round, used in all the aforementioned individual weapons.³² The benefit of the lighter 5.56mm round, over the conventional 7.62mm round, is that a larger quantity of individual rounds can be carried. One aspect of the inherent lack of firepower of the 5.56mm round was addressed in the battlefield, by the use of anti-tank weapons. Further equipment improvements include, lighter batteries and individual sensors to monitor the battlefield and troop health. Global positioning systems, lightweight binoculars and laser range

finders are indispensable on the modern battlefield. However, the Ground Laser Designator System (GLDS), that 'paints' targets for laser guided bombs to strike, must be reduced in size and weight. There is also a robotic all terrain vehicle (ATV) under development. The robotic ATV is intended to deploy, advance with, and carry the equipment of combat troops.³³ The ability for a robot to manoeuvre in difficult terrain has been questioned. However, the M-Gator 6x6 ATV performed with "great success" in the mountains and bases of Afghanistan.³⁴

Communications, Command and Control

The U.S. C4ISTAR network was highly successful in Afghanistan. However, topography and the coalition's structure revealed fundamental weaknesses central to the system. Basic frequency modulation (FM) communications were hindered by the mountainous terrain, causing a reliance on satellite communications. The satellite communication systems in use included the Defence Satellite Communications System (DSCS), Milstar and National Aeronautics and Space Administration's (NASA's) Tracking and Data Relay Satellite (TDRS), in addition to National Reconnaissance Office (NRO) relays and Ultra High Frequency (UHF) follow-Ons. These various satellites relay and provide for, information to flow between commands and combatant units. Unfortunately, each communications system requires a separate terminal, meaning combat units must carry numerous communications devices. This problem is being addressed, so that one communications device will provide for all communication and information needs of the increasingly mobile user. A single system is virtuous because it does not deprive the user of mobility, as multiple systems do. However, secondary communications systems must be maintained in case of primary communications failure or detection.

Knowledge of the environment is critical to command and control of combat forces. However, the aforementioned communications problems were aggravated by the lack of joint command for the various Special Forces involved. Special Force units under separate commands could not communicate with each other. Thus, they were artificially isolated. In addition, UAV reconnaissance information is not available via the current satellite network to all users. This reduces operational awareness and initiative. Furthermore, it is expected that the

bandwidth (quantity of data transferred) of the satellites will only supply half of what is required by 2010. This will obstruct U.S. communications, control and ISR capabilities on the future battlefield.³⁵

Command and Control must be flattened in both coalition and joint warfare scenarios. All forces must fight as one. There can be no communications capacity restrictions between troops, commanders and combat support forces. Initiative is of critical importance for counterinsurgents operating in LIC. The provision of real time imagery to high commands, especially out of theatre, is reducing the initiative and combat effectiveness of on station combat assets.

Between Joint Warfare Synergy and Combined Arms

Joint warfare is not a new concept, originating, as it did, in World War Two. However, the emerging synergy with which it is applied is transforming the modern battlefield. Communications, Special Forces and allied aviation transformed the last vestiges of the stoic Northern Alliance into a force that dominated Afghanistan in less than four months. Operation Anaconda graphically demonstrated the capability of joint warfare to create victory. Extensive and precise aerial firepower guided by C4ISTAR assets are the primary elements of joint warfare. However, the potent, yet isolated nature of joint warfare can cause risk, which if mismanaged can become danger.

Risk is assumed in warfare so that an enemy's weakness can be exploited from a position of strength. In practical terms, when forces are massed geographically to strike at a target, all other areas become vulnerable. Similarly, in LIC, counterinsurgent ground forces are dispersed throughout the battlespace to identify and strike at scattered targets. In so doing, the ground forces face the risk of becoming isolated and assaulted.

Joint warfare manages risk with intelligence, communications and fire support. The latter is increasingly taking the form of air support. However, if any component in the system is damaged or unable to operate freely, the entire system has the potential to fail. Hence, redundant systems are needed. Future enemies will strive to threaten components of the C4ISTAR system, especially communications and air superiority. It is unlikely that in the near future, theatre wide interruption to joint warfare will occur, although, localised enemy

dominance may cause risk to become danger. There must be procedures, technologies or mobile reserve forces ready to counter this threat.

The danger posed by the denial of C4ISTAR and airpower, can be reduced by preserving aspects of combined arms. Combined arms as a concept dates from Napoleon; however, infantry and artillery are now supported by armour rather than cavalry (generally). This concept may seem archaic, however, the interdependence and mutual support of the three combined arms, creates joint strength by diminishing independent weakness.

Special Forces, forward air controllers and linguists were among the most important Western ground units of the Afghan war. They are a case in point for the combined arms – joint warfare debate. Special Force units are among the most potent weapons upon the battlefield. Since they operate in relative isolation, they are also one of the most vulnerable. Their risk becomes danger if they are denied secure and viable communications with fire-support assets, or combat service support resources, such as logistics. Operation Anaconda illustrated the loss of combat effectiveness when artillery was not deployed in support of ground forces. Afghanistan also showed that Special Forces from the U.S. Army and Marine Corps, lacked light armoured vehicles (LAVs) and ATVs.³⁶ Moreover, strategic, operational and tactical airlift assets were in short supply. Thus, if the Special Forces had been supplied with LAVs and ATVs, their risk would have been diminished. However, these mechanised forces would have caused further logistics problems.

Unfortunately, combined arms and joint warfare are in part, incompatible. Joint warfare emphasises agility, overwhelming precision strike, force concealment and superior intelligence. Combined arms accentuates firepower, manoeuvre (only to bring its firepower to bear), and force protection through disproportionate force. In practical terms, the application of combined arms principles to joint warfare slow operations and potentially reduce stealth, in return for increased local firepower.

U.S. Deputy Defence Secretary Paul Wolfowitz characterised the initiative, agility and flexibility of Special Operations in Afghanistan in the following quote. “In Afghanistan, a country we think of in somewhat medieval terms, our Special Forces have taken a page from the past, from the history of the horse cavalry and soldiers armed with swords and rifles, manoeuvring on

horseback,... But now they use radios to direct close air support and bomber strikes, sometimes from halfway around the world.”³⁷ Harold Kennedy added that many Army Rangers “dressed in standard khaki-coloured desert camouflage battledress, complete with lightweight Kevlar helmets and body armour”³⁸, and armed themselves with the latest small arms. Special Force units often adopted traditional Afghan robes, turbans, beards and the ubiquitous AK-47 or sword. This was not an attempt to conceal their combat status. Special Force personnel were specific targets of the Taliban, so the dress of indigenous combatants was worn. Tactics were also highly flexible, as a Special Forces soldier reported in a declassified situation report to the U.S. Defence Department, “I am advising a man on how to best employ light infantry and horse cavalry in the attack against Taliban T-55s, mortars, artillery, personnel carriers and machine guns – a tactic which I think became outdated with the invention of the Gatling gun. The Mujahadeen have done that every day we have been on the ground.”³⁹ Special Forces were critical to the Afghan campaign, and are deployed in most combat situations. Historically, Special Forces (SF) have been under-funded, often because their covert nature restricts public knowledge of their roles. The U.S. has realised this and has significantly increased SF funding. The SF, along with the later deployment of Marines at Camp Rhino, were critical elements of the coalition’s psychological campaign. With the SF embedded in Northern Alliance units, confidence in the coalition grew. This would not have happened had the West only deployed air power. Similarly, the Marine presence in southern Afghanistan enabled the southern warlords to desert the Taliban, which in turn led to the liberation of Afghanistan.⁴⁰

The Air Campaign

The significance of aviation on the modern battlefield cannot be underestimated. Aviation provided intelligence, logistics and firepower, which was critical to victory in Afghanistan. The same Special Forces soldier, as quoted above, had this to say about the importance of close air support: “We couldn’t do what we are doing without the close air support.”⁴¹

Initially, the greatest difficulty for U.S. and coalition airpower was Afghanistan’s remote location. Until in-theatre airbases became available, much

of the coalition's combat air support was provided by naval aircraft based in the Indian Ocean and the bombers based in Diego Garcia. Due to range limitations of attack helicopters, A-10 Warthogs and AV-8 Harriers, such aircraft were not deployed until theatre airbases became available.

In the initial phase of Operation Enduring Freedom (October 3 through December 17, 2001), Navy F-14s and F/A-18s and Air Force F-15s and F-16s flew approximately 80 percent of all combat sorties over Afghanistan, yet only delivered approximately 35 percent of all munitions. Concomitantly with maintaining this critical overhead vigil, these short range aircraft imposed a huge strain on the aerial replenishment fleet.

Easing this strain on aerial replenishment will be essential in any future conflict. Without the USAF's operational fleet of 415 KC-135s and the Royal Air Force's (RAF) VC-10 and Tristar replenishment tankers, Operation Enduring Freedom would not have prevailed. A number of KC-135s also performed an essential communications function. Palletised communications systems carried by the KC-135, overcame some of the communications failures caused by terrain. This enabled ground forces to communicate with C2, firesupport and targeting assets.

B-2s provided preliminary battlefield preparation with 12 stealth sorties. Remarkably, the eight B-1s and ten B-52s based at Diego Garcia flew 10 percent of the combat sorties, but dropped 65 percent of all munitions. The AC-130H Sceptre and AC-130U Spooky Gunships, deployed to Afghanistan, proved so effective the USAF is seeking to enlarge the AC-130H fleet by 50 percent and upgrade the remainder of fleet.

Maritime reconnaissance aircraft, such as the P-3 Orion and the British Nimrod performed important and uncharacteristic SF C2, fire-support and reconnaissance roles. The P-3 was said to be the SF's favoured surveillance asset. This was due to its sensors and personnel capacity. This allowed for SF members to be embarked, to assist their comrades on the ground. More recognisable C4ISTAR aircraft included the E-2C Hawkeye, E-3A AWAC, E-8C JSTAR, RC-135 Rivet Joint, and the U-2. These aircraft found targets, coordinated air movements, enabled communications and were also critical to the victory in Afghanistan.⁴²

Aviation: Strike and Support

There were a number of causes for the unusual character of air operations over Afghanistan. First, the disposition of Air Force missions will be analysed.

The F-16 was employed almost twice as often as the F-15. The F-16C/D Fighting Falcon and the F-15E Strike Eagle can operate a similar range of armaments and weapon systems. An implication drawn from Afghanistan stated that the F-16 was highly successful, due to its fuel efficiency. The F-16 was said to use only half the fuel of the F-15 to accomplish the 'same' mission. This was significant, as aerial replenishment was a limiting factor in the air campaign. Colonel Dave, the commander of the 332nd Air Expeditionary Group stated, 'twice as many F-16s could be deployed as F-15s for the same fuel used, and this made the F-16 a force multiplier'.⁴³ This statement is correct. However, it oversimplifies the situation on two counts. First, the F-15 can carry approximately twice the general armament of the F-16. In addition, the F-15 can carry twice the number of joint direct attack munitions (JDAM) as the F-16. The significance of the JDAM will be discussed later in this chapter. Thus, the F-16 is no more fuel efficient, in comparison to the F-15 if weapons load is accounted for. Second, Afghanistan provided few high value targets for aircraft to bomb. In this situation, it is more combat effective to have aircraft distributed over the theatre of operations. Whether aircraft are spread wider over time or geographic area, the outcome is the same, a quicker target identification to target destruction loop. The identification – destruction loop is officially known as the Find-Fix-Track-Target-Attack-Assess (FFTTAA) loop. This refers to the time between finding a target and destroying that target. This is highly significant for two reasons in LIC. In LIC insurgent targets are highly mobile, thus, difficult to destroy by close air support; requiring the consolidated identification – destruction loop. Because of this, smaller, fuel efficient aircraft like the F-16 may be more suited to LIC, when fuel is a consideration. The amalgamated reaction time of the F-16 fleet is quicker than the F-15, as there are more F-16s spread more widely over the theatre of operations.

The B-1 and B-52 made evident the essential nature of a bomber fleet for operations over a distant target. The effect of the B-1 and B-52 had on Afghan operations was described by General John Jumper, U.S. Air Force Chief of Staff,

as being “transformational”.⁴⁴ The range of the B-1 and B-52 enabled both aircraft to make the 8,000 kilometre return flight from Diego Garcia to Afghanistan and loiter over the battlefield for extended periods. So effective was the combination of heavy bomber and JDAM, that in a 20 minute period four B-1s were able to deliver 96 bombs. The 96 JDAMs delivered are the equivalent in firepower to 1,920 aircraft sorties undertaken in the first Gulf War.⁴⁵

Transformational Weapons

The JDAM is a global positioning system (GPS) attached to a Mk-83 or Mk-84 bomb. This weapon transformed the Afghan war by providing a cheap, smart, all weather weapon, which made each aircraft vastly more potent. Statistics estimate an F-16 with two JDAMs, is equivalent to 40 F-16s equipped with dumb bombs.⁴⁶ Due to the modest cost of the JDAM (U.S. \$18,000), they will increasingly be utilised in the future, with some sources asserting doubts whether dumb bombs will remain in the U.S. arsenal. A leading factor causing the improvement in weapons intelligence is the reducing payload capability of future American combat aircraft. The F-22 and F-35, which will replace much of the U.S. combat fleet, including the F-14, F-15, F-16, F-18, carry fewer bombs, but within internal bays, to maintain their stealth capabilities.⁴⁷

In Afghanistan, the widespread use of PGMs reduced collateral damage significantly. When civilians were killed it was by munitions hitting their targets, rather than weapon error. The failure is thus in intelligence and surveillance. Simply, aircraft, UAVs and sometimes SF troops cannot tell the difference between civilians and combatants. The U.S. is continuing the development of weapons such as the JDAM and the wind corrected munitions dispenser, which increasingly put weapons on targets.⁴⁸ However, if the enemy chooses to use civilians as shields, some will be sadly, but inevitably killed, and this responsibility can only be assumed by the insurgents.

ISTAR: Intelligence, Surveillance, Target Acquisition and Reconnaissance

In Operation Anaconda, the difficult Afghan terrain and lack of roads assisted Al Qaeda’s concealment, mobility and fighting capability. However, during the initial stages of Operation Enduring Freedom the Taliban presented exploitable

targets for the coalition air forces. The Taliban wanted to hold key cities from opposition forces. This forced the Taliban to concentrate armour, artillery, vehicular and communications assets near cities. These Taliban weapons became targets of opportunity for allied strike aircraft, Special Forces, UAVs and JSTARs. Furthermore, Taliban forces used the minimal road network to supply and reinforce positions. These supply vehicles were easily engaged by airpower. It is also reported, that the utter helplessness of Taliban forces to respond to the aerial threat led first to low morale, then to mass desertions. The Special Force troops on the ground calling in airstrikes were very aware of psychological warfare. Reports state that while SF positions were being overrun, the SF troops would continue calling in close air support to ensure Northern Alliance victories. Thus, Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) was highly valuable in the early period of Operation Enduring Freedom. However, as targets diminished the requirement for HUMINT escalated.⁴⁹

Post Taliban Afghanistan: Psychological and Physical Warfare

Of Afghanistan, after the defeat of the Taliban, Cordesman stated “the US and its Western allies [do not] have a solution to the problems associated with combating an enemy whose forces are dispersed, fluid, and not seeking a conventional fight.”⁵⁰ This statement wrongly gives the impression that LICs are won in a decisive battle akin to Waterloo or Trafalgar, this is not the case. Very simply, LICs are won if a counterinsurgent can entrench the freedom for the population to choose a civil and peaceful means of existence, while suppressing the structures and persons who promote violence.

The remnants of Al Qaeda, and those individuals who remain actively supportive of the Taliban, are adept at evading coalition intelligence, surveillance and reconnaissance. However, the coalition is developing its means of defeating combatants. Tora Bora highlighted the deficiencies of relying to heavily upon Afghan troops to thwart Al Qaeda retreat. Many of the Afghan troops were bribed, chose not to fight or were undermined by ethnic division. When coalition SF have engaged Al Qaeda forces since Tora Bora, they have been more successful.⁵¹

Ground troops and coalition sourced intelligence has been relied upon more heavily when searching for the remaining vestiges of Al Qaeda and the Taliban. Airstrikes, on the other hand, were scaled back. This change in strategy has illustrated critical flaws in American capabilities. Intelligence was a major weakness in the American campaign. The U.S. needs to train more linguists, area experts and psychological warfare operatives. All intelligence collection, analysis and dissemination capabilities must be improved. In addition, helicopters such as the UH-47 Chinook and UH-60 Blackhawk need to be upgraded or replaced to overcome their technical failures and lack of instrument flight, night vision, aerial refueling and ISR capabilities.⁵²

Taliban Civil Affairs: Fear and Propaganda

The Taliban CA programme emphasised disinformation and relied upon the lack of conflicting sources of information. If such sources emerged they were killed.

Taliban CA used civilian casualties and collateral damage, caused by coalition forces, as their main means of creating support among the population.⁵³ Less tangible propaganda centred upon the American domination of the Muslim world and the assertion that the Jews committed the September 11th terror attack.

Education was a factor in the effectiveness of the Taliban CA programme. The educated urban population (by Afghan standards) were less likely to believe Taliban propaganda. This was demonstrated by Maulavi Khattib, the deputy head of the Kandahar Clerics Council, speaking from the birthplace of the Taliban. Maulavi stated that ‘the American forces were in Afghanistan to liberate the people, but not rule. The American’s upheld freedom of religion and the UN supported the coalition.’⁵⁴

To counter such assertions, the Taliban turned to terrorism as a means of coercion. Clerics were systematically murdered if they would not support a call to Jihad against the coalition.⁵⁵ Maulavi asserted Jihad was impossible to declare, Clerics had no right to, as the new Afghan Government had been elected by the people, and the government supported the coalition.

In isolated Pashtun regions of Afghanistan, and in the tribal frontier of Pakistan, people are less sophisticated but very fixed in their ideas. These ideas are potentially impossible to alter. A common perception in Pashtun regions of

Afghanistan insists that the core of American policy is a hatred of Muslims and that bin Laden was not responsible for September 11. To most Westerners, these views are false and unrelated. This is unfortunately not so in parts of Afghanistan and Pakistan. Shakirullah Jan Kokikhel, chief of the 100,000 member Kokikhel tribe, situated in northern Pakistan, claimed, in support of bin Laden's innocence, that "our research has shown that the Jews did it",⁵⁶ referring to September 11. Indicative of the psychological nature of the potential supporters of the Taliban, Shakirullah also stated that "Now we hate Americans. Under our tribal rules, we designate an enemy. America is now the enemy." The dilemma posed by this statement is, how to change their way of thinking, because America is not their enemy. Education will not suffice. Ajmal Khan, the leader of Pakistan's Madelakhel tribe, a university graduate, former military officer and former minister of sport, agreed with Shakirullah, "it must have been the Jews".⁵⁷ This complete renunciation of responsibility for terrorism, committed by bin Laden is unbelievable, and almost impossible to defeat.

U.S. Intelligence Sources

Most civilian casualties caused by coalition forces in Afghanistan were not results of weapons failure, but rather incorrect intelligence. Afghans provided incomplete, inaccurate or deliberately misleading information to the coalition. The cause of the disinformation is attributed to rivalry between mutually competitive Afghan warlords, who were generally friendly towards the coalition. However, this internecine rivalry, which causes civilian deaths, is supporting the Taliban's CA programme. This is a view supported by General Hagenbeck.⁵⁸ This endangers the coalition's aim of bringing peace, stability and freedom to Afghanistan. America must be aware that in Afghanistan some sources of intelligence are treacherous. An Afghan security official, ethnically Pashtun, and supportive of the American presence concurred, "unfortunately they [Americans] don't have faithful Afghan friends,... that is very dangerous for them."⁵⁹ It is also, very dangerous for Afghanistan, and hence international security.

Pakistan's Approach

The United States has pressured the central government of Pakistan to intervene in the Federally Administered Tribal Area (FATA) of northern Pakistan, since the inception of the latest Afghan war. America's intention was for Pakistan to eliminate any support for Al Qaeda and the Taliban.⁶⁰ However, no outside military force has ever been successful in waging a counterinsurgency in the FATA region. Thus, Pakistan employed an old technique used by the British Raj, collective punishment. In short, military commanders give tribal elders a list of wanted men and an ultimatum. If those who are wanted are not caught and handed over to the authorities, the entire tribe can be punished. This includes homes being destroyed, withdrawal of public funds and detention of other tribe members. This tactic has proven itself. In one such action, out of 72 men wanted by the Pakistani authorities, 42 were handed over and 8 who would not surrender had their homes blown up by the tribe. Curiously, this tactic is supported by the tribe's people, who are immensely independent and want to deal with their own internal problems. Shakirullah of the Kokikhel tribe stated, there were "no Al Qaeda or Taliban"⁶¹ in his tribal area, and if the American's were to supply evidence to say there were Al Qaeda or Taliban, they would detain them. Unfortunately, it is difficult, initially, to ascertain whether these people are genuine and trustworthy or not.⁶²

Conclusion

OEF and the Somali operation demonstrate the regional and cultural complexity which must be taken into account or effectively engaged with by intelligence and regional analysis, prior to the deployment of armed forces. Technological capabilities and military professionalism incorporated into the coalition were also highly significant to the operational outcomes. Force was applied to targets that were highlighted by intelligence gained. However, both case studies indicated the critical nature of insuring that intelligence is based upon genuine information.

Within the sphere of American military capabilities, the Somali and Afghan examples show the critical nature of a synergistic operational environment. Where intelligence, command, communications, ground and air forces were combined in joint warfare, they were effective because of the entire

force's interdependence. In addition, psychological operations were also prominent in the two case studies. The advantages of prior training among integrated coalition forces within the region of operations were also exemplified. A more substantial discussion of the above findings will follow in the following section.

In terms of strategic principles, the counterinsurgency operations in Somalia and Afghanistan were both holistic in reference to the political, economic, diplomatic and military tools employed. However, political ramifications at the strategic level caused counterinsurgent retreat from Somalia. In Afghanistan, the strategic application of holistic force ensured that a politically caused failure would not occur. Operations in Somalia demonstrated the critical link between the provision of internal security and the application of civil operations: one cannot occur without the other. Operations in Afghanistan showed the essential nature of a unified command, at all levels of command, including the strategic, tactical and operational. Both operations illustrated the critical nature of professionalism, independence, initiative and joint force to contemporary counterinsurgency operations. However, in both of these case studies intelligence and communications were found to be limiting factors, which at times caused the breakdown of joint force precision and cohesion. In addition, latter operations in Afghanistan illustrated the problem caused by inaccurate intelligence: innocent people die.

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Chapter Four

The Iraq War of 2003 – 2004:

The Coalition's Experience in LIC

This chapter examines Operation Iraqi Freedom (OIF) (British designation: Operation Telic), the war against Iraq's Ba'athist regime and Saddam Hussein. This conflict will subsequently be defined as OIF or the Iraq War. Significantly for this thesis, OIF seemed to exhibit an amalgam of High and Low Intensity Conflict. More precisely, OIF incorporated two distinct battlefield strategies in two more or less distinct phases. The strategies of the initial occupation included: (1) High Intensity operations waged by the Coalition; and (2) Low Intensity operations waged by Iraqi forces loyal to Saddam. Simply, Saddam loyalists lacked the cohesion to generate anything other than Low Intensity Conflict (LIC) in response. Both sets of forces were attempting to fight a war consistent with their own strengths and offsetting of their own weaknesses. The Coalition was highly successful, while the Iraqi forces were extremely ineffective. However, the competing strategies of the conflict that followed the occupation have been more characteristic of LIC. The subsequent terrorist and insurgency operations (conducted by forces opposed to the Coalition and government of Iraq) have often confounded the Coalition.

Prior to addressing the complexity of the subject matter, the thematic scope of this research should be observed. This research examines conflict as a holistic endeavour that combines politics, economics, diplomacy and military force. The research analyses operational, tactical and strategic actions and from this basis makes recommendations. There are four doctrinal principles that are examined as critical enablers in counterinsurgency, these include the control of international interference, the provision of internal security, the application of civil operations, and the installation of a unified command. Given that this research concentrates on the actions of military forces operating as counterinsurgents, there are ten military principles that form a further focus of this research. These ten principles include doctrinal precision, professionalism,

independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence.

Due to the fusion of subject matter examined in this chapter, the subsequent analysis will consider battle analysis holistically. It is recognised that this chapter may draw criticism for this holistic approach, which may be seen as convoluted or subjective. However a holistic approach, rather than a selective approach, will reduce flawed conclusions. These flaws would be created by deriving conclusions from specific engagements, which could prove atypical. Furthermore, a holistic approach will illustrate emerging vulnerabilities and strengths on the battlefield. These vulnerabilities or strengths, whether they occur in conventional or asymmetric conflict, may have generic implications for the future.

The Iraq war is indicative of a strategy amalgamating irregular and regular tactics. This integration of tactics is a consequence of the opposition of dissimilar military units. The inferior military force will attempt to utilise unconventional techniques to compensate for inherent weakness. In practical terms, the pre-eminence on the conventional battlefield of Western military forces will cause an unconventional response.

The analytic method of this chapter is supported by Anthony Cordesman's synopsis of the Iraq war. Cordesman asserts the "Iraq war was an asymmetric war in several senses of the term. Iraq made extensive use of irregular forces and unconventional warfare techniques, ranging from the use of its cities as sanctuaries for light armed paramilitary forces like Saddam's Fedayeen to the use of suicide bombers. It disguised some forces in civilian dress and may have attempted to make others look like they were wearing America uniforms. The fundamental asymmetry, however, lay (1) in the radically different capabilities of the Iraqi forces and those of the coalition in technology, training, and readiness, and (2) in Iraq's lack of joint warfare capability against [United States] U.S. and British forces that had a degree of "jointness" that had never been approached in any previous war".¹ Hence, the holistic analysis of the Coalitions operations, tactics, procedures and concepts in Iraq, will advance the military capability of counterinsurgents in LIC. Prior to this analysis, there will be a brief examination of the historical and political dynamics of Iraq. This historical and political analysis sets the context for the 2003 Iraq War.

The Politics of Saddam

'Knowing your enemy' is a critical and timeless requirement for victory in conflict. Saddam Hussein's Iraq was a brutal, regionally destabilising and genocidal dictatorship. Saddam gained prominence in the Ba'ath Party, the former national-socialist (fascist) Iraqi Government, through his effective application of violence. Saddam's violence was initially directed at political opponents of the Ba'ath Party. Subsequently, Saddam's violence removed his opponents from within the party. Saddam seized the presidency on 16 July 1979, when he overthrew President Hasan al-Bakr.

On 22 July 1979 Saddam purged the party to enforce compliance through fear. In September 1980 Saddam invaded Iran. This war lasted eight years, impoverished Iraq and caused between 250,000 and 500,000 casualties overall. Iraq financed its wartime spending through credits provided by Saudi Arabia and Kuwait. Iraq's unwillingness to repay this debt was among the factors that led to the Gulf War. Once the coalition had evicted Iraq from Kuwait, the international community implemented a policy of containment and arms inspections against Iraq. Specifically, this containment of Iraq was undertaken to eliminate Iraq's Weapons of Mass Destruction (WMD).

The Reasons behind the 2003 Iraq War

The leading impediment to peace, between Iraq and the West, was the threat derived from Iraqi attempts to enhance their WMD. Following the Gulf War, the United Nations Special Commission (UNSCOM) attempted to uncover and eliminate Iraq's WMD programmes. "Despite consistent and general Iraqi dissimulation and unwillingness to cooperate, UNSCOM inspectors ... [uncovered] elaborate efforts to build an Arab nuclear weapon as well as major programs in chemical and biological weapons".² The threat of these weapons was heightened, given the use of chemical weapons against: (1) his own people (the Kurds in northern Iraq); and (2) Iranian soldiers in the Iran-Iraq War. Hence, Saddam armed with WMD and airborne delivery systems was a significant and direct risk to the stability of the Middle East. Furthermore, "'Regime Change' in Iraq seemed imperative not because Saddam necessarily had weapons of mass

destruction but because his continuance in power and his oil wealth guaranteed that he would have them again if he survived”.³

Iraq’s association and support for terrorist organisations, especially Al Qaeda and associates, reinforced the necessity for war with Iraq. There is circumstantial evidence connecting Iraq and Al Qaeda.⁴ However, Iraq overtly supported both the Abu Nidal Organisation and the Palestine Liberation Front (PLF). Abu Nidal is a terrorist organisation, associated with Al Qaeda, and was situated in north eastern Iraq. Saddam supported Abu Nidal, to undermine Kurdish resistance in northern Iraq. Saddam’s support for the PLF was an attempt to maintain violence and discord between the Palestinian Authority and Israel. Fomenting this issue reduced public scrutiny of, and confused debate about, Iraqi domestic and international issues. There have been reports that Iraq directly supported the September 11 terror attacks, this is unsubstantiated. However the passport of Ramzi Yousef, the leading September 11 terrorist, was Iraqi. It is argued, that the passport was supplied by an Iraqi Intelligence officer. There was also concern relating to Iraq supplying a terrorist organisation with WMD. This was the West’s worst fear, as Iraq’s WMD would gain a global and unpredictable reach.⁵

However, it would have been unlikely that Iraq would have supplied terrorists, especially Al Qaeda or associates with WMD. Essentially because Iraq is a secular state and many Islamic terrorists are Salafist. Salafists support a united Muslim caliphate, which would overthrow the governments of, and combine, Muslim nations. Therefore, Iraq would be threatened by its own WMD. Furthermore Saddam should have calculated that an attack on a Western target, by terrorists using WMD, would bring a resolute response against the supplier of the WMD. This argument however, does not factor in irrational Iraqi actions, or the international community’s lack of decisiveness. Potentially irrational actions, such as supplying terrorists with WMD, could imperil many more lives than those lost on September 11. Furthermore once these lives have been lost, no amount of decisive action can bring them back. Action, therefore, to forestall this possibility was thus appropriate.

There were two other issues precipitating the Iraq war: (1) human rights and war crime issues; and (2) continued threats to Kuwaiti territorial integrity and Iraq’s Shi’a and Kurdish populations. However, these concerns were secondary

to Iraqi support for terrorists and the pursuit of WMD. Simultaneously, Washington's perception of terrorism and WMD had taken on a new dimension since September 11. September 11 made the White House realise, that active engagement within the international environment was critical to America's future and national interests. This new perspective on international relations was labelled neo-conservatism.

In practical terms, neo-conservatism, in the realm of security, emphasises the opposition to terrorism and the accumulation of WMD by "irresponsible states".⁶ In addition, in such circumstances there are limits to the sovereignty of such 'irresponsible states'. Sovereignty as a principle, maintains there is no internal equal and no external superior to the government of a state. This implies that no other state should interfere in the internal policies of another state. Richard Haass, the U.S. State Department's Director of Policy Planning, gave the following explanation of 'limited sovereignty' in an 'irresponsible state'. Haass stated, "Sovereignty entails obligations. One is not to massacre your own people. Another is not to support terrorism in any way. If a government fails to meet these obligations, then it forfeits some of the normal advantages of sovereignty, including the right to be left alone inside your own territory. Other governments, including the United States, gain the right to intervene. In the case of terrorism [and presumably WMD], this can even lead to a right of preventive, or peremptory, self-defence".⁷ This policy of preventive defence is not synonymous with the enforcement of a uni-polar world. This was displayed by America's effort to create a 'coalition of the willing', before embarking on the Iraq War.

UN Resolution 1441 provided a legal justification for military action against Iraq. This Resolution stated that Iraq remained in breach of UN Resolution 678 of 1990 and all subsequent resolutions. In 1999, UNSCOM's final report stated that 6,000 chemical weapons remained unaccounted for, in addition to seven surface to surface missiles. Moreover, the precursors for 26,000 litres of anthrax and 1.5 ton of VX gas were also unaccounted for. Saddam and the Ba'ath regime's recalcitrant attitude towards the UN weapons inspectors also implied an admission of guilt, to maintaining and expanding Iraq's WMD.

Due to the WMD programmes, terrorist support, human rights and war crimes issues stated above, the United States and the United Kingdom intervened in Iraq. This coalition was also supported by a number of states, including

Australia, Bahrain, Bulgaria, Egypt, Hungary, Italy, Jordan, Kuwait, Oman, Poland, Qatar, Romania, Saudi Arabia, Spain and the United Arab Emirates.⁸

Operation Iraqi Freedom

Operation Iraqi Freedom began on March 20, 2003, with an attempted decapitation strike against Saddam and his sons Uday and Qusay Hussein. The following is a brief synopsis of the composition of opposing military forces and the sequence of battle, leading to the demise of the Ba'athist regime in Iraq.

Central Command's overall commander was General Tommy Franks. Lieutenant General David McKiernan, U.S. Army, commanded the Combined Force Land Component (CFLC). The British were represented in Central Command (CENTCOM) by Major General Albert Whitley, British Army. Whitley and McKiernan had previously served together with the North Atlantic Treaty Organisation's Allied Rapid Reaction Corps (ARRC).⁹ This previous service enabled greater coalition synergy, at the operational level.

The allied ground combat force amounted to approximately 170,000 troops, 25,000 of those were British, and the majority of the remainder were American. Total allied force element numbers, including support troops, amounted to 466,985 persons. The main allied troop concentration was based in the south. This concentration included V Corps (commanded by Lieutenant General William Wallace, U.S. Army), and 1 Marine Expeditionary Force (commanded by Lieutenant General James Conway, U.S. Marine Corp). V Corps initially included the 3rd Mechanised Infantry Division, the 101st Airborne Division, the 82nd Airborne Brigade, and additional engineer and supply units. V Corps was later augmented by the 4th Infantry Division. 1 Marine Expeditionary Force (MEF) consisted of the 1st Marine Division (Task Force Tarawa), the 3rd Marine Aircraft Wing and the British 1st Armoured Division. In the north of Iraq, the 173rd Airborne Brigade, part of the 26th Marine Expeditionary Unit (MEU) and the 10th Special Forces Group (SFG) deployed. These forces were under the command of a Special Forces General, and tasked with protecting the Kurdish population and engaging the northern elements of the Iraqi army. In the west of Iraq, under the command of 5 Special Forces Group, 4,000 special force troops from Australia, America and Britain were deployed, along with a U.S. Ranger

regiment. The primary tasks of 5 Special Force Group included: (1) the elimination of Iraq's capability to launch Scud missiles at Israel; and (2) the interruption of Syrian supply lines to Iraq.¹⁰

Naval forces were important in the Iraq war, due primarily to their power projection capabilities. These power projection capabilities became especially significant after Saudi Arabia refused landing rights to coalition combat aircraft, notwithstanding that they were part of the coalition. Land Strike was initially applied by five U.S. Navy carrier battle groups, and British and American submarines (and American surface ships) capable of firing cruise missiles. Less visible was the significant contribution made by British and U.S. Marine aircraft and helicopter carriers and assault ships. The airpower these vessels presented was critical to the land campaign. In turn, the air campaign was supplemented by: (1) the wide dissemination of precision guided munitions (PGMs); and (2) Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance (C4ISTAR) aircraft and aerial replenishment tankers.

Opposing the Coalition were 15,000 Special Republican Guards, 50-60,000 Republican Guards, 150-200,000 Regular troops and an assortment of irregular fedayeen. The Special Republican Guard force was deployed in, and around, Baghdad, principally to prevent a coup. As of 20 March 2003, the Republican Guard force, organised into six divisions, was deployed as follows. Adnan Division was deployed in the north, Nebuchadnezzar Division was deployed near Tikrit, while the Hammurabi, Medina, Baghdad and Al Nida Divisions were maintained close to Baghdad. The regular forces were organised into seventeen divisions, within five corps. Two regular corps were deployed in the north, one corps was deployed in central Iraq on the Iranian border, and the final two corps were deployed in the south. The irregular army, or fedayeen, incorporated Ba'ath party loyalists and religious fanatics from the surrounding Muslim nations. The fedayeen sought martyrdom and to kill Western troops.¹¹

Prior to Operation Iraqi Freedom, military analysts envisaged Iraq's battle plan would cede the countryside, but fight bitterly for the retention of the cities. Saddam threatened to turn Baghdad into another Stalingrad, with the prospect of high allied casualties and severe collateral damage. Unfortunately for Saddam, the threat of an internal coup and provincial rebellion had two significant results.

First, the deployment of large Iraqi regular force elements in Baghdad may have led to a coup. Second, the prospect of provincial rebellion required regular force elements to be deployed in rural areas. This enabled many of the regular force elements to merely melt away, when the Coalition approached. Moreover, Saddam's regular forces amounted to little more than ill-trained civilians, armed with obsolete weapons, and commanded by political loyalists rather than competent leaders. The Coalition's human component was a professional, highly trained, disciplined and confident force. The Coalition was technologically superior in every aspect of warfare. Furthermore, the Coalition was commanded by professionals, who were able to combine agility, jointness, intelligence and precision into a synergistic way of war.

Operation Iraqi Freedom began ahead of schedule on the 20th of March, 2003. The 5th SFG and a combined group fought in the west and north of Iraq respectively, the main allied drive came from the south. The strategic plan provided for a simultaneous air, land and sea assault upon Iraqi forces. This strategic action was intended to overwhelm and prevent any coherent command response. Critical to the non-linear warfare envisioned was the security of supply lines. V Corps logistics were routed through the western desert, as the terrain inhibited covert Iraqi movement and ambushes. Conversely, 1 MEF's supplies followed the Marines through the populated centre of Iraq.

Briefly, there were three simultaneous thrusts from the south. V Corps units manoeuvred through the western desert to Karbala, then on to Baghdad. 1 MEF travelled: (1) north from Kuwait to Nasiriyah, where they would cross the Euphrates; and (2) then further north to envelop Baghdad from the south and east. The British were to seize Basra, and with the assistance of U.S. Marine units, were to occupy the Fao peninsula. Critical choke points along the American axes of advance were Nasiriyah and the Karbala gap. Samawah and Najaf were also flashpoints for Iraqi and associated resistance.

Instances of Low Intensity Conflict in Iraq

Iraqi planning for the OIF was based on incorrect assumptions about the Coalition's order of operations. Saddam's regime expected the ensuing war would: (1) begin with a lengthy aerial preparation of the battlefield; and (2) any

land advance would be postponed until the 4th Division could be re-deployed from the Mediterranean. On both assumptions Iraq was wrong. There were no Iraqi units in place to halt the Coalition advance when it came. When Iraqi units attempted to manoeuvre to engage Coalition ground forces, they exposed themselves to Coalition air power. Iraqi units then dispersed, in an attempt to evade Coalition air power. However, dispersal prevents a cohesive and combined response to conventional land forces. Not only did Iraqi tactics fail, so did the Iraqi command cycle. The Coalition's speed, jointness, intelligence and precision completely overwhelmed any coherent conventional response.

The following section of this chapter will incorporate four engagement scenarios, each based upon a separate combat unit. First, the engagement in Nasiriyah, between Marines of the 1 MEF and fedayeen irregulars will be examined. Second, the 1st Armoured Division's envelopment and occupation of Basra will be discussed. Third, Baghdad's liberation will be analysed, with specific focus upon the actions of the V Corps. Fourth, the activities of the combined force group in northern Iraq will be analysed. The following sections will examine: (1) the tactics, procedures, capabilities and concepts employed; and (2) the character of irregular conflict in the Iraq War. This examination will form the basis of subsequent analysis.

U.S. Marine Corps battle for Nasiriyah

Nasiriyah was the site of an unanticipated clash between U.S. Marine units and fedayeen, Ba'ath party loyalists and remnants of Iraq's 11th Regular Infantry Division. Nasiriyah was of strategic significance, as it dominates bridges over the Euphrates River and Saddam Canal. These bridges were critical to the Coalition advance. Coalition intelligence indicated Nasiriyah's Shi'a population would be welcoming, but did not reveal the concentration of Iraqi soldiers and irregulars present. On the contrary, the Iraqi combat elements in Nasiriyah were aware of the American advance. This was because: (1) a supply convoy had inadvertently driven through Nasiriyah, sustaining serious casualties; and (2) other U.S. force elements had secured bridges around Nasiriyah.

The purposeful entry of U.S. Marine units into Nasiriyah occurred on 23 March, 2003. Specifically, the actions of Bravo and Charlie Company (1st

Battalion, 2nd Marine Regiment) are significant. In brief, Bravo Company advanced into Nasiriyah against substantial resistance, and secured a bridge across the Euphrates. However, navigational problems caused Bravo Company to become disorientated. This led to six Amphibious Assault Vehicles (AAVs) becoming stuck in soft sand. Charlie Company entered Nasiriyah under significant enemy fire. In this contact, one of Charlie Company's AAV was immobilised by Rocket Propelled Grenade (RPG) round. As the crew and attached marine disembarking from the immobilised AAV, Charlie Company was hit by friendly fire. An A-10 providing Close Air Support (CAS) strafed the Marine position, destroying another AAV and killing six Marines. Charlie Company was then faced with evacuating casualties. The Marines were unable to use medical evacuation helicopters, due to RPG and small arms fire. Hence, the Marines were forced to send six vehicles back through, what had been dubbed 'Ambush Alley', to evacuate the wounded. This was highly unsuccessful. The convoy was ambushed and then struck by RPG and small arms fire. Two further vehicles were destroyed, two were damaged and further casualties were sustained. The personnel were evacuated later by a unit escorted by an Abram tank.

Substantial fighting lasted throughout the night, as the Marines repulsed continual, but unorganised attacks against the bridgehead into Nasiriyah. The Marines employed their M-1s and Light Armoured Vehicles (LAVs) in an armoured cordon around the position. This position was supported by AH-1s providing CAS. By the morning of 24 March, the Marines had consolidated control over the bridgeheads, and were attempting to suppress the resistance in Nasiriyah. However, the resistance was continually regenerating; American movement drew small arms, RPG and sporadic mortar fire. This level of conflict did not stop the 1st Regimental Combat Team from advancing through Nasiriyah. However, the soft skinned supply units that needed to follow the combat units could not sustain the firepower from the Iraqi's in Nasiriyah. Thus, the irregular threat had to be eliminated.

The Marines cordoned off the city, stopping supply and reinforcement to the irregulars. Special Forces units and snipers were inserted to kill and restrict the movement of the enemy. As the Marines consolidated their control, the Shi'a population became more forthcoming with intelligence. This enabled air strikes to destroy fedayeen and Ba'ath command facilities and combat positions. This

sustained Marine pressure on the Ba'athists and fedayeen, secured Nasiriyah within a week.¹²

The British 1st Armoured Division enters Basra

The British had enveloped Basra by the 23rd of March, taking up the positions held by the 5th and 7th Marine Regiments. For the purpose of occupying and subduing Basra, the British were well prepared. Although the U.S. illustrated excellence in technical intelligence and the application joint force, the British have been effective counterinsurgents in LIC. The British have had experience in special operations, counterinsurgency, urban warfare and the collection of Human Intelligence (HUMINT). Significantly, the British have conducted successful civil-military operations with a number of target populations.¹³

The British proficiency in urban warfare is a direct result of operations against the Irish Republican Army (IRA) in Northern Ireland. In addition, the techniques of counterinsurgency, special operations and the essential nature of embedded human intelligence sources were experienced and learned by the British in counterinsurgency operations since 1945. Consequently, British troops could survive and dominate Basra's urban environment. Since the first Gulf War, Military Intelligence 6 ((MI6) the British foreign intelligence service) had created a network of sources throughout Basra. In addition, MI6 had assembled intelligence from official, commercial and personal links with the region. The British capacity to gain, analyse and apply intelligence proved instrumental in eliminating Ba'athist and fedayeen resistance in Basra. However, subsequent violence in Basra may indicate a reduced level of local support for the British.

The first overt step the British took to subdue Basra was to surround and interdict communications, logistics and human flows to the city. The 16th Air Assault Brigade blocked Highway 6 from Baghdad, the 7th Armoured Brigade and attached sections enclosed Basra from the west, and the 3rd Commando Brigade deployed along the western edge of the Euphrates to complete the envelopment. The enclosure of Basra was approximately 32 kilometres in circumference, with a buffer of 3.2 kilometres from the urban environment. Importantly, the cordon did not cut all human flows, civilians and some civilian goods were permitted to pass. This strategy was altruistic and pragmatic. Not only did the fleeing civilians

provide sporadic intelligence about the military units in Basra, they also reported that the population was being held under duress. In addition, the civilian flows enabled the British to insert Special Air Service (SAS), Special Boat Service (SBS), sniper teams and intelligence agents into Basra.

In terms of strategy, the opponent forces were diametrically opposed. Major General Robin Brims, the British 1st Armoured Division commander, planned to: (1) encircle the city, outside effective Iraqi weapons range; and (2) insert intelligence personnel and sniper teams into Basra. The latter sniper teams were inserted to: (1) degrade Ba'athist and fedayeen effectiveness, by killing their commanders with sniper fire; and (2) destroying their facilities with PGMs. Brims' policy would ensure Basra would fall quickly and limit collateral damage and casualties. Ali Hassan al-Majid (dubbed 'Chemical Ali' for his lead in gassing the Kurds), the Ba'athist commander in Basra, had two divergent policies. Majid planned to: (1) maintain control over the Shi'a population, by any means including the killing of fleeing civilians; and (2) lure the British into the city, in the hope of causing numerous casualties and considerable damage to Basra's infrastructure.

Majid wanted to win a psychological war, by using the 'CNN effect'. Majid commanded three groups of forces: (1) the Shi'a conscripts, who preferred to desert, rather than fight for Saddam's regime; (2) the fedayeen, who were fanatical, but had received no more training than how to fire an AK-47/74 or RPG; and (3) the Ba'ath loyalists, who were fanatic, but lacked even rudimentary training. The offensive tactics of the Ba'ath and fedayeen irregulars often included: opening fire while surrendering; shooting from behind civilians; or playing dead, then shooting soldiers when they came close. These tactics not only gave the irregulars an opportunity to kill British soldiers, but to undermine the international opinion of the British *jus in bello*. Pictures of British soldiers shooting surrendering, or dead, Iraqis or at civilians could have caused a major public outcry against the war. Similarly, the irregulars mortared fleeing Shi'a, in an attempt to get media coverage, adverse to the British cause. A further tactic of Majid's was to threaten the families of Shi'a soldiers with death, if the soldiers would not attack the British cordon with their T-55 tanks. These tanks were completely obsolete by Western standards. Hence, those Shi'a soldiers who could not surrender died without influencing the conflict. Primarily, the tactics of the

fedayeen constituted attacking the British lines in groups of up to twenty, with no more than haphazard mortar support. This fedayeen tactic was highly ineffective against the British.¹⁴

From 27 March, British incursions into Basra heightened. Warrior Infantry Fighting Vehicles IFVs with embarked infantry made raids into the city, and sniper teams infiltrated closer to the heart of the regime. These tactics did not only bring about instant physical returns, but had two divergent psychological outcomes. First, the Shi'a population began to realise the British were diligently and cautiously liberating the city. Second, the Ba'ath loyalists and fedayeen realised they were not safe in Basra. As these raids continued, British psychological operations began. British leaflets were dropped on the city, pledging to the Shi'a that "We [the British] will not desert you this time. Trust us and be patient".¹⁵ This encouraged the Shi'a to provide more intelligence on personnel and weapons caches in Basra.

On 7 April, the final thrust into Basra began. The 7th Armoured Regiment infiltrated from the west, while the 3rd Commando Brigade entered Basra from the east. This assault was planned to only last the day; the British were to leave by nightfall. However, the British actions were so effective against the collapsing resistance, the British decided to stay. The fighting throughout the day utilised divergent tactics. Joint operations were initiated where possible. In unpopulated areas the U.S. Marines lent firepower to the British, in the form of the AH-1 Cobra. However, the fedayeen were entrenched at the university, which prevented air support and clear identification of military targets. Hence, the fedayeen had to be assaulted by unsupported infantry. This situation illustrated the requirement for highly trained professional soldiers, versed in urban conflict.

On 8 April the Parachute Regiment, of the 16th Air Assault Brigade, were deployed to destroy the final remnants of the irregulars in Basra. The Parachute Regiment found little remained of the defeated foe. An important incident occurred when the Parachute Regiment attempted to withdraw. Once the British soldiers embarked their Armoured Personnel Carriers (APCs), the Shi'a population began to throw rocks. This anger was not focused directly against the British, but the fear their departure would herald the return of the old regime. Fortunately, one of the British commanders correctly identified the situation. The

commander ordered the soldiers to remove their helmets, stow their weapons and mingle with the crowd. The Shi'a once again cheered their liberators.¹⁶

In Basra, the British Army showed effectiveness in modern war. British operations also indicated that human intelligence, Special Forces and a diligent, restrained strategy can be highly effective in an urban, asymmetric environment. As John Keegan states “this sort of operation – targeting armed terrorists acting singly or in small groups, without causing harm to the civilian population – is one at which British troops excel”.¹⁷ Significantly, prior coalition training had enabled the effective integration of other coalition forces within British units. This enabled synergistic joint operations, which were critical, especially in the form of combat air support. However, the degree to which British troops ‘excel’ in an insurgency must be questioned in the light of the growth of violence perpetrated against the British soldiers in Iraq.

The V Corps arrives in Baghdad

Saddam's last stand for Baghdad began on the afternoon of 3 April, 2003. A troop, which consisted of twenty Abram tanks and Bradley IFVs, established a position at two intersections, west of Saddam International Airport. A troop's presence was perceived, by the Iraqis, as a critical rupture in Baghdad's defences. The Iraqi's first response was to hurl hundreds of fedayeen at the U.S. positions. The fedayeen were mounted in civilian vehicles or on foot, and were armed with AK-47/74s and RPGs. The American armour, with artillery support, repulsed all of the fedayeen's forays.

On the morning of 4 April, a detachment of two Bradleys and two Abrams, guarding the Abu Ghraib Expressway were attacked by a large group of Republican Guard armour. Within “five minutes the four American vehicles destroyed twelve enemy tanks”.¹⁸ It became evident at this stage, that most Republican Guard formations defending Baghdad's outer limits had been destroyed by air and ground strikes in early April. Within Baghdad, intelligence estimated two Republican Guard brigades remained, in addition to 15,000 fedayeen.¹⁹ Iraqi command and control had been rendered ineffective, while many regular and Republican Guard units had been persuaded to desert. This

desertion had occurred due to either Coalition Psychological Operations (PSYOPS) or aerial bombardment.

Deep reconnaissance raids began on 5 April. As the British had done in Basra, the Americans had inserted special force teams into Baghdad to gather intelligence. This intelligence indicated that the Iraqis had built road blocks and deployed armour, to ambush the expected American probes. However, preparatory artillery strikes had destroyed many known Iraqi concentrations. This preparatory fire was followed by the 2nd Brigade Combat Team's incursion into the city. The raid came as a surprise to the Iraqis, due mainly to the disinformation being spread by the Iraqi Ministry of Information. However, large scale fedayeen attacks against the armoured convoy soon built, but were almost completely ineffective. The fedayeen would rush the column, in open terrain and be slaughtered by the armoured units. In one case an Abrams was disabled. To extract the crew, other armoured units had to form an immobile cordon around their disabled counterpart. Even in this static position, the fedayeen were still unable to press home an effective assault. The result of the first raid was: (1) hundreds of fedayeen dead; (2) one Abram disabled; and (3) zero American casualties. The raid demonstrated the value of heavy armour in urban terrain. It also demonstrated the competence of U.S. soldiers.

The final occupation of Baghdad commenced on 7 April, with Task Forces 1-64 and 4-64 taking up positions in the city. These armoured units, with mortar and air support, spent the day repulsing fedayeen, on foot and in 'technical's'. The critical point in this operation came, when re-supply was required. The supply line was to be defended by Task Force 3-15, at three points, designated Larry, Curly and Moe. These strongpoints surrounded highway underpasses, from where it was expected the fedayeen would launch ambushes. Larry and Moe were to be defended by companies of Abrams and Bradleys. Alternatively, Curly was defended by an ad hoc group of four Bradleys, a platoon of M-113 mortar carriers, two engineer vehicles and four M-113 APCs. This assortment of soldiers displayed tremendous valour, as they withstood numerous fedayeen assaults.

The proficiency of the fedayeen attacking the three strongpoints was superior to that of other irregulars in the Iraq war. These fedayeen turned out to be mostly Syrian jihadists. These Syrians were equipped with RPGs and AK-47/74s, and were supported by mortar and artillery fire. The Syrians also

undertook vehicular suicide attacks on the U.S. position. The fedayeen proved so numerous and suicidal, that strongpoint Curly had to be reinforced and re-supplied. This brought intensified fedayeen resistance against the thin skinned re-supply vehicles. Four of these vehicles were destroyed in a single fedayeen attack. As an indication of the magnitude of the fedayeen assaults on the three positions, strongpoint Moe reported sixty enemy vehicles destroyed and hundreds of fedayeen killed. In face of these odds, Larry, Curly and Moe held, enabling the supply units to move within the city and facilitate the liberation of Baghdad.

Audacity, courage, training, and morale, combined with superior equipment and effective intelligence, enabled the American force to take Baghdad. Saddam's fedayeen and loyalists were effectively overcome in all combat environments. This is important, as analysts prior to the war envisioned significant operational problems for a conventional force, which faced an asymmetric threat in urban terrain. This has been proven incorrect in OIF. However, subsequent terrorist and insurgency operations have confounded forces in Iraq.²⁰ These issues will be discussed later in this chapter.

The combined force group, Northern Iraq

Turkey's refusal to provide the Coalition with basing and over-flight rights prevented the 4th Infantry Division from deploying to northern Iraq. As a result, a light combined force group (CFG) deployed. The CFG included the 173rd Airborne Brigade, part of the 26th Marine Expeditionary Unit (MEU) and the 10th Special Forces Group (SFG). This subsection will focus primarily on the actions of the 10th SFG. The 10th SFG was co-assigned the task of dominating northern Iraq, due to the unit's extraordinary success in Afghanistan.

Overall command of the Special Forces in Iraq was assigned to Brigadier General Gary Harrell. General Franks issued Harrell and the 10th SFG with three objectives in Iraq: (1) the elimination of the terrorist group Ansar al-Islam; (2) to keep the one Republican Guard and three regular divisions occupied in the north, preventing them from redeploying to defend Baghdad; and (3) to capture the northern oilfields of Kirkuk and Mosul. Operational command of the 10th SFG belonged to Colonel Charlie Cleveland. Cleveland had attained an understanding of the regional armed and civilian culture, through years of in theatre training and

exercises. This enabled Cleveland to transfer the battle skills that the Special Forces had attained in Afghanistan, to the Iraqi conflict.

Overt deployment of the 10th SFG began on 20 March, 2003. This deployment followed an earlier infiltration mission, which occurred in February. The first component of the SFG flew from their forward operating base in Romania, over Greece, to Jordan. In Jordan the SFG's transports refuelled for their insertion into northern Iraq. The transport aircraft were MC-130s, which flew at 50 feet above ground level (AGL) to thwart Iraqi radar on the final flight leg. However, this covert insertion drew heavy ground fire, severely damaging three of the MC-130s.²¹

The 10th SFG, or Task Force Viking, was formed from the 2nd and 3rd Battalion, 10th SFG, and the 3rd Battalion of the 3rd SFG. The soldiers of the 3rd SFG were armed with the Special Force (SF) High Mobility Multipurpose Wheeled Vehicle (HMMWV or Humvee). These Humvees were equipped with organic command and control (C2), machine guns, automatic grenade launchers, Stinger Surface-to-Air Missiles (SAMs), Javelin Anti-tank Guided Missiles (ATGMs). These weapons and systems augmented the SF personnel's own small arms. The C2 capabilities employed in the Humvees included advanced communications, global positioning systems (GPS) and laser designators. These systems enabled the target designation for air delivered PGMs. In contrast, the 10th SFG utilised the Land Rover, which can be airlifted by a CH-47 Chinook. However, due to the lack of strategic airlift throughout March, the 10th SFG's Land Rovers remained in Romania until April. Thus, the 10th SFG's personnel were forced to commandeer civilian cars, utilities and buses for transport.²²

To supplement the firepower of the 10th SFG, the U.S. Air Force's 352nd Special Operations Group (SOG) was deployed to northern Iraq. The SOG, commanded by Colonel Mannion, coordinated air support from Navy and Air Force fighters, and AC-130 gunships. This CAS greatly augmented the capability of the 10th SFG. Subsequently, as more strategic and operational airlift became available, the 10th SFG was augmented by the following units: (1) the 173rd Airborne Brigade; (2) an armoured unit from the 1st Armoured Division; (3) the 26th Marine Expeditionary Unit (MEU); (4) a Battalion (1-14 Infantry) from the 10th Mountain Division; (5) the British Special Forces Task Force 7; and (6) two Civil Affairs (CA) units.

Notwithstanding the above description, the 10th SFG was itself, a supplementary force. The 10th SFG had been deployed to coordinate and control the Peshmerga. The Peshmerga describes the Kurdish militias of northern Iraq. The Peshmerga numbered approximately 65,000 troops. Of these Peshmerga soldiers, 45,000 were members of the Kurdish Democratic Party (KDP), while the remainder were members of the Party for a Unified Kurdistan (PUK). Both of these organisations opposed Saddam, and each other. Thus, it was significant that these two organisations could be coordinated by the Americans, and turned into an effective force.²³

The initial target of the 10th SFG and the Peshmerga was Ansar al-Islam. This operation was a prerequisite for PUK support in opposing Saddam. Ansar al-Islam is a terrorist organisation (designated so by UN Security Council Resolution 1267), which attempted to create an Islamic state in northern Iraq. Ansar al-Islam is also supported by Iran. Ansar al-Islam consisted of between 700-1000 members, trained in Al Qaeda camps in Afghanistan. Ansar al-Islam also provided a sanctuary in Iraq for Al Qaeda members fleeing Operation Enduring Freedom in Afghanistan. Ansar al-Islam's main activity was the opposition to PUK. This opposition included assassinations, ambushes and attacks in PUK territory. Ansar al-Islam also claimed to possess weaponised biological and chemical substances.²⁴

Ansar al-Islam occupied 300 square kilometres of mountainous terrain in Iraq's northeast. It was the 3rd Battalion, 10th SFG and its surrogate Peshmerga forces that closed with and destroyed Ansar al-Islam's main base in the Sargat Valley. The Coalition troops infiltrated the base, along six avenues of advance. Each of these routes were defended by Ansar al-Islam members in fortified positions. The Ansar al-Islam and Peshmerga were armed in a similar fashion, with AK-47/74 assault rifles, sniper rifles, machine guns, and RPGs. In Contrast, U.S. SF troops carried significant kit. This kit included weapons, communications systems, computers, laser designators and global positioning systems. As the Ansar al-Islam bunkers were revealed, SF troops called in air support from Naval fighters and AC-130 Sceptre gunships. Joint Direct Attack Munitions (JDAMs) were used to destroy heavier Ansar al-Islam positions, while the Sceptre's 105mm rounds were guided onto softer targets by onboard sensors.

These actions ended the Ansar al-Islam presence in the Sargat Valley and allowed the Coalition to focus upon their second objective: the northern Iraqi divisions.²⁵

The lack of military leadership and excessive savagery, on the part of particular Iraqi force elements, was clearly evident in northern Iraq. These factors greatly reduced the fighting capacity of the Iraqi Divisions. The Iraqi Divisions were concentrated in open terrain, along the 'Green Line', the informal Iraq-Kurdish border. Hence, these concentrated units were easily targeted by Coalition aviation. Unfortunately for the regular Iraqi troops, they were caught between the Coalition and Saddam's Republican Guard and special security teams. These latter units were deployed to fortify frontline Iraqi troops, by shooting them if they retreated. Peshmerga, led by SF troops and supported by Coalition air support, maintained pressure on the Iraqi lines with coordinated air and ground assaults. In addition to these combined assaults, the 173rd Airborne Brigade was deployed to defend the Kurds against any attempted Iraqi advance. The Iraqi advance never came, and two days after Baghdad was liberated, Mosul fell to the combined forces.²⁶

In northern Iraq, Special Forces and air support combined to be extraordinarily effective. This joint Special Force and air support combination, also acted as a highly effective force multiplier for surrogate forces. One of the most significant problems faced by the 10th SFG was airlift. Although airborne troops could be projected, there was insufficient airlift early in the campaign, to supply vehicles and other heavy equipment to the front. These and other issues are discussed in the following section of this chapter.

The four operations analysed above utilised military force as the principal strategic level instrument, while politics, economics and diplomacy were infrequently applied or applied at the tactical and operational levels. The British did utilise political, economic and diplomatic forms of force in the process of taking control of Basra. Where time allowed, the Americans also employed political, economic and diplomatic forms of force. However, when faced with compressed timeframes, as in the case of Nasiriyah, military force provided the only timely mechanism that could be used to achieve certain tactical objectives. These four operations also highlight the critical nature of professionalism, intelligence, initiative, independence, force precision, combined arms and joint force in achieving counterinsurgency objectives.

Lessons Learned: Rapid Manoeuvre and Military Professionalism

The importance of armour was highlighted in the Iraq War, in terms of protection, mobility, firepower and integrated communications. Moreover, armour was significant against both regular and irregular threats. Due to the non-linear battlefield in Iraq, which effectively isolated Coalition combat units, the fighting capability and protection of armoured units was critical.

American Bradley and British Warrior IFVs provided effective medium firepower, in offensive and defensive operations. These IFVs were effective against conventional, irregular and suicide attacks. IFVs also provided mobile and protected firepower in urban environments. Armoured Personnel Carriers (APCs) were also effective in their intended role of providing armoured mobility but lacked significant armaments. The Coalition's light and medium armoured vehicles demonstrated no significant faults. This category included Warrior and M-2A2/3 Bradley IFVs, Light Armoured Vehicles (LAVs), Amphibious Assault Vehicles (AAVs) and M-113 APCs. However, it is important to recognise why Coalition medium and light armoured vehicles were effective. Coalition units derived capability and all spectrum protection from: (1) joint and combined operations; and (2) the competency of their commanders and crews.

APCs and IFVs were designed to operate with attached Main Battle Tanks (MBTs). This is because the lighter armoured vehicles were not intended to engage heavy enemy forces unilaterally. In practice, the primary source of protection for the Coalition APCs and IFVs was provided by British Challenger 2 MBTs and American M-1A1 Abram MBTs. These MBTs effectively shielded Coalition forces from ranged Iraqi direct fire. The sights, fire control systems, sensors and guns of the British and American MBTs were superior to the Iraqi MBTs. These systems rendered the latter MBTs operationally ineffective.

Coalition MBTs provided localised security for Coalition forces, in both open and urban terrain. However man-portable anti-armour weapons, like the RPG, did cause armoured unit damage and losses in closed terrain and in ambush situations. There is no official or reliable data available on total vehicular combat losses in the Iraq War.²⁷ The data available compares unlike units in dissimilar damage categories. What can be inferred from the data sets is that heavily armoured units are less likely to be destroyed or suffer crew casualties, than

lighter armoured units. This is a simple deduction, but it has reinvigorated the debate over the reduction in weight of future armoured vehicles.

Objective Force, a conceptual framework for future U.S. combat systems, envisages “strategically responsive, deployable, agile, versatile, lethal [and] survivable” units, able to operate “across the entire spectrum of military operations”.²⁸ The Stryker will fulfil this role and is described as a “highly deployable-wheeled armored vehicle”.²⁹ The advantage of the Stryker is that it can be rapidly deployed by strategic airlift. Multiple vehicles can be transported onboard C-5s, C-17s, while the C-130 can transport one Stryker. In contrast, the Abram and Bradley are heavier and require greater airlift. However, the weight of the Abram and Bradley is partially due to heavier armour. This armour improves the sustainability of these vehicles in combat. Since 2002, two of the six Stryker brigades have been cancelled by the U.S. Department of Defense. This cancellation has occurred, so as to pay for the upgrading of the remaining four brigades.³⁰ Since OIF, the U.S. House Armed Services Committee has also approved U.S. \$726.8 million to upgrade the armour on current American armoured units, including the Abram and Bradley.³¹

Simply, there are two competing elements in the debate about light and heavy forces: power projection versus firepower and protection. General Shinseki, U.S. Army, stated that ‘a Stryker brigade can be deployed anywhere in the world within four days by air’.³² Conversely, the deployment of a heavy armoured brigade of Abrams and Bradleys would require sealift or substantially greater airlift capabilities. As an example of the stress armour places on airlift, the deployment of five Abrams and five Bradleys to in northern Iraq, required an equivalent airlift capacity employed to deploy the entire 173rd Airborne Brigade. Thus lighter units have their advantages: (1) they can be deployed in non-littoral contingencies, where no friendly seaport is available; and (2) when an immediate strategic response is critical. However, heavier forces will provide greater survivability and firepower.

The Director of Force Transformation (U.S. Department of Defense) came to an opposite conclusion, asserting that OIF demonstrated heavy armour was irrelevant on the modern battlefield. This assertion was however, countered by an unknown analyst quoted by Anthony Cordesman.³³ This analyst averred that persons outside of the U.S. Army are attempting to deprive armoured units of

their MBTs. Due to complex terrain on the battlefield, armoured units must maintain passive defences against ATGMs and antitank shells. This is because there is a lack of active countermeasures available to thwart these threats. The analyst also states that “doctrine, tactics, ... training, ... armor technology, weapons, [and] active protection suites” have not been developed to support future fighting vehicles, which will replace heavy armoured units.³⁴ However, the crux of the argument is not centred upon the capability of light and heavy forces, but upon force projection. Simply, the projection of heavy armoured units by air, requires heavier transport aircraft. This reality has been accepted by many Western defence forces, as is illustrated by the growth of airlift fleets.

Improvements in command, communications, intelligence, target acquisition and precision guided rounds augmented the effectiveness of artillery units in the Iraq War. Command was improved, most notably, through situational awareness. Greater situational awareness was provided by the blue force tracker. The blue force tracker is a computer based system, which enabled friendly units to be aware of other friendly units on the battlefield. Communications were enhanced by the Army Tactical Communications System (ATACS), which enabled theatre wide command. Superior target acquisition information was provided by the Long Range Advanced Scout Surveillance System (LRAS). LRAS incorporates: (1) a forward-looking infrared system (FLIR) for targeting enemy armour at long range; and (2) a radar system capable of calculating enemy mortar and artillery positions,³⁵ which enables instantaneous counter-battery fire. Precision guided rounds improved the accuracy of artillery systems, this enabled a broader tactical use of artillery support. In addition, artillery illustrated a day and night, all weather capability, which no other support system can match. Simply, when dust storms and ground fire prevented CAS, artillery became the only indirect fire support available.

Special Forces are now a central and growing element of Western warfighting, and will be critical in any future counterinsurgency. This is due to the synergy displayed between SF troops, precision airpower and/or surrogate forces. Special Forces are highly projectable forces, which rely upon precision firepower and advanced command and communications equipment to generate results. Special Forces also rely on extended capability air and land vehicles, and external combat and service support.

Special Forces are technologically advanced in nature. Special Forces also display a high degree of force multiplication. Force multiplication was illustrated when Special Forces operated with the Kurdish Peshmerga in northern Iraq, and with conventional Coalition field elements. In the words of General McKiernan, Special Forces “have been a huge combat multiplier in this joint campaign to topple this regime”.³⁶ Special Forces demonstrate greater area and language skill than conventional forces. Hence, they were able to communicate, integrate with, and support anti-regime forces. However, this cultural, religious and language skill requires further reinforcement. Consequently, Special Force units are being expanded by the U.S. Department of Defense.

The core element of a decisive victory in war is military professionalism. The men in uniform matter the most. Soldiers are the bedrock of any new technology, tactic or procedure. Furthermore, skill, determination, initiative and courage are the foundation of soldiering. Militaries are designed to apply force. The Coalition achieved this objective with effective training, applied through an advanced technological architecture. It is training, readiness and familiarity with weapons and systems, which enabled unparalleled situational awareness, jointness, agility, intelligence and precision. The essential nature of military professionalism will be further discussed in the next chapter.

Urban Conflict and Asymmetric Warfare

Prior to the Iraq War, defence analysts presumed urban terrain would mire the Coalition advance and eventual victory. Significant casualties and collateral damage were expected. Yet, this did not eventuate. The initial Coalition invasion plan was one reason for the lack of urban warfare. The land and air campaign was so swift and deadly, that most Iraqi forces were destroyed in open terrain before they could retreat to the cities. When urban areas were approached, Coalition forces manoeuvred on significant roads, so as to deny the Iraqis an opportunity to attack Coalition forces at short range. When close urban warfare was necessary, armoured units and the soldier’s professionalism made engagements survivable and winnable. In the examples of Basra and Baghdad, urban conflict occurred on the Coalition’s terms. The cities were isolated, intelligence was obtained and

Iraqi forces were undermined. This enabled Coalition troops to fight from a position of superiority, with airborne and land based intelligence and fire-support.

Across the spectrum of asymmetric warfare (including mechanised fedayeen ('technical') raids, suicide attacks and urban combat) the British and U.S. forces were successful in defeating their opponents in OIF. Apart from the inherent quality of the Coalition's soldiers and weapons, the dynamism of the advance, and jointness and combined arms were significant factors that enabled the Coalition to defeat asymmetric threats. First, the speed and agility of the initial advance into Iraq, coupled with the destruction of Iraq's command, control and communications facilities, prevented a coherent defence by the Iraqi irregulars. Second, jointness and combined arms functionally dislocated irregular tactics. Simply put, infantry and armour combined to reduce individual unit weakness. In addition, CAS augmented ground based surveillance and firepower. Asymmetric warfare will be further discussed in the following chapter, while the post-war asymmetric environment is analysed below.

Sea Power: Power Projection

The need for power projection made naval forces critical to the Iraq War. Sealift constituted the basis for projecting land forces strategically into the region. In addition, amphibious lift was critical for the tactical movement of land forces early in OIF. Aircraft carriers provided the bases for the majority of the Coalition's strike aircraft, while other maritime units launched the primary cruise missile strike. Jointness and agility in reacting to target data has been central to the U.S. Navy, so as to achieve true integration of all intelligence and weapons systems onboard naval groups. Synergy has also been a focus, so that naval, marine, air force and army units are fully integrated.

The Marine Corps, as a seaborne force, was instrumental in the Iraq War. This was due to the agility of Marine deployment. Marine Amphibious Task Forces and the maritime pre-positioning ship (MPS) concept enabled 60,000 Marines to be deployed within 45 days.³⁷ As a result, considerable forces were ready to advance into Iraq, before Iraqi could react. This means that in the future regional contingencies can be resolved at greater speed with greater force. For

allies of the U.S., joint warfare will require greater efficiency and agility in deploying and sustaining expeditionary forces.

Asymmetric warfare has had a further impact on sea power: cargo and combat vessels must now be protected from terrorist threats. In this activity, 50 percent of the Royal Navy's (RN) fleet was tasked with securing communication links from terrorist attack. These duties were highly significant as protection was provided for: (1) 95 percent of the British land force equipment that deployed to the Gulf; and (2) the 16 RN and Royal Fleet Auxiliary (RFA) vessels that supported OIF.

Air Power: Precision Strike, Joint Warfare and C4ISTAR

Strategically, precision strike combined with the Effects Based Bombing (EBB) concept was fundamental to the liberation of Iraq. Precision strike and EBB also limited casualties and collateral damage. Put simply, EBB initially designates unit and system threats that need to be deactivated on the battlefield to enable victory. Subsequently, EBB prescribes the most efficient targets and means of eliminating those threats to minimise casualties and collateral damage caused. In short, EBB impedes "the very ability of the enemy to control its vital functions".³⁸ However, it is important to keep strategic level EBB in perspective. Of the 20,000 airstrikes performed in the Iraq War, 1,800 were against Iraqi government facilities, 1,400 were against Iraqi Air Force and Air Defence targets, 800 were against surface to surface missile installations and suspected WMD, whilst 15,800 were against Iraqi ground forces.³⁹ These figures signal that EBB is a battlefield preparation concept. Once applied, strike aircraft then tactically supported the ground advance. As in Afghanistan, laser and GPS guided weapons multiplied ground force capabilities significantly and prevented Iraqi forces closing with Coalition units. In addition, those precision strike capabilities were dependent on airborne and ground based C4ISTAR assets and air refuelling tankers.

One highly significant result, which was outlined by U.S., British and Australian reports, emphasised the need for greater integration of artillery, airstrike, attack helicopter and ground force air-defence operations. Technical advances in C4ISTAR capabilities have improved indirect fire support operations. However, there is a need for human improvement in the areas of internal and

coalition integration. This improved human integration will only be achieved through better training, joint exercises, standardised operating procedures and homogenisation of equipment.⁴⁰

A further imperative displayed in the Iraq War, is the critical nature of joint warfare. Individual units and systems were vastly more significant when incorporated into a synergistic whole. This is the theory behind modern warfare, which aims at 'all spectrum dominance', through a net-centric command and control system. All units in theatre are integrated into this system, so that action by the enemy cannot threaten any specific friendly unit without becoming extremely vulnerable to a counter-strike. In practical terms, neither the land nor air forces involved in Iraq could have been successful individually; their capability was derived from the simultaneous application of joint force. The Coalition ground operation required air support to advance, this in turn necessitated Iraqi defensive manoeuvre, making the Iraqis visible targets for the air forces. All of the aforementioned factors will be given more extended treatment in the following section of the thesis.⁴¹

Logistics and Airlift

Sealift accounted for 90 percent of all heavy forces deployed in the Iraq War. Excluding amphibious and light air inserted forces, all other forces deployed required friendly forward ports and airfields for the disembarkation of equipment and logistics. Thus, the need for regional allies was determined by the realities of logistics. The other reality of the sealift operations to the Gulf was the stress it placed on the U.S. and British transport fleets. The U.S. fleet was utilised at 80 percent capacity and further civilian ships were chartered. The British were forced to rely to greater extent on civilian cargo ships.

This dependence on civilian transport for strategic lift has been a necessity, rather than a deliberate choice. Hence, U.S. Transport Command (TRANSCOM) has been authorised to purchase 180 further C-17s. This purchase could cause a dramatic improvement in intra-theatre airlift, given that the U.S. and Britain deployed only 11 C-17s permanently to the Iraq War. This purchase may also signal the realisation that greater airlift is required for contemporary conflict.

This is because future combat: (1) may not be littoral; and (2) light forces may not be an absolute substitute for heavy forces in conflict.

Intra-theatre land based logistics were a further imperative in the Iraq War. Without adequately defended supply lines the victory would not have been possible. Importantly however, supply troops were not equipped with the same computerised systems (including navigation and effective communications) as were the fighting arms of the Coalition. Despite this, supply units were able to create ad hoc communication and navigation systems, or use private civilian equipment. However, this is not acceptable. Civilian equipment can be easily jammed or intercepted, and inadequate equipment will put supply units in positions of risk, as did occur in Iraq. Supply units should be provided with comparative communications and navigation systems as combat units, as logistics are critical to military operations. Although in practical terms, if supply units are deployed without communications and navigation systems, ad hoc systems will provide some assistance (but this is not ideal).

Psychological and Media Warfare

Iraqi strategy emphasised psychological warfare (or propaganda), directed primarily at the Western public rather than coalition forces. These PSYOPS were disseminated through the Western media, and primarily involved accusations about the abuse of Iraqi people. The Iraqi command structure had emphasised urban warfare prior to the initiation of OIF, for two primary reasons: (1) to diminish Coalition technological advantages; and (2) to cause civilian and Coalition casualties, and collateral and unintended damage. The Iraqi command anticipated this strategy would slow the Coalition advance and create horrendous images of casualties and infrastructure damage. Hence, the Iraqi regime expected these images to cause the Western public to pressure their governments to end the war.

A secondary and possibly unintended psychological effect was produced by fedayeen irregulars. The fedayeen would attack Coalition positions in civilian vehicles, under the facade of surrender or while pretending to be dead. This was unnerving for Coalition troops, as the identification of combatant and non-combatant was difficult. However, images of Coalition soldiers killing 'civilians

and surrendering or dead soldiers' could have significantly undermined Coalition operations. It is unclear whether this was a pre-planned Iraqi psychological tactic, or whether it was a by-product of broader fedayeen tactics. Certainly, such psychological tactics do not appear to have been conducted as part of a coherent strategy and the representations of combatants as non-combatants appear to have been random.

What these Iraqi and fedayeen PSYOPS illustrate is the essential nature of psychological warfare in non-conventional conflict. In LIC, insurgent violence is not the only result armed actions endeavour to achieve. Rather, each act of violence combines to form an indirect approach toward a strategic end. Critically, the media is an effective tool in the application of this indirect approach; through disseminating images of violence. Hence, controlling this influence must be a central tactic in a counterinsurgent's strategy. Simply, counter-psychological operations are as significant as PSYOPS for the counterinsurgent.

There were two distinct categories of Coalition PSYOPS: (1) tactical operations directed against the Iraq armed forces; and (2) strategic operations directed at the Iraqi people. In the case of the tactical PSYOPS, the Coalition was highly effective. Leaflet, radio and television broadcasts effectively deprived the Iraqi armed forces of many of its soldiers. The effectiveness of these PSYOPS was further augmented by Coalition 'shows of force' (the presence of, and demonstrations by, Coalition forces). This combination caused many Iraqi units to disintegrate. These PSYOPS also carried the message that the Coalition was at war with Saddam's regime, rather than Iraq's people or armed forces. As a result, these PSYOPS saved the lives of many Iraqi soldiers, civilians and Coalition members.

Conversely, strategic level Coalition PSYOPS have been criticised. This criticism is specifically in reference to the post-war situation in Iraq. Cordesman describes the Coalition's PSYOPS failure as stemming from: (1) a lack of intelligence, or regional understanding; and (2) an inability to assure the Iraqi people that the Coalition would serve their interests. Cordesman asserts the Coalition's strategic PSYOPS failed because the Coalition did not understand the Arab mindset. This Arab mindset was essentially unsupportive of the Coalition. To quote Cordesman, the "United States, in particular, missed the cumulative impact of: (1) its failure to support the opposition uprising in Iraq in 1991; (2) its

failure to conduct a meaningful public diplomacy campaign to explain that it was not responsible for the suffering of the Iraqi people under UN sanctions; (3) [the] Iraqi and Arab hostility to the United States because of its support of Israel and the Arab portrayal of the Second Intifada; and (4) the coalition's failure to convincingly rebut various regional conspiracy theories, such as an assumption that its goals were "neoimperialist" or that it was fighting to seize Iraqi oil."⁴² The implications here are simple: (1) U.S. human intelligence must be improved internationally; and to do so (2) the U.S. needs to improve relations with many foreign states.

Post-War Iraq: the Coalition's adversaries

The Coalition's adversary in Iraq is a composite assortment of Saddam's fedayeen, Ba'ath party loyalists/Sunni activists, foreign Islamic terrorists and discontented Iraqi citizens. These groups commit acts of terrorism and/or conduct guerrilla warfare. Essentially, these groups target civilians or Coalition soldiers for the purpose of influencing Iraq's political formation. Their tactics include shootings, remote controlled roadside bombings and vehicular suicide attacks. Their conventional weapons are mostly an assortment of the old regime's AK-47/74 assault rifles, RPK/PKM light and medium machineguns, rocket propelled grenades (RPG), and a small number of Soviet designed SA-7/14 man-portable surface to air missiles. Improvised explosive devices (IEDs) constitute the heavier firepower of Iraq's terrorists. These weapons include artillery shells and weaponised civilian products used as bombs. IEDs were primarily directed against Coalition and non-governmental facilities or as remotely detonated anti-vehicular devices. However, IEDs have increasingly been used against civilian targets.

A significant threat to Iraq's stability is the support foreign governments provide to Iraqi based terrorist organisations. Iran and Syria are the primary supporters of terrorism in Iraq. The most significant of the Iranian supported Shi'a terror organisations are the BADR Corps, the al-Sadr army and Ansar al-Islam. The BADR Corps is an Iranian supported terrorist organisation. The BADR corps held territory along Iraq's north eastern border with Iran, and opposed to Saddam's regime. The BADR Corps did not oppose the invasion of

Iraq by the Coalition. However Michael Rubin, a Pentagon official and advisor to the Coalition Provisional Authority (CPA), stated that the BADR corps activities increased after the Coalition liberated Iraq. Iran's Revolutionary Guards had: (1) assisted BADR members cross the Iranian border into Iraq; and (2) supplied equipment, funds and propaganda material to BADR offices. The Iranian intervention in Iraq brought a stern warning from the U.S. Secretary of Defence, Donald Rumsfeld, to desist. Despite the American warning, the Iranian intervention continued and has remained an impetus to the post-war violence throughout Iraq.⁴³ Conversely, Ansar al-Islam was the primary target of the 10th SFGs operations in northern Iraq, and it is an affiliate of Al Qaeda. However during OIF, many Ansar al-Islam members were able to escape Iraq. These Ansar al-Islam personnel were assisted in making their escape by Iran. After the cessation of OIF, Ansar al-Islam's members infiltrated back into Iraq and continued their terrorist activities. Sheik Moqtada al-Sadr, a Shi'a extremist, has also profited from Iran's backing. Moqtada al-Sadr has been actively fomenting terrorist violence against Coalition forces, their supporters and Iraqi civilians.⁴⁴

Al Qaeda affiliates and foreign terrorists have further destabilised post-war Iraq. The Tawid and Jihad Movement, led by Abu Musab al-Zarqawi, have created a new level of violence in Iraq. It is clear not all post-war violence is directly attributable to foreign terrorists. However, they are responsible for the majority of suicide attacks against the Coalition, Iraqi police and the Shi'a population. They are also suspected of perpetrating televised beheading of Coalition personnel. Initially after OIF, Sunni insurgents (generally Saddam loyalists) were reluctant to commit suicide missions. Sunni insurgents preferred mines, mortars and missile attacks, from which they themselves are less likely to die.⁴⁵ Sunni insurgents were also more likely to attack Coalition forces, rather than civilians. Subsequently however, the political contest for power in Iraq has led to a growing synergy between foreign terrorists and Sunni insurgents. Hence, as Sunni objectives have changed, so have their tactics. These tactics are increasingly targeting civilians, with an aim of influencing the politics of Iraq. Counterinsurgent tactics are described below.

Coalition security building in Post-War Iraq

As has been outlined by the British Ministry of Defence, the primary task of the Coalition was to create a stable environment, in which economic recovery and political transition to self rule was possible.⁴⁶ In brief, the stable environment was to be created through humanitarian assistance, the reconstruction of essential services and the provision of security. Significantly, the elements of this triumvirate are not mutually exclusive. However, security is the focus of the thesis.

The provision of security has not been centrally planned. Operations are disparate and changing. Each sector (Coalition Provincial Authority (CPA)) of Iraq is secured by separate national forces. Moreover in the northern sector, which is administered by the U.S., each rotation can cause a change in policy. These policy changes are due to the Marine Corps and Army post-conflict doctrines being dissimilar. This diversity in policy implementation enables an analysis of many doctrines that are applied throughout Iraq. However, Iraq is not a homogenous state, and the lessons from one region may not be applicable to other regions.

The initial and ubiquitous development in post-war Iraq was looting. This looting was of a scale greater than that envisioned. This occurred due to a lack of civil security provisioning: (1) Ba'athist law enforcement had disintegrated; and (2) Coalition troops were busy engaging Iraqi regular and irregular forces. In the British CPA, integrated patrols of British troops and Iraqi police began on the 13 of April 2003. This enabled the British CPA to be quickly declared safe for humanitarian operations. Thus, civilian crises in the south were averted. However, pacification operations in the north proved more difficult for the Americans. Ba'ath loyalists and foreign insurgents created an environment more dangerous than the war itself for American soldiers.⁴⁷

Following the fall of the Ba'athist regime, and acting upon national intelligence estimates, American forces approached Iraqi pacification with a high degree of judiciousness and care. This approach was effective among the majority of Iraqis. Iraqi civilians were aware U.S. soldiers were not dangerous, as they discriminated between combatants and non-combatants. Moreover, 70 percent⁴⁸ of the Iraqi population desired the Coalition's presence for at least a year, while

25 percent⁴⁹ wanted the Coalition to remain for more than two years. However, a minority were fervently in opposition to the Coalition and have waged an insurgency since April 2003.

The violence in Iraq peaked in October 2003, throughout the ‘Sunni Triangle’. Some of the worst fighting occurred in Baghdad, Tikrit and Fallujah.⁵⁰ Four American initiatives moderated the level of violence. First, Sunni sheiks were advised by U.S. forces to cease their anti-coalition and anti-infidel (anti-Western) sermons. Second, localities from which violence was perpetrated were physically isolated. Subsequently within these isolated areas, buildings were destroyed that posed an operational risk, and relatives of insurgents were arrested and questioned. The latter action led directly to Saddam Hussein being captured. Third, patrols and raids were intensified, averaging 12,000 patrols and 250 raids per week. These operations were highly successful: (1) hundreds of insurgents were killed and thousands were captured; (2) numerous regime personalities were detained; and (3) significant caches of weapons, ammunition and funds were also seized. Fourth, radar guided counter-battery fire, interdiction fire and patrols reduced nightly mortar and rocket attacks on U.S. bases. The interdiction fire consisted of artillery rounds being launched at known insurgent firing positions. The patrols were designed to ambush Iraqi insurgents as they attempted to deploy in the field. In addition, Signals Intelligence (SIGINT) was gathered through communication intercepts and HUMINT was gained from interrogations, informant reports and field intelligence gathering. Within three months, these operations had reduced both insurgent operations and Coalition casualties by three quarters.⁵¹ At this point a correlation became evident, as the Coalition improved the security environment the civil population became more willing to provide information on the insurgents and terrorists. This observation is important but in no way complicated. Essentially, fear impeded intelligence flows and human dialogue. As fear is reduced, the provision of population based intelligence increases. This phenomenon has a positive ‘butterfly effect’ on future operations. Hence, there has been a degree of Coalition success in Iraq, which has not been perceived internationally. Essentially, operational success has not been well reported, failure has.

As outlined above, control of adversary propaganda is crucial to the defeat of Iraq’s post-war violence. For this purpose many of the mosques in Iraq were

monitored, so as to assess the nature of the sermons conducted. Such operations indicated which Sheiks were inciting violence. Few sheiks actually commit acts of violence. However, the rhetoric of 10-20 percent of the mosques surveyed has been linked to those who commit violence. The sermons were based on the same fictitious information televised by the Arab media, unsubstantiated and based on rumour. Unfortunately, the Iraqi public was limited in their access to other information sources. When presented with evidence of their misdeeds, most sheiks have desisted from further incitement. However there were a number who, when interviewed, attempted to lie, deceive and outwit Coalition interviewers. This tended not to work, as their sermons had been recorded by the Coalition, and could be replayed as evidence of incitement.

Coalition forces have been ordered to respect all individuals and not embarrass any. This is important, so as not to give terrorists a motive for committing violence. However, this severely tests the professionalism of soldiers, especially when they must respect those who kill their comrades and Iraqi civilians. A further strain placed on soldiers is caused by indigenous interpreters, who have in some cases been agents for insurgents and terrorists. This is not always the case, many Iraqi's are honest and provide critical intelligence. However, this issue indicates a further problem caused by a lack of language and regional skills embedded in Coalition armed forces.

American raids and patrols through civilian neighbourhoods take the form of joint force operations. Basically, infantry is assisted by light armour, close air support (CAS) and PSYOPS forces. In more violent areas these forces are supplemented with heavy armour and more substantial CAS and strike capabilities. In one such raid on a Baghdad Mosque, 2,000 rockets, 357 landmines, 207 artillery shells and copious quantities of small arms ammunition were discovered.⁵² This raid occurred in response to an IED bombing which killed four U.S. soldiers.

In such operations, it is important that military forces remain professional, applying precise justice (in the sense that those who are harmed are only those who deserve to be harmed) and not vengeance. Counterinsurgency operations require insurgents and terrorists to be caught, in addition to 'hearts and minds' being won. The persecution by Coalition soldiers and civilian contractors at Abu Ghraib prison of Iraqi prisoners could endanger the lives of Iraqi civilians and

Coalition troops. Recent analysis found that the common causal link, which caused Palestinians to commit suicide bombings, was the humiliation of male family members by Israeli soldiers.⁵³ Although the actions of the Abu Ghraib staff were not physically violent, the psychological result of the abuse could cause future suicide bombings.

The locally inspired insurgency was initially suppressed by the Coalition. However, a further threat evolved, which was foreign inspired, orchestrated and supported terrorism. Their operations emphasise strategic imperatives: (1) suicide bombings to create fear and undermine humanitarian work; (2) beheadings to force nations to leave the Coalition; and (3) attempts to disrupt strategic and commercial air corridors. International terrorists also maintain a cellular structure in their organisations. This structure is separate from the Iraqi population, which reduces intelligence collection. The Western media has also been successfully utilised to reduce the support for the Iraq war. Furthermore, the anti-war rhetoric of Western politicians and media has encouraged the terrorists in Iraq.⁵⁴

Further Lessons from the Post-War Environment

The post-war campaign has been criticised for failing to create a secure Iraq, immediately after the fall of Saddam. This disapproval has emphasised the tactics used in OIF as one of the key reasons for post-war violence.⁵⁵ Such assertions are inaccurate. The approach undertaken by the Coalition in liberating Iraq minimised civilian and friendly and enemy combatant casualties. Different tactics and strategies could have been utilised. For example, relocating the 4th Infantry Division from the Mediterranean Sea to the Persian Gulf, prior to the Coalition invasion would have been such a strategy. However, such tactics and strategies would have increased human suffering and collateral damage. This is because, in the case of relocating the 4th Infantry Division, Iraqi force elements would have had the time and strategic knowledge to redeploy to urban areas, prior to the Coalition advance. The violence and looting, was in part, due to the lack of combat forces deployed in the Gulf. However, the number of combat forces could only have been increased by dramatically altering the Coalition war-fighting strategy. This would have undermined the element of surprise, enabling Iraqi units to deploy in urban terrain and in fighting positions that could have hindered

the Coalition advance. This would have led to significantly heavier Iraqi combat casualties. What is significant is whether the post-conflict phase could have been improved, without degrading the combat phase of the war.

Retrospectively, intelligence organisations involved in the Coalition have been criticised for misrepresenting the passivity of the Iraqi population. It must be made clear, that forecasting the actions of an oppressed people, with perfect clarity is impossible. Looting and violence was expected, but not at the levels which occurred. Moreover, the vast majority of the Iraqi population is passive towards the Coalition. It is only a minority that violently oppose both the Coalition and the Iraqi governing bodies. A humanitarian crisis was also envisioned, which did not occur. This crisis did not occur, as the Coalition had contingencies in place to avert such a crisis.⁵⁶

The provision of security as the priority, ahead of humanitarian operations and nation-building operations was a necessary prerequisite to creating stability in Iraq. However, this strategy has been criticised. The Coalition has also been criticised for using soldiers to create internal security.⁵⁷ The reality is reconstruction cannot proceed without the provision of security. Neither will security materialise without soldiers undertaking security missions. There are simply no other forces, sufficiently available or capable, to apply security in any foreign situation. The reconstruction and stabilisation of Iraq has also become highly politicised. These factors have undermined the creation of security, and the administration and reconstruction of Iraq. The British Minister of Defence stated that “the continued absence –for a variety of reasons including political concerns and the uncertain security environment – of a number of the normal participants in post-conflict reconstruction (various [Non-Governmental Organisations] NGOs, development agencies, etc) meant that the military had to combine their primary role of providing security with reconstruction tasks”.⁵⁸

Conclusion

The war-fighting capabilities of the Coalition succeeded in the Iraq War, while minimising collateral damage and human casualties. However, the post-war situation has become a violent LIC. The Coalition’s nation-building capabilities

and security procedures are effective, and will create a democratic and free Iraq if given time.

The professionalism of commanders and soldiers, combined with technological superiority, agility, jointness, intelligence and precision, created a synergy of warfare that was critical to the Coalition. In terms of counterinsurgency, these capabilities were critical as the Coalition was able to defeat the enemy and ensure that the population was not deliberately harmed. The expeditionary nature of the force was significant. This was illustrated by elements of the Marine Corps, Airborne forces and Special Forces being projected where heavier forces could not be. The effectiveness of these forces was important in reference to LIC, as light forces are invariably those that can close with and engage the enemy. This, however, does not relegate armoured forces to obsolescence. Without these heavy forces, the southern ground campaign would not have been possible. Combined air dominance was once again decisive in warfare. On numerous occasions Coalition air dominance enabled ground forces to overcome numerically superior enemy ground forces. This joint capability is significant in counterinsurgency, as it provides ground forces with augmented firepower and the protection that firepower can generate. In contrast to the previous Gulf War, combat aircraft were not given permission to use friendly regional bases. This made evident the critical nature of naval forces, in support of ground and air forces. Joint capabilities are critical in LIC as they enable a flexible response in difficult environments.

Given the unwillingness of the Coalition's regional allies to support the war, power projection capabilities have become more important. Precision, technology and joint warfare has enabled firepower to be projected at a distance. This ability to project power is important for counterinsurgents as they will often be required to deploy over a great distance. However, there is a requirement to improve logistics projection. Logistics projection is critical, so as to enable force elements to be deployed and sustained in remote battlefields. Moreover, reducing the weight of armoured ground forces may not be the unilateral panacea, as it has been described. In the Iraq War, heavy armour illustrated a capability to sustain heavier fire and survive on the battlefield. Even in LIC, heavy firepower and protection is required by the counterinsurgent in certain circumstances, especially when the insurgent is numerically superior or is in a concealed position.

Furthermore, modern urban war has shown the essential nature of intelligence, especially human intelligence. In addition, psychological operations are fundamental in modern war.

In terms of doctrinal principles, the invasion of Iraq demonstrates that a counterinsurgent must be able to generate internal security and apply civil operations immediately after the authority of the previous regime is removed. The Coalition was able to neglect political, economic and diplomatic forms of force, at the strategic level, until the point when the Ba'athist government was deposed. Following this point, a lack of holistic force has undermined any attempt to re-establish order in Iraq. In terms of military principles in the initial invasion, professionalism was a leading element in making combat survivable and winnable. Doctrinal precision, especially in reference to the doctrine of the special force deployed, meant that the capabilities of the forces deployed were compatible with the combat environment. Effective communications and quality intelligence enabled precision joint and combined force to be applied in most combat scenarios. Notwithstanding the professional nature of the forces deployed in Iraq, doctrine and strategic imperatives have restricted the effectiveness of counterinsurgency operations in post-war Iraq.

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Chapter Five

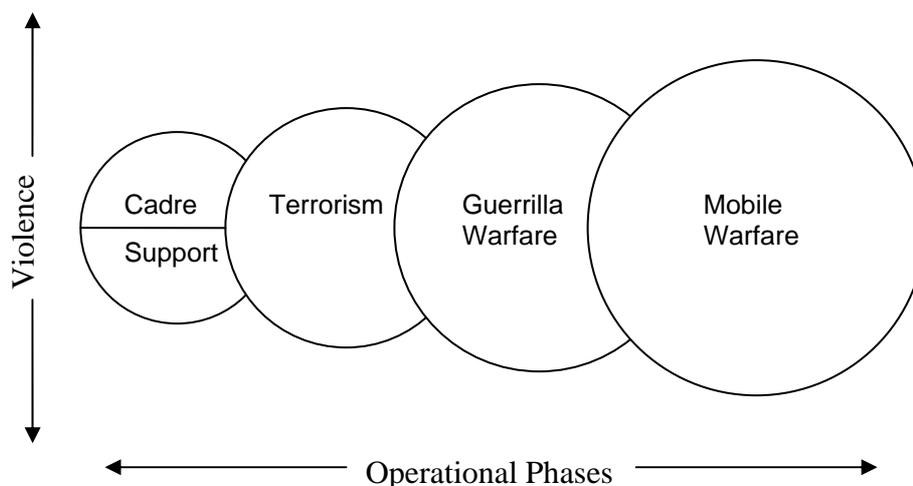
A Doctrine for Low Intensity Conflict

A doctrine is a collection of principles that are applicable to a certain subject. This chapter will present a counterinsurgency doctrine applicable to Low Intensity Conflict (LIC). The principles of this doctrine are drawn from empirical examples of LIC, with specific reference to post-World War Two LICs. Development of this doctrine will also build on the first three chapters of the thesis.

This research, as has been indicated earlier, recognises that conflict can be contested through the use of political, economic, diplomatic and military forms of force. This research examines how these forms of force can be applied at the strategic, operational and tactical levels. It should be observed, however, that this research focuses on military force, as this is the principal form of force in counterinsurgency. This chapter analyses and presents doctrinal principles that are applicable at the strategic level of counterinsurgency. The doctrinal principles focused on in this chapter include the control of international interference, the provision of internal security, the application of civil operations, and the installation of a unified command.

This chapter will consist of two main sections: first, the phases of LIC will be examined to bring clarity to the field of study; and second, the core principles for a successful counterinsurgency will be proposed. Within the second section, the formation of an Expeditionary Civil Service (ECS) is suggested. This concept which is without specific precedent within the literature, will aim to ensure a unity of effort among all aspects of the counterinsurgent's civil approach to LIC. Briefly, the ECS will win the 'hearts and minds' of the people in theatre, and create conditions suitable to the precise use of force to defeat the insurgent. To be exact, a preliminary move towards an ECS structure was made by two presidential (American) directives issued between 1993 and 2001, these will also be discussed in the second section.

Graphic 1: Phases of Low Intensity Conflict



The Structural Components of LIC Strategy

LIC is not conventional warfare. If the principles of conventional warfare are applied to a counterinsurgency, the counterinsurgent will fail to win the war. A LIC insurgency is an amalgam of various modes of violence. This amalgam can be better understood if it is separated into its four component phases.¹ The component parts are organisation (cadre/support), terrorism, guerrilla warfare and mobile operations.² In addition, the characteristics of the insurgency will vary, depending on the dominant operational phase.

It is important to recognise these component phases are not unanimously agreed upon, even in theory. For example, John McCuen^A argues Mao Tse-tung undertook a two phase strategy of guerrilla and mobile warfare.³ This is false; Mao outlines seven phases, of which two phases emphasise organisation.⁴ French military theorists made an important contribution to the understanding of LIC with 'Trotsky's Five Phases of Revolution'. The French theory differs from the phases outlined above, by dividing the organisational phase into active cadre and passive support phases. However, this thesis does not support separating the organisational phase, as the two parts are symbiotic, not mutually exclusive. Organisation is a single phase, but the French separation is important in understanding the whole phase, thus, it is described below. It is critical to

^A McCuen is a particularly important author in terms of the structural components of counterinsurgency theory. Therefore, this research is built on a framework of his expertise, but has been supplemented with numerous other texts.

understand what the components are, and how they are applicable to contemporary LIC.

First, organisation refers to the formation of: (1) active insurgent cells and; (2) the insurgents' passive support networks. The partition of organisation follows the French theory. Importantly in organising passive support, the insurgent establishes "a network of local urban and rural organs which collect intelligence, infiltrate and cadre all sorts of official and unofficial organisations, isolate and intimidate the opposition, and foment demonstrations, strikes, sabotage and riots".⁵ The second phase is terrorism. This also has two parts: (1) is the removal of security from the population to force acquiescence and support; (2) actively reducing the counterinsurgent's strength and cohesion, and aims to create counterinsurgent retribution against the neutral population. Third, the guerrilla warfare phase involves four parts: small unit operations, organisation of target populations, propaganda and the clandestine replacement of governmental and social structures with the insurgent's own 'revolutionary' structures. Fourth, mobile warfare is the final phase of insurgency, when the insurgent undertakes to destroy the counterinsurgent in conflict approaching conventional warfare. However, it is critical to realise that as each consecutive phase is applied, the former phase remains active. When there is mobile warfare in an insurgency, there will also be guerrilla warfare, terrorism and organisational operations. In these circumstances the counterinsurgent will have to combat all aspects of the insurgent's operations.

These component parts may evolve sequentially; however, they do not always do so. Sequential growth, from the organisation phase to the mobile warfare phase, was demonstrated by the Mujahedeen when fighting the Soviets in Afghanistan. Sequential decline, from the mobile warfare phase back to the organisation, terrorism and guerrilla phases, occurred following the American led intervention into Afghanistan. The sequence of insurgency may also be replicated across the theatre of operation at differing rates, or the lower order components may be disseminated by higher order operations. Vietminh operations against the French and later Vietcong operations against the Americans in Indo-China, are indicative of the replication process of insurgency across a theatre of operations, spreading organisation by means of mobile warfare. The Chechen attempt in 1998 to expand their insurgency into neighbouring Ingushetia,

is also an example of the replicating process of LIC. Furthermore, differing groups may choose, consciously or unconsciously, to pursue an alternate order of operations or a single operation type. Insurgents fostering a limited spectrum of phases will generally meet with failure. Failed insurgencies occurred throughout South America in the 1960s, principally because the insurgents followed Che Guevara's foco theory or Carlos Marighella's Minimanual of urban terrorism. Both Che and Carlos promoted single phase insurgencies where the terrorist or guerrilla cell would be the nucleus of the insurgency, without gaining the support or enforcing the acquiescence of the population.⁶ Alternatively, if a nation is invaded, as in the cases of China by Japan or Iraq by the Coalition, higher order operations can occur initially alongside conventional forces. However, once the conventional forces of the invaded state are defeated, the insurgent must undertake lower order organisation and terror operations, to attain support or the acquiescence of the population: essentially, insurgents must have a sea in which to swim. Insurgents have increasingly found support from international actors, such as states, like as Iran and Syria, or terrorist organisations, like Al Qaeda, the Islamic Resistance Movement (HAMAS), Hezbollah or the Irish Republican Army (IRA). A further consideration is regional and global stability, since there is potential for an insurgent to cooperate with terrorist networks and export organisation, terrorism and guerrilla warfare operations. The reaction of the victims of these out-of-theatre raids will have a direct bearing on the counterinsurgency.

What is obvious from the literature is that an insurgency that does not incorporate all of these components will be ineffective. However, there are exceptions to this rule. If the counterinsurgent lacks the will to fight, a small campaign of violence by the insurgent can have disproportionately large consequences: a one or two phase insurgency may win the war. The American loss in Vietnam was largely due to a lack of socio-political will; the media war was lost, while the ground war was being won. Similarly, American socio-political will must be maintained if the Iraq war is to be won. Notwithstanding the will of the two combatants, the insurgent's best strategy is to apply the components of insurgency, while the best strategy of the counterinsurgent is to counter or counter-apply the components.

Applying appropriately tailored techniques to counter each individual phase is a crucial task for the counterinsurgent to perform. For the counterinsurgent, countering the terrorism or guerrilla warfare phase is primarily synonymous with protecting the population from insurgent violence. What is critical is that the counterinsurgent must counter each of these phases individually, with specifically tailored strategies applicable to that phase. At the organisational phase, the counterinsurgent must counter the insurgent's organisation and apply their own organisational methods. The emphasis on a phased LIC is that it creates a logical conceptual foundation. From this foundation, a precise analysis of insurgent operations can be established and specific counterinsurgent operations can be initiated.

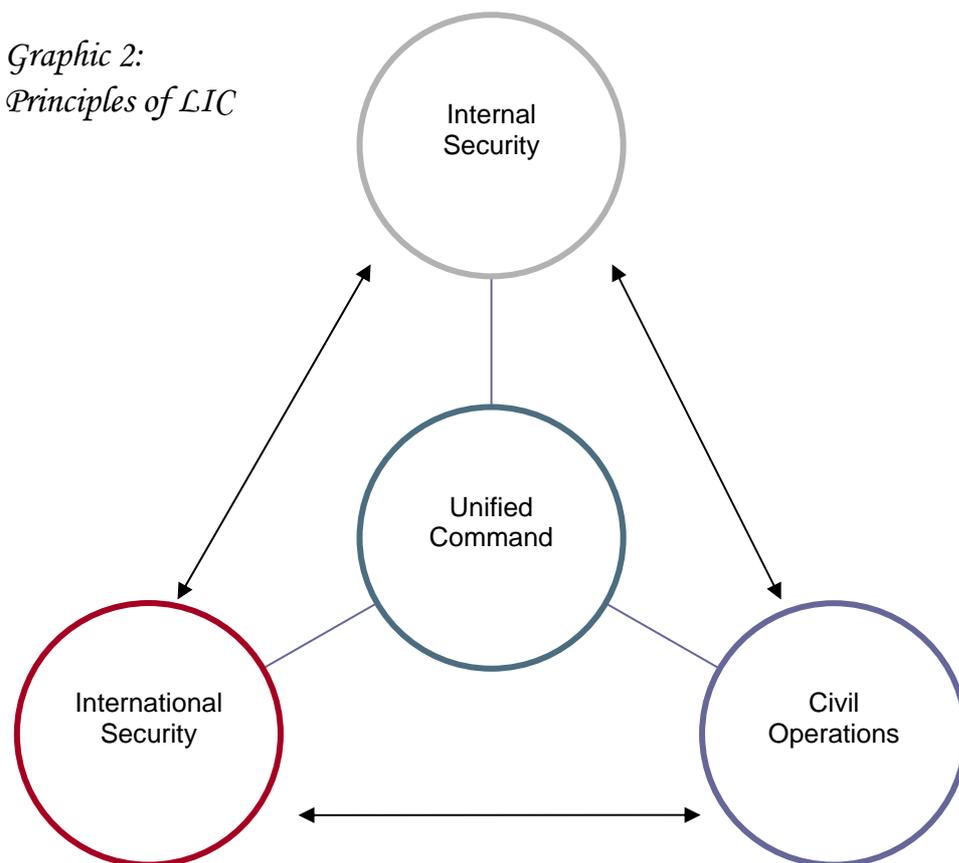
LIC may appear to be an incomprehensible morass of violence, but conceptual order can be imposed. Perceiving LIC as phased violence enables individually tailored strategies to counter individual phase threats. The significance of a phased counterinsurgency is that it insures each specific threat is countered, rather than the most visible threat being countered with no consideration for other threats. This is important because a strategy tailored to one phase will have little or no effect on the other phases. For example, a strategy to counter mobile warfare will have little effect upon guerrilla warfare and no effect upon organisation. Such a deficiency in doctrine was a primary reason for the American defeat in Vietnam. Thus, a robust counterinsurgency must incorporate organisation, counter-organisation, counterterrorism, counter-guerrilla warfare and counter-mobile warfare strategies. With an understanding of the phased foundation of LIC, the core principles of counterinsurgency operations in LIC will be considered.

Principles of counterinsurgency operations in LIC

LIC should be characterised conceptually as a group of disassembled phases, this will ensure each phase is adequately countered. Essentially, each phase threat must be countered with an individually tailored response, but each of these individual responses must be applied simultaneously. It is absolutely critical that counterinsurgency strategies maintain absolute Unity of Effort; this is the first principle of LIC. The remaining principles of counterinsurgency include the

provision of internal security and the regulation of international interference, which will stabilise the environment so that the final principle of counterinsurgency can be applied, civil operations. Most importantly, all actions must combine synergistically to create a unitary approach to LIC; this is as true for the insurgent as it is for the counterinsurgent. The relationship of the four principles is illustrated below in graphic two.

*Graphic 2:
Principles of LIC*



Internal Security: Force and Population Security/Conservation

The first of Mao's principles of insurgency is the "preservation of oneself and the annihilation of the enemy".⁷ Stealth and subterfuge is the way of the insurgent, to strike and withdraw without taking debilitating casualties. Since preservation is central to the insurgent, flexible transition between operational phases becomes acceptable. The insurgent will forgo advances made, if these advances threaten the insurgency. For example, an insurgent will revert to guerrilla operations and terrorism, if sufficiently defeated at the mobile warfare phase. The insurgent will

even retreat to the initial organisation phase, in an attempt to protect cadre members. Even in this relatively inactive, embryonic situation, the insurgent still threatens the counterinsurgent because of the possibility of re-emergence. An Al Qaeda manual, titled 'Declaration of Jihad against the Country's Tyrants', emphasises patience as one of the key characteristics of an Al Qaeda member: "[The member] should have plenty of patience for [enduring] afflictions if he is overcome by the enemies. He should not abandon this great path and sell himself and his religion to the enemies for his freedom. He should be patient in performing the work, even if it lasts a long time."⁸ Without the real capitulation of the insurgent, the counterinsurgent's organisation, counterterrorism and counter-guerrilla warfare operations must be sustained. There is a risk that without a clear threat the counterinsurgency may become unpopular politically, causing a hasty withdrawal of counterinsurgency forces and a re-appearance of the insurgent.⁹ This must be resisted.

It could be argued that suicide terrorism has undermined the principle of preservation. However, the principle of preservation remains salient despite the advent of the suicide bomber. Suicide attacks undermine the strength of the insurgent organisation, so must remain a peripheral operation in the terror phase of the insurgency. If the insurgent remains in the terrorism phase, the insurgent is less likely to succeed.

Conversely, preservation is as critical to the counterinsurgent as it is to the insurgent. The primary objective of the counterinsurgent must be to preserve security and control in friendly zones. As an insurgency progresses from the organisational phase to mobile warfare, agency becomes more direct, actions become more overt, and the operational strength of the insurgent grows. Invariably the counterinsurgent will strive to oppose the most visible of the insurgent's violence: mobile warfare. This becomes problematic, if in doing so, the counterinsurgent neglects the organisation, terrorism and guerrilla phases of the insurgency. With the concentration of the counterinsurgent otherwise occupied, the insurgent can begin to infiltrate areas under counterinsurgent control. This infiltration advances the insurgent's cause, and will initiate the process of organisation, terrorism and guerrilla warfare in a previously safe zone. Local security and police forces, as well as the population, may initially attempt to resist the insurgents. However, without the support of the regular security forces,

the local forces and population may find themselves overpowered and discontinue resisting the insurgent. The counterinsurgent's control structures will be removed and personnel may be executed. The feeling of betrayal by the counterinsurgent of the population will thus undermine any attempt to reclaim the zone. Therefore, despite offensive operations being necessary to defeat the insurgents, the primary task must be protecting areas from insurgent infiltration.¹⁰

Once the security of the counterinsurgent's safe zones has been entrenched, the insurgent's zones of control and marginal zones must be contested. The counterinsurgent must preserve itself and begin to annihilate the enemy. The expansion into insurgent contested areas must be deliberate, entrenching all phases of the counterinsurgent's strategy. This means contested areas are not secured merely by mobile counterinsurgent warfare, counter-guerrilla, counter-terrorism and organisational operations must be equally expanded into the new zones. If the counterinsurgent does not install all counterinsurgency phase strategies, the insurgent could easily retake the zone. Stealth and subterfuge are the insurgent's most lethal attributes, which most threaten the security and control of the counterinsurgent's safe zones; this should be the focus of the counterinsurgent.¹¹

LICs are long-term wars, which cannot be constrained by artificial timelines.¹² This is significant for international responses to insurgency, where short-term political imperatives can undermine long-term counterinsurgency strategies. For example, the suggestion of a date of departure may factor well in domestic politics, but will also strengthen the morale of the insurgent and give a date for an expansion of insurgent operations. The counterinsurgent must guarantee that their presence will be maintained until a peaceful and stable governing structure has been entrenched.

The most effective means of shortening a LIC is to improve doctrine, strategy and tactics and expand the resources available to the counterinsurgent. Given the time sensitive nature of counterinsurgency, international forces must have the capacity to rapidly deploy civil, police, intelligence and military personnel and resources, utilising a holistic approach to ending the LIC. Moreover, counterinsurgency forces in LIC must maintain a sufficiently 'heavy footprint' to create stability and peace; the idea of a 'light footprint' is contrary to the principles of counterinsurgency operations in LIC.

Civil Support and Stewardship

Force and population security can only be entrenched with the support of the civil population. To gain the assistance of the population the counterinsurgent must undertake support, stewardship and mobilisation operations. These operations are not merely psychological. They must create political participation within the community and provide tangible economic and social benefits for the people.

The counterinsurgent must consult the population to ascertain their needs. The public will require practical goods and services such as medical care, food, water, housing, clothing, employment and assistance with agricultural, commercial and industrial production. Corruption, exploitation, incompetent officials and absentee ownership of resources are central impediments to the counterinsurgent. If these social problems are not removed, the insurgent will promote their elimination as core benefits of insurgent operations. These practical items are generally more important than abstract and distant political theory to the common person.

To ensure representation of the population is adequate, individuals who are suitably qualified and representative of the society's groupings must be present on all command councils, from the local to the national level. This will also ensure that the governance structures perfected within the counterinsurgency can be maintained after the cessation of violence.¹³ Robert C. Orr^B suggests "[l]ocal leaders will best be able to identify security risks, assess priority infrastructure needs, point out quick-impact opportunities for international actors who need to gain credibility, and identify local resources that could be channelled toward reconstruction."¹⁴ However, local representations should not be considered a panacea for the guidance of reconstruction. The counterinsurgent must be cautious of the local representative's contribution, which must be considered in contrast with other sources of information. This is because the local's intent may not be purely altruistic; suggested development projects may be represented as being broadly beneficial, while in fact serving only narrow interests; or a counterinsurgent's military capability may be misdirected to serve personal agendas. This latter problem has been a dilemma for Coalition forces in Afghanistan, who have been responsible for causing friendly fire casualties, due

^B Orr is a prominent author in the field of post-conflict reconstruction. Orr's text is an important foundation for this chapter, however, other texts have been analysed as supplements.

to following information provided by their Afghan allies. Factionalism is invariably responsible for misrepresentations, thus, the degree of factionalism (or warlordism) within LIC will indicate the political cleavages that the counterinsurgent must be aware of and be able to manage.

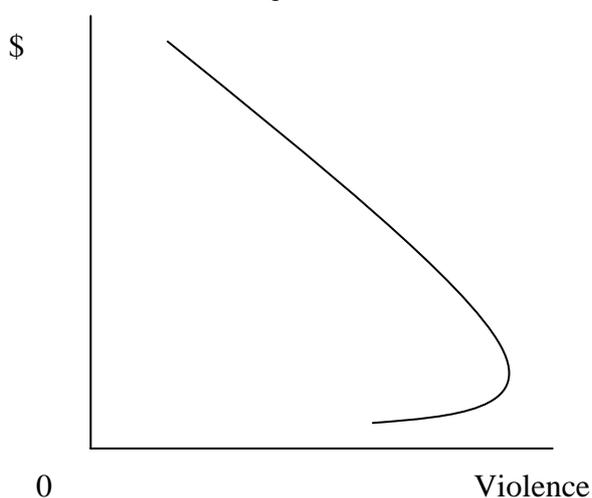
In September 2004, as the situation in Iraq deteriorated, James Dobbins of the RAND Corporation outlined priorities for the Iraqi counterinsurgency. They were as follows: “the first priority is to establish public security. Second is to begin rebuilding the local structures for governance. Third is to create an environment in which basic commerce can occur – where people can buy and sell goods and services and get paid in a stable currency. Fourth is to promote political reforms, stimulate the growth of civil society, build political parties and a free press, prepare for elections and organize representative government. Fifth, and last, is improving roads, bridges, electricity, water, telephones and the rest.”¹⁵ These are all important objectives in a counterinsurgency. However, some are more critical and time sensitive than others. As has been indicated above, the creation of security is the primary objective, second is the reconstruction of essential services, such as water, medical care and sanitation. Political imperatives follow these principal needs of the population. Democratic structures cannot, by themselves, create stability and essential services. It may be argued that essential service construction or organisation operations cannot be undertaken when there is a lack of security. If this is true, the insurgent is succeeding, because in a counterinsurgency all phases of LIC must be combated simultaneously.

Nevertheless, political ideas are still important to gain the support of the population. As Mao indicated, principles of policy must be ‘from the masses’, if they are to be accepted by the masses.¹⁶ This idea is consistent with democracy, since government is essentially a service industry, in which everyone has an interest. As indicated by Mao’s comment, the insurgent is undertaking similar civil operations. The counterinsurgent’s civil operations must be significantly better than those of the insurgents, so as to keep the support of the people. The counterinsurgent’s superior resources and ability to act overtly will be an advantage in this area of operations.

The highly significant nature of civil support and stewardship operations in LIC was confirmed by a 2003 RAND study. The study examined the influence

of social and economic development on the prevalence of political violence in Northern Ireland (United Kingdom), Mindanao (Philippines) and the West Bank and Gaza Strip. The report demonstrated a complex correlation between social and economic development and political violence. The correlation was initially positive; the application of inadequate or inefficiently applied development funding caused an increase in violence. However, the correlation became negative; when substantive and effective financial assistance was provided, the level of violence did diminish. This correlation is represented in Graphic Three below; however, this graph is based on limited statistics and may not accurately represent all the effects of social and economic development on violence in LIC.

*Graphic 3: Social and Economic Development
Correlation*



The RAND study came to five broad socio-economic conclusions in relation to the reduction of political violence. First, the organisation phase of an insurgency can be undermined by a counterinsurgent's social and economic policies: counter-organisation. Effectively, the civil population are given an economic incentive to support the counterinsurgent, rather than the insurgent. The insurgent will also discover a diminishing supply of recruits, given the counterinsurgent has reduced "perceived grievances... [and created] viable alternatives to terrorism."¹⁷ Second, insufficiently funded development policies can increase the level of violence. This is caused by counterinsurgent policies "erroneously inflating the hopes and aspirations"¹⁸ of the civil population. If civil expectations are not met, there is little incentive for the population to support the counterinsurgent. Insufficient funding has been a significant impediment to the

resolution of the conflict in Afghanistan and Iraq, early Coalition promises of reconstruction have not materialised. However, as in Northern Ireland, if large civil development schemes are undertaken, in a non-discriminatory manner, violence can be reduced by removing perceived grievances. Third, development policies must evolve in consultation with the people, facilitate specific requirements and be applied in a financially transparent and ethnically indiscriminate manner. In the cases of the West Bank, Gaza Strip and Mindanao, corruption, and impractical or plainly destructive development schemes damaged the peace processes. Fourth, the control of social and economic development can be used to directly regulate the level of violence. The study showed that in response to violence perpetrated against Israelis by Palestinians, the Israeli Government would implement economic sanctions against the Palestinian Authority (PA). This in turn would create pressure on the PA to prevent the Palestinian Islamic Jihad and HAMAS from perpetrating violence. Fifth, social and economic development can only reduce political violence, but cannot eliminate it. It is absolutely imperative that a counterinsurgent's strategy of counter-organisation is employed in conjunction with intelligence, police and military operations, specifically tailored to counter each phase of an insurgency.

It is critical for the counterinsurgent to maintain a physical presence with the people to gain their support. Simply, there can be no cooperation with the counterinsurgent if there are no counterinsurgent forces present. For example, the American presence in Baghdad was scaled back, due to security concerns and the idea that the high U.S. profile was undermining the Iraqi authority and inciting the population to violence. Subsequently, violence in Baghdad continued, U.S. control was reduced and civilian intelligence 'walk-ins' diminished.¹⁹ Thus, presence should be maintained and should be supplemented by other means of contact. Newsletters, newspapers, books, television and speeches at schools, clubs and other organisations are important mediums of contact with the population. However, the population must be studied to ascertain the most effective and popular medium of contact. The British found film and theatre to be popular in Malaysian society and so used this medium to reinforce their counterinsurgency.

Force and control measures form a symbiotic relationship with the benevolent measures outlined above. The support of the population cannot be

acquired and retained while the insurgent is intimidating and terrorising the people. “By force and sanctions, we are talking about stringent curfews, control of movements, re-groupment of people and villages, rationing food, martial law and maximum penalties for aiding the revolutionaries or carrying weapons.”²⁰ These operations are designed to protect the population, thus they must be applied with care. Also, it is critical that security is provided for the population, as civilians may well be cooperating with the insurgents, solely due to coercion and violence. Peter Dickens accurately characterises how a lack of security can be exploited by the insurgent, undermining all other counterinsurgent actions: “Win hearts as you may by being thoroughly nice guys, minds will be overwhelmingly influenced by *force majeure* when the choice is between life and death.”²¹

Counterinsurgency is as much about building a stable, secure and peaceful society as it is about combat. The counterinsurgent must defend the people, help the people and respect the people.²² During the Indonesian Confrontation, the British Special Air Service (SAS) performed a critical role in obtaining the good will of the Borneo border peoples, through medical assistance. The British also employed the border people as scouts, this employment won the allegiance of the people.²³ With the support of the people the British were effectively able to drain the sea in which the insurgents swam.

It must be remembered that the insurgent will also be applying an organisational strategy to win the ‘hearts and minds’ of the people. Mao was adamant that when, and only when, the resolution of the people’s problems became the principal objective of the communists, would the Chinese People’s Army be victorious.²⁴ The HAMAS has combined terrorism with political and social activities, since it was founded in 1987. HAMAS’ ‘organisation’ operations have been “working openly through mosques and social service institutions to recruit members, raise money, organize activities, and distribute propaganda.”²⁵ This is not unusual behaviour for Islamic insurgent organisations. Some aspects of the social and political assistance provided by these organisations can be positive, such as medicine and schooling. However, the insurgents are creating a fertile foundation from which violence will grow. It is common for the insurgents of the Middle East to be known as terrorists. This is inaccurate because terrorism is only one phase of their operations. For example, the Palestinian Liberation Organisation (PLO) has used both guerrilla warfare and

mobile warfare, especially in Jordan prior to 1970, and in Lebanon between 1970 and 1982. Subsequently, the PLO has had to rely on guerrilla warfare and terrorism in Israel, the Gaza Strip and the West Bank, due to the expertise of the Israeli Defence Force (IDF) and associated organisations.

Of critical importance in civil support and stewardship operations, is the British principle of minimum force. Minimum force is a broad policy of restraint, unlike the tactical level application of explicit Rules of Engagement. The minimum force principle enabled insurgents to be engaged in open conflict under regular rules of conventional conflict, using conventional military equipment. However, minimum force obliged British forces to be “careful to avoid the indiscriminate use of firepower that might have killed innocent civilians or escalated the conflict.”²⁶ During the Indonesian Confrontation in Borneo, British attack aircraft were only used against isolated insurgent units or in prohibited zones. Moreover, ‘throughout the entire campaign, there were no air-launched munitions fired near any known civilian habitation’.²⁷ Because of the minimum force approach to warfare in civilian areas, the principle of civil security became more important, as the insurgent could not be allowed to cause violence to erupt among the urban population. Securing the people’s welfare, in turn, secures the people’s loyalty.

Minimum force may also be applicable to the combatants of the insurgent. It may become evident that the loyalty of the insurgent’s combatants is irresolute. In such a case subversion of the insurgent’s force is highly desirable. Small scale un-indoctrination of insurgents is a common feature of counterinsurgencies. The ideological retraining of captured insurgents is vital if they are to be released back into civil society or enlisted into the employment of the counterinsurgent. Historically, the French and British made good use of former insurgents in Algeria and Malaya, respectively. Both Operation Enduring Freedom (OEF) in Afghanistan and Operation Iraqi Freedom (OIF) provided interesting insights into the loyalty of ‘national’ troops. In the case of Afghanistan, large Taliban forces deserted en masse to the Northern Alliance. In the face of Coalition firepower the Iraqi Army was also faced with desertions, except when Republican Guard or Special Republican Guard formations were present to enforce loyalty. In addition, all religious and most tribal backgrounds were present among the deserters. Only foreign fighters and Ba’athist or Taliban hardliners were not

amenable to surrender. When the combatants have been disengaged from the insurgent, it is critical they are re-indoctrinated, to insure they do not return to the insurgent.

Regulation of International Influence

For the purpose of this thesis, international influence is defined as encapsulating both the physical and psychological interference (rather than direct action) in LIC, performed by an organisation or nation that is not a counterinsurgent. International influence is not the decisive factor in a counterinsurgency. However, external manipulation can have disproportionately large effects upon the conflict. For example, the Western influence in the Afghan-Soviet war fundamentally altered the balance of power towards the Mujahedeen. Similarly, the terrorist, jihadist and Iranian influence in Iraq has largely facilitated the insurgency there. What's more, all of the case studies incorporated in this thesis, and many historic examples were and are influenced by foreign pressures. There is, however, one notable exception to this norm: the Malayan Emergency was a conflict isolated from external interference.

Long porous land borders are central to the magnitude of international interference experienced in LIC. However, there are examples of counterinsurgencies, where the territory has been isolated artificially. Following France's disastrous defeat in Vietnam, French forces were responsible for physically isolating Algeria from foreign interference. This isolation eliminated the insurgent's ability to train and gather resources from the safety of neighbouring states, which forced the insurgents to retreat from the mobile warfare phase to organisation and terrorism (nevertheless, the insurgent did eventually succeed in the Algerian case). The British also successfully utilised the technique of artificial isolation in the Omani insurgency. A series of barriers were built parallel to the Yemeni border, interdicting inbound insurgent lines of communication and preventing the escape of defeated combatants. This measure was critical in the suppression of the Omani insurgency, as it was in the Boer War. One war where a physical barrier was unfeasible, but the principle of isolation was nonetheless employed, was in the Indonesian Confrontation in Malayan Borneo and Brunei. The British established free fire zones during

curfew to diminish cross border insurgent activity, and implemented covert pre-emptive cross border raids. These raids were carried out by veteran troops, unbeknown to the public and unreported by Indonesia, against concentrations of insurgents and terrorists massing on the Indonesian side of the border. These raids were pre-emptive and not punitive. They were designed to stop terrorism and guerrilla warfare before violence could be committed in Borneo. These raids were never in retribution for attacks, but were specifically targeted at insurgents and covert Indonesian Army support bases. The covert nature of the cross-border conflict was supported by both the British and the Indonesians. The Indonesians were aware they would be defeated in direct confrontation with British and Commonwealth troops, thus, covert operations were established. The British were capable of defeating the insurgency and were not willing to escalate the conflict, given the potential for an adverse public and international response, thus they too supported covert operations. The British also knew that keeping the war covert enabled the Indonesians to withdraw their support for the war, with their honour intact. Therefore, physical isolation of LIC is fundamental to counterinsurgent victory, as is an understanding of the opponent.

Psychological and political support are forms of force that influence the will of the insurgent and the counterinsurgent. The insurgent, those who support the insurgent and those whose interests are served by the insurgent will attempt to undermine the counterinsurgent's operations. The counterinsurgent will often be faced with subjective or blatantly untrue reporting. Reports of casualties, collateral damage and other injustices will be central to the insurgent's psychological warfare. The counterinsurgent must ensure there is no truth in such reporting, as insignificant injustices will be blown out of proportion. The counterinsurgent cannot rely upon Western media organisations to provide an objective and comprehensive commentary of the LIC. The media is ignorant of, or severely limited in, their understanding of LIC. Thus, it is the responsibility of the counterinsurgent to ensure objective reporting of the conflict. This reporting will be central to the counterinsurgent's international psychological operation.

The counterinsurgent must recognise the significance of an internationally acknowledged cause for war. The counterinsurgent: must gain support from international organisations, especially the United Nations (UN); should attempt to gain the support of various powers, such as America and the European Union

(EU); and should encourage intimate relations with the governments in the region of the LIC. International speculation or condemnation of *jus ad bellum* can severely undermine the counterinsurgent, while fomenting insurgent violence and support. Domestically, support for the counterinsurgency must remain non-partisan. Creating an election issue or criticising the governing party in parliament and is unacceptable if it is not balanced and rightly justified (which the parties concerned will always claim).

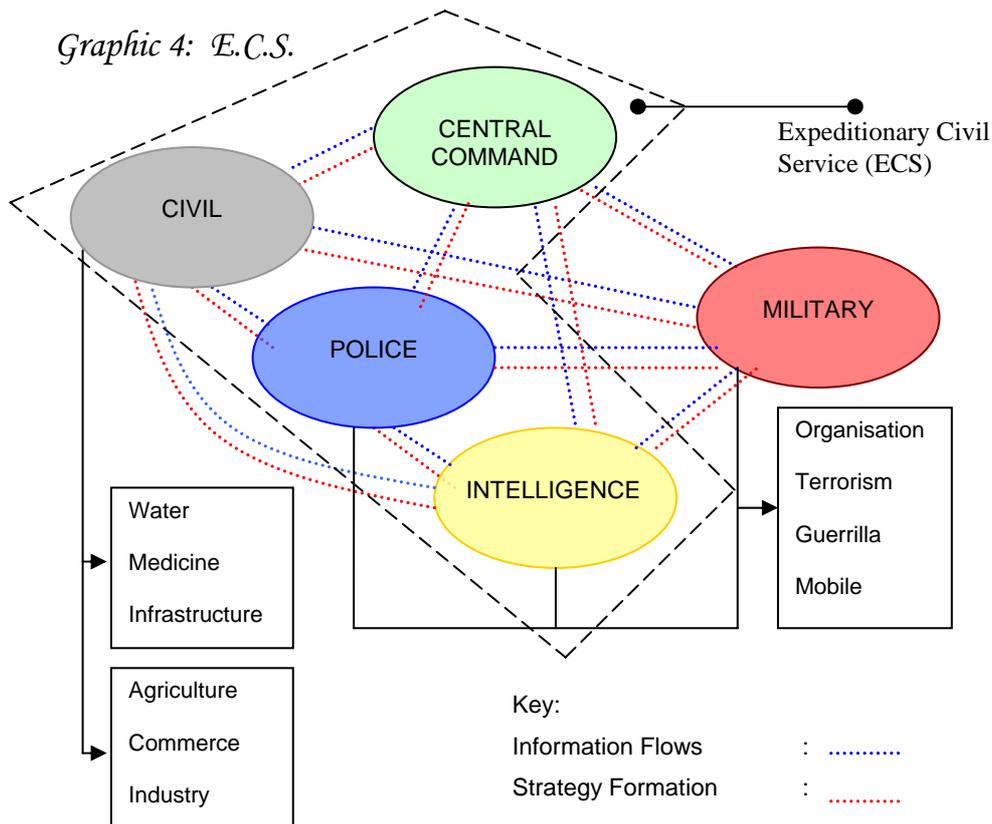
As an aside, if a counterinsurgent requests aid in combating an insurgency, it may be an indication that the counterinsurgent's doctrine is ineffective. McCuen argues external assistance in a counterinsurgency should be focused on one of the phases of LIC, but should avoid operational contact with the civil population in theatre.²⁸ This assertion by McCuen is founded in the fact that the security forces of the counterinsurgent must be disproportionately large in comparison to the insurgent. Thus, the logical extrapolation suggests that the counterinsurgent's forces cannot cover all phases of the LIC, so they should be supplemented with foreign troops. This thesis does not argue against the deployment of external counterinsurgent forces. Rather, this thesis only supports the effective application of counterinsurgent forces. A request for foreign assistance may indicate an ineffective doctrine of counterinsurgency. As an example, American forces in Vietnam were undermined by their South Vietnamese ally's counter productive counterinsurgency operations. In contrast, the British intervention in Oman was in support of the Omani King; however, the British effectively controlled the counterinsurgency. Thus, if aid is to be provided to a counterinsurgent, the control and the quality of the operations must be of primary importance.

Unitary Command and Synergistic Joint Operations: An Expeditionary Civil Service

Insurgency is a phased array of operations that challenge the integrity of the sovereign state. The insurgent creates an alternative governmental structure within society, and generates insecurity among those who support the incumbent sovereign. Thus, a counterinsurgent must take a holistic approach to ensuring the stability of the sovereign state, by unifying civil, police, intelligence and military

services. This holistic approach requires a unified command and the formation of an Expeditionary Civil Service (a civil organisation designed to operate in foreign states), much like the old British Colonial Office (BCO). A unified command will ensure unity of effort, while the Expeditionary Civil Service will guarantee that the civil units, which are essential in LIC, are as capable as, and fully integrated with, their military counterparts.

Graphic 4: E.C.S.



The Expeditionary Civil Service (ECS) is a derivative of the concepts and strategies outlined in this chapter, which are essential to the counterinsurgent in combating LIC. The literature has lacked discussion of a functional entity, which can be deployed to administer a failed state. The ECS has been suggested by the author as an entity to unify the principles of counterinsurgency, and as a framework for strengthening civil society.

Briefly, the rationale for the old British Colonial Office being used as the conceptual model for the ECS is due to: first, the BCO's expeditionary nature; and second, the fact that the BCO encompassed the means so strengthen all facets of civil administration.²⁹ However, it is imperative that those who serve within the ECS attain their position purely on merit; unlike some early British Colonial Service appointments, which were based on political (and social) factors.³⁰

As represented above, Graphic 4 is a schematic representation of the ECS, with units, interconnections and responsibilities presented. The civil, police, intelligence and military units, along with the unitary command have been the central factor in effectively combating insurgency. The police, intelligence and military units must function synergistically to defeat insurgent operations and create security. The civil units are central in winning the hearts and minds of the population, so as to ensure the support of the population for the counterinsurgent. The central command is essential to guarantee a unity of effort among the divergent functional units, enabling effective information flows and creating a coherent and balanced strategy.

The general structure of the ECS would emulate the organisation of a Territorial/Reserve Force. The ECS would constitute a cadre of full time civil staff, supplemented by a part time civil reserve. As indicated above, the ECS would include police, intelligence agents, civil central command personnel, and other public service and private employees in civil employment. The latter category of civil employees would incorporate all sectors of the public service and some private sectors; for example personnel from, the Ministries of Justice, Health, Works (Infrastructure development), Police, Agriculture and Fisheries, Foreign Affairs, Education, Defence, Internal Affairs, and other private individuals essential to the function of the state, would be integrated into the ECS. The ECS and associated personnel must then coordinate counterinsurgent policy and strategy for employment in LIC, which will complement the activities of their military counterparts. Regular training sessions must then incorporate the functions of soldiers, engineers and civil servants, in simulated LIC environments, not merely in the classroom. ECS personnel must build personal and interagency relationships with those they will deploy with, in addition to learning the strengths and weaknesses of the organisations involved. Developing the ECS as a standing entity, with a participatory approach to interagency organisation will ensure unrestricted and coordinated intelligence flows, a coherent unity of effort within and an instantaneous response to LIC. The formation of the ECS will require adequate legislation, funding and a significant interagency effort to ensure success in LIC.

An ECS should be formed by every sovereign state which anticipates conducting operations in LIC. Each ECS should incorporate a central command,

and police, intelligence and civil sections. The individual nature of each ECS will depend upon financial and human capabilities, and the defence relationships of the state in which the ECS is formed. Not only must the ECS ensure internal synergy, there must be synergy between the ECSs of allies. In practice, when the armed forces of allies exercise together, each nation's ECS should also be incorporated into the training exercise.

In theory, the United Nations could sponsor an international ECS. However, there are three significant obstacles that would undermine a UN ECS. First, the multinational composition of UN forces would severely weaken the core principles and synergy of the ECS. Second, the UN has condoned only one war (the Gulf War), with full participation of the Security Council. Thus, it is unlikely that the UN Security Council would approve counterinsurgency operations, given the long-term and violent nature of insurgency. Moreover, the UN Security Council has not implemented Article 47 of the UN Charter:³¹ for the formation of a Military Staff Committee. Therefore, the UN Security Council lacks the institutional foundation for the ECS, which could be an extension of the Military Staff Committee. Third, even if the aforementioned problems were overcome, the self-interest of the UN Security Council members may impede the timely deployment of the ECS. Simply, there would be inquiries into whose interests or policies the ECS served. Thus in reality, the UN is not an ideal institution for an ECS (or for conducting counterinsurgencies in general).

A unitary command is critical in unifying the divergent principles and phases of counterinsurgency. In physical terms a unitary command should be encapsulated by a unitary commander or a council. This unitary command will oversee and command all phases of the counterinsurgency: organisation, counterterrorism, counter-guerrilla operations and counter-mobile warfare. In practical terms, civil support, intelligence, police and military personnel will represent differing sections of the counterinsurgent's response to the phases of LIC. This will ensure all aspects of the counterinsurgency will be given an equitable status in the formation of strategy. In addition, this unitary, combined command must function as effectively at local level, as it must at the national level.

A unified command does not imply the rigid centralisation of planning. The headquarters of the counterinsurgent must be in theatre, be intimately aware

of and adjusted to the situation, be secure but open to the population and other agencies, and prevent inappropriate out of theatre 'command push' strategies being imposed. An effective counterinsurgency must maintain decentralised control to ensure initiative and flexibility. However, the individual decentralised units must guarantee unity of effort; the combination of every individual operation must promote the central aim. The unified command must provide leadership and purpose, and ensure synergy, while the elements of the command must provide detailed planning, area expertise and specialised professional competence. This is a participatory approach to warfare. A participatory approach is essential to: first, ascertain the key areas of development; and second, prioritise the given tasks without specific interest groups (domestic agencies, foreign governmental agencies, international organisations (IOs) and non-governmental organisation (NGOs)) becoming disenfranchised. All of these organisations have a broad range of specific capabilities, which must all be integrated into the strategy and command structure of the counterinsurgent. Unity of effort will guarantee all phases of the insurgency will be defeated, with minimum force and maximum effect.

McCuen comments, "[u]nity of effort, however, is extremely difficult to achieve because it represents the fusion of civil and military functions to fight battles which have primarily political objectives."³² In democratic states, the authority of the civil and military apparatus is separated, so as to guarantee the rule of law. However, it would be a complete misconception to compare the function of a democratic state to the social anarchy in LIC. Essentially, civil units cannot function without the security created by military units, and the military units cannot gain the allegiance of the people, and the timely intelligence, which only the people provide, without the economic, social and psychological efforts of the civil units. Thus, without this symbiotic relationship there can be no security or peace. Such a situation will result in the insurgent gaining control of the LIC, and instituting forms of 'black' governance and 'black' security (as in the black market (analogous to criminal structures)). Orr describes this phenomenon as 'spoilers' gaining 'leverage'.³³ Thus, the civil and military components of the counterinsurgent must be fully united, as sovereignty must be asserted or strengthened before the rule of law and a purely civil governing apparatus can be established.

The enabling factors that facilitate the symbiotic relationship between civil and military units are coordination and unity of effort within a unitary command structure. This in turn creates the most significant aspect of a successful counterinsurgency, unrestrained intelligence flows. "Intelligence remains the vital ingredient for effective military operations in internal conflict. The selective use of force can only be achieved with good intelligence; the hearts-and-minds campaign seeks to win the trust of local people so that they will provide such intelligence."³⁴ Intelligence must be unrestrained, moving from the source to the security apparatus immediately and absolutely. This need has been undermined especially by the antipathy between IOs, NGOs and security forces. Scott Feil observed "IGOs [International Governmental Organisations], IOs, and NGOs frequently possess valuable information but are reluctant to share intelligence with security forces for fear of reducing their rapport with the population they serve and increasing their own risk by appearing partial. For their part, security organizations loathe sharing information with NGOs because sharing information risks compromising operations and sources."³⁵ Thus, all organisations involved in the counterinsurgency must be internalised within the ECS, be connected to the ECS intelligence hub and have established a trustworthy relationship.

Given the imperative to establish comprehensive security and a fair judicial system, the ECS must contain a police/legal unit. To create comprehensive security in LIC, a counterinsurgent's military and police forces must cooperate to inhibit civil lawlessness, corruption and criminal activities. These illegal activities prevent society from re-establishing civil behaviour, and generate an environment conducive to insurgent organisation. Criminals and insurgents may cooperate directly, as their actions are mutually beneficial. It has been established that police forces which operate within an integrated and fair judicial system are more effective, humane and responsive.³⁶ These effects build civil security, and, due to the considerable contact with the population, create dependable intelligence data. There are two requirements needed to establish effective police/legal unit: (1) a recognised provisional legal code, as recommended by the UN's Brahimi Report of 2000;³⁷ (2) a standing police/legal unit in an ECS to enforce the law, form an impartial judiciary and constitution, and ensure human rights, humane corrections and reconciliation.³⁸ The police/legal unit must be ready to deploy immediately on detecting a security

vacuum, which will be apparent in all cases of LIC. Recent LICs, in Somalia, Haiti, Bosnia, Kosovo, East Timor, Sierra Leone, Afghanistan and Iraq, have desperately needed the deployment of police. In the best cases, it has taken a year or more to deploy sufficient international police, in the worst cases security is not re-established.³⁹ This is not at all acceptable; it is the responsibility of the international community to provide security for those unfortunate enough to be caught up in LIC. Thus, the police/legal unit must be a permanent organisation, capable of reacting rapidly. Moreover, there must be contingencies made for the level of violence in the LIC. Police may find themselves faced with 'normal' conditions, as in Rwanda and Kosovo, or in 'near war' conditions, as in Sierra Leone, the Balkans from 1995 to 1996⁴⁰ and Iraq. Police forces will be needed to create security in all of these situations, to be fully integrated and coordinated with military forces, and be able to train national police forces in all conditions of LIC.

It is important to recognise that the counterinsurgent's civil units are prime targets for the insurgents, as they are 'soft targets' and vital to the counterinsurgent's strategy. As such, the civil units that provide essential services need to be well protected, fully integrated into the counterinsurgent's structure and provided with training prior to deployment. Thus, an Expeditionary Civil Service must be created which will deploy immediately alongside, and be completely integrated with a counterinsurgent's military forces, under a unified command. Alternatively, reconstruction and security may be hindered, or military forces will be forced to assume tasks they are not suitable for. The pre-war preparation of this unified civil-military organisation will disassemble the friction and mistrust between civil and military units, and create synergy in countering any insurgency. "Although the soldier and administrator should continue to operate generally within their own spheres of competence, their functions must be fused toward achieving the common objective of winning the war. All other objectives, no matter what may be their long-term importance, should be secondary until the first has been achieved. All the political, economic, psychological, and military means must be marshalled as weapons under centralized co-ordination and direction... [F]or failure of the governing authorities to achieve unity of effort is one of the shortest roads to defeat."⁴¹

Given the essential requirement of a unitary approach to counterinsurgency, it would seem unusual if a unified, civil-military organisation had not been created. For example in 2003, U.S. General John Abizaid, commander of the reconstruction force in Iraq, characterised the need for a unified strategy in LIC as follows: “There is no strictly military solution to the problems we face [in Iraq]... It requires that we move together on the political front, on the economic front, on the reconstruction front in a manner that is synchronized and coordinated. If we don’t [sic] do that, I do not believe that we can be successful. So you can pay the military to stay there, but you are only paying us to stay forever.”⁴² The lack of unified strategy is not merely a failure of American doctrine, as indicated by UN Secretary General, Kofi Annan: “All [the] tasks – humanitarian, military, political, social, and economic – are interconnected, and the people engaged in them need to work closely together. We cannot expect lasting success in any of them unless we pursue all of them at once as part of a single coherent strategy. If the resources are lacking for any one of them, all the others may turn out to have been pursued in vain.”⁴³ Essentially, the lack of coordinated strategy has been a reported failure, by virtually all international actors (counterinsurgents), in most cases of LIC.⁴⁴

Given Abizaid’s comments, it would seem there was no American interagency coordination prior to the Afghan and Iraqi interventions; this, however, is incorrect. Following the abrupt U.S. departure from Somalia in 1993, “the absence of rigorous and sustained interagency planning and coordination... [were found to] hamper effectiveness, jeopardize success, and even court disaster [in LIC].”⁴⁵ In 1994, as Haiti descended into violence, the U.S. National Security Council (NSC) established an Executive Committee (ExCom) to generate “policy options and plans”,⁴⁶ so that the mistakes made in Somalia would not be recreated in Haiti. The resultant interagency plan was a pioneering first; politico-military mission objectives were outlined, strategies were formed and agency responsibilities were specified. In 1997, Presidential Decision Directive 56 (PDD-56) on Managing Complex Contingency Operations was authorised by President Bill Clinton. This action institutionalised ExCom’s function, “to assist in policy development, planning, and execution of complex contingency operations; ... [to develop] a political-military implementation plan as an integrated planning tool for coordinating U.S. government actions; [to ensure] an

interagency rehearsal or review of the plan's main elements prior to execution; [to establish] an after-action review of each operation; and [to guarantee] interagency training to support this process."⁴⁷ While never fully implemented, PDD-56 significantly improved the U.S. Government's capacity to plan inclusively and coherently for interagency humanitarian responses, information operations, civil security and counterinsurgency operations in LIC. President George W. Bush, following his inauguration, augmented PDD-56 with National Security Policy Directive XX^C (NSPD-XX). NSPD-XX was designed to 'provide warning, advanced planning, outline prevention mechanisms, and response options'⁴⁸ for counterinsurgency forces in LIC. In addition, NSPD-XX basically promoted an expanded ExCom function, in the form of the NSC led Contingency Planning Policy Coordination Committee (CP-PCC). The CP-PCC's role was to develop "interagency contingency plans for emerging crises with a focus on U.S. objectives, a desired endstate, policy options, interagency responsibilities, resource issues, and strategies for various aspects of the operation."⁴⁹ Thus, PDD-56 and NSPD-XX were the foundations of a united and coherent interagency response to LIC, analogous with the ECS.

PDD-56 has enhanced the U.S. response in Haiti, Kosovo and East Timor, and NSPD-XX had positively augmented PDD-56. However, both directives were largely excluded from the formation of policies and strategies for Operation Enduring Freedom and Operation Iraqi Freedom. In Afghanistan, U.S. strategy was formed contrary to the guidance of the NSPD-XX. In addition, there was no person or organisation to plan and coordinate the military, diplomatic and civil operations in Afghanistan, below the high level NSC deputies committee. Once again, the benefits of PDD-56 and NSPD-XX were mitigated, when the NSC was replaced by U.S. Department of Defence (DOD) as the lead agency in post-war Iraq. Consequently, the U.S. Government's civil agencies were basically excluded from policy creation and actualisation. This was highly regrettable given the area expertise, capabilities and planning completed by the United States Agency for International Development (USAID), the U.S. Department of Justice (DOJ), the U.S. Department of Commerce (DOC), and especially the U.S.

^C Designation 'XX' signifies no Presidential Signature

Department of State (DOS), which had led all post-conflict missions since World War Two (WW2).⁵⁰

This episode illustrates the crucial importance of establishing the ECS, to ensure a comprehensive approach to counterinsurgency operations in LIC, reinforced by a unity of effort. Various difficulties that surfaced in the American interventions into Afghanistan and Iraq, which the ECS would have to ameliorate are; bureaucratic inertia towards interagency cooperation, potential for personal rivalry, the lack of communications, the lack of support for external agency leadership, anti-planning biases, potential for information leaks, obstruction of functional experts, the disinclination of regional experts to cooperate in coordinated planning, and the low priority given to strategic advice from field agents.⁵¹ It has also been suggested that political interference caused the unusual DOD approach to the Iraq war, “[t]hey preferred to find a model for successful nation building that was not associated with the previous administration.”⁵² However, the Rumsfeld doctrine (with emphasis on smaller and more agile forces) had a direct bearing on the planning for the Iraq war, as did intelligence estimates concerning the post-war situation.⁵³ It is essential that HIC doctrines and strategies do not impact upon LIC policy. Moreover, human intelligence must be improved, as it is indispensable when analysing the consequences of LIC.

Summary

It is said that if we desire peace, we must prepare for war.⁵⁴ However, it must be the right kind of war that we prepare for. Like Churchill’s observation about the Soviet Union, LIC seems like a riddle wrapped in a mystery inside an enigma.⁵⁵ LIC appears as an incomprehensible amalgam of violence. It is difficult to understand, thus, it is challenging to defeat. Given this complexity, a clear counterinsurgency doctrine is needed for the suppression of LIC. This doctrine provides a theoretical framework and a set of practical principles that are essential to the counterinsurgent facing LIC.

Awareness of the phased array of violence encountered in LIC forms the theoretical framework presented in this thesis. The phased array characterises the structured, yet fluid nature of LIC. Each phase of LIC, organisation (cadre/support), terrorism, guerrilla warfare and mobile warfare, merge in a

symbiotic relationship that cause an array of threats that are difficult to precisely counter. However, perceiving LIC as phased violence enables individually tailored strategies to counter individual phase threats. The significance of a phased counterinsurgency is that it insures each specific threat is countered, rather than the most visible threat being countered with no consideration for other threats. This is important because a strategy tailored to one phase will have little or no effect on the other phases. Within this theoretical framework, the leading principles to counter LIC can be outlined.

They are the provision of internal security, the regulation of international interference, the application of civil operations, which must all be applied synergistically under a unitary central command. The provision of internal security involves: preserving full phase security in friendly zones, and the deliberate expansion of friendly zones by entrenching all phases of the counterinsurgency. The regulation of international interference entails isolating the battlespace from negative foreign physical and psychological operations. This principle is significant because international interference can mean the difference between victory and defeat for a counterinsurgent in LIC. Civil operations are critical in LIC because they form a symbiotic relationship with the internal and external security operations of the counterinsurgent. Civil operations must encourage political participation within the community and provide economic and social benefits for the people. LICs are won and lost in the hearts and minds of the people, their support and intelligence is the basis for counterinsurgent operations.

All of the aforementioned principles will be ineffectual if the counterinsurgent does not take a holistic approach to ensuring the stability of the sovereign state, by unifying civil, police, intelligence and military services. This holistic approach requires a unified command and the formation of an Expeditionary Civil Service. A unified command will ensure unity of effort, while the Expeditionary Civil Service will guarantee that the civil units, which are essential to counterinsurgency operations in LIC, are as capable as and fully integrated with their military counterparts.

This chapter analysed and presented doctrinal principles that can be applied by a counterinsurgent facing LIC. These principles are one aspect of the overall counterinsurgency strategy analysed in this research. The following

chapter, which collates, analyses and makes recommendations in reference to military force principles, is a further aspect of the counterinsurgency strategy examined in this research. The principles contained in both of these chapters form a holistic approach to counterinsurgency.

The theoretical framework and four principles outlined in this chapter are distilled from empirical examples of LIC, and are consistent with the lessons of contemporary LIC. Their adaptation in light of future cases of LIC will improve the counterinsurgent's probability of success.

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Chapter Six

Military Force in Low Intensity Conflict

As has been established in the previous chapter (A Doctrine for Low Intensity Conflict), security is the cornerstone of any doctrine that addresses counterinsurgency operations in Low Intensity Conflict (LIC). While not exclusively a panacea, military force on the part of the counterinsurgent is the primary provider of security in LIC.

In terms of doctrinal principles, the military forces of a counterinsurgent involved in LIC will be the primary actors in controlling international interference, providing internal security, applying civil operations and in forming a unified command. So as to implement the aforementioned doctrinal principles, military forces must adhere to a multitude of often contradictory military tenets. Ten of these military principles are a principal focus of this research; they include doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence. These military principles are founded on the analysis of the three case study chapters of this thesis and on lessons learned in numerous conflicts that occurred since World War II.

Given the primacy of military force in LIC, this chapter will analyse and make recommendations on the composition of counterinsurgency forces. The chapter's empirical focus will be based primarily on the case studies of this thesis. The focus of the chapter will be broad, encapsulating the following topics: doctrine; infantry; armour (armoured vehicles) and artillery; helicopters; aircraft; command, control, initiative, communications and intelligence (C2ICI). The military principles outlined above form a thematic thread that is intertwined through the aforementioned topics.

Doctrine

The case studies of this thesis clearly indicate a pervasive lack of counterinsurgency doctrine applicable to LIC. A lack of precisely tailored doctrine will undermine counterinsurgent operations in LIC. It is clear that

military establishments consistently apply conventional force principles to the non-conventional reality of LIC. Lessons learned in past counterinsurgencies are not internalised, so the same mistakes are continually made.

The Soviets made a clear error of judgement when intervening in Afghanistan. The doctrine applied was a universal theatre concept of war, designed to defeat North Atlantic Treaty Organisation (NATO) forces in Europe, rather than dispersed guerrilla bands. A similar mistake was made in Chechnya by the Russians, except that the Russians failed to seize even the initial primary objectives: Grozny and Chechnya's strategic infrastructure. However, many of Russia's mistakes were rectified by the second Chechen war.

In Somalia, the United Nations (UN) 'doctrine' so undermined the standard operating procedures of the United States (U.S.) and other forces in Mogadishu, that UN defeat was almost guaranteed. So significant was the defeat in Somalia for the U.S., that major doctrinal formulation and restructuring throughout the Clinton administration and into the early stages of the Bush administration (Presidential Decision Directive 56 (PDD-56) and National Security Policy Directive XX (NSPD-XX)) was undertaken. This doctrinal evolution created positive results throughout the 1990s, for example in Haiti and East Timor. However, the imperatives set forth by the new U.S. counterinsurgency doctrine were first ignored in Afghanistan and then contravened in Iraq.

Poor doctrine has been a limiting factor in low intensity conflict, but should not be so. LIC is not an anomaly in warfare; it has been and will always be the most common form of war. By contrast, conventional war is the atypical form of war. Given this reality, military establishments should devote more attention to LIC. The following discussion is an account of the various force elements that form the military basis of the counterinsurgency.

Infantry

Infantry have always been the principal counterinsurgent units in LIC, given their higher propensity to engage with the enemy. In LIC, the smaller the counterinsurgent's infantry unit is, the more likely it will be to make contact with the enemy. Hence, squads and platoons must be highly independent, highly

trained, invested with authority and trusted to use it, and prepared to take the initiative. This section on infantry is divided into three subsections: (1) personnel; (2) tactics, techniques and standard operating procedures; and (3) equipment. The subsections analyse and suggest optimal infantry force structuring for counterinsurgency forces in LIC.

Personnel

The first issue under analysis is whether conscript or reserve forces are suitable for counterinsurgency operations in LIC. The Soviet-Afghan war and the first Russo-Chechen war are useful in answering this question, as most Soviet/Russian troops deployed were conscripts or reservists. Many of these soldiers were sent to Afghanistan as punishment, or volunteered due to a sense of bravado. In Chechnya, their cohesion was further degraded by combining Internal Ministry (MVD), Federal Security Service (FSB) and Army troops. It appears that the lack of training and cohesion within the Soviet/Russian Army severely undermined the military effectiveness of these combat units, and reduced the discipline of soldier interactions with non-combatants. Hence, the Russian conscript operations in Afghanistan and Chechnya were plagued by heavy personnel and material losses. In addition, indiscriminate violence perpetrated against the population by these inexperienced and ill-disciplined forces was highly counterproductive, as it strengthened the opposition. The violence was further aggravated by alcoholism, drug abuse, ethnic rivalry, poor living conditions, insufficient medical care, isolation, smuggling and widespread corruption. However, the deployment of American reservist personnel in OIF, and hence in Iraq, has been relatively unproblematic, although there have been a number of incidents, like the defiling of prisoners at Abu Graib, which were due to a lack of discipline. Humiliating the population is counterproductive to the counterinsurgent and must be avoided at all costs. It appears professional soldiers, with superior training, fitness, combat capability and discipline, are preferable to conscripts in counterinsurgency. This is primarily because combat in LIC is brief, and violent, and occurs in terrain unfavourable to the counterinsurgent.

In addition to the poor training received by Russian conscripts, their leadership was also deficient. This is a substantial problem. As Mockaitis has

noted the likelihood of small unit contacts and the wide dispersal of forces across the combat zone in LIC, “decentralization of command and control based on superior junior leadership [is] a hallmark of counterinsurgency”.¹ The Soviet/Russian experience in Afghanistan and the first Chechen war clearly demonstrated the substantial degradation of combat performance caused by a lack of junior leadership. In Afghanistan, Soviet non-commissioned officers (NCOs) were rotated too often and received substandard training. This caused operational experience to be lost at each NCO rotation. Again, the officer corps was enticed to fight in Afghanistan by financial inducement or unwarranted career advancement. These policies tended to draw unprofessional and undesirable officers to Afghanistan. The experience was similar in Chechnya. The effect of poor junior leadership was to reduce troop effectiveness, cohesion and discipline.

In comparison, the elite Soviet troops deployed in Afghanistan were more suited to counterinsurgency operations in LIC. Elite Soviet units were professional, well trained, well led and cohesive; proving effective against the Mujahedeen. Again, after the initial defeats of the Russians in Grozny, Naval infantry and Special Forces (Spetsnaz (Spetsialnoye naznachinie)) trained in urban warfare, were deployed. MVD and FSB snipers were also deployed to Grozny, supplementing the inadequately trained MoD snipers. These special units and snipers were also able to exploit the night, when the situational awareness of the Chechens was reduced.

The advantages of having professional troops operate as counterinsurgency forces were not lost on the Russians in the second Chechen war. Russian infantry entering Grozny was elite, specialised, professional and trained in urban warfare. Reconnaissance, combat engineers, snipers, naval and airborne infantry, Spetsnaz, and forward air and artillery observers were heavily employed in Grozny. These units were then supported by a division of Russian infantry, organised into ‘storm detachments’. These storm detachments incorporated Rocket Propelled Grenade (RPG), sniper and rifle infantry into three man groups, supported by Thermobaric Rocket Launcher (RPO-A) equipped troops, forward artillery and air observers, engineers and reconnaissance troops. These detachments were heavily armed, largely autonomous and professional (not conscripts). Furthermore, improved supply, reinforcement and rotation aided morale. Improved and simplified command and control, leadership, urban

training, and air-ground synergy also vastly improved Russian combat capabilities.²

Since the end of World War Two, Special Force (SF) elements have displayed a highly effective capability as counterinsurgent forces. The latter three case studies of this thesis, United Task Force (Somalia), Operation Enduring Freedom (Afghanistan) and Operation Iraqi Freedom, have indicated a continuation of this trend. Special Forces are a growing element of Western war-fighting, for four main reasons. First and foremost, force can be accurately targeted by the Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capabilities of SF personnel. Even within difficult urban terrain, as in Basra and Baghdad, SF personnel could create an accurate intelligence picture, restrict enemy actions, and act as forward air and artillery observers. Second, SF personnel exhibit outstanding joint warfare synergy; air support is accurate and devastating with SF guidance. Third, SF units are light and highly projectable. Hence, a significant, and/or covert presence can be deployed rapidly, as when the lead elements of the 10th Special Forces Group deployed to stabilise the OIF northern front after Turkey prevented the U.S. 4th Division's deployment. Fourth, the force multiplication effect of SF personnel distributed among indigenous troops or regular infantry can revolutionise the adopted unit's combat power. SF troops can integrate effectively due to advanced language and cultural skills, and through joint force, can apply combat power with advanced communications and targeting equipment. In both Afghanistan and Iraq, SF support transformed the combat power of local forces with the practice of joint warfare.

The professionalism of soldiers has been central to the victories in Operation Enduring Freedom and Operation Iraqi Freedom, and prevented the loss of further personnel in Somalia. The skill, determination, initiative and courage of soldiers cannot be underestimated in warfare. Soldiers are the bedrock of any technology, tactic or procedure. The individual soldier's training, readiness, familiarity with weapons and systems is the most important component of awareness, jointness, agility, intelligence and precision. Furthermore, counterinsurgency operations are the greatest test of a soldier's professionalism, as judiciousness, care and combat discrimination must be applied in difficult surroundings against a mercurial foe.

Tactics, Techniques and Standard Operating Procedures

Tactics, Techniques and Procedures (TTPs) and Standard Operating Procedures (SOPs) are applied in combat until initiative and experience create better ways of conducting operations. Hence, TTPs and SOPs must be well honed before combat, and effective TTPs and SOPs must be adhered to. This subsection addresses the lessons learnt in this thesis' six case studies regarding TTPs and SOPs.

Inadequate and erroneous TTPs and SOPs were central to the poor performance of the Soviet/Russian conscripts studied in this thesis. For example, embarked regular troops were unlikely to disembark under-fire from armoured vehicles, contravening combined arms theory. Light infantry sweeps were also ignored, forfeiting intelligence on enemy positions and activities.³ The lack of small scale infantry operations began to be addressed between 1982 and 1984, but were never made central to Soviet strategy.

The lacklustre fashion with which effective TTPs and SOPs were applied, also limited Soviet/Russian elite infantry operations. Elite units were primarily suited to aerial assault, rather than the long range, foot-mounted intelligence gathering and search-and-destroy missions, which are indispensable in counterinsurgency. The Soviets also showed, but failed to internalise, that high ground, reconnaissance, training, spirit and resourcefulness are timeless ingredients to effective counterinsurgencies.

Unfortunately, many of the same mistakes were remade in Chechnya. The initial conscript force deployed to Grozny were ordered to fight from within their Infantry Fighting Vehicles (BMPs), obviating the principles of combined arms and exacerbating the dangers of urban warfare for armoured units. However, the Chechen wars did cause the Russian military to modify their TTPs. Unit sizes were reduced to increase operational freedom. Unit firepower was augmented with flame throwers, rocket propelled grenades (RPGs), AGS-17 automatic grenade launchers and RPO-A thermobaric rocket launchers. The security of communications was also enforced.

The strategic defeat of American forces in Mogadishu, Somalia was exacerbated by restrained SOPs and TTPs. The cause was non-standard operating procedures imposed by United Nations Rules of Engagement (ROE). These ROE

so undermined the elite American troops deployed in Somalia, that they were unable to sustain combat against a numerically larger foe. The primary weakness was not internal to the troops, but caused by: (1) the lack of armour capable of withstanding RPG fire; and (2) constraints on close air support (CAS). Armour was available, but was restricted from entering Mogadishu. Infantry operating without armoured support was in contravention of standard TTPs and combined arms theory. More CAS was available, but was also withdrawn from operations due to concerns about collateral damage. Secondary problems in the urban fighting included: communication deficiencies due to urban terrain; a lack of situational awareness; unfamiliarity with coalition equipment; and language impediments to coalition communication. The critical lessons from Somalia are that communications and combined arms must not be undermined, nor TTPs and SOPs.

As indicated earlier, the American and allied actions in Afghanistan and Iraq feature an increased integration of Special Forces (SF) and combat aircraft. This experience highlights the critical nature of effective joint force principles within a counterinsurgent's combat force destined for LIC. Hence, a mastery of joint warfare must be attained, through intensive training and exercises prior to deployment. Joint warfare cannot be an anomaly in training; it must become a standard procedure. Supply of the necessary communications, designators and other combat supplies must also be assured. While, regulations that undermine SOPs and TTPs should be minimised, if authorised at all. When contravention of the above principles did occur, coalition casualties were taken and outcomes were less positive. For example, U.S. combat effectiveness was undermined by Afghanistan's mountainous terrain, causing communications, Intelligence, Surveillance and Reconnaissance (ISR) and logistical problems. This limited support for American infantry, contravening combined arms and standard procedures. As is discussed in case study five (U.S. in Afghanistan), the adoption of joint warfare principles has increased risk on the battlefield for friendly units. This is because ground units have little primary firepower, protection or endogenous mobility. Their combat capability comes via a tenuous communications link with friendly support and combat support units. Hence, militaries must be diligent in defending these tenuous communication links.

Training is central to safeguarding the weaknesses of joint warfare; joint warfare principles must become second-nature to the soldier, airman and commander.

It is evident from coalition actions within OIF and subsequently in Iraq that combined arms and joint warfare have become standardised principles in urban warfare. These principles were trained for under urgency by the British and American troops rotated through urban training schools in Israel. When larger concentrations of Iraqi units and fedayeen were identified in urban centres, the cities were isolated and intelligence was gained. As a consequence, the Iraqis were undermined and the coalition fought from a position of superiority. As was indicated above, SF and sniper units were used effectively as forward observers in cities. SOPs prescribed combined arms and joint warfare to be observed when fighting in cities. This has continued in the post war environment where infantry and support units are dispatched on combined patrols. The use of armour is also tailored to the specific areas to be patrolled, for example difficult areas are patrolled by heavier armoured forces. However, shortfalls in airlift early in OIF caused SF units in the north of Iraq to undertake operations without support vehicles and other heavy equipment. Hence, airborne logistics require expansion, so that logistics issues do not breach SOPs and TTPs.

Equipment

Improvement of communications is the most critical requirement for infantry operations and is therefore one of the leading military principles analysed in this thesis. Simply, an absence of communications will impede combined and joint warfare. Basic frequency modulation (FM), or line-of-sight communications, have proven inadequate in all the case studies of this thesis. FM communications do not provide adequate support for operations in jungle, wooded, mountainous or urban terrain. At times, satellite communications can provide a link with support services. However, satellite communications do not function in urban terrain, and provide only limited transmissions in mountainous terrain. U.S. military observers in Iraq concluded that in urban terrain, “the lack of functional radios hampered soldiers’ ability to execute their missions without undue risk.”⁴ Soldiers have resorted to yelling their positions to comrades, compromising unit security and stealth. Counterinsurgency requires decentralised unit operations,

which in turn require a broader dissemination of effective communications. The problem can be resolved with “network radios”, which use “frequency hopping” technology and other “network radios” in the unit to relay communications to the intended target.⁵ Future needs will also require “data images, maps and other navigational aids”⁶ to be communicated within the squad and higher echelons of command.

The arming of a soldier requires an intricate balance of firepower, information, armour and mobility. The infantryman’s primary source of firepower is the rifle. The standard rifle of the counterinsurgent examined in this thesis has fired a 5.56mm (NATO) or 5.45mm (Russian) round. While generally adequate, this small calibre round has been criticised for insufficient firepower, range and piercing qualities. The 5.56mm calibre rifle was designed for ‘typical’ engagements of between 100-300 metres. However, this ‘typical’ engagement range may not be sufficient. In all but two of this thesis’ case studies, sniper units and sniper rifles have been urgently requested.⁷ Furthermore, current and future optical and electronic sights are increasing the range at which a soldier can engage a target: necessitating a larger calibre rifle.⁸ 5.56mm ammunition is lighter than 7.62mm ammunition, improving the mobility of the soldier. However, the two rounds are not equivalent; it often takes more 5.56mm rounds to stop a target. In so far as 5.56mm rounds are also designed to wound, rather than kill, they create a need for medical evacuation, which reduces the enemy’s ability to fight. On the other hand, soldiers want the certainty of a weapon that will fully incapacitate the enemy. Thus, a reappraisal of calibre sizes is necessary.

Operations in mountainous and urban terrain have shown that soldiers require lighter kit. American infantry armour and mobility were augmented in OEF and OIF, with the introduction of lighter and more effective interceptor body armour. The case studies of this thesis indicate future weapons systems need to be lighter, including rifles and laser designators. However, a number of ongoing infantry development programmes are increasing the weight of rifles with electronic optics and data transmission devices. The extra weight is problematic. However, the ability to fire around objects (by way of an articulated scope) will provide security for the user in future urban conflict. Navigational aids, communication devices, personnel identification units and batteries will also need to be more effective, non-intrusive and lighter.⁹

Armour (Armoured Fighting Vehicles) and Artillery

Armour and artillery are not the primary combat units in LIC. However, the combined arms effect of armour and artillery are indispensable in supporting infantry operations. The essential nature of armour and artillery in support of infantry operations makes combined arms an indispensable military principle of this research. This section will analyse and suggest optimal armour characteristics and best use of artillery. This section will be divided into four subsections: protection, manoeuvrability, firepower and visibility; and tactics, Command, Control and Communication (C3) and other issues. Artillery will also feature at the end of this section.

Protection

Armour provides protection to crewmembers and adjoined infantry. Equally, adjoined infantry provides protection to armour. As indicated by Anthony H. Cordesman,^A operating armour heavy forces without adequate infantry screening,¹⁰ will result in serious loss of armoured units. This was illustrated by the Iraqis (in the Iran-Iraq war) and the Israelis (in the Yom Kippur and Lebanon (1982) wars). The Russians (in Afghanistan and in the first Chechen war) also suffered heavy armoured losses due to insufficient infantry protection. The converse is also true. The Iranians in the Iran-Iraq war and the Americans in Somalia endured infantry casualties, due to the lack of armoured support. Hence, simple combined arms theory should always be adhered to. The use of either, without the other, will invariably court casualties and the loss of equipment.

However, protection is also derived from firepower and manoeuvrability. Manoeuvre is greatly inhibited in urban and mountainous terrain, where armour is confined to roads. Mountainous and urban terrain also limits armoured firepower, since it tends to create three dimensional targets, unlike the two dimensional targets found in open terrain. Mountainous and urban terrain also vastly reduces engagement distances. In this time-critical and confined environment, it is difficult to bring main and auxiliary guns to bear on numerous, concealed and

^A Cordesman is a leading expert on the principles of military force. Therefore, Cordesman's numerous texts have been utilised as a partial foundation of this chapter. However, Cordesman's texts have been supplemented with numerous accounts from military practitioners and works by other authors.

fleeting targets. In this environment, passive and reactive armour is elevated to a more important status of protection.

There are three primary categories of weapons faced by armour in counterinsurgency: small-arms; unguided anti-armour weapons; landmines and improvised explosive devices. Insurgents are 'foot-mounted infantry'; any reliance on mechanised assets reduces the insurgent's stealth and chances of survival. Hence, small-arms (5.45mm-7.62mm calibre) are the primary weapon of the insurgent. Larger calibre small-arms (12.7mm-14.5mm) are not man-portable and are unlikely to be fielded by the insurgent. However, as in Mogadishu, urban terrain may permit the limited use of some larger calibre small-arms. Rocket propelled grenades (RPGs) constitute the majority of unguided anti-armour weapons (henceforth described as RPGs), while recoilless guns are seldom used. The case studies of this thesis have shown RPGs are a growing threat to counterinsurgency forces, especially in urban terrain. Bianchi asserts landmines cause the largest percentage of a counterinsurgent's mounted casualties in LIC.¹¹ Anti-personnel mines are not a serious threat to armoured vehicles. However, anti-armour mines present a significant threat to armour, including catastrophic kills (complete crew annihilation). Improvised explosive devices (IEDs) are numerous, and pose a medium threat to armour. IEDs generally contain more explosive than anti-armour mines. However, IED explosive is often ineffectively shaped, reducing armour piercing qualities. Hence, blast and shrapnel are the predominant effects of an IED.

It is evident from examples of LIC in the former Yugoslavia, Africa and the Middle East that vehicles operating in such a combat zone must be armoured. In urban or other closed terrain an un-armoured vehicle will not survive. In OIF, post-war Iraq and Somalia, the use of un-armoured vehicles (such as the M-1113 HMMWV (Humvee)) permitted friendly casualties. The Americans in Iraq have been dedicated to up-armouring Humvees and up-armouring trucks, while more "tanks and Bradleys [are being sent] to Iraq, to help protect troops from roadside bombs and rocket attacks".¹² The U.S. Marine Corps is also up-armouring amphibious assault vehicles (AAVs), mainly to thwart rocket attacks.¹³ The British also added armour to personnel carriers operating in Ireland, as did UN forces operating in Bosnia. Similarly, the Australians are producing a light armoured vehicle (Bushmaster), with high strategic mobility and sufficient armour

for operations in LICs. Generally, there has been a shift by counterinsurgent forces towards armouring vehicles in LIC. Due to the non-linear LIC battlefield and the effective isolation of combat units, on both urban and non-urban terrain, the protection armoured units possess is critical.

Light Operational Vehicles (LOVs), with a gross weight of approximately 5,000 kilograms, have sufficient power and dimensions to receive all-dimension armour plating. This armour will generally withstand 7.62mm anti-personnel rounds, remote artillery-round detonations, smaller anti-tank mines and most IED explosions. This is sufficient armour for low-level threats, non-urban battlespaces and strategic manoeuvre. However, the significant and recurring threat posed by RPGs necessitates a higher level of protection. Light Armoured Vehicles (LAVs), with a gross weight around 15,000 kilograms, can be protected against large-calibre small-arms and partially protected against the RPG threat.

The hull of an armoured vehicle will be constructed of either steel, or laminated or composite armour. All of these armour types have deflection envelopes. The least protection is provided when a projectile impacts the armour at the perpendicular (normal incidence). As the oblique angle increases, so does the potential for deflection. However, not all surfaces of an armoured vehicle are equivalently armoured. The top and rear of an armoured vehicle are invariably thinner than the belly and sides, while the front is heavily armoured. This conventional armouring practice has proven inappropriate in LIC. This is because the probability of all aspect engagements increases in LIC. In these circumstances, protection can be improved by increasing the oblique angle of the sides and rear. This will however, reduce useable cabin space.

Reactive or appliqué (additional) armour can improve the survivability of armoured vehicles. Explosive Reactive Armour (ERA) consists of explosive packed between metal plates. ERA detonates outwards when struck, deflecting explosive anti-armour projectiles. ERA is the most effective solution to RPG and High Explosive Anti-Tank (HEAT) rounds. “The limit of this concept lies in the fact that the vehicle’s basic hull structure must be sufficiently robust and thick as to withstand the explosion of the ERA tiles”.¹⁴ ERA tiles have however been applied to M-113 APCs by the Israelis, and to the Centauro by the Italians. In such cases, shielding plates between the ERA and the hull may be required. Internal spall liners, in a Kevlar type substance, will reduce the internal effects of

RPG and HEAT rounds. For example, the use of available ERA technology in Chechnya, would have vastly improved the survivability of Russian armour. Following American operations in Iraq, the M1A1/2 Abrams is also being provided with additional ERA.¹⁵ In contrast, appliqué armour incorporates all other passive forms of additional armour. Appliqué armour puts no additional demands upon the vehicle, except for weight. Appliqué armour comes in two forms. First, steel, laminated or composite armour applied directly to the hull of the armoured vehicle. Second, angled or inclined steel, laminated or composite armour sections, offering increased armour obliquity. The latter angled armour is more expensive and more effective than the former plate armour.¹⁶

Manoeuvrability

At the strategic level, manoeuvre represents the capability to shift personnel and firepower or secure lines of communication for supply units, as quickly and effectively as possible. Firepower and protection generally have an inverse relationship with strategic manoeuvre, as the former two are heavy, and reduce vehicle mobility. However, the proliferation of wheeled armoured vehicles and weight-saving technological improvements in firepower and protection has had a positive effect on firepower, manoeuvrability and protection at the strategic level.

However, this equilibrium depends upon terrain; complex terrain (urban and mountain) inhibits manoeuvre. Hence, the requirements for manoeuvre at the operational level differ from the strategic level. While Bianchi argues wheeled armoured units offer “[b]etter agility in built-up or wooden [sic] areas”¹⁷. Soviet operations in Afghanistan illustrate the ineffectiveness of both wheeled armour (BTRs) and tracked infantry fighting vehicles (BMPs) in complex terrain. The Soviet tracked airborne infantry combat vehicle (BMD) operated more successfully in Afghanistan’s harsh off-road terrain, where wheeled and heavy armour could not manoeuvre. In Lebanon’s urban terrain, the Israelis found the M-113 to be completely inadequate. The M-113’s capacity for operational manoeuvre was completely undermined by a lack of armour, poor visibility, insignificant firepower and high silhouette. The Israeli Merkava tank was a partial solution to the Israeli lack of operational manoeuvre, with its unique heavily armoured infantry carrying capacity. The use of non-armoured and very

lightly armoured vehicles in Somalia by the Americans, also illustrated how a lack of armour can prevent operational manoeuvre completely. Other nations who deployed heavier armour to Somalia were not impeded in their manoeuvre. Subsequent operations in Chechnya, Afghanistan and Iraq have demonstrated the value of well armoured vehicles (LAV-3s; Warrior and Bradley IFVs and BMPs; T-72/80, Abrams and Challengers MBTs) for manoeuvre by counterinsurgents in modern LIC. Heavy armour is especially important for manoeuvre in urban terrain. Hence, either wheeled or tracked armour can be deployed in LIC by counterinsurgents, provided the vehicles are well armoured, as armour is an absolute requirement for manoeuvre.

Firepower and Visibility

Protection and manoeuvre are dependent on a third element: Firepower. Firepower kills or suppresses enemy combatants. This precludes the enemy's ability to effectively engage targets. As indicated by the case studies of this thesis, the effective firepower derived from a counterinsurgent's armoured vehicles in LIC is dependent on three sub-elements: suppression, visibility and elevation.

Suppression of the enemy is caused by firepower directed in the general locality of the enemy, rather than precisely aimed shots. However, suppressing fire is only effective while it is sustained. Hence conventional armaments, such as large calibre antitank guns, are inappropriate for counterinsurgency operations in LIC. The Soviets established, in both Afghanistan and Chechnya, that chain guns, anti-aircraft guns and automatic grenade launchers (AGL) provide effective suppression fire. In addition, antitank guided missiles provide useful fire against fortified positions. Consequently, Soviet armoured vehicles were often retrofitted with these weapons. The armament of the M-1117 armoured security vehicle (ASV (Military Police)), which comprises a machinegun and an AGL, is optimal for light vehicles.¹⁸ American operations in Iraq have also illustrated the need for weapons with high rates of suppressing fire. M-1 Abrams tanks deployed in urban operations in Iraq, were generally well protected by 0.50inch and 7.62mm calibre machine guns. However, when unsupported by dismounted infantry in urban terrain, these weapons required the crew to fight open-hatched and to utilise

their personal weapons (M4 carbine, M16 rifle and M9 pistol).¹⁹ This tactic enabled the crew to easily identify and engage the enemy. However, this is a dangerous tactic for the crew. Therefore, both the Israelis and the Americans are fitting remote controlled weapons stations, extra thermal sights and additional gun shields to various armoured fighting vehicles.²⁰

The greatest impediment to internally controlled weapons stations is a lack of visibility. Soviet tanks in Afghanistan were impeded by narrow optics and targeting aids unsuited to targeting insurgents. However, when Soviet tank crews attempted to fight open-hatched, they suffered heavy casualties. The visibility from Soviet APCs and IFVs was also poor, as the firing ports on Soviet armoured vehicles impeded the embarked infantry's ability to see and engage the enemy. Hence, the Soviets learnt that "troops cannot fight successfully from such vehicles in many types of terrain and tactical conditions".²¹ Therefore, troops should not fight exclusively from within vehicles. However, the Israelis in the 1982 Lebanon war found M-113s provided completely inadequate visibility for both embarked and disembarking troops. While firing ports may improve visibility, they may also discourage troops from disembarking. A lack of visibility is a reason why American armour crews fought in urban areas open-hatched. The installation of remote weapon systems, without improving visibility, may not eliminate the need for armour crews to fight open-hatched.

Fighting open-hatched also eliminates targeting problems caused by restrictive firing envelopes. Once an enemy is acquired visually, the elevation and depression envelopes of weapons become critical in engaging the target. If a weapon cannot be trained on the enemy, he cannot be killed or suppressed. In Afghanistan and Chechnya, Soviet/Russian tank and BMP main armament could not be aimed at the enemy. Neither could these armoured units defend themselves adequately with machine gun fire. Hence, armour was often retrofitted with freely traversable weapons with high rates of fire. This included weapons fired from turret cupola or as the internally fired main weapon. Armoured self-propelled anti-aircraft guns were indispensable in Afghanistan and Chechnya, because their envelopes of fire were so broad. Guns need to elevate to 50-70 degrees in mountainous terrain, in addition to depressing sufficiently (-10 degrees plus) to fire into basements in urban terrain. Iraqis tended not use urban terrain as effectively as the Chechens did. However, unescorted American tank crews were

still forced to defend themselves with small arms, from open-hatches. Hence for counterinsurgency operations in LIC, armour weapon systems must have high rates of fire, excellent visibility and unobstructed firing envelopes.

Tactics; Command, Control and Communications (C3)

The pre-eminence of armour in counterinsurgency operations should not be overstated. Armour is important, but only in conjunction with combined arms principles. Armour cannot operate effectively without support from infantry. The Soviets/Russians took heavy armoured casualties in Afghanistan and Chechnya because combined arms was discounted. The Israelis also made this mistake in the Yom Kippur war and the 1982 Lebanon war.²² Conversely, American and British operations in Iraq have derived all spectrum protection from the jointness of operations, and the professionalism of their commanders and crews.

Coalition jointness was created by C3 infrastructures that enabled situational awareness and the application of precision fire. Armour must be able to communicate effectively among like units, infantry and higher commands. Intelligence must also be disseminated quickly to and among front line combat units. Jointness and combined arms insured the correct weapon could be employed at the right time. Furthermore, on the non-linear battlefield, combined arms are critical to address unforeseen threats.

Finally, poor maintenance and unreliable equipment can be as debilitating as enemy fire. Soviet operations in Afghanistan were plagued by poorly maintained vehicles. Little attention was paid to pre-emptive maintenance, and field maintenance was ineffectual. Similarly, the Iranians in the Iran-Iraq war may have lost as many armoured vehicles to poor maintenance and a lack of recovery capability, as it did to enemy fire.²³

Artillery

Artillery is an indispensable component of counterinsurgent operations in LIC. Artillery is the soldier's all weather, day and night instrument of fire support. However, the use of artillery by counterinsurgents in LIC must conform to three principles: combined arms, precision and the use of firebases.

Combined arms and precision are mutually supportive principles. Artillery must be responsive to manoeuvre elements (combined arms), who must accurately designate point targets for the artillery. Artillery must fire instantly and accurately wherever manoeuvre elements require. In LIC, fleeting glimpses of insurgents must be exploited by a counterinsurgent's artillery. Area bombardment is ineffective in LIC, apart from causing collateral damage. Hence, artillery units must be provided with accurate targeting coordinates. The Soviets in the Afghan war quickly changed their use of artillery from "generalised mass fire to carefully targeted mass fire".²⁴ However, this targeted mass fire was only effective in short bursts, before the Mujahedeen could seek shelter. The mountainous terrain of Afghanistan was an impediment to both Soviet and American artillery units. The Soviets found artillery to be difficult to manoeuvre to points of contact, or with manoeuvre elements. The Soviets also found the elevation of some artillery pieces to be insufficient to target, or fire over the crests of mountains. This problem was partially alleviated with the deployment of the 76mm Mountain Gun (M-1966). The M-1966 is light (780 kilograms), small and has good elevation performance (-5 to +65 degrees). In Operation Anaconda, American troops were also forced to fight without the suppression or fire support of artillery. This degraded the infantry's performance significantly, and enabled the enemy to escape. This was also an avoidable mistake given U.S. forces have the British 105mm light gun. The deployment of self-propelled artillery was impossible in the terrain. However, the 105mm light gun should have been airlifted or towed to the area of operations.

Artillery is also a necessary force element in urban terrain. However, Russian artillery strikes in Grozny were ineffective until planning and improved communication enabled rounds to strike point targets. Russian artillery, guided by forward artillery observers and Special Forces, then became an effective shield against enemy action. In addition, artillery-fired precision guided munitions (PGMs) were found to be highly effective and accurate in the second Chechen war. Throughout Operation Iraqi Freedom, artillery was an effective tool to remove regular and irregular enemy units from battle. Forward observers, snipers, unmanned air vehicles, human intelligence (HUMINT) sources and Special Forces enabled urban battlefield preparation by artillery fire. All the case studies

of this thesis verify the requirement for artillery fire to prepare the urban battlefield for manoeuvre units.

Artillery effectiveness in the Iraq war was influenced by command, communications, intelligence and target acquisition improvements. Command was improved through greater situational awareness; notably due to friendly force tracking equipment. Theatre wide communications were generally effective, except at the squad level in urban terrain. Intelligence and target acquisition was improved by long range surveillance and infrared systems, as well as counter-battery radar. The precision strike of infantry guided artillery fire will be critical in future counterinsurgency operations.

As indicated earlier, the placement of a counterinsurgent's artillery systems in LIC is highly significant, and contrary to the usual principles of conventional warfare. In a conventional conflict, artillery systems are dispersed across the battlefield to moderate the effects of enemy airstrike and counter-battery fire. However, air and artillery threats are unlikely to be faced by a counterinsurgent in LIC. Given the non-linear nature of the battlefield, artillery units should consolidate into firebases.²⁵ Both the Americans and Soviets constructed firebases which could adequately protect themselves from insurgent assaults; and provide intersecting fire-support for manoeuvre units.

Aviation

All of the case studies encapsulated by this thesis reveal the essential nature of aviation assets to a successful counterinsurgency strategy. Aviation is multidimensional in purpose, ranging from facilitating logistical support, to commanding the battlefield with Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance (C4ISTAR) capabilities, to applying precision strike. Given this complexity, each aspect of air support will be analysed individually within two sections: Helicopters and fixed-wing Aircraft. In terms of military principles, aviation is an essential element in joint force operations and elevates the importance of professionalism, communications and accurate intelligence.

Helicopters

The following section covers the use of helicopters by counterinsurgents in LIC. The subsections focus on the development of helicopter use by counterinsurgents in LIC, and the essential nature and use of helicopters in contemporary LIC by counterinsurgents.

The development of Helicopter use in LIC

Since their development, helicopters have been an indispensable part of counterinsurgency warfare. However, the methods by which they have been utilised have varied greatly. This subsection briefly outlines the development and early use of helicopters by counterinsurgents in LIC.

The British, while operating in Malaya, were the first to illustrate the vital nature of heliborne lift, supply and medical evacuation, to counterinsurgency. Essentially, the British used helicopters in a combat support role, following principles of combined arms. The force multiplication effect was disproportionately positive, in comparison to the small number of British helicopters deployed in Malaya. The helicopter greatly improved the mobility and agility of British infantry and artillery units. Ground units with heliborne support were thus able to ‘exploit opportunities to attack, block and ambush insurgents’²⁶ on British terms. Simply, helicopters were a requisite component of British doctrine, which enabled the British to choose ‘points of contact’. If the counterinsurgent can choose the point of contact, he will secure a distinct advantage.

The effective use of British heliborne forces in Malaya, illustrates how helicopters have a higher factor of force-multiplication than fixed-wing aircraft in counterinsurgency operations. For example, French paratroopers (in Vietnam) jumping from fixed-wing aircraft, could ‘exploit opportunities to attack, block and ambush insurgents’²⁷, as in the British case. However, the French paratroopers were unable to be extracted efficiently after an effective contact with the enemy. French paratroopers were forced to march out of the jungle, which could take days or weeks and enable the Vietminh to ambush the dismounted French soldiers. Given the French paratroopers spent large amounts of time ‘self-exfiltrating’ and

not engaged with the enemy, their effective force strength was far below their nominal strength.

The problem of paratrooper self-exfiltration was rectified by the French in Algeria, by deploying troop-lift and later rudimentarily armed helicopters. This enabled the French to exploit intelligence on insurgent positions, saturate the area with heliborne forces, provide these disembarked forces with immediate heliborne firepower, and extract all forces immediately after the engagement for rapid redeployment. Hence, helicopters functioned as an effective force multiplication tool. The French doctrine on heliborne warfare contrasted in two important ways from the comparative British doctrine. First, the French used heliborne forces as a component part of large-scale mobile operations. These large-scale operations were, (1) formed as a result of experience attained in Indochina, (2) facilitated by Algerian terrain that enabled rapid land manoeuvre, (3) permitted due to the large French presence in Algeria, and (4) founded on the belief that Algeria was a province of France itself, rather than a colony. On each of the points, the British experience was almost diametrically opposed. Due to personnel, equipment, financial and terrain restrictions, the British were forced to devise a doctrine that implemented an efficient, precise and principally land-based use of force. These differences are critical in the formation of doctrine, while both the French and British were effective in combating the respective insurgencies, only the British did so efficiently. Given the cost-effectiveness of the British model, it may be advisable that under-resourced counterinsurgencies internalise British principles. Second, the French used armed helicopters, while the British did not. The reason behind this difference in doctrine is not definite. In the French case, heliborne troops were being suppressed by enemy fire while disembarking; as a solution, the French experimentally armed known and available airframes. The initial French attempts were rudimentary, seating army machine-gunners on the external litters of the Bell 47 Sioux. This practice proved effective at routing inaccessible machine-gun nests in Algeria's open but mountainous terrain. However, this did not alleviate the vulnerability of transport helicopters, when inserting infantry. Fixed-wing fighter-bombers also proved unable to provide instantaneous or lasting suppression of insurgent defensive positions. However, rocket, machine gun and cannon equipped helicopters were found to be highly responsive and capable of suppressing enemy resistance at a landing zone, and proved equally

capable of responding to the needs of French troops in later combat. The French were so impressed by the effectiveness of the armed helicopter, that units were deployed on independent search and destroy operations. Hence, French use of helicopters included both combined arms and independent combat unit operations.

However, these French practices are contrary to early British helicopter operations in LIC. There are three issues that may have contributed to this deviation. First, the British lacked the number of helicopters available to the French in Algeria. This made the British helicopters too valuable to endanger in direct conflict. Second, the British principle of minimum force may have obviated the possibility of arming helicopters. In contrast however, the British did employ fighter-bombers. Third, the British may not have had a need to arm their helicopters. The British used helicopters to lift personnel and artillery into pre-positioned landing zones (LZs). From these LZs, British infantry would regroup, manoeuvre and engage the enemy, with artillery support. This obviated the need for helicopter support, since the British infantry would not be disembarking under fire, and the British would maintain the element of surprise when engaging the enemy. A requirement of this tactic was excellent intelligence, which the British attained through small unit tactics, the employment of local trackers and a close relationship with the civil population. This may have been a result of earlier efforts at empire policing, where the British learnt to deal with native unrest with few resources. The British may have also achieved greater synergy between strike aircraft and ground units, which the French did not achieve until armed helicopters were introduced. Terrain is also important in analysing the different approaches to helicopter use; Algeria may have allowed the use of armed helicopters, as did Afghanistan in the early 1980s.

Given the technical assistance provided by the Americans to the French in Indochina and Algeria, French procedures influenced American counterinsurgency doctrine in Vietnam. The 173rd Airborne Division was the first overt and regular American military unit to be deployed in Vietnam. The 173rd, being a well-trained heliborne unit, performed well in Vietnam, using similar small-unit tactics to the British in Malaya. The helicopter lift generated agility, so that the 173rd could concentrate their force to exploit intelligence on enemy positions. However, it cannot be extrapolated that the mass use of helicopters, as a force multiplier of infantry, will automatically engender counterinsurgent

victory. All units, tactics and procedures must be incorporated into a coherent strategy; no one component can bring victory. Helicopters, especially attack helicopters and airborne strike in general, were found to be largely ineffective in Vietnam's vegetation covered mountainous terrain.

Essential Nature and Use

As indicated above, helicopters quickly became an indispensable part of counterinsurgency operations. The use of helicopters by counterinsurgents varies widely in LIC. However, manoeuvre, support, evacuation, protection and firepower can all be enhanced by the effective use of helicopters. Helicopters can also provide C4ISTAR tasks. Air-ground synergy created by helicopters has also proven far more effective in most combat environments, than that of aircraft.

The case studies of this thesis have shown the following categories to be important to the use of helicopters in LIC by counterinsurgents: Protection; Firepower and Target Acquisition and Designation Equipment; the 'Friendly Fire' Problem; Trained Personnel; Tactics; and Flying Conditions. Each of these subsections will be analysed and recommendations will be made for the future use of helicopters in LIC by counterinsurgents.

Protection

As with any weapons system, the effective use of helicopters in combat created a need for countermeasures. While dwarfed by the numbers of helicopter losses in Vietnam (approximately 4,000), Soviet losses of helicopters in Afghanistan were significant (well over 800).²⁸ These losses were caused by the effective use of man-portable surface-to-air missiles (SAMs) and heavy anti-aircraft (AA) guns by the Mujahedeen. It is clear that airpower was essential in Afghanistan, where immediate force was needed to target an elusive enemy. It is also clear that ground operations were significantly undermined by the restriction of helicopter operations.

Similarly, in rural Afghanistan and Iraq, American lift helicopters and gunships were also vulnerable. UH-47s, AH-64s and AH-1s all experienced battle damage, and were disabled or shot down by enemy forces. Lessons that began to appear in Operation Enduring Freedom were resolutely corroborated by

operations in Iraq. The synergy between regular and irregular Iraqi resistance, using small arms, RPGs and man-portable SAMs, effectively undermined well-established helicopter doctrines and procedures.

In urban terrain, slow moving helicopters were shown to be vulnerable to small arms fire and RPGs, as illustrated in Grozny and Mogadishu.²⁹ Hence, helicopters require active protection suites, passive armour or improved tactics to survive in modern LIC.

The case studies show heliborne forces were important due to their agility, synergy and effective communications with ground units and their ability to loiter. These characteristics, however, make helicopters vulnerable. Thus, helicopters require an effective electronic warfare (EW) suite, onboard infrared (IR) and radar jamming capabilities, and all-aspect signature suppression (noise, radar and heat). Such a protection suite will greatly reduce the threat to helicopters of all signature seeking SAMs. While Soviet/Russian and American helicopters with EW suites were lost to enemy SAMs, EW systems have been credited with saving lives and equipment in Afghanistan, Chechnya and Iraq.³⁰

All helicopters deployed in LIC by counterinsurgents should be provided with radar and infrared warning, jamming systems and countermeasures. A lack of protection systems onboard some helicopters will undermine the performance of the helicopter fleet. Due to the lack of self-protection suites on some Italian and Polish helicopters operating in Iraq, dedicated escort operations had to be maintained by other coalition members. Such escort duties degrade the overall operational effectiveness of the airborne fleet, and put unprotected aircraft at significant risk. Coalition members should not have to rely on their allies for protection. Also, in LIC all areas outside fortified counterinsurgent bases are potentially hostile zones; the lack of frontlines necessitates eternal vigilance. EW systems must be active and crewmembers must be alert at all times to potential enemy engagements.

Armour can improve the survivability of helicopters against small arms and RPGs. However, armour can quickly degrade the flight performance of helicopters. Hence, protection should also be provided through improved tactics. The survivability of Soviet/Russian attack helicopters in Afghanistan and Chechnya was improved with the introduction of defensive manoeuvres. These manoeuvres included terrain hugging and pop-up tactics, target approach

manoeuvres, high speed complex approaches and mutual cover fire. However, these manoeuvres were performed too rigidly, due to Russian pilot-training methods. Also the range of engagement was increased, reducing the accuracy of sorties and increasing collateral damage.³¹ In addition, Russian helicopters are less manoeuvrable than their Western counterparts, increasing their vulnerability. However, Western tactics have also been forced to develop in the face of growing insurgent threats to helicopters. American helicopter gunships have been forced to discontinue using nap-of-the-earth (NOE) approach tactics. These NOE tactics protected helicopters against medium altitude SAMs. However, low altitude insurgent small arms fire is a greater threat in Iraq and Afghanistan. Stationary attack procedures have also been stopped, in exchange for mobile strafing fires (100-160 kph). These tactics will remove helicopters from the effective range of small arms, and better enable the helicopter's technical systems to target insurgents.

In Groznyy, the Russians modified non-urban helicopter tactics to function in urban terrain. These tactics involved the helicopters using the urban terrain. Helicopters would advance below the cityscape to safe areas behind friendly buildings, then 'pop-up' to fire on the target before hiding again. These tactics dramatically improved the survivability of Russian helicopters in urban terrain.

The Soviet/Russian operations in Afghanistan and Chechnya enable a comparative analysis of specially built helicopter gunships and armed troop helicopters. Arming troop helicopters provides force multiplication, at little cost, on a known airframe. However, such aircraft are slower, less manoeuvrable, less armoured and less technologically advanced than specifically designed helicopter gunships. A gunship's armour, manoeuvrability and technological superiority increases its survivability in hostile environments, improving accuracy, discrimination and reducing collateral damage. There was however, a need for more modern gunships, like the Ka-50 or the Mi-28. These modern helicopters should be able to locate and engage targets from a safe distance, at night and in any weather.³²

Firepower and Target Acquisition and Designation Equipment

Firepower and target acquisition and designation systems have gradually improved to more effectively engage targets, while remaining outside the range of enemy fire. The predominant weapons fired from helicopters are machineguns, cannons and rockets, some of which are guided. Unguided weapon systems are generally effective against insurgents armed with small arms and RPGs. However, precision guided munitions (PGMs) are required in urban operations, and when facing insurgents in fortified positions or armed with SAMs or heavy AA guns.

Anti-tank guided missiles (ATGMs) are the predominant PGM fired by helicopters. Soviet AT-2/3/4/5/6 antitank missiles were extensively used and effective in Afghanistan, until the introduction of improved SAMs and AA guns. The improved Mujahedeen air-defences meant that Soviet helicopters could not remain static when firing antitank missiles. This was however a requirement for early ATGMs, which were not fire-and-forget capable. Most modern ATGMs are fire-and-forget capable, with ranges between 4,000 and 8,000 metres. This is generally a sufficient range to keep out of harm's way. Such weapons systems include the AH-1 Cobra's Tube-Launched, Optically tracked, Wire guided missile (TOW). With a range of 1,000 to 1,500 metres, the Cobra's AIM-1 20mm laser designated cannon has also proved highly effective due to its ability to provide precision firepower. The Russian Mi-8TV2/3 was found to be effective, due to its improved target acquisition system. However, there was a need for an all-weather, day and night, PGM capable replacement for the Mi-24. The Ka-50 and the Mi-28 constitute the likely replacements. While the Ka-50 was deployed in field trials in Chechnya, cost remained prohibitive. The cost of PGMs also prevented their extensive use by the Russians in Chechnya.

However, the aforementioned missile ranges exceed the range of acquisition and designation equipment to see, identify and target enemy personnel. These technical systems, such as the AN/ASQ-170 Target Acquisition and Designation System (TADS) and the AAQ-11 Pilot Night Vision System, are optimised for conventional anti-armour warfare. For the onboard systems of an AH-64A/D Apache to register dismounted personnel, the helicopter is forced to fly within 1,500 metres of the target, and most engagements have commenced at

ranges below 1,000 metres. This has been common in Iraq, placing helicopters well in range of man-portable SAMs and AA guns. Hence, formidable self-protection (electronic warfare (EW)) suites, manoeuvre tactics and armour are essential for attack helicopters.

Such defensive systems are also essential for troop-lift helicopters that must operate within range of targeted enemy positions. It was also found that helicopters such as the UH-47 Chinook and UH-60 Blackhawk need to be upgraded or replaced to overcome their technical failures and lack of instrument flight, night vision, aerial refuelling and ISR capabilities.³³

To optimise modern gunships a number of challenges must be overcome, these include reducing collateral damage, improving pilot proficiency, alleviation of the intelligence vacuum around fortified villages, the use of UAVs, night vision and proficient, and immediate, non-retaliatory close air support (CAS) tactics.

The 'Friendly Fire' Problem

The 'Friendly Fire' Problem (otherwise known as Fratricide) has proven a significant issue in Iraq and Afghanistan, given the propensity for the Coalition's indigenous allies to use civilian vehicles and the same weapons as the insurgents. This is further complicated in post-war Iraq and Afghanistan, when heliborne support is requested by ground troops, who have not been trained in procedures applicable to counterinsurgency operations in LIC. Ground units have been requesting non-doctrinal tasks, which are ambiguous and can lead to misjudgement at the point of contact. Ground to air tasking procedures that are applicable to counterinsurgency operations in LIC are evolving in reference to recent lessons learned in Iraq and Afghanistan. These procedures require detailed information on friendly and enemy positions, and pertinent intelligence. This is critical because first generation forward-looking infrared (FLIR) and night vision equipment is limited when distinguishing and targeting individuals. It must also be clear what actions ground and air units will take if contact is made; as there must be synergy between air and ground units.³⁴ There is also the problem of deliberate misinformation being provided by interested parties. This problem is discussed later in the intelligence section of this chapter.

Trained Personnel

As discussed earlier, the tactical rigidity of Soviet/Russian helicopter operations put both crew and equipment at risk from enemy fire. “This tactical rigidity partly reflected the fact that most Soviet helicopter pilots and commanders had limited and relatively rigid training and had to learn combat techniques on the job”.³⁵ Lieutenant Colonel Nikolai Malyshev stated Soviet “training [was] obsolete, over-rigid, and unrealistic. [While] Soviet regulations forbade the maneuvers that pilots had to use to escape the Stinger missile”.³⁶ Tactics to evade enemy fire and engage enemy targets are critical in the protection of helicopters. Hence, pilots and commanders must be trained in realistic tactics, and instilled with the initiative to evolve effective tactics. In the Falklands war, “[t]he high professionalism of British pilots and maintenance crews provided a classic demonstration that readiness and training can substitute for force numbers”.³⁷ With the sinking of the cargo vessel, Atlantic Conveyor, the British had lost 75 percent (3 of 4) of their heavy-lift Chinook fleet. This could have jeopardised British operations. However, the remaining helicopter fleet (106-150 light and medium helicopters) provided critical mobility and logistics support. This support required “extraordinarily high sortie rates per helicopter”,³⁸ which is a testament to both aircrew and support staff.

The services that maintenance and logistics personnel provide are as important as the warfighting abilities of the soldier. If equipment does not work, or is not available, the outcome is dead troops. In Afghanistan and Chechnya, Soviet/Russian airborne operations were often limited by a lack of supplies and technicians. This problem was further exacerbated by the age of the helicopters in use. Hence, readiness should not be undermined by a lack of support personnel and equipment, or combat airframe age. Low readiness slows operations and puts combat troops and crews at increased risk from equipment failures.

Tactics

In Afghanistan, Chechnya and Iraq, Mi-24s, AH-1s and AH-64s were employed effectively as convoy defenders, independent search and destroy units and close air support providers. Attack, observation and support helicopters were also instrumental in command and control, communications and surveillance missions.

The Soviets/Russians also made good use of embarked assault troops onboard Mi-24 attack helicopters. These troops were often Special Forces, since the Soviets/Russians lack dedicated counterinsurgency troops. Such helicopter inserted Special Forces missions have generally been highly effective. However, Special Forces, and other infantry, can be put at risk when embarked on helicopters. Small arms, SAMs and aircraft armed with air-to-air munitions can be a significant threat to helicopters. Numerous Soviet helicopters were lost to small arms and SAMs in Afghanistan, as were many American helicopters lost in Afghanistan and Iraq. As a further illustration, approximately 200 Egyptian Commandos were killed when their helicopter transports were intercepted by Israeli combat aircraft in the Yom Kippur war. This significantly degraded Egyptian offensive operations.

An essential element of combined arms warfare is synergy between air and ground units. Synergy can be attained through good communications, well trained personnel and effective tactics. In the Soviet/Russian case however, air inserted regular or reconnaissance troops were often unable to communicate with other infantry or air units. Key to the communications limitation was a lack of radios. Further limitations also included the lack of night vision devices, silencers and binoculars. Hence, many problems were those of embarked infantry, rather than those of helicopter units. Given this lack of combined arms synergy, gunships failed to eliminate targets, or understand Afghan and Chechen air defences. However in the Afghan and first Chechen wars, helicopter units were undermined by a lack of effective command, control, communications and intelligence (C3I). Hence, the improved performance of a counterinsurgent's air assets and air crews in LIC is dependent upon the recognition that the location and timely interception of an insurgent is critical. Timely intelligence is vital to pilots, so too is the integration of helicopter and air combat assets, and synergism between air and ground units. Helicopter gunships can also be effective in urban terrain, if used cautiously and well integrated with ground units and other intelligence sources. Effective training is essential to create this necessary synergy.

By the second Chechen war, Russian heliborne forces were more effective. This was due to improved air-ground cohesion, command and control (C2), reconnaissance, information sharing, firepower and accuracy. Helicopters

accounted for 50 percent of all surveillance, supply, extraction and deployment tasks, especially in mountainous terrain, and were heavily committed in combat operations. As in Afghanistan, pairs of Mi-24s conducted effective independent search and destroy missions against enemy positions, columns and supply depots. Mi-24s were also used as convoy defenders, their pilots were granted operational independence, and with embarked infantry could deny the enemy key tactical positions.

In Afghanistan, Chechnya, Somalia and Iraq, helicopters were essential command, control and communications (C3) assets. Helicopters could relay critical information to combat units, as the terrain made other communication means impossible. The Americans also found that airborne C3 units were more effective than ground based C3 units. Airborne C3 units have excellent communications ranges, and can move quickly on a fluid battlefield. Hence, commanders can better appreciate the conditions over which they command. In Kismayu (Somalia), integrated command and control (C2) was also enhanced by the utilisation of a coalition crewed Allouette observation helicopter. This helicopter was on station throughout the major coalition operations. The helicopter enabled integrated actions, prevented friendly fire incidents, tracked insurgents and identified potential enemy positions.

Operations in Afghanistan, Chechnya and Iraq indicate that air mobility will become a more significant provider of a counterinsurgent's strike, reconnaissance, surveillance and transportation requirements in LIC. Helicopter operations will however be forced to adjust to each combat environment. One threat to counterinsurgent operations is an over reliance on a single weapons system. Such reliance is detrimental to a combined arms approach, and will enable a single weapon counter-tactic, manoeuvre or weapon. American ground forces in Operation Anaconda (Afghanistan) became completely reliant on airpower, as no alternative was provided. Such an over reliance on helicopters was distinctive in Soviet operations in Afghanistan. This reliance indicates the possible vulnerability and weakness of ground forces, should airpower not be available. This is significant given the attitudinal change towards lighter ground forces, which are increasingly reliant on airborne firepower. However, this attitudinal change towards increased airborne firepower was not reflected in the capacity of a number of critical American units and deployable military

infrastructures. For example, the Combined Air Operations Centre was not consulted prior to Operation Anaconda. Once operational, the Centre lacked the human and technical capacity to coordinate the available air units with land based requests. In addition, a lack of intra-theatre tactical lift meant some UH-60s could not be deployed operationally, exacerbating the problems of terrain on mobility and available firepower. And overall, airpower alone performed inadequately when opposing personnel in concealed positions on difficult terrain in bad weather.³⁹

Flying Conditions

The mountainous terrain of Afghanistan, Chechnya and parts of Iraq, together with poor flying weather degraded helicopter operations. Due to extreme altitudes, helicopters were unable to remain on station for extended periods, their handling was negatively influenced and their accuracy was reduced. In addition to poor weather and fog, deliberate oil fired smoke screens restricted the utilisation of airborne units in Grozny and Mogadishu. These factors degraded the capability to engage targets visually or with infrared equipment. Adverse weather conditions also increased risk in combat for crew and equipment. Hence, such natural weather conditions and human generated visual and infrared obstructions must be trained for prior to deployment.

In addition, the high temperatures and poor visual and electronic visibility in the Iraqi desert reduced the operational capability of both aircrew and equipment. High temperatures stress aircrews and reduce aircraft lift. Reduced lift, in turn, degrades both endurance and potential weapons, stores and cargo helicopters can carry. Airborne dust from winds and rotor downdraft have reduced visual limits and clogged the AN/ALQ-144 infrared countermeasures system of the OH-58 Kiowa, UH-60 Blackhawk and AH-64 Apache. The latter problem has been rectified, albeit after the loss of a CH-47 Chinook and two UH-60 Blackhawk helicopters, crew and embarked soldiers, over a five day period in Iraq. Again, provisions for such contingencies should be made prior to deployment, in relation to known weather-related conditions in theatre.⁴⁰

Aircraft

This section analyses the use of aircraft in by counterinsurgents in LIC. The subsections cover the development of aircraft use by counterinsurgents in LIC and the essential nature of aircraft for counterinsurgent forces in contemporary LIC. Aircraft have been essential elements in applying joint force in counterinsurgent operations, but require ground forces to operate with great professionalism, especially in terms of the provision of soundly communicated intelligence.

The development of Aircraft use in LIC

Much like helicopters, fixed wing aircraft have been pressed into service in LIC, by counterinsurgent forces, since their development. The first to use aircraft effectively in LIC were the British. In the interwar period, aviation was heavily utilised within the British Empire, in the role of colonial ‘Air Policing’. In the Middle East, the Royal Air Force (RAF) had almost total control of newly acquired tracts of land. Aircraft provided effective strike, reconnaissance and logistics without the risk of retribution. Concurrently, the French undertook a conventional land-based counterinsurgency in their section of the Middle East. The French experience was one of continual harassment by Arab insurgents.

Unlike the Middle East, the close and mountainous terrain of Malaysia and French Indochina did not allow for the use of aircraft (not including helicopters) as a primary counterinsurgency tool. Aircraft were generally subordinated to the demands of infantry units. As outlined in ‘The Conduct of Anti-Terrorist Operations in Malaya’⁴¹ (the (unofficial) British doctrine for early counterinsurgency), “[t]he Royal Air Force in Malaya [was] to support Emergency operations”.⁴² Hence, aircraft were used for visual and photo reconnaissance, offensive air support, supply, troop lift, casualty evacuation and psychological warfare (voice aircraft and leaflet drops). The significance of offensive air support was nonetheless properly emphasised: “The jungle provides unlimited cover from the air and targets are rarely visible to the Offensive Strike Force. Because of this the RAF [Royal Air Force] work in close co-operation with the ground forces, upon whom the RAF must rely to provide worthwhile targets.”⁴³ Hence, the British comprehended one important principle of counterinsurgency operations in LIC: ordnance must strike valuable targets. The

French doctrine in Indochina was based on unsound doctrinal procedures, emphasising the use of aircraft as a substitute for ground troops, sufficient funding and a coherent strategy. This was dramatically displayed at the climactic battle of Dien Bien Phu, where elite French forces were decimated and air-strike and air-supply were shown to be ineffective, in the face of a determined foe in close, mountainous terrain.

The Essential Nature of Aircraft in LIC

Strategic bombing, interdiction and close air support were regarded as an indispensable part of counterinsurgent operations in LIC. However, the usefulness of aircraft in a combat role in counterinsurgency operations has often been overstated. Unless ordnance can be brought to bear upon legitimate targets, air-strike is ineffectual, although when aircraft work closely with ground units and their fire is precise, airpower can be decisive. In addition, aircraft can also be instrumental in facilitating troop manoeuvre, evacuation and supply, as well as command, control, communications, computers, intelligence, surveillance, target acquisition and reconnaissance (C4ISTAR).

The case studies in this thesis have shown the following categories to be important to the use of aircraft in counterinsurgency operations: Firepower; Protection; Tactics and Training; Supply; and Command, Control, Communications and Intelligence (C3I). Each of these subsections will be analysed and recommendations will be made for the future use of aircraft by counterinsurgents in LIC.

Firepower

The introduction of precision guided munitions (PGMs) has transformed the use of aircraft in counterinsurgency operations. Precision, coupled with air-ground synergy, has enabled otherwise inaccessible targets to be designated and eliminated. PGMs have enabled aircraft to remain out of range of air-defences, providing safety for combat aircraft and enabling combat missions that could not have been supported by unguided munitions.

Prior to the development and widespread dissemination of PGMs, dedicated attack aircraft were foremost in providing close air support. The Soviet

Su-25 (A-10 equivalent) was the most significant strike fighter of the Soviet-Afghan war. The Su-25 also provided effective fire-support in Chechnya. Being highly armoured and armed, the Su-25 had the capacity to loiter over the target and had airspeeds low enough to engage small scale targets. The overall effectiveness of the Su-25 however, was limited by a lack of guided munitions and advanced navigation and avionics. Hence, the Su-25 is being replaced by the Su-39. Developed after the Afghan war, the Su-39 has enhanced night flight capabilities and has been fitted with precision weapons systems. The strength of advanced attack aircraft was displayed by the A-10 in Iraq. With advanced all-weather, day and night navigation and sensors, and precision weapons systems, the A-10 was effective in close air support, armed reconnaissance and force and logistics security missions. However, the A-10 was vulnerable to enemy small arms fire and SAMs. Hence, in future LIC there will have to be a choice made by counterinsurgents between aircraft security and strike requirements.⁴⁴ There are also financial constraints to be analysed. For example, the Russians are likely to deploy the Su-24M multi-role fighter, rather than the Su-39 in the near future. The all weather, day and night precision strike capabilities of the Su-24M were critical in Chechnya, and the precision capabilities enabled some air support in Groznyy. The Su-24M is less vulnerable to enemy fire, as it operates at a higher altitude. However, high altitude operations reduce the capacity of aircraft to acquire enemy targets in a reconnaissance or armed reconnaissance role.

As stated earlier, PGMs have transformed the use of aircraft in counterinsurgency operations. However, only first world countries are able to bear the cost of the widespread use of PGMs. For example, the Russians limited the use of PGMs due to cost. The French also limited the use of the HOT anti-tank missile in the 1991 Gulf War on the basis of cost.⁴⁵ However, 80-90 percent of weapons fired in Afghanistan and Iraq, by the British and Americans were PGMs. In addition, all case studies show PGMs to be effective in urban terrain, if controlled by strict operating procedures. However in urban Iraq, the Coalition's self imposed rules of engagement were found to be too restrictive in some instances. Hence, changes were made in the rules of engagement.⁴⁶ The PGM has also enabled both fighter and bomber aircraft to provide CAS and interdiction; this both improves available firepower and the effective range of these missions. "Without these [precision guided] weapons, disproportionately powerful

munitions would be needed to achieve the same effect, increasing the devastation caused”.⁴⁷

Significantly for future counterinsurgency operations was the successful use of CAS and battlefield interdiction, using PGMs, directed by SF troops deployed in OIF. Such operations seized critical avenues of advance, as in Nasiriyah⁴⁸, prevented any attempted Iraqi assaults on the Kurdish north, and destroyed Ansar al-Islam’s terrorist training camps. These operations showed that CAS can be a decisive factor in warfare. The two challenges of CAS, terminal control and immediate action, were overcome by providing dedicated air assets to specific ground units, who were fully conversant with CAS. This need for persistence, or availability, of air units over the battlefield is central to the development of future manned and unmanned air vehicles; such as the F-35 Joint Strike Fighter (JSF) and the X-47 Unmanned Combat Air Vehicle (UCAV).⁴⁹

The air combat mission most suited to counterinsurgency is CAS. However, American, Australian and British sources have expressed a need to improve organisation, support and training for CAS.⁵⁰ An American study found that ground units are still not trained sufficiently to use close air support, and that the United States Air Force (USAF) focuses on long range interdiction rather than CAS.⁵¹ The lack of synergy between air and ground units has been an impediment in all of the case studies of this thesis, plus numerous other conflicts over the last half century. Synergy between air and ground forces should be a foremost area of development in all defence forces. Even in America, Australia and Britain, interoperability requires enhancement in procedures, equipment and training. “It is also clear from the Iraq War that every advance in [Intelligence, Surveillance and Reconnaissance] IS&R, communications systems, and digital management of the battlefield both increase the capability to carry out close air support and the need for tighter integration, better training, and more standardized procedures and equipment”.⁵²

Protection

A counterinsurgent’s aircraft in LIC must be well armoured (or remain out of small arms range) and possess effective infrared and electronic countermeasures. Attack aircraft like the A-10 and Su-39, which venture within the range of enemy

small arms and SAMs require effective defensive measures. For example, the Su-39 has an improved electronic warfare suite and has achieved a four-fold reduction in thermal signature. However in Iraq, several A-10s suffered from enemy fire and one was lost to an enemy SAM.⁵³ However in LIC, man-portable surface to air missiles (SA-7 or Stinger types) are the only SAMs available to insurgents. This is because a technologically advanced counterinsurgent will have the capacity to eliminate medium and long range SAMs. Hence in LIC, counterinsurgent aircraft that fly above the ceiling of man-portable SAMs are relatively safe units. In Iraq and Afghanistan, PGMs enabled aircraft such as the F-15/16/18, Tornado and Super Etenard to remain safe and effectively engage enemy units.

Future enemies will strive to interdict the effectiveness of PGMs and C4ISTAR capabilities, especially communications, GPSs and air superiority. This is unlikely to be theatre-wide, but local area disruption may occur. This is highly significant for all militaries that are developing doctrine for light and agile ground forces, equivalent to the Stryker Brigades or the NATO Rapid Reaction Force. Operation Anaconda displayed that CAS is challenging for two reasons: air assistance must be immediate, and requires perfect synergy between ground and air units. If ground forces are going to rely upon airpower, then there must be an assurance that CAS will function as envisioned. This can only be assured through combat or realistic and rigorous training.

Tactics and Training

This subsection covers four subjects important to the use of aircraft by counterinsurgents in LIC: air defences, synergy, ROEs and coalition integration.

SAMs, Anti-Aircraft machine-guns, and to a lesser extent small arms have had a significant impact on the use of aviation by counterinsurgents in LIC. In the Afghan-Soviet conflict, the tactics employed by the Su-25 were dramatically undermined by the introduction of SAMs. The Su-25 was forced to increase attack altitudes, which in turn degraded accuracy. Similarly in Iraq, American A-10s were vulnerable to enemy ground defences. Ground defences can however be overcome by air-launched stand-off guided munitions. Hence, conventional fighter-bombers flying high-altitude air support armed with PGMs will be

effective in future counterinsurgencies. Man-portable SAMs with higher ceilings could be a future threat to a counterinsurgent's aircraft in LIC. However, future stealthy aircraft, like the F-22 or JSF, may present a difficult target for SAMs.

As was shown in Afghanistan, Chechnya and Iraq, airpower can be effective in open, mountainous and urban terrain, if air-ground synergy is insured. One of the clearest principles learnt by the Russians in Chechnya was that air and ground forces must be trained to operate jointly. Prior to the second Chechen war, joint force principles were introduced to Russian air doctrine. While similar equipment was used, airborne and land based synergy was improved. The Russians illustrated that ground units must be effectively integrated with air units, to optimise fleeting contacts with the enemy. The Russian experience also showed that realistic training is critical to implement these joint force requirements.

Operation Enduring Freedom was the most significant demonstration of airpower in LIC since the Soviet intervention in Afghanistan. However, U.S. technological and numerical superiority, coupled with advanced and effective C4ISTAR, and significant indigenous cooperation created unprecedented synergy and combat power in this particular LIC. However, within Operation Anaconda, which constituted the first use of allied ground troops in Afghanistan, airborne and land based synergy was deficient. The distinction is between effective air operations in OIF and ineffective air operations in Operation Anaconda and can be understood by analysing the following categories of air operations: strategic attack, air interdiction, battlefield air interdiction, and close air support.

Strategic air operations were undertaken to gain battlefield dominance and guarantee air superiority. These operations were highly effective, employing U.S. Air Force and Navy bombers, fighter-bombers, as well as C2 and intelligence assets. Air interdiction and battlefield air interdiction were also highly effective, utilising an unprecedented level of Precision Guided Munitions (PGMs). CAS, as shown in the case of Operation Anaconda, was constrained by atmospheric, terrain, human and technical difficulties. While critical in the occasional modern battle, CAS has not been a major part of U.S. operations (and hence academic debate) since the Vietnam War. This, in part, has resulted in the disbandment of the Airborne Battlefield Command and Control Center (ABCCC (EC-130E)), for prioritising and queuing air support requests. Hence, air controllers lack the

technical and human capacity to handle support requests. Ground troops had difficulty targeting PGMs and communicating with airborne strike pilots. Hence, there is still a requirement for unguided airborne weapons to be accessible for field suppression, when exact coordinates are not available. It should be realised that airpower alone remains unable to decisively engage enemy personnel in concealed positions on difficult terrain in bad weather. There remains a need for significant training to be undertaken and procedures to be formulated for the future use of CAS.⁵⁴

However, Operation Anaconda may have uncovered a broader doctrinal misconception. The current doctrinal debate, combining CAS with agile, but light ground forces (Army Transformation (U.S. Objective Force)), may be founded upon unrealistic assumptions. Ground troops do not request CAS as a matter of course; CAS is requested in emergency situations. Such circumstances may arise from unexpected enemy numbers, firepower, resistance, or exceptional manoeuvre; which are all typical to LIC. Ground troops are trained to rely primarily upon indirect ground support weapons (IGSWs), like mortars and artillery. Doctrinal transformation has meant command echelons are beginning to rely heavily upon CAS, while front line troops have not been indoctrinated, trained or equipped to internalise CAS. In Operation Anaconda, ground troops were not provided with IGSWs or sufficient air controllers (or terminal attack controllers); effectively ground troops had very limited support.⁵⁵ The crux of the problem is a lack of synergy, caused by a communications and doctrinal breakdown between air units, ground units and command units. If force transformation requires ground troops to respond to threats with greater use of airpower, the entire system must be fully integrated and functional. First, troops and airmen must be fully conversant with technical systems and procedures. Second, commanders and staffs must be aware of the strengths and limitations of combat units. Third, sufficient liaison (air controllers and terminal attack controllers) and battlefield management (generally C2 or specifically ABCCC) must be tailored to each individual mission. It appears from open source literature, that the human C2 that liaised with SF troops was highly effective. However, regular forces are more numerous and operate under differing circumstances; this requires greater technical and human assistance with battle management and CAS. This said, the significance of airpower to the victory in

Afghanistan should not be underestimated; intelligence, intra-theatre lift and firepower were all largely facilitated by airpower.

American operations in Somalia graphically displayed the difficulties of urban conflict. First, due to the presence of non-combatants, U.S. forces were forced to adhere to restrictive ROEs. These ROEs were contrary to U.S. standard operating procedures for urban operations. Hence, close air support was reduced in Somalia, endangering friendly personnel. As stated earlier, in Iraq “[t]he coalition found that its initial targeting constraints and rules of engagement were too restrictive. They sometimes forced restrikes or failed to accomplish their mission, forcing additional combat without reducing collateral damage. As a result, the coalition increased the intensity and concentration of some types of strikes against urban targets, inevitably increasing collateral damage”.⁵⁶ Therefore, ROEs are important to protect people and property in combat zones. However, ROEs must be flexible enough to allow missions to be accomplished and friendly combatants to be protected.

OIF also showed that even between close allies (America, Britain and Australia), there is always a need for improved human integration. Joint force and coalition training, a standardisation of operating procedures and further homogenisation of equipment is required. The alternative to coalition joint force is national force independence; independence is impossible for almost all national armed forces. However, this is not an exemption from creating reasonable force independence, as national forces are sometimes required to operate individually.⁵⁷

Supply

Supply is fundamental to any operation. The Soviets in Afghanistan could not use land based means of supply, and lacked the tactical airlift required to compensate. The Americans also had logistics limitations in Iraq, as the deployment of combat forces to northern Iraq necessitated dedicated airlift. The difficulties of providing CAS in Operation Anaconda were also exacerbated by a lack of strategic, tactical and operational airlift. This lack of airlift limited the mechanised and support equipment available to regular and SF soldiers. Purchase orders for and increased interest in the C-17 strategic transport aircraft,⁵⁸ since the OIF, indicates the requirement for greater strategic and tactical airlift for modern military operations.

The potential for future wars to be non-littoral or be artificially isolated by unfriendly states has been indicated by the wars in Iraq and Afghanistan. Furthermore, there is still a significant requirement for air-projectable heavy forces, which necessitates heavy airlift capabilities.⁵⁹

Supply also includes the provision of airborne aviation fuel. Airborne fuel requirements provided difficulties in Afghanistan and Iraq, due to basing shortages and extended loiter and flight times. Given the sparse nature of targets and aerial fuel constraints in Afghanistan, the fuel efficiency of the F-16 was noteworthy. The F-16 could perform the same functions as other combat jets, but do so more fuel efficiently.

Airborne Command, Control, Communication and Intelligence (C3I)

Effective command and control is critical to air operations, especially in counterinsurgency. In counterinsurgency timing is critical to engage elusive targets with air-launched weapons. This was illustrated by the Russians in the second Chechen war. A superior command and control system was deployed, which could more adequately turn intelligence gained into targets destroyed. This command and control systems effectively added firepower and greater accuracy to joint air-ground operations. Russian operations clearly showed the requirement for the integration of advanced strategic reconnaissance and C2 assets (A-50s, An-26s, An-30Bs, Il-20s, MiG-25RBs and Su-24MRs), with strike and tactical air units, such as the Su-25, Mi-24 and various UAVs. This also enabled the Russians to successfully isolate Chechnya from air re-supply. A-50 Airborne Warning and Control Systems (AWACS) and MiG-31 interdiction fighters denied the potential for external air links.⁶⁰

While the use of strike aircraft in Somalia was minor, airborne C2 was critical to U.S. operations in Mogadishu. The P-3 Orion was the primary C2 provider, which was handled well by the numerous communication nodes of the P-3.

Maritime patrol aircraft are increasingly being used as command and control centres. A once uncharacteristic role was assumed by maritime patrol aircraft in Afghanistan and Iraq: human C2, support and intelligence was performed by P-3 and Nimrods, especially where SF troops were operating.

Conventional C4ISTAR aircraft were also critical to the victory in Afghanistan. Early OEF air operations depended heavily upon C4ISTAR aircraft. At this early stage, the Taliban presented concentrated armour, artillery, vehicular and communications targets, which were easily targeted by UAVs, JSTARs and allied strike aircraft. Later operations required greater ground force terminal control, as targets became smaller and concealed.

In addition, an infrastructure of command and control, intelligence and supply, constantly enabled the strike units to function in Iraq. This infrastructure will be further improved by the proposed development of the E-10; an integrated replacement for the RC-135 Rivet Joint (Signals Intelligence (SIGINT) aircraft), E-8 Joint Strategic Attack Radar System (JSTAR) and the E-3 Airborne Warning and Control aircraft (AWAC).⁶¹ However, improvements in ISR and communications have overwhelmed command and control personnel. Air Officers of the Marine Division in Iraq reported an inability to process all targeting and reconnaissance data. While CAS missions were prioritised, due to their time critical nature, deep area interdiction and battlefield preparation was either “redundantly executed or not executed at all.”⁶² It was also found that doctrinal inflexibility prohibited the engagement of fleeting targets; air tasking orders can take up to 96 hours to engage a target. Hence, the Marine Corps stacked aircraft over the battlefield, awaiting CAS requests.

For C2 to function, control, ground and air units must be able to communicate. In Somalia, ground units were deprived of airborne intelligence and firepower, due to communication failures caused by the urban terrain. In addition, due to Afghanistan’s mountainous terrain, the replenishment fleet was also required to facilitate a communications role by carrying palletised communications gear. In Iraq, Marine Corps forward air controllers could not always communicate with divisional air controllers. This meant requests for CAS, situational awareness reports and other vital information could not be conveyed. Many of these problems were alleviated when airborne air controllers were on station, and other redundant air strike units could be used to fulfil CAS requirements. The Marine Corps findings are important, as they indicate how a smaller coalition partner could expect, or train for, operations with a U.S. led coalition.

Command, control and communications are of no consequence without timely intelligence. Imagery, electronic, signals and human intelligence are all important in producing a coherent picture of enemy operations. However, conventional technical intelligence is constrained by wooded, mountainous and urban terrain. “The [American] IS&R sensor and analytic effort [in Iraq] focused more on major combat forces, with heavy weapons, [rather] than on infantry and irregular forces”.⁶³ Human intelligence is important for counterinsurgent operations in LIC, and is generally provided by ground units. In the Afghan-Soviet war, intelligence gathering devices were constrained by difficult terrain and a lack of human intelligence. The first Chechen war provided an opportunity for modern Russian equipment to be tested, but also imposed the restraints of urban warfare. However, Unmanned Air Vehicles (UAVs) presented an effective, although partial, technical answer to the Russian problem of gaining real time intelligence. UAVs, while expensive, enabled situational awareness without risk. UAVs are a growing part of counterinsurgent intelligence gathering operations in LIC. This is especially so when the insurgent produces no other signatures, bar visual ones. Unlike helicopters and low flying aircraft, UAVs are also fairly secure against countermeasures and anti-aircraft weapons. However in Iraq, “[i]t was generally difficult or impossible to locate distributed forces in a built-up or urban environment until they were driven into some form of open military activity, and the United States often lacked the density of specialized assets like UAVs to carry out this mission even when open activity took place”.⁶⁴ Other optical devices have also been instrumental in gaining intelligence on the battlefield, such as infrared and other remote sensing devices. However, in all of the case studies, the time between target discovery and elimination is still too long. This problem is not entirely an intelligence problem. However, there are intelligence problems. The integration of intelligence agencies to provide united intelligence has been a problem in the Soviet-Afghan war and in OEF and OIF. The analysis of intelligence has also provided difficulties, when systems are not capable of such large quantities of information. “The United States [in Iraq] simply did not have enough area experts, technical experts, and analysts with language skills at any level to make optimal use of its sensors and collection”.⁶⁵ Dissemination is also problematic, analysed intelligence can sometimes not be accessed by the combat and support units on the front line. Combat units also

have trouble gaining intelligence they want, rather they are given whatever intelligence has been gathered.

Command, Control, Initiative, Communications and Intelligence (C2ICI)

This section analyses overall command and control of counterinsurgent military forces in LIC. Effective command and control is important because it can exploit strengths and annul vulnerabilities. This is because individual units and systems are more potent when incorporated into a synergistic whole. If all units are integrated, an action by the enemy cannot threaten a specific unit without becoming vulnerable to counter-fire. The capability derived from the simultaneous application of joint force is generally overwhelming. In essence, effective command and control ensure all the military principles analysed in this research operate in a cohesive and effective fashion.

Within the current military lexicon, the acronym C4ISTAR (Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance) is used to describe the elements required for effective command and control. However, this acronym is not well suited to counterinsurgency. Hence, C2ICI (Command, Control, Initiative, Communications and Intelligence) has been developed and is recommended by this thesis.

For ease of explanation, the acronym needs to be dissected. The acronym will be explained in three parts in this section: C2I (Command, Control and Initiative); Communications; and Intelligence.

Command, Control and Initiative

All of the cases under study in this thesis have incorporated coalition armed force. In the cases of Somalia, Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) armed forces of differing states were employed. While in the Soviet-Afghan and Chechen wars the armed forces of separate states were employed and separate Soviet/Russian armed ministries were deployed. In Afghanistan, the first Chechen war and Somalia there was significant disunity of command. This disunity of command was debilitating for the armed forces deployed.

In Afghanistan, there was no unity of command between Afghan and Soviet forces. Nor was there unity of command between Soviet military, political and intelligence assets in theatre. In Somalia, disparate goal orientation and a lack of interoperability between some coalition members undermined personnel survivability and the potential for a successful operation.

In the second Chechen war, in parts of Somalia, and in OEF and OIF, command was unitary and effective. This enabled the combat arms deployed to function successfully. In the second Chechen war, Russian soldiers were more effective, due to enhanced and simplified C2. This enabled independence among junior officers and greater coordination between air assets and ground commanders. In Kismayu (Somalia), American and Belgian forces exchanged liaison officers (LNOs) between command posts and down to the company level. The LNOs were enablers for the coalition combat troops in the city. However, to effectively coordinate joint forces, LNOs must be provided with effective communications. In Iraq, British and American forces commanded in a unitary manner from a joint headquarters. At this level of command, a personal working relationship should be fostered prior to deployment. The British and American commanders had worked closely together prior to OIF. Hence, greater cohesion and understanding in the joint headquarters enabled synergy between the combat forces in Iraq. However, there is a need for human improvement in the areas of internal and coalition integration, through better training, joint exercises, standardised operating procedures and homogenisation of equipment.⁶⁶

Small unit Initiative (Decentralised Command) is as significant in counterinsurgency as unity of command. Given the sporadic and elusive nature of targets in LIC, counterinsurgency units must be trained to aggressively and independently engage the enemy. These small counterinsurgency units must be capable of commanding support units, so as to engage the enemy with superior firepower. Hence, counterinsurgency doctrine must encourage command pull strategies.

In the Soviet-Afghan war and the first Chechen war decentralised command and initiative was lacking. The Soviets did improve initiative among combat units in Afghanistan. However, this improvement was based on airpower. Aircraft and helicopters were used for command and control, mobility and fire-support. Once the Mujahedeen received effective anti-aircraft weapons,

decentralised command and initiative were undermined. Command and control was re-centralised. This caused low tempo, large and ineffective operations. This centralised C2 system also slowed the dissemination of timely intelligence.⁶⁷ This made much of the intelligence gathering effort worthless, as combat units could not engage the enemy in a timely fashion.

In Chechnya, centralised C2 was one of the foremost impediments to effective operations. Russian small unit command was centralised, this prevented initiative and independence on an ever changing battlefield. However, in the second Chechen war C2 was decentralised, enabling initiative, situational awareness and mutual reinforcement. This enhanced initiative among junior infantry commanders and more effective use of fire-support from artillery and aircraft. In the remaining case studies, it was found that control still needs to be flattened among coalition members. This would then enable all forces to fight as one.

In both OEF and OIF the deployment of Special Forces personnel provided highly effective decentralised command and control of coalition troops. The 10th Special Forces Group (SFG) effectively coordinated the operations of the Kurdish Peshmerga with coalition airpower. The success of Special Forces is derived from both human and technical abilities. Special Forces excelled in area and language skills, enabling them to communicate, integrate and support anti-regime forces. The C2 capabilities employed by the Special Forces in Iraq included advanced communications, global positioning systems (GPS) and laser designators. These qualities enabled vastly different armed forces to fight together effectively.

Command and control is adversely influenced by mountainous and urban terrain. This is because communications and electronic sensors are unsuited to obstructed terrain. In difficult terrain soldiers need to be deployed as sensors. In difficult terrain, communications will need to be provided by satellites or airborne platforms.

In all of the case studies, integrated C2 has been enhanced by the utilisation of airborne C2 platforms. The airborne platforms have included helicopters, maritime reconnaissance aircraft and more recognisable C2 aircraft. The helicopter has enabled integrated actions, prevented friendly fire incidents, tracked insurgents and identified potential enemy positions. However, helicopters

require a relatively secure electronic and physical environment, as they are generally deployed well forward. Maritime reconnaissance aircraft, such as the P-3 Orion and the British Nimrod have become important as C2 platforms for Special Force operations. The P-3 was favoured for its sensors and personnel capacity. This allowed for Special Force members to be embarked, to assist their comrades on the ground. C2 in counterinsurgency operations also require the conventional capabilities of aircraft like the E-2C Hawkeye, E-3A AWAC, E-8C JSTAR, RC-135 Rivet Joint, U-2, An-26 and Il-20. However in LIC, these are more likely to coordinate counterinsurgent air movements and enable communications for friendly units, rather than identify enemy targets.⁶⁸

Communications

If soldiers cannot talk to each other, they cannot fight alongside each other. Good communications is a basic requirement of modern warfare. However, communications has been a significant failure in all of the cases under study. Most communication failures were caused by mountainous or urban terrain. However, some communication failures were caused by poor training, inadequate operational procedures and a lack of communications capacity.

In all but OEF and the Somali conflict, there have been reports of problems in communications interoperability between combat units. Soviet Special Forces were unable to communicate with regular infantry in Afghanistan, due to undisclosed operating frequencies and a physical lack of radios. American Special Forces also had a similar problem in Afghanistan, whereby Special Force units from differing commands could not communicate with each other. In Chechnya, inter-unit communication was restricted. This was because Russian troops lacked encryption training, and were giving away their positions with each clear communication. This restriction on communications severely degraded situational awareness. Also, some radios used in Chechnya by the Russians, were physically interoperable.

In Mogadishu, American soldiers were unable to communicate effectively due to urban terrain. PRC-77 radios provided sporadic communications, but only if used without encryption. A more sophisticated foe could have exploited this flaw in communications security. A lack of communications can also inhibit real

time intelligence, given that the effectiveness of wireless communications in urban terrain is largely inhibited. This means units are artificially separated and unable to support and reinforce friendly units. Furthermore intelligence is underutilised, due to an inability to communicate gathered information to combat units. In addition, American reconnaissance information is not available via the current satellite network to all users. This reduces operational awareness and initiative. Furthermore, it is expected that the bandwidth (quantity of data transferred) of the satellites will only supply half of what is required by 2010. This will obstruct American communications, control and ISR capabilities on the future battlefield.⁶⁹ This is significant for other coalition members, who will be relying upon the American intelligence system. A lack of communications also means support units will be unable to provide fires or mobility to combat units.

In Afghanistan there was also a problem with communications-net congestion. In Operation Anaconda, the communications system between airmen and soldiers was ineffective due to congestion.⁷⁰ This was exacerbated by a lack of operational intelligence on the enemy.

While the American communications network was mostly successful in Afghanistan, topography and the coalition's structure revealed fundamental weaknesses central to the system. Basic frequency modulation (FM) communications were hindered by the mountainous terrain, causing a reliance on satellite communications. Unfortunately, there are a number of satellite communications systems, and each requires a separate transmission terminal. This problem is being addressed, so that one communications device will provide for all communication and information needs of the increasingly mobile user.

Against a technologically advanced foe, as encountered by the Russians in Chechnya, communication security must be provided. Friendly communications must be secured from enemy interference and exploitation, while the enemy's use of communications should be undermined or exploited. In the second Chechen war, Russian communication, anti-communication and counter-communication were vastly improved, facilitating deception, creating surprise and hampering the enemy. Better training and equipment insured more effective operations. However, some soldiers, due to a lack of training, still broadcasted in the open. Chechen communications were hunted electronically, then jammed or destroyed,

or Arabic and Chechen interpreters were used to glean information from Chechen broadcasts.⁷¹

Combat units operating within a framework of joint warfare will be put at risk if denied secure and viable communications with fire-support assets, or combat service support resources, such as logistics. Future enemies will strive to threaten components of the communications system. It is unlikely that in the near future, theatre wide interruption to communications will occur, although localised enemy dominance may cause risk to become danger. There must be procedures, technologies or mobile reserve forces ready to counter this threat.

Intelligence

Timely intelligence is critical for counterinsurgent operations in LIC. Rivalry between intelligence and military agencies can severely obstruct intelligence flows. Hence, all counterinsurgent intelligence agencies in LIC must be integrated with one another and within the command structure of the counterinsurgent. In Afghanistan and in the first Chechen war, there were significant failures in the Soviet/Russian intelligence apparatus.

Soviet/Russian field operatives were often successful in garnering intelligence in Afghanistan and Chechnya. However, the intelligence they gained often failed to reach combat units in a timely manner. In Afghanistan, the Soviet intelligence agencies, military and other ministries, as well as the Afghan intelligence services worked separately. This isolated flows of intelligence from being corroborated or disseminated to combat units or the police. The dubious loyalty of employees in the Afghan Intelligence Service further undermined the willingness of the Soviets to use indigenous intelligence.⁷²

Interagency rivalry between intelligence and military agencies continued until the second Chechen war. Conflict and rivalry between intelligence services is highly disruptive and will vastly reduce military effectiveness, especially where coalitions are formed. Hence, integration, personnel focus, mutual support and decentralisation are the ideal qualities of effective intelligence agencies in counterinsurgency. As the correlation and dissemination of timely and accurate intelligence is the primary element for attaining victory in counterinsurgency.

Human Intelligence (HUMINT) is the leading form of intelligence used by counterinsurgents in LIC. The use of Photo Intelligence (PHOINT) can also be a valuable source of intelligence, as PHOINT generally enables intelligence without risk. However, PHOINT is more suited to verifying targets, rather than discovering them; especially in urban or covered terrain. Signals Intelligence (SIGINT) and Electronic Intelligence (ELINT) were generally irrelevant in terms of providing counterinsurgents with useful information in LIC. However, as illustrated in the Chechen conflicts, technologically advanced insurgents provide exploitable electronic sources of intelligence. Moreover, intercepting enemy electronic emissions will discourage the use of these electronic devices. Hence, undermining the enemy's ability to openly communicate and gain intelligence. The counterinsurgent should also be able to exploit other sensor systems to find and eliminate heavy enemy units (ie. Trucks, Armoured Vehicles).⁷³

Throughout all of the cases under study, the most significant impediment to the use of SIGINT was a lack of linguists to interpret the available information. Without sufficient interpreters to make timely use of intelligence gained, the intelligence is worthless. In the first Chechen war, Chechens and Arab volunteers could openly communicate on their radio nets. This occurred while the Russians were intercepting the transmissions. However by speaking Chechen or Arabic, the Chechens were confident their communications would not cause an undue security risk. By the second Chechen war, the Russians had deployed significant numbers of Arabic and Chechen speakers to exploit intercepted Chechen SIGINT. Similar problems in Somalia, OEF and OIF also illustrated the need for the U.S. and the rest of the world to invest more heavily in more linguists, area experts and psychological warfare operatives.

Real time intelligence requires real time intelligence gathering. In all of the case studies of this thesis, soldiers have been the primary real time intelligence gathering unit. This is especially so in urban terrain.⁷⁴

In Somalia, the second Chechen war, OEF and OIF, Special Forces, snipers, reconnaissance troops and forward observers have illustrated their value as urban intelligence tools. These soldiers can themselves eliminate enemy personnel, call in air or artillery strikes, or provide intelligence for follow-on forces. Other important human intelligence sources are embedded operatives, and civilians who must pass through military cordons that envelop target cities. These

civilian flows also enable the covert movement of military personnel in and out of urban environments. Such an intelligence picture will ensure cities fall quickly, and will limit collateral damage and casualties.

PHOINT is a secondary, but valuable source of intelligence for counterinsurgents operating in LIC. PHOINT can be provided by either satellites, or manned and unmanned air vehicles. In the second Chechen war, OEF and OIF, Unmanned Air Vehicles (UAVs) have presented an increasingly effective answer to the problem of acquiring real time photo intelligence. UAVs are expensive, but enable situational awareness without placing reconnaissance personnel at risk. UAVs have also been used with good results in urban terrain. UAVs were important for gaining intelligence over Grozny, and have proven essential in post-war Iraq.

However, urban terrain, especially in post-war environments, requires infantry based reconnaissance. In Iraq, patrols and raids were intensified, averaging 12,000 patrols and 250 raids per week in 2004-2005. These operations were highly successful, hundreds of insurgents were killed, and thousands were captured, along with significant regime personalities, weapons, ammunition and funds. In addition, patrols were effective in ambushing Iraqi insurgents as they attempted to deploy in the field.⁷⁵

In all of the case studies, intelligence provided by indigenous persons has provided significant problems for the counterinsurgent. This was for a variety of reasons. The intelligence provided may have simply become corrupted. Also private individuals may attempt to manipulate military operations, for their own interests or to undermine the counterinsurgency. Information provided by humanitarian agencies may also be corrupted. This is because humanitarian agencies may be vulnerable to exploitation by their indigenous employees, who remain loyal to their country or clan. Local translators may also have nefarious objectives. In relation to the latter problem, counterinsurgent forces require dependable translators or endogenous linguists.⁷⁶ The former problem requires discrimination by agent handlers.

Inaccurate intelligence is a great threat to both the counterinsurgent and the civil population. For example, most civilian casualties caused by coalition forces in Afghanistan, were caused by incorrect intelligence. A similar problem of falsified intelligence was faced by the Soviets in Afghanistan. Afghans often

provided incomplete, inaccurate or deliberately misleading information to the coalition. The cause of the disinformation is attributed to rivalry between mutually competitive Afghan warlords. Although, these warlords were generally friendly towards the coalition.⁷⁷

Summary

Military force is the foremost element in achieving victory in LIC. However in LIC, force is applied amongst a civil population. In LIC, the counterinsurgent must defeat the insurgent, and win the hearts and minds of the civil population. This requires force to be used with precision and care.

As explained throughout this research, a counterinsurgent must possess a doctrine that is precisely corresponds with LIC. Professional infantry are essential to counterinsurgent operations. These professional personnel must be able to operate independently with initiative, but also cohesively as part of a joint force. Infantry personnel will invariably need the combined arms support of armour and artillery. Similarly, the aforementioned ground force elements will require the support of fixed-wing aircraft and helicopters. At the core of combined arms and joint force is the requirement for effective communications technologies and accurate intelligence. All of the force elements described above must operate effectively within a unified command and control system, which encourages independent action and enables joint cohesion. These latter requirements are difficult to attain simultaneously, as they can become mutually exclusive if not applied carefully.

The counterinsurgent must have a doctrine that is focussed on LIC. The doctrine must clearly establish how force is to be used in LIC. The doctrine must state how LIC differs from conventional warfare. The extent to which this divergence will affect military operations must also be clearly elucidated in the doctrine. The doctrine must prohibit the use of force that would endanger civilians, while remaining realistic enough to protect friendly units and enable the defeat of the insurgent. Military establishments and governments must appreciate that LIC is not an anachronism in warfare.

Infantry units are the principal units employed by counterinsurgency forces in LIC, as they are most likely to make contact with the enemy. A

counterinsurgent's infantry forces must be highly trained, independent, invested with authority and trusted to use it, and prepared to take the initiative. A counterinsurgent's personnel must be professional, and trained as extensively as practicable; Special Forces are ideal troops for counterinsurgency. Individual soldiers must be precise in their application of force, while demonstrating respect and care for the civil population. Unit cohesion and initiative are critical for successful counterinsurgent operations in LIC. Combined arms and joint warfare principles must also be core to the soldiers training. Tactics, Techniques and Procedures (TTPs) governing the actions of soldiers must be specifically written for LIC. However, TTPs must also be flexible enough to incorporate the combat initiative and experience. Infantry that is employed by a counterinsurgent must be well equipped to engage in LIC. Principally, soldier communications must be reliable and designed for the specific operational environment. The individual soldier's weapons must also be capable of eliminating the enemy; rifle calibres should be returned to 7.62mm. Soldier's armour, optics, weapons and navigation and communications equipment must be reduced in weight. This is an ongoing requirement, which enables the individual infantryman to possess more equipment in battle.

The combined arms effect of armour and artillery are indispensable in supporting infantry operations. The three primary aspects to armour are: protection; manoeuvrability; and firepower and visibility. Vehicles in LIC must be armoured. Vehicle armour must be designed to thwart rifle, machine gun and rocket propelled grenade fire, as well as mines and improvised explosive devices. Firepower and protection have an inverse relationship to strategic manoeuvre. The two former elements entail weight, hence slowing the third element. However at the operational level, for manoeuvre to occur, protection and firepower are required. Hence, there must be a balance struck between the three elements. In counterinsurgency the firepower of armoured vehicles must be relatively heavy, but capable of maintaining a high rate of fire. Hence, cannon and automatic grenade launchers have been highly successful. However, for these armaments to be truly effective, armoured vehicles must provide good visibility and a broad firing envelope. Combined arms must be followed to protect both infantry and armoured units. Armour must have excellent communications, and have trained extensively with infantry units. Artillery is also critical for

counterinsurgency forces operating in LIC. However, artillery units must operate synergistically with direct-fire units, be precise in their application of force, and use firebases for self-protection.

Aviation has been a critical enabler of counterinsurgency operations since its invention. Helicopters can provide effective manoeuvre, support, evacuation, protection and firepower, as well as command, control and intelligence. Helicopters have also proven to be more responsive to ground units than aircraft. Given that the use of helicopters by counterinsurgents has been so extensive in LIC, insurgents have been forced to acquire effective countermeasures. Hence, helicopter tactics and protection suites have been forced to improve. In addition, helicopter firepower, and target acquisition and designation equipment has also been forced to improve. Contemporary LIC has shown that a counterinsurgent's helicopters must be able to detect and fire upon dismounted insurgents, outside of the insurgent's own weapon range. This requirement is severely taxing the capabilities of electronic detection suites. The improvement of helicopter equipment and insurgent human and technical capabilities is requiring greater pilot training and enhanced tactics.

This chapter has demonstrated that even advanced equipment employed by a counterinsurgent, without effective piloting and tactics, is of limited utility in LIC. The aforementioned strengths and limitations are also applicable to aircraft, and therefore will not be restated. However in contemporary counterinsurgency, aircraft are critical for the application of precise force and the provision of command, control, communication and intelligence. Insurgents only provide point targets, which have eluded aircraft weapons until the early 1990s. With the introduction and wide dissemination of precision guided munitions, aircraft have become essential providers of fire-support. This effectively multiplies the combat power of ground units. To multiply the combat power of ground units, airpower must often act as a command, control, communications and intelligence hub. These four elements of joint operations must flow freely and speedily, to engage elusive targets in a timely manner.

The four combat arms mentioned above, infantry, armour and artillery, helicopters and aircraft, must be employed synergistically by an effective Command, Control, Initiative, Communications and Intelligence (C2ICI) system. Command and Control must be unified, joint and able to encourage and facilitate

initiative among combat units. The fostering of initiative among combat units is critical in counterinsurgency, and is one of the most important aspects of a counterinsurgent's command structure. Initiative will enable combat units to exploit first hand knowledge of the enemy, and defeat the enemy in a timely manner. In contemporary counterinsurgency, communications is critical. The expansive nature of LIC requires combat units to be spread thinly over the theatre of operations. Hence, combat units must have the ability to communicate and mutually reinforce. An effective communications system will allow timely intelligence to flow to combat units, who can then engage the enemy. However, this requires effective and timely intelligence. Intelligence gathering and analysing agencies must be united and efficient at disseminating analysed intelligence. This intelligence will be mostly human intelligence, which creates the possibility of intelligence corruption. Corrupt intelligence can undermine possibilities of counterinsurgent victory in LIC. Hence, the counterinsurgent must have other means of corroborating intelligence. This corroboration will be best provided by imbedded intelligence sources, working in an environment where the hearts and minds of the population are being won.

This chapter and the previous chapter provide a collection of doctrinal and military principles that are essential for counterinsurgency forces to apply in LIC. These principles are applied to the New Zealand Defence Force and the Australian Defence Force, respectively, in the following two chapters. These latter chapters are critical to the research because: (1) they demonstrate how the principles within the thesis can be applied to both small and medium defence forces; and (2) illustrate how elements within the two defence forces can be enhanced so as to improve their respective capabilities in counterinsurgency.

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Chapter Seven

New Zealand Defence Force

This chapter analyses the implications of Low Intensity Conflict (LIC) for the New Zealand Defence Force (NZDF). The chapter then makes recommendations concerning the NZDF approach to counterinsurgency operations in LIC.

This research recognises that conflict is contested through the application of political, economic, diplomatic and military forms of force. This research analyses how these forms of force can be applied strategically, tactically and operationally by a counterinsurgent involved in LIC. This chapter analyses, principally, how effectively the NZDF has applied these forms of force in LIC. In terms of doctrinal principles, this chapter analyses how effectively the NZDF has controlled international interference, provided internal security, applied civil operations and installed a unified command, when operating as a counterinsurgent in LIC. There are also ten military principles that are analysed with reference to the NZDF when operating as a counterinsurgent in LIC; they include doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence. From this basis of holistic analysis, recommendations are suggested that would improve the effectiveness of the NZDF as a counterinsurgent in LIC. The analysis and recommendations made in this chapter will also be of interest to other small defence forces, which will be confronted with similar issues as the NZDF when operating as counterinsurgents in LIC.

The sections of this chapter represent critical elements of force applied by a counterinsurgent in LIC. Frequently these elements of force have proven to be as essential to conventional warfare as they are to LIC. However, there are a number of sections below that emphasise the distinct forms of force required by a counterinsurgent in LIC.

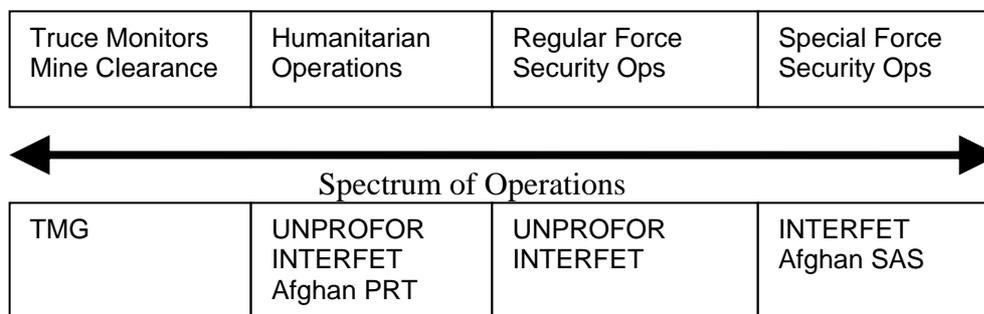
Overview

This chapter analyses the New Zealand Defence Force's (NZDF) involvement, over the past 15 years, in a range of LICs. These were Operation Golden Fleece

(1989); United Nations Protection Force (UNPROFOR) Bosnia (1994-1995); Truce Monitoring Group (TMG) Bougainville (1997-1998); International Force East Timor (INTERFET) and United Nations Transitional Administration in East Timor (UNTAET) (1999-2002); and the Provincial Reconstruction Team (PRT) and Special Air Service (SAS) operations in Afghanistan (2001-present). Operation Golden Fleece was a large counterinsurgency training exercise. It is nonetheless relevant to the analysis.¹ The four remaining conflicts were active service deployments.

The rationale for the above selection of operations is as follows. First, the operations cover a recent and high tempo period of NZDF operations. This enables the analysis of lessons learnt and an assessment of the implementation of those lessons by the NZDF. Analysis of these recent operations should also give some indication of what will be required in the future from the NZDF. Second, the stated operations represent different parts of a force-deployment spectrum, within the broader envelope of counterinsurgency operations in LIC, and their analysis will add breadth to the discussion of the thesis.

Graphic 5: Force Deployment Spectrum



The above graphic shows both potential operations in theatre and NZDF deployments of the type indicated above. This spectrum is partly related to the level of violence in theatre, but is not restricted by that level of violence.

In the case of Bougainville, the TMG's purpose was to monitor an established peace. Given the operational environment in Bougainville, it was deemed that the TMG should be unarmed. Additionally, the TMG was a small-scale joint force, under a New Zealand command.²

On the other hand, the NZDF commitment to UNPROFOR in Bosnia (NZFOR) was a regular-force infantry company group with attached armour,

tasked with peacekeeping and humanitarian assistance under the command of a British battalion.³

The NZDF commitment to INTERFET and UNTAET in East Timor was a joint force under an Australian command. The NZDF INTERFET and UNTAET commitment constituted an infantry company, then an infantry battalion group with attached armour, transport helicopter and aircraft support, along with a naval contingent.⁴

The main NZDF contribution to Afghanistan was a Provincial Reconstruction Team (PRT) and an SAS contingent. In this case, the NZDF has deployed two disconnected groups, serving different functions within the force-deployment spectrum. The SAS engage directly with enemy combatants, across an unspecified geographic zone. Alternatively, the PRT operates to provide humanitarian assistance within a confined geographic zone, under the protection and command of the British. For the NZDF, Afghanistan may demonstrate two important issues. Humanitarian assistance and special force operations may be: (1) an area of NZDF excellence; and (2) politically viable operational options for the New Zealand Government.

The force-deployment spectrum and the recent development and deployment of disconnected niche capabilities will be analysed later in the chapter.

Doctrine and Policy

In February 2004, the NZDF released the first edition of the 'Foundations of New Zealand Military Doctrine (NZDDP-D)'. This document is the 'philosophical' doctrine for the NZDF. The document has two important functions: (1) acts as a guide to unify the doctrinal thinking of the three services (Army, Navy and Air Force); and (2) minimises the potential for 'doctrinal divergence' to disrupt or inhibit operations between allies. Simply, defence force level, 'philosophical' or 'military', doctrine better enables joint and coalition warfare.⁵ From a conventional force standpoint, NZDDP-D is a progressive and essential step towards a more effective defence force.

Beneath the NZDF military doctrine are the 'operational' and 'tactical' doctrines of the three services. As described by Major General Piers Reid, among

the operational and tactical doctrines of the three New Zealand services resides a problem: 'doctrinal divergence'. Doctrinal divergence is a fundamental inconsistency of doctrine between New Zealand's separate service doctrines. The source of this discrepancy was contemporaneous New Zealand defence policy, history, and differing mind-sets these factors caused in the three services and the Defence Force Headquarters.

Before an explanation of doctrinal divergence can occur, it is critical to rationalise and moderate the debate within an historical-doctrinal framework. This is because doctrinal divergence is only an issue when joint warfare is elevated to become a prominent doctrinal principle or methodological perspective. The doctrines of the three New Zealand services, except the Air Force, are products of centuries of war. These doctrines instil within personnel the combined experience and knowledge of the service in which they serve. This process produces effective soldiers, sailors and aviators, who are conversant with their own service environment. This outcome is critical and must be defended. The doctrines are divergence because they were developed for dissimilar operational environments – land, sea and air. However, warfare is becoming increasingly joint. Hence, soldiers, sailors and aviators must be able to operate together jointly. Joint cooperation can only be created with joint training, joint operations, joint experiences, joint thinking and joint mindsets. Hence doctrine, which guides training, operations, experiences, thinking and mindsets must always promote, and never constrain, jointness.

In almost all deployments of combat forces overseas since the Boer War, New Zealand has contributed "elements to coalition forces by Service".⁶ Units from the Air Force, Army and Navy were incorporated into larger coalition units. Subsequently, these larger coalition units may have been deployed in separate theatres, following divergent tactical and even strategic directives. As a result, the three services developed a force structure and doctrine that focused on interoperability with, and complementary of, allied forces. To this point, Derek Quigley commented, "the three Services seem to be preparing for three different wars".⁷

Quigley was partly right, the three services were preparing for three divergent sets of engagement scenarios. As an example, the Navy was preparing to control sea-lanes of communication, the Air Force was training for airborne

interdiction, and the Army was readying to capture critical nodes and terrain. Each of these actions is in an environment which is essentially inhospitable to the other services. Thus, such training schedules were historically realistic and operationally appropriate. However, as Quigley inferred, the three services' dedication to single service readiness left little time or resources for joint training, awareness and readiness.

Since the New Zealand deployment to Bosnia, joint command and control (C2) has become a reality for the NZDF. However, the Bougainville deployment illustrated that the NZDF was not well prepared for joint C2. As described by Major General Piers Reid, in actuality “[t]he three services essentially operated independently, such that co-located Air and Army units in Bougainville[,] although under one commander in theatre[,] took direction from different commands in New Zealand. The commander in theatre frequently found himself being second-guessed by Service operational commanders at home [in New Zealand]. The situation was even more confused by deployed army elements answering to different army commands in New Zealand on different matters”.⁸ This chapter's section on Command and Control elaborates on joint C2 in Bougainville.

A further development, heightened by the deployment to Bosnia, was the promulgation of confused doctrinal premises. These unrealistic doctrinal premises feed directly into New Zealand defence policy, and were as follows. First, NZDF deployments would remain separate, single service contributions to larger coalition forces. Second, due to New Zealand's inability to deploy anything other than light force elements among heavily equipped and technologically sophisticated coalition forces, it was reasoned that NZDF force elements would only operate “as rear area security and on the flanks”.⁹ Third and most significantly, since New Zealand force elements would be deployed separately within broader coalition structures, it was inferred there was no requirement for a synergistic and holistic joint force. Hence, the ‘balanced and niche force’ debate came about.

Bougainville and East Timor illustrated that the first point is only partially correct; the NZDF will contribute both joint and single service elements to future operations, which New Zealand may lead. In the post Cold War era, New Zealand has deployed forces to approximately twenty conflict zones.¹⁰ Over half

of these operations have been small-scale humanitarian, de-mining or peace-monitoring missions. Other missions include maritime blockade, reconstruction, medical and logistics support for warfare (Gulf War 1), larger-scale peace-keeping and peace-enforcement, and large-scale low-intensity counterinsurgency operations. Most of these operations were single service contributions to larger coalition forces. In the deployment to Afghanistan, the NZDF supplied two ground force deployments (one multi-service group and one single service group) that are operationally dissimilar and geographically separate. In contrast, Bougainville was a joint-force operation led by New Zealand and East Timor was a complex operation, including both a joint-force and separate service element contributions to a coalition. The critical inference is: New Zealand will deploy both single service and joint force elements to future conflicts. Hence, New Zealand defence policy needs to recognise and assimilate the following. First, New Zealand will in the future deploy significant force elements (company to battalion) to conflict zones, globally. These global deployments will incorporate either single service or joint force elements, or both. It is also probable, due to current doctrine, that global deployments will become more joint. Furthermore, while unlikely, New Zealand may deploy large national contingents or command non-regional military contingents. In addition, the force elements supplied by the NZDF must be conversant with Brigade level command and control. This is because the Brigade is the common unit/command structure deployed in contemporary peace operations, as the Brigade is the smallest deployable unit capable of independent action. Second, conflict in Southeast Asia and the South Pacific will require New Zealand to contribute a range of military contingents. These contingents: may be large, up to Battalion Group size; will probably be joint; and New Zealand may be the lead coalition member or sole nation involved. If New Zealand is the lead coalition member, the need for a deployable Brigade headquarters will be a requirement.

Bougainville and East Timor also demonstrated that the second of the policy points noted above was plainly wrong. The second point, which stated that NZDF forces would only operate “as rear area security and on the flanks”¹¹ was proven wrong by all subsequent operations, especially Bougainville and East Timor. In Bougainville, New Zealand was the lead nation and committed the main force contingent. In East Timor, New Zealand occupied a front line

position, which was initially in the most dangerous sector in East Timor. Furthermore, the SAS unit operating in Afghanistan is a highly mobile, modern and combative joint element.

The third aforementioned point concerned the niche versus balanced force debate. To this debate, Major General Piers Reid has the following to say: “[n]othing could be more unbalanced than forces designed to be mere contributions to larger components, rather than balanced to operate together. Similarly nothing could be less niche than forces designed to work together and operate as a force-multiplied synergistic whole”.¹² Both of Reid’s comments are true. Once deployed, force elements will invariably operate in a joint environment. Single service elements will generally operate within a joint coalition force, as will joint multi-service elements. To insure readiness and operational effectiveness, a force must be trained in the manner in which it is to fight. Hence, to insure single service and joint NZDF contributions are effective, NZDF units must train jointly.

Currently the Army is leading the evolution of doctrine in the New Zealand military. For operational doctrine, the Army utilises the American Field Manual 3-0 (FM 3-0) Operations. For tactical doctrine, the Army uses the Australian Fundamentals of Land Warfare manual. The adoption of these operational and tactical manuals ensures the New Zealand Army is interoperable with major allies, through the American, British, Canadian, Australian Armies’ Standardisation Program (ABCA). Similarly, the Air Force maintains interoperability through the Air Standardisation Coordinating Committee (ASCC), and the Navy preserve commonality by way of the Australia, Canada, New Zealand, United Kingdom, United States agreement [on] Naval Command, Control and Communications Board (AUSCANNZUKUS). Any move toward ‘niche’ capabilities (whether implicitly as is the case currently, or explicitly as has been the case) is incongruent with the leading tenets of joint warfare. Since joint warfare is central to coalition doctrine and interoperability, ‘niche’ capabilities are incongruent to coalition standardisation. Furthermore, this thesis has demonstrated that synergistic joint warfare is fundamental to effective counterinsurgency operations.

Present New Zealand Army doctrine is entitled Precision Manoeuvre, which is a derivative of the United States Marine Corps’ (USMC) Manoeuvre

Warfare doctrine. USMC' Manoeuvre Warfare doctrine evolved in unison with the United States Army's AirLand Battle doctrine. AirLand Battle and Manoeuvre Warfare doctrines were an attempt to exploit the technological and information system benefits of the contemporaneous Revolution in Military Affairs (RMA) and combine these benefits with a manoeuvre/blitzkrieg approach to war. AirLand Battle and Manoeuvre Warfare doctrines were demonstrated in the 1990/1991 Gulf War. Manoeuvre Warfare differed from AirLand Battle, in that the former attempted to take advantage of the RMA, albeit with the inferior resources available to the USMC. Consequently, AirLand Battle has given way to Rapid Dominance. "Rapid Dominance ... evolved out of the post-Gulf War 1990/91 evaluations, the incoming availability of network-centric systems and the revolution in "precision strike, dominant manoeuvre, situational awareness and focused logistics"". ¹³ Similarly, the USMC has further developed Manoeuvre Warfare by incorporating the leading tenets of Rapid Dominance, but again with fewer resources than the U.S. Army.

As an aside, the USMC is the most joint force ever established and maintained. The adaptation of the USMC doctrine indicates the Army's intention of forming force elements that are advanced and joint. The requirement for joint operations will, and are, putting significant pressure on the Army's resources, as well as those of the Navy and Air Force. However, there seems to be a significant divergence between doctrinal intention and operational effect. At the operational level, doctrinal progression and the establishment of the Joint Headquarters has created a "better awareness of overlap and support". ¹⁴ Given that jointness takes generations to develop, there is a concern among senior personnel that support for joint operations will wane before the effects of jointness are visible. ¹⁵

Of the U.S. Army doctrines since World War 2 (Defence in Place, Active Defence, AirLand Battle and Rapid Dominance), Rapid Dominance most resembles the leading principles of a counterinsurgency doctrine. As such, the USMC and the NZDF, using Manoeuvre Warfare or Precision Manoeuvre respectively, should be well placed as counterinsurgency forces in LIC. As an important aside, as outlined in this thesis' chapter, 'A Doctrine for Low Intensity Conflict', there is a need for counterinsurgents to possess more than just a warfighting doctrine in LIC. The idea of a supplementary doctrine is addressed below, in the Infantry and Other Agency Integration subsections of this chapter.

Nevertheless, the New Zealand Army's doctrine is congruent with a winning counterinsurgency strategy. To be effective however, the Army's Precision Manoeuvre doctrine requires a balanced joint force, which is well trained, led and equipped. "The critical point is that wherever New Zealand Forces go, they will find themselves either forming or being components in Joint Forces [, which will be guided by Manoeuvre Warfare or Rapid Dominance doctrine]. Given that military forces "fight as they train", then New Zealand's forces should "train as they intend to fight", and this means in a joint environment [, guided by Precision Manoeuvre]."¹⁶ In terms of the military principle, doctrinal precision, NZDF doctrine is becoming more suited to LIC, but needs to continue developing a joint approach to such operations.

In addition, Precision Manoeuvre has caused New Zealand to assimilate new technology and war fighting theory into NZDF training and operations. The current doctrine also creates an opportunity for the Joint Headquarters to make best use of existing NZDF resources'.¹⁷ However, 'Precision Manoeuvre does not negate the equipment deficiencies in the NZDF, especially in the Air Force'.¹⁸

Furthermore, doctrine should assist in guiding policy. The Inquiry into Defence Beyond 2000 (DB2000) neglects to illustrate doctrinal implications for defence policy. This is a clear deficiency, given that "[d]octrine is what experience has shown usually works best".¹⁹

Infantry – Personnel

The strength of the New Zealand Army's culture, as described by Captain David Strong (New Zealand Army Officer and former Waikato University Masters Student), is based on "initiative, adaptability, practicality, integrity and trust".²⁰ This culture and the professional structure of the New Zealand Army (rather than the small size and isolation of the Army, as Strong suggests), has created a "well trained and disciplined force".²¹ Strong also suggests that the Nation and Army's isolation has created "a degree of naïveté concerning the intent of others, a lack of expertise regarding modern battlefield technology, and an ability to provide and sustain a large force overseas".²² These apparently divergent sentiments are credible, and describe a dichotomy within the NZDF. The dichotomy illustrates high personnel effectiveness in peace operations, which is not reflected in the

capability or technological advancement of operational equipment, levels of training or rates of remuneration. The evidence for the above statement follows.

Culture, as described above, is a convoluted mix of Army ethos and values, which is embedded in a deeper national psychology. Culture has been an unexpected enabler in the cases of this thesis. The use of culture as an unconventional instrument to facilitate conventional requirements for security and stability is an unfamiliar and undeveloped concept in the field of defence. The concept is also prone to bias; Canadians, Australians and New Zealanders will all accentuate the competence of their service personnel and defence forces in peace operations and combat. Nevertheless, if culture is an alternative form of force that is effective, then the positive forms of culture need to be qualified. Alternatively speaking, the following question must be posed: what aspects of culture allow an understanding of the 'enemy' and integration with the people within an area of operations? Simply, know your enemy and know yourself. Hence culture is important, because it is the context from which we make decisions. It is also important to note, that culture is more 'primal' than service ethos and values. There are four significant cultural traits examined below. First, Major General Piers Reid asserts that because New Zealand is a small country, New Zealanders have a different and possibly 'softer' geopolitical outlook, particularly with regard to the application of power. Hence in a situation of conflict, New Zealand service personnel have a more reasoned approach when dealing with warring factions, which is coercive but not forceful. The result of this approach may be a greater understanding that leads to agreements being reached. Second, Reid and Lieutenant Colonel Antony Hayward site multiculturalism as a creator and illustrator of tolerance towards other cultures. The consequence of cultural tolerance is an ability to sometimes overcome tribal, racial and ideological fissures. To this point, the Ni Vanuatu personnel deployed with the TMG proved to be a quintessential conduit to understanding the Bougain(villian) culture. Third, but interconnected with the aforementioned factors, New Zealanders are egalitarian, treating everyone as equals. This egalitarian nature fosters understanding and forbearance of differing points of view. Fourth, New Zealand service personnel appear to strive to accomplish the best for the people in their area of operations.²³

In addition to culture, there are specific geopolitical and resource related issues that naturally force personnel effectiveness. First, to fulfil the numerous roles required of the Army, junior officers and non-commissioned officers receive training in certain areas that larger armies would impart on higher ranked individuals. This factor causes young, physically fit and well trained personnel to be deployed. Second, due to history and geographical isolation, the NZDF's thinking is expeditionary, rather than territorial. This facilitates a simpler transition to operations on foreign soil, as New Zealand personnel operate as they train. Third, the NZDF has maintained a sufficient degree of interoperability with allied forces. This enables New Zealand personnel to achieve a working relationship with allied personnel and systems in theatre, relatively quickly. Fourth, New Zealand has a good post-war track record for participation in peace operations. Fifth, (as Brigadier Roger Mortlock states) the New Zealand Army has achieved the ultimate paradox in warfare: maximum obedience and initiative. Hence, the ideas of ethos, values and culture are an interconnected mix, which has fostered an effective counterinsurgency approach to civil-military affairs in LIC.

The case studies of this chapter will show New Zealand personnel display initiative, especially older personnel who are willing to question command. However, some aspects of initiative have not been institutionalised through the lessons learnt process to form doctrine and Standard Operating Procedures (SOPs) for future operations. Lessons must be relearned or learned again by others, if they are not initially recorded, remembered and shared. A reluctance or inability to institutionalise new approaches and lessons can cause risk, as individual initiative is depended on to re-develop a solution to a known and re-occurring problem. The Auditor-General's report on East Timor illustrates resource issues that compromised the lessons learned process, at the Centre for Army Lessons Learned (CALL).²⁴ The problem is more complex, and is examined below.

The Realisation Issues plan formed by New Zealand 5 Battalion (NZBATT 5) was significant in creating internal security and stability in East Timor. The Realisation Issues plan has, however, not been institutionalised as a template for future operations. Furthermore, the Realisation Issues plan was the product of a small group, under an individual commander, Lieutenant Colonel Antony Hayward, rather than being part of an institutionalised strategic plan. Hayward stated in an interview that the plans development was ad hoc, based

upon the use of common sense. Hayward also emphasised that some of the ideas used in East Timor by NZBATT 5, were based on a reading of Christopher Pugsley's book – *From Emergency to Confrontation: the New Zealand Armed Forces in Malaya and Borneo 1949-1966*.²⁵ The Realisation Issues plan raised reservations with the Chief of Defence Force (CDF) and Chief of Defence Force – Operations (CDF-Ops), in New Zealand.²⁶ These reservations centred on whether NZBATT 5 was capable of delivering core objectives, of security and intelligence, and undertake the Realisation Issues plan. To the credit of the two Chiefs, the initiative was allowed, but not institutionalised. Colonel Hayward, the commander of the 2nd Land Force Group, stated 'the Realisation Issues plan is not taught to officers because there is not enough time for that training. Indeed, the Army is struggling to adapt to C4ISR. Civil-Military Affairs (CMA), in the New Zealand Army context does not become apparent until personnel are on operations'.²⁷ Moreover, many of the lessons learned contained in the Realisation Issues plan are being redeveloped by the PRT in Afghanistan. The content of the Realisation Issues plan is analysed further in a subsection below, entitled Other Agency Integration. The remainder of this section analyses the structural elements of personnel preparation.

The NZDF maintains a two stage level of preparedness. This two stage policy reduces military expenditure and, as the New Zealand Ministry of Defence asserts, increases opportunities for training and 'reconstitution'. Hence, the NZDF is maintained at a Directed Level of Capability (DLOC), which in an agreed timeframe can be improved (through additional training and critical equipment purchases) to an Operational Level of Capability (OLOC).²⁸ Basically, (with respect to any unit, at any time) there is a designated level of capability that each unit must maintain (DLOC). From that level, each unit must be able to achieve a capability level (OLOC), within a specified timeframe, which enables the unit to perform effectively on operation.

In the case of Bosnia, the New Zealand Company Group undertook training in New Zealand and Britain before their deployment. Strong states the training was comprehensive but ad hoc, and was unduly influenced by senior officers. The British training package included country briefings, specialist skills, medical and marksmanship training, vehicular and convoy procedures, language training and urban training. The New Zealand Force (NZFOR) was then deployed

to a quiet sector (Lasva Valley) within a British Battalion's (BRITBAT1) area of operations. NZFOR was positioned in this quiet sector for two reasons: (1) for further British field evaluation and (2) so NZFOR could adjust to peacekeeping.²⁹ The presence of NZFOR did, however, enable the British to focus on other areas of importance.³⁰ The principal lesson learnt from the Bosnia deployment, according to Major General Piers Reid, was the importance of junior leadership. In concordance with the case studies of this thesis, Reid states "[w]e're [sic] not talking about the company commander or contingent commander. It's the junior lieutenant and corporal. Small groups of New Zealanders sorting problems out on the ground, in many cases with people pointing automatic weapons at them [sic]. It's [sic] discipline and skill that lets them stand impartial even when morally they might feel one side has a superior position".³¹ Without effective junior leadership, discipline can degenerate, both inflaming dangerous situations and reducing the combat capability of soldiers.

On 20 September 1999, the first INTERFET forces deployed in East Timor. Basically, the NZDF contingent comprised of Special Air Service (SAS) personnel (who actually deployed on the first day), an infantry company (Victor Company) (which deployed to Dili on 28 and 29 September), and an infantry battalion group (NZBATT) (which was fully deployed to Suai between 22 and 29 October). These Army units were supported by various other Navy, Air Force and Army support units, which were dispersed throughout operations in East Timor. Given East Timor was a significant deployment for the NZDF, the preparation of the Company and Battalion Groups are detailed in a training section below. Briefly, Victor Company and the initial Battalion Group undertook training in New Zealand, along with final preparation and acclimatisation in Australia, prior to deployment to East Timor.

In common with most cases of counterinsurgency operations in LIC, the Special Forces were instrumental to the success of operations in East Timor. The New Zealand Special Air Service: (1) provided security for the evacuation of UN staff from East Timor in early September 1999 (Operation Dorix); (2) were part of the INTERFET Response Force that initially secured Dili airport and port facilities on 20 September 1999; and (3) reconnoitred and partially secured much of East Timor ahead of deploying regular forces. To elaborate on this latter role, New Zealand SAS performed "reconnaissance and surveillance, vital asset

protection, forming liaison and communication teams, arrest, disarm and detain operations against the militia, and humanitarian assistance and close personnel protection of senior officers and ‘at risk’ civilians”.³² The New Zealand SAS were also involved in four contacts (engagements) with enemy forces. In short, the SAS were a great asset to the INTERFET operation.

As in Bosnia, the New Zealand Company initially deployed to Dili was ordered to maintain security in a large area of operations (AO). Victor Company’s AO was the western sector of Dili, previously secured by a battalion from 2 Royal Australian Regiment (2RAR). Victor Company “had been given this sector for two reasons – their APCs gave them a high degree of mobility, and the sector was a relatively quiet area”.³³ Victor Company was then deployed to Suai, where significant militia violence and engagements with INTERFET troops had occurred. Given the pressing need to secure all of East Timor as quickly as possible, the INTERFET commander, Major General Cosgrove stated, having Victor Company arrive in East Timor so promptly was ‘like gold’.³⁴

In late October 1999, a New Zealand Battalion Group (NZBATT 1) joined Victor Company in Suai, and dispersed over the Cova Lima district. NZBATT 1 and 2RAR (and initially 3RAR) were under the command of Brigadier Mark Evans (Australian), Commander West Force. Given West Force controlled the mountainous border area with Indonesia, their operational environment was “the most sensitive and dangerous area in East Timor”.³⁵ The full Battalion was deployed in October, because it was not at OLOC in September when the lead elements of INTERFET deployed. This was partly due to pre-deployment training being delayed by a clash of Government inter-departmental objectives.³⁶ This inter-departmental disagreement is analysed below, in the section entitled Other Agency Integration.

All New Zealand battalion rotations following the withdrawal of NZBATT 1 included Territorial Force (TF) personnel. These TF personnel accounted for approximately 10-15 percent of the following Battalions’ strength. The initial case studies of this thesis have shown that the combat capability of Conscript/Reserve/Territorial personnel can suffer from a lack of training, unit cohesion and discipline. These personnel weaknesses can be exacerbated by poor junior leadership, especially at the Non-Commissioned Officer (NCO) level. The New Zealand Territorial personnel deployed to East Timor did not display these

problems; potential reasons for this maybe as follows. First, TF personnel underwent significant training with Regular Force (RF) units prior to deployment. Hence, the operational capability and discipline of TF personnel were improved and unit cohesion was solidified. In the case of NZBATT 5, TF personnel received four months pre-deployment training. The length of training was increased from two months, at the request of Lieutenant Colonel Hayward.³⁷ Second, TF personnel were integrated into RF units. Therefore, TF personnel were led by competent junior commanders. Third, TF personnel were motivated. This was indicated by TF personnel willingness to relinquish their civilian employment and accept a “reduction in rank, in recognition of their inexperience”.³⁸ It was stated by Lieutenant Colonel Dransfield that the aptitude and capability of TF personnel was comparative to Regular personnel. Nevertheless, the inclusion of TF personnel in the East Timor deployment does indicate an inability of the NZDF to maintain a Battalion at full strength, with Regular troops, past the first rotation. Colonel Hayward also stated that to ‘fully realise the ability of TF personnel, they must be effectively managed and guarded from situations of excessive risk’.³⁹

Similarly, NZBATT 3 was a composite battalion, formed from more than 62 army units, and based on 16 Field [Artillery] Regiment. Given the non-infantry base and the composite nature of NZBATT 3, there was a potential for significant problems to arise during the deployment. However, no problems were reported.⁴⁰ The composite, non-infantry nature of NZBATT 3, again illustrates the stress placed on NZDF assets by maintaining an operational battalion past 12 months.

Moreover, NZBATT was only ever at full strength because of the incorporation of foreign units. At the time of the East Timor operation, “the strength of each of the Army’s two RF [Regular Force] battalions was just over 400. According to current doctrine a full battalion should comprise four rifle companies. In practice [sic], the NZ [New Zealand] Army has been based on three-company battalions for some time. Because of limitations on personnel numbers, the Bn Gp [Battalion Group] option would require either a three-company Battalion, but with only two platoons in each Company (there are normally three), or a three platoon, two company Battalion. Therefore, the Army could deploy a battalion structure, but it would be slightly “hollow” in terms of

numbers”.⁴¹ This ‘slightly hollow’ nature of the NZDF is a significant issue and is getting worse, due primarily to retention problems. Simply, ‘hollow’ units create risk on operation, as they are expected to perform as if they were full strength units, which they are not.

In terms of military principles, NZDF personnel have illustrated a professional and restrained approach to counterinsurgency, as well as independence and initiative in their actions. However, the DLOC/OLOC process and inadequate institutionalisation of lessons learned has undermined the professional capability of the NZDF.

Tactics, Techniques and Standard Operating Procedures

The primary concern, with regard to Tactics, Techniques and Standard Operating Procedures, was a clash with Rules of Engagement (ROE) and United Nations (UN) policy.

The appropriateness of the ROE governing New Zealand troops, operating under the United Nations Transitional Administration in East Timor (UNTAET (took responsibility from INTERFET progressively after February 2000)), was challenged by Colonel Gibbons. At the time, “if a New Zealand soldier patrolling the bush near the border saw an armed militiaman ‘patrolling in a tactical way with obvious intent’, he was required to challenge him before opening fire, unless his life was directly threatened. Given the conditions under which the first New Zealand Battalion was operating along the border this was impracticable and impaired its ability to safely and effectively carry out its mission”.⁴² Colonel Gibbons successfully implemented a change to the ROE, which after ratification by the UN, applied for all UNTAET personnel operating in East Timor. The change to the ROE improved the safety and confidence of UNTAET personnel, and improved the probability of eliminating the militia threat.

Similarly and again in East Timor, soldiers would take up ambush positions to intercept militia. However, Rules of Engagement (ROE) forbade initiating a contact by firing first or using suppressing fire.⁴³ Hence, one of the most successful tactics for intercepting insurgents was prevented by ROE.

Patrolling was one technique that required development for operations in East Timor, and was in no way related to ROE or UN policy. Following the shooting of a New Zealand soldier on patrol near the Indonesia-East Timor border, the pace of subsequent patrols was reduced. The change of technique came about after advice was sought from a Falintil (The Armed Forces for National Liberation of East Timor) commander.

Intelligence is a critical enabler for counterinsurgent operations in LIC. However, as stated by former UN Under-Secretary General and Head of the UN Angola Verification Mission, Dame Margaret Joan Anstee, “[i]t does not seem to be well known, or understood, that the UN is not allowed to gather intelligence”.⁴⁴ The UN rationale for this policy is as follows. First, “to gather intelligence is to impose upon the host country’s sovereignty”.⁴⁵ In abstract terms, the generation of intelligence could be seen as violating the inherent rights of a sovereign state. However in real terms, an absence of intelligence completely undermines the operational capability of military forces. To this point, Brigadier Roger Mortlock states, “there is an undeniable reality that an intervention force without a sound intelligence capability is one which is blind. It cannot, therefore, expect to react sensibly to threats to the mandate and to the mission strategic plan. *The ability for military intervention forces to run an intelligence gathering capability openly is vital for the successful ending of conflict.*”[his italics and emphasis]⁴⁶ Hence and as is stated in the Panel on United Nations Peace Operations Report (Brahimi Report), United Nations military forces must be provided with strategic intelligence and the freedom to generate tactical intelligence.⁴⁷ Second, intelligence may undermine impartiality in a peacekeeping environment. The primary principle of peacekeeping assumes that all warring parties are supportive of a peaceful outcome (this is often an erroneous assumption). If this assumption is accepted momentarily for argument’s sake, the collection and analysis of intelligence by the peacekeepers should not be perceived as a challenge to either warring party. Intelligence should be considered as a guarantee that both sides are abiding by the peace agreement. The gathering and analysis of intelligence will only be a threat to either warring party, if that party is attempting to break from the conditions of the peace agreement. Given that peacekeeping only occurs where violence is present, intuitively, there must be a party committing that violence. Hence, intervening forces must have a

capacity to gather and analyse intelligence. To this point, the Panel on United Nations Peace Operations Report (Brahimi Report) concurs: when one party is violating the terms of a peace agreement, impartiality can cause “ineffectiveness and ... amount to complicity with evil”.⁴⁸ Two examples follow, which illustrate the importance of intelligence for intervening force.

Due to a lack of intelligence and analysis, Brigadier Mortlock stated that the warring parties in Angola used the presence of UN Angola Verification Mission (UNAVEM) I & II, as a reprieve to re-arm and re-train. Furthermore, the cantonments designated and occupied by the warring Angolan factions, and monitored by UNAVEM personnel, were established on strategically important terrain. Hence when the fighting resumed, the Angolan factions were positioned to control internal and external means of communication, population centres and strategically significant topographical features. The strategic positioning of the Angolan factions was well planned, but went unnoticed by the UN’s civilian staff. In the Angolan case, intelligence and military analysis may have enabled a more appropriate response from the UN.⁴⁹

In comparison, the New Zealand Truce Monitoring Group (TMG) was critical in gaining intelligence and fostering peace in Bougainville. The greatest threat to the peace in Bougainville was distrust and rumour. The basis for much of the intelligence provided to the TMG came from each of the warring parties, and was illustrative of the other side’s actions. Hence, the principal role of the TMG was to verify intelligence and disprove misinformation. Functionally, intelligence verification was done by talking to the side described in the intelligence reports.⁵⁰ Significantly, however, the process would not have worked under a UN peace monitoring mandate. This is because the core function of the TMG, gaining and analysing intelligence, would have been prohibited. Hence, a peaceful outcome would not have been achieved. Admittedly, however, this process may only work if both parties truly want peace, and there are no other internal or external groups fuelling the conflict.

ROE that have prohibited techniques that are critical to counterinsurgency and UN policies that have forbidden the collection of intelligence are major impediments that have been faced by the NZDF while operating as counterinsurgents in LIC. These impediments undermine important military force principles that are essential in LIC, including the collection of accurate human

intelligence, the application of initiative and the deployment of precisely tailored forces. Furthermore, the constraints placed on these military principles directly undermine the capability of a counterinsurgent to achieve the doctrinal principles outlined in this research.

Equipment

In addition to training, NZFOR in Bosnia had to be re-equipped with an assortment of “basic and specialist equipment”.⁵¹ This equipment included “Night Vision Goggles, Global Positioning Systems, diesel generators, engineer plant equipment”,⁵² appliqué armour and new sights for the armoured personnel carriers (APCs), Land Rover Field Ambulances and new parts for the “aged Land Rovers [sic] fleet”.⁵³ These purchases were critical to the NZFOR deployment. For this reason, Lieutenant Colonel Bright indicated that these deficiencies “cast doubt on readiness states”.⁵⁴ In other words, the capacity of the NZDF to move from the Directed Level of Capability (DLOC) to the Operational Level of Capability (OLOC) was in question. Furthermore NZDF personnel, because of the DLOC/OLOC system, were then deployed into conflict with only rudimentary training with this new equipment. In fact, the United Nations requested that New Zealand provide troops for UNPROFOR in March 1994, the Government agreed in May 1994 and NZFOR’s equipment sailed for Bosnia in July 1994.⁵⁵ Given the short time period between mission inception and deployment, the purchases of new equipment had to be rushed. This rushed procurement forced systems and equipment to be accepted without trial, and as Brigadier Jameson noted, carried a “disproportionate risk in being delayed”,⁵⁶ or being ineffective, non-calibrated and dangerous.

This chapter has shown communications weaknesses have been a known problem in the NZDF, since Operation Golden Fleece in 1989. One of the critical equipment shortfalls that could not be surmounted, prior to the East Timor deployment, was that of communications. Hence, NZDF personnel were at times unable to communicate, due to East Timor’s mountainous terrain. Australia had similar communications difficulties in East Timor with the PRC-77 radio. Australia also had elements of the Project Raven communications upgrade available, which enhanced the transmission of battlefield data.⁵⁷

As was illustrated in Exercise Black Diamond (1996), communications failures can significantly degrade friendly combat capabilities and provide vulnerable centres of gravity for the enemy to exploit. A soldier of 1 Royal New Zealand Infantry Regiment (1 RNZIR) participating in the above Exercise, explains the result of poor communications and logistics for an Infantry Company: “In a real war, with troops moving towards the front, we’d [sic] have a real problem”.⁵⁸ Judith Martin, a defence writer, explains “[p]re-Vietnam communications equipment is a constant source of frustration: changes of plan have a domino effect, especially where re-supply is concerned, and the echelons supplying the front-line troops with ammunition, water and kit are at times not receiving vital orders – because of difficulties with aging equipment or atmospheric conditions”.⁵⁹ The requirement to improve the NZDF communications system, following the Exercise Black Diamond, was reiterated by Colonel Martyn Dunne.⁶⁰

The effectiveness, reliability, range, security and connectivity of Army communications is being enhanced by the tactical communications upgrade. The new communications system will improve the transmission of data traffic, including written orders, images, geographic information and pictures. The tactical communications system will also enhance the range of transmissions, while reducing distortion, interference and data error rates. The consequence of this communications improvement is digitisation and more effective command, control and intelligence sharing.⁶¹

A lack of logistics capability was a major deficiency of the NZDF prior to the East Timor deployment. The NZDF did not have an effective means of moving containerised supplies within the New Zealand area of operations (AO), until immediately before the Battalion deployment. The NZDF purchased two truck-mounted cranes as a solution. Although these cranes were critical to the East Timor deployment, the purchase of these cranes was made in late September 1999. Fortunately, the New Zealand manufacturer was able to deliver the cranes within a month. Hence, the cranes were available for the initial deployment of the New Zealand Battalion. Furthermore, at times NZBATT was forced to use packhorses to transport essential supplies to isolated company and platoon bases. “The demanding terrain and difficult weather conditions, especially during the wet season, have meant that the NZDF has had to improvise to get essential

supplies through to its positions in the rugged hill country of the Cova Lima district".⁶² In all fairness, this shows initiative. Although, this example may also imply a need to improve the NZDF's airborne and mechanised logistics capability.

In addition to the equipment deficiencies outlined above, the NZDF will require replacement infantry weapons. In the short term, the C9 machine gun and the Carl Gustav 84mm recoilless anti-armour weapon require replacement. The Carl Gustav is an 'obsolete, inefficient, inaccurate, very-short range weapon'.⁶³ However, the Carl Gustav is flexible in the range of ordnance it can deliver, including illumination, smoke, anti-armour and anti-personnel rounds. Hence to maintain the ability to deliver a diverse range of ordnance, the C9 and Carl Gustav may be replaced by a variety of weapon systems. The collection will include a 5.56mm machine gun and a Medium Range Anti-Armour Weapon. However, the replacement systems will also have to deliver short-range illumination, bunker-busting, anti-armour, anti-personnel incendiary and smoke rounds. As illustrated in Somalia, and analysed in the armour section of this chapter, disembarked New Zealand soldiers will require protection from vehicularised heavy personnel weapons. This capability will be enabled by the Medium Range Anti-Armour Weapon and Direct Fire Support Weapon, proposed in the Defence Long-Term Development Plan.⁶⁴ Possible Direct Fire Support Weapons may include a 0.50 calibre machine gun with computer assisted targeting or some form of 40mm automatic grenade launcher. These types of weapons have been proven particularly useful in the case studies of this thesis.

In terms of military principles, a lack of integrated communications has been a significant impediment to NZDF counterinsurgency operations in LIC. This is a serious issue that requires resolution. In addition, aging infantry equipment has restricted the capacity of the NZDF to apply precise force.

Training

The delivery of pre-deployment training for personnel deploying to East Timor was critically important. However, there were a number of issues that undermined the effectiveness and delivery of the pre-deployment training. In the case of Bougainville, the DLOC-OLOC process and pre-deployment training were

basically irrelevant, and the Provincial Reconstruction Team (PRT) rotations to Afghanistan have generated a separate set of issues.

Warning and Operational Orders (these documents outline expected unit functions in theatre) were not available to all units deploying to East Timor, this impacted units in the following ways. First, this lack of orders reduced the time available for pre-deployment training. Second, planning for training was constrained, and less task-specific than what would be expected, because the above orders were either not available or lacked accurate or complete intelligence data. Third, the Commanders intent and mission objectives were not clear until Operational Orders were received.⁶⁵

Brigadier Mortlock, the initial TMG commander, is highly critical of the DLOC-OLOC and Warning-Operational Order processes. This is because these processes rely on a designated time period in which to train prior to deployment. This time period is not always available. In the case of Bougainville, the TMG was required immediately to secure the temporary and fragile peace. In addition, Major General Piers Reid stated that comparatively, the NZDF maintains a lower standard of readiness than the Australian Defence Force (ADF). The ADF also uses the DLOC-OLOC process. However, the entire ADF is at a higher state of readiness, and units are rotated through an Operational Level of Capability (OLOC). On the contrary, the NZDF is a small organisation with huge commitments; this dynamic prevents the NZDF from maintaining such a level of capability. Simply, resource, policy and personnel recruitment and retention issues in the NZDF reduce readiness.⁶⁶ An NZDF report on lessons from East Timor states that “[t]here can be no doubt that New Zealand’s future military operations are constrained by the readiness limitations inherent in the Purchase Agreement. Furthermore, the rationale for what degree of notice is required for what kind of scenario and what type and size of force should be re-examined in the light of operational requirements, rather than solely fiscal imperatives”.⁶⁷

In the case of East Timor, there was a limited timeframe for pre-deployment training. With the intelligence that was available, the NZDF was fairly well placed to incorporate terrain, weather and country briefing as part of the pre-deployment training. However, due to coalition and domestic intelligence restrictions, the operating environment in East Timor was not fully appreciated. Moreover, attempts by planners to provide information through coalition liaison

were prevented.⁶⁸ The limitations of NZDF intelligence are further examined below.

Initially, there was no contingency plan available for training, equipping, or supplying the first Battalion deployed to East Timor. As a result, a training schedule had to be developed. This training schedule was limited by time constraints, which precluded the analysis of existing information. Therefore, Australian and British doctrine was incorporated into New Zealand planning, given the lack of contemporary New Zealand doctrine available.⁶⁹ Nonetheless, New Zealand soldiers were generally provided with a decent and flexible pre-deployment training.

Training encompassed individual, collective and joint competencies. At the individual level, there were basic skill inadequacies including a lack of, '(1) live firing experience, (2) knowledge of urban warfare methods, (3) the ability to conduct weapon searches, and (4) unarmed combat skills'.⁷⁰ At the collective level, training was limited. Company Groups had little experience with combined arms operations with APCs, as this was not a significant part of recent past training. Battalion Group exercises were only performed in Australia, again this was not a significant part of recent past training. In addition, non-infantry personnel were required to form a full Battalion Group. The skill levels of these non-infantry personnel were low. Nonetheless, these non-infantry personnel were expected to deploy with the Battalion Group to East Timor, without additional training. At the Headquarters level, one 8-hour Command and Control exercise was conducted prior to deployment. At the joint level, there was no joint New Zealand training before deployment. Victor Company personnel were trained with Australian Blackhawk helicopters prior to deployment and with New Zealand Iroquois on arrival in Dili. The New Zealand Company and Battalion Groups had little joint warfare training with helicopters. The Auditor-General states "Platoon and Company commanders needed to appreciate more fully how best to utilise helicopters".⁷¹ This deficiency was exacerbated by a reduced number of joint exercises in the years prior to the East Timor deployment.

The NZDF provides an adequate level of combat training at the individual level. However, counterinsurgency operations in LIC require additional forms of training. Such training is classified into band or star groups (these are core skill sets that the individual must achieve, and vary depending of the individual's

trade). A regular soldier will have trained to approximately a five band/star grade, while a SAS soldier would have trained to approximately a fifteen band/star grade.⁷² Languages, counter-intelligence and specialised warfare skills could all be band group additions. Simply in relation to LIC, counterinsurgency personnel require additional skill sets. However, the Army can only train personnel to a standard, that time and resources permit.

An Army General Staff report prepared in May 2000 indicates the need for greater collective and combined training;⁷³ joint and coalition training must also be frequent, cohesive and significant. The requirement for improved “combined arms procedures”⁷⁴ was a significant lesson from Exercise Black Diamond, according to Colonel Martyn Dunne. On coalition training “General Cosgrove remarked in Dili in November 1999, [that] the ADF and the NZDF must engage in more combined exercises, exchange postings and build on the ‘common understanding’ that exists between the two nations. Military cooperation, he said, must occur ‘rather more routinely between our countries’”.⁷⁵

The Joint Headquarters has been effective in making the single services aware of the requirement for joint training. However, ‘given the competing requirements and restrictions, the services have difficulty scheduling core single service training, let alone setting time aside for joint training’.⁷⁶ The issue here is, ‘no individual training can be truly effective without joint training. Correspondingly, joint training cannot be effective if the individual units are not well trained in their single service core skills’.⁷⁷ However, new units entering the NZDF will force joint training, as they are specifically designed for joint operations. As an example, the new Multi-Role Vessel (MRV) will have to train with the other services, as its function is to operate, serve and be served by the other services. Due to this evolving environment, the Joint Headquarters is integrating, where possible, single service crew training and exercises into joint training and exercises.

In addition, there was a problem with Unauthorised Discharge (UD) of weapons in East Timor. The cause of the UD was explained by Brigadier Dunne as a “lack of familiarity”⁷⁸ with the weapons used. This problem needs to be overcome with more individual training, using live ammunition at DLOC. The importance of training with live ammunition was indicated by all the New

Zealand battalion rotations that followed NZBATT 1, as there was a reduction in UDs.⁷⁹

The PRT in Afghanistan includes personnel from all three services. The pre-deployment training for the PRT has had to integrate all personnel, and raise the disparate group to a designated standard for the operation. This has been a complex deployment, with the personnel being deployed exhibiting a good level of competence. However, the NZDF is struggling with current deployments due to severe manpower shortages; combat and combat service support elements are below 80 percent establishment strength, and combat support elements are below 70 percent establishment strength.⁸⁰ These problems are exacerbated by the loss of a significant number of junior officers.⁸¹

The causes of the manpower issues experienced presently, especially by the Army, are multifaceted. First, in service personnel have been adversely influenced by the high rotation and deployment rate. These issues of constant movement clash with a desire for stability, especially where family is concerned. Major General Piers Reid stated that he personally knows of three separate occasions, when married couples have exchanged children at the airport, as “Dad flies in from Iraq and Mum flies out to Afghanistan”.⁸² Second and similarly, the buoyant job, property and financial markets have drawn highly skilled personnel out of comparatively low paid military jobs into civilian sectors. Moreover, private soldiers deploying to Afghanistan and Iraq are paid around NZ\$30,000 per annum. If these same soldiers accept the same level of risk, but work as bodyguards in the same countries, they can earn upwards of U.S. \$150,000 annually. Third, there has been some dissatisfaction with NZDF equipment and leadership, which is being addressed. Fourth, Brigadier Mortlock states there is no mechanism that facilitates a discourse between the military and the population. Hence, there is a lack of understanding among the population about the military, especially operationally. This has generated social disrespect towards the military.⁸³ Fostering a greater openness about operations, training, technological advancement and lessons learnt, may improve understanding and respect for the military. This could be facilitated through greater participation in tertiary education of active service personnel. Simply, (1) military personnel and academics need to collaborate on joint work, (2) military personnel must disperse across more universities domestically and internationally, and (3) academics must

generate a greater quantity of contemporary, comprehensive, realistic, objective and high-quality defence product. However, to facilitate an improved interaction with academia, the NZDF may need to improve the timely delivery of non-classified information to the public. In the production of this thesis, Official Information Act requests were appropriately answered by the NZDF, but the response times were very slow (2-6 months).⁸⁴ This is a regrettable situation, which as Air Marshall Bruce Ferguson, Chief of Defence Force explains, is caused by insufficient manpower at Army General Staff to fully process all Official Information Act requests.⁸⁵ This is an unfortunate impediment to the legitimate passage of information, and hence should be rectified.

These manpower issues may also have a latent effect on future operational planning. In preparation for the East Timor deployment, “at all [planning] levels the staff structures involved were, to say the least, “thin”. In many cases the process relied upon a handful of critical individuals”.⁸⁶ This may well worsen, as the ‘loss of a cadre of junior officers’ is felt.⁸⁷

Combined arms and joint force are two military principles that the NZDF has failed to adequately train for. Given the frequency with which the NZDF operates as a counterinsurgency force, these principles need to be more effectively rehearsed.

Armour

The following section analyses the fundamental functions of armour: protection, manoeuvre and firepower. This analysis is in relation to NZDF deployments. With reference to the previous analysis, this section examines the capabilities of the New Zealand Light Armoured Vehicle (LAV) and Light Operational Vehicle (LOV) for counterinsurgency operations. This section also makes recommendations to overcome areas of armour weakness in the NZDF.

Protection

One of the most significant upgrades required for the NZFOR deployment to Bosnia, was the application of appliqué armour to the M113 APC. The armour package consisted of an Enhanced Appliqué Armour Kit (EAAK) of side armour, frontal armour, leased Australian Army anti-mine belly armour, internal spall

liners and Kevlar crew helmets. This armour package gave the crew and embarked troops greater protection from mines, sniper fire, high calibre machine-guns and smaller High Explosive Anti-Tank (HEAT(ie. Rocket Propelled Grenades)) rounds.

The EAAK armour was an effective, battle proven kit. However the EAAK manufacturer, Rafael Industries, was approached because the United States Government's Foreign Military Sales organisation could not approve military support for New Zealand in such a short timeframe. This situation raises two questions: (1) why was the NZDF not eligible for immediate military assistance, and (2) does this situation indicate a flawed rationale behind the DLOC/OLOC policy. Furthermore, the upgrades could not be undertaken in New Zealand, which could have caused additional risk.

Prior to the East Timor deployment, the NZDF identified the upgrading and refurbishing of 25 APCs as being critical to providing an adequate level of protection for deployed infantry. The APCs were upgraded to a level, and with equipment, previously acquired for the Bosnia deployment. The APC were refitted with EAAK appliqué armour, anti-mine belly armour and Kevlar spall liners. Hence, possessing the armour kits ensured deploying forces would be adequately protected. However, deployments that require critical equipment acquisitions put equipment, personnel and mission objectives at risk.

Manoeuvrability

In addition to the APC upgrade required for the Bosnia deployment, 21 Army Land Rovers needed significant upgrading and servicing before they became operationally capable. The engine and brakes constituted the major upgrade for the Land Rovers. The petrol engines of the Land Rovers were replaced with diesel engines. The diesel engines improved reliability, simplified supply requirements (the British Battalion that the New Zealand Company was attached to did not operate petrol powered vehicles), and improved the safety and cost effectiveness of the Land Rover fleet. The Land Rover brakes were upgraded from drum to disc types, so as to manage the altered vehicle characteristics. These upgrades were successful. However, the time-frame was very tight, which reduced the possibility for testing the upgraded equipment.⁸⁸

As indicated in Bougainville operations, ground manoeuvre can be severely constrained by underdeveloped roads, difficult terrain and adverse weather conditions. However, aging equipment can exacerbate the operational difficulties created by unfavourable environmental and infrastructural factors.

In the case of the East Timor deployment, the refurbishment and replacement of aging and unreliable Army vehicles presented the most significant possible constraint to the NZDF being able to deploy on-time. In addition to an APC armour upgrade, it was necessary for: (1) the track and suspension of the deploying APCs to be replaced; (2) the engine, gearbox and steering systems on the APCs to be rebuilt; (3) the APCs weapon systems to be refurbished; and (4) the mechanical, electrical and structural components of the APCs to be meticulously inspected. This replacement, refurbishment and inspection insured the APC fleet could operate effectively in East Timor's difficult terrain. This effectiveness was mainly due to the APC being a light, tracked vehicle. There were significant issues, such as age related problems and poor logistics, which reduced the APC's operational capability. These issues are examined below.

In addition to the APC fleet, there was a requirement for 35 Light Operational Vehicles (LOVs) to accompany the deployment to East Timor. At the time, the LOVs in service were Land Rovers. Due to the unreliability of the Land Rovers deployed to Bougainville, it was decided that these vehicles would no-longer be deployed operationally. Hence, 35 civilian utility vehicles were purchased.⁸⁹

These deficiencies indicate the propensity of previous New Zealand governments, to allow the degradation of military equipment to a point of complete obsolescence. This obsolescence: (1) risks a fissure between NZDF capability and the Government's Purchase Agreement requirements; and (2) puts NZDF personnel and mission objectives at undue risk. An Army General Staff report prepared in May 2000 further illustrates the danger obsolete and inadequate equipment can pose to personnel and mission objectives.⁹⁰ These problems were further exacerbated by the Cabinet taking from March 1999 until July 1999 to authorise the upgrading and refurbishment of the deploying APC fleet and other critical equipment purchases.

Firepower and Visibility

A lack of firepower has been a consistent cause of risk for the Army. Except for the most rudimentarily armed foe, the New Zealand Army has been out-gunned and out-ranged.

In addition to appliqué armour, the NZDF M113 support vehicles (Ambulance, Fitters Vehicles, Mortar Carriers and Recovery Vehicle) were also fitted with 0.50 calibre machine-guns and armoured cupola shield. This firepower upgrade was a response to the risk level expected in Bosnia. In addition, the visibility and fire systems of the remaining NZFOR M113 APCs were also enhanced. This enhancement included search lights and Sabre II Image Intensifying night sights. Analogous with the EAAK armour, the Sabre night sight could not be fitted in New Zealand. In turn, “[t]he Sabre II sight was not linked to the machine guns due in part to the limited time to develop and prove the design”.⁹¹ This is an extremely serious deficiency; and a deficiency that the DLOC/OLOC system will maintain. Furthermore, the Sabre II sights were second generation systems, which were less capable than the American made third generation systems that the NZDF wanted.⁹² Longer lead-times may have enabled the third generation equipment to have been acquired. In addition, there was no training on, or testing of, the new weapons before deployment. On the last rotation of troops through Bosnia (K Company 3), the shortcomings of the rushed procurement were fully realised. Staff Sergeant Dalton explained, “[a]fter the shoot began we encountered many problems with the guns and the T50 turret [main M113 firing position]. The first of these was that the 50 cal [machine gun; M113 main armament] kept getting the belt trapped on the newly installed night sight. The rounds would catch the switch on the bottom of the sight and stop the gun feeding correctly. This would happen at certain degrees of elevation and the end result in all of the vehicles was that the feed pawls on the guns became weak and would not hold the rounds up or they broke off completely. The second problem was that the turret traverse handle had been changed from the top of the traverse box to the bottom and traversed the opposite way to what we were used to. This was not discovered by myself [Dalton] until now [sic] because my own vehicle, which was still back at Kiseljak, was different. The outcome of this was that the crews had to re-teach themselves to shoot as everything was different

from what we had in [New Zealand] NZ. The third problem was that the M113s that were not from [Headquarters] HQ and were constantly used on the checkpoints had weak return springs, from leaving the weapons locked in the fully elevated position, as was the standard operational practise when on checkpoint duty. This caused the guns not to recoil fully, again causing stoppages. All this aside [sic] there was some woeful shooting which tended to drop our morale even lower. Many of the older hands were getting some good strikes on target however, once a stoppage occurred and the necessary drills had been carried out. Engagement times were slow and ranging tended to be done by “walking” the rounds in, rather than by standard gunnery practise. The Canadians on the other hand were shooting well... This was out to ranges of 1600 metres and beyond. The [Canadian] 50 calibres were used with pinpoint accuracy... We [NZFOR] left the range in an uncertain frame of mind, knowing our guns were not as good as we were used to them being... [W]e [NZFOR] continued on our way home [base] vowing to rip the night sights out and turn the traverse boxes up the right way”.⁹³ Fortunately, this episode was a Canadian inspired exercise, towards the end of the UNPROFOR deployment. Had the New Zealand M113s been engaging an armed threat, the outcome may have been dead New Zealand soldiers or dead ostensibly protected civilians. For a professional army to be effective, soldiers must be highly trained on, and proficient with, equipment that they will be likely to use in conflict. Hence, that equipment must be available in peacetime for: (1) training, and (2) be held in sufficient quantities to equip any possible force deployment. Dalton also indicated that the Canadian gunners were more proficient than some of their New Zealand counterparts; this deficiency could be overcome by more gunnery practise.

In addition to the poor handling of the M113s 0.50 calibre machine-gun, the gun had a shorter effective range than most sniper rifles and anti-tank weapons in theatre. This was compounded by the fact NZFOR had no other long-range direct-fire weapons in Bosnia. This lack of long-range firepower would have placed the NZFOR soldiers at a distinct disadvantage if they had been engaged by enemy forces.

Strong explains “[t]he experience in Bosnia showed the New Zealand Defence Force that it could not rely on the short time between being advised to deploy overseas, and the deployment date, to equip its forces to an acceptable

level. If in the future the New Zealand Government requires the Defence Force to contribute to multinational peacekeeping efforts, the Defence Force need to be maintained at a high state of equipment readiness. Bosnia also shows that decreased Government funding caused the Defence Force to lag behind specific military technological developments. This is to a point where they are unable to compete in a modern war, or even some peacekeeping environments, without significant capital expenditure prior to deployment".⁹⁴ The same statement could also describe the readiness state of the NZDF, on deployment to East Timor. Simply, the NZDF must be more ready.

Transforming the Army – Light Infantry to Motorised Light Infantry

The introduction into service of the generation three Light Armoured Vehicle (LAV) and the Light Operational Vehicle (LOV) have significantly improved the capabilities of the NZDF. The LAV and LOV have ameliorated many of the problems examined above. However, the underlying causes of equipment failure and under-performance indicated above will not be solved by the LAV and LOV.

The LAV is a highly mobile armoured weapon system, designed to improve the performance integration of armour and infantry. Like the up-armoured M113, the intrinsic LAV armour will provide protection from: 7.62mm ammunition, 155mm High Explosive (HE) artillery rounds beyond 15 metres, and mines containing up to 7.5 kilograms of trinitrotoluene (TNT). Appliqué armour available to the NZDF should also offer protection from 14.5mm ammunition. The LAV also incorporates a warning system, to alert the crew to incoming laser range finders and target designators. Hence, the LAV should provide adequate protection in most LIC environments, as the primary weapons of insurgents are 5.45mm, 5.56mm and 7.62mm assault rifles, sniper rifles, conventional or improvised mines, with the addition of some 0.50 calibre vehicle-mounted machine guns. On operations in Iraq, the LAV provided adequate protection, but was enhanced with appliqué armour by the U.S. Marines. The LAV has also protected Australian users from suicide car-bombs in Iraq and Canadian users from anti-armour mines in Ethiopia/Eritrea.⁹⁵

A growing threat to counterinsurgent forces in LIC is the Rocket Propelled Grenade (RPG). The New Zealand Army is correct in articulating that the best

form of defence for armour from man-portable, short-range, High Explosive Anti-tank (HEAT) weapons “is to have dismounted infantry clear potential areas of risk, especially in defiles and urban terrain”.⁹⁶ However, such infantry tactics will not always be appropriate or conducive to mission objectives. For example, high speed manoeuvre may be required to reinforce or escort friendly forces, or intercept or rout enemy forces. These activities negate slow infantry clearing operations, and increase the importance of armour protection. In addition to conventional Appliqué armour, the NZDF should investigate the effectiveness of steel mesh armour. Steel mesh armour is attached to, but stands 10-15 centimetres proud of, the armoured vehicle’s intrinsic armour. The steel mesh detonates HEAT rounds before main-armour-impact. This effect dissipates the force of the round, leaving insufficient explosive power to penetrate the main armour of the vehicle. Steel mesh armour is a cheap and simple, but less effective, alternative to Explosive Reactive Armour (ERA). However, steel mesh armour has been effectively utilised by the British Army in Iraq and the Russian Armed Forces in Chechnya.

With respect to manoeuvre, the LAV provides a high degree of on-road and a reasonable degree of off-road capability. The LAV will provide good strategic mobility, but may suffer from insufficient armour in complex terrain at the tactical level. The technical systems incorporated into the LAV will assist with navigation, and enable night and all weather situational awareness. This latter ability will better enable night operations, when a technologically inferior foe is functionally dislocated.⁹⁷

As an aside, it is important that motorised infantry units maintain a high level of personnel fitness. The British found that personnel operating as infantry in the Falklands conflict, but who trained in and were from motorised units, did not have the fitness to keep pace with infantry from non-mechanised units. Hence, the NZDF must provision adequate training for dismounted light infantry. For example, this training will facilitate infantry operations in complex non-urban terrain, and low sustainability paratrooper and heliborne missions.

In the realm of Firepower and Target Acquisition, the LAV provides a significant capability improvement for the NZDF. The LAV is armed with two 7.62mm machine guns and one 25mm stabilised automatic cannon. The 25mm cannon fires either Armour Piercing Fin Stabilised Discarding Sabot – Traced

(APFSDS-T) or High Explosive Incendiary – Traced (HEI-T) ammunition. Electronic target acquisition and designation equipment of the LAV includes a day, image intensification and thermal image sight,⁹⁸ global positioning system and laser range finder. This equipment communicates with a tactical navigation system that provides navigation, target re-acquisition and battlefield awareness information. As illustrated by the Canadian Army, the aforementioned main weapon system and targeting technologies enable a “LAV company to engage and destroy targets at well over two kilometres, and along a frontage of up to four kilometres or more”.⁹⁹ The Canadian Army also states that “[t]he coordinated fire from the LAVs can kill a large portion of the tanks in existence today, excluding newer generation tanks”.¹⁰⁰ In fact, Bradley Infantry Fighting Vehicles (IFVs) firing the same 25mm automatic cannon, destroyed T-72 Main Battle Tanks (MBTs) in Iraq. However of greater significance, in terms of counterinsurgency operations, is the ability of the LAV to engage point targets at extended distances. In Somalia for example, the warring factions utilised ‘technical’s; civilian utility vehicles fitted with 0.50 calibre machine guns. A typical tactic employing the technicals ‘was to emerge from behind a dune in the desert, fire a few bursts at the UN peacekeepers, then withdraw’.¹⁰¹ “The range of the [Somali] 50cal [machine guns] was much greater than the ... C9 [machine gun], Styer rifle, or anything else available [within]... the New Zealand Infantry Battalion”.¹⁰² Hence, the “technicals could fire at us [New Zealand peacekeepers] with impunity”.¹⁰³ The LAV offers the ability to acquire and engage such targets, with pin-point accuracy from a position of relative safety.

The 2nd Battalion of the Royal Canadian Regiment (2RCR) characterise the LAV capabilities and requirements are follows: “Today’s [motorised] infantry section is a two part fighting system comprised of the vehicle [LAV] and the dismounted section. When the two parts work together, they are most effective... The training required to achieve proficiency in these tasks will likely prove to be the greatest challenge for commanders within today’s environment of heavy tasking”.¹⁰⁴

Tactics; Command, Control and Communications (C3)

The Canadian Army has indicated that as a consequence of the introduction of the LAV, Tactics and Command, Control and Communications have become considerably more complex. Therefore, the training of motorised light infantry units has become more complex, comprehensive, technologically focused and demanding.

The LAV provides significant situational awareness for dismountable troops (dismounts). Hence, all dismounts should receive basic training on the LAV's observation technology, so as to fully exploit this equipment. Crew members also require "[c]ontinual and comprehensive training [to ensure the effective operation of] weapon systems, sights, navigation aids and other LAV components".¹⁰⁵ The technological systems of the LAV cause crew "skill fade if they don't [sic] use the LAV constantly".¹⁰⁶ Hence, LAV crews and dismounts require extensive and continual training, especially for night operations. Night operations can functionally dislocate unsophisticated enemy forces, but are demanding on LAV crews. Hence, night training must be encouraged to build confidence in abilities and equipment. "LAV units require well-trained, cohesive crews, in order to achieve high levels of proficiency".¹⁰⁷ The LAV also requires high proficiency and leadership from crew Captains and Sergeants,¹⁰⁸ as LAV operations can be highly independent and cover an extended area of operations.

The synergy created between infantry and armour by the LAV, also creates a dilemma. There is greater situational awareness available to the infantry commander from within the LAV turret, due to the technological systems. In addition, coordination with the LAV Captains is more effective from within the LAV. Hence, upon disembarkation the infantry commander loses a degree of situational awareness and synergy but enhances his ability to command and lead the infantry. This issue can only be overcome with joint experience and training.

Target acquisition is critical in all conflict scenarios, for both defensive and offensive operations. In counterinsurgency operations target acquisition can be complicated, as enemy activity is purposely non-linear and covert. As indicated by the case studies of this thesis, armoured units are hindered in detecting and monitoring all-spectrum enemy activity. This is because the sighting envelopes of armoured units are restricted. The outcome of non-linear

covert enemy activity and constrained detection envelopes, can be, unanticipated and accurate incoming enemy fire. Furthermore, the potential for unobserved enemy action is amplified at night. To diminish the potential for effective enemy activity, an unobstructed field of vision is necessary. Specifically in reference to the LAV, the Canadian Army indicates a requirement for night vision goggles to be provided for the LAV crew commander.¹⁰⁹ Hence, open-hatched all-spectrum observation by day and night will be possible, and will ensure unit security. In addition, the dismountable infantry will also have to be trained for night observation tasks. This is because the extended use of “thermal optics lead to crew fatigue”.¹¹⁰

The tactics for insuring unit security will be divergent, depending on the adversary. When opposing an advanced enemy, the utilisation of deception and concealed action may be paramount. For example, the mechanised and armoured units of the Serbian Army effectively hid in Kosovo’s complex terrain. This Serbian deception plan and the lack of NATO ground forces, prevented NATO airpower from detecting and destroying the fielded Serbian units. When opposing a lightly armed unsophisticated opponent, concealment may be counterproductive. Positioning the LAV in open terrain will enable the exploitation of the onboard observation, target acquisition and weapon systems. Hence, enemy units can be observed, targeted and eliminated, while remaining outside the effective range of the enemy’s weapons.

The LAV will extend areas of operation and enable increased mobility. Hence, augmented combat support and combat service support operations will be required. These support operations are partly the task of the Light Operational Vehicle (LOV). In the function of combat support, the LOV will be required to: “carry mortars and short range weapons that are too heavy to be man-packed; tow artillery”;¹¹¹ and provide a platform for communications and C2. As for combat service support, the LOV will need to transfer “spare parts, specialised ammunition, fuel, food,”¹¹² sundry items and casualties between bases or general logistics vehicles and forward positions on or near the battlefield. In East Timor, the Australian Army established that LAV elements could move across terrain faster than combat service support elements, especially over difficult terrain. It was suggested that the Australian Army may be forced to convert more LAVs into combat service support vehicles. This is an expensive and inefficient option. The

LOV should, however, effectively provide both combat service and combat service support. The New Zealand Army states “[t]he Pinzgauer [LOV] is, arguably, the finest extreme mobility vehicle in the world today”.¹¹³ Importantly, New Zealand soldiers support this fact.¹¹⁴

The LOV is also on operation in Afghanistan with the New Zealand Special Air Service. “These vehicles will be [sic] heavily armed and able to operate independently far from their bases”.¹¹⁵ It is also likely that these vehicles will carry advanced communications, observation, acquisition, and targeting equipment. This technical kit carried will be in addition to direct and indirect fire equipment. In addition to Special Force operations, the LOV can “operate down in peacekeeping, [and assume] patrol, personnel movement and reconnaissance”¹¹⁶ tasks.

With the future in mind, a leading tenet in the NZDF must be to maintain the LOV and LAV elements at (1) a high state of readiness and (2) abreast of technological advancement. Unfortunately, this chapter has clearly illustrated that readiness and technology have been lacking in the NZDF. Furthermore, these problems have been exacerbated by the DLOC/OLOC process. Hence, the NZDF will have to be active in maintaining readiness and the technological edge. The NZDF must also be vigilant in preventing the DLOC/OLOC process from constraining technological advancement. The NZDF is more effectively equipped, with the aforementioned armour upgrades, to undertake combined arms operations in LIC.

Artillery

New Zealand artillery has not been used in combat since the Vietnam War. This in no way undermines the fact that artillery is an indispensable part of counterinsurgency operations in LIC. Artillery is the soldier’s all weather, day and night instrument of fire support. However, the use of artillery by counterinsurgency forces in LIC must conform to three principles: combined arms, precision and the use of firebases. These issues are analysed in this thesis’ chapter ‘Military Force in Low Intensity Conflict’. Critically for New Zealand, “the 105mm gun, as a howitzer, is probably reaching the end of its life”.¹¹⁷

Internationally, the minimum calibre of artillery for main operations is at least 155mm. The larger calibre offers extended range from a relatively light gun, with the provision for innovation, such as “terminally [precision] guided munitions”.¹¹⁸ However, upgrading to a 155mm gun may require larger artillery units.¹¹⁹ This requirement may prove problematic, as the current artillery units are presently 30 percent under establishment strength.¹²⁰ Other solutions may include an alternative gun system, or more probably a vehicle mounted heavy mortar (LOV or LAV type vehicle). For example, the 120mm mortar ‘has greater firepower but shorter range than the 105mm gun, and can deliver an enormous mix of ordnance’,¹²¹ including terminally guided munitions. The 120mm mortar may be effective at supporting manoeuvre forces, but may prove less effective in counterinsurgency operations.

The case studies of this thesis have illustrated the growing requirement for terminally guided munitions, due to the critical nature of precision and discrimination on the part of counterinsurgents in LIC. It has also been demonstrated that, high trajectories are critical for mountain and urban operations. A 120mm mortar should effectively provide for the two requirements above. However, counterinsurgency operations in LIC also require long-range indirect fire, ease of deployment and the protection of firebases. 155mm artillery could provide long-range precision fire, thus enabling the consolidation of units in firebases. Internationally there is a move towards lightweight 155mm artillery, such as the LW155 howitzer that can be transported by a CH-47 Chinook. Most vehicle mounted 120mm mortars are not transportable by helicopter. However, a towed 120mm mortar could be deployed by helicopter, but may not have the range to support manoeuvre elements from static firebases. These issues are analysed further in the artillery subsection of the next chapter.

Aviation

Fixed and rotary wing aviation assets are an indispensable element in counterinsurgency operations. The following subsection analyses the capabilities of the Royal New Zealand Air Force (RNZAF) and NZDF in the application of airpower in counterinsurgency operations.

Helicopters - Essential Nature and Use

The RNZAF's UH-1H Iroquois helicopter detachment provided an effective and essential troop-lift, reconnaissance, medical-evacuation and support capability to the NZDF deployment to East Timor. Force multiplication was a valuable outcome, enabled by the ability of the Iroquois detachment to move troops and supplies across mountainous clear/jungle/wooded terrain. The helicopter detachment's effectiveness is indicative of the good level of competency among RNZAF personnel. However, only three out of four Iroquois initially requested by the Government to serve in East Timor, achieved OLOC in the prescribed period of time.

No. 3 Squadron (operate the UH-1H Iroquois) and the RNZAF demonstrated competency in planning for the East Timor operation. No. 3 Squadron made an effective contribution to NZDF and coalition joint planning groups. Despite significant time constraints, the RNZAF and No. 3 Squadron were able to identify and overcome most personnel and equipment deficiencies prior to deployment. However, additional risk was created by the terminal preparation for operations in East Timor. In addition, the last-minute readiness of No. 3 Squadron prevented a period of acclimatisation being undertaken. Experience gained through active deployments and a rigorous domestic and international training schedule, enabled No. 3 Squadron to effectively plan for self-sufficient support on deployment to East Timor. However, No. 3 Squadron planning was undermined by a lack of, and poor quality of, intelligence on their destination Area of Operations (AO). This lack of information was partially due to the Australian-led INTERFET Headquarters not designating a national AO, prior to deployment. The Australian Defence Force may have been assessing the capability of the NZDF operationally, prior to assigning an AO.

However, there were a number of pre-deployment and in-theatre issues that indicate limited No. 3 Squadron (helicopters) and joint force preparedness. These issues range from critical equipment upgrades to hurried pre-deployment training of aircrew. No. 3 Squadron made an effective contribution to the East Timor deployment. However, the level of threat, East Timor's natural environment and the Iroquois' lift capability, limited Air Force and Army operations. These issues are analysed in the applicable subsections below.¹²²

Protection

Given the level of risk (low-medium) associated with the East Timor operation, the deployed Iroquois required protection against small-arms fire. This protection package included (1) an armoured floor, and (2) integrated body armour / life preservers (integrated vests). The Operational Preparedness Reporting System (OPRES) had reported for some years, that the protection package was critical for No. 3 Squadron to meet the requirements of the Government's Purchase Agreement. However critical, these items were not selected as a high priority by either the RNZAF or NZDF. The Iroquois' armoured floor was not prioritised, as it was to be addressed by a planned upgrade or replacement of the utility helicopter in 2003-05. The integrated vests had been a RNZAF project throughout the 1990s. Had the RNZAF been able to adequately resource these projects, both could have been in-service well before the East Timor deployment.¹²³

Moreover, this protection package should have been available for the Bougainville deployment. As it was, the aircrew were forced to wear ballistic vests borrowed from the New Zealand Police, underneath flotation vests. This improvised design was functional, but constrained the aircrew's actions unduly. In Bougainville, the Iroquois only had onboard armour protection for the pilots. Given the unarmed nature of the Bougainville operation, the importance of armour was elevated as the only form of personnel protection. Fortunately, the only time a TMG Iroquois was fired upon, the round missed and no further rounds were fired.¹²⁴

As part of the NZDF contingency planning undertaken in early 1999, it was found that both the Iroquois armour and integrated vests were critical to the East Timor deployment. The RNZAF began to identify suppliers of Iroquois armour in July 1999, and had finalised a purchase agreement for four sets of armour by August 1999. These first sets were installed, enabling four Iroquois to deploy to East Timor on 24 September 1999. However on 18 September 1999, the RNZAF was instructed to ready an additional two Iroquois to be deployed to East Timor. Given the need to requisition, manufacture and fit armour to these additional Iroquois prior to deployment, the final two Iroquois were not deployed until 14 October 1999. As noted earlier, the acquisition of the integrated vests had

been active through the 1990s. By August 1998, the ML Lifeguard Equipment Ltd integrated vests had been selected as the preferred choice. However, a purchase order was not placed with ML Lifeguard Equipment Ltd until 27 July 1999. By which time, ML Lifeguard Equipment Ltd could not meet the allotted deadline of 1 September 1999. The British Ministry of Defence kindly lent the RNZAF 24 integrated vests for the East Timor deployment. These unmodified British vests were effective, but did not fully meet the operational requirements of No. 3 Squadron.¹²⁵

There are a number of issues that arise from last-minute preparation. First, the terminal acquisition of helicopter armour and integrated vests made product testing and pre-deployment training of and with this equipment impossible. Second, had the British loan of integrated vests not been available, Iroquois aircrews would have deployed without personal protection, or at best with improvised protection. Third, the Iroquois are integral to New Zealand's Counter-Terrorist capability, a standing requirement set out in the Government's Purchase Agreement. However, without the integrated vest and helicopter armour, the RNZAF could not fulfil the Counter-Terrorist component of the Purchase Agreement. In short, a critical enabler (helicopters) in joint force operations was insufficiently supported. Utility helicopters supporting joint force operations are essential to counterinsurgency and therefore the NZDF must improve this capability.

Firepower and Target Acquisition and Designation Equipment

The RNZAF UH-1H Iroquois is a basic utility helicopter, hence the only form of firepower carried is a pintle-mounted M60 machine gun positioned at the rear of each cargo bay door. The M60 is carried to provide cover-fire for embarking and disembarking troops and general suppressing fire. The RNZAF UH-1H has no target acquisition or designation equipment. Under OLOC, when an Iroquois is deployed on operation, it must be provided with door gunners. However, the training of door gunners was not funded or maintained as a part of DLOC. Hence, personnel had to be recruited, albeit from within the RNZAF's Air Security Branch, screened and trained at airborne door gunnery.¹²⁶

The initial door gunner training was accomplished over a six week period, beginning August 1999. These door gunners completed their training by 17 September 1999 and deployed with the first four Iroquois on 24 September 1999. However, on 18 September the RNZAF was instructed to ready an extra two Iroquois, this required extra door gunners to be trained. The training of the second set of door gunners was further complicated by a lack of available Iroquois to train on. The second set of training could not be completed in time, and left No. 3 Squadron without the requisite number of door gunners. Although the door gunner training course was reduced to four weeks duration, the second set of door gunners did not arrive in East Timor until November 1999.¹²⁷

Door gunnery is a core skill, enabling the helicopter squadron to satisfy the Counter-Terrorist requirements of the Government's Purchase Agreement. However at the time of East Timor, door gunnery was not a requirement under DLOC. Door gunnery is a requirement under OLOC. The Auditor-General argues "[b]uilding up a capacity, such as door gunners, takes a considerable amount of time. If deployment requirements change, the ability to conduct the training can be put under pressure, reducing the amount of training provided".¹²⁸ In the author's view, door gunnery must be a part of DLOC and be trained for regularly. Door gunnery is integral to No. 3 Squadron's mission brief (this brief includes support for the SAS in conducting counter-terrorist operations and support for regular combat operations (under standard operating procedures)); hence door gunners must maintain excellence in their gunnery skill at all times. Furthermore, door gunnery must be a part of DLOC so that the Government compensates the RNZAF for maintaining the skill set. After the East Timor operation, No. 3 Squadron has developed a reserve of door gunners. However, if this ability is not recognised and formalised by the Government as a part of DLOC, the capability may be lost if funding is tight or the attention of personnel is diverted.

Communications

Prior to the East Timor deployment, the communications equipment of the deploying Iroquois were upgraded. The KY-58 communications terminal was replaced by the KY-100 terminal. The KY-100 terminal enabled greater

interoperability with coalition partners, in addition to enhanced bandwidth and broader frequency capabilities.¹²⁹ The communications upgrade had been initiated prior to the notification of deployment to East Timor, but had to be rushed to completion. The communications installation “posed real difficulties that were overcome thanks to the outstanding work”¹³⁰ of RNZAF staff. The KY-100 communications equipment was installed in the first three Iroquois by 17 September 1999, three days before the deployment deadline. Installing the secure communications gear so close to an active deployment, constrained the testing of this equipment and severely limited pre-deployment training with the equipment. The compression of installation time increased (1) the risk that the equipment would not be available and (2) the chance of equipment failure in theatre. The deployment also illustrated inadequacies in the current No. 3 Squadron communications equipment.¹³¹ Effective communication is a fundamental military principle and must always be maintained at a high state of readiness and capability.

Trained Personnel

The following section illustrates and analyses the areas in which further helicopter training is required, and the rationale for that training. As is examined below, the interaction of air and ground elements has been a leading deficiency in NZDF capability. The following examples illustrate the necessity for intensified joint training, which must be frequent and encompass substantial force elements. However, featured below are a number of specific force elements that have required further training, or operated below expectations.

Prior to Operation Golden Fleece 1989 (OGF), the NZDF had no joint force procedures for airborne medical evacuations. The simulated medical emergencies in OGF, were described as “ad hoc”.¹³² As indicated in the NZDF 2005 Annual Report, No. 3 and No. 40 Squadrons meet the requirements for airborne medical evacuation detailed in the Government’s Purchase Agreement. However, night and all weather airborne medical evacuation will not be realised by No. 3 and No. 40 Squadrons until the introduction of the NH90 and the upgrade of the C-130 is complete.

The RNZAF met with difficulty deploying Air (base) Security personnel to East Timor. Air Security Branch was a new unit (combining General Service Instructors and Air Force Police) that was not fully operational. Moreover, the door gunners trained for East Timor were drawn from the Air Security Branch, further degrading personnel available for securing the RNZAF camp at Suai. The pre-deployment training of the Air Security Branch was further degraded by a lack of: '(1) air (base) security doctrine; (2) standard operating procedures; (3) fully trained instructors; (4) time; and (5) suitable security equipment (night vision equipment, flood lighting and body armour)'.¹³³ In theatre, the above problems caused the Air Security Branch to perform below expectation.

Joint training between the RNZAF's No. 3 Squadron and the Army appeared to be an area of deficiency, prior to the East Timor deployment. Moreover, this joint training deficiency remains an unresolved issue. Currently, No. 3 Squadron undertakes joint training with the Army to: (1) advance single service Standard Operating Procedures for joint operations, (2) train personnel who specialise in operating with the other service (eg. Air Liaison Officers), (3) train Platoons and Company groups in utilising helicopters for the provision of supply and troop lift requirements. The Army and No. 3 Squadron have an agreement for the provision of a minimum number of joint training hours or tasks.¹³⁴ However, the agreement is seldom met, due to operational deployments and other task requirements.¹³⁵ As an example, the major NZDF triennial joint and combined exercise, Joint Kiwi O5, was postponed until 2008 because of operational requirements. Moreover, the level (number of Iroquois deployed) of No. 3 Squadron support for joint training does not effectively represent the jointness, fluidity or complexity of the modern battlefield.

As a part of a joint exercise held in 1996, three Iroquois moved a Company of 100 soldiers over a distance of 10 kilometres. This operation took 1 hour and 40 minutes to complete. Following the exercise an after action report stated that this joint operation was "laughable at best".¹³⁶ The author would argue that (depending on terrain) most dismounted infantrymen could march 10 kilometres in 1 hour and 40 minutes. Marching the Company over the distance described above, would also maintain the mass of the unit. The three Iroquois described above could only carry a total of twelve troops per sortie. This meant the first twelve person unit had to maintain the security of the landing zone (LZ),

for between 15 and 20 minutes before the next twelve person unit arrived. If the LZ is initially under enemy fire, or arouses the interest of enemy combatants, the earlier troops deployed may find attrition quickly eroding their mass. A dismounted enemy unit cannot be allowed to tactically manoeuvre faster than a New Zealand unit deployed by helicopter.

The first Company-sized heliborne insertion of New Zealand Army personnel since the Vietnam War occurred when Victor Company was deployed to Suai, East Timor. At the time, Suai was the site of significant Militia violence, and Militia members were engaging INTERFET Special Forces in the region. It was decided, despite the high risk situation, Victor Company would be deployed prior to the New Zealand Battalion's arrival. Given the risk, Victor Company's commanding officer, Major Howard, insisted: (1) the deployment be the Brigade's main task, (2) that Australian Blackhawk helicopters would transport the Company quickly and en masse, and (3) sufficient logistics support be provided to support the Company when deployed in Suai. All of these conditions were agreed to.

Over 100 of Victor Company's personnel, plus three day's supplies and support weapons, were deployed via nine Australian Blackhawk helicopters to Suai, on 10 September 1999. The air-insertion went smoothly. Victor Company took control of Suai airfield from SAS personnel, dug defensive positions and secured the Suai beachhead. Once the beachhead was secure, four New Zealand APCs, a number of trucks and three weeks of supplies were landed by Australian landing craft.¹³⁷

As was stated earlier, the jointness, fluidity and complexity of the modern battlefield are not adequately trained for by joint Army-No. 3 Squadron exercises. The air mobility operations of the Iroquois do not represent contemporary troop lift capabilities and realities. If Platoon and Company commanders cannot experience the potential capability of moving entire units in training, they may not fully comprehend what such capabilities mean for active operations. In East Timor, it was found "[n]ot all Platoon and Company Commanders were familiar with the use of helicopters in Army operations".¹³⁸ This was because "joint training opportunities at the collective level are [sic] limited, [and] not all Commanders get to put theory into practice".¹³⁹ This criticism is not directly focused at the Air Force or Army, as No. 3 Squadron would require more than 25

Iroquois to effectively deploy a Company-sized unit in one sortie. The limiting factor is helicopters, No. 3 Squadron only has 14 Iroquois. This small number of helicopters cannot adequately produce joint force effects.

Tactics

A further requirement illustrated by OGF, was the need for a reconnaissance and surveillance capable helicopter. In the exercise, the role was undertaken by the Australian Army's Bell 206B-1 Kiowa light observation helicopter. This type of helicopter would also be useful in airborne command and control, and liaison operations, as shown in Somalia. This deficiency could be rectified with the current training/light utility helicopter purchase project. The synergies created by observation helicopters is analysed in the subsection, The Future – NH90, below.

Flying and Base Conditions

NZDF operations in East Timor became relatively independent when New Zealand forces took control of a large East Timorese region bordering Indonesia. The majority of the New Zealand Battalion and No. 3 Squadron were stationed at Suai. The construction of the Iroquois base at Suai was assisted by Australian Military Engineers, and incorporated the newly acquired Deployable Bulk Fuel Installation (DBFI).¹⁴⁰

Initially, an Australian Blackhawk detachment was responsible for the troop lift provided to the New Zealand Battalion. After the Australian Blackhawks departed at the end of 2000, the Iroquois detachment became responsible for the troop transport requirements of the Australian and New Zealand Battalions deployed along the Indonesian border. This troop transport task was in addition to reconnaissance flights, supply operations and airborne medical evacuations.

The Iroquois were critical to troop movement and supply operations, as East Timor's terrain and weather made land movement and transport slow and difficult. No 3 Squadron was also credited with being more responsive towards the New Zealand Battalion, in comparison to helicopter units under foreign command. However, an agreement between the New Zealand Government and

the United Nations, in relation to the number of flying hours undertaken by No. 3 Squadron, inhibited some tasks being completed.¹⁴¹

As stated earlier, the threat level and environmental conditions in East Timor degraded the performance of the Iroquois. The level of threat required the installation of belly armour, an extra crewman (door gunner) and two M60 machine guns. In addition, the temperature, humidity and altitude of most missions were high, reducing the lift capability of the helicopter. In these conditions the Iroquois was limited to carrying between 1200 and 1800 pounds of load. “Such conditions meant that the Iroquois was often able to carry only four fully-equipped soldiers”.¹⁴²

In addition, the number of fully-equipped soldiers carried is limited to six by available cabin space. Cabin size and lift restrictions had the effect of limiting the scope and dimension of Army operations. The Auditor-General notes an example where a platoon responding to an ‘incident’, would require two sorties of a four ship (comprising all Iroquois in-theatre by February 2000) deployment; and if only two Iroquois were available, land transport would have been relied on.¹⁴³ Hence, even a relatively small platoon-sized response force could not be deployed in a prompt manner. A swift response by counterinsurgency forces is critical in LIC, as the enemy will generally strike and retreat. Therefore, heliborne response times must be improved.

No. 3 Squadron was also restricted to daylight flying. Once the Australian Blackhawks were extracted from East Timor, night heliborne troop movements were impossible. In addition, airborne medical evacuations would have been near-impossible for No. 3 Squadron. East Timor’s terrain and weather, combined with No. 3 Squadron’s lack of Night-Vision flight, markedly increased the probability for aircraft accidents. This is a significant issue as: (1) ground units generally require covert insertions, which can be effectively conducted at night; and (2) the heliborne evacuation of casualties is a day and night requirement.

The Future – NH90

On 31 March 2005 the NH90 was named as the preferred UH-1 replacement. The NH90 is built by NH Industries, a consortium of Eurocopter, Agusta and Fokker, and was specifically established to develop and manufacture the helicopter. New

Zealand is among thirteen countries to have selected the NH90, including ten European countries and Australia.

The number, date of delivery, cost and specification of the New Zealand NH90 has not as yet been finalised. However, the basic specification of the Tactical Transport Helicopter (TTH), the likely version of the NH90 chosen by the NZDF, could provide a significant improvement in NZDF capability.

The NH90 provides the following capability improvements. First, enhanced combat personnel lift; each NH90 can carry sixteen fully equipped troops, which equates to four times the lift capability of the UH-1. Second, the NH90 provides improved communications and data transfer interoperability. Third, the NH90 offers improved range and endurance. Fourth, the NH90 incorporates advanced computerised avionics, flight control and mission systems. These systems include night vision equipment, Forward Looking Infrared (FLIR), weather radar, digital map generation and helmet mounted sight and display. These systems will enable all weather, day and night, 'Nap of the Earth (NOE) flight beyond the Forward Edge of the Battle Area (FEBA)'.¹⁴⁴ Fifth, the NH90 is interoperable with the Multi-Role Vessel (MRV), enabling ship to shore operations. Sixth, the NH90 can be airlifted by C-130 and has a limited ability to self-deploy.¹⁴⁵

Hence, the NH90 is an enabler of joint and coalition interoperability to develop within the NZDF. What the NH90 also needs to do is "support a broad range of military activities, including Special Forces".¹⁴⁶ The NH90 will provide troop lift, basic visual and infrared reconnaissance data, aero-medical evacuation, logistical support and national anti-terrorism capabilities. The NH90 will require a protection suite, so as to operate safely in risk environments. Protection may include crew and cargo-bay armour and an electronic warfare suite to interdict radar and infrared missile locks. These protection systems should be factory installed, so as to avoid crash installation before deployment. Pre-deployment installation does not provide any bonuses; it merely generates risk of equipment failure and prevents training and familiarisation. There must also be joint appreciation of how the NH90 will operate in a joint environment and with Special Forces. To effectively provide the Special Air Service (SAS) with realistic training and operational helicopter support, the following two criteria must be fulfilled. First, New Zealand "must stop relying on [our] allied

[helicopter support for special operations]’.¹⁴⁷ Second, a number of the NH90s ‘must have night sensors, night flight capabilities and an ability to undertake covert infiltrations and extractions [, re-supply and search and rescue for the SAS]’.¹⁴⁸ The joint environment in which the NH90 will operate must also be appreciated. The NH90 will require Intelligence, Surveillance and Reconnaissance (ISR) support, the provision of command, control, data and voice communications and friendly unit protection, within a joint environment. All NZDF elements must be joint, “everything must interact”¹⁴⁹ cohesively.

The purchase of a new training helicopter for the RNZAF should also augment the operational capability of the NH90. For example, equipment rationalisation could mean a helicopter used for training, could also double as an observation or reconnaissance helicopter. This example is identical to the former dual function of the RNZAF Bell 47G Sioux, prior to accidents reducing squadron numbers, whereby only training could be supported. The observation helicopter may incorporate sensors, optics, communications and protection equipment. However, using the same basic airframe may mean 98 percent commonality and reduced maintenance cost. The observation helicopter will then act as a force multiplier to the NH90, which consequently force multiplies the infantry unit, the tempo of operations and the command cycle. These outcomes occurred in Sector West, East Timor, because the Australian Army deployed the Bell 206B-1 Kiowa light observation helicopter.

Similar light helicopters can also be armed with minor armament subsystems, to fulfil armed reconnaissance, air support, and escort protection. Light armed helicopters would also provide ground elements with CAS training. Helicopter provided CAS was available to New Zealand ground elements in Bosnia, and will be increasingly available in the future. Hence, ‘it would be appropriate to train with [armed helicopters]’.¹⁵⁰ This would further the joint capability of the NZDF.

Aircraft - Essential Nature and Use

All of the cases reviewed in this chapter reveal the essential nature of aviation assets to a successful counterinsurgency strategy. Aviation is multidimensional in purpose, ranging from facilitating logistical support, to commanding the

battlefield with Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance (C4ISTAR) capabilities, to applying precision strike. Hence the subsections below analyse airborne firepower, protection and logistics.

Firepower

You train as you fight and you fight as you train – this dictum exemplifies the basic rationale for training and the concomitant operational capability that is derived from training. With respect to this dualism, the following subsection will analyse the role of airborne firepower as a component of joint force. Firepower in counterinsurgency is primarily a combination of strike aircraft configured for Close Air Support (CAS) and ground elements trained as Tactical Air Controllers (TACs). This combination provides a timely and accurate source of firepower on the battlefield. CAS is a basic provision in almost all operations, and is either a national or coalition combat element. Consequently ground elements, operating as TACs, must be trained to operate in conjunction with CAS. In addition, current trends internationally indicate the dissemination of Tactical Air Control skills to all ground combat personnel.

Tactical Air Control has been an operationally required capability of the NZDF. A Tactical Air Control Party (TACP) was sent as a part of NZFOR to Bosnia. The responsibility of the New Zealand TACP was to protect Maglaj from enemy fire, by directing North Atlantic Treaty Organisation (NATO) provided Close Air Support. The facility in which the TACP was based suffered a number of hits from enemy shell-fire.¹⁵¹ This shell-fire indicates that the TACP and CAS had a significant functional dislocation effect on enemy artillery operations in the area. Tactical Air Control has also been a critical skill requirement for SAS personnel in Afghanistan.

As in Bosnia and Afghanistan, Tactical Air Control and Close Air Support (CAS) are fundamental requirements for ground forces conducting counterinsurgency operations. Historically, however, there has been limited (1) preparation of TACs, and (2) allocation of CAS assets and hours.¹⁵² Consequently, the NZDF ability to coordinate CAS was constrained. With the demobilisation of No. 2, No. 14 and No. 75 Squadrons, comprising Aermacchi

MB-339s and McDonnell Douglas A-4K Skyhawks, 'the Army's exposure and understanding of CAS ... diminished'.¹⁵³ To this point, a "recently retired head of the SAS Group said ..., an army without an air force strike capacity to train with[,] will have to up[-]skill before deployment to any combat environment or to most peacekeeping operations".¹⁵⁴ The only practical training the Army could receive with CAS would be achieved through foreign pre-deployment training. Consequently, the loss of ground element training with CAS has severely compromised Army capabilities, and caused ground element failure in achieving Directed Levels of Capability (DLOC) as prescribed by the Government's Purchase Agreement. The 2005 NZDF Annual Report states in relation to SAS coalition interoperability, "[t]here were significant problems experienced in the area of Close air Support[, and t]rained Forward [Tactical] Air Controllers are not available".¹⁵⁵ Furthermore the 2005 NZDF Annual Report, with respect to all Land Combat Forces, states that the "Army continues to experience difficulties when working with other coalition forces as a result of degradation in the trained state of Forward [Tactical] Air Controllers for the provision of Close Air Support".¹⁵⁶ Due to the degradation of Tactical Air Controller preparedness, the NZDF's capability to operate effectively in risk environments, including LIC, has been severely compromised.

In addition, the NZDF no longer has the ability to field CAS, or other forms of airborne firepower, including air interdiction and battlefield air interdiction. "New Zealand A-4K Skyhawks were placed on standby for a short period to backup ... [the] Australian air contribution. [The Australian air contingent included b]oth F 18 and F 111 aircraft...[, which were actively employed] on photoreconnaissance missions over East Timor",¹⁵⁷ in addition to surveillance, escort and protection duties. In response to the INTERFET operation, Indonesia deployed armed F-5 fighter aircraft, T-209 attack submarines and missile patrol boats to the East Timor area of operations. These Indonesian military elements shadowed and aggressively challenged the INTERFET airborne and maritime deployment.¹⁵⁸ These Indonesian actions warranted a significant INTERFET airborne and maritime combat presence. The capabilities of the New Zealand airborne contingent, placed on standby for the initial operations in East Timor, are no longer available to the NZDF. This has significantly reduced Army Tactical Air Control capabilities, and may cause policy failure in the event of

future conflict. In brief, the NZDF's joint force capability has been severely undermined.

Protection

The threat posed by surface-to-air missiles (SAMs) and small arms fire, to transport aircraft, became increasingly apparent to the RNZAF in the early 1990s. Specifically, in 1992 an Italian Air Force C-130 was shot down in Bosnia by a SAM, in Somalia a RNZAF Andover was fired upon,¹⁵⁹ and in 1994 an RNZAF C-130 had to be fitted with cockpit armour to conduct humanitarian operations in Rwanda. In the mid-1990s, the RNZAF was unable to support some UN operations because of the significant threat of ground fire. Hence in 1998, three No. 40 Squadron C-130 Hercules transport aircraft received a missile-countermeasure system and a cockpit-armour package. The countermeasure system included “the Missile Approach Warning System (MAWS), the Radar Warning Receiver (RWR) and Countermeasure Dispensing Systems (CMDS)”.¹⁶⁰ This countermeasure system gave the C-130 a capability to detect radar locks and missile launches, and dispense flares and chaff as decoys against heat and radar seeking missiles. In 2005, an upgrade for the self-protection systems of the C-130 commenced. The particulars of this contract are detailed in the following section. A further security upgrade was hastily undertaken prior to the deployment of the C-130 to East Timor. This security upgrade was to fit secure communications equipment.

Supply – No. 40 Squadron

In 1989, the RNZAF transport squadron comprised five C-130s, two Boeing 727s and ten Andovers (No. 42 Squadron). At the time, Peter Jennings questioned the capability of the RNZAF transport fleet to support exercises like Operation Golden Fleece (OGF). Subsequently, the Andovers were disposed of and the two Boeing 727s were replaced with two Boeing 757s. However, Jennings' greatest concerns were over the serviceability and age of the C-130s. Over the period of Jennings study (1983-1988), the serviceability of the C-130 ranged between 57 and 71.5 percent. In addition, three months after OGF finished, all five C-130s were grounded due to cracks around the wing-roots. The C-130 is very important

to the NZDF, as it is used as both a strategic (inter-theatre lift) and tactical (intra-theatre lift) transport aircraft. However, as Jennings stated in 1989, the C-130 “will be more prone to developing stress and fatigue problems ... the longer [it] remain[s] in service”.¹⁶¹

In 2005, the NZDF Annual Report stated that “the C-130 fleet continues [sic] to suffer poor reliability due largely to age related component failures”.¹⁶² The mentioned age related component failures reduced available flight hours, and caused unscheduled maintenance and an inability to complete planned tasks. “Many tasks faced lengthy delays and amendments, while others were cancelled altogether or transferred to the Boeing 757s”.¹⁶³ The following components of the C-130 are unreliable due to age, or are difficult to maintain due to limited availability of consumable spares: “radar, [...] self-protection system, hydraulics, powerplant [sic] and propeller, electrical subsystems, fuel systems, navigation systems, and fire/overheat warning systems”.¹⁶⁴ This is a completely unacceptable state of affairs. The C-130 is a critical enabler within the NZDF. Without the C-130, New Zealand cannot project force. Force projection is essential in all military operations including counterinsurgency.

The significance of No. 40 Squadron was illustrated in the deployment and supply of INTERFET forces in East Timor. At the time No. 40 Squadron, operated C-130 Hercules and Boeing 727 aircraft. No. 40 Squadron: (1) participated in the evacuation of UN personnel from East Timor in early September 1999; (2) contributed to the deployment of the INTERFET Response Force on 20 September 1999; (3) deployed the Company Group to Dili and transported most of the first Battalion Group to Darwin; and (4) maintained supply links to the New Zealand units in Dili and Suai. In addition, the superb efforts of the maintenance staff, air loading personnel and aircrew of No. 40 Squadron were instrumental in making New Zealand operations in East Timor possible. Similarly, the C-130 and Boeing 727/757 have been instrumental in providing strategic and tactical airlift for the NZDF operations in Bosnia, Bougainville and Afghanistan. In addition to providing tactical and strategic airlift to NZDF training and operations, the C-130 must: (1) maintain readiness for “tactical operations such as air-drop, air-land operations from partially prepared air strips and counter-terrorist operations”;¹⁶⁵ and (2) support paratrooper and Special Air Service training.

A problem faced by the NZDF is that the RNZAF possesses no strategic air-transporters capable of moving defence equipment. The Boeing 757 can move personnel and limited quantities of freight strategically (inter-theatre), but not tactically (intra-theatre). The C-130 is designed to transport personnel, freight and equipment tactically, a function shared with the former Andover fleet. Given the limited strategic airlift spectrum provided by the Boeing 757, the C-130 is utilised as an all spectrum tactical and strategic transport. This problem is exacerbated by: (1) New Zealand's geographical isolation, which makes all airlift strategic; (2) the significant increase in operations since 1998, which coincided with the loss of the Andover fleet; and (3) the increasing weight of NZDF equipment, like the LAV, LOV and NH90. With specific reference to Special Operations, the current C-130 fleet are unreliable and possess limited self protection, avionics and communications. As the only tactical transport available to the SAS, the C-130 fleet must possess advanced avionics and communications, including 'night sensors, night flight capabilities',¹⁶⁶ and effective self protection. These capabilities are required to provide "an ability to undertake covert infiltrations and extractions [, re-supply and search and rescue] for the SAS".¹⁶⁷

In summation, the C-130 is a critical enabler for the NZDF, and "the number of tasks [the C-130] must undertake is ever increasing".¹⁶⁸ In addition, the loss of other tactical transport aircraft in the RNZAF has also meant that tactical airlift is deemed below other service requirements by between one and three aircraft.¹⁶⁹ However, replacement "aircraft are very expensive and have not been made a priority".¹⁷⁰ Hence, the RNZAF is forced to struggle to maintain an aircraft, which no longer fulfils the requirements set out in the Government's Purchase Agreement.

A partial solution to the age derived reliability and sustainability issues of the forty year old C-130 fleet is a fifteen year life extension upgrade. The contract for this upgrade is worth NZ\$226 million and will significantly upgrade the flight deck, communication and navigation, fatigue monitoring, baseline electrical, fuel gauging, auxiliary power and air-conditioning systems of the C-130. The contract will also refurbish the C-130s centre wing section, while an additional NZ\$12 million will be spent on a new self protection system.¹⁷¹

As indicated, this upgrade should improve the reliability and sustainability of the C-130 fleet. The C-130 upgrade should also augment and diversify

capabilities available to the SAS. However, the upgrade does not address some of the fundamental issues outlined above. These include New Zealand's lack of strategic airlift, the increase in NZDF operating tempo since 1998, the loss of No. 42 squadron's tactical transport aircraft, or the growing weight of NZDF equipment. Some of these issues will be diminished by the introduction of the Multi-Role Vessel (MRV). The MRV is designed primarily for operations in Southeast Asia and the Pacific. Hence, the operating tempo of the MRV may not keep pace with distant NZDF deployments. Neither will the MRV provide support for non-littoral operations. There are no simple or inexpensive solutions to the airlift issues faced by the NZDF. International trends show however, (1) a move towards strategic transport aircraft similar to the C-17, or (2) an expansion of existing tactical transport aircraft fleets with additional C-130 or A400M. An improvised solution has been the use of contracted strategic air transport. As an example, two USAF C-17s were used to transport New Zealand SAS troops and equipment to Afghanistan in June 2005.¹⁷² It is clear from the aforementioned analysis that the military principle of joint force is a weakness within the NZDF.

Issues attributed to Logistic limitations

The following subsection analyses in-theatre issues caused by insufficient logistical support and the incorporation of force elements within larger coalition forces. The subsection also analyses the effect of the National Support Element (NSE) upon supply.

In East Timor, the maintenance of No. 3 Squadron Iroquois was complicated by inadequacies and the somewhat arbitrary supply of spare parts from New Zealand. These problems could have prevented No. 3 Squadron from having a sufficient number of serviced Iroquois on the flight line, or providing adequate Iroquois flying hours. These problems were exacerbated when increased flying hours were required. As an example, between July and September 2000 an increase in flying hours required an extra Iroquois to be deployed. The RNZAF reported "the lack of spares in theatre, excessive lead times for spares from New Zealand, and ... the inflexibility of the aircraft phase program" meant that four Iroquois could not perform all required tasks.

The lack of logistics support for No. 3 Squadron can be attributed to two problems. First, transport flights into Suai were limited. This meant critical supplies, such as food, water and medicine, were prioritised over helicopter spare parts. In addition, initially only New Zealand C-130 aircrew were willing to fly into Suai. This was because the Suai airstrip was short, and had mountains and trees across both approach vectors. Second, communications between the Iroquois supply base in Auckland, the National Support Element in Darwin – through which supplies passed – and the helicopter detachment in Suai were ineffectual. At times, this communications ineffectiveness caused the unavailability of parts in theatre, consequently precluding the maintenance of the Iroquois. By February 2001, this latter problem had been solved by the introduction of a computerised inventory system. This system improved the maintainability of the Iroquois in theatre.

A further compromise caused by duty requirements, and supply and maintenance issues is as follows. The interval between phase maintenance of the Iroquois deployed in East Timor was increased from 200 to 300 hours. This change was made to increase the length of time the Iroquois could be operated in theatre. RNZAF maintenance personnel state that this change did not unduly reduce the safety of the Iroquois, but recognised the lengthened tour reduced performance and caused the mechanical condition of the Iroquois to be downgraded.

The APC fleet deployed to East Timor also proved difficult to maintain. This maintenance problem was caused by logistics, as spare APC parts were also low priority items. Hence, Army mechanics were forced to cannibalise some APCs for parts, so as to maintain the remaining fleet. Another reason for the NZDF supply problems indicated above and in the navy section of this chapter, was caused by the implementation of a ‘just-in-time’ supply model.¹⁷³ This supply model reduced the quantity of spare parts and supplies held by the NZDF, hence causing supply delays. It is important here to remember Molke’s adage, ‘nine tenths of military operations are logistics’. Similarly, the truck mounted cranes, which were purchased immediately before deployment to East Timor, were considered by the force commander “the most valuable piece of equipment in East Timor”.¹⁷⁴ Hence, the NZDF should not be treated like a business.

Further logistics constraints can occur if national force contingents are deployed as a part of a larger foreign force. In Bosnia, the New Zealand Company deployed was incorporated into a British Battalion (BRITBAT). In the case of logistics, all supply requests had to go through BRITBAT to the UN. This caused significant delays in securing essential supplies for the New Zealand Company.¹⁷⁵

Supply operations into East Timor depended upon the National Support Element (NSE), which operated from Darwin, Australia. The NSE's task was to ensure supplies and equipment reached the New Zealand forces deployed in East Timor. The NSE sourced supplies in Australia, coordinated stores and equipment coming from New Zealand, and chartered civilian and military vessels and aircraft to transport cargo to East Timor. This tri-service organisation provided an effective and successful service for NZDF operations in East Timor.¹⁷⁶

The above logistical issues illustrate the importance of sufficient and efficient supply elements. Without effective supply elements, combat elements cannot function. Furthermore, risk is created if combat elements do operate without sufficient support. The Multi-Role Vessel (MRV) should alleviate some of these supply issues. However as noted earlier, the MRV may lack the tempo to support deployed forces unilaterally, and will not effectively support non-littoral operations.

Navy - Essential Nature and Use

In support of the East Timor operation, the Frigates Her Majesty's New Zealand Ship (HMNZS) *Te Kaha*, HMNZS *Canterbury* and the tanker HMNZS *Endeavour* were deployed. *Te Kaha* and *Endeavour* had been on exercise near Singapore, and were at a high state of readiness on arrival in theatre. *Canterbury* was also at a high state of readiness when *Te Kaha* was replaced.

The two New Zealand Frigates were fully integrated with INTERFET's maritime operations; patrolling, escorting and providing surveillance of the East Timor maritime theatre. The activities of *Te Kaha* and *Canterbury* supported INTERFET's "three major roles: presence, sea lift and guarding the sea lines of

communication for the force”.¹⁷⁷ Crawford and Harper^A argue, “[t]he [INTERFET] deployment of a significant force of capable warships, combined with the operation of maritime patrol aircraft and strike aircraft, made it perfectly clear that the international coalition would brook no interference in the deployment [and operations] of Interfet [sic] ground forces”.¹⁷⁸ INTERFET warships also provided security for support vessels, which were fundamental to the East Timor operation. Crawford and Harper also assert, “without the protection provided by the [INTERFET] warships it is highly likely that many of the chartered merchant ships would not have agreed to sail to East Timor”.¹⁷⁹ Similarly, without INTERFET warship protection, it would have been imprudent for naval logistics and troop ships to enter the East Timor area of operations. This is because, at that time, Indonesian naval and airborne combatants occasionally acted in a hostile manner towards INTERFET ships and aircraft.

However, *Te Kaha* and *Canterbury* were deployed without the SH-2G Seasprite helicopter, which seriously degraded the offensive capabilities of the New Zealand Frigates. This was because the SH-2G was not available at that time. Prior to the SH-2G Seasprites being delivered, the Royal New Zealand Navy (RNZN) operated the SH-2F Seasprite. The introduction of the SH-2F was an interim measure to replace the RNZN’s obsolete Westland Wasp maritime surveillance and strike helicopter. The SH-2F operated by the RNZN was an unarmed helicopter. Hence, any engagement between a New Zealand Frigate and hostile surface or submersible vessels would have occurred in circumstances of technological parity rather than superiority. In addition, when *Canterbury*’s SH-2F Seasprite required a major service, it was undertaken in Darwin. Servicing the Seasprite in Darwin reduced the time *Canterbury* was without a helicopter. However, given the integral nature of helicopters to all functions of a surface vessel, in the future provision should be made to rotate Seasprites, so operational RNZN Frigates are never without a helicopter.¹⁸⁰ Nevertheless, the presence of RNZN vessels and aircraft off East Timor were appreciated and valuable to INTERFET operations.

^A Crawford and Harper are often cited in this chapter due to the importance of their research into NZDF operations in East Timor. However, the aforementioned research has been supplemented by numerous other texts and the accounts of practitioners.

The tanker *Endeavour* proved critical to the coalition's maritime and land force deployment to East Timor. This was partly due to the Royal Australian Navy (RAN) having only one tanker, Her Majesty's Australian Ship (HMAS) *Success*, available for operations off East Timor. In addition, until mid October, *Success* and *Endeavour* were the only tankers available to the INTERFET operation. *Endeavour* was central in transporting fuel and supplies from Australia and Singapore to HMAS *Success*, stationed off Dili. *Success* and *Endeavour* "were so vital to the operation that Interfet [sic] regarded them as two of the most likely targets for any attack".¹⁸¹ Similarly, *Endeavour* was a critical enabler for the TMG. This is because *Endeavour* transported much of the TMG's equipment to Bougainville.

The critical nature of maritime forces in New Zealand's predominantly maritime environment cannot be understated. Maritime force projection will be critical to most future NZDF operations. In this role, the MRV should perform effectively, with protection from national or coalition surface warships, maritime aircraft and coalition submarines. Simply, maritime forces are essential to joint force operations.

Communications

The East Timor deployment illustrated communications issues for the RNZN. The ability of RNZN ships to provide sufficient and secure communications with other coalition sea, land and air units was constrained. Indicated problems include, communication system reliability, and the crew's ability to handle voluminous and secure communications traffic.¹⁸²

Logistics

All of the case studies of this chapter have shown logistics to be a fundamental problem for the NZDF. There are two main reasons for this: (1) no functional navy logistics ship; and (2) a widespread and incorrect assumption that our own armour, artillery and trucks would not be required to support our infantry in a foreign deployment. The premise for this assumption is that, our coalition partners will provide deployed New Zealand forces with support units. Except for the PRT in Afghanistan, the case studies have shown NZDF has provided all the

mechanised and support units needed by New Zealand soldiers in foreign deployments. The NZDF has had difficulty deploying these mechanised and support units because the RNZN does not possess a logistics ship. Furthermore, in the case of East Timor, Australia relied heavily upon the RNZN and RNZAF for logistics support.¹⁸³

Operation Golden Fleece (OGF) illustrated the need for a logistics ship to be acquired by the NZDF. The deployment and continued supply of the forces in OGF would have “caused significant problems”.¹⁸⁴ In 1989, it was expected that a logistics ship would be available for the RNZN by 1992/3. Unfortunately in 1999, as the NZDF deployed to East Timor, there was still no New Zealand logistics ship available.

The availability of commercial shipping has been absolutely critical to the cases under study. In East Timor the NZDF hired two cargo ships, while in OGF a roll-on roll-off ferry was hired. Hiring commercial shipping does pose significant issues. First, the case studies showed a lack of facilities capable of handling ferries and conventional cargo ships. This lack of facilities has forced landing craft and helicopters to be used for lodgement and supply tasks. Helicopters and landing craft require specialised naval vessels to effectively perform such tasks. Hence, commercial shipping would be ineffective. Second, the availability of commercial vessels may not coincide with the timely deployment of military contingents. In the case of East Timor, the availability of commercial shipping dictated the deployment date of the first New Zealand Battalion’s heavy equipment and initial supplies.¹⁸⁵ In addition, the requirement for operational security, and the variability of force structures and deployment sequences, can cause commercial contracts to be formed immediately before deployment. This terminal planning creates serious risk that commercial logistics will not be available. Third, the willingness of commercial vessels to operate in hostile areas is, understandably, low.

The RNZN vessels deployed to support the East Timor deployment, along with their Air Force and Army colleagues, found logistics problems caused by the low priority given to New Zealand naval spare parts and stores. This problem was generated in a coalition environment, as RNZN assets were commanded by a multinational force rather than a national headquarters. A naval logistics liaison

was seconded to work with the coalition logistics team, which reduced the supply shortages.¹⁸⁶ Joint force must become a more important priority for the NZDF.

Other Issues - Medical

In OGF, there was no depot for the storage of medical supplies required, or procedures for the re-supply of field units, or joint force airborne medical evacuations.¹⁸⁷

Fortunately, the medical support for the deployment to East Timor was more successful. Following the TMG operation in Bougainville, Army medical staff designed a 13.6 ton hospital that can be deployed by a single C-130. This hospital is designated Forward Surgical Team (FST) light. The FST concept is basically a copy of the Australian light field hospital deployed to Bougainville, to support the TMG and the latter Australian Peace Monitoring Group (PMG). The FST contains an “operating theatre, two wards, a resuscitation unit, an X-ray facility and about thirty highly trained medical staff”.¹⁸⁸ The medical staff of FST are both civilian and tri-service military personnel. The efforts of the FST and pre-deployment medical planning meant that the NZDF personnel medical statistics were good, in comparison with other nations. The FST also saved the lives of New Zealand soldiers, other UN personnel and a number of East Timorese.¹⁸⁹

However, the FST was at times constrained by support services. For example, No. 3 Squadron Iroquois could not transport injured persons at night or in bad weather. Thus, the actions of FST staff were limited. The main issues effecting the provisioning of health services outlined by the Auditor-General in relation to the East Timor deployment are as follows: (1) substandard personnel medical records; (2) shortages of medical staff; (3) supply deficiencies; and (4) constraints to preventative and environmental health services.¹⁹⁰

All of these aforementioned problems are significant; however, staff and supply shortages could have prevented the delivery of critical health services. On medical staff shortages, the NZDF has reported a difficulty in maintaining requisite numbers of medics, environmental health officers, doctors and specialists. This staff situation worsened, when one surgeon and one anaesthetist

under contract to the NZDF resigned after being given notice to deploy to East Timor with NZBATT 1.¹⁹¹

The FST was also designed to operate in theatre for 2 weeks. Pre-deployment planning expected the FST to operate for 6 months in East Timor. However, the FST operated in East Timor for 22 months, from October 1999 to August 2001. One of the results of this extended deployment was the need to attract civilian health personnel to work within the FST. Given the difficulty in sourcing these civilian medical practitioners and the austere conditions in East Timor, short-term civilian deployments of 2 to 6 weeks were introduced. Hence, the cohesion of the medical staff in the FST was reduced, and existing supply problems were exacerbated.¹⁹²

Medical supplies were ordered from Suai, then either sourced by the National Support Element (NSE) in Darwin or the Logistics Executive in Trentham. This was a sound logistical arrangement, however, problems still ensued. Medical provisioning issues encountered by the FST were caused by: (1) the ordering, sourcing and forwarding system for medical supplies; and (2) unanticipated end-user demand. To this point, there will always be high demand for medical supplies in LIC. This is because medical supplies and services are an essential element in winning the 'hearts and minds' of the in-theatre civilian population.

The first problem encountered by the FST was a difficulty in ordering, sourcing and delivering the supplies. The FST was not provided with a computer until November 2000; beforehand, ordering was manual and more difficult. The NSE staff then had difficulty translating the FST supply definitions into civilian medical terminology, so that the supplies could be sourced from Darwin. This problem was partly caused by an absence of logisticians trained in, or experienced with, medical supplies. In addition, the civilian staff that manned the FST were unfamiliar with NZDF medical supplies and ordering systems. These problems compounded to negatively effect "accuracy of orders, accuracy and quantity of items delivered, and the timeliness of supply".¹⁹³ The Auditor-General noted that "[w]hile supplies were expected to take up to four weeks [to arrive], they generally arrived in 6-8 weeks. This caused considerable frustration for [Health Support Service] HSS personnel. Supplies of Class 8 [medical provisions] were

so limited at times that even simple but heavily used items (like foot powder and Panadol) ran out".¹⁹⁴

The second difficulty the FST faced was unexpected demand for medical supplies and services. First, the FST was expected by INTERFET to provide medical support to the Canadian, Fijian and Irish detachments operating under NZBATT command. This initially created shortages of FST medical supplies. Second, the East Timorese population required acute medical assistance from the FST following the initial deployment. This acute medical assistance then expanded to broader humanitarian medical aid under the NZBATT 2 deployment. This medical assistance to civilians stressed the FST, in theatre medical stores, and diversified and complicated the medical supplies required. These expanded requirements exacerbated the problems facing FST personnel described above. Despite NZDF knowledge of the medical supply problems noted above, no lasting solution was forthcoming from the NZDF during the 22 month deployment of the FST.¹⁹⁵

A further significant issue, not fully analysed by the Auditor-General, was that of the provision of health services to the people of East Timor, in the New Zealand AO. As stated above, the provisioning of health services to the local population is a central aspect of any 'hearts and minds' campaign. If the 'hearts and minds' campaign works, the population will provide dependable intelligence to the counterinsurgent. Hence, the provision of health services to the civil population is critical. However, the provisioning of health services by the NZDF to the people of Cova Lima district was undertaken after the deployment of NZBATT 2. Furthermore, the provision of health services for the population transpired due to an UNTAET directive, rather than being NZDF initiated. In addition, while critical, the health services provided by the FST to the local population were often restricted by supply limitations and procedural orders.¹⁹⁶

Hence, in the future the New Zealand Government, NZDF and HSS should be aware, civilians in LICs require medical care, and it is not only altruistic, but in the interest of the deployed force to provide this medical care. If the NZDF is to be successful in counterinsurgency operations, the allegiance of the people must be acquired. This is because the NZDF requires intelligence on enemy movements and actions; this information can only be acquired with the help and support of the civil population. The provision of medical care to the civil

population should be viewed as an element of joint force that is essential in counterinsurgency operations.

Command, Control, Initiative, Communications and Intelligence (C2ICI)

The following section analyses Command and Control issues generated by NZDF operational deployments to Bosnia, Bougainville and East Timor. This section analyses a number of elements that enable force to be coordinated and applied in counterinsurgency operations.

Command, Control and Initiative

The deployment of the Company Group and Battalion Groups to East Timor did cause Command and Control (C2) challenges. However, the challenges that did occur were effectively managed. Command issues that did arise included: (1) complicated C2 caused by coalition integration (foreign force elements were integrated into NZBATT, while NZBATT was itself a force element within a larger coalition); (2) joint cooperation issues; (3) Rules of Engagement (ROE) that compromised Standard Operating Procedures (SOPs); and (4) language issues.

In Dili, Victor Company operated under the tactical command of 3RAR, and reported on national matters to the Senior National Officer (SNO), who in turn was accountable to the Joint Commander in New Zealand. Similarly in Cova Lima district, NZBATT was operationally under the control of Commander West Force (An Australian Brigadier from 2RAR), but also reported to the SNO. To complicate matters, the New Zealand SNO was also Commanding Officer, Dili Command. Fortunately, command and control functioned well and few problems emerged.¹⁹⁷

One issue that did emerge from operations in the Cova Lima district was the critical nature of Brigade level C2 training. “The New Zealand Battalion Group was incorporated into ... [West Force, which covered] the most hazardous and operationally difficult area of East Timor. It [NZBATT] was required to integrate smoothly and quickly into the brigade operation and to effectively conduct control operations in a large Battalion Area of Operations (AO). Given the paramount importance of force protection, its own security was a vital consideration throughout. Its [NZBATT] ability to do all this depended to a

considerable degree upon its command and control capacity. This required the right equipment (particularly communications), doctrine, operating procedures, and, above all, training. In particular, the training needed to be at the right level. The operation underlined the vital importance of the NZDF retaining its brigade-level operational skills, particularly command and control”.¹⁹⁸

The designation of the New Zealand Army’s field elements as the Land Force Group, rather than a Brigade, has caused significant command and control issues. The term ‘Land Force Group’ has no military relevance, but in the New Zealand context is equivalent to a Brigade. Both are an autonomous field army, containing approximately three battalions. Deployed New Zealand battalions will “always be operating in a brigade group with a couple of other battalions”.¹⁹⁹ Hence, the NZDF must train as it is to fight. That is as a brigade.

One command issue involved a clash between INTERFET Rules of Engagement (ROE) and New Zealand Army Standard Operating Procedures (SOPs). Initially, the M18A Claymore command detonated fragmentation device (mine) was prohibited from being deployed by New Zealand soldiers, despite significant clashes with militia in mid-2000. Following the intervention of the New Zealand Joint Commander, Claymore mines were distributed and installed by NZBATT soldiers.²⁰⁰

Under the command of NZBATT 1 was a Canadian Company Group of 250 personnel. “Having a large group of independently-minded, French-speaking Canadians under their command was an arrangement that created ‘a few challenges’, according to Lieutenant Colonel Burnett”.²⁰¹ Language issues presented some problem throughout the INTERFET/UNTAET command and control infrastructure. However, the integration of other coalition force elements was critical to maintaining NZBATT personnel strength.

Furthermore, “[o]n some occasions when New Zealand’s three armed services had to interact in East Timor, it was obvious that they did not know enough about each other. The need for jointness in operations was aptly demonstrated by the East Timor deployment. Interfet’s [sic] success, in particular, rested on a joint approach to operations, which allowed for the best use of land, sea and air forces. It is not always recognised that without capable naval and air forces it would have been impossible to deploy and support Interfet [sic]”.²⁰² Joint training will be critical to future NZDF deployments.

Some of the command issues indicated above, were also experienced in Bosnia and Bougainville. In Bosnia there were some command issues, which were caused essentially by the New Zealand Company being hidden within the British battalion structure. The coalition structure in Bosnia meant that the NZDF contribution was not joint. Hence, some issues concerning joint operations did not appear until the TMG deployed to Bougainville.

As elucidated above, there was structural dislocation of the single services and coalition units in Bougainville. In an interview, Major General Piers Reid highlighted the fact that the single service elements in Bougainville were essentially independent, and took direction from their own single service commands in New Zealand.²⁰³ Brigadier Roger Mortlock, the initial TMG commander, compares the function of the TMG command to the management of six tribes: the Australian, Ni Vanuatu and Fijian Defence Forces, in addition to the New Zealand Army, Navy and Air Force. The command structure of the TMG is represented below in Graphic Two. The Australian contingent was mostly confined to logistics, while the Ni Vanuatu and Fijian contingents were integrated within the four outpost commands. Mortlock emphasised that while ‘there was no consolidated [joint] command, the three services [and the three foreign Defence Forces] did their best to function jointly’.²⁰⁴ Mortlock also stressed that the Army, Navy and Air Force, all did their own single service functions well, and cooperated effectively when needed.²⁰⁵ It must be highlighted however, that in a scenario where conflict is occurring, the lack of jointness may have undermined the operation.

Graphic 6: TMG Command and Control Structure – Bougainville



“The creation of a joint forces headquarters in Trentham in July 2001 is one expression of the NZDF’s determination to adapt and improve the way it is organised and operates”.²⁰⁶ The Joint Headquarters as a concept has a long history, but became increasingly needed following Bosnia, Bougainville and East Timor. However, the ultimate development of the Joint Headquarters was initiated by: (1) The Inquiry into Defence Beyond 2000; (2) the then newly elected Labour Government; (3) Air Marshall Kerry Adamson; and (4) the East Timor deployment. The Joint Headquarters was established under the command of Brigadier Martyn Dunne, and became operational after fifteen months of development.

In the area of Command and Control, the Joint Headquarters will enhance the NZDF by creating a joint approach to planning and commanding operations. Prior to East Timor, operational planning was undertaken by the Joint Operational Commanders Group. The Joint Group was appointed by the Chief of Defence Force (CDF), as conflicts emerged. The Joint Group incorporated three Brigadier equivalents, one of whom would be designated Joint Commander by the CDF, except if one of the Chiefs of Staff was appointed Joint Commander. There were two significant problems with the Joint Operational Commanders Group. First, the Group’s effectiveness relied on the personalities of the Commanders. Hence, ‘there were instances where people would not agree, or were unavailable to agree on solutions’.²⁰⁷ Second, the Commanders of the Joint Group also kept their single service headquarters separate. Given the Joint Group Commanders were also component Commanders, they were answerable to their single service chiefs. If one of the Commanders was not designated Joint Commander, then there was one direct line of responsibility to the CDF. Nevertheless, the Joint Group structure, while fraught with issues, was successful in Bosnia, Bougainville, and to an extent in East Timor. The components of the Joint Group did however rely on the NZDF to force cooperation.

Planning for, and operations in, East Timor were conducted by the Joint Group, with two important distinctions. First, East Timor was planned using an Australian development schedule. Second, under the direction of Brigadier Lou Gardener, Land Command established a degree of jointness, by integrating other service personnel into the planning and operating process. However, this was not

a truly joint environment; it was an Army Headquarters with a few Navy and Air Force personnel attached. The Joint Group “was ultimately successful because it was based on sound doctrine and that the overall concepts, procedures and sequence were appropriate. Indeed, the inherent “ad hoc’ery” of the structures (particularly at the strategic level) sometimes hampered the process”.²⁰⁸ A further jointness issue arose in the planning for East Timor, as “the maritime and [Fixed Wing] FW ... [elements were] not well connected to the operational level planning process. This meant that the [Joint Commander] JC lacked visibility of the totality of the NZDF contribution”.²⁰⁹

There were also three significant whole-of-government planning issues that hindered the planning of the Joint Group. First, “there was some reluctance on the part of other key Government departments to pursue planning at such an early stage. For departments such as the Ministry of Foreign Affairs and Trade (MFAT), the bilateral relationship with Indonesia was a significant issue and there were some sensitivities associated with the NZDF planning for a possible military option in East Timor”.²¹⁰ Second, “[t]here was little understanding outside Defence of the implications of the preparedness levels set out in the Purchase Agreement and the requirements of those levels in terms of lead time and resource commitment”.²¹¹ Third and as a result of the two aforementioned issues, there was “delay in obtaining inter-departmental consensus in the advice to be given to Ministers on such issues as a national end-state requirement”.²¹² Such issues are very significant and need to be addressed by inter-departmental training.

The establishment of the Joint Headquarters has forced a joint approach to planning and operations. All operational headquarters function jointly, thus enabling awareness, cooperation and support. It is now common for inter-service planning and preparation for land, sea and air exercises and operations to be undertaken by non-component personnel. For example, Navy and Air Force personnel may lead the planning for land component training or operations, with Army advice. This is a common practise internationally and among New Zealand’s closest allies.

Procurement and training are also highly significant areas where the Joint Headquarters can create joint cohesiveness, which in turn will improve joint C2. The establishment of the Joint Headquarters is a top down strategy for creating jointness among the single services. Equipment must be purchased and training

must be provided that will fulfil single service requirements in a joint environment, and enhance the synergy of a joint approach. For example, a significant impact of the Army's Precision Manoeuvre doctrine will be improved Command and Control (C2), force integration and friendly and enemy tracking.²¹³ However, these improvements may not develop jointness without joint management and adaptation. If the Joint Headquarters continues to function in the areas of operations, training and procurement, jointness should develop.

A further C2 challenge has been produced by the Australia, New Zealand, and United States (ANZUS) rift. The political friction between the New Zealand and American Governments has precluded coalition training. Hence, it is impossible for NZDF personnel to train in a coalition environment with U.S. forces. Despite the likelihood that New Zealand personnel will operate with such coalition forces in conflict. New Zealand "personnel have to 'train' on operation, [where] they must catch up with ... coalition interoperability. [The] most significant [restraint] is [to] US [sic] – New Zealand exposure. Hence, ... US [sic] [personnel] do not trust New Zealand troops [on operation] because [there has been no joint experience of training together]. [There has however been] some change, as [New Zealand] personnel [have] deployed to US [sic] Southern Command in Florida".²¹⁴ In summary, there are significant C2 issues that are degrading the application of joint force; however, the establishment of the Joint Headquarters has improved this situation.

Airborne Command, Control, Communication and Intelligence (C3I)

Command, Control, Communication and Intelligence (C3I) can be effectively provided by airborne platforms. C3I aircraft were traditionally used for coordinating airborne units. As air, land and sea units have become more combined, C3I aircraft have had to adapt to managing a joint environment. Airborne C3I has also proliferated, whereby relatively small land elements are provided with intelligence, fire support, communication links and C2 from dedicated C3I aircraft. Special Forces are a prime example of small land elements that have exploited the benefits of airborne C3I.

A C3I aircraft is essentially, any airframe, fitted with sensors, communications hubs and links, and information processors. Maritime patrol

aircraft fulfil these requirements, and have actively been doubling as C3I aircraft since the early 1990s. The RNZAF P-3 Orion, ‘if installed with the appropriate optics, sensor suites and communications facilities, could operate as anything from a C2 platform, to facilitating surveillance of land based operations’.²¹⁵ The P-3 also provides excellent endurance, security, mobility, projectability and can communicate effectively with disparate force elements. The Coalition Warrior Interoperability Demonstrations^B also illustrate that older technology, ‘such as the P-3, should not be upgraded unless it is able to interact and interoperate in a joint warfare environment’.²¹⁶ The P-3 needs to be able to operate with: (1) Special Forces and other land elements; (2) other aircraft; (3) naval vessels; and (4) civilian agencies and maritime assets.²¹⁷ The NZDF does not currently utilise the P-3 to supplement land elements; neither are there plans to do so in the future.²¹⁸ Furthermore, outside the Joint Headquarters there is little recognition of the interoperability of land elements and airborne C3I.

The above analysis of airborne C3I demonstrates that: (1) the NZDF has not developed effective air-land interoperability; and (2) the Joint Headquarters has a significant task in creating a joint, cohesive force. This cohesive force will require acquisitions and force structure development that is formed by a joint environment. All force elements must be able to be projected, protected, supported, commanded and supplied with information. If these requirements are not facilitated jointly, the utility of each force element is significantly diminished.²¹⁹

Communications

Operation Golden Fleece (OGF) illustrated the near-absolute ineffectiveness of NZDF communications; the situation is much the same in 2006. First, much of the communications equipment deployed to the OGF’s headquarters (HQ) was inoperable. Second, communications between HQ and field units were completely ineffective. As a result, field units were using information 36 hours

^B “Coalition Warrior Interoperability Demonstration is a US DoD led and planned demonstration programme to identify and trial Command, Control, Communications, Computers and Intelligence (C4I) technology interoperability. It is designed to evaluate how emerging C4I technologies and practices can be quickly and effectively applied to Joint and Combined operational problems in all warfare dimensions whilst enhancing interoperability”. Quoted from New Zealand Defence Force, January 2006, *Coalition Warrior Interoperability Demonstration*, New Zealand Defence Force, Wellington.

old. Jennings states, it was quicker to send information by messenger, than by radio.²²⁰ Third, field units were not able to communicate with each other.²²¹ This artificially isolated units, cutting them off from mutual support from other field units or artillery fire.

Operations in East Timor again showed the ineffectiveness of NZDF communications. New Zealand Army personnel rely on High Frequency (HF) communications systems. These HF systems are dispersed down to the squad level and are installed in most operational Army vehicles. The power output and thus range of the systems vary; the vehicle-mounted models have a greater range than the infantry radio. In addition, the Army's HF radios are heavy, are unsecure and cannot handle digital communications.²²² When these factors are combined with mountainous or wooded terrain, the Army's communications capability is poor. Poor communications then impact on intelligence, surveillance, reconnaissance and offensive operations. As was indicated earlier, the recent Trunk Communications upgrade will enhance the capability to communicate with, and command ground elements. In addition, the Joint Command and Control System and the Joint Communications Modernisation Programme should enhance joint C2.

Counter-Communication

Counter-communication is the act of: (1) disrupting enemy communications; (2) extracting information from enemy communications; or (3) protecting one's own communications from enemy interference or becoming a source of information for the enemy. Significantly, counter-communications have not been a significant part of NZDF operations. However, the Trunk Communications upgrade, and the UH-1/NH90 and C-130 communications upgrades have assisted in securing NZDF communications.

Intelligence

A lack of capacity for gaining intelligence is a fundamental weakness of the NZDF. This weakness is caused by the following two factors: (1) the poor relationship New Zealand maintains with the United States; and (2) a lack of trained intelligence personnel within the NZDF.

In the case of East Timor, pre-deployment and operational information was provided to the NZDF by New Zealand's intelligence partners. This intelligence was of a good standard. However, the NZDF was not permitted access to all foreign intelligence sources. Due to this deficiency, not all operational intelligence requirements were achieved.²²³ Hence, undue risk was imposed upon NZDF personnel, equipment and mission objectives.

It was established in East Timor, that "fully effective intelligence sharing for New Zealand is still hampered by the downstream effects of the difficulties in the US [sic] -NZ [United States – New Zealand] relationship".²²⁴ This diplomatic fissure with the United States, created intelligence sharing issues for New Zealand with Australia. A difficulty in generating infrastructure intelligence is an example of the New Zealand – Australia intelligence sharing problem. "It was difficult for New Zealand to gather the level of ... [infrastructure intelligence required,] solely ... [with New Zealand's] own resources. There was an Australian product that would have assisted in meeting New Zealand's information requirements with regard to infrastructure, but because it was partly based on US [sic] [United States]-sourced intelligence, it was not released to New Zealand".²²⁵ When the Forward Planning Team and Liaison Officers were deployed to Australia, "the most significant initial obstacle to the performance of their duties [was the fractured intelligence dialogue with Australia]".²²⁶ Intelligence is critical to any military operation. Hence, an improved tripartite intelligence relationship between the Australia, New Zealand and the United States is indispensable.

"The deployment of personnel into intelligence appointments in East Timor revealed some gaps in the NZDF's intelligence capability. These were most notable in the areas of Counter-Intelligence (CI), Psychological Operations (PSYOPS) and languages (a weakness in language capabilities across the NZDF is not simply an intelligence matter; it is also a serious operational issue). In general, the NZDF lacks sufficient numbers of personnel experienced and trained in providing intelligence support to operations in the joint and combined setting". These are basic requirements for counterinsurgency forces in LIC. Intelligence must be effective and personnel with language skills are central to the collection of intelligence.

It is critical to be able to communicate with civilians in theatre. For example, intelligence assessments concerning the expected actions of militia were

proven inaccurate. The nature of the militia was 'only' established when New Zealand and Nepalese units were attacked and personnel were killed in action by militia groups. After liaising with the Falintil, changes were made to the New Zealand methods of operation.²²⁷ It is notable that the New Zealand Senior Negotiation Officer in Bougainville was an Army Engineer by trade. However, the Senior Negotiation Officer could speak pidgin, and was hence indispensable for the operation.

In East Timor, a leading source of intelligence for the New Zealand Battalion were the Civilian-Military Affairs (CMA) units and personnel. The CMA elements were established by NZBATT 2 and were maintained by successive Battalions. CMA liaison officers were attached to each New Zealand Company, and detachments of four CMA personnel were deployed to live in the villages of the Cova Lima district. As had been illustrated in earlier counterinsurgency operations, like those that occurred in Malaya, Borneo and Vietnam, CMA personnel living with the population form a highly effective conduit for information. CMA personnel showed they could create a trustworthy relationship with the East Timorese, and enable the effective distribution of humanitarian aid. Most importantly to military operations, however, the population of the Cova Lima district provided dependable intelligence on militia movements and infiltration of the New Zealand AO.²²⁸ In addition, there was good intelligence provided by the New Zealand Police personnel who had been previously deployed in East Timor.

In theatre, Army intelligence is limited to human intelligence (HUMINT) as a means of collection. However, HUMINT is generally the most effective means of gathering intelligence for a counterinsurgency force. NZDF operations have proven the effectiveness of HUMINT in counterinsurgency, and the ability of New Zealand force elements to gather HUMINT. By contrast, the current NZDF Land Intelligence Surveillance Reconnaissance (ISR) augmentation programme is designed to improve intelligence collection by electronic means. This may assist the NZDF in some counterinsurgency scenarios, but is largely dependent on topography and insurgent skill and tactics. Areas where the NZDF would be wise to focus resources to defeat an insurgent by improving non-human intelligence are: (1) improved intelligence structure coherency and information management systems;²²⁹ (2) communications intelligence collection; and (3)

imagery intelligence using Unmanned Air Vehicles (UAV) designed by the Defence Technology Agency. However, this technological intelligence must not inhibit training for the collection of HUMINT.

Other Agency Integration – The Confluence of Civil and Military Affairs

The Officials Committee for Domestic and External Security Co-ordination (ODESC) has been essential for the operations covered by this chapter. Apart from ODESC, general agency integration before and on deployment has been haphazard, under-supported and usually obstructed by the government, military and non-governmental organisations. These issues have to be improved so as to enable a holistic application of force in counterinsurgency operations.

In the case of Operation Golden Fleece, the Ministry of Foreign Affairs and Trade provided a token contingent, while the Domestic and External Security Secretariat was not involved.²³⁰ As indicated by Peter Jennings, “[f]urther planning is ... needed in defining the relationship between civil and military authorities in the conduct of low-level contingency operations in the South Pacific”.²³¹

An integrated approach to active operations is critical. In the case of East Timor, a ‘whole of government approach’ was critical for pre-deployment planning. In addition, several civilian government departments deployed personnel to East Timor. In establishing the institutions of a sovereign state, “New Zealand has provided [East Timor with] a wide range of assistance..., including development aid, police and prison officers, legal staff and other specialist expertise”.²³² This is an example of the application of political, economic, diplomatic and military force in a counterinsurgency operation.

As indicated by Lieutenant Colonel Antony Hayward, the provision of law and order was problematic during the transition from UN to domestic East Timorese control. Hayward argues “[w]ithout a functioning and effective constabulary backed up by a responsive judiciary, the community’s perception of what constitutes a legitimate central authority can quickly be undermined”.²³³ This occurred because: (1) the number of UN international police (UNPOL) was reduced without an equivalent increase in East Timorese police effectiveness, and (2) the public did not recognise the authority of the national police or legislation.

Consequently, NZBATT personnel were forced to exceed their mandate and provide some form of law and order.

In addition to the provision of territorial security provided by NZBATT, it was recognised that the New Zealand contingent would need to establish a holistic form of security in East Timor. This was because the population was the ‘centre of gravity’ for the INTERFET and UNTAET forces. Hence, information operations were undertaken “to reach into, and influence, the population”,²³⁴ and civil affairs operations served as a conduit between the military and the population.

NZBATT 5 eclipsed the previous New Zealand battalions in the area of civil affairs, by publishing and implementing the ‘Realisation Issues’ plan. Colonel Hayward does emphasise, however, that the Realisation Issues plan was only possible because of the external security established and environmental knowledge gained by the previous New Zealand Battalions.²³⁵ The Realisation Issues plan “investigated most facets of public life including judiciary, law and order, education, health services, sanitation and water, public works, power service, agriculture, forestry, the Church, civil society organisations and public administration”.²³⁶ The rationale for the Realisation Issues plan “was that good governance and services when embedded, transparent, and understood would go a long way to overcome the deep-rooted security issues contained within Cova Lima”.²³⁷ Hence, security could only be entrenched by the creation of civil society. Although aid agencies and the ministries of East Timor could provide some facets of civil society, it was the responsibility of NZBATT to focus and coordinate humanitarian assistance in Cova Lima.

The justification for NZBATT 5 taking responsibility for coordinating humanitarian assistance in Cova Lima is illustrated in what follows. On arrival in Cova Lima, the personnel of NZBATT 5 found that the provision of aid was uncoordinated. This meant that entire projects were non-functional, due to critical elements not being present. Aid was also diminishing and being targeted toward other regions. As a result: (1) the newly built law court was not resourced or staffed adequately to function; (2) the Cova Lima medical centre was about to be closed, leaving only a tuberculosis clinic; and (3) there was a cholera outbreak due to dirty water. It was established that the United Nations structure was ineffectual; the only entity that could help the locals of Cova Lima was NZBATT.

Subsequently, NZBATT coordinated NGO, local and governmental efforts to rebuild Cova Lima, with significant assistance coming from the New Zealand Government and Ministry of Foreign Affairs and Trade.²³⁸

A further initiative of the Realisation Issues plan was to identify groups and individuals who influenced the social cohesion and interaction of the Cova Lima population. “These included UN and NGO international and national officials based in Dili, Indonesian military (TNI) commanders across the border in West Timor, refugees remaining in camps also in West Timor, community, church, business and youth leaders, teachers, and Issue Motivated Group members within the District”.²³⁹

Understanding the needs and capabilities of these groups and individuals enabled NZBATT to provide services and prevent further conflict. For example, two of the aforementioned groups attempted to act, or acted in a way that began to destabilise the Cova Lima district. First, militia groups were spreading disinformation among East Timorese refugees in West Timor, stating it was unsafe to return to East Timor. This undermined the repatriation process, by reducing the trust the refugees had in the civil leadership in East Timor. NZBATT, with the assistance of the TNI in West Timor, provided correct information about the state of East Timor to the refugees in West Timor. Thus, the provision of the correct information made void the disinformation of the militia groups. Similar information operations also had to be undertaken in Bosnia and Bougainville. Second, ‘Issue Motivated Groups’ (IMGs), who expressed valid and invalid social concerns through paramilitary activities and threatening behaviour, degraded internal security in Cova Lima. Some East Timorese officials wanted NZBATT to forcibly suppress the IMGs. However, NZBATT did not want to disenfranchise the members of the IMGs as: (1) some of their grievances were valid; and (2) suppressing the activities of these individuals could cause greater violence to erupt. Hence, dialogue was initiated with the IMGs, their concerns were openly published in the local NZBATT-sponsored newspaper, and the Cova Lima population was educated on what constituted appropriate behaviour in democratic states.

NZBATT also made it clear inappropriate or violent behaviour was intolerable, and offenders would be prosecuted according to the rule of law. NZBATT learnt that IMGs were attempting to recruit members at church

congregations and among college students. The IMGs were also presenting the greatest threat to the periphery of the New Zealand AO. Hence, NZBATT soldiers deployed to patrol and support the UN police in preventing violent action. “In the outlying villages, those deemed most at risk from these groups, small groups of soldiers were deployed for extended periods to physically challenge the origins of disaffection through discussion, an understanding of cultural norms, and a professional work ethic”.²⁴⁰ The CDF and CDF-Ops had reservations about the presence of soldiers in villages. Additionally, members of NZBATT 5’s reconnaissance platoon and Regimental Sergeant Major, after specialised training, monitored villages designated of interest by information operations.²⁴¹

The holistic approach of NZBATT 5 also facilitated much of the reconstruction effort in the Cova Lima district. NZBATT 5 “sought to create the conditions necessary for a substantive redevelopment of the District that would mitigate some of the security risks associated with poverty and a community still suffering the effects of forced migration and fear of violence”.²⁴² These activities fostered: (1) the development of the local authorities; and (2) trust between NZBATT and the population. NZBATT “ensured that all tasks undertaken would not create a dependency but instead were focussed on assisting the East Timorese taking control of their own destiny”.²⁴³ This approach of fostering local self-help was two dimensional. First, it was made clear that projects would not proceed if the population was not willing to help itself. Subsequently, local East Timorese volunteered their labour. Second, local individuals were employed to ‘define, facilitate and be responsible “for confirming projects, receiving donor contributions”²⁴⁴ and procuring supplies. In addition, NZBATT organised workshops where NGOs, government missions and the New Zealand contingent personnel could synergise their individual efforts in rebuilding the district.

Hayward makes a number of insightful observations regarding the NZDF’s capability to effectively peace-keep or peace-enforce. First, along with Gerald Hensley, the former New Zealand Secretary of Defence, and Vice Admiral Sir Sommerford Teagle, the former New Zealand Chief of the Defence Force, Hayward argues the NZDF must continue to train for higher level war-fighting, so as to allow greater “flexibility and adaptability”²⁴⁵ in counterinsurgency. “To place pressure on its conventional warfare training requirements would further erode the NZDF’s ability to remain a viable Defence Force”.²⁴⁶ Second, defence

personnel are often deployed under UN command, into intra-state conflicts without the capability or professional skill in effective nation-building. Hayward argues “[n]ation building requires considerable skill, patience and a deft approach, and many military forces engaged in peace support operations lack the competence and sophistication necessary to ensure that some form of political, economic or social distortion does not eventuate”.²⁴⁷ Third, Hayward questions whose responsibility it is to rebuild failed states, if it is not the task of military forces. This question arises because: (1) the UNTAET personnel in Suai were under-resourced; (2) centralised UN organisations in Dili were unwilling to take responsibility for the periphery; and (3) NGOs did not instinctively cooperate in the provision of humanitarian and development aid.²⁴⁸ In conclusion, Hayward argues “there is a need for a body with the requisite skills that can facilitate a more effective transition”²⁴⁹ to civil society. Significantly, Hayward has independently come to the same conclusion as the author, with reference to an organisation like the Expeditionary Civil Service, as detailed in chapter five.

Brigadier Roger Mortlock, commander of the Bougainville TMG, identifies three ‘conditions for [peacekeeping] success’. These three conditions must be established by the military, but are not core military functions. First, Mortlock emphasises that the belligerents in conflict must be made accountable for their actions. Mortlock states “both successes and failures need to be absolutely transparent to the people. For it is the people who are the ultimate instrument of accountability [sic]. Further, it is only this absolute degree of transparency that provides the intervention force with the on-going justification to act in order to keep the peace process on course”.²⁵⁰ Second, Mortlock identifies the need for peace-keeping forces to be political. The dichotomy of civil and military affairs, apparent in a democracy, cannot be transferred to LIC. Historic examples of LIC illustrate that, initially, the counterinsurgent’s military has been the only effective mechanism capable of providing aspects of civil society. Third, Mortlock argues that the intervention force must be careful not to damage the economy of the state in which they are deployed. In Angola, the UN forces were forced to rely upon the local economy for logistics support. Such economic demands, by peacekeepers, “can cause inflation, hunger, [further] ... poverty, and corruption”.²⁵¹

Mortlock makes a further critical observation: a soldier's training for war, is central to his capacity to peace-keep. However, as the NZDF trains for, and operates increasingly in, peacekeeping operations, the availability of time and funding for 'war-fighter' training is diminished. Furthermore, recruitment and retention of military personnel becomes increasingly difficult, as the time spent in peace operations increases. Simply, people join the military to fight wars. Mortlock explains this occurrence with a "peculiar cause-and-effect model: [t]he more peace operations the military undertake, the more they [the military] will specialise in those activities. The greater the peace operations specialisation the less effective will become the war fighting capability. As the war fighting capability diminishes, the more difficult will become recruitment and retention. And so, the more difficult it will become to conduct peace operations".²⁵²

Among those NZDF personnel interviewed in the production of this thesis, there was unanimous endorsement for supplementary and interpretive Low Intensity Conflict doctrine. The NZBATT 5 Realisation Issues plan could form the foundation of an operational level interpretive doctrine applicable in LIC. At the strategic or philosophical level, the NZDF's Foundations of New Zealand Military Doctrine (NZDDP-D) requires a complementary doctrine that would be relevant in LIC. The principles of this thesis' chapter, A Doctrine for Low Intensity Conflict, including the Expeditionary Civil Service (ECS), could function as a basis for this complementary doctrine. The training with, and operational use, of these supplementary doctrines will enable the peculiar forms of force needed in counterinsurgency. Integrated pre-deployment training of the military, government agencies and non-governmental organisations will raise awareness of individual and collective objectives, capabilities and requirements. This should generate better results upon deployment. However, there are dangers if New Zealand generates a unique "philosophy on nation building and enhancing stability".²⁵³ First, the application of a unique doctrine may bring the NZDF into conflict with other command ideologies. This could be problematic in the case of a coalition operation.²⁵⁴ However in Bougainville, the NZDF applied a unique ideology. This caused some quizzical, but generally supportive observations and command issues with the ADF.²⁵⁵ Second, there is a danger of an interpretive document becoming an unvarying template. This will cause failure, as all conflict environments are distinct. In summary, the NZDF has an effective civil-military

capability that is essential in counterinsurgency operations. What must be ensured is that this capability is institutionalised.

Conclusion

The NZDF has made clear and essential progress with the release of 'Foundations of New Zealand Military Doctrine (NZDDP-D)'. This doctrine is critical for creating an environment of jointness within the NZDF. However, time and resource constraints and an unrelenting operational tempo are adversely effecting the development of jointery. There is also some disunity between doctrine and policy, leading to confused doctrinal premises being outlined in New Zealand defence policy.

The inherent tenets of the Army's Precision Manoeuvre doctrine are conducive to operational effectiveness in counterinsurgency. The ethos, values and culture of the NZDF have also proven to be highly beneficial in counterinsurgency operations. However, there must be a greater effort to institutionalise and formalise operating procedures and tactics for counterinsurgency operations in LIC, within the NZDF. This requires the introduction of strategic and operational supplementary doctrines that are pertinent to counterinsurgency operations in LIC.

The principal obstruction, leading cause of failure and the greatest risk to the NZDF is the DLOC/OLOC process. Essentially, the NZDF is maintained at a sub-operational level. This causes hurried pre-deployment training and re-equipping prior to operations. Critically, however, pre-deployment installation of upgrades do not provide any bonuses; they merely generate risk of equipment failure and prevent training and familiarisation. In East Timor, the initial Battalion Group was not ready to deploy with the INTERFET Coalition, due to the DLOC/OLOC process. Similarly in Bosnia, the equipment deployed had to be rushed to readiness. Hence, the equipment was untested and personnel were untrained on that equipment. As has been earlier observed, it is critical that service personnel train as they are to fight, because they fight as they train.

Due to the DLOC/OLOC process, readiness is essentially based upon financial imperatives rather than operational logic. In reality, operations do not necessarily have long lead-times. This makes readiness critical. In the case of

Bougainville, there was essentially no pre-deployment training time. Hence, the TMG had to deploy with the equipment, training and personnel that were available.

The introduction of modern technology is a further positive step for the NZDF. Over the past fifteen years, obsolescent NZDF weapons systems have put New Zealand personnel and mission objectives at risk. This has often been due to the superior firepower and mobility fielded by the forces of adversaries. Weapon systems including the LAV, LOV, NH90 and MRV, and command, control and communications technologies will restore the capability edge to the NZDF. However, these technologies will necessitate jointness, coalition interoperability and continual upgrade to maintain a technological edge.

Joint cooperation, in itself, has become a critical enabler for military operations. The requirement for joint training is however, creating significant challenges for the NZDF. As stated above, time, resource and personnel restraints coupled with a high operating tempo have restricted joint training. Personnel restraints are the most significant deficiency in the NZDF. As an example, the Army is currently between 20 and 30 percent under strength in certain arms. This is a critical, long-term issue for the military.

The technology and doctrine of the NZDF, and operational reality, creates a requirement for coalition interoperability. Within interoperability there is a requirement for field element and intelligence cooperation. If field elements are to operate together, they must train together to create trust and synergy. Intelligence is a requirement for all military operations. Without intelligence, field and command elements are visually impaired. However, New Zealand does not have the means to acquire intelligence unilaterally. Hence, allied intelligence is an essential enabler for New Zealand forces on operation. Unfortunately, intelligence cannot be ascertained freely from New Zealand's allies, due to the political fissure between New Zealand and the United States.

In summation, the NZDF has proven to be an effective counterinsurgency force in LIC. The high standard of New Zealand personnel is central to this effectiveness. Moreover, the equipment and command deficiencies outlined in this chapter have been, or are being addressed. However, there are joint and interoperability challenges facing the NZDF. The NZDF must also facilitate

greater institutionalisation of lessons learnt. For all this, the NZDF is capable of operating competently as a counterinsurgency force in LIC.

Conversely, however, as outlined in the 2005 NZDF Annual Report, significant risk would be incurred if regular field elements were to operate in Employment Contexts (EC) 3-5. EC 3-5 include security challenges to: (1) the Australia-New Zealand Strategic Area; (2) New Zealand's interests in the Asia-Pacific region; and (3) New Zealand's interests in global peace and security. Put simply, the Annual Report indicates the NZDF cannot at present operate regular force elements outside New Zealand. This is in contradiction to current practise, as the NZDF have deployed the PRT and a SAS team to Afghanistan. It was stated at the beginning of this chapter that for the NZDF, the Afghanistan experience may demonstrate two important issues. Humanitarian assistance and special force operations may be: (1) an area of NZDF excellence, and (2) politically viable operational options for the Government. Afghanistan may also demonstrate that at present resource levels, the PRT and SAS deployment is all the NZDF can deploy. The PRT and SAS are a significant contribution to the future of Afghanistan. However, Bosnia and East Timor were numerically considerably larger deployments. The importance of force readiness, capability, numerical strength and projectability are hence significant requirements for the NZDF.

In terms of doctrinal principles, the NZDF has: effectively controlled international interference; provided internal security; applied civil operations that have supplemented military operations; and installed a command system that proved sufficiently unified on operation, but requires improvement. In terms of military principles, there are a number of areas where the NZDF shows skill, but there are other areas that need improvement. NZDF doctrine has proven sufficiently adaptable to ensure operational effectiveness in counterinsurgency operations. However, this doctrine needs to be supplemented by doctrinal supplements specifically tailored to LIC. The NZDF is endowed with professional personnel, who can operate independently, and show initiative and restraint. Joint force and combined arms operations have been insufficiently supported principles in the NZDF. A lack of modern equipment, readiness policy and inadequate training has reduced the NZDF's capability to employ joint force and combined arms on operation. Aging communications technologies have been

a principal cause for concern throughout the NZDF; essentially, NZDF communications need to improve so as to enable joint force, combined arms and force precision to be effectively utilised. The acquisition of accurate human intelligence has been a strength of the NZDF. This is because of the way the NZDF has utilised military forces in coordinating and applying political, diplomatic, economic and military forms of force. This holistic use of force has enabled effective outcomes when the NZDF has operated in counterinsurgency roles.

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Chapter Eight

Australian Defence Force

This chapter analyses the implications of Low Intensity Conflict (LIC) for the Australian Defence Force (ADF). The chapter concomitantly makes recommendations concerning the ADF approach to LIC.

As has been indicated earlier, this research acknowledges that conflict is fought through the application of political, economic, diplomatic and military forms of force. This research analyses how these forms of force can be coordinated and applied strategically, tactically and operationally by a counterinsurgent. This chapter analyses, principally, how effectively the ADF has coordinated and applied these forms of force in counterinsurgency operations. In terms of doctrinal principles, this chapter investigates how effectively the ADF has controlled international interference, provided internal security, applied civil operations and installed a unified command, when operating as a counterinsurgent. There are also ten military principles that are examined in relation to ADF counterinsurgency operations in LIC; they include doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, joint force, integrated communications and accurate human intelligence. From this basis of holistic examination, recommendations are suggested that would augment the capability of the ADF when operating as a counterinsurgent in LIC. The analysis and recommendations made in this chapter will also be of interest to other medium-sized defence forces, which will be confronted with similar issues as the ADF when operating as counterinsurgents in LIC.

The sections of this chapter reflect the critical elements of force in LIC. Frequently these elements of force have proven to be as essential to conventional warfare as they are to LIC. However, there are a number of sections below that emphasise distinct forms of force required in counterinsurgency operations in LIC. This chapter and the previous chapter on the New Zealand Defence Force are intentionally structured alike. The chapters are structurally similar and they

This spectrum is partly related to the level of violence in theatre, but is not restricted by that level of violence.

The ADF deployment to Operation Solace in Somalia constituted a battalion group, namely 1st Battalion Royal Australian Regiment (1RAR). 1RAR was tasked with administering the Baidoa Humanitarian Relief Sector in southern Somalia.¹

Operation Lagoon was an Australian planned, led and supported mission. However, the main land force elements incorporated one company each from Fiji and Vanuatu, and a para-military platoon from Tonga. This combined force was known collectively as the South Pacific Peace Keeping Force (SPPKF). The ADF supplied one amphibious and one logistics ship, C-130 and Caribou aircraft, Blackhawk helicopters, force intelligence, surveillance, communications and strategic command. Collectively, Operation Lagoon constituted a force equivalent to a battalion group. The aim of Operation Lagoon was to facilitate security at a peace conference held in Arawa, Bougainville. Essentially, this task involved monitoring a cease fire agreement.

Again in the case of Bougainville, the TMG and PMG's purpose was to monitor an established peace. Given the operational environment in Bougainville, it was deemed that the TMG and PMG should be unarmed. The TMG was a small-scale joint force, under a New Zealand command, with Australian support.² The PMG replaced the TMG and was predominantly an Australian operation.

The ADF commitment to INTERFET was the largest Australian force deployment since World War Two. In addition, the INTERFET operation was commanded by Australia. The ADF INTERFET commitment, at its height, constituted approximately three battalions with attached armour, a joint operational headquarters (HQ), transport helicopter and aircraft support, a naval contingent, and service support for most of the INTERFET force.³

The ADF commitment to Afghanistan consisted of "a Special Forces Task Group; two 707 Air-to-Air Refuelling aircraft ...; four F/A-18 Hornets ...; [and] two AP-3C Orion maritime patrol aircraft".⁴ These forces either operated directly or indirectly "against the Taliban and Al Qaeda in Afghanistan",⁵ freed coalition forces to undertake missions against the Taliban and Al Qaeda, or supported the Multinational Interception Force. Moreover, Royal Australian Navy (RAN) vessels also provided regular, but intermittent support to the Multinational

Interception Force. The Multinational Interception Force enforced sanctions against Iraq and endeavoured to quarantine Afghanistan from seaborne interference.

The initial ADF commitment to Iraq included “[Her Majesty’s Australian Ship] HMAS *Kanimbla* with Army Air Defence and landing craft detachments; a Navy Clearance Diving Team; a Special Forces Task Group; an F/A-18 Hornet fighter detachment; and a C-130 Hercules transport aircraft detachment”.⁶ These force elements operated against Iraqi military forces and assisted with opening Iraqi port facilities to coalition vessels. The ADF has made subsequent deployments to Iraq, including cavalry and support elements.

Doctrine and Policy

The basis for Australian defence policy, since 1901, has alternated between two contrasting strategic imperatives: Defence of Australia and Forward Defence. The Defence of Australia strategy emphasises the pre-eminence of naval and air forces in controlling the sea-air gap to the north of Australia. Hence within this strategic framework, land forces are of limited strategic relevance. The Defence of Australia strategy has maintained primacy during the periods, 1901 to 1939 and 1972 to the present. During the period 1945 to 1972, Australian strategy focused on limited war and insurgency in Southeast Asia. (It could be argued that the chronological dominance of these strategies is less distinct than what is stated above. However, the distinction outlined in this section is sufficient for the purpose of this analysis.) The strategy of Forward Defence elevated the Army to a position of primary ADF combatant. Hence, a highly trained, well equipped, professional army was formed and sustained. Due to the re-emergence of the Defence of Australia strategy after 1972, the Australian Army was once again relegated to a position of “the least significant of the three services”.⁷

The case studies of this chapter analyse ADF counterinsurgency operations in LIC, during the period 1993 to 2006. LIC necessitates highly trained, well equipped land force elements, which must be closely supported by, and integrated with, air and sea force elements. During that period, however, Australian defence policy and strategy has emphasised air and sea combat, command and control, and technical surveillance and intelligence. This strategy

has been to the detriment of ADF land elements, as well as joint strategic and tactical force projection and support capabilities. Hence, Australian defence policy and strategy has severely constrained the ADF's capability in LIC.

The "dissonance between ... declaratory [Australian] strategic theory and ... actual [ADF] military practice"⁸, since the early 1990s, was recognised in the Australian defence white paper: Defence 2000. Defence 2000 acknowledged that "the development of ... [Australia's] land forces ... [needed] to reflect a new balance between the demands of operations on Australian territory and the demands of deployments offshore, especially in ... [the] immediate [regional] neighbourhood".⁹ Despite this acknowledgement, Defence 2000 maintained the primacy of the Defence of Australia strategy.¹⁰ Subsequently, however, the threat to Australia's security interests represented by global terrorism, proliferation, and failed and failing states caused a re-evaluation of national defence priorities. Hence in 2005, the Australian Government published 'Australia's National Security: A Defence Update 2005'. There was another version of this published in 2003. However, the 2005 issue will be the focus of this section, as it most accurately reflects current Government thinking. This update indicates a growing realisation that Australia has "significant security responsibilities in the immediate region, [must] make meaningful contributions to coalition operations further afield [sic] and more broadly defend Australia and Australian interests".¹¹ The document also recognises that "[t]hreats to national and international security are increasingly interrelated ... [and] Australian security interests are not defined by geography alone".¹² These are significant conceptual departures from previous defence white papers. The Defence of Australia strategy is giving way to Forward Defence, and the dissonance between policy and practice is diminishing.

'Defence Update 2005' also indicates that to "meet ... [the aforementioned] policy and strategic needs, the ADF must be able to operate as a networked, joint force across information, air, land and maritime domains. It must be able to operate in environments that are complex and ambiguous, and where adversaries, have increasingly lethal capabilities. Through continuing modernisation, it needs to retain a capability edge over potential rivals. At all times it must maintain high levels of preparedness".¹³ Hence, contemporary Australian defence policy and strategy is beginning to assimilate contemporaneous operational military practise. Furthermore, that military

practise has, and is, principally occurring within the parameters of LIC. Therefore as the current strands of Australian defence policy and strategy develop, the effectiveness of the ADF in LIC should improve. This is primarily because ADF doctrine is becoming more tailored to counterinsurgency operations in LIC.

ADF personnel interviewed for the purposes of this thesis have been critical of the defence policy process. Specifically, there is a fissure between the service organisations and government in the creation of policy and defence reports; similar processes have occurred in New Zealand. There are three areas of concern. First, the policy process almost excludes military input. When the 2000 Defence White Paper was being compiled, the services were limited to a 24 hour turnaround of drafts, as a means of influencing the process. In the case of the Joint Standing Committee on Foreign Affairs, Defence and Trade's paper on Australian Maritime Strategy, "the Navy wasn't [sic] allowed to make a submission".¹⁴ Second, defence policy is not reflective of military doctrine.¹⁵ This is a significant deficiency as force structuring, personnel, equipment procurement and command and control infrastructures are integrated, co-dependent derivatives of doctrine. Hence, if doctrine is not synchronised with policy, military capability and government intent will not equate. Third, the defence updates have been too narrowly focused upon land-centric expeditionary warfare. Dr David Stevens, of the Royal Australian Navy's Sea Power Centre, indicated that there are many diplomatic, constabulary and military tasks performed by the Navy, which are not included in 'Defence Update 2005'.¹⁶ This lack of accuracy could skew future force structuring and budgetary imperatives. This in turn could create a force that may lack the flexibility to perform operations, and hence achieve government intent.¹⁷

Subordinate to government policy and strategic guidance is the ADF's philosophical doctrine: 'Foundations of Australian Military Doctrine' (ADDP-D).¹⁸ As the highest form of joint Australian doctrine, ADPP-D endeavours to create a seamlessly integrated ADF. To achieve this end, ADPP-D enshrines the fundamental concepts that ultimately guide the various services and elements within the Australian Defence Organisation. The leading conceptual strands of ADPP-D comprise joint coordination, political adroitness, Manoeuvre Warfare, coalition integration and an embryonic form of Effects-Based Operations.¹⁹ Future concepts, as outlined in the doctrinal publication 'Force 2020', consist of a

Seamless Force, Network-Enabled Operations and an Effects-Based Approach.²⁰ These concepts combine to generate Australia's 'Future Warfighting Concept', Multidimensional Manoeuvre.²¹

Multidimensional Manoeuvre is an evolved form of contemporary Manoeuvre Warfare, which simply seeks to apply strength against weakness through manoeuvre. Multidimensional Manoeuvre depends upon a Seamless Force applying an Effects-Based Approach. An Effects-Based Approach "seeks to defeat an adversary's strategy and resolve[,] instead of merely attriting [sic] his armed forces".²² This greatly enhances flexibility and enables asymmetry in the process of achieving an outcome. Seamless Force is a whole-of-nation approach, which "goes beyond the contemporary understanding of 'jointness',... to maximise ... collective warfighting capabilities and specialisations [through integration and synergy]".²³ In addition, Seamless Force is dependent on the connectivity provided by Network-Centric Warfare. Network-Centric Warfare seeks to link "sensors, engagement systems and decision-makers into an effective and responsive whole... [In so doing, a seamless force is provided] with the ability to generate tempo, precision and combat power through shared situational awareness, clear procedures, and the information connectivity needed to synchronise ... actions to meet the commander's intent".²⁴

The future doctrinal concepts, outlined above, will influence the way the ADF operates in LIC. Hence, the influence of each concept is subsequently analysed. Seamless Force is a derivative of three current concepts: joint coordination, political adroitness and coalition integration. Joint coordination "is the effective integration of thought and action [by all three services] ... to achieve a common goal".²⁵ In all the case studies of this thesis, joint coordination has been a key factor in enabling the effective application of force in LIC. Forces must be politically adroit, so as to limit and control the post-conflict political consequences of military action. Political adroitness is critical in LIC, as the population is the centre of gravity. Hence, military action must only occur in concordance with a strategy of winning the hearts and minds of the population. Furthermore as a whole-of-nation approach, governmental and non-governmental agencies are integrated within the Seamless Force. This concept needs to be reinforced in LIC, as only a holistic form of security will succeed. (For further explanation of the concept of holistic security, see this thesis' chapter, A Doctrine

for Low Intensity Conflict.) Coalition integration is only an important requirement in LIC, if the deploying force is multinational. All of the case studies of this thesis, except those contained in the Soviet/Russian chapter, involve coalition force. Hence it is important for the ADF to maintain a capability to operate effectively with foreign defence forces. An Effects-Based Approach to LIC will be effective as long as the approach is adaptive enough to be applied in an unconventional manner. There are few, if any, specific critical nodes in LIC that will incapacitate an insurgent strategy. However, sealing the theatre and controlling the population's support, will drastically curtail an insurgency. Hence an Effects-Based Approach, focussed upon the aforementioned operational outcomes, may be effective in LIC. Network-Centric Warfare has been shown, in Afghanistan and Iraq, to be highly effective in LIC. 'Precision and joint combat power, situational awareness, information connectivity and synchronisation'²⁶ have been critical in effectively prosecuting counterinsurgency operations in LIC. Therefore the aforementioned doctrinal concepts should provide a firm and effective conceptual basis for the ADF in LIC, providing that the conditions delineated above are incorporated operationally.

An Effects-Based Approach, as perceived by the three services, represents a Whole of Government synthesis in generating a "seamless national security force"²⁷ response to a complex security issue. However, there is a perceived "cultural dissonance"²⁸ among the three services, pertaining to the Effects-Based Approach. The idea of cultural dissonance refers to a separate service meaning being attached to a universal concept, such as the Effects-Based Approach. However, cultural dissonance may be a rational and reasonable consequence of the individual services' Spectrum of Operations. A Spectrum of Operations indicates the range of tasks that the force elements of a service can perform. For the RAN, potential tasks include intelligence collection and surveillance, cover, maritime strike and interdiction, maritime mobility, land strike, support to operations on land, and amphibious operations.²⁹ These tasks correspond broadly to three maritime roles: Military, Constabulary and Diplomatic.³⁰ Furthermore, the aforementioned tasks and roles have a conceptual basis in the philosophical concepts of sea control, sea denial, maritime power projection and sea lines of communication.³¹ Some of the maritime tasks listed above would be familiar to other services, but be derived from different concepts. Alternatively, some of the

aforementioned maritime tasks would be completely foreign to the other services. Hence the differing environments, in which the single services operate, have created a cultural dissonance within the ADF. Difficulties can consequently develop when a joint operating concept, such as the Effects-Based Approach, comes in contact with cultural dissonance.

To manage the difficulties of cultural dissonance in a joint environment, joint and whole-of-conflict education is essential, as is lateral command, control and communications between service stovepipes (vertical non-integrated information flows), and top-down doctrinal management. However, these requirements create their own set of resource, personnel and structuring issues. Implementing an Effects-Based Approach to conflict is “an expensive enterprise ... [, in terms of] communications, command ..., people’s time [and] skill sets. [Due to the complex interface within the ADF and] between ourselves and coalition partners. People haven’t [sic] realised ... to be a seamless ... effects-based force..., [there are] high transaction costs [involved]”.³² Whether these costs will be funded is an issue for the ADF, given that the products are intangible. In terms of personnel, there is an attempt “to educate ... [personnel] to three ends; (1) ... [individual service] professional mastery; (2) [tri-service] joint [mastery]; and (3) [mastery of] the national Effects-Based Approach. Most [personnel] simply cannot cross the mastery of their own activities and those of others to make sure that unified outcomes can be achieved”.³³ Hence, there is a “disconnect between the demands ... [the ADF] puts on people to ... [assimilate this knowledge] and the ... capacity to educate them”.³⁴ However, if knowledge is only conferred upon a highly educated leadership, issues will arise of personnel not understanding “the nuances of the directions given to them by their commanding officers”.³⁵ This may in turn cause “political trouble at an early stage [in the conflict]”.³⁶ Nonetheless, the Effects-Based Approach is an operational reality. Whole-of-Government synergy has been a significant factor in both Operation Bel Isi in Bougainville and Operation Ramsi in the Solomon Islands.³⁷

The terms Network-Centric Warfare and Seamless Force are almost used interchangeably by the three services. This is because Seamless Force is dependent on the connectivity of Network-Centric Warfare. In addition, these future concepts have a basis in current joint thought. Seamless Force and

Network-Centric Warfare will constitute a significant conceptual and foundational redesign of the Australian Air Force's Future Air and Space Concept. Specifically, the "Air Force is seeking to shape itself to be ... networked [and] seamless [within a] whole of government approach ... to solving complex security [issues]".³⁸ The Army will also integrate these future concepts with the Hardened and Networked initiative. For the Navy, these concepts represent an evolutionary process, as maritime platforms have historically been networked.³⁹ However as stated above, these concepts are advancements on jointness. Hence, the degree of jointness within the Defence Force may indicate the future capability of the ADF to incorporate Seamless Force and Network-Centric Warfare. Bob Breen,^A a research fellow at the Australian National University, indicated that "efforts made in the 1990s to develop a joint [command and control] C2 structure that made joint force projection more efficient and effective were not successful".⁴⁰ Dr David Stevens, the Director of Strategic and Historical Studies at the Australian Sea Power Centre, states in the case of East Timor that "the Army ... [clearly lacked understanding of] what Navy could do and what it brought to the mission".⁴¹ Breen also states that "arguably as late as 2003, the ADF was still having difficulties applying joint doctrine to operations, illustrated by the deployment to the Solomons [sic]".⁴² Breen indicates that the Defence Force lacks joint cohesion because "the ADF did not rehearse joint force projection at all [during] the 1990s". Furthermore, the Kangaroo, Tandem Thrust and Crocodile exercises "were always partial rehearsals, they rehearsed what came after [an amphibious assault], and the three services essentially trained separately".⁴³ Hence, while there are doctrinal, structural and capability developments occurring within the ADF, with the purpose of enabling the future concepts, there are still significant developments required at the operational level to assimilate current and future concepts.

The joint operational issues analysed above, may represent a lack of doctrinal cohesion at the single service level. This is a generally accepted assertion within the ADF. Captain Peter Leschen, RAN, describes the situation thus, "[d]octrinally, the ADF has a situation where joint, maritime, land and

^A Breen has been often cited in this chapter due to the importance of his research into numerous ADF operations in LIC. However, the aforementioned research has been supplemented by numerous other academic texts, government documents and the accounts of practitioners.

aerospace concepts are expressed in four different languages, which are not necessarily well understood across the ADF”.⁴⁴ This lack of cohesion undermines the ADF’s capability in LIC. Presently, there is no mechanism within the ADF to ensure single service and joint doctrinal cohesion. The three services are simply expected to assimilate joint doctrine published by the ADF Warfare Centre, or joint future concepts published by Strategy Group. The only other forums for joint doctrinal learning are the staff colleges, joint service modules and programmes. A Royal Australian Air Force (RAAF) Wing Commander has indicated that the ADF “is trying to work toward a system where there is an active linkage between the development of joint doctrine and reference to the single service doctrine”.⁴⁵ This system would ensure “a two way information flow..., [through] formal joint management and steering mechanisms within Defence”.⁴⁶ Dr Michael Evans, of the Land Warfare Studies Centre, indicates that joint doctrinal understanding and cohesion would benefit from “more joint involvement from the service studies centres”.⁴⁷ Evans also states that the ADF would benefit from a “Joint Studies Centre, as the individual studies centres don’t [sic] have enough critical mass to [enable doctrinal cohesion separately]”.⁴⁸ The Strategy Group and the ADF Warfare Centre share the responsibility for joint doctrine. Air Commodore Mark Lax, Director General Strategic Policy at the Strategy Group, stated that the role of Strategy Group is to provide “high level guidance for the department... [in terms of concepts]”.⁴⁹ However, Strategy Group does not “specifically invigorate policy”.⁵⁰ It may be appropriate if Strategy Group and the ADF Warfare Centre were to be invested with the authority to ensure doctrinal cohesion. This then would make for better jointery, which is critical in LIC.

It is clear that Australian defence policy and doctrine are corresponding increasingly well with the requirements of counterinsurgency operations. However, there are concerns that as these changes take place, policy and doctrine will become gradually more land-centric and less joint. The ADF must focus on ensuring that policy and doctrine are based on the military principle of joint force. Counterinsurgency operations require a joint approach, and this joint approach must be supported by policy and doctrine. Australian policy and doctrine recognise the importance of a holistic approach to conflict, incorporating political, economic, diplomatic and military forms of force. Such an approach is essential

in counterinsurgency operations. However, the services of the ADF must also ensure that this holistic approach can be applied jointly.

Infantry

Infantry operations are analysed below in four subsections: (1) Personnel; (2) Tactics, Techniques and Standard Operating Procedures; (3) Equipment; and (4) Training.

Personnel

As indicated by the counterintelligence personnel of 1 RAR, the initial Somali impression of Australian troops was that they were “white, European-looking, English speakers like the Americans, but impersonal and aloof – just like the French.”⁵¹ This impression was realistic, given 1 RAR soldiers believed they were in Somalia to close-with and engage a conventional foe. This 1 RAR mindset only began to alter through the efforts of two counterintelligence personnel. These counterintelligence personnel indicated to 1 RAR that the population was the centre of gravity for the operation. This was due to the intelligence the population could provide 1 RAR. Given this rationale, 1 RAR personnel transformed their “stern... [and] unsmiling” character with smiles, Somali greetings, fairness, friendliness and compassion.⁵² These evolved Australian characteristics quickly won the support of the Somali population.

However, various irritants undermined 1 RAR operations by putting pressure on professionalism and the morale of Australian personnel. These irritants included: (1) the local police authority holding prisoners for serious crimes for only 24 hours; (2) ROE that gave Somali belligerents (the term Belligerents is used as 1 RAR combated three indistinct armed threats, criminals, nomadic ‘bandits’ and Non-Governmental Organisation (NGO) guards) a significant tactical advantage; (3) provocation from Somali youths; and (4) poor and unfair base living conditions. The first and fourth problems indicated above, could have been moderated by ROE that authorised the holding of criminals and belligerents, and a planning phase that ensured the comfort of personnel in theatre. Without such actions personnel may be provoked to breach ROE or act

aggressively towards the populous. Such actions could seriously undermine an LIC operation.

As with examples in the previous chapter, an understanding of culture was an important lesson learned from Operation Lagoon. Specifically, liaison officers provided a critical link between the ADF, NZDF, Fijian, Tongan and Ni Vanuatu force elements. Although this liaison was critical, those selected did not always possess the requisite language and cultural skills; this problem has also been an issue for the NZDF, but not to the same extent. Consequently at the pre-deployment training stage, the Pacific force elements were offended by the lack of cultural courtesy extended to them by the ADF. Hence, pre-deployment training was less effective, as the Pacific contingents were reserved and inadequately integrated. Furthermore, there should have been liaison officers deployed amongst the leadership of the opposed forces in Bougainville. This may have stopped Papua New Guinean Defence Force (PNGDF) interruption of the peace conference, and encouraged Bougainville Revolutionary Army (BRA) and Bougainville Interim Government (BIG) conference attendance.⁵³

In Bougainville, a combination of short tactical planning, training and deploying phases, and inadequate numbers of troops, meant the “force structure was insufficient to accomplish the mission”.⁵⁴ The ground elements equated to a company HQ and eight under-strength platoons, rather than the nine platoons envisaged at the planning stage. Furthermore, this force arrived in Bougainville the day before the anticipated conference start date. Hence, “[t]ime was not available for the SPPKF to become more situationally [sic] aware and to employ force multipliers, such as liaison, human intelligence networks, technical surveillance and high and low level communications to offset the lack of numbers”.⁵⁵

In the case of Operation Lagoon, political imperatives undermined military requirements. Following the initial tactical reconnaissance visit to Bougainville, all SPPKF participants recognised the need for twenty-one days of readying time. This timeframe would include: (1) ten days training; (2) four days of maritime deployment; and (3) seven days to secure the neutral zones. The then Papua New Guinean (PNG) Prime Minister, Julius Chan, demanded the twenty-one days to be cut to fourteen. Hence, “[t]raining was truncated, resulting in the SPPKF not satisfying ADF standards for off shore deployment. There was a lack of cohesion

and mutual confidence among the contingents comprising the Combined Force. A more complex and expensive deployment plan was implemented to reduce deployment time – i.e. [sic] by air rather than by sea... [But most significantly, b]ecause SPPKF force elements did not have time to establish themselves in designated neutral zones, criminal gangs intimidated conference delegates and locals, [and rogue PNGDF elements broke the cease fire agreement]”.⁵⁶ In short, “[t]he SPPKF was ... not in a position to guarantee security or properly support the conference for the first three days”.⁵⁷

The professionalism of the Australian forces in East Timor was put under immense pressure by militia and Indonesian Territorial Force units. These latter belligerents provoked and threatened ADF personnel following the INTERFET lodgement. However, there were no incidents of ADF personnel reacting to incitement. Despite the provocation, the ADF aggressively asserted their authority in Dili and throughout the countryside. ADF operations in East Timor were reminiscent of those performed in Operation Solace. The early ferocity of operations in Dili was also a product of operations in Northern Ireland. This was because the commanding officer of 2 RAR, Brigadier Mark Evans, was an officer of the British Army and had served in Northern Ireland. Hence, high tempo patrols, aggressive cordon and search operations, the clearing houses and buildings belonging to militia, and immediate response to sightings, incidents and intelligence, quickly suppressed and functionally dislocated adversarial forces. The assertive dispatch of forces into the border regions similarly dislocated the militia. In both rural and urban operations, ADF units were enthusiastic users of population based intelligence. This intelligence was often highly effective, frequently creating a butterfly effect, where detainees would provide further usable information.⁵⁸

In common with Australia’s allies, the ADF employs a two stage level of preparedness. ADF units are directed to maintain a Minimum Level of Capability (MLOC), which in an agreed timeframe can be improved to an Operational Level of Capability (OLOC). An Australian Government report,⁵⁹ published in September 2000, indicated the MLOC/OLOC dichotomy had hidden a serious Force generation issue within the Australian Army. The NZDF has had similar problems due to a similar force generation policy, which seems to indicate that the policy is flawed.

Force generation is a process of moving units from MLOC to OLOC. The outcome of Force generation is unit readiness. At the time of operations in East Timor, the Australian Army was notionally a structure incorporating nine brigades. Two brigades (1 and 3) were regular force, one was an integrated reserve/regular brigade (7), and the remaining six brigades were reserve formations (4, 5, 8, 9, 11 and 13). Prior to 2000, 3 Brigade constituted the ADF's Ready Deployment Force (RDF), a force at high readiness. In response to East Timor, 1 Brigade's readiness was improved, so as to supplement the RDF. However, once the RDF deployed to East Timor in early 1999, the ADF found itself without the Latent Combat Force or Enabling Component to facilitate force rotation at strength. The Latent Combat Force describes formed lower-readiness non-deployed units at MLOC, while the Enabling Component encompasses ADF training centres and instructors. The weakness of the Enabling Component was described by the Australian Army as follows: "Rationalisations over the past decade have reduced Army and supporting and enabling elements to the extent that their capacity to support short-notice surge requirements has effectively been removed. For example, it is assessed that the Training Command – Army will have difficulty meeting all the potential individual training requirements necessary to sustain the enhanced combat force, [and] remediate the personnel shortfalls in the lower readiness formations..."⁶⁰ Furthermore, the Latent Combat Force was described as "dysfunctional [and unable] to fulfil its role".⁶¹ This role is to reinforce the RDF, when the initial units require rotation or supplementation. The reason for the dysfunctional nature of the Latent Combat Force was an institutionalised lack of readiness. This lack of readiness was caused by the MLOC/OLOC process. First, problems associated with "personnel management, training, recruiting practises, equipment provisioning, callout legislation and most of all resourcing [sic] [precluded a functional ready-state of capability within the Latent Combat Force]".⁶² Notionally, however, the Latent Combat Force was fulfilling its MLOC capabilities and mandated readiness times of between 180 and 360 days. Hence, the MLOC/OLOC process had generated a latent force that was functionally irrelevant, so as to minimise expenditure. Furthermore the 'Rationalisations' during the 1990s, had eroded the Enabling Components to an extent, that they themselves were also functionally irrelevant. The Australian Government report referred to earlier, expressed concern "that the practice of long

readiness times delivered no useable capability while creating the impression that the Army was large and capable”.⁶³ The report recommended that: (1) no unit should be maintained at readiness-state beyond 120 days; and (2) if units could not be resourced to meet that readiness-state, they should be disbanded.⁶⁴ As a result, the pursuant Defence White Paper proposed an Army structure centred on three brigades (1, 3 and 7 Brigades). These brigades would be composed of six regular battalions, plus units from the Special Operations Group. In addition, each brigade would include “a range of specialised combat units such as armour, artillery, reconnaissance, aviation, combat engineers, logistics and support units”.⁶⁵

Special Operations Forces (SOF) have been a central aspect of ADF operations in East Timor, Afghanistan and Iraq. In the case of East Timor, Australian SOF undertook three mission-critical operations. First, SOF partook in extracting UN staff from East Timor. Second, SOF personnel represented the core of the INTERFET Response Force, which secured ports of entry in East Timor. Third, SOF personnel provided reconnaissance information on, and partly secured much of, East Timor’s countryside. In the case of Operations Slipper (Australia’s participation in Operation Enduring Freedom), Falconer and Catalyst (Australia’s participation in Operation Iraqi Freedom), SOF constituted the entirety of Australia’s land combat component participation.

In Afghanistan a “150-strong [Special Air Service Regiment] SASR detachment ... [operated] in southern Afghanistan ... [from] late 2001, equipped with a mix of 4 x 4 and 6 x 6 patrol vehicles, motorcycles and quad bikes. Missions have included surveillance, reconnaissance, forward air control, screening of escape routes and ordnance disposal. In March [2001] the force took part in combat operations during the [United States] US-led [sic] Operation ‘Anaconda’”.⁶⁶ Following two further rotations through Afghanistan, SOF operations were suspended in early 2003.⁶⁷ This cessation of SOF operations in Afghanistan may have been in active or passive support of Australian SOF operations in Iraq. However, a “Special Forces Task Group (SFTG) consisting of Special Air Service (SAS) Regiment, Commandos, Incident Response Regiment (IRR) and logistic support personnel have ... [returned] to Afghanistan to conduct special operations in support of security and reconstruction efforts in the country”.⁶⁸ As of September 2005, the “SFTG ... [continued to] provide

reconnaissance, surveillance and other specialised capabilities to the Coalition's continuing operations against Al Qaeda and the Taliban".⁶⁹

SOF operations in Iraq, while asymmetric, targeted fairly conventional objectives. Australian SOF were deployed: (1) to Iraq's western desert to deny Saddam's regime the capability to strike Israel with ballistic missiles; (2) to observe strategic roads and military installations near Baghdad and in Iraq's western desert; (3) to conduct direct-action missions against communications and other specified installations; and (4) contain the conflict by denying movement to "foreign [insurgency] supporters ... [and] former regime [officials]".⁷⁰ The SFTG in Iraq "was built around a Special Air Service (SAS) Squadron. It was supported by a reinforced Commando Platoon as a Quick Reaction Force and a Nuclear, Biological and Chemical Defence troop from the Incident Response Regiment. It also had a Forward Command element from Headquarters Special Operations and personnel from the Logistics Support Force and the RAAF. Support came from the C-130s of 36 Squadron and a detachment of three CH-47 Chinook helicopters from the 5th Aviation Regiment".⁷¹ The SFTG was also provided, at times, combat air support from F/A-18 Hornets from 75 Squadron.

In terms of military principles, ADF personnel have conducted themselves in a professional manner, and have maintained restraint when facing difficult situations. ADF personnel also illustrate a capability to operate independently and have with initiative. However, the MLOC/OLOC force generation process has undermined the professional capability of the ADF, as it has done in the NZDF.

Tactics, Techniques and Standard Operating Procedures

In the case of Somalia, Tactics, Techniques and Standard Operating Procedures (SOPs) were highly variable. This was because the tactics and procedures of different companies and platoons reflected the attitudes of their commanders. This divergence varied from "aggressive patrolling, house and building searches and vigorous questioning of anyone behaving suspiciously...[, to] patrolling and offering a friendly 'Hello' in Somali to ... diffuse tension in [Baidoa]".⁷² Breen asserts "[t]here is insufficient evidence to validate [the effectiveness of] either approach".⁷³ What is evident is that aggressive commanders, who relentlessly acted upon counterintelligence, seized quantities of arms and cash and arrested or

killed many criminals and Somali belligerents. Furthermore, there seems to be no evidence that this approach caused undue tension in Baidoa, other than among criminal and belligerent elements.

Initial patrolling was the primary tactic for securing Baidoa. However, patrolling units were based at the airfield, and had to march to town before the patrol could begin. This meant each patrol: (1) was monitored by Somali belligerents and criminals; (2) were tired from the march to Baidoa town; and (3) were not effectively securing Non-Governmental Organisation (NGO) compounds. To overcome this issue, 1 RAR units deployed to all NGO compounds in Baidoa, and from these compounds patrols originated and terminated. Although this change placed 1 RAR personnel in a more threatening environment, overall security in Baidoa improved. There were two further early changes to 1 RAR tactics. First, driven by intelligence, additional house and building searches were authorised. Second, further M113 patrols were introduced in Baidoa, to bolster 1 RAR presence. These tactics provided 1 RAR with 'surprise, stealth, initiative' and elicited intelligence from the population.⁷⁴ As a result of aggressive commanders, the re-deployment of 1 RAR units to town, and timely and correct counterintelligence proved a highly effective tactical mix.

Rural operations in the Baidoa sector were inconsistent with urban operations. The significant inconsistencies included Australian operations, ROE, the 1 RAR command interpretation of the UN mandate, and intelligence collection and rural politics. The latter two issues will be analysed in the 'Intelligence' section below. Australian operations were obviously rural in intent, incorporating cordon and search, road control, and rapid reaction operations. Many personnel of 1 RAR presumed the intent of these operations was to capture bandits, arms and ammunition. In contrast, it seems the intent of 1 RAR command, was to use the above operations to promote Australian presence and deter bandits. Furthermore, the UN focus was on a militia threat, while in reality bandits were the real threat. Hence initially, operating procedures for the listed operations were only marginally effective at achieving a tangible result. For example, cordon and search operations consistently lacked surprise. This was due to counterproductive coalition psychological operations, pre-operation Australian counterintelligence or reconnaissance platoon presence in targeted settlements, and noisy, slow M113s. Consequently, bandits could escape and conceal weapons and ammunition

securely prior to Australian cordons being set. Company and platoon commanders did attempt to overcome such cordon and search issues with initiative. However, these innovative operations were often overruled by higher command or ROE. For example, intelligence information was attained on the movements of a bandit leader. To civilian casualties, the reconnaissance platoon decided to intercept the bandit leader when entering or exiting the town of Tugerhosle. To provide information for the intercept operation, “three snipers dressed as locals”⁷⁵ were sent to observe the town. Once Lieutenant Colonel Hurley became aware of this operation, it was cancelled, as it breached the ROE. Instead, a cordon and search operation was suggested. ‘This approach created significant problems and dangers: the sound of the APCs would alert the bandits to the operations, the town was too large to effectively cordon, and any fire fight between the reconnaissance platoon and the bandits could kill civilians’.⁷⁶ Hence a risk averse attitude toward ROE, amplified a risk for military personnel and civilians. The aforementioned examples of rural operations in Somalia, actually demonstrate the effect ROE and a UN mandate can have on initiative and operations. Initiative was significant in Somalia, as standard operating practises were initially ineffective. However, initiative often came in conflict with ROE, and/or the command interpretation of the UN mandate. “The focus...[of the UN Mandate] was not on securing each sector in its entirety, but on ensuring there was a secure environment for the distribution of humanitarian aid”.⁷⁷ Herein lays the problem, the mandate and the Australian command interpretation of that mandate, focused on a process, rather than an outcome. If the mandate focused on the freedom of movement and security within the sector, unit initiative would have concentrated force on realistic threats.

As indicated above, it was important for ADF personnel to establish a permanent presence among the civil population. This was significant in reference to doctrinal principles because internal security could be provided and civil operation could be applied. In terms of military principles, this ADF presence enabled accurate intelligence to be gained, which led to force being precisely applied. However, various ROE prohibited certain practices that are critical to counterinsurgency and certain UN policies undermined the collection of intelligence. More specifically, certain UN policies did not reflect the reality of the operational environment. These are significant issues that the ADF had to

operate in accordance with (as have the NZDF and other defence forces that were researched earlier in this thesis), which undermined their capability as counterinsurgents. Specifically, these issues challenge important military force principles that are essential to counterinsurgency, including the collection of intelligence and the application of initiative and precisely tailored force. The limitations placed on these military principles simultaneously damage the capability of the counterinsurgent to realise the doctrinal principles outlined in this research.

Equipment

In the case of Operation Solace, many of 1 RAR's equipment requirements were initially refused by ADF Administrative Branch staff. The said equipment included "hand-held Global Positioning Systems, night vision goggles, thermal imagers, PACE 10 data processing equipment, squad radios, laptop computers and other technical items".⁷⁸ A process of debate ensued, regarding the appropriate level of technological sophistication needed by 1 RAR in Somalia. It was not until this debate reached the Deputy Chief of General Staff, Major General Geoff Carter, that 1 RAR's equipment requests were supported.⁷⁹ Significantly, this issue should not have arisen. There is no rationale, at all, that should deploy forces with inferior equipment. This is especially so, when superior equipment is already available, or easily acquired. Superior equipment will advantage forces in the field to outclass the enemy, whatever the tactical/strategic context.

Once deployed, the superior equipment was critical for some operations and gave 1 RAR soldiers a valuable edge over Somali belligerents. The primary responsibility of 1 RAR was to protect their base at Baidoa Airfield from incursion. This objective would have been impossible at night without the distribution of night vision goggles (NVGs) to sentries, and the allocation of thermal imaging devices to key observation posts. The thermal imaging devices could show approaching Somali gunmen, their style of movement and manner of weapons carriage. NVGs also provided a critical advantage for units on patrol in urban areas, where ambient light was low. Motorola hand-held radios, which were initially vetoed for the operation, were decisive for both observation work and when contacts occurred.⁸⁰

Similarly in East Timor, NVGs and laser designators gave ADF personnel a real and potential advantage over belligerent groups. This was true for all night operations, in both rural and urban environments. NVGs and laser designators were especially critical for ADF personnel in defensive positions. Upon deploying along the West Timor border, 2 RAR personnel found themselves being observed by Indonesian patrols. “The Australians could see each member of the patrol clearly through night vision goggles and had them spotted with their laser beams”.⁸¹ This occurred while the Indonesian patrol could see nothing of the Australian personnel or position. However, operations in East Timor indicated the ADF “struggle[s when large quantities of] body-armour, helmets and hand-held radios [are required in a short amount of time]”.⁸² Dr Michael Evans, of the Land Warfare Studies Centre, accurately described the aforementioned items of kit, as “fundamentals that soldiers ... [must] have”.⁸³ As such, Evans stated the provision of kit is a “human rights issue, [as] ... [Defence has a] duty to care for personnel”.⁸⁴ This is an often overlooked moral point.

ADF operations in East Timor also illustrated the obsolescence of some crew-served weapons. Professor Paul Dibb stated that, in 2000, the Australian Army was “entirely correct to argue that their kit is ageing, becoming obsolescent ... if you look at air defence weapons, or some of the other equipment, ... they are old”.⁸⁵ For example, the M40 106mm recoilless rifle fielded by the ADF was developed in the 1950s and used extensively in Vietnam. The M40 offers some ranged firepower, but lacks precision guidance and fires only a limited array of ordnance. Simply, the M40 is outclassed by many other readily available weapons systems. Subsequently, the M40 has been replaced by the Javelin medium-range guided anti-armour weapon. A range of further support weapons will also be acquired under the ADF’s project Land 40, phase 2. These weapons will supplement the ADF’s current and aging stock of Carl Gustav 84mm recoilless rifles and MAG-58 7.62mm general purpose machineguns (GPMGs). Supplementary weapons will likely include 0.50 calibre machineguns, 40mm automatic grenade launchers, light cannon or man-portable short-range anti-armour weapons.⁸⁶

In the case of Afghanistan and Iraq, advanced equipment was critical to the success of the deployed SOF. Essential SAS kit in Afghanistan and Iraq included rocket launchers, guided anti-tank weapons, heavy machineguns,

automatic and rifle mounted grenade launchers, sniper rifles, advanced optical devices, positioning systems and communications. In addition, it appears many of these systems are being upgraded, replaced or further disseminated within units of Australian Special Operations Command (SOCOMD).⁸⁷ This seems an appropriate use of resources, given the increasing contemporary use of Special Forces worldwide. Bob Breen, of the Australian National University, asserts that the reason the SOF are so well equipped is “because they control all their enablers”.⁸⁸ Simply, the SOF “can reach back into a procurement system and get their own support, ... money, [and] ... identify and win their own piece of the budget”.⁸⁹ Furthermore, the SOF “routinely get[s] first priority when working with the other services”.⁹⁰ Hence, the SOF constitutes “a piece of the ADF that is truly joint and well rehearsed in joint special operations”.⁹¹ If the ADF as a whole could learn from the SOF, Australian force efficiency could improve.

In terms of military principles, advanced technical kit enabled ADF personnel to generate valuable intelligence and consequently apply precise force. It is therefore critically important that ADF field elements are provided with such technical kit when needed.

Training

Training is the principal determinant of war, including LIC. In general, ADF personnel have illustrated a good level of capability. This capability is a derivative of good training concomitant with a reasonable level of readiness. In Somalia, East Timor, Afghanistan and Iraq, Australian personnel exhibited a good level of combat skill. However, there was “some criticism about the quality of recruits allocated to some infantry units; with those directly out of Initial Employment Training deployed on operations and subjected to an unnecessarily steep learning curve before they could become useful members of a section. This put more pressures on the section leaders and other section members as they tried to “take up the slack”.⁹² As examined above, the ADF’s Latent Combat Force and Enabling Component were nominally responsible for this issue. The principal responsibility resides in the MLOC/OLOC process. If the MLOC/OLOC process maintains units at too low a level of readiness, they will become irrelevant.

In comparison, a high level of training and readiness was critical for the success of SOF personnel in Afghanistan and Iraq. In Iraq “[d]uring February and early March [2003], the [Special Forces] Task Group conducted ‘Full Mission Profile Exercises’ by day and night. They rehearsed all the contingencies they could foresee for operations inside Iraq. The exercises also involved [United Kingdom] UK and [United States] US [sic] close air support. This intensive period of realistic training acclimatised the soldiers and honed their skills. This proved to be essential to the eventual success of the operation. The training period also enabled the Commandos, helicopter assets, medical support and the Incident Response Regiment detachment to rehearse for their Quick Reaction Force role”.⁹³ Simply, a force will always require theatre-specific training. However, a force must already maintain a high level of training and readiness, given the short warning periods prior to contemporary operations.

In Somalia, Bougainville and East Timor, some ADF units did not demonstrate a comprehensive understanding of LIC. This is due to a lack of training. Most ADF units did not seem to comprehend the criticality of civil-military affairs. However, the ADF understanding of civil-military affairs skills had improved between the operations in Somalia and East Timor. As stated by Colonel Singh, Commanding Officer 3RAR, LIC training must occur “because it’s [sic] not something you can just pick up on the day”.⁹⁴ Therefore while ADF personnel are professional, their capabilities do not correspond precisely with the requirements of counterinsurgency, in as much as they do not fully comprehend the importance of civil operations as a means of achieving situational awareness through accurate human intelligence. Although, as stated above, this deficiency is diminishing as the ADF deploy to conflicts as counterinsurgents.

Armour

As has been frequently noted in earlier discussions, armoured vehicles (Armour) are a multidimensional force element. Hence, this section is divided into four subsections: protection; manoeuvrability; firepower and visibility; and tactics, command, control and communications. Armour is a central element of a combined arms approach to counterinsurgency operations. The aforementioned

subsections are enablers that facilitate the precise application of a combined arms approach in counterinsurgency.

Protection

The M113 Armoured Personnel Carrier (APC) gave 1 RAR fairly comprehensive protection in Somalia. This was because Somali belligerents possessed few weapons that could penetrate M113 armour. In contrast, the Australian Land Rover fleet offered no protection to embarked personnel. A lack of armour against small-arms fire is in keeping with the essential nature of the Land Rover. However, a mesh guard should have been installed, so that thrown debris could not penetrate the windscreen. This is because debris such as stones and bricks were often thrown at 1 RAR Land Rovers, and in the past peacekeepers have been killed by this method.

Operations in East Timor constituted the first operational deployment of the Australian Light Armoured Vehicle (LAV). The LAV was deployed in two primary configurations: (1) a turreted, LAV-25 with 25mm cannon; and (2) an un-turreted personnel carrier version LAV-PC. The LAV was deployed along with the M113 to provide armoured mobility, firepower and enhanced C2 and communications. However, with specific reference to armour, Australian armoured units were less protected than New Zealand armoured units. The base model Australian and New Zealand M113 and the Australian LAV (Generation II), were designed to provide protection against 7.62mm ammunition, shell splinters and some mines. Given the uncertain security environment in East Timor, the New Zealand Defence Force decided to up-armour all deploying M113s. This decision was not mirrored by the ADF. Subsequently, armour crews expressed concern regarding rifle fire and possible anti-armour weapon fire.⁹⁵ It seems inappropriate that appliqué armour was not provided for the M113s and LAVs, which deployed to East Timor. This, however, is a contentious point, as it is dependent upon subjective risk assessments. Further concern was, however, expressed regarding the weapon station on the LAV-PC. The weapon station comprises a 0.50 calibre machinegun above the commander's hatch. To operate this weapon, the commander must be exposed to enemy fire.

None of the issues stated above appear to have been rectified prior to the initial deployment of the LAV to Iraq. 12 LAV-PCs and LAV-25s were deployed to Baghdad by July 2004. However as in East Timor, the LAVs deployed lacked sufficient armour protection. Development work of up-armouring the LAV only began in May 2004, when the initial deployment of the LAVs began. The only armour upgrade installed in the LAV fleet, prior to deployment, were spall liners removed from M113s. It was not until early 2005, that the LAV received appliqué bar-armour and specialised spall liners. The appliqué bar-armour has been examined in the previous two chapters; this appliqué armour is intended to detonate Rocket Propelled Grenade (RPG) rounds before impacting the main armour. However, the Australian appliqué bar-armour only protects against normal incidence or horizontal round trajectories. As in Chechnya and Somalia, insurgents will target the hull roof, where armour is thin. Hence, the ADF should attempt to develop protection from RPG rounds fired from buildings and roofs. A further hurried acquisition by the ADF consisted of the Protector Remote Weapons Stations (RWS). The Protector RWS enables the crew to fire a remote controlled 0.50 calibre machinegun, while remaining 'buttoned down' inside the LAV.⁹⁶ This was a critical purchase, as the Australian LAV-PC's previous weapon station was unprotected. Hence, defensive fire endangered the LAV-PC's commander.

In regard to the aforementioned operations, the armour upgrades, or the lack thereof, indicate a disconcerting anomaly within the ADF or wider Australian defence establishment. Armoured units have been deployed without armour upgrades, which other nations have deemed critical. Conversely, when Australian armoured units have been upgraded, the upgrades have occurred after deployment to hostile zones. There are three possible explanations for the lack of, or late, upgrading of armour. One, Australian intelligence has underemphasises levels of risk. Two, the ADF has not made sufficient contingency purchases of mission critical hardware, or is slow in responding to emerging threats. Three, the Australian Government may be forestalling contingency purchases through budgetary constraints. However, none of these explanations justify the additional risk to which Australian personnel are exposed.

Phase 4 of Project Land 112, the latest tranche upgrade of the Australian LAV, was rejected by the former Defence Minister Robert Hill in June 2005. The

Phase 4 upgrade was intended to enhance the “survivability and situational awareness”⁹⁷ of the LAV. It is likely that the Phase 4 armour would be ballistic armour, designed to withstand 0.50 calibre machinegun rounds. Hence, RPG rounds would still pose a significant threat to the LAV. Nevertheless, the unwillingness to provide the best protection available is questionable. The LAV is currently the most capable Australian armoured vehicle, short of the future M1A1. The LAV is also the principle deployable vehicle of Australia’s mechanised brigade. Hence, it would seem appropriate that Phase 4 armour acquisitions should be approved by the Australian Government. In contrast, by July 2002 Project Land 106, a M113 upgrade including appliqué armour had been awarded. It seems incongruous that the LAV and M113, which provide a similar capability and are of the same brigade, do not receive the same level of armour protection.

Manoeuvrability

The majority of vehicles deployed to Somalia on Operation Solace were Land Rovers, 6x6 upgraded Land Rovers and M113 APCs. These vehicles provided general mobility and were essential for the Quick Reaction Force (QRF). However, the natural environment and logistical constraints put these vehicles and hence mobility at risk. The importance of unconstrained mobility, provided by the M113, was clearly illustrated in Somalia. The M113 enabled forces to manoeuvre on and off road, providing a mobility advantage over the enemy. In contrast, wheeled vehicles could only manoeuvre on-road, and were unable to sustain lengthy operations due to punctures. This is an important lesson for forces deploying to LIC; tracks give unconstrained mobility, wheels do not. Furthermore, the harsh conditions of Somalia required a greater supply effort to maintain vehicles. Such natural conditions must be understood prior to deployment, so that equipment can be kept in the field.

Mobility was a critical enabler in East Timor, as the relatively small Australian contingent was responsible for a large area of operations (AO). This mobility was provided by Land Rovers, M113 APCs and LAVs. In addition to mobility, the latter two varieties of armoured vehicles constituted a significant Australian presence and deterred enemy action. This was due to their inherent

offensive and defensive properties. LAVs and M113s were used successfully in both rural and urban environments. These vehicles provided protection and improved communications for reconnaissance missions, conferred mobility on quick reaction forces, and provided extra force for cordon and search, patrol and checkpoint operations.

There were, however, a number of mobility issues illustrated in East Timor. First, and as in Somalia, the M113 was unequalled in terms of mobility. “[T]he M113s were able to negotiate terrain that proved impassable to other vehicles, particularly in steep, confined terrain during the monsoon season. The M113’s superior cross-country mobility often meant it was the only vehicle type able to deploy or redeploy infantry patrols, sniper teams, civil-military operations teams and retransmission sites to remote villages and border areas. When poor weather in East Timor’s high country prevented helicopter operations, the M113 was the only Australian platform capable of fulfilling these key mobility tasks”.⁹⁸ The LAV also provided excellent mobility in the dry season, “but suffered some mobility difficulties off-road in rocky, boggy or slippery conditions”.⁹⁹ Hence, it would seem appropriate to maintain a tracked troop-lift capability in the ADF. The tracked mobility of the M113 was instrumental in Somalia and East Timor, and would have been useful in Bougainville. In addition, the Soviets found tracked vehicles to be critical in Afghanistan’s difficult off-road terrain. The Israelis also indicated the mobility of the M113 was important in Lebanon. However, the Israelis established that the M113’s armour, visibility and firepower were deficient for complex operations. Similarly, the Australian’s found in East Timor that the M113 needed additional surveillance, target acquisition, communications, navigation and battlefield command capabilities. These capabilities will be discussed in the following subsection.

A further mobility issue illustrated in East Timor was the capability of fighting vehicles to cross terrain at speeds in excess of support vehicles. Both the LAV and M113 exceed the mobility of general support vehicles in difficult terrain. However, the LAV was reported to “cover road distances four times faster than support vehicles”.¹⁰⁰ This is a significant problem for the ADF, which may be forced to acquire further LAV-Combat Support (LAV-CS) vehicles. In reference to the M113, the introduction of the M113AS4 Armoured Logistics Vehicle (ALV), as part of Project Land 106, should enable efficient movement of

supplies to forward units. However, the general logistics vehicles may still experience difficulties moving supplies along long, tenuous roads, as in East Timor.

Firepower and Visibility

A significant impediment to security in rural Somalia was night attacks against civilian vehicles by bandits. From a concealed position, bandits would stop vehicles with small arms fire, then rob, intentionally injure or kill the occupants. Daylight ambushes by Somali bandits were deterred by roadblocks, which would order vehicular patrols to follow (at a distance) and protect likely targets. These tactics did not work at night, as the pursuant patrol's headlights could be seen by the bandits. Hence, 'Night Rider' patrols were instituted, for "night counter-ambush operations".¹⁰¹ The 6x6 Land Rovers used were fitted with infrared lights, ANTAS 6A thermal imagers and three independent machine guns. The vehicles were driven by personnel wearing night vision goggles, carried weapons to fire illumination rounds, and emitted no light. The 'Night Rider' patrols were highly effective, as the bandits had no way of detecting the patrols. After the first night of patrols, ambushes ceased.¹⁰²

In the case of East Timor, inadequate surveillance, target acquisition, communications, navigation and battlefield command capabilities were a limitation for Australian M113 units. There were four areas of concern. First, the M113's "T-50 ... turret possessed no night-fighting capability and was unable to apply accurate and discriminating fire ... because of a lack of any sighting system or powered gun control equipment".¹⁰³ Second, the M113 was not equipped with any advanced night driving capability. Third, the M113's improvised communications systems were problematic. Fourth, the M113 and the LAV possessed no global positioning system for operational manoeuvre, nor a tactical navigation system to improve situational awareness. Simply, M113, and occasionally LAV crews, were required to fight dumb, blind and without an effective means of defence. These advanced technical systems are important. As was found in Somalia by the ADF and Bosnia by the NZDF, adversaries can often possess crew-served weapons with significant firepower and range. Hence armoured units, which are often equipped with the only long-range direct-fire

weapons deployed, must have a capability to return ranged and accurate fire against such targets.

Fortunately, some of the technical capability limitations outlined above are being overcome. Project Land 106 will provide a significant capability upgrade for the M113. This will be primarily provided by a day/night sight and turret stabilisation to improve fire accuracy.¹⁰⁴ In addition, the M113 is likely to receive the Raven vehicle communications system upgrade, and may be fitted with some form of Battlefield Command Support System (BCSS). Project Land 112, the phased upgrade of the LAV, has been authorised to provide a limited technical capability upgrade. Phase 3 of Land 112 includes: (1) ‘an enhanced thermal imaging sight, laser range finder and an improved fire-control system’;¹⁰⁵ and (2) a global positioning system and navigation system. However, Phase 4 improvements, which included a “battlefield ... management enhancement”, have been rejected.¹⁰⁶ As argued earlier, these technical systems are critical for repulsing adversaries with long-range direct-fire weapons. Such adversaries are found in LIC, given the proliferation of simple weapons such as 0.50 calibre machineguns. Moreover, the ADF’s M113 and LAV will be less technologically advanced than the NZDF’s generation three LAV and the ADF’s own M1A1, which may generate difficulties when operating as part of a combined arms group or as a part of a coalition.

Tactics; Command, Control and Communications (C3)

The criticality of combined arms training was illustrated in East Timor, both in a positive and negative manner. “A significant contributing factor toward the overall success of 2RAR operations was the high level of familiarity between it and B [Squadron] Sqn 3/4 [Cavalry] Cav... The co-operative culture and collective understanding of each other’s standard operating procedures that existed between the two units was identified as a major advantage for Operation ‘Warden’ commanders”.¹⁰⁷ Conversely, “[t]he initial requirement to employ C [Squadron] Sqn [Cavalry] Cav in the infantry mobility role meant the unit was not permitted to deploy with its own organic recon[naissance] scouts. This hampered the squadron’s flexibility and effectiveness in later phases, and forced 3 Brigade to assign up to a platoon of soldiers ... to act as recon[naissance] scouts. The

assigned troops were not familiar with [Australian Standard LAV] ASLAV or cavalry operations, or with operating in a dispersed and highly mobile manner. As a result, the capacity of local commanders to extend information-gathering operations beyond terrain inaccessible to vehicle movement was diminished”.¹⁰⁸ The ADF must be weary of deploying units that are not cohesive. This is increasingly important as motorised infantry functions become more complex and technologically focused. Motorised cavalry and infantry functions cannot be undertaken by ad hoc formations. This is an additionally serious consideration for 3 Brigade, due to the Brigade’s light infantry foundation. The problem is, light infantry is easily deployable but lacks integrated armour protection. Hence, 3 Brigade infantry battalions must be diligent in training with 3 Brigade Cavalry Regiment (B Squadron 3/4).

In reference to the military principles outlined in this thesis, the critical nature of armour in counterinsurgency can be understood in terms of combined arms. Armour facilitates movement, provides protection, augments C3 and intelligence, and adds firepower to other units that it operates with. Armour can also enable the application of precise force by the counterinsurgent, if used with restraint.

Artillery

As with the NZDF, the last ADF deployment of artillery occurred in the Vietnam War. This however, in no way, undermines the fact that artillery is an indispensable support element in LIC. As has been stated before in this thesis, artillery is the soldier’s all weather, day and night provider of fire support. However, combined arms, precision and the use of firebases must be the leading tenets of artillery use in LIC.

The current ADF complement of indirect fire-support weapons includes the L119 105mm Field Artillery Gun and the M198 155mm Towed Howitzer. Both artillery systems “will reach end of life-of-type in 2010”.¹⁰⁹ The replacement for these fire-support systems will likely be multidimensional. The M198 155mm howitzer will be replaced by a new 155mm howitzer, in both a self-propelled (SP) and towed configuration. It is likely that some 105mm guns will be retained within 3 Brigade. This retention may be purely for A Field Battery, a

parachute trained unit for the support of 3RAR, or 3 Brigade's entire 4 Field Regiment. In addition, the ADF is also likely to acquire a 120mm mortar variant of the LAV, designated Light Armoured Mortar System (LAMS).¹¹⁰

It is improbable that the LAMS or the SP 155mm will be suited to LIC, as both of these systems are specialised for manoeuvre. Both the retained 105mm and new towed 155mm would be expected to achieve the principle of combined arms outlined above. However, the 105mm cannot currently provide precision or offer the range necessary for the consolidation of firebases. Hence, there are two requirements the new towed 155mm howitzer should fulfil, so as to be optimised for LIC operations. First, the 155mm howitzer must be capable of delivering precision/terminally guided munitions. This is due to the requirement for precision and discrimination in LIC. Second, the towed 155mm howitzer needs to be helicopter transportable. Artillery must be capable of moving as quickly as light infantry units. This is especially important in difficult terrain. As was shown in Operation Anaconda, artillery could not keep pace with infantry due to terrain, and air support was hampered due to C2 and poor weather conditions. Hence, infantry took excessive casualties due to a lack of combat support. If the new ADF 155mm towed gun is not helicopter transportable, the ADF may need to consider acquiring the 105mm Terminally Guided Projectile (TGP). The 105mm gun and TGP would then deliver mobile precision fire-support to the ADF. Although, the range of 105mm gun firebases (11.4km) would be significantly less than 155mm howitzer firebases (40-60km).¹¹¹

Helicopters – Essential Nature and Use

The use of utility helicopters was an Australian strength in Operation Solace, while the lack of a liaison and command helicopter was a significant weakness. 1 RAR effectively utilised coalition helicopters to support airmobile 'show of force' operations. These operations were designed to impose an Australian presence and deter bandit activities. Simply, these airmobile operations indicated to the Somalis that Australian units could appear anywhere at anytime. However, the unit's commanding officer, Lieutenant Colonel Hurley, stated that an absence of liaison helicopter support "was quite a serious deficiency".¹¹² This absence of liaison helicopter support restricted command mobility, as Hurley was forced to

travel by road. This restricted Hurley's ability to command from the field, encourage and monitor troops and oversee projects and operations.¹¹³

The criticality of helicopters to operations in East Timor was paramount. An Aviation Squadron Group of Australian UH-60 Blackhawk helicopters were among the first forces deployed to East Timor. Similarly, Australian Navy Sea King helicopters were present in the East Timor AO from the beginning of INTERFET operations. Both of these helicopters were deployed to facilitate airborne mobility, conduct reconnaissance, enable the expansion of presence throughout East Timor, permit rapid reaction to incidents and expedite critical supply operations. In addition, "air superiority ... [and] aerial firepower"¹¹⁴ was demonstrated by UH-60s in 'show of force' operations. Hence, the presence of helicopters provided a psychological deterrent against militia activities in East Timor. A further example of the deterrent effect of helicopters occurred on the border with West Timor. In October 1999, intelligence reported large-scale cross-border militia raids were planned. However, the employment of airmobile operations and observation flights by Bell 206B-1 helicopters, in addition to regular operations, appear to have deterred the militia. It could be argued that observation or reconnaissance helicopters are of little value in LIC, as they are unable to identify minor ground elements. However, observation helicopters can identify large-scale ground elements. This ability concomitantly deters the adversary from massing force. Hence, the adversary will be forced to operate in small groups.¹¹⁵

ADF CH-47D Chinooks were essential in providing Australian Special Force mobility in Operation Iraqi Freedom. Aero-medical evacuation and the transportation of supplies were other CH-47D tasks, in support of Special Forces in Iraq. Similarly, Australian CH-47Ds were deployed to Afghanistan in early 2006, in support of Australia's "continuing commitment to the fight against terrorism".¹¹⁶ The CH-47D "provide[d] additional aero-medical evacuation and air mobility support to Australia's Special Forces Task Group".¹¹⁷

The ADF's current fleet of Blackhawk and Sea King utility helicopters will probably be replaced by the NH90 Tactical Transport Helicopter (TTH). This is likely given: (1) the recent purchase of 12 NH90 to form an additional squadron; (2) the ADF's requirement for helicopter fleet rationalisation; (3) the marinised nature of the NH90 for amphibious operations; and (4) that a naval

combatant version of the NH90 exists. The Australian NH90, designated the MRH90, “varies from previous ... models in its advanced communications suite and tactical data link capabilities”.¹¹⁸ These communication and data link capabilities will provide connectivity between the MRH90 and other ADF network centric forces, this will be important in terms of effective communication and the precise use of intelligence in joint force operations. Further analysis of the NH90 is presented in the previous chapter.

Protection

Australian Army helicopters are undergoing Electronic Warfare Self-Protection (EWSP) upgrades under project Air 5416. Air 5416 is tasked with rectifying known EWSP deficiencies in much of the ADF air fleet. However, the protracted nature of this project has imposed risk on deploying helicopters. Even though Air 5416 began in the mid-1990s, EWSP systems on aircraft deploying to Iraq in 2003 and Afghanistan in 2006 had to be rapidly upgraded. “[CH-47D] Chinooks and [C-130] Hercules were hurriedly upgraded before their deployment to Iraq ... [in 2003]. This involved the installation of limited [Electronic Warfare] EW equipment and some underbelly armour to protect crews”.¹¹⁹ The capability of the 2003 EWSP and armour upgrade must be questioned. This is because in less than three years, a further \$25 million needed to be spent on EWSP, ballistic protection and communications equipment, to prepare two CH-47Ds for service in Afghanistan.¹²⁰ Such rapid acquisitions may provide a level of protection. However, rapid acquisitions create risk as: (1) there is no or very limited time to develop and prove the equipment; and (2) there is no or very limited time to train personnel with the equipment. Hence, the equipment may fail on operation due to technical or human error. Given the essential nature of helicopters to joint force operations in counterinsurgency, the ADF must ensure that these units are well protected from enemy fire.

Firepower and Target Acquisition and Designation Equipment

As of December 2004, the ADF is being progressively delivered with an Armed Reconnaissance Helicopter (ARH) capability. The Australian ARH capability is provided by 22 upgraded Eurocopter Tiger combat support helicopters. The target

acquisition and designation systems on the ARH include day and night visual sensors, image intensification, and a laser rangefinder/designator.¹²¹ The ARH is also equipped with an EW suite. The armament of the ARH will include a 30mm cannon, 70mm unguided rockets, Hellfire II guided anti-armour weapons, and Stinger or Mistral air to air missiles.¹²²

There are three main mission types required of the ARH. First, the ARH will provide a day and night tactical surveillance and reconnaissance capability. Of the ADF case studies in this thesis, this capability has only been deployed in East Timor. In East Timor, the Bell 206B-1 Kiowa carried out surveillance, reconnaissance and escort duties. In this role the Kiowa provided: (1) timely intelligence of some opposition movements; (2) some deterrence; and (3) wider battlefield awareness. As illustrated in the initial case studies of this thesis, the effective use of surveillance and reconnaissance helicopters will reduce risk and enhance situational awareness. Second and third, the ARH will “escort [troop-lift] ... helicopters during air assault operations and [provide] ... aerial fire support for ground troops”.¹²³ In these roles the ARH would be tasked with suppressing and engaging dispersed ground targets in LIC. This is a new capability for the ADF. However, the initial case studies of this thesis demonstrated the significance of this capability. The rationale for this is multidimensional: (1) there is a high degree of synergy between helicopter and land units; (2) helicopter targeting and weapons systems can effectively apply precision fire; and (3) helicopters can often see as much, or more, of the battlefield than the soldier on the ground. This latter point means, helicopters can see and engage small targets on the battlefield independently, but in support of ground units. The ARH will be a valuable addition to joint force operations undertaken by the ADF. An extended analysis of helicopters in LIC is provided in the earlier chapter: Military Force in Low Intensity Conflict.

Aircraft – Essential Nature and Use

Aircraft within a LIC battlespace essentially provide three capabilities: (1) firepower; (2) logistic support; and (3) command, control, communications, computers, intelligence, surveillance, target acquisition and reconnaissance

(C4ISTAR). The case studies of this chapter indicate that the ADF air component can, and has contemporaneously, undertaken all of these functions.

Firepower

Airborne firepower can be divided into three categories: (1) air to air; (2) air to surface maritime; and (3) air to surface land. For the initial stages of the INTERFET operation, the Royal Australian Air Force (RAAF) provided latent capability in all of these areas. This Australian airborne presence discouraged overtly hostile actions by Indonesian air and sea units in the area. In October 2001, a detachment of four Australian F/A-18 Hornets were deployed to Diego Garcia. This deployment was in support of coalition operations in Afghanistan.¹²⁴ In support of Operation Iraqi Freedom, Australia deployed 14 F/A-18 Hornets to the Middle East in 2003. The F/A-18 Squadron undertook the following mission tasks consecutively: (1) “protection of high value Coalition aircraft such as air-to-air refuellers [sic] and intelligence collection aircraft[, and engaged] time-critical [ground] targets such as the regime leadership, missiles or enemy forces [concomitantly]”;¹²⁵ (2) fixed-target strike missions; and (3) close air support (CAS) and air interdiction.¹²⁶

The exclusive use of Precision Guided Munitions (PGMs) by the RAAF in Iraq improved accuracy and minimised collateral damage. The PGMs utilised by the RAAF included 250 (GBU-12) and 1000 (GBU-10) kilogram laser guided freefall bombs. Since the cessation in mid-2003 of Australian combat air operations in Iraq, there have been two aircraft weapon acquisition programmes proceeding. These include: (1) Air 5418 that will provide a long-range anti-surface weapon for the F/A-18 Hornet and AP-3C Orion; and (2) Air 5409 that will equip F/A-18 Hornet with the Joint Direct Attack Munition (JDAM).¹²⁷ Both of these weapons could be used in counterinsurgency operations. However, the long-range anti-surface weapon is specifically designed for a higher threat environment. In comparison, the JDAM has acted as a highly successful force multiplication tool in counterinsurgency. Hence, the JDAM will provide a significant enhancement to the ADF’s capability. Project Air 5409 Bomb Improvement Programme was tasked with providing the RAAF with an “autonomous air-to-surface weapon that could be used with near-precision

accuracy, day or night, in all weather and during conditions where ground targets are obscured by environmental factors such as smoke, cloud cover or sand storms”.¹²⁸ Such environmental factors have been, to varying degrees, a limiting factor in all the case studies of this thesis. Furthermore, the guidance systems of the ADF’s GBU-10 and GBU-12 laser guided bombs would have been obstructed by these environmental factors. Conversely, the JDAM guidance system cannot be blocked by environmental factors. In the medium term, the communications and targeting systems onboard the F/A-18 will also be upgraded under project Air 5376. The communications upgrade will enable greater data sharing between all air and ground assets. The targeting system upgrade will “improve the detection, identification, precision targeting and damage assessment phases of RAAF F/A-18 counter air, strike and offensive air support operations”.¹²⁹ These capability improvements will enhance the timeliness and precision of air-launched guided munitions, which is critical in counterinsurgency.

Beyond 2015, the Australian Air Force will receive the F-35 Joint Strike Fighter (JSF). There has been criticism of the JSF capability envelope in relation to Australia’s air combat needs.¹³⁰ In terms of air to air combat the JSF is inferior only to the F-22 Raptor. However, the JSF’s surface attack capabilities are technologically superior in relation to all other combat aircraft. As in the case of East Timor, the JSF will provide a significant deterrent capability against inferior regional air and maritime combatants. As in the case of Afghanistan and Iraq, the JSF will provide a surface attack capability superior to that fielded by the F/A-18. The JSF can utilise all current ADF air launched precision guided munitions. The JSF has advanced systems to target these munitions with precision. The JSF also incorporates a comprehensive communications suite, including satellite, data link and tactical communications systems. These systems will enable the highest level of joint integration that current technology can support. The current Australian Chief of Air Force, Air Marshal Angus Houston, explains the significance of the JSF in relation to its network enabling capabilities: “The performance of an effectively networked system will exceed the sum of its individual parts. This is achieved by exploiting data link information technology to display a common picture of an engagement that is shared in real time between all participating sensors, shooters and command and control nodes within the system”.¹³¹

Hence, the ADF has and will have an effective air-strike capability, which could provide effective support in LIC. However, given the air-strike capability is a derivative of a networked system, the ADF must ensure the efficiency and effectiveness of the other network links and nodes. Basically there are three further requirements for this system to operate effectively: (1) reliable communications; (2) well trained land component personnel; and (3) effective battle-proven procedures for air and surface synergy (joint force). ADF communications is examined in a separate subsection below, the latter two system requirements are analysed subsequently.

Close Air Support (CAS) is the principal form of airborne firepower utilised in counterinsurgency. CAS is formed through a combination of strike aircraft and ground elements operating as Tactical Air Controllers (TACs). These TACs provide the strike aircraft with situational awareness and target designation information. Australian SAS personnel have displayed in Afghanistan and Iraq the ability to effectively employ CAS. However, CAS is increasingly becoming a central task of regular ground elements. The case studies of this thesis have indicated a general lack of synergy between air and regular ground elements. Dr. Michael Evans also perceives there to be a lack of “air-land integration [within the ADF]”.¹³² Hence, it is important that TAC skills are dispersed throughout 1, 3 and 7 Brigades, as well as the SAS Regiment. It is also important that the RAAF perceives CAS as a conceptual equal to strategic strike. “It is also clear from the Iraq War that every advance in [Intelligence, Surveillance and Reconnaissance] IS&R, communications systems, and digital management of the battlefield both increase the capability to carry out close air support and the need for tighter integration, better training, and more standardized [sic] procedures and equipment”.¹³³ These improved SOPs are joint in nature, and will only be acquired through extensive joint training.

Protection

Air 5416 is an integrated electronic warfare self-protection (EWSP) project, designed to enhance the survivability of much of the ADF air fleet. “Project [5416] ... was established ... to address deficiencies in the EWSP capabilities of selected ADF aircraft and enhance their respective survivability in a high-threat

environment”.¹³⁴ Aircraft operating in LIC must contend with two threat scenarios: (1) low-altitude small-arms fire; and (2) medium-altitude surface-to-air missiles (SAMs). The latter threat is increasing in LIC, due to the spread of man-portable SAMs. Hence, aircraft in LIC must be armoured or remain out of small-arms range and possess effective EWSP capabilities.

The risk of aircraft sustaining fire in LIC increases as the aircraft descends below medium altitudes. Hence, strike and C4ISTAR aircraft face minimal risk, transport aircraft that operate from in-theatre airfields are at maximum risk during take-off and landing, while helicopters face a constant risk during operations. The F-111 has been equipped with a EWSP suite under Air 5416, while the F/A-18 is being provided with an enhanced EWSP ensemble under Air 5376. Air 5416 Phase 2 and 4 are tasked with providing both the C-130H and C-130J-30 respectively with enhanced EWSP systems. These latter phases of Air 5416 should be considered urgent, as the current C-130 fleet are operating in a risk environment in Iraq and Afghanistan. The C-130 is a critical enabler for ADF operations and hence a high value asset. Senator Hill, Minister for Defence, has stated that “the risks to the platforms [C-130] and their air crews during conflict would be unacceptable and limit the capability options the ADF would be able to deploy”.¹³⁵ The C-130 should be protected from surface risk as soon as possible, anything less would be negligence. It is important to understand that a loss of air support for joint force operations can severely undermine mission objectives.

Supply

This subsection will focus upon the ADF’s primary logistics aircraft. These comprise 14 DHC-4 Caribou light transport aircraft, 12 C-130H and 12 C-130J-30 Hercules medium transport aircraft and 4 Boeing B-707-338C air-to-air refuelling (AAR) aircraft. These aircraft were critical to the success of ADF operations analysed in this chapter (this could also be said for all of the other case studies of this thesis). Simply, these aircraft are critical enablers within the ADF. Despite this fact, the ADF airlift capability has almost consistently failed to achieve required levels of availability between 2000 and 2005. Furthermore, during this period “insufficient [airlift] assets[, at times,] were available to meet some concurrent requirements”.¹³⁶

The DHC-4 Caribou was first flown in 1958, entered service with the RAAF between 1964 and 1968, and was withdrawn from production in 1973. The Caribou is a light tactical transport aircraft with excellent short-take-off and landing (STOL) capabilities. These STOL capabilities enable the Caribou to operate from “short, confined and rudimentary airstrips with soft and rough surfaces and in wet conditions”.¹³⁷ Simply, the Caribou can supply forces using airfields inaccessible to larger transport aircraft, and at an un-refuelled range beyond that provided by transport helicopters. This is an important function for the RAAF. However, most Caribou tasks could either be transferred to the C-130 or Chinook. The Caribou provided essential logistics support to operations in Bougainville and East Timor. However, Caribou operations were constrained by low availability rates, including 55 percent in 2000, 82 percent in 2001, 84 percent in 2002, 85 percent in 2003, 97 percent in 2004, and 60 percent in 2005.¹³⁸ “The primary causes [for the 2000 figure] were engine unserviceabilities [sic], lack of serviceable spare parts, and aircraft availability arising from the inability to achieve planned maintenance because of a high rate of effort in East Timor and Papua New Guinea”.¹³⁹ Airframe and component age, coupled with delays in scheduled maintenance kept Caribou availability low until 2004. Caribou availability in 2005 was again low due to similar reasons as stated above. A study conducted by Raytheon Australia found that a “particular problem ... for the Caribous [sic] is their original Pratt & [sic] Whitney Twin Wasp R-2000 radial piston engines[,] which have been out of production for almost 30 years. The cost of maintaining the engines has reached undesirable levels and poor reliability is resulting in fewer aircraft available for operations at any one time”.¹⁴⁰ Replacement of the Caribou, originally under Project Air 5190 then under Project Air 8000, has been underway for 30 years (since 1976). The unavailability of the Caribou leaves airlift tasks unfulfilled, or places additional stress on other airlift assets such as the C-130. Airborne logistics have been critical in all the case studies of this thesis. In addition, the case studies of this chapter have indicated ADF airlift capabilities, have at times, been insufficient to fulfil supply requirements of joint ADF operations. In keeping with international trends, logistics requirements will expand. Hence, the Caribou capability should be replaced. With what is a more complex question, and is addressed below.

Initially, however, the ADF's C-130 fleet will be analysed. The ADF fleet of C-130s currently incorporates 12 C-130H and 12 C-130J-30 models. As the largest transport aircraft in the ADF fleet, the C-130 is employed in both the tactical (intra-theatre) and strategic (inter-theatre) airlift roles. The C-130 has been instrumental in providing force projection and support for all ADF operations analysed in this chapter. Heavy C-130 tasking has been synonymous with the period 2000 to 2005. Concomitantly throughout this period, heavy tasking has eroded the C-130 capability to sustain specified availability rates. During the period 2001 to 2005, availability rates have varied between 71 and 97 percent. The low figure was reported in 2001 and reflects the consequences of force regeneration. Significant force regeneration was required as a result of ADF operations in East Timor. As a result of concurrent ADF operations in Afghanistan and Iraq, C-130 availability is again declining. In 2005, C-130 availability had degenerated to 84 percent. The cause of these low percentiles is detailed below.¹⁴¹

Operational requirements in East Timor combined with the replacement of the 12 C-130E with 12 C-130J-30, between late-1999 and 2001, to prevent the ADF Airlift Group from achieving all strategic objectives. During this period the C-130E was being withdrawn, and age related serviceability issues reduced possible tasking. Concurrently, delays with the introduction into service of the C-130J-30 and associated aircrew generation shortages, further reduced the availability of the C-130 fleet. These C-130E and C130J-30 issues, plus the low availability of the ADF Caribou and Boeing 707 fleets, caused intense tasking of the C-130H fleet. Due to this intense tasking and the age of the C-130H fleet, force regeneration projects reduced availability through 2001 and 2002. C-130H force regeneration included deep maintenance, operational upgrade requirements and the resolution of a repairable component backlog. Through 2003 and 2004, C-130 availability matched the high rate of tasking required for operations in Afghanistan and Iraq. However by 2005, the C-130 fleet was prevented from achieving designated objectives "due to [a] high operational tempo, limited aircraft serviceability and [low] availability due to ... aircraft modifications required for operations".¹⁴² The reducing availability of the C-130H is logical, given that the aircraft was to be retired from service by 2008. Phase 1 of Project Air 8000 envisioned a life extension programme, which would enable the

employment of the C-130H until 2020.¹⁴³ However, recent strategic lift requirements may have rendered the C-130H life extension obsolete.

The reliance on the Special Air Service Regiment (SASR), as primary combat element in Iraq and Afghanistan, has obliged the ADF to augment the RAAF's strategic airlift capability. Major General Duncan Lewis, a former commander of the Australian Special Forces Group, indicated that the ADF requires "better strategic reach to be able to reach out and deploy in a reasonable sort of tactical configuration".¹⁴⁴ Strategic reach, timeliness and tactical configuration can only be achieved by an integral military transport aircraft. In addition, the weight and size of operational units and support elements requires a transport aircraft of greater dimension and lift capability than the C-130. Defence Minister, Robert Hill, has indicated that this capability requirement will be filled by the Boeing C-17 Globemaster.¹⁴⁵ The acquisition of the C-17 is probably the best solution to the concomitant requirements of the SASR; tactical configuration and strategic reach. Dr. Michael Evans indicated that the C-17 will also "[partly] reconcile ... operational versatility with ... organisational stability".¹⁴⁶ Simply, the ADF will be able to sustain units that are deployed to achieve the Government's intent. However, the C-17 acquisition may cause the "refurbishment [of] the RAAF's 12 aging C-130H Hercules medium tactical transports ... [to] be scrapped".¹⁴⁷ Hence, the C-17 may not augment the C-130 fleet, but replace half of it. Whether four C-17s can replace the C-130H capability is questionable. This is because the current airlift group cannot maintain required availability rates. Furthermore, operations in East Timor indicated the need for a greater airlift capability than is currently available. Hence, it would seem disingenuous to reduce the C-130 fleet. Alternatively and as indicated above, the RAAF's Caribou fleet requires replacement. Hence, given the Caribou's regionally confining short-range and the C-130s heavy tasking, it may be appropriate if the C-17 nominally replaces the Caribou fleet. Operationally, the C-130 fleet could: (1) operate down to fill the tasking orders of the decommissioned Caribou; and (2) fulfil the current C-130 tasking orders with assistance from the C-17.

The Boeing B-707-338C is the current ADF AAR aircraft. Two B-707s were deployed to Kyrgyzstan for "operations against the Taliban and Al Qaeda in Afghanistan".¹⁴⁸ However, the operational tasking during operations over

Afghanistan exacerbated the limited availability and serviceability of the aging B-707. On average, the availability of each B-707 has almost halved between 2001 and 2005, from approximately 500 hours to around 300 hours yearly. In addition, the performance targets for the B-707 fleet similarly reduced from 2136 hours in 2001, to 1400 hours in 2005.¹⁴⁹ Hence, it is fortunate that the B-707 will be replaced by the Airbus A330 Multi-role Tanker Transport (MRTT) by 2008.¹⁵⁰ Both of these aircraft primarily provide an AAR capability. The Australian Department of Defence also states that the B-707 and A330 MRTT provide a “significant strategic airlift capacity when not engaged in aerial refuelling tasks”.¹⁵¹ This is a partial misnomer, as the two aircraft only provide a strategic air logistics capability. This only includes personnel and freight transport. It is important that this capability is not confused with an all-spectrum strategic airlift capability. Simply, the B-707 and A330 cannot project tactically-configured units. However, the B-707 has provided, and the A330 will provide, an AAR capability that is becoming increasingly important to counterinsurgency operations in LIC. This AAR capability will afford C4ISTAR and combat aircraft the endurance to engage sparse and nimble targets in LIC. In terms of military principles, supply aircraft are joint and precision force enablers. These aircraft enable combat air and ground units to function and therefore should be perceived as being equally important as those combat units in counterinsurgency operations.

Airborne Command, Control, Communication and Intelligence (C3I)

Airborne Command, Control, Communication and Intelligence (C3I) are becoming increasingly important in LIC. This is because of the evolving joint nature of modern operations. C3I aircraft have a communications and management capability, which enables dispersed air, land and sea units to combine. Effectively, C3I aircraft in counterinsurgency are a hub, which actively or passively enables shooter and sensor nodes to communicate. As has been indicated in the previous two chapters, forms of C3I aircraft have begun to proliferate. In some cases, dedicated C3I aircraft are provided to small ground units, as a force multiplication tool.

Hence, the introduction into service of the RAAF’s Boeing 737 Airborne Early Warning and Control (AEW&C) aircraft is significant from a LIC

perspective. The AEW&C aircraft is a C3I platform designed primarily for airborne surveillance and combat support operations. However, the communications capability of the AEW&C aircraft will also enhance the connectivity between air, land and sea units. Simply, the AEW&C will become a flying relay station. Breen indicated that “having ... a multipurpose communications facility ... in the air, retransmitting, coordinating and relaying ... [information will be] an enormous enhancement for land operations”.¹⁵² Australian doctrine will also support this enhanced connectivity, with the introduction of Network-Centric Warfare (NCW). As indicated in the previous chapter, the P-3 Orion maritime surveillance aircraft can also provide an airborne C3I capability. ‘If installed with the appropriate optics, sensor suites and communications facilities, [the P-3 can] operate as anything from a C2 platform, to facilitating surveillance of land based operations’.¹⁵³ Air Commodore Mark Lax indicated that the ADF has utilised the P-3 as a C3I aircraft, in support of joint land operations.¹⁵⁴ This is most likely in support of SF missions.

The aforementioned C3I aircraft will also be provided with additional information and communication links, through the emerging ADF UAV capabilities. Since 2000, three sets of Unmanned Air Vehicles (UAVs) have been acquired by the ADF, two of which operate at the brigade level and below. These latter two systems may be useful in LIC. The two systems include the Israeli Aircraft Industries I-View 250 Tactical Unmanned Air Vehicle (TUAV) and the Elbit Systems Skylark mini-UAV.¹⁵⁵ The TUAV will be incorporated into the ADF structure at the brigade level, and will operate mainly in support of the Tiger armed reconnaissance helicopter. Hence, the TUAV will only be marginally supportive of counterinsurgency operations. The TUAV may perform useful area surveillance duties in counterinsurgency. However, an important function of the TUAV in counterinsurgency will be to act as a radio relay, improving surface to surface and surface to air communications range, reliability and subsequently bandwidth. In contrast, the Skylark UAV has been operationally deployed with an Australian task group to Iraq and the Solomon Islands. In operations in the Solomon Islands, the Skylark UAV: (1) improved surveillance; and (2) made movement to contact and re-deployment easier. The Skylark UAV is a “man-packed tactical mini-UAV able to undertake close-range surveillance and reconnaissance of areas of interest beyond hills and other obstacles that block

line-of-sight observation”.¹⁵⁶ Robert Hill, Minister for Defence, emphasised that the Skylark will “improve the situational awareness of patrols and response elements and hence their ability to counter potential threats”.¹⁵⁷ Hence, the Skylark UAV will be, and is, making a demonstrative effect on small unit operations. Successful small unit operations are critical in counterinsurgency. The aforementioned aircraft and UAVs will enhance joint force operations and the precision with which they are applied, improve the communication of timely intelligence, and therefore augment the capability of independence ground units.

Navy – Essential Nature and Use

Naval operations have been an indispensable part of all ADF operations included in this thesis, as they were for the NZDF in the previous chapter, and for the coalition forces operating in Somalia and Iraq (chapters three and four). Essentially Command of the Sea has been a requisite condition for the ADF unilaterally, or as part of a coalition, to be involved in the said operations. Command of the Sea “is defined as the possession of such a degree of superiority that one’s own operations are unchallenged by the adversary, while the latter is incapable of utilising the sea to any degree”.¹⁵⁸ However, the fluidity of the maritime environment and the ambiguity of contemporary operations have resulted in a more nuanced concept of Command of the Sea. The nuanced nature of maritime operations will be analysed below. Broadly, Australian naval ships have enabled Sea Control and Maritime Power Projection, in the achievement of strategic objectives. Hence, these two strategic concepts will form the primary subsections below. Initially, however, this section will briefly analyse naval commitments to the thesis’ case studies. The initial analysis will focus upon the RAN’s major surface vessels, which are the primary providers of Sea Control and Maritime Power Projection. Hence, the focus of this subsection will be on the Amphibious and Afloat Support Force, Surface Combatant Force and Naval Aviation Force.

For Operation Solace, the Training, Helicopter and Logistics Support Ship HMAS *Jervis Bay (I)* and the Landing Ship Heavy HMAS *Tobruk (II)*, ‘provided the initial strategic lift for 1 RAR to deploy’.¹⁵⁹ “Subsequently *Tobruk* was integrated into the [Multinational Force] MNF and provided logistic,

communication, intelligence and air support to both Australian and coalition forces”.¹⁶⁰ However, in the case of Operation Solace there were ship readiness and logistics constraints to operations. Initially, *Tobruk* was not in a serviceable state due to major mechanical and systems problems. These problems were rectified in time for deployment, and were maintenance rather than defect related. Deficient logistics support and movement, and the tasking of only one *Jervis Bay* sailing caused 1 RAR to be deprived of equipment, vehicles and stores. These shortages indicated an insufficient maritime lift capability, even for counterinsurgency operations.

In the case of Operation Lagoon, *Tobruk* and the Auxiliary Oiler Replenishment Ship *Success* were deployed. These “RAN [vessels] ... provided afloat command and control and logistics support”.¹⁶¹ As the combined HQ for Operation Lagoon, the communications systems onboard *Tobruk* were a critical intra and inter theatre link. However, the trunk communications system (INMARSAT) onboard *Tobruk* and *Success* were improvised, marginally effective at sea, and became overloaded on operation. Logistics constraints also grounded a naval helicopter for two weeks during the operation. Given the limited numbers of helicopters available in Bougainville, this grounding was a significant constraint. The Australian naval contribution to the TMG included *Tobruk*, *Success*, four Landing Craft Heavy (LCH), a Clearance Diving Team (CDT) and Sea King helicopters. The Fremantle Class Patrol Boats (FCPB), *Fremantle* and *Ipswich*, were also on standby in Cairns, in support of the operation. “*Tobruk* transported personnel, vehicles and equipment in support of the ... [TMG, while] *Success* provided an afloat headquarters... [The] LCHs provided logistic support on rotation”.¹⁶² Moreover, an RAN support force was sporadically present throughout the Bougainville peace process.

Australian naval operations in East Timor involved a significant fleet deployment of Adelaide and Anzac Class Frigates, motor launches, patrol boats, *Success*, *Tobruk*, LCHs and the fast catamaran *Jervis Bay (II)*. The combat force asserted Sea Control, conducted surveillance, patrolled, collected intelligence, escorted naval and commercial logistics vessels, and conducted anti-submarine work.¹⁶³ *Success* transported fuel, water, ammunition and other consumables into theatre, and then acted as an afloat warehouse in support of coalition air, land and sea operations. *Success* and Her Majesty’s New Zealand Ship (HMNZS)

Endeavour, the Royal New Zealand Navy's (RNZN) Replenishment ship, "were so vital to the operation that Interfet [sic] regarded them as two of the most likely targets for any attack".¹⁶⁴ *Tobruk* and *Jervis Bay* were also critical to operations in East Timor. These vessels initially deployed much of the coalition's land forces and provided logistics support throughout the operation. Nevertheless, there were significant logistics constraints during operations in East Timor, indicating a continued need to bolster the ADF's Sealift or Amphibious lift capability. Such an increase in capability has become apparent, with the introduction of the Amphibious Transports HMAS *Manoora* and *Kinimbla*. The LCH fleet was also critical in providing tactical troop and logistics transport between Dili, Suai and Oecussi.

Australian maritime operations in support of Operation Enduring Freedom and Operation Iraqi Freedom are at times intertwined. Maritime support for the International Coalition Against Terrorism and the UN Multinational Maritime Interception Force against Iraq (RNZN was also involved), required the deployment of Adelaide and Anzac class Frigates and Amphibious Transports to the Persian Gulf. In direct support of Operation Iraqi Freedom, Frigates and Amphibious Transports were central to the ADF effort. "*Kanimbla* [transported ADF assets to the Middle East and] acted as a command and control platform during waterway clearance operations in the North Arabian Gulf. [The Anzac class Frigate] *Anzac* provided naval gunfire support during a Royal Marine assault on the Al Faw Peninsula. [The Adelaide class Frigate] *Darwin* provided escort services".¹⁶⁵ Australian maritime forces were also involved in the humanitarian, stabilisation and recovery efforts in Iraq. What is clear from the above analysis is that naval units are essential to counterinsurgency operations, especially in terms of enabling the function of air and ground units in a joint force environment.

The subsequent subsections, 'Sea Control' and 'Maritime Power Projection', analyse naval concepts in relation to operational requirements. In addition, the subsections examine prospective force structuring and acquisitions, and how these changes will effect future operations.

Sea Control

Sea Control is a derivative of the concept, Command of the Sea. Sea Control as a concept “recognise[d] that the sea ... was a dynamic medium and that the value of maritime operations was in relation to the *use* of the sea for movement and not for *possession* of the sea itself”.¹⁶⁶ Hence, “*Sea Control* is defined as that condition which exists when one has freedom of action to use an area of sea for one’s own purposes for a period of time”.¹⁶⁷ Inversely, Sea Denial “is defined as that condition which exists when an adversary is denied the ability to use an area of sea for his own purposes for a period of time”.¹⁶⁸ Furthermore, Sea Denial and Sea Control may occur concurrently, “so sea denial is an aspect of sea control rather than an entirely separate concept”.¹⁶⁹ Importantly for this thesis, Sea Control is not merely a concept of conventional warfare. “Sea Control may be required in circumstances other than conflict between nation states”.¹⁷⁰ In fact, Sea Control “operations will be required whenever ... [a nation’s] freedom of action at sea is threatened”.¹⁷¹ Consequently, if there is a level of threat, there is also a level of risk that must be assumed. The threat and risk level will concomitantly designate the naval units tasked.

Sea Control “will be an essential element, whether as object or precondition, of almost any conceivable campaign or operation which will be mounted by Australian forces, whether acting unilaterally or in coalition... In many circumstances, sea control will be pre-existent, but it is important that its status not be uncritically assumed”.¹⁷² In the case of Operation Solace, HMAS *Tobruk* and *Jervis Bay (I)* did not require escort by Australian warships for two reasons. First, Somali warlords did not present a threat on the high seas. Second, a multinational force of warships was present off the Somali coast, passively deterring land-based action. Conversely, in the case of operations in the East Timor AO, Australia and allies deployed warships to assert Sea Control and latent Sea Denial. Under the auspices of Sea Control, at sea, allied warships conducted four explicit and two latent modes of operation. First, warships gathered intelligence and conducted surveillance, in a joint environment, to generate joint battlespace awareness. Second, warships provided cover “for less capable forces to ensure their protection and the completion of their tasking without interference from an adversary”.¹⁷³ In the case of East Timor, cover was “effectively

exercised through the simple threat of intervention”.¹⁷⁴ Cover “is particularly applicable to situations in which it is desirable to contain the intensity or branching of a conflict. An adequate degree of cover in such circumstances can be an important *deterrent* of a would-be adversary and will ensure that the situation will not *escalate*”.¹⁷⁵ “Surface combatants of the RAN and coalition navies provided cover for the land forces during the critical stages of the insertion of the coalition force into East Timor in 1999. The presence of highly capable and well-armed warships gave a clear demonstration of the force’s resolve and its capacity to defend itself”.¹⁷⁶ Third, coalition warships provided a layered defence of friendly amphibious, support and commercial vessels and convoys heading for East Timor. Without this layered defence, amphibious and support vessels would have been at unnecessary risk and commercial vessels would not have entered the East Timor AO. Fourth, Advance Force Operations were conducted against submarine, mine and other submerged explosives, “in advance of the main force, ... in order to make acceptably safe the area in which the latter ... [would] operate”.¹⁷⁷ Fifth, INTERFET warships provided a latent capability to Interdict Commercial Shipping and Sealift, had the intent of the Indonesians become adversarial. “At the Operational level, [Interdiction of Commercial Shipping and Sealift] ... will be to prevent an adversary’s reinforcement or resupply [sic] of deployed units and any attempt to conduct manoeuvre operations by sea”.¹⁷⁸ Sixth, INTERFET warships also provided the latent capability of Maritime Strike and Interdiction. Maritime Strike and “Interdiction of an adversary’s maritime forces, [occur] ... to prevent their use for sea denial, sea control or power projection”.¹⁷⁹ In support of the UN Multinational Maritime Interception Force against Iraq and Operation Enduring Freedom, Australian naval ships imposed Sanctions against Iraq and a Blockade against Al Qaeda and the Taliban. Essentially, maritime forces provide critical support to other units in counterinsurgency, but this active support may appear passive.

Maritime Power Projection

“Sea control, once achieved, establishes the environment for more direct efforts in relation to the land. Maritime forces can shape, influence and control this environment, as well as deliver combat force ashore if necessary. The delivery of

force from the sea is defined as *maritime power projection* and can take the form of the landing of amphibious or special forces or the delivery of seaborne land forces, or bombardment by guided or unguided weapons from seaborne platforms”.¹⁸⁰ Contemporary technology and greater joint structuring has augmented the capacity of maritime forces to influence events on land. There are four key areas of change: (1) growing Mobility of Mass; (2) greater organic helicopter lift; (3) extended range and guided projectiles; and (4) enhanced C3I capabilities. These four areas of maritime evolution are analysed below, in relation to Maritime Mobility, Support for Land Forces, Land Strike and Sea-Basing.

The simplest form of Maritime Mobility is Sealift. Sealift describes the capability to “transport land forces into theatre and sustain [those land forces on subsequent] operations”.¹⁸¹ However, Sealift “requires the utilisation of developed port facilities for embarkation and disembarkation”.¹⁸² If usable port facilities do exist, land forces transported by sealift vessels are unlikely to arrive in a tactical configuration. Simply, land forces are not immediately ready for action after disembarkation from a sealift vessel. Furthermore, the archipelagic and sparse island nature of the region, combined with a lack of deep water port facilities, constrains the employment of sealift vessels. Hence, “the reality of operational contingencies and local threats will often require the use of *amphibious forces* which are capable of transporting land forces and disembarking them in a high state of tactical readiness in the absence of developed facilities”.¹⁸³ Amphibious operations are a more complex form of Maritime Mobility. Amphibious vessels include integral lift elements; units that can deliver land forces to the shore or over the shore. These integral units enhance the operational mobility, flexibility and striking power of deploying land force elements. This is because land forces are not confined to single points of entry, and units can be deployed in a tactical configuration. The degree to which a vessel is amphibious is a further consideration. Deck space for helicopter and tilt-rotor operations, and loading facilities for conventional or cushion landing craft, designate what force can be deployed and how quickly.

Maritime Mobility has been a critical enabler in the aforementioned ADF case studies. The vehicles, equipment and stores required for these operations were almost always transported by sea. Despite this fact and until 2000, maritime

mobility has been critical vulnerability within the ADF. In fact, between 1982 and 2000 the ADF possessed only one fully operational amphibious vessel: *Tobruk*. Until 1994 and following 1999, *Tobruk's* capability was supplemented by the training ship *Jervis Bay (I)* and the converted commercial ferry *Jervis Bay (II)*, respectively.¹⁸⁴ The latter vessel was purely a sealift ship, while the former had only marginal amphibious capability. Due to this limited maritime mobility: (1) 1 RAR deployed to Somalia without some essential equipment, vehicles and stores; (2) *Tobruk* sailed to Bougainville for Operation Lagoon 200 tonnes above its maximum recommended displacement; and (3) the initial deployment of INTERFET troops to East Timor were forced to deploy light. Characteristics particular to these operations enabled projection success, although differing situations may have illustrated the risk of insufficient maritime mobility. Moreover, given the requirement for maintenance, training and exercising, a ship cannot always be operational. During the period 2000 and 2005, *Tobruk's* average requirement to be at MLOC was 273 days. Hence, *Tobruk* was expected to be operational 74 percent of the time. At other times, *Tobruk* was required to be at 48 hours notice, unless in major refit. If an operation occurred when *Tobruk* was being refitted, the ADF may have been less able to deploy. Hence, the introduction into service of the Amphibious Transports *Manoora* and *Kanimbla* has been a critical capability improvement. The combined MLOC requirement, for *Tobruk*, *Manoora* and *Kanimbla*, has been approximately 800 days since 2003. This translates to two vessels being available at any one time, with a combined lift capability of between 765 and 900 personnel.¹⁸⁵ This is a basic requirement for the ADF, given the Australian expeditionary deployments over the past 15 years. For example, the ADF deployments to Iraq have depended heavily upon *Manoora* and *Kanimbla*. These deployments have also contributed significantly to the heavy tasking of these two aforementioned ships.¹⁸⁶

The future of amphibious lift for the ADF is detailed in Joint Project (JP) 2048, Phase 4. Phase 4 envisages the replacement of *Tobruk* and *Manoora*, with two larger amphibious vessels in 2010 and 2013, respectively. Following the ADF operations throughout the 1990s and especially in East Timor, it became obvious that Australia needed a larger amphibious force. The ADF also required greater disembarkation agility from a future amphibious force. Hence during 1999, the Naval Material Requirement Branch (NMRB) devised a Multi-Role

Auxiliary (MRA) ship concept. The MRA was originally designed to operate as an “underway replenishment ship; [a] transport ship for an army battalion group of around 1200 troops and equipment; [an] aviation support ship; [and a] logistics support ship”.¹⁸⁷ These design requirements reflected “the growing trend towards over-the-horizon amphibious operations[, and the] ... flexibility and rapid response and the increasing emphasis being placed by the ADF on the ability to project and sustain forces in the littoral environment”.¹⁸⁸ There are two ship designs in contention to fulfil the MRA requirements: the Navantia Strategic Projection Ship and an extended version of the Armaris Mistral-class Landing Helicopter Dock (LHD).¹⁸⁹ Both ships are floodable dock, flat-top helicopter assault ships. The Strategic Projection Ship appears to better fulfil Australia’s MRA requirements, given its integral capacity to transport 1200 troops.¹⁹⁰ This exceeds the troop lift capability of the Mistral-class LHD, which can lift 450 troops without displacing transportable vehicles or helicopters.¹⁹¹ As the future ADF amphibious force will comprise only two vessels, and given the land force requirements of the case studies of this chapter, it would appear the acquisition of the Strategic Projection Ship would be more appropriate. Such a ship could have deployed and partially sustained most of the forces required in the above ADF case studies.

In addition, those same integral lift elements can further support the operations of land forces, following the initial deployment. “Army battlefield helicopters (organic to the amphibious task group) and naval utility helicopters can provide extensive support to operations on land”.¹⁹² In littoral zones, landing craft provide similar support to land forces, as do the aforementioned helicopters. Also in “littoral zones, maritime forces prevent the adversary moving forces by sea. This protects the seaward flank of friendly land forces and denies the adversary the ability to conduct *maritime manoeuvre*”.¹⁹³ This is a tangible capability and one which operates in the latent sense of deterrence. In the latent sense, the mere presence of naval vessels in theatre can create a coercive effect that deters violence. The support and sustainment capabilities outlined draw upon aspects of the ADF’s combat, amphibious and logistics support vessels. The following analysis will focus on the RAN’s logistics support contribution to land operations.

A significant element in sustaining land forces is that of logistics. Naval logistics support for land forces has been provided by a single dedicated vessel within the ADF. The Afloat Support Force incorporates two vessels, the Auxiliary Oiler *Westralia* and the Auxiliary Oiler Replenishment ship *Success*. *Westralia* “is primarily configured to provide fuel and water, has [only a] limited capacity for the carriage of food and stores, and [has] no capacity to carry cargo ammunition”.¹⁹⁴ In contrast, *Success* “is a multi-purpose support ship capable of providing fuel, water, ammunition, stores and fresh and frozen foodstuffs to receiving ships or units at anchor or while underway”.¹⁹⁵ Hence, only *Success* can sustain a deployed land force. *Success* was critical in sustaining the land, air and sea elements deployed to the various Bougainville operations analysed above, and operations in East Timor. However, in the case of East Timor, *Success* could not have sustained the INTERFET lodgement without the assistance of HMNZS *Endeavour* and subsequent coalition replenishment ships. This RAN replenishment shortfall was partially caused by *Westralia* being unavailable during INTERFET operations, due to the damage caused by an engine-room fire. Furthermore during the period 2000 to 2005, *Success* has been at MLOC on average 249 days per year. Hence on average, the ADF is nominally without a replenishment ship for 116 days per year.¹⁹⁶ This is significant for a capability that is critical to most regional ADF operations. There are also two ADF sustainment limitations, which were illustrated by operations in Bougainville and East Timor. First, the limited capability of *Tobruk* and *Success* to produce potable water, through desalinisation, creates a need for water to be transported strategically into theatre. Second, *Success* has no ship to shore fuel transfer capability, other than via helicopter. A similar capability, to transfer potable water ashore, may also be useful. The RAN has received advice from the U.S. Marine Corps on such matters.

Success and *Westralia* will be replaced under Project Sea 1654. Phase 2A of this project will replace *Westralia* with HMAS *Sirius*, an interim auxiliary oiler. Phase 2B and 2C will replace *Success* and *Sirius* with new, purpose-built auxiliary oiler replenishment (AOR) ships.¹⁹⁷ These two future AORs should ensure a continuous replenishment capability. The AORs will “provide support for two separate naval taskforces as well as support of forces ashore and fixed installations such as bases, airstrips and townships... [The vessels will be] able to

supply large quantities of marine distillate [fuel], aviation fuel, water, ammunition and various other stores”.¹⁹⁸ The future vessels also need to be able to produce large amounts of potable water, and transfer this water and fuel efficiently to shore. Hence, deployable pipes, and bulk water and fuel installations need to be an integral part of the AORs. Separately, the future AORs should have a capability to sustain a land force of a battalion group. Together, the AORs should have a capability to sustain a lodgement comparable to INTERFET, with support from chartered air and sea assets. Given this requirement for chartered civilian assets, the ADF must continue to provide Sea Control.

To enable sustainment operations and the delivery of humanitarian aid, which is often a component of counterinsurgency, port facilities are often required. Hence, CDTs and associated equipment and vessels are also a requirement in LIC. In this case, CDTs would be tasked with removing dangerous substances and objects from ports, as to enable the use of the said ports. Of the aforementioned case studies, only in the case of non-littoral Afghanistan were port clearance operations not required.

The Naval Aviation Force, in conjunction with embarked Army helicopters, has also proven to be essential in LIC. These helicopters generate an amphibious capability and enable naval support of land operations. The RAN’s S-70B-2 Seahawks and SH-2G Super Seasprites are designed primarily to “operate as an integral component of the parent ship’s weapons and sensor suite, extending the detection range of the force, maximising the offensive range, and reducing the vulnerability to attack”.¹⁹⁹ These capabilities provide actual and latent Sea Control. However, the combat support capabilities of the two aforementioned helicopters, and the RAN’s Sea King Mk 50A and embarked Army Blackhawks, have been indispensable in the ADF cases under study. Combat support tasks include utility lift of personnel, equipment or stores, and land surveillance and reconnaissance. Utility lift includes the lodgement of forces from amphibious ships, the subsequent movement and supply of those forces on land. These latter utility capabilities were critical, especially in Bougainville and East Timor. Naval aviation and embarked army helicopters are also immediately available in theatre. This immediacy is a critical capability early in operations, prior to other tactical transport assets becoming available. Unfortunately, logistic support deficiencies during 1999 through 2001, and continuing personnel

shortages have limited naval aviation capabilities and prevented some performance targets being achieved. Moreover when heavily tasked, as in Operation Iraqi Freedom, maintenance backlogs have reduced performance.²⁰⁰ Maintenance of the Sea King, in terms of cost and time, is also a matter of concern, given the criticality of this asset in combat support operations. Hence, Project Air 9000 should also include the replacement for the Sea King, with a common ADF type of utility helicopter. This replacement will most likely be the Eurocopter NH/MRH-90, which was examined above.

Maritime forces can also be highly capable in peace building operations, whereby naval vessels provide personnel and facilities to rebuild communities. Integral to naval ships are trades-people, who can be based at sea and deploy to land when necessary. These trades-people are backed by facilities onboard that enable their work. Other naval personnel, such as “military observers, liaison officers, HQ staff officers, disarmament inspectors or ... medical or communications teams”,²⁰¹ can also support peace operations. “Naval forces, particularly amphibious vessels and organic helicopters, can provide substantial logistics support [for peace operations]”.²⁰² As indicated above, naval forces invariably bring significant consignments of humanitarian aid to peace operations. Moreover, CDTs have been critical in removing obstacles, so that Sealift vessels can gain access to port facilities for disembarkation. Such operations were undertaken by the British in the Iraq war (analysed in chapter four), so as to ensure humanitarian aid could reach the Iraqi people. In terms of doctrinal principles, this is essentially the application of civil operations.

Land Strike is the “ability of maritime forces to strike directly at the land”.²⁰³ Such a strike would constitute the use of organic air units, guns or land attack missiles, in a strategic and independent role. The same means of delivering firepower can be utilised to support operations on land. In this sense, the weapons systems fire in support of friendly land forces. In addition, naval air weapons and sensors can “contribute to [joint] anti-air operations [in littoral areas]”.²⁰⁴

Such operations occurred in 2003, when HMAS Anzac “provide[d] fire support to [United Kingdom] UK Royal Marine forces on the Al Faw peninsula[, Iraq]”.²⁰⁵ These operations included coalition air, land and sea elements, which necessitated seamless joint coalition command and control. As stated earlier, a naval capability to strike at the land is an effective form of deterrence. Hence, a

lack of naval gunfire against land targets does not mitigate the requirement for, or the coercive effect of, a naval land-attack capability.

Sea-Basing is a concept relevant to “amphibious operations, [and is] a technique of basing certain land force support elements aboard ship which decreases shore based presence”.²⁰⁶ As a concept, Sea-Basing does not exist within the RAN’s capstone doctrine, ‘Australian Maritime Doctrine (RAN Doctrine 1, 2000)’. Sea-Basing is referred to within the RAN’s second level doctrine, ‘The Navy Contribution to Australian Maritime Operations (RAN Doctrine 2, 2005)’, but is not fully developed. Sea-Basing was an essential, but inadvertent operating method for ADF force elements deployed to East Timor. Simply, land forces were provided with intelligence, surveillance, mobility, support and C2 from ships at sea. Future littoral operations will leverage greater support from ships at sea, through Sea-Basing. Commodore Jack McCaffrie, of the Sea Power Centre, indicated that Sea-Basing was a central consideration in the development of the ADF’s future amphibious ships. McCaffrie stated that a principal Army requirement for the future amphibious ships is to “land 1000 personnel and keep 800 aboard for support”.²⁰⁷ The requirements of the support elements would include Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), logistics, firepower and mobility. For example, the Army requires the future amphibious ships to have: (1) an independent capability to simultaneously launch six NH90s carrying a company of 120 personnel; and (2) field the Tiger ARH in support of land operations.²⁰⁸ Given these pending requirements, RAN doctrine needs to be enhanced in the area of Sea-Basing. As is indicated below, Sea-Basing is a current operational reality.

Joint Command and Control, provided by RAN vessels, has been essential during the ADF operations in Bougainville, East Timor and Iraq. The ADF describes the foremost role of the Amphibious Transports *Kanimbla* and *Manoora*, as that of a “deployable joint force headquarters [DJFHQ]”.²⁰⁹ As a DJFHQ, *Manoora* and *Kanimbla* provide “Command, Control, Communication and Intelligence (C3I) and electronic warfare”²¹⁰ capabilities for a joint taskforce. Similarly, *Tobruk* and *Success* have provided limited C3I capabilities during operations in Bougainville and East Timor. In addition, major coalition combat

vessels provided tactical C3I in East Timor and Iraq, in conjunction with airborne surveillance and strike aircraft, to assert Sea Control.

Liaison is a brief that is not well elucidated in RAN doctrine, but is absolutely essential when on operation with a coalition. McCaffrie stated that liaison officers were critically important to operations off East Timor and Iraq. This is because coalition “systems must be backed up by competent liaison officers”.²¹¹ This is because differences in Standard Operating Procedures and terminology can prevent coalition members understanding and operating effectively together. Liaison officers can rectify contentious issues, or translate obscure terms for retransmission between friendly elements. Consequently, personnel exchanges are some of the most critical methods of creating coalition interoperability.

It is important to perceive naval units as integral elements of joint counterinsurgency forces. In terms of doctrinal principles, naval units can: control the AO and therefore manage international interference; directly and indirectly provide, and support operations that provide, internal security; directly and indirectly apply, and support operations that apply, civil operations; and perform as a unified command and control system. In terms of military principles, naval units are an element of joint force, generate intelligence, provide communications links, and through C2 capabilities, enable force to be precisely applied.

Command, Control, Initiative, Communications and Intelligence (C2ICI)

The following analysis examines the essential elements of Command and Control, as experienced by the ADF in LIC. This section analyses a number of elements that enable force to be coordinated and applied in counterinsurgency operations.

Command, Control and Initiative

This section analyses C2 implications for the ADF, from operations in Somalia, Bougainville, East Timor, Afghanistan and Iraq. The section initially analyses the aforementioned operations sequentially, so that the implications can be illustrated in a simple manner. Subsequently, the section incorporates these implications with the development of C2 structures within the ADF. This subsequent analysis

examines the strengths and weaknesses of the ADF command structure since 1990 and into the future.

Operation Solace, the peace-enforcement operation to Somalia in 1993, faced two primary difficulties at the pre-deployment stage. First, planning remained covert for an extended period of time. Second, Australian Army and Navy readiness was below expectations. These two issues subsequently undermined the logistics and training build-up for Operation Solace. In addition, a lack of strategic-level planning synergy and excess secrecy seriously undermined intelligence.

Defence Headquarters (HQ) and Land HQ were aware of a requirement to deploy 1 RAR to Somalia in early November. However, it took four and five weeks for this information to reach top and middle level officers in 1 RAR, consecutively. In addition, Combat Service Support (CSS) units were not informed of Operation Solace until after 15 December. Consequently, 1 RAR's "deficiencies in vehicles, weapons, equipment and general stores"²¹² were not recognised until four weeks before deployment. When these deficiencies were recognised, over 1000 supply requests were lodged with a logistics system that was unprepared and unadvised of 1 RAR's high priority setting. The subsequent unorganised delivery of supplies to the embarkation port of Townsville was: (1) highly expensive; (2) complicated the loading of HMAS *Tobruk* and *Jervis Bay (I)*; and (3) caused stores and vehicles to be left in Australia. The complicated loading process indicated in point two prevented *Tobruk* being combat loaded; critical supplies for immediate operations in Somalia were not immediately obtainable on deployment. Due to point three, 1 RAR was short of supplies and transport once deployed, necessitating a critical re-supply.²¹³

Operation Solace also indicated a shortfall between reported and actual readiness. Breen states, "long-term deficiencies in stock holdings and maintenance schedules were exposed, neighbouring units had to be cannibalised for serviceable vehicles, weapons, equipment and stores".²¹⁴ In addition, *Tobruk* was not in a serviceable state when ordered to ready for operation. Fortunately, *Tobruk's* crew was able to frantically repair major mechanical and system failures, to bring *Tobruk* to "Mission Capable" status.²¹⁵

During the deployment of 1 RAR to Somalia, C2 and logistics were conspicuous deficiencies. Logistics issues will be examined below, under the

'Logistics' subsection. C2 from HQ 1 RAR down, worked effectively. However, from HQ 1RAR to the 'joint' in-theatre HQ Australian Force Somalia (AFS) and then back to the various HQs in Australia, there was near chaos. HQ AFS was designed as a "Deployable Joint Force HQ (DJFHQ) commanding [all Australian] forces deployed [to Somalia]".²¹⁶ In reality, the HQ AFS was not joint and did not have the personnel or status to function "as a tactical Brigade HQ or a third-line logistic HQ".²¹⁷ In actuality, HQ AFS reported to higher HQs in Australia, operated as an unnecessary administrative conduit between 1 RAR and Australia, and attempted to work the defunct logistics system. The command issues surrounding HQ AFS were caused partly by its complicated initial functions. These included both: liaison with coalition members and the American strategic command in Somalia; and reconnaissance of the Baidoa sector. First, everyone except HQ AFS and senior Australian HQ personnel, perceived HQ AFS to be a senior national liaison team, rather than the AFS Command team. Second, the reconnaissance team was comprised of 1 RAR personnel, who assumed their responsibility was to 1 RAR, not HQ AFS. This was, however, irrelevant, as the intelligence gained by the reconnaissance team was attained too late to assist 1 RAR pre-deployment preparation. Simply, HQ AFS proved highly ineffective. Breen illustrates two lessons learned. First, all units must comprehend the functions of a multilayered national command. All roles and responsibilities must be understood. Second, it is absolutely critical that battalion HQs train with the brigade HQs that they operate with. Under no circumstances should brigade HQs be ad hoc entities. A further issue relates to liaison and reconnaissance, separate teams should have been sent earlier to perform these activities individually.

The 1994 Bougainville Peace Conference (BPC) failed in achieving peace. The failure was principally caused by: (1) elements of the PNGDF breaking the cease fire agreement; and (2) the leaders of the BRA and BIG withholding support for the conference. Nevertheless, the force elements of Operation Lagoon were successful in fulfilling their prescribed mission objectives. This was despite joint cooperation issues, caused by a flawed planning process.²¹⁸

Effective Command, Control and Initiative are as significant in pre-deployment planning, as they are following deployment. In the case of Operation Lagoon, the ADF exhibited significant planning fissures, which were exacerbated by a politically constrained pre-deployment training process.

The Australian Defence Headquarters and Defence Intelligence Organisation (DIO) became aware of Operation Lagoon on 23 May 1994. Subsequently, a covert planning team was established at Defence HQ, incorporating six ADF personnel. On 8 June, the strategic plan was approved. This plan envisaged the deployment of 200 Fijian, Tongan and Ni Vanuatu troops, as the primary field elements of a SPPKF. The SPPKF was to be commanded and supported by the ADF. Hence, the ADF would need to provide the SPPKF with pre-deployment training, as well as logistics, surveillance, intelligence, communications and command support. In addition, the ADF needed to feed and water all the security personnel and conference delegates. This information, however, was not provided explicitly to ADF operational planners until 9 September; four weeks prior to operational deployment.

Defence HQ did not provide operational planners at Land HQ with explicit warning because: (1) “senior officers in Defence HQ were not confident that contingency planning ... could be kept secret outside ... Defence HQ”;²¹⁹ and (2) personnel at Defence HQ preferred “a sequential and hierarchical approach to planning rather than a concurrent, parallel process”.²²⁰ Neither did the Defence Intelligence Organisation (DIO) inform Land HQ of the impending operation in Bougainville. Bob Breen contends that the DIO did not consider ‘the interpretation of information and recommending courses of action’²²¹ to be core business. In the absence of explicit warnings, Land HQ appears not to have recognised, or acted upon, the implicit warnings of an impending peace operation in the media and parliament due to three reasons. First, Land HQ did not take the initiative and begin operational planning for Operation Lagoon, as unauthorised contingency planning was not permitted. “If ... [Land HQ] had sought authorisation to conduct the planning, then they would not have been allowed because the strategic warning was kept a secret in a compartment at Defence HQ”.²²² Second, Land HQ was focused on “[i]nternal reporting[,] ... consultative processes ...[,] administrative requirements associated with planning, resource forecasting and management, and the preparation and conduct of peace time training”.²²³ Third, Breen states “[t]here did not appear to be any staff tasked to anticipate future operations by examining the media and the statements of national and international leaders”,²²⁴ as this is the function of Defence HQ. The lesson here is that information pertaining to upcoming operations must be disseminated

to those who will plan the operations. Simply, excessive secrecy will undermine planning, and poor planning will in turn undermine the operation.

The lack of a clear, joint and timely ADF consultative process initially caused the terminal development of operational plans, the compressed execution of training and the logistical build-up to be rushed and less effective. Basically, the warning process resulted in negative outcomes, three of which were serious. First, the strategic plan was developed without specialist guidance. Hence, “the Defence HQ plan was logistically unsound and did not contain sufficient detail on any aspect of the operation, such as joint arrangements for communication and Intelligence”.²²⁵ Second and subsequently, the terminal operational planning for Operation Lagoon neglected some operational requirements and joint activities lacked synergy. Third, logistical support for Operation Lagoon was unduly costly and difficult to coordinate. In addition, Defence HQ then applied further constraints to Land HQ. This significantly limited operational planning in the areas of logistics, support engineering, liaison, reconnaissance and communications.

The C2 issues illustrated above appear to have been rectified by the ADF, to a degree. This change was demonstrated by the successful Australian deployment to East Timor. Operational level pre-deployment planning and C2 were vested in the Australian Deployable Joint Force Headquarters (DJFHQ). The DJFHQ had been established two years prior to operations in East Timor, and had undertaken two humanitarian operations and several exercises. One of these exercises simulated an evacuation operation, while another simulated a brigade sized amphibious lodgement. These exercises paralleled: (1) Operation Spitfire, the evacuation of specified persons from East Timor; and (2) Operation Warden, the lodgement of INTERFET. However, Major General Cosgrove, the commander of DJFHQ, did state that an opportunity to field test equipment, procedures and computer systems would have been beneficial prior to operations in East Timor. Nevertheless, DJFHQ effectively prepared forces for, and commanded forces within the East Timor AO. In terms of preparation for East Timor, the DJFHQ was warned four months prior to operations in East Timor. This time period enabled effective planning. However, like previous Australian operations warning orders for some field elements came within a month of deployment. These short warning times do not seem to have impacted adversely

on most of the deploying units. However, the East Timor deployment illustrated severe weaknesses in Australian logistic and engineer support services.²²⁶ The logistical and engineering limitations will be examined below in their own subsections.

With specific reference to the SOF Forward Command element, coalition interoperability and service jointness were critical enablers for the effective ADF combat operations in Iraq. Interoperability was insured through: (1) decades of Australian, UK and U.S. joint special force training and operations; (2) intensive pre-combat in-theatre training with UK and U.S. joint forces in February and March 2003; and (3) the collocation of the Australian Forward Command element with the United States Special Operations Command element in the Middle East. The Australian Department of Defence states that “[w]orking relationships developed during Operations Slipper [(Afghanistan)] and Bastille [(deployment to and in-theatre training for Iraq)] meant their [SOF] actions during Operation Falconer [(combat operations in Iraq)] were always closely coordinated with the US [sic] and UK special forces [and other tasked combat platforms] operating nearby in the Western Desert”. This coordination was and is absolutely critical to SOF, given the reliance of Special Forces on network-centric operations and the use of air-launched precision-guided weapons.²²⁷

Concomitantly with the aforementioned operations, an operational level HQ was developed within the ADF. The development of an operational level HQ began in the late 1980s, under the then Chief of Defence Force (CDF), General Peter Gration. Gration commissioned the then Brigadier, John Baker, to review C2 arrangements within the ADF. Baker’s report became “the architecture for joint operations [and] included a DJFHQ”.²²⁸ “The process then began under Gration, to create ... [the joint operational] capability at the Divisional HQ in Brisbane”.²²⁹ Operations in Somalia and Bougainville were to show, that these nominal structures were of subtle value. In the case of Somalia, the DJFHQ operated as a “liaison HQ..., endeavoured to manage the supply chain, and act[ed] in the latter part of the operation as a higher level tactical HQ”.²³⁰ The DJFHQ “did not have a command relationship with HMAS *Tobruk* ..., and could not task it or its helicopters”.²³¹ In the case of both Somalia and Operation Lagoon in Bougainville, significant compartmentalisation, secrecy and sequential lag at Defence HQ generated considerable command issues on deployment. However in

the case of Operation Lagoon, Land HQ was deployed as a joint force HQ, rather than DJFHQ.

Despite “shortcomings in the joint process, ... [operations in the early 1990s] showed the value of having a headquarters, separate from HQADF in Canberra, that could plan, mount and control ... overseas deployments”.²³² Hence in 1997, under the then CDF, General John Baker, a standing joint operational HQ was established. This joint operational command structure was designated Headquarters Australian Theatre (HQAST). However, the HQAST remained a nominally joint structure. The core personnel of the HQAST constitute a joint staff, “organised on functional lines using the continental staff system”.²³³ However, for the planning and conduct of joint operations, Air, Maritime, Land, Special Force Group and Logistic Support Force component staffs are assigned to the HQAST. The Joint Intelligence Centre and Joint Movement Group are also under HQAST control. These component staffs are not ordinarily collocated, which enables the ‘potential for single service and joint command friction to develop on operation’.²³⁴ For an operation, HQAST would also be assigned component force elements to command in theatre. HQAST could command these assigned force elements in three potential ways: (1) directly from HQAST in Sydney; (2) via a Land, Maritime or Air component command; or (3) via DJFHQ, DJFHQ – Maritime (M) or Northern Command (NORCOM). Of these, only NORCOM is a full time joint HQ, which permanently commands its own force elements and enablers.

In the case of East Timor, DJFHQ was the appointed command element. However, DJFHQ is an Army formation based upon Headquarters 1st Division, which is located in Brisbane. The DJFHQ is “supplemented by maritime, air and special operations [and logistics] components [when activated]”.²³⁵ Hence, in actuality the “DJ[FHQ] has never been a joint force HQ, except in a nominal way during exercises and in a practical, but still ad hoc way for Operation Stabilise in East Timor”.²³⁶ The formation of the HQAST and DJFHQ had rectified many of the C2 issues experienced in earlier operations. However, “[t]he East Timor operations revealed that joint C2 arrangements ... [did] not meet expectations”.²³⁷ There were three primary reasons for this unsatisfactory performance. First, the three component services did not deliver an integrated and practiced joint response. HQAST doctrine, which brought the three services together for

operations, was not sufficient. For joint operations to work effectively, HQAST needed to permanently control all enabling command components. Second, the sequential planning process needed to be superseded. A concurrent process was required for vertical and horizontal planning. In terms of vertical planning, the strategic, operational and tactical levels of command needed to integrate seamlessly. Horizontally, 'the three services needed to plan together, at the same time'.²³⁸ Moreover, the vertical and horizontal planning must also be fully integrated. Simply, to operate together, you need to train together. Third, key force elements were not incorporated into the HQAST structure. Both Logistics and Engineering were omitted from the HQAST doctrine prior to operations in East Timor. Hence: (1) the Engineer deployment to East Timor was slow, and the importance of their task was not well comprehended; and (2) the tenuous nature of the improvised supply chain between Australia and East Timor brought the mission close to failure. Furthermore, this omission has not been fully rectified as yet. This is an unsatisfactory situation, given that both of these capabilities were critical enablers in East Timor, the Solomon Islands and Bougainville. This situation may have developed because Logistics and Engineering are elements of the Army. Hence, the operational perceptions of Logistics and Engineering would be put forward by Army. However, the specialist roles of Logistics and Engineering are not understood well enough within Army for those roles to be presented within a generic Army approach to an operation. Logistics and Engineering must be represented permanently, by separate command components within the HQAST structure. The Logistics and Engineering components must also possess command parity with the Air, Land, Maritime and Special Force Group components within HQAST.

The result of General Baker's command redevelopment initiative, and subsequent operations and reviews, HQAST has been superseded by Headquarters Joint Operations Command (HQJOC). The purpose of HQJOC is to centralise in an "integrated environment, the Chief of Joint Operations [(Vice Chief of Defence Force)] and strategic staff ..., the Deputy Chief of Joint Operations [(formerly HQAST Commander)] and joint staff, [the] Component Commanders ... and their staff, the Joint Operations Intelligence Centre ..., [the] 1st Joint Movement Group ..., and a portion of the Headquarters Joint Logistics Command staff".²³⁹ The significance of HQJOC for future operations is that its staff will be integrated,

rather than simply being collocated component staff. Breen indicated that all HQJOC staff will be joint staff, organised functionally using the continental system. This integrated approach should offer each service “a device to learn the strengths and weaknesses of ... [their fellow] services”.²⁴⁰ A concomitant development should also be a “more [operationally] practised joint response to ... Government’s [strategic goals]”.²⁴¹

In Operations Solace and Lagoon, C2 was undermined by covert planning compartmentalisation, sequential lag, poor logistics integration and the lack of a functional deployable joint HQ. In the case of East Timor, many of these C2 issues had been rectified. However, component integration and logistics and engineering problems became command challenges. Subsequently, there have been major developments within ADF C2, culminating in the HQJOC. However, these subsequent C2 modifications have not been sufficiently tested on operation, to indicate their effectiveness. There are, however, three significant issues that may limit the capability of HQJOC. First, HQJOC is perceived by some as a financial device, “to reduce the number of [ADF] HQs [from seven] down to one”.²⁴² Economies of Scale will be an outcome of the HQJOC, but economics should not be a consideration in the development of operational command effectiveness. An economic motivation may lead to an undesired operational outcome. Second, the HQJOC structure does not appear to supplement the joint nature of DJFHQ and DJFHQ-(M). Operations in East Timor indicated that a lack of true joint training became an impediment to component integration. Therefore, the DJFHQs must deploy as joint HQs, on realistic training exercises, and command complex joint forces. Only by training realistically will the DJFHQs improve operationally. Third, the HQJOC does not command force elements, other than on operations. As a result of this, otherwise separated force elements may encounter integration issues. Breen suggests a solution to this problem, whereby the HQJOC becomes a “Rapid Response Command”.²⁴³ The Rapid Response Command would encompass “all high readiness elements from the three services..., including intelligence and logistics ..., under the [command] of the Chief of Joint Operations”.²⁴⁴ The Chief of Joint Operations would then “determine the ... contingencies ... practise[d] for [by the high readiness elements]”.²⁴⁵ Consequently, joint operations would be seamlessly integrated, because training would provide practical experience of seamless integration.

However, such an integration of force elements would most likely be opposed by the single service chiefs, who would attempt to maintain single service command.

It is critical that joint command is functionally instituted within the ADF. Joint command is essential if joint force is to be applied; joint force must be functional if communications are expected to be integrated, and only if this occurs will intelligence be acted upon. Simply and in terms of doctrinal principles, the ADF must install a unified command.

Rules of Engagement (ROE)

ROE were a significant restraint for 1 RAR operations in Somalia, compromising SOPs and endangering 1 RAR personnel. Night operations were particularly constrained by the prohibition of illumination flares, trip flares and Claymore command detonated mines. The proscription of both flares left patrol and perimeter guards without an ability to illuminate targets effectively. This forced perimeter guards to use flashlights/torches to illuminate Somali belligerents. However, the use of torches gave away the positions of the Australian guards, endangering their lives. In addition, without illumination flares, Somalis could fire at 1 RAR units and then withdraw securely. The ban on Claymore mines also endangered 1 RAR personnel, who could have been overwhelmed by Somali intruders.²⁴⁶

Operations in East Timor illustrated the dichotomy of effect ROE can have on military missions. The initial success of the INTERFET mission was partly attributed to robust ROE (UN Chapter 7: Peace-Enforcement). INTERFET ROE had a dual outcome: (1) conflict escalation was inhibited; while (2) 'all necessary means' were applied to disarm and discourage the armed threat to East Timor. In contrast, United Nations Transitional Administration in East Timor (UNTAET) ROE (UN Chapter 6: Peace-Keeping) functionally dislocated the deployed peacekeeping troops. This is clearly an illogical outcome. Hence, governments must be careful not to support UN ROE that will cause mission failure. Peacekeeping and peace-enforcement forces must have the capability to deny freedom of action to any threat. Otherwise there is no point in deploying military units to the theatre of conflict. Simply, ROE can undermine all of the military

principles articulated in this thesis. For further discussion on this topic, see the previous chapter.

Logistics

This section analyses Logistics support for ADF force elements, for operations in Somalia, Bougainville and East Timor. The section initially analyses the above operations consecutively, so that the implications can be illustrated in a straightforward manner. Subsequently, the section analyses these implications with reference to current ADF logistics structures.

Australian logistics was a critical deficiency and vulnerability in Operation Solace, even though the American forces in Somalia were providing 1 RAR with water, rations, ammunition and fuel. There were three significant issues that undermined effective logistics. First, seemingly due to government cost cutting, no logistics or tactical air transport detachments were deployed to Somalia as planned. These detachments would have bought goods locally and transported supplies between Nairobi and 1 RAR by C-130. Hence, personnel within HQ AFS had to coordinate all incoming supplies, mail and local purchases. For this task HQ AFS was unprepared and understaffed. Second, the planned second *Jervis Bay* sailing did not occur. Hence, 1 RAR supplies and equipment were left in Townsville. Third, while on operation, the logistics system failed to respond effectively to 1 RAR's supply requests. The intention was for Land HQ to receive supply requests from 1 RAR, a specified Logistic Group would fulfil the requests, and then a Movement Control Group would task Maritime or Air HQ to deliver the requested items. This system proved unsuccessful in reality, due to problems at the Logistics Group, Movement Control Group and Maritime and Air HQs. The Logistics Group had been issued an order to supply 1 RAR. However, the Logistics Group was unaware of "who had the funds, resources and authority to make things happen, and exactly how resupply [sic] and movement of stores from Australia to Somalia was to be coordinated".²⁴⁷ Neither was the Logistics Group issued orders to 'push' anticipated supply needs through to 1 RAR. Furthermore, "[a]dministrative instructions were silent about the [Chief of Defence Force's] CDF's intentions for the movement of stores to Somalia, including HQ ADF's allocation of \$2.4 million [Australian dollars] for air freight. This left those

responsible (Movement Control) for the overseas movement of stores without the resources to do the job”.²⁴⁸ Consequently, supplies did arrive in Somalia, although: (1) the supplies arrived without notice; (2) the supply composition of containers was not recorded; (3) urgent supplies were not always included, and (4) there was no means for 1 RAR to independently move the supplies from Mogadishu to Baidoa. For the entire period of deployment to Somalia, none of the supply problems were solved, nor did any level of HQ take responsibility in attempting to solve the said problems. Operation Solace also indicated a chronic lack of jointness between Land HQ and Air HQ. Although Air HQ had been ordered by the CDF to provide logistics support for 1 RAR through Land HQ, the lack of funding visibility meant Air HQ would not transport critical supplies to Somalia. Breen asserts “that Air HQ operated on a ‘user-pays’ principle unless there was a shared understanding of an operational emergency or there were specific benefits to be accrued by the Air Force”.²⁴⁹ There appears to be evidence of the second point made by Breen. The lessons here are simply: (1) there must be a clear delineation of supply responsibility at all levels; (2) HQs must ensure supply systems work effectively; (3) cost should not inhibit appropriate supply and freight detachments being deployed on operation; and (4) the separate arms of the ADF must develop a joint culture, awareness and support.

Logistics proved relatively effective in Operation Lagoon, albeit significant structural and planning obstructions. Furthermore, there was an absence of logisticians in both Defence HQ and Land HQ planning. “To their credit, these logistic and movements staff used ... initiative ... to request items of supply well before there was any guidance on the structure, duration and mission of the Combined Force”.²⁵⁰ However, there was criticism of the logistics system from the senior commanders of Operation Lagoon. The criticism centred on the unresponsiveness of the logistics system to operational deployment. Specifically, (1) there was no mail service for Operation Lagoon, and (2) a helicopter was unserviceable for two weeks, as critical supplies very slow to be delivered. As indicated by Breen, “these logistic deficiencies had been identified during Operation Solace the year before”.²⁵¹

Analogous with Operations Solace and Lagoon, logistics was a critical deficiency and vulnerability for the INTERFET operation. Since the early 1990s, the Australian logistics corps had been significantly reduced in terms of personnel

numbers, infrastructure and stock holdings. Many logistics functions had been commercialised and business theories had been introduced to the field of defence logistics. Consequently, the ADF had no: (1) deployable logistics HQ; and (2) domestic or deployable logistics groups to facilitate the collection, transportation or distribution of stocks. In addition, there was insufficient logistics infrastructure in Darwin (the Forward Mounting Base), and chronic deficiencies of stock at ADF depots. The latter issue was caused by the commercialisation of logistics tasks, and a 'just in time' distribution system.²⁵² What proved to be the critical enablers of the improvised system were: (1) exceptionally hard working and competent personnel adept at adhocery; (2) logistics personnel with the foresight to action purchase orders for equipment with long lead times, and charter road, air and sea transport, prior to warning orders being distributed; (3) unprecedented Australian logistics jointness; and (4) the inclusion of logistics personnel and staffs in all planning processes and at all level HQs.

Nevertheless, the ADF was able to field a logistics system that supported up to 10,500 personnel, 50 helicopters and fixed-wing aircraft and 1,300 vehicles. This logistics system was fabricated and came on-line, between two and six weeks from inception. The stages and features of this system were implemented as follows. A Force Support Group (FSG) was tasked with establishing a forward mounting base in Darwin. The FSG was tasked with gathering commercial stocks locally, receipting arriving defence stocks, arranging stores infrastructure, fulfilling material requests from East Timor, 'pushing' standard stores to East Timor, and arranging with Movement personnel for the consignments to reach East Timor. Despite the enormity of this task, the FSG was an ad hoc entity, initially consisting of 9 Force Support Battalion (FSB). 9 FSB was not commanded by a supply officer, and was in fact designed for road transport. Hence, 9 FSB did not have personnel trained in local purchase, stock receipt and visibility computer systems, or sufficient personnel to load and prepare palletised stock. Some of these issues were alleviated later by the inclusion of 10 FSB, 7 Combat Service Support Battalion and Logistics Support HQ personnel. Initially in East Timor, the only unit able to receive, distribute and request requisite stocks was 3 Brigade Administrative Support Battalion (BASB). 3 BASB was a limited unit with limited stock and capacity. 3 BASB's ordinary function would be the support of only 3 Brigade, not INTERFET. Hence, it was an imperative to deploy

10 FSB and Logistics Support HQ to Dili, before individual unit and 3 BASB stocks were completely depleted. However, due to a number of delays, including merchant ships not being chartered for 10 FSB, the supply unit was not fully operational until 20 October. The Logistics Support HQ was another entity assembled at short notice, becoming functional by 11 September. The Logistics Support HQ was the logistics command unit in East Timor, tasked with coordinating logistic movements and requests, and planning for future logistic needs.²⁵³

Initially the logistics and movements system began to fail when INTERFET was only hours old, on the first day of lodgement. This was due to unplanned military and politico-military requirements. To guarantee food, water, fuel, ammunition and medical supplies, the logistics plan involved all air and sea assets operating to a tight schedule, with little flexibility, for three weeks. However, 2 RAR personnel and essential vehicles and critical supplies of water were preceded by a media contingent, Air Force control tower operators and equipment, and UNAMET personnel and vehicles. It would appear only the Air Force personnel were mission critical. The results of this reprioritisation of logistics included: (1) a week long shortage of 2 RAR vehicles; and (2) a critical shortage of water for 2 RAR until 3 RAR arrived.

Overall, the fully functioning logistics system was fairly effective at providing mission essential stores, but had insufficient capacity to meet the comprehensive needs of INTERFET. For example, by mid October competing logistic requirements included: (1) water, food, fuel and ammunition; (2) spare parts; (3) semi-permanent base materials to improve the living standards of deployed troops; (4) construction materials for the Engineers; and (5) an excess build-up of stores for the wet season. Of the above requirements, categories 1, 2 and 5 were prioritised. As structured, the logistics system was at peak operating capacity; local purchase arrangements were overloaded, airport and seaport capacity was stretched and there were still insufficient personnel to operate the logistics computer systems. Furthermore, chartered shipping was proving a critical impediment to deployment. This was because insufficient warning time had been given to charter commercial vessels. Hence, only Australian and Coalition military aircraft and vessels were available for transport use.

These case studies illustrate that logistics is a clear and systemic source of weakness within the ADF. Air Commodore Mark Lax, of Strategy Group, describes this situation as a “significant breakdown in the ADF’s logistics sustainment [sic] capability”.²⁵⁴ There are three broad reasons for ADF logistic weakness: planning, structures and latent capability.

First, “the inadequate involvement of logistics staff in the ... planning process ... [has] resulted in significant ramifications for supply chains”.²⁵⁵ The strategic level planning for Operations Solace and Lagoon excluded logisticians. This situation had improved by the time of East Timor, as logisticians were involved in the strategic level planning process. However, due to the sequential planning process, operational level planning was not sufficiently developed prior to deployment. Hence, when fissures appeared in the logistics system, there was little time to implement solutions. In 2000, a Joint Logistics Command (JLC) was initially established within the Defence Materiel Organisation (DMO). Subsequently, the JLC has been incorporated into the HQJOC. “[A]t the operational level, ... [JLC], during contingencies, is directly responsible ... for the provision of logistics support to ADF operations”.²⁵⁶ The inclusion of the JLC within the HQJOC should enhance the strategic profile of logistics, and should improve logistics planning at the operational level. In addition, the joint nature of the JLC should better “manage the [single service] competition for [air and sea lift]”.²⁵⁷ The operational effectiveness of the JLC has, however, been questioned in subsequent operations. In Iraq, it is accepted widely within the ADF that the JLC caused “no operational failures”,²⁵⁸ but “performed below expectation”.²⁵⁹ Moreover, “[t]he logistics management for the ADF in Iraq and Afghanistan was run by a civilian contractor. Hence, the ADF has gained no [recent] practise [with operational logistics]”.²⁶⁰

Second, the logistics structures required for the above operations were not adequate to need operational needs. Simply, deployable joint logistics capabilities have not been developed within the ADF. There is a requirement for: (1) a deployable logistics HQ to manage the supply chain; and (2) a deployable joint logistics group to facilitate the strategic and tactical collection, transportation and distribution of stocks in an integrated manner. In the case of East Timor, the development of a deployable logistics HQ only occurred, due to absolute operational necessity. In addition, the collection, transport and distribution of

stores for operations in East Timor, was undertaken by non-specialist supply units. Since East Timor, there has not been a concerted effort to develop a deployable joint logistics group. In theatre, logistics support is provided by single service logistic elements.²⁶¹ Moreover, the JLC does not command platforms or field elements.²⁶² Consequently, the JLC cannot train to improve logistics performance.

Third, latent ADF logistics capability has been severely reduced by a myriad of Government reviews during the 1990s. These reviews included “the Force Structure Review, Defence Regional Support Review, the Defence Logistics Redevelopment Project, the Defence Reform Programme, the Commercial Support Programme and the Supply Systems Redevelopment Programme”.²⁶³ The result of this restructuring was the “reduction of logistic support personnel ... [numbers by approximately] 5,300”.²⁶⁴ Of particular consequence was the Force Structure Review, “which considered that only a cadre of specialist tradesman was necessary, on the assumption that they would not deploy off-shore and would be augmented from within the civilian support base”.²⁶⁵ This is clearly a “peacetime assumption”,²⁶⁶ which has no correlation with operational reality. “Hence, the surge capacity [in the ADF, which is required for operations,] was lost”.²⁶⁷ The loss of logistics personnel and structures within the ADF, was somewhat obscured by the establishment of the JLC. However, the JLC does not offset the surge capacity lost through the commercialisation of field elements. Therefore the ADF has “lost [its] ability to be resilient”,²⁶⁸ and will most likely face “serious trouble ... managing ... logistics [on future operations]”.²⁶⁹ This is very serious for the ADF given that none of the military principles or the doctrinal principles outlined in this thesis can be applied operationally without sufficient logistical support.

Engineers

This section analyses Engineer support for ADF force elements in East Timor. The section initially analyses the East Timor operation. Subsequently, the section makes suggestions for the better operational use of the Engineers, within a joint ADF approach to LIC.

East Timor's dilapidated infrastructure, mountainous interior and seasonal weather could have proven to be a critical vulnerability for INTERFET. East Timor's roads were initially unsuitable for INTERFET's requirements, and the pending wet season threatened to aggravate this problem. Furthermore, East Timor's airfields were insufficient to compensate for the primitive roads. The lack of hard-standing was a further problem in East Timor, which in the wet season threatened to immobilise INTERFET personnel, vehicles and aircraft. Finally, wet and dry waste was a further burden imposed by INTERFET, which overwhelmed East Timor's rudimentary facilities. Consequently, Construction and Combat Engineers were a critical element of INTERFET operations. Despite this fact, engineering was a neglected function.

Engineering personnel were unintentionally excluded, due to oversight, from all levels of HQ planning. 3 Brigade's concept of operations for East Timor excluded engineering, except to include the operations of the Brigade's integral 3 Combat Engineer Regiment (CER). This exclusion of independent engineering was not corrected at either DJFHQ or HQAST. Hence, a non-integrated concept of engineer operations was produced by Land Command Engineers. This led to an Engineer cell being incorporated into DJFHQ. However, this DJFHQ Engineer cell could do little without authorisation from HQAST, which preferred foreign contingents of engineers to deploy to East Timor.

Intelligence data was not provided that could target Engineer operations. First, the Engineer cell attached to DJFHQ was not provided with vehicles or authorisation to leave Dili to gather information. Second, the collection of tactical intelligence excluded information on engineering requirements. In response, Colonel Ahmed Mostafa, commander Land Command Engineers, conducted the first engineering reconnaissance between 10 and 13 October. This reconnaissance mission found "INTERFET ... [to be in the] midst of an engineering crisis".²⁷⁰

Due to Mostafa's reconnaissance, authorisation was given to deploy the remaining Australian construction squadron. The deployment of 21 Construction Squadron was then further delayed, as the chartering of a ship was not expedited. Once deployed to East Timor, 17 and 21 Construction Squadrons and 3 CER found that insufficient and disordered logistics were curtailing their mission. First, the construction materials required by the Engineers exceeded the capacity of the logistics personnel to acquire. Second, construction materials were

afforded a low movement priority. Third, tracking movements was difficult and consignments were often broken up. All of these issues reduced the capacity of the Engineers.

There are three issues that undermined Engineer operations in East Timor: planning, intelligence and logistics. First, Engineers were excluded from the planning process. Hence, the Engineer's concept of operations was not integrated. Consequently, the Engineer's requirement for intelligence and logistics was not fully appreciated by HQAST or DJFHQ. Second, strategic and tactical intelligence was not provided for the Engineers, and the significance of that intelligence data was not initially recognised by DJFHQ. Intelligence was, however, a requirement for Engineer operations to proceed. Third, the Engineers were accorded a low logistics priority. This was in terms of deployment lift and operational logistics provisions. This deficiency in support, curtailed the Engineer's mission. Since East Timor, there has been no overt attempt to improve Engineer integration. An Engineer planning cell has not been incorporated into HQAST/HQJOC. Hence, Engineer concepts for operations and resource requirements on operations, are not structurally entrenched at the strategic or operational planning and command levels. However, as illustrated by the deployment to the Solomon Islands in 2003, the Engineers have realised how to influence the planning process. In the case of the Solomon Islands, without consultation, objectives and restrictions were imposed on the Engineers for deployment. When the Engineers indicated that the objectives clearly could not be achieved by the specified field elements, the number of Engineering personnel deployed was more than tripled.²⁷¹ Hence, the issue has been informally solved by Engineer savvy, rather than HQ comprehension. The incorporation of an Engineer cell into the HQJOC would be a more sound and dependable solution.

Communications

The ADF's future warfighting concept, NCW, necessitates the wide dispersal of sensor and shooter nodes throughout the battlespace. Sensor and shooter nodes incorporate all manned and unmanned, air, sea and land based surveillance, reconnaissance and combat platforms. These nodes provide information to C2 nodes or provide target acquisition and designation to other shooter nodes.

Invariably in LIC, sensor nodes are human; individuals or small infantry units. Shooter nodes in LIC are also generally human, although combat air units utilising precision guided munitions are becoming increasingly common. However, the above concept would fail without adequate communications links between the said nodes.²⁷²

Communications is a critical enabler in warfare, and is therefore one of the military principles analysed in this thesis. The dispersal of combat units in the field, according to the principles of LIC and NCW, further elevate the importance of communications. The case studies of this chapter have indicated that the ADF has experienced communications difficulties at both the strategic and tactical levels. Strategic communications link home country strategic HQs with in-theatre tactical HQs. Tactical land communications incorporates: (1) trunk communications between in-theatre HQs down to the company level; and (2) combat net radios that enable network-wide communication from brigade HQ level down to squad level. Furthermore, Navy and Air Force users are patched into the tactical network. This tri-service networking enables joint force operations. In the case of Operation Lagoon, ADF joint strategic communications were overloaded and unreliable. In the case of INTERFET, there were some deficiencies with ADF strategic and tactical communications equipment and a requirement for U.S., British and commercial communications supplementation.²⁷³ East Timor operations also indicated a scarcity of Day 1 Army communications systems. Subsequently, Army has learned the value of immediate communications infrastructure onboard Navy vessels. In Iraq, bandwidth deficiencies in particular, limited communications of the ADF, U.S. and UK.²⁷⁴

The current ADF communications system requires multifaceted improvement. ADF communications deficiencies will be examined in four sections. First, the system as a whole is not well integrated. Internally the Combat Net Radio (CNR) network is not seamlessly integrated to enable communication between any two points in the field. Furthermore, the tactical and strategic networks are not synergised to allow communication between any point in the field and any strategic point. Hence, the system is “stovepiped [sic] and lack[s] interoperability”.²⁷⁵ In addition, the trunk and combat net radios do not provide the range necessary for dispersed operations, especially in complex

terrain. Second, the combat net radio capability is deficient in a number of areas. The growing requirement for data communication is not well provided by the CNR network. The CNR network will not provide the data capacity needed to sustain real time situational awareness, which is required for NCW. Furthermore, the reliability and capacity of the High Frequency (HF) combat net radios is poor. This is because many of the HF systems are obsolescent. Third, tactical trunk communications are limited in transmission capacity and range. Fourth, the creation of a Local Area Network (LAN) is limited by mobility and deployment issues, and issues to do with physical constraints to transmission.²⁷⁶

All of the aforementioned communications issues are being examined for rectification under JP 2072 Battlespace Communications System (Land). Given the connectivity requirements associated with NCW, JP 2072 will incrementally issue the ADF with modern communications. Importantly, JP 2072 will integrate future communications acquisitions. For example, the incumbent communications projects Parakeet and Raven were not integrated. Project Parakeet improved trunk communications from the DJFHQ down to each Brigade HQ. Project Raven supplemented combat net radio communications from the Company to the Section level. Hence between brigade and company level, communications were not enhanced. To improve communications functionality, JP 2072 procurements will include the following. First, Parakeet trunk communications technology will be upgraded to provide: enhanced capacity and range; and improved network efficiency and bandwidth. Second, a LAN for data acquisition and dissemination will be established. The LAN will provide data communication between Brigade and Company HQs. Current ADF LAN technology incorporates the P3/4 module. "The technology provides flexible and reliable high-speed communication over a sturdy physical infrastructure of ... reinforced copper cable".²⁷⁷ "The subsystem will provide network access to key battlefield applications, including the army's Battlefield Command Support System, Air Command Support System, the Standard Defence Supply System and Project Ninnox assets, which cover manned and unmanned night vision sensors and systems and ground-based surveillance capabilities".²⁷⁸ Third, a combat net radio ensemble will be created including: (1) multi-mode multi-band software-programmable line-of-sight radios and tactical satellite combat radios; (2) intra-section radios; and (3) improved HF radios.²⁷⁹ David Marshall, of the Australian

DMO, states that “[t]he key lesson observed from discussions with allies and Australian users is the need to maintain accurate situational awareness at the lower tactical level. Due to force dispersion, this environment has [relied on,] and is likely to continue to rely on[,] VHF [very high frequency] and HF [high frequency] communications”.²⁸⁰ Hence, the first and third of the above combat net radio ensemble will be critically important. These new radios will be put into service between June 2006 and January 2008.²⁸¹ The second category above, intra-section radios, entered service with 3 RAR for “evaluation ... [and] field testing”²⁸² in September 2005. Concurrently, the intra-section radio or Soldier Personal Radio is being used operationally by 1 RAR in the Solomon Islands and by the Australian units in Iraq.²⁸³ The intra-section radio improves situational awareness, down to the individual level. This is especially important in urban terrain, where section dispersal can limit line-of-sight and hence hand-signal communications. The earlier case studies of this thesis indicated that in such urban environments, section members were forced to communicate by shouting their positions and intentions. This form of communication endangered the soldiers by improving the situational awareness of the adversary. However, the intra-section radio has a limited range of only 500 meters. Hence, in rural terrain sections must still carry VHF or HF combat net radios, so as to enable longer-range communications. Fourth, JP 2072 will embed a GPS within the combat net radio system. This will improve situational awareness and reduce the demand for communications by each individual communication. Fifth, JP 2072 will introduce a “tactical airborne system, which could comprise manned and/or unmanned platforms operating as range extension relay nodes”.²⁸⁴ These airborne nodes will: (1) improve communications range and reliability; and (2) remove a critical vulnerability from the battlefield, that is to say ground-based communications relay stations. Sixth, “[a] key operational concept that the JP2072 must support is the Amphibious Maneuver [sic] Operations in the Littoral Environment program [sic]”²⁸⁵. JP 2072 will support land combat, HQ, logistics, air and naval operations within a joint environment. Littoral operations have become critically important to the ADF, given Australia’s immediate strategic environment. Hence, JP 2072 must ensure that communications will operate seamlessly among the ADF’s air, land and sea components.

There is, however, an unusual anomaly surrounding joint ADF communications. The three services recognise the need and benefit of joint communications. The three services also recognise a “strategic disconnect” between the low-tech communications capabilities of the Army, and the high-tech communications capabilities of the Air Force and Navy.²⁸⁶ This strategic disconnect in communications capabilities has developed due to the decentralised service control of acquisitions, structures, equipment and service operating environments. ADF personnel indicated the need for greater Strategy Group leadership, so to ensure a seamless joint communications capability.²⁸⁷ As an illustration of strategic disconnect, Navy and Air Force personnel indicated in an interview that JP 2072, the Battlespace Communications System, was an Army project.²⁸⁸ JP 2072 is primarily an Army project. However, without joint synchronisation in projects, seamless force will not evolve.

Intelligence

This section analyses the role of intelligence in achieving ADF mission objectives in Somalia, Operation Lagoon in Bougainville and East Timor. However, intelligence is not a detached autonomous entity. Intelligence, civil-military affairs and the human interface are an inseparable, complex whole. Civil-military affairs broadly describe a relationship between the population and the soldier. The intention of the soldier’s interaction with the population is to gather intelligence. This intelligence then enables the achievement of tactical, operational and strategic ends. Hence, this section is inextricably linked to this chapter’s ‘Infantry’ section and the subsequent section on ‘Other Agency Integration – Civil-Military Affairs’. Conversely, there are issues analysed below that are purely structural impediments to intelligence flows.

As was the case with later ADF operations, the lack of pre-deployment intelligence was a major weakness in Operation Solace. For historical, geographical, social and contemporary strategic information, 1 RAR’s operations and intelligence personnel “had to rely on news reports and the local Townsville libraries”.²⁸⁹ This was because the DIO was not tasked with supporting 1 RAR’s deployment. The operational awareness of 1 RAR was further reduced by the complexity, fluidity and duplicity of the warring parties’ intentions and actions in

Somalia. Despite reconnaissance party's operating in Somalia before deployment, the base facilities, supply arrangements and operational requirements were not fully understood until 1 RAR arrived in the Baidoa sector of Somalia.

Operation Solace also illustrated that 1 RAR was not initially aware of LIC requirements. The critical requirement for success in counterinsurgency is intelligence. Basic intelligence in LIC is gained from the population. Hence, the activities of counterintelligence personnel and a conscientious effort to build a positive rapport with the population are essential. Initially on deployment, 1 RAR command, operations and intelligence personnel did not seem to be aware or dedicated to acquiring population-derived intelligence. In contrast, 1 RAR intelligence personnel utilised American strategic intelligence, which did correlate with the tactical level reality in Baidoa.

Initially with relative independence and command disregard, counterintelligence personnel quickly developed a critical relationship with the Somali population. Originally, only two counterintelligence personnel and three Somali interpreters were available in Baidoa. Their primary focus was to "[e]stablish... a rapport with political and community groups...[, NGOs and the local population, so as to] encourage cooperation and ... develop trust".²⁹⁰ The resultant information "became the most important source of intelligence for [Lieutenant Colonel] Hurley [Commanding Officer 1 RAR] and his staff after a few weeks".²⁹¹ Hence, the counterintelligence group tripled in size in the first month of operation, and interpreters were supplied down to the platoon level. "Ultimately, [Counterintelligence] CI teams provided 90 percent of the exploitable intelligence for urban operations and contributed to all of the security coups achieved in Baidoa".²⁹² The requirement for counterintelligence personnel was even greater in rural areas, due to clan rivalry and concomitant duplicity. Importantly, however, the intelligence supplied was only effective if the unit commanders on duty were willing to exploit the information. The lesson here is simple, counterintelligence/civil-military affairs personnel are critical to LIC. These personnel are principal intelligence assets. Hence, they must be intensely supported and exploited.

Operation Lagoon illustrated: (1) significant pre-deployment horizontal and vertical intelligence compartmentalisation; and (2) a complete lack of tactical reconnaissance prior to the commencement of Land HQ's operational planning.

The initial reconnaissance visit to Bougainville and environs was conducted on 21 and 22 September. The visit enabled: (1) liaison with the leaders of the adversarial elements in Bougainville; (2) the development of cohesion between Operation Lagoon commanders; and (3) an assessment of the strategic security environment. However, the visit was devoid of tactical level specialist reconnaissance. There was no tactical reconnaissance of the four neutral zones. Neither was there tactical appreciation of logistic, engineering or communications requirements carried out. This was due to an arbitrary declaration by Defence HQ, restricting Australian sub-commanders and specialists travelling to Bougainville. Hence, tactical planning was devoid of critical intelligence information. This created significant communications and logistical dilemmas once the operation began. Furthermore, at the operational planning and tactical levels of Operation Lagoon, the security environment and conventions under which the adversarial forces would and did operate within the four neutral zones, were not well appreciated. The critical nature of human intelligence was also disallowed due to the short operational planning process. Hence, no informants could be recruited, nor could civil-military affairs or liaison officers be deployed to gain local information. What intelligence data that was available was not exploited, as ADF operational planners and commanders were too busy organising the operation.²⁹³

Moreover, for the duration of the SPPKF operational deployment, there were significant intelligence synergy and offshore communications issues. There was no dedicated communications system available for intelligence data to pass between Australia and the Bougainville AO. To put this in perspective, Command and Control constitutes a system of communications networks. Basically, all elements critical to a unit, like logistics, intelligence and command, have their own communications system. For Operation Lagoon, there was only one overloaded command communications system. Hence, some intelligence data was twelve hours old before it was received, and some information failed entirely in reaching its designated target. Furthermore, intelligence that should have been passed to the intelligence group dedicated to Bougainville was often filtered, or bypassed the group completely.²⁹⁴

Conversely, intelligence and counterintelligence systems performed effectively in East Timor. Strategic level intelligence passed effectively to

INTERFET commanders, although it appears that the quantity of information had a propensity to overwhelm operational and tactical level staff. Of critical importance was the exploitation of “local information gained through interpreters and specialist Intelligence personnel”.²⁹⁵ This information was timely, accurate and swiftly began to break the physical capability and psychological will of the ADF’s adversaries. Another critical intelligence link established was between the ADF and the Armed Forces for National Liberation of East Timor (Falintil). ADF liaison communication teams were installed at major Falintil cantonments. These ADF teams provided a vital conduit between the ADF and Falintil’s wealth of “information gathered ... [by a] vast network of informants ..., on the locations and intentions of militia groups”.²⁹⁶ This information enabled INTERFET forces “to detain militiamen and to raid militia headquarters and accommodation areas”.²⁹⁷ Aggressively reacting to intelligence, sightings and incidents enabled the ADF to apprehend militia members. These militia members would subsequently divulge further information, which led to additional seizures and arrests. All battalion commanders also demonstrated an understanding of the essential relationship between intelligence and civil-military affairs. Similar to 2 RAR and 3 RAR operations, 5/7 RAR’s commanding officer, Lieutenant Colonel Simon Gould instructed his intelligence and civil-military affairs personnel “to work together closely to gather information [sic] while facilitating the delivery of humanitarian aid and supporting the work of UNTAET with East Timorese community groups”.²⁹⁸ These relationships instilled within the population an understanding that ADF personnel were in East Timor to help, and were concerned for the wellbeing of the East Timorese. This positive relationship, in turn, provides effective intelligence on hostile intent and actions. Counterintelligence was also fundamental in providing security for ADF operations. Both physical and electronic means were employed to deny INTERFET’s adversaries information. Hence, INTERFET’s opponents “were limited in their ability to advise on where and when to attack INTERFET troops”.²⁹⁹

These case studies indicate three significant intelligence issues within the ADF. First, pre-deployment intelligence has been compartmentalised. In Operations Solace and Lagoon, field elements, operational planners and commanders were either not provided with sufficient intelligence, or the

intelligence available was compartmentalised. Conversely for operations in East Timor, these strategic and operational level intelligence problems seem to have been rectified. This may be due to the inclusion of the Joint Intelligence Centre within the HQAST structure. Second, pre-deployment and in-theatre “intelligence briefings are usually generic and at too high a level”.³⁰⁰ The briefings do not “incorporate sufficient cultural and language information”.³⁰¹ Essentially the Defence Intelligence Organisation, the organisation that provides these briefings, operate from within a “conventional mindset”.³⁰² Hence, the intelligence briefings focus on “threat, [rather than] Force Protection”.³⁰³ “Force Protection ... in peace support operations [and LIC] is [essentially provided by human intelligence] HUMINT”.³⁰⁴ HUMINT requires “your [tactical and operational] people ... [to have] a degree of language proficiency, ... cultural respect ... [and a determination] to interact with the local people positively”.³⁰⁵ In the case of Somalia, personnel were briefed on heavy weapons systems and kinetic responses to those weapons.³⁰⁶ However, the deploying personnel were not informed that this equipment was: (1) no longer in Somalia; (2) unlikely to confront them on operations; and (3) highly visible to U.S. electronic intelligence systems.³⁰⁷ Simply, the intelligence provided did not correlate well with operational realities. Due to confidentiality reasons, the transparency of current developments within the DIO is difficult to gauge. However, there may be attempts to rectify the deficiencies illustrated above. In particular, Major General Maurie McNarn has been appointed Director of the DIO, replacing a civilian in that position. The appointment of a senior general, with operational experience, may provide some solution to the said problem. Third, as a formal capability within the ADF, civil-military affairs remain negligible. It was only after East Timor, that a Civil Affairs cell was created in the DJFHQ. Subsequently in the Solomon Islands, this Civil Affairs cell has effectively augmented intelligence. At a personal level, ADF personnel have demonstrated an affinity with, and appreciation of, the civil-military approach. As illustrated in this section, the ‘Infantry’ section above and the ‘Other Agency Integration – Civil-Military Affairs’ section below, once aware of the civil-military approach, ADF personnel effectively interact with the population.

In terms of military principles, intelligence is critical to military operations; without intelligence units cannot act. Hence, the deployment of

intelligence personnel and their actions are as important as the combat units that are deployed. Furthermore, in LIC intelligence is often gained through interaction with the civil population. Due to the importance of the intelligence that the civil population can provide, it is critical that civil operations (doctrinal principle) are undertaken by counterinsurgent forces in LIC.

Other Agency Integration – Civil-Military Affairs

This section analyses: (1) primarily, how effectively ADF personnel interacted with the populations in Bougainville, Somalia and East Timor; and, to a lesser extent, (2) how well ADF personnel cooperated with other defence force personnel, on the said operations. The section subsequently analyses the integration of the civil-military approach into ADF doctrine.

The PMG's performance in Bougainville was a success, but was blemished on occasion by an unwillingness to work with other nationals and governments. There was disinclination within the ADF to work with the NZDF. The rationale for this reluctance was multidimensional. First, New Zealand was perceived to be encroaching upon Australia's sphere of interest. Hence, NZDF operations were not fully supported. Second, the unarmed nature of the operations concerned the ADF. Third, the ADF was apprehensive about the operational state and capability of the NZDF. Consequently, the hurried ADF preparation caused tension between ADF and NZDF personnel, and the Australian civilians deployed had received insufficient pre-deployment training to be effective.³⁰⁸ Brigadier Roger Mortlock, the initial TMG commander, did however state, that the NZDF-ADF tension was an issue that was resolved.³⁰⁹

Team cohesion and a complete understanding of ADF and Australian civilian roles was a critical issue in Bougainville. Similarly, the lack of Australian involvement in the peace process meant the ADF did not appreciate the security provided by the BRA, or that the TMG was wholly a Civil-Military Affairs (CMA) effort.³¹⁰ There was also an initial reluctance to operate with some of the Fijian, Tongan and ni Vanuatu defence force personnel, as the core skills of some of these contingents was not equivalent to the ADF or NZDF. However, the ADF did come to appreciate the CMA nature of the TMG/PMG. Australian pre-deployment training was significantly improved for the latter rotations of ADF

personnel and Australian civilians. Civilian training included: instruction in field skills; interaction with indigenous persons; small team actions; and provided a chance to live in the field and acclimatise. Military training focused on improving the language, political, religious and cultural understanding of ADF personnel. The PMG's CMA strategy then became centred on: medical support; sports events; hospitality events; and cultural events. The latter of these points was a specific weakness of the ADF, as "Australians do not have much (indigenous?) musical culture to offer".³¹¹ This was in comparison to New Zealand (especially Maori personnel), Fijian, Tongan and ni Vanuatu personnel's natural affinity with Bougain(villian) culture.

In addition to urban and rural security operations in Somalia, 1 RAR was also required by UN mandate to protect "humanitarian aid convoys and food distribution points".³¹² These tasks, as read literally, were successfully conducted by 1 RAR. However, this did not mean humanitarian aid was equitably distributed to the needy. This was because of corrupt elders and chiefs, banditry and other forms of criminal activity. Many of these impediments could not be overcome by 1 RAR.³¹³

The primary impediment to the distribution of aid was theft, which occurred after 1 RAR sub-units left distribution points. Somali citizens, who had been given aid, would have it stolen by bandits or confiscated by village elders and chiefs. This stolen aid was sold in local markets. Operations to prevent bandit activity were undertaken. However, these anti-bandit operations did risk a breach of the UN mandate. In fact, "the Australians had no authorisation to interfere with the elders' control of the distribution of food".³¹⁴ 1 RAR command attempted to introduce measures to eliminate the bulk movement of post-distributed aid. These measures had to be authorised by the 'Council of Elders', who were the persons stealing the aid. Hence, over "75 per cent [sic] of all bulk aid deliveries ... [continued to be] redirected to ... [regional] markets at [the] elders' direction".³¹⁵ In addition, elders would disallow some NGO projects, like immunisation of children, unless bribes were paid directly to them. This circumstance was caused by a UN mandate, focused on a distribution process rather than an equitable outcome. 1 RAR would have been more effective had a humanitarian outcome been a mandated responsibility.

Nation-building was a secondary requirement of 1 RAR, initiated by UN directives and failing NGO projects. Originally, nation-building for 1 RAR incorporated two activities: (1) assisting NGOs with transportation, repairing their equipment and providing medical services to the Somali population; and (2) liaising with NGO and Somali groups. However, the desperate situation in Somalia drove 1 RAR to further assist the population. For example, when Baidoa's water supply threatened to fail, 1 RAR personnel coordinated "the establishment of new water points and the improvement of existing ones".³¹⁶ This critical project was assumed, as the UN and local NGOs were unable to coordinate an effective response. The Australian's also rebuilt warehouses, schools and jails, these tasks were beyond their mandate. The re-establishment of a judicial system in the Baidoa sector was a significant contribution towards a functioning Somali society made by 1 RAR. It was not essential for 1 RAR to accept responsibility for the above projects. However, in doing so 1 RAR won the hearts and minds of the local Somali population. This approach was "vindicated because Australian security operations were not only very effective, but also appeared to be safer than they may have been if there had been minimal liaison and no goodwill".³¹⁷ However, 1 RAR accomplished the above humanitarian assistance and nation-building without civil-military affairs personnel, or a formal set of doctrinal guidelines. For example, the judicial, penal and police system established under 1 RAR observation, was marginally effective and easily manipulated. Had 1 RAR been provided with civil-military affairs personnel and effective guidelines (as would be the function of an Expeditionary Civil Service), the police, judiciary and prison system may have been far more effective. Nation-building guidelines would have also indicated to 1 RAR what essential services were required, and what challenges would need to be negotiated. For example, elders, chiefs and political factions were not accountable to the people. Therefore, the said groups could commit crime and go unpunished. 1 RAR could have formed a news agency, using Australian and local resources, to advise the population the situation. In essence, the force deployment must be in proportion to the problem. If the problem involves a complete breakdown of civil services, the solution is a force that can create security and a civil society. Moreover, such a force must guarantee a uniform and stable level of development. Unlike 1 RAR, the French and American battalion equivalents deployed to the Baidoa sector did

not conduct nation-building operations. Hence, Australian instituted programmes were, in the long-term, futile. In terms of cooperation with other defence forces in Somalia, ADF personnel at a tactical level had little need to interact with said defence forces.

Humanitarian assistance was a cornerstone of Major General Peter Cosgrove's strategy. All ADF ground units demonstrated a commitment to this strategy and the East Timorese people, often putting their own lives on the line for the indigenous population. However, 3 RAR, a parachute battalion, excelled in their approach to civil-military relations. This was a consequence of specific intent by Lieutenant Colonel Nick Welsh, 3 RAR's commanding officer, to train "his paratroopers to operate in a low tempo peace support environment".³¹⁸ Prior to deployment, Welsh had ordered members of 3 RAR to be involved in cultural and language training. In addition, "3 RAR training ... [focused] on ... setting up and operating ... vehicle check points, crowd control, delivering humanitarian assistance, clearing buildings, operating in towns and villages and using strict Rules of Engagement".³¹⁹ Upon deployment to East Timor, Welsh determined to integrate "intelligence and civil affairs functions".³²⁰ Interpreters were employed to better facilitate this objective, teach 3 RAR personnel language skills and skills to interact positively with the East Timorese. "Welsh wanted to make interacting with the East Timorese and gathering information second nature, thus enhancing safety through early warning and facilitating the safety of the East Timorese communities".³²¹ This strategy quickly created a relationship conducive to information to pass between East Timorese and ADF personnel, despite militia attempts to spread rumours and undermine ADF operations. "Information flowed on a wide variety of border incursions and 3 RAR became a successful crime intelligence agency as well as being an effective security force".³²² This relationship also constituted a tangible benefit for the East Timorese; ADF personnel provided medical assistance, food, and water as well as security throughout East Timor.

This section illustrated operational relationships between the ADF and: (1) foreign defence forces; and (2) in-theatre populations. First, ADF interactions with foreign defence forces, in general, appear favourable. There is only one example to the contrary, Operation Bel Isi (Bougainville). The initial reluctance of ADF personnel to be enthusiastic participants in Operation Bel Isi, may be a

due to the atypical approach (unarmed peacekeepers/civil-military approach) taken to the mission. Second, the contact between ADF personnel and in-theatre populations also appears favourable. However, the aforementioned case studies illustrate an unusual disconnect between operational effectiveness and formal doctrine. In Operation Solace, ADF personnel endeavoured to provide humanitarian assistance as fairly as possible, despite indigenous intransigence and a weak UN mandate. In addition, ADF personnel pursued nation-building operations beyond those required by the mandate. These achievements were realised without civil-military affairs personnel or a formal set of doctrinal guidelines. Had there been such strategic and operational level guidelines, the deployed unit may have achieved greater mission success. In the case of East Timor, humanitarian assistance and nation-building efforts were central components of the ADF strategy. Major General Cosgrove and his subordinate commanders effectively applied a civil-military affairs approach, which concomitantly generated timely and accurate intelligence.

To ascertain how effectively civil-military affairs is incorporated into ADF doctrine is difficult, as the applicable doctrine is not published openly. However, the publications that collate peace-support guidelines include: (1) the joint doctrines ADDP 3.8 Peace Operations and the Australian Defence Force Publication (ADFP) 3.8.1 Peace Operations, Planning and Procedures; and (2) the Land Warfare Doctrine 3.8.4 Counter-insurgency. The joint doctrines cover such issues as population derived intelligence, whole-of-government operations, and to some extent the civil-military approach. However, as indicated by Dr. Michael Evans, the “continuum of stability operations [or LIC] ... is not fully covered by peace-enforcement doctrines, [such as those listed above]”.³²³ Simply, “peacekeeping support doctrines ... [that include the civil-military approach are excessively] narrow [in their focus]”.³²⁴ Moreover, the ADF has “not as yet revamped ... [the Australian] counterinsurgency doctrine”.³²⁵ Evans suggests that a refurbished ADF counterinsurgency doctrine should be broad in scope. Such a counterinsurgency doctrine, Evans states, should reflect Complex Warfighting initiatives and the French work on Mastering Violence.³²⁶ Complex Warfighting and Mastering Violence are theories regarding the suppression of violence in LIC. Given the circumstantial evidence provided in interviews, it appears ADF doctrine

regarding LIC needs development. Moreover, this doctrine must not only be Army doctrine; LIC doctrine must be joint.

Given the lack of doctrine encompassing civil-military affairs, it appears there are intrinsic qualities in ADF personnel that make them effective in LIC. Breen indicated there are four reasons for ADF personnel effectiveness in LIC: (1) the egalitarian nature of Australia and the ADF; (2) a 'fair go attitude' towards local peoples; (3) a lack of entrenched racial views; and (4) operational optimism. These qualities, combined with "curiosity, a sense of adventure, energy and commitment",³²⁷ generate positive relations with target populations. These ADF personnel qualities are shared, to a degree, with personnel in the NZDF and the British military. The shared focus on human intelligence among these defence forces has proven effective in LIC. However, the lack of doctrinal focus on civil-military affairs and LIC is a weakness within the ADF. This is because personnel need to comprehend the rationale for the civil-military approach to conflict, and how LIC differs from conventional conflict. Those ADF personnel who have been trained specifically for, or comprehended more fully, LIC, have been shown to excel on operation. However, it is essential that civil operations are incorporated more fully into ADF doctrine.

Conclusion

Australian defence policy and strategy, since the early 1990s, have not correlated well with operational reality. Australian Defence Policy has focused upon the Defence of Australia. The primary strategic imperative, derived from the above policy, has been the Sea-Air Gap. This strategic imperative elevated the Australian Air Force and Navy to positions of pre-eminence within the ADF. Consequently the Australian Army, and tri-service support elements, became less significant strategically. As a consequence of this, the Australian capability in LIC has been degraded by policy and strategy. However the Government White Paper, Defence 2000, began to identify and correct the inconsistency between policy, strategy and operational reality. Subsequent Defence Updates have continued this transition of priorities. These contemporary defence priorities focus upon countering terrorism, proliferation and the security implications of failing and failed states. This has resulted in a diminishing dissonance between

policy, strategy and practice. There are, however, four pressures that could cause a redevelopment of the fissure between policy, strategy and practice. First, the Department of Defence is conservative, and this engenders a lag between practice and policy. Second, the Defence Policy process is exclusionary of the armed services. Third, Defence Policy does not reflect joint or single service doctrine. Fourth, Defence Updates are excessively land centric, to the exclusion of supportive joint elements.

ADDP-D is the ADF's keystone joint document. ADDP-D incorporates the fundamental concepts that shape the ADF, in a joint manner. These concepts are broadly supportive of operations in LIC. Future ADF concepts include Seamless Force, which is facilitated by Network-Enabled Operations that in turn rely upon an Effects-Based Approach. These three future concepts combine to create Multidimensional Manoeuvre, the ADF's Future Warfighting Concept. These future concepts are also broadly supportive of operations in LIC. In a conventional sense, these concepts direct strength against weakness through jointness. However, in an unconventional sense, a whole of nation approach is adopted to defeat an adversary's strategy, without the symmetric attrition of combat forces. In this way, an asymmetric hearts and minds approach is targeted at the population, which is the centre of gravity in LIC. To achieve this approach, situational awareness, intelligence, synchronisation and joint combat power are elevated in importance. Hence, complex security issues are engaged by a "seamless national security force".³²⁸ However, cultural and doctrinal dissonance within the ADF may prove an obstacle for the implementation of the future warfighting concepts examined above. Structural, resource and personnel constraints will also limit cultural and doctrinal convergence. A partial solution to this issue would require Strategy Group and the ADF Warfare Centre, which are joint institutions, to actively invigorate the joint doctrinal process. However, the implementation of future concepts may be a problematic issue for the ADF.

Professionalism has been a paramount strength of ADF personnel in the operations under study, despite significant pressure from adversaries and ROE. ADF personnel have also illustrated an aggressive determination to attain mission objectives. ADF personnel have also shown a growing enthusiasm for population based intelligence. This is critical in LIC. Increasingly, SOF personnel are becoming an indispensable element of ADF operations. SOF personnel have been

highly effective, and have exemplified the benefits of jointery. Three weaknesses do, however, influence ADF personnel on operation. First, personnel have deployed with a misconception of the conflict they are entering. This is the fault of intelligence briefings. These intelligence briefings have provided troops with information that does not correlate well with operational realities. These briefings emphasise threats and kinetic responses, rather than force protection. Force protection, in LIC, can only be generated through effective interactions with the population in-theatre. Second, the ADF possesses inadequate cultural awareness. This issue has undermined regional coalition operations, when working with defence force personnel from South Pacific islands. Third, the MLOC/OLOC dichotomy has created significant capability weaknesses. Simply, the MLOC/OLOC process reduces the transparency of usable unit strength; the process hides institutional weakness. Reduced lead times imposed since operations in East Timor, have assisted in solving this problem. It must be made clear, however, that contemporary operations require immediate action. Simply, personnel must be well trained and at a high state of readiness.

Personnel must also be provided with advanced equipment to be operationally effective. At times the ADF has been unwilling or unable to provide personnel with appropriate equipment. There have been three categories of equipment deficiency: sensors, communications and weapons. However, on deployment, personal sensor and communications equipment has improved situational awareness and provided a technological edge over adversaries. Infantry support weapons were shown to be obsolescent in East Timor. Hence, these weapons are being gradually upgraded. Such weapons have been untested by regular personnel. However, advanced equipment has been critical to SOF operations. The lesson here is simple: personnel need to be provided with the best equipment practicable.

Armoured vehicles (Armour) were an essential force element in Somalia, East Timor and Iraq. The value of armour, on such operations, is a product of four interrelated factors. First, armour provides protection. ADF armour has provided a reasonable level of protection on operation. However, there have been some deficiencies. Particular operations in Iraq have involved an apparent risk to armour. However, the initial deployments of armour were not commensurate to the level of risk. Specifically, deploying armour was not provided with appliqué

kits, and the LAV-PC was deployed with an exposed weapons station. This generated undue risk for embarked personnel and crew members, despite the fact that these issues were only rectified after the initial force had deployed. The risks associated with the environment were understood prior to deployment. This illustrates a weakness within the ADF. Second, armour enhances manoeuvrability. In general terms, all classes of ADF armour enhanced operational mobility. However, there were two broad environmental lessons to be learned: (1) the natural environment can preclude wheeled and airborne manoeuvre, while tracked vehicles provide unconstrained mobility; (2) armoured combat elements can outpace support elements in difficult terrain, this can preclude or constrain re-supply. Third, armour should provide additional firepower and situational awareness. However, operations in East Timor illustrated firepower, surveillance, target acquisition, communications, navigation, and battlefield command deficiencies in ADF armour. In LIC, armoured units must possess advanced situational awareness and a capacity to return ranged and accurate fire. These issues are being addressed by Project Land 106 and 112, although the latter project is being constrained. Fourth, armour is most potent when combined with other force elements. ADF operations in East Timor illustrated the strength of genuinely combined units, and the weakness of merely combining force elements once deployed. Force elements must combine in a cohesive manner, which can only be attained through training. The ADF must ensure combined cohesion.

The ADF has not deployed artillery on operation since Vietnam. Nevertheless, artillery is the soldier's all weather, day and night supplier of fire support. Moreover, there are three tenets of artillery use in LIC; combined arms, precision and firebases. The ADF needs to ensure these tenets, when the current collection of artillery systems is replaced.

Helicopter support is essential in LIC. The support provided by helicopters is multidimensional, including utility lift, liaison, C2, mobility, reconnaissance, surveillance, rapid reaction, fire support, presence and deterrence. ADF helicopter support, on the aforementioned operations, has generally been effective. Two areas of concern regarding helicopter use were as follows: (1) land combat and command elements should be provided with organic lift; and (2) supply chains can be a limiting factor. The former concern has not been raised

since operations in Somalia. However, the latter concern is a critical vulnerability in the ADF, requiring significant consideration. A further risk illustrated by this chapter is helicopter protection. Prior to a number of recent operational deployments, the ADF has had to rapidly acquire and fit ballistic and electronic protection to deploying helicopters. However, rapid acquisition increases the risk of human or technical error occurring on operation. The risk is exacerbated by the limited time available to develop and prove equipment and train personnel prior to deployment. Helicopters and their crew form a symbiotic relationship. The ADF must appreciate that rapidly improving one part, does not necessarily produce a capability improvement without training.

Aircraft are also an important element in LIC, providing firepower, logistics and C4ISTAR. First, in terms of firepower, the ADF has: (1) made a latent contribution to the assertion of air control in East Timor and Iraq; and (2) undertaken CAS and air interdiction missions in Operation Iraqi Freedom. The ADF is improving these capabilities with weapons systems and future aircraft. However, CAS necessitates highly trained TACs to provide situational awareness and target designation to combat aircraft. As illustrated in Afghanistan and Iraq, SOF personnel are highly capable TACs. Regular personnel have not demonstrated such a capability. The ADF must ensure regular personnel are trained as TACs, as this is an increasingly prevalent requirement in LIC. Second, the provision of airborne logistics is a critical enabler in conflict. However, the ADF has at times failed to achieve required availability. This situation has been further aggravated by insufficient units being available to fulfil concurrent demands. This is not wholly an ADF issue, as past budgetary provisioning has not equated to contemporary Government intent. This issue will be partially alleviated by the acquisition of Boeing C-17 and Airbus A330 MRTT transport aircraft. Third, due to the evolving joint nature of conflict, airborne C4ISTAR is becoming increasingly important. Aircraft provide a secure hub for the management of sensors and shooters. The ADF has recently achieved such a capability by: (1) acquiring the Boeing 737 AEW&C aircraft; and (2) utilising the P-3 as an improvised C2 aircraft. The primary risk assumed by aircraft in LIC occurs when operating tactically at low level. Hence, transport aircraft are primarily effected. So as to lessen moderate this risk, protection upgrades should be considered as critical for transport aircraft.

The RAN has been an indispensable part of all ADF operations in this analysis. Basically, naval vessels have been required to generate Sea Control, so as to enable Maritime Power Projection. Sea Control activities have included surveillance, patrol, intelligence collection, escort, anti-submarine operations, C2, cover, deterrence, advanced force operations and the enhancement of situational awareness. RAN vessels have been effective in these operations. Furthermore, the acquisition of the Air Warfare Destroyer will enhance these capabilities. Maritime Power Projection is simply the transportation and support of land forces on operation. There have been three significant constraints to Maritime Power Projection within the ADF: (1) organic C3I capabilities; (2) limited logistics lift; and (3) a limited amphibious capability. The entry into service of the Amphibious Transports *Kanimbla* and *Manoora* has partially resolved these issues. Moreover, future amphibious transports purchased will further enhance C2, logistics and operational and tactical mobility. However, current Navy doctrine may prove a limiting factor in the integration of the future amphibious ships. This is because the RAN has not fully realised the implications of Sea-Basing. In future littoral operations, land force elements will require greater C4ISR, logistics, mobility and fire-support, from support elements onboard ships. Hence, the ADF must ensure joint doctrinal collaboration for the development of Sea-Basing.

ADF operational C2 represents one of the most significant strands in this particular analysis. This is due to operational C2 weakness and the significance of subsequent improvement. In Operations Solace and Lagoon, operational effectiveness was undermined by covert planning compartmentalisation, sequential lag, poor logistics and a lack of an effectual deployable joint HQ. Subsequent operations in East Timor were constrained by inadequate component, logistics and engineering integration. Concomitantly, a Joint Operational Command and three Deployable Joint Force Headquarters were developed. The Joint Operational Command was established in 1997 as HCAST. However, HCAST did not meet expectation in East Timor. Essentially, HCAST had not enabled an integrated and inclusive joint approach to the operation. Hence, HCAST has been superseded by HQJOC. HQJOC is a fully integrated joint environment, where all staff are organised functionally. HQJOC should produce a more integrated joint approach on future operations. However, there are three weaknesses in HQJOC: (1) the HQ is a financial device; (2) the joint nature of

DJFHQ and DJFHQ-(M) have not been supplemented to enable a practised joint approach to operations; and (3) HQJOC does not command force elements, other than on operation. The ADF has vastly improved operational C2. However, there is still a need for further development.

Logistics has been a critical deficiency and vulnerability for the ADF on operation. There are three clear reasons for this weakness. First, inadequate involvement of logistics personnel in the strategic and operational planning process has caused operational difficulties. Preparation for Operations Solace and Lagoon excluded logisticians from the planning process. The situation had improved by the time of East Timor. However, sequential lag at the strategic level reduced operational level preparation of the supply chain. In 2000, the JLC was established and later incorporated into HQJOC. This logistics command structure development should ease logistics planning issues in future operations. Second, logistics structures below the JLC are inadequate. The ADF lacks both a deployable joint logistics HQ to manage logistics on operation, and a deployable joint logistics group to coordinate strategic and tactical collection, transportation and distribution of supplies. Operational logistics is provided by single services structures, which are only integrated on operation. The JLC does not command force elements, other than on operation. Therefore, joint logistics cannot train as they intend to fight. Third, the ADF has lost its latent logistics capability. Government reviews in the 1990s made massive cuts in logistics personnel numbers, stores and facilities. These cutbacks were based on theoretical peacetime assumptions, which do not correlate with operation realities. Simply, the ADF has lost its surge capacity.

Frequently, theatres of conflict are characterised by dilapidated infrastructure. Therefore the physical environment can obstruct military mobility and sustainability, due to inadequate roads, airfields and ports. Furthermore, the derelict state of civil support infrastructure can create hostility among the population. So as to rectify these issues, the deployment of military engineers is significant to operational effectiveness. However, the ADF endangered strategic objectives by disregarding or underestimating the requirement for engineers on operation. Engineers have been: (1) excluded from strategic and operational planning; (2) intentionally and inadvertently denied intelligence; (3) withheld strategic lift; and (4) accorded a low logistics priority. All deployed force

elements are dependent on the infrastructure provided by engineers. Hence, such mismanagement could have undermined the effectiveness of all force elements deployed. Subsequently, no central effort has been made to improve the integration of the Engineers operationally. The ADF needs to incorporate the Engineers into the HQJOC and DJFHQ structures.

Communications connect sensor, shooter and command nodes. Hence, communications is a critical enabler. The principles of LIC and NCW further elevate the significance of communications. In terms of communications, the ADF has experienced difficulties at the strategic and tactical level. Importantly, ADF communications require: (1) seamless integration; (2) combat net radio capacity and reliability improvement; (3) tactical trunk capacity and range development; and (4) enhanced tactical LAN mobility. These issues are being resolved under JP 2072. This project is extensive and highly beneficial for the ADF. However, JP 2072 must ensure seamless joint communications. The joint nature of this JP 2072 is jeopardised by a lack of Air Force and Navy 'ownership' of the project. Basically, a strategic and cultural disconnect between the three services could undermine the project. This disconnect is caused by decentralised service control of acquisitions, structures, equipment and the individual services operating environment. To rectify this potential problem, Strategy Group must provide greater leadership in terms of joint communications.

Intelligence enables the appropriate application of force, be it kinetic or humanitarian. However, the ADF has suffered from three intelligence deficiencies. First, intelligence was excessively compartmentalised. This meant field elements and commanders, as well as operational planners were operating with limited vision. However, the establishment of HQAST has chiefly alleviated this issue. Second, pre-deployment and in-theatre intelligence briefings are excessively generic and at too high a level. Furthermore, these intelligence briefings exclude sufficient cultural and language information. Basically, Force Protection in LIC is primarily generated through the collection of human intelligence. To attain human intelligence, personnel need language skills, cultural respect and a positive relationship with the population. Intelligence provided to deploying personnel does not correlate with these operational realities. Third, formal CMA is in general neglected in the ADF. A CMA cell was only created in the DJFHQ after operations in East Timor. However,

informally ADF personnel demonstrate an affinity with, and appreciation of, a CMA approach.

The analysis of CMA in ADF doctrine is problematic, due to the confidentiality of various doctrinal publications. Clearly, CMA is integrated into peace-support doctrines. However, these doctrines are focused on a narrow section, within a broad continuum of conflict. Hence doctrines relating to LIC, which are broad in focus, require joint development. Moreover, there is a belief among many senior officers that inhibit the training of personnel in CMA, other than immediately prior to deployment. The belief is that personnel should 'train up, and operate down'. The essential principle is that in training for high intensity conventional conflict, personnel will also acquire skills, knowledge and an aptitude conducive to effective operations in counterinsurgency. This is partially true; training generates professionalism, which is critical in counterinsurgency. However, this approach neglects the specialist requirements of personnel in counterinsurgency. The ADF is therefore reasonably well placed for counterinsurgency operations in LIC, although there is significant room for improvement.

In terms of doctrinal principles, the ADF has: effectively controlled international interference; provided internal security; applied civil operations that have supplemented military operations; and gradually installed a command system that proved sufficiently unified on operation, but requires improvement. In terms of military principles, the ADF generally operates effectively, but there are a number of areas that require development. Over the past five years, ADF doctrine has increasingly come to reflect the requirements of modern counterinsurgency warfare. However, ADF doctrine needs to be augmented by doctrinal supplements specifically tailored to LIC, especially in the area of civil operations. Much like the NZDF, the core strength of the ADF is its professional personnel, who are independent and display initiative and restraint on operation. A principle that needs development within the ADF is joint force; doctrine, C2, intelligence, communications and the application of force must all become more joint. Readiness policy (MLOC/OLOC), and to a lesser extent a reluctance to deploy modern equipment, has reduced the ADF's capability to undertake joint force operations. Aging and non-integrated communications technologies have been an impediment to the ADF; essentially, ADF communications must be

upgraded so as to enable joint force, combined arms and force precision. The acquisition of accurate human intelligence has been effectively undertaken by the ADF. However, there needs to be greater emphasis on the gathering of intelligence from the civil population at the doctrinal and service level. Essentially, the ADF is an effective counterinsurgent force. However, the lessons of LIC must be more fully integrated into ADF doctrine as well as strategic, tactical and operational procedures.

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Chapter Nine

Conclusion

Low Intensity Conflict (LIC) is a complex amalgam of diverse forms of violence and non-violent coercion. This complexity creates significant challenges for a counterinsurgent attempting to engender security and stability. LIC is not conventional warfare. This is critical for the counterinsurgent to understand. The insurgent's violent and coercive strategy is applied so as to achieve political, civil, military and psychological results. Hence, the counterinsurgent must counter all of these strategic elements individually. In addition, the target of the insurgent's violence and coercion is the population. This is because the population is the centre of gravity in LIC. Therefore the counterinsurgent must also focus on the population to be successful. In terms of military principles in counterinsurgency, doctrinal precision, professionalism, independence, initiative, force precision, restraint, combined arms, precision engagement, joint force, effective population based intelligence, integrated communications, a civil affairs approach and high levels of training are critical.

Russian, American and Coalition Case Studies

The doctrinal and military principles outlined above were derived from historical examples of LIC and the three case study chapters of this thesis. The Russian, American and Coalition case studies were essential to this thesis for the following two reasons. First, the case studies provided a means to analyse the applicability of historical principles of LIC in modern operations. Second, the case studies illustrated modern principles and forms of force that have developed recently.

The effectiveness of a holistic approach to counterinsurgency and the critical nature of the four doctrinal principles of this research were illustrated in the jungles of Borneo and the mountains of Algeria, as much as they were in the towns of Somalia and the cities of Iraq. Moreover, the military principles outlined above were as applicable to the British operations in Malaya in the 1960s as they were to the Russian operations in Chechnya in the 1990s (notwithstanding the fact that the Russians failed to apply some of the aforementioned military principles in

the first Chechen war). However, there are certain military principles outlined above that are significantly influenced by technological development. For example, joint force, precision engagement and integrated communications have been revolutionised by recent developments in information technology. Basically, information technology has enabled separate sensors, shooters and command nodes to engage elusive targets in ways that could not have been imagined in Malaya, Vietnam or Algeria. It was essential that modern operations be examined as case studies in this thesis, as it was critical to establish the constituent elements of contemporary approaches to LIC.

LIC Doctrine and Strategy

Due to the complexity of LIC, the counterinsurgent must possess a task specific and comprehensive doctrine to suppress an insurgency. The doctrine presented in this analysis constitutes a theoretical framework and set of strategic principles applicable to the reestablishment of security and stability in the (low intensity) conflict zone.

The theoretical framework expounded in this analysis covers the complex phased array of violence experienced in LIC. This phased array reflects the variable, but structurally discernable nature of LIC. The four phases of LIC are organisation (cadre/support), terrorism, guerrilla warfare and mobile warfare. The symbiotic nature of these phases can generate a multitude of threats, which are challenging to counter precisely. By perceiving LIC as phased violence, the threats of an individual phase can be counteracted by specifically customised strategies. The implementation of an array of customised strategies ensures each threat is effectively countered. Without this phased distinction, the primary threat may be countered; but without effective measures being implemented to oppose all phases, the insurgency will continue.

In addition to the phased strategy outlined above, there are four principles of LIC that the counterinsurgent must observe. Three of these are: the control of international interference; the application of civil operations; and the provision of internal security. The fourth principle encapsulates the requirement for a unitary central command, which synergistically applies the three aforementioned principles. Collectively, these four principles constitute a holistic approach to

regenerating security and stability. In a physical sense, these principles are applied by civil, police, intelligence and military elements. The symbiotic effect of uniting these force elements will be to win the support of the population. However, this symbiotic effect will be dependent on the formation of an Expeditionary Civil Service or its organisational equivalent. The function of the Expeditionary Civil Service is to ensure that the civil elements are effective and functionally integrated with the military authorities. If the functional and strategic integration of the four force elements is successful, the counterinsurgent will most likely be triumphant in LIC. There are, however, certain military principles that must be adhered to so as to ensure counterinsurgent effectiveness.

Military Force

Military force is the core element in achieving success in LIC. However, military force elements in LIC have a dual purpose. Military force elements must simultaneously defeat the insurgent and win the support of the civil population. However, it is recognised that this dual function will be challenging for the counterinsurgent, as the civil population and insurgent may seem indistinguishable. Consequently, caution and precision must be exercised when engaging the insurgent, so as to minimise the harm done to the civil population.

So as to employ military force effectively in LIC, the primary requirement of the counterinsurgent is to have a specific tailored and comprehensive LIC doctrine. Such a doctrine should encompass the doctrinal and strategic framework outlined above. The doctrine must minimise the use of military force that could harm the civil population, while enabling the flexible use of force to protect the counterinsurgent and defeat the insurgent. The doctrine must clearly elucidate the distinction between LIC and conventional warfare.

Critical to the eradication of violence in LIC are professional infantry personnel, operating within the aforementioned strategic framework. Professional infantry are critical in LIC, as they are the most likely force element to make contact with the insurgent. These infantry personnel and units must be highly trained, cohesive, divested with independence and able to apply initiative. Moreover, individual personnel must apply force with constraint and precision, while fostering good relations with the population. Within these guidelines,

personnel must be well rehearsed in the principles of combined arms and joint warfare. These principles are as applicable to LIC as they are to conventional conflict. Personnel operating in LIC must also be provided with task-specific tactics, techniques and procedures. However, these principles must be flexible; the experience of conflict must continually update the way personnel apply force.

LIC requires the counterinsurgent to be as well equipped and technologically advanced as practicable. Advanced weaponry and systems can, to a varying degree, functionally dislocate the insurgent. Hence, a well equipped counterinsurgent will take fewer casualties and protect the civil population with greater precision. Primarily, personnel must be connected to a highly effective communications system. This communications system must also be optimised for the applicable operational environment. Personnel must also be provided with a reliable and precise individual weapon. Specifically, this analysis has indicated the requirement for individual weapon systems to have the equivalent stopping-power of a 7.62mm round. Essentially, the principles that support the use of the 5.56mm round in conventional conflict do not correlate well with the operational requirements of LIC. In addition, the weight of personnel equipment must continually be reduced; this includes weapons, optics, communications and battlefield awareness equipment.

As earlier enunciated, infantry operations must be supported by the combined arms effect of artillery and armour. These weapons systems reduce counterinsurgent vulnerability and add to the complexity of risk faced by the insurgent. Armour and infantry must operate synergistically, so as to diminish individual unit vulnerability. There must also be synergism between these two direct-fire units and artillery systems, so that infantry and armour can be effectively protected. However, this synergism can only be generated through extensive combined training and effective tactical communications. Critically, armour and artillery fire must be precise.

Armoured vehicles operating in LIC must be manoeuvrable, well armoured and capable of firing a sustained high rate of relatively heavy fire. Vehicle armour must protect crew members and embarked personnel from small-arms and unguided anti-armour fire, and the effects of conventional and improvised mines. This analysis has also indicated that the armour weapon systems most applicable to LIC are the automatic cannon and automatic grenade

launcher. However, the effectiveness of these weapon systems is dependent on crew visibility. Significantly, conventional armour provides insufficient visibility. As noted in the research, there are tactical and technical solutions to this problem; but the fact remains, it is difficult to see an insurgent from within an armoured vehicle.

Aviation is a critical force element for a counterinsurgency operating in LIC. This is because helicopters and fixed-wing aircraft are capable of providing: precise force; command, control, communications and intelligence hub facilities; mobility; and support. Furthermore, the utility of aviation in counterinsurgency is being enhanced by current and emerging technologies and procedures, which are enabling greater joint force. It is also notable that the requirement for greater strategic, operational and tactical manoeuvre requires the augmentation of aviation fleets.

Critically, the four combat arms indicated above must operate in a joint fashion. This analysis has illustrated that for synergistic joint operations to occur, the said field elements must be integrated by an effective command, control, initiative, communications and intelligence system. Counterinsurgent command and control in LIC must be jointly integrated and capable of enabling initiative through decentralised independence. This initiative will enable the exploitation of current situational awareness, so as to engage the insurgent promptly. As stated earlier, effective communications are also critical, so as to enable the rapid conveyance of intelligence. Hence, intelligence must be timely and accurate. This requires intelligence systems to be efficient in the acquisition, analysis and dissemination of tactically usable information. Significantly in LIC, human intelligence will be the leading source of information. The specific source of this human intelligence will be the population. Hence, the counterinsurgent must acquire the support of the population; this can only be achieved through a civil-military approach to LIC.

New Zealand Defence Force

The New Zealand Defence Force (NZDF) is developing capacity in terms of operational jointness. Such operational jointness is critical in counterinsurgency. This is illustrated by the publication of the NZDF's first formal statement of

(“philosophical”) doctrine, and the formation of a joint operational headquarters. However, there are three impediments restricting the development of jointery in the NZDF: (1) time and resource constraints (limited human and essentially financial resources are impeding joint training and development); (2) a high operational tempo (this is further reducing the availability of people for joint training and development); and (3) a dissonance between New Zealand defence policy and doctrine (effectively a lag between doctrinal and policy development, consequently, policy has not yet effectively incorporated jointery).

The ethos, values and culture of the NZDF are foremost strengths in LIC. These core principles provide an effective personal conduit between the civil population and NZDF personnel in LIC. This conduit improves the application of civil-military affairs functions and multiplies the intelligence provided to NZDF personnel. However, there are two leading weaknesses in the NZDF approach to LIC. First, lessons learned are not well institutionalised, especially in the area of civil-military affairs. Second, the level of capability (LOC) process within the NZDF causes operational risk. Essentially, defence elements are maintained at a sub-operational level. This is an operational weakness due to the rapidity with which contemporary conflicts can emerge.

Equipment and systems have been a significant weakness for the NZDF in LIC. However, this weakness is being rectified with the introduction of advanced air, land, sea and information technologies. Concomitantly, however, these advanced technologies require augmented joint and coalition training.

Joint coordination is critical in counterinsurgency. However, resource constraints and a high operational tempo are restricting the NZDF’s capability to train jointly. The NZDF routinely operates with allies in LIC. Consequently, coalition interoperability is critical for the operational effectiveness of field and intelligence elements within the NZDF. However, the political fissure between New Zealand and the United States has disrupted coalition intelligence flows and training exercises.

Australian Defence Force

Throughout the 1990s and to an extent contemporaneously, Australian defence policy and strategic thinking has restrained the Australian Defence Force’s

capability in counterinsurgency. The primary strategic imperative during this period has been the protection of the Sea-Air Gap. This strategic imperative is essentially territorial defence by naval and air forces. Consequently, the capability of the Australian Army and tri-service support elements had diminished. This was significant, as army and support elements are critical enablers in counterinsurgency. Post-2000 defence documents have, however, largely rectified this strategic and operational dissonance.

As a consequence of operational experience and the adjustment of defence documents, the Australian Defence Force's fundamental doctrinal concepts are becoming aligned with LIC requirements. However, tri-service dissonance may prove an obstacle to the implementation of these concepts. Structural, resource and personnel constraints may also limit tri-service convergence.

The Australian Defence Force (ADF) is endowed with professional personnel. ADF personnel are aggressively determined, but display enthusiasm for population-based intelligence and a civil-military approach to counterinsurgency. There are, however, three issues that undermine ADF personnel in LIC: (1) the information provided in intelligence briefings is of limited operational relevance; (2) there is insufficient cultural awareness in the ADF; and (3) the level of capability (LOC) dichotomy within the ADF has concealed unit weakness.

Australian systems and equipment have been primarily effective when deployed operationally. However, some operational risk has been assumed due to obsolescent or inadequate systems and equipment. Many of these technical issues are being addressed. However in parallel, the ADF must also ensure appropriate levels of combined and joint training. This is because advanced equipment requires higher levels of personnel training.

Australian operational Command and Control (C2), Logistics and Engineering collectively represent a critical strand within the analysis. This is essentially because of the weakness of these elements on operation, and the subsequent ADF attempts to improve these elements. The development of a joint operational headquarters has, and will, improve operational C2. However, the joint operational headquarters must stop sequential lag and covert planning compartmentalisation from occurring. The joint operational headquarters must also ensure the internal joint integration of tri-service and civil components.

Moreover, Logistics and Engineering must be better integrated within the joint operational headquarters.

Australian communications, intelligence and civil-military affairs collectively were another critical strand within the analysis. Communications is a link that enables information to pass between sensors, shooters and commanders. Inherently, communications is critical to military operations. However, the analysis has indicated ADF strategic and tactical communications weaknesses. These weaknesses are being rectified under a joint ADF project. However, this project is being weakened by the lack of Air Force and Navy 'ownership' of the project. This is a significant joint force issue, which must be rectified by the ADF. Intelligence within the ADF has been excessively compartmentalised and intelligence briefings have left deploying personnel without an adequate appreciation of the area of operation. Fortunately, the formation of a joint operational headquarters should reduce compartmentalisation of intelligence. However, the intelligence community must make their briefings more operationally relevant, focussing on force protection rather than threat. A civil-military affairs approach to LIC will generate effective population-based intelligence. The ADF has illustrated an aptitude for civil-military affairs, due mainly to the ethos, values and culture of the Defence Force's personnel. The ADF is also integrating a civil-military approach within their peace doctrines. However the ADF should exploit civil-military affairs more fully, by augmenting training and doctrine in the area. First, civil-military affairs must be fostered as an approach to counterinsurgency, among ADF personnel. Second, those units specialising in civil-military affairs should be augmented.

The Politics of Counterinsurgency

Carl von Clausewitz, in *On War*, argues that 'war is politics by other means'.¹ Therefore in the case of LIC, it could be argued that politics is why counterinsurgency is fought and with what principles, doctrine, strategies, tactics and equipment. It is correct to say that politicians decide when military forces are going to be used (at least in democratic states). However, such discourse is not relevant to this research. What is relevant to this research is the degree to which politically elected and embedded governments influence the rate of doctrinal

adaptation, provide strategic, tactical and operational guidance, and allocate the resources that can be used in counterinsurgency.

Doctrinal adaptation is a hugely complex process that takes place at differing levels within a large bureaucracy, which is best described as a defence organisation. At the zenith of doctrine is policy. Hence the ideology and strategic outlook of elected governments have a tremendous impact on doctrine, especially high level doctrine. In addition, at the highest level of the defence organisation is a ministry or department; this is embedded government with the function of producing policy under the direction of the minister. Hence embedded government also has a considerable influence on doctrine. Simply, government policy forms doctrine from above and lessons learned on operation form doctrine from below. This dichotomy is only problematic if a dissonance occurs between operational reality and government policy. Such dissonance is often caused by political party defence policy and select committee guidelines that do not accurately relate to operational reality. A further dissonance issue that was observed and discussed during the production of this research can arise when defence ministry/department policy is “conservative [and constitutes a] lag between practise and policy”.² Specifically, a minister was forced to reject defence policy and personally rewrite the said policy, so as to ensure the policy was consistent with operational reality. The particulars of this case did not form a discourse within this thesis due to the situation’s sensitive nature and because a defence organisation requested that it be omitted. It is suffice to say that misaligned government policy can have a serious impact on doctrine and doctrinal evolution. So as to minimise this dissonance, it is important that the services and joint organisations within defence are incorporated into the process of developing policy; this does not always occur.

On operation, elected and embedded governments will occasionally provide strategic, tactical and operational guidance to defence organisations. Specifically, rules of engagement, limitations on weapons systems to be used and constraints placed on tactics, techniques and procedures are among the types of restrictions that governments will impose upon defence organisations. As indicated in this research, these types of restrictions can place defence personnel at undue risk and at times undermine the capacity of the defence force to attain

mission objectives. To overcome these issues, defence personnel and organisations must be consulted prior to limitations being imposed.

There are two primary instances where the allocation of resources by governments can undermine the capability of defence forces from achieving government intent. First, a government may under fund a defence force, service or service component so that certain levels of capability as set out in government purchase orders cannot be met. If a government expects a defence force to fulfil certain roles, then that defence force must be appropriately funded. If the said defence force is not funded to undertake certain tasks, it should not be expected to undertake those non-funded tasks. Second, a government may under fund a defence force on operation. Either the element or elements deployed (as defined by the level of funding) will be insufficient in capability to adequately fulfil the mission objective, or the element or elements deployed will have to be funded from existing defence budgets. In both cases, personnel may be placed at undue risk and/or the government's intent may not be realised.

Future Research

Martin van Creveld was quoted in the introduction of this thesis as saying that 'much has been written about Low Intensity Conflict – what it is and what it is not – but there is very little on how to fight one'.³ The introduction of this thesis went on to state that this research would begin to fill this void, which it has achieved. However, there are numerous other areas of research in reference to LIC that need further analysis.

There are two research projects that are founded in this thesis that will be undertaken in the future. First, the Expeditionary Civil Service concept will be further developed. This development will include a comprehensive set of functions and responsibilities that such a service would be required to assume, as well as an analysis of the practicalities of state or coalition implementation of the service. This development will initially focus on enabling the concept to be introduced into New Zealand and Australia's governmental and defence force structures in a practical sense, so as to enable these countries to approach LIC in a more holistic and effective manner. From this specific basis, guidelines for the implementation of the Expeditionary Civil Service concept would be prepared so

that the concept can be applied more generally by other states. Second, joint force is an essential element in effective operations in LIC, yet few defence forces possess sufficient joint force capabilities. However, the United Kingdom's Royal Marines and the United States' Marines are two defence forces that illustrate high joint force effectiveness. Therefore, a further research project will be commenced that will analyse the reasons behind the high joint force effectiveness of the two aforementioned defence forces and will examine how other defence forces can replicate the joint force capabilities of these defence forces.

There are numerous other topics that require research that were identified in this thesis. They include issues such as how emergent communications technology and armament systems can be exploited by counterinsurgents in LIC. There are also issues such as how embryonic conventional warfare doctrines and strategies will influence defence forces that are also required to operate in LIC. It has been shown in this thesis that certain conventional warfare capabilities developed by a defence force can negatively influence that defence forces capability in counterinsurgency. Hence all new developments in the art of war need to be examined in reference to the impact they will have on LIC.

Summation

The research has illustrated that the New Zealand and Australian Defence Forces are generally effective in counterinsurgency. However, there are numerous areas where these defence forces could improve their respective counterinsurgency capability. Both defence forces have analogous requirements for capability development, which in turn correlate with the core principles outlined in the research. Principally, both defence forces must develop joint doctrine applicable to LIC. Both defence forces must enhance command and control, intelligence and communications elements and processes, so as to ensure jointness and interoperability. Finally, both defence forces and their governments must direct more resources into an institutionalised civil-military affairs capability.

The research has also summarised and analysed a large body of experience in LIC. Collectively, this experience has illustrated that by adopting certain strategies a counterinsurgent can be successful in LIC. Political adroitness is central to a successful counterinsurgency, as the population is the centre of gravity

in LIC. As such, the counterinsurgent must fully comprehend the population. As is indicated in Australian defence doctrine, political adroitness is an important factor in the ADF's approach to counterinsurgency. A similar awareness of the importance of the political nature of LIC has also been demonstrated in the NZDF, especially in terms of the Realisation Issues plan that was organised by Colonel Hayward, but this awareness has not yet been incorporated into formal doctrine. The ultimate practical expression of political adroitness is the development of an organisation that can successfully integrate the civil and military tools of a counterinsurgent, such as the Expeditionary Civil Service. Such an organisation has two critical functions: (1) to integrate the counterinsurgent's force elements, so as to ensure synergistic joint operations; and (2) earn the allegiance of the civil population. This is because the population must support the counterinsurgent with intelligence, which in turn is critical in apprehending the insurgent. The ADF and NZDF have demonstrated on operation that this process does work; a civil-military approach will gain the support of the population and consequently defeat the insurgent. However, the ADF and NZDF have not created an organisation or structure to implement a civil-military approach in LIC. Consequently, operations are planned and undertaken without the benefit of the experience gained on previous operations. This is an unfortunate situation that should be rectified, as experience has demonstrated that an integrated and formalised civil-military approach is essential to a successful counterinsurgency.

Looking forward, a future that includes episodes of politically motivated violence can be assured. Consequently and due to either strategic interest or humanitarian sentiment, New Zealand, Australia and much of the Western world will very likely be engaged in counterinsurgency operations in LIC. For this reason, the principles outlined in this research must be taken seriously by the defence forces in question, and appropriate doctrinal and operational changes should be made.

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