MASTERS OF MILITARY STUDIES

TITLE: IMPLEMENTING MANEUVER THEORY IN THE
AUSTRALIAN ARMY

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

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AY 2001-2002

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1. REPORT DATE (DD-MM-YYYY) 12-04-2002	2. REPORT TYPE Student research paper	3. DATES COVERED (FROM - TO) xx-xx-2001 to xx-xx-2002

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Implementing Maneuver Theory in the Australian Army Unclassified	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)	5d. PROJECT NUMBER
Ryan, M. B. ;	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME AND ADDRESS USMC Command and Staff College 2076 South Street MCCDC Quantico, VA22134-5068	8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS USMC Command and Staff College 2076 South Street MCCDC Quantico, VA22134-5068	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
APUBLIC RELEASE
,

13. SUPPLEMENTARY NOTES

14. ABSTRACT
See report.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Public Release	18. NUMBER OF PAGES 79	19. NAME OF RESPONSIBLE PERSON EM114, (blank) lfenster@dtic.mil
a. REPORT Unclassified	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified			19b. TELEPHONE NUMBER International Area Code Area Code Telephone Number 703767-9007 DSN 427-9007

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

REPORT DOCUMENTATION PAGE		FORM APPROVED - - - OMB NO. 0704-0188

1. AGENCY USE ONLY (*LEAVE BLANK*)	2. REPORT DATE **12 APRIL 2002**	3. REPORT TYPE AND DATES COVERED ***STUDENT RESEARCH PAPER***

4. TITLE AND SUBTITLE

IMPLEMENTING MANEUVER THEORY IN THE AUSTRALIAN ARMY

5. FUNDING NUMBERS

N/A

6. AUTHOR(S)
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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

USMC COMMAND AND STAFF COLLEGE
2076 SOUTH STREET, MCCDC, QUANTICO, VA 22134-5068

8. PERFORMING ORGANIZATION REPORT NUMBER

NONE

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

SAME AS #7.

10. SPONSORING/MONITORING AGENCY REPORT NUMBER:

NONE

11. SUPPLEMENTARY NOTES

NONE

12A. DISTRIBUTION/AVAILABILITY STATEMENT

NO RESTRICTIONS

12B. DISTRIBUTION CODE

N/A

abstract *(maximum 200 words)*
FIRST PRODUCED IN 1998, AND CURRENTLY IN ITS SECOND, UPDATED EDITION, *LAND WARFARE DOCTRINE 1: THE FUNDAMENTALS OF LAND WARFARE* IS THE AUSTRALIAN ARMY'S KEYSTONE DOCTRINE. IT DESCRIBES THE SERVICE'S CORE PHILOSOPHY ON THE CONDUCT OF MILITARY OPERATIONS AND PROVIDES A FOUNDATION FOR A CONCEPT-LED AND CAPABILITY-BASED FIGHTING FORCE. THE CURRENT VERSION OF *THE FUNDAMENTALS OF LAND WARFARE* (DRAFT) AFFIRMS THE ADOPTION OF THE PHILOSOPHY OF MANEUVER THEORY BY THE AUSTRALIAN ARMY AS ITS CORE WARFIGHTING PHILOSOPHY. FOLLOWING THE ACCEPTANCE OF THE MANEUVERIST APPROACH AS THE OFFICIAL WARFIGHTING PHILOSOPHY FOR THE AUSTRALIAN ARMY, A PROCESS OF IMPLEMENTING THIS PHILOSOPHY IS REQUIRED IF THE ARMY IS TO REALIZE ITS FULL BENEFITS. THIS PAPER EXPLORES THE MEANS BY WHICH THE WRITTEN DOCTRINE OF MANEUVER THEORY CAN TRANSITION FROM FORMAL DOCTRINE TO BE THE TRUE INTELLECTUAL FOUNDATION FOR THE AUSTRALIAN ARMY'S WARFIGHTING PHILOSOPHY.

14. SUBJECT TERMS (KEY WORDS ON WHICH TO PERFORM SEARCH)

MANEUVER THEORY
IMPLEMENTING MANEUVER THEORY
AUSTRALIAN ARMY

15. NUMBER OF PAGES: 48

16. PRICE CODE: N/A

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE:	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	*UNCLASSIFIED*	*UNCLASSIFIED*	

CONTENTS

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

EXECUTIVE SUMMARY

Title: Implementing Maneuver Theory in the Australian Army

Author: Major Michael B. Ryan, Australian Army

Thesis: Following the acceptance of the maneuverist approach as the official warfighting philosophy for the Australian Army, a process of implementing this philosophy is required if the Army is to realize its full benefits.

Discussion: Published just this year was perhaps the most important Australian Army doctrinal publication since the end of the Cold War: Land Warfare Doctrine 1: *The Fundamentals of Land Warfare*. First produced in 1998, and currently in its second, updated edition, this publication is the Australian Army's keystone doctrine. It describes the service's core philosophy on the conduct of military operations and provides a foundation for a concept-led and capability-based fighting force.

Both the 1998 and current editions are maneuverist in philosophy. The first edition of *The Fundamentals of Land Warfare* used the term Tactical Maneuver. It gave it some of the following attributes: a clear understanding of the superior commander's intent, the use of deception to confuse the enemy and disguise friendly force intentions in order to achieve (tactical) surprise, and the control and variation of tempo to conserve the fighting power of our own forces. The current version of *The Fundamentals of Land Warfare* clearly affirms the adoption of the philosophy of Maneuver Theory by the Australian Army has embraced.

The introduction of this maneuverist warfighting philosophy will require changes in how Australian Army officers develop their warfighting skills. As a result, there is a need to ensure that Maneuver Theory as a doctrine is thoughtfully implemented in the Army. This will ensure the Australian Army fully achieves its potential as the philosophical and intellectual foundation for warfighting.

The aim of this paper is to explore the means by which the written doctrine of Maneuver Theory can make the transition from formal doctrine to be the true intellectual foundation for the Australian

Army's warfighting philosophy. The context is provided through an examination of the background of Maneuver Theory, and then an assessment of some of its chief advocates. Additionally, an examination of the history of Australian Army doctrine will review the path that the Army has taken to arrive at the conclusion that Maneuver Theory should provide the philosophical foundation for its warfighting.

The third, and final, part of this paper examines the progression from the introduction of Maneuver Theory into doctrine to its effective implementation in the Australian Army. A three step process is proposed in order to ensure the Australian Army realizes the full potential of this operational philosophy. These three steps are: institutional adaptation, robust professional military education, and effective validation.

Conclusions: In order to realize the full potential of the maneuverist approach, the Australian Army must undertake the following:

1. Institutional adaptation through leadership and cultural change.
2. Enhancing the existing officer training regime to ensure a robust professional military education system which supports the maneuverist approach.
3. Adoption of an effective validation system in order to monitor the progress of implementation of education designed to foster the maneuverist approach.

ACKNOWLEDGEMENTS

PREFACE

Maneuver Theory has been the subject of great debate over the past 15 years or so. The outcome of the Gulf War, in 1991, provided a particular emphasis in the debate. However, the nature of the debate on Maneuver Theory in the Australian military has been more limited than in other countries such as the United States. There has been a paucity of open discussion on the subject, through conduits such as professional journals (although the *Australian Army Journal* is only published 1-2 times per year). Unfortunately, as a consequence, it has been in foreign journals and books that I have received most of my education in Maneuver Theory. As a result of my readings, I have begun to comprehend what Maneuver Theory means.

The essence of Maneuver Theory is that it is not a means of fighting – it is a ***way of thinking***. While this may seem a pedantic distinction, the difference is most important. It can be applied by the largest and smallest of forces. It can be employed in battle and long before combat. It can even be utilized in the organisation and equipping of forces long before any type of hostilities is foreseen. It provides the means to out think, and therefore outfight, a potential enemy. In the tradition of Sun Tsu, it provides the means to win wars with minimal face-to-face battle. It provides a ***thought process*** to win if resort to open and prolonged hostilities is required. It provides an intellectual approach to the full spectrum of conflict.

Maneuver Theory potentially offers a means to win, especially for military forces that possess lesser numbers of personnel and advanced equipment than an adversary. It is here that Maneuver Theory offers much of value to the Australian Defence Force. The Australian Army in its keystone doctrinal publication Land Warfare Doctrine 1: *The Fundamentals of Land Warfare* (2001) has finally embraced the maneuverist approach as its official warfighting philosophy. This publication is the starting point for this paper.

This paper postulates that the maneuverist approach, while accepted as doctrine, will not be automatically practiced by Army officers. As a consequence, the Australian Army must undergo a process of implementation of the new doctrine. It is this process of implementation that I examine in this paper. However, officers ***cannot be 'trained'*** to apply maneuver theory. A checklist or template

cannot be applied to a given Concept of Operations to assess its 'maneuver theory content'. But officers can be *educated* to provide the prerequisites, or enablers, for the development of a maneuverist way of thinking.

The aim of this paper is to explore the means by which the written doctrine of Maneuver Theory can make the transition from more than just a formal doctrine to be the true intellectual foundation for the Australian Army's warfighting philosophy. To conduct this exploration, it has been divided into two parts: firstly, the context for the introduction of Maneuver Theory into the Australian Army; and secondly, the means by which it can be institutionalized. The second part of this paper also contains recommendations to assist in implementing Maneuver Theory in the Australian Army Officer Corps.

The context will be provided in an examination of the background of Maneuver Theory, and an examination of some of its chief advocates. Also, an examination of the history of Australian Army doctrine will also review the path that the Army has taken to arrive at the conclusion that Maneuver Theory should provide the philosophical foundation for its warfighting.

The second part of this paper will examine the logical progression from the introduction of Maneuver Theory into doctrine, through to its effective implementation in the Australian Army. A process for the implementation of Maneuver Theory will be proposed. In some respects, recommendations made in this paper may complement the general recommendations made in the Australian Army's *Project OPERA* reports of 2000. The proposals contained in this paper are as relevant to the Part-Time component of the Army as they are to the Full-Time component, for future warfare requires knowledgeable professionals, be they regulars or reservists.

PROLOGUE

The destruction wreaked on the United States on 11 September 2001 has been described by some commentators of military theory as the 'first blow' of Fourth-Generation War. Writers such as Lieutenant Colonel Thomas Hammes, William Lind, and Major John Schmitt have proposed that the massive changes in the global political, economic and social structure in the past ten years have resulted in a fundamental shift in how societies view, and conduct, war. As a consequence, warfare has undergone a generational change, from the Third-Generation 'time and space' military versus military style warfare, to a new Fourth-Generation Warfare.

FOUR GENERATIONS OF WARFARE[1]

FIRST GENERATION WARFARE
Tactics of line and column. Era of the smooth bore musket. Linear battlefield. Warfare between states.
SECOND GENERATION WARFARE
Tactics of linear fire and movement. Era of rifled musket, machine guns and indirect fire. Massed firepower replaces massed manpower. Warfare between states.
THIRD GENERATION WARFARE
Tactics based on maneuver rather than attrition. Driving force is ideas - ie. OODA Loop, etc. Warfare between states.
FOURTH GENERATION WARFARE
Warfare with, or between, non-state players. Dispersed warfare. Blurred distinction between war and peace.

In Fourth-Generation Warfare, nation states no longer have a monopoly on warfare. Equally important, the use of unconventional methods on indistinct battlefields across the spectrum of political, social, economic and military networks is the norm. The Clausewitzian Trinity - the government, the military and the people - becomes less relevant as national, international, transnational, and sub national[2] actors mix in complex, local, regional and global conflict. As Hammes postulates, Fourth-Generation Warfare has not yet been fully developed; rather it is still

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[1] This summation of the four generations of warfare is based in the 1989 article in the *United States Marine Corps Gazette.* William Lind, "The Changing Face of War: Into the Fourth Generation", ***United States Marine Corps Gazette,*** November, 2001, 65-66. It should be noted that one possible shortfall of this model is the apparent lack of consideration given to pre-gunpowder warfare.

[2] Lieutenant Colonel Thomas Hammes, USMC, "The Evolution of War: The Fourth Generation", ***United States Marine Corps Gazette***, September, 1994.

evolving. Consequently, the tactics used in Fourth-Generation Warfare will be a mix of all four generations of warfare. This is a monumental shift in how nation states reply to threats. As Lind wrote in the aftermath of the 11 September attacks: 'Fourth-generation warfare is the greatest change in war since the Peace of Westphalia in 1648, and it undoes what that treaty established: the state's monopoly on war.'[3]

The Australian Army anticipated this paradigm shift when it published in 1998 its keystone doctrinal publication, Land Warfare Doctrine 1: *The Fundamentals of Land Warfare*. It recognized that, along with an ongoing Revolution in Military Affairs, the major influence on the conduct of modern land warfare was, and would remain, the changing nature of the international system. *The Fundamentals of Land Warfare* acknowledged that globalization, ethnic strife, non-state actors, population growth, environmental degradation, and media presence would be significant drivers of change in the international system. Altogether these would therefore exert a large influence on the conduct of military operations.[4]

The 1998 edition of *The Fundamentals of Land Warfare* stated that a revised edition would be published in 2001. This has been the case. *The Fundamentals of Land Warfare* (2001) recognizes the continuing transformation of the Australian Army from an industrial-age to an information-age force. It builds upon the 1998 edition of *The Fundamentals of Land Warfare,* and a century of experience, to provide a more modern philosophy for how the Australian Army thinks about, and prepares for, conflict. One of the enhancements of the 2001 edition of *The Fundamentals of Land Warfare* is the adoption of Maneuver Theory as its official warfighting philosophy:

> The Army's warfighting philosophy is derived from multiple sources, including its understanding of the national character, the nature and history of warfare, the utility of land forces and their role in national military strategy. It also takes account of the nature of future conflict, the resources likely to be assigned, and the expectations of the Australian people. This warfighting philosophy must ensure that the Army retains strategic relevance while maintaining tactical superiority. To this end, the Army has embraced a warfighting philosophy called the *manoeuverist* [sic] *approach*.'[5]

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[3]   William Lind, "Fourth-Generation Warfare's First Blow: A Quick Look", **United States Marine Corps Gazette**, November, 2001, 72.

[4]   Land Warfare Doctrine 1, *The Fundamentals of Land Warfare* (Commonwealth of Australia, Australian Army, 1998), chap 4, 2-3.

[5]   Land Warfare Doctrine 1, *The Fundamentals of Land Warfare* - Final Draft (2001), chap 4, 1.

The Fundamentals of Land Warfare (2001) describes the essence of Maneuver Theory as *a way of thinking about warfare rather than a particular set of tactics or techniques*.[6] As a concept, Maneuver Theory seeks to attain objectives through the effective and economic use of force to defeat an enemy's plan rather than enemy forces. The application of Maneuver Theory concepts should result in armed forces conducting Maneuver Warfare. By establishing an operational tempo consistently faster relative to an enemy's tempo, the basic aim of Maneuver Theory is to maximize advantage.[7]

In 1990, Major John Schmitt wrote that the United States Marine Corps' commitment to the concept of Maneuver implied two things. Firstly, that it must be a powerful concept with very wide utility. And secondly, that all members of the United States Marine Corps "had better understand this concept very well."[8] Schmitt implies that when Maneuver Theory was adopted as the basis for the United States Marine Corps warfighting doctrine, it was not widely understood. A recent study on tactical understanding among Australian Army officers indicates that this is also probably the case for the Australian Army.[9] Introducing a new warfighting philosophy, coupled with the perceived, if not actual, weakness in tactical understanding in the Australian Army will necessitate changes in how Army officers develop their warfighting skills. Consequently, there is a requirement to ensure that Maneuver Theory as a doctrine is carefully implemented in the Army. This will ensure it fully achieves its potential as the philosophical and intellectual foundation for warfighting in the Australian Army.

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[6]   *The Fundamentals of Land Warfare* - Final Draft (2001), chap 4, 1.
[7]   Major John Schmitt, "Understanding Maneuver as the Basis for a Doctrine", **United States Marine Corps Gazette**, August, 1990, 94.
[8]   Schmitt, "Understanding Maneuver as the Basis for a Doctrine", 91.
[9]   Lieutenant Colonel Luke Carroll, *Tactical Understanding in the Australian Army Officer Corps*, Masters of Education Thesis (Southern Cross University, 1999), 61.

PART ONE
THE CONTEXT OF MANEUVER THEORY'S INTRODUCTION

Origins of Maneuver Theory in Australian Army Doctrine

Australian Army doctrine is derived from Australian Military Strategy. The Army supports this strategy through the provision to Government of options for both warfighting and military support operations.[10] It is unlikely that the Army will conduct operations to the exclusion of the other services. Consequently, Australian Joint Doctrine will also influence Army doctrine. Two key publications shape current Army doctrine: the 2000 *Defence White Paper,*[11] and the joint warfighting publication titled *Decisive Manoeuvre.*[12]

2000 Defence White Paper. The 2000 *Defence White Paper* is the extant document which describes Australia's strategic interests and objectives. Derived from this document is Australia's Military Strategy. This strategy determines the priorities for the Australian Defence Force (ADF), in addition to describing the principles which shape the ADF's approach to the roles it is allotted. A full discussion of the Australian Military Strategy is outside of the scope of this paper; however it is worth noting the three principles which shape the approach to be taken in undertaking the ADF's priority task: the defense of Australia.

The first principle is that of *self-reliance*; the ADF must be able to defend Australia without the assistance of combat forces of other countries. The second principle is the adoption of a *maritime strategy*; Australia must be able to control the sea and air approaches to continental Australia. The final principle is that of *proactive operations*; while Australia's strategic posture is defensive, this does not preclude attacks on hostile forces as far as possible from Australia's shores.[13]

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[10] Military Support Operations are those military activities which lay outside traditional warfighting roles. These include peacekeeping, evacuation of Australian and other nationals from unstable countries, and disaster relief operations. *The Fundamentals of Land Warfare* (1998), Chap 3, 16.

[11] The Parliament of the Commonwealth of Australia, *Defence 2000: Our Future Defence Force* (Canberra: Defence Publishing Service, 2000). Hereafter cited as *Defence White Paper*.

[12] Australian Defence Force Publication, *Decisive Manoeuvre: Australian Warfighting Concepts to Guide Campaign Planning*, 1998. Hereafter cited as *Decisive Manoeuvre*.

[13] *Defence White Paper*, XI.

These principles shape how the ADF will conduct operations, especially at the operational level of war. They also influence the types of capabilities which the Australian Army must maintain in order to contribute to the joint defense of Australia. Most importantly, however, these principles influence the warfighting philosophy of the ADF, and therefore the Army. While Australia's Military Strategy will affect the warfighting philosophy of the Army, there is one other key influence: joint warfighting doctrine.

Joint Warfighting Doctrine. Australian doctrine for joint warfighting is designed to establish guidelines for the planning and mounting of joint and combined campaigns to achieve national military objectives, which in turn support the national security strategy of the Australian Government.[14] The principal architect of Australian joint operations is Commander Australian Theater (COMAST). Commander Australian Theatre is charged with the conduct of the operational level of war. To facilitate this, the doctrinal publication *Decisive Manoeuvre* has become the keystone Australian joint warfighting publication.

This publication is crucial in any examination of Army warfighting doctrine. Given the assumption that all future operations by the ADF will be joint in nature,[15] Army warfighting doctrine must support the concepts contained in *Decisive Manoeuvre.* The over-arching warfighting concept, which is enabled by nine supporting concepts, is that of Decisive Manoeuvre. This concept is defined as: "The conduct of synchronized operations using assets from and within any or all environments to defeat the adversary by positioning in time and space the most appropriate force to threaten or attack critical vulnerabilities, thereby unhinging the center of gravity and obtaining maximum leverage."[16]

Decisive Maneuver explicitly adopts the principles of Maneuver Theory. The employment of the concepts of Maneuver Warfare is listed as *essential* to the conduct of Decisive Maneuver.[17] The principles of Maneuver Theory are also well evident within the stated aim of Decisive Maneuver:

> The aim of Decisive Manoeuvre [sic], and therefore the primary objective of the campaign, is to destroy the confidence of the adversary and to convince the

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14   *Decisive Maneuver*, chap 1, para 1.5.
15   *The Fundamentals of Land Warfare* (1998), chap 4, 11-12.
16   *Decisive Maneuver*, chap 1, para 1.10.
17   *Decisive Maneuver*, chap 3, para 3.6.

adversary's decision makers that they cannot achieve their objectives. This entails achieving a psychological advantage over the adversary. This advantage is achieved by weakening the confidence and morale of the adversary, dislocating the ability of the decision makers and their forces to control events and forcing them to become increasingly reactive to our actions. The intent is to sap the will of the adversary, forcing capitulation or cessation on our terms.[18]

The Australian Military Strategy and the concepts for joint warfighting provide the framework within which the Australian Army must operate. The service's doctrine, as it relates to the introduction of Maneuver Theory, will now be examined.

Land Warfare Doctrine 1: The Fundamentals of Land Warfare. Arguably the most important Australian Army doctrinal publication since the end of the Cold War is Land Warfare Doctrine 1: *The Fundamentals of Land Warfare*. First produced in 1998, and presently in the final stages of its second version, this publication is the Australian Army's keystone doctrine. It describes the Army's core philosophy on the conduct of military operations[19] and provides a foundation for a concept-led and capability-based fighting force.[20]

Both editions are maneuverist in philosophy. The 1998 version of *The Fundamentals of Land Warfare* uses the term Tactical Maneuver and gives it some of the following attributes: a clear understanding of the superior commander's intent, the use of deception to confuse the enemy and disguise friendly force intentions in order to achieve (tactical) surprise, and the control and variation of tempo to conserve the fighting power of our own forces.[21]

The origins of the doctrine contained in *The Fundamentals of Land Warfare (1998)* can be traced to the 1991 doctrinal publication *The Manual of Land Warfare1.1.4: Formation Tactics*. While retaining some of the leftovers of second-generation warfare, such as the linear battlefield,[22] this publication also embraced some of the fundamentals of the indirect approach, such as dispersed operations, deception, and directive control. It also emphasized the key role of the commander,

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[18]   *Decisive Maneuver*, chap 3, paras 3.2 and 3.3.
[19]   *The Fundamentals of Land Warfare* (1998), chap 1, 2.
[20]   *The Fundamentals of Land Warfare* (1998), ii.
[21]   *The Fundamentals of Land Warfare* (1998), chap 6, 5 - 6.
[22]   The publication contains a detailed diagram called 'Battlefield Layout' which describes and illustrates areas of influence and concepts such as Combat Zone and Comms Zone in a linear fashion. This linear fashion of thinking has now been surpassed by the acceptance of the chaotic and non-linear three-dimensional battlespace. Manual of Land Warfare 1.1.4., *Formation Tactics* (Australian Army, 1991), Chapter 1, 9. Hereafter cited as *Formation Tactics*.

acknowledging that "it is their intellectual grasp of warfare and leadership that will largely decide the outcome of battle".[23]

The 2001 version (final draft) of *The Fundamentals of Land Warfare* explicitly states that the Australian Army has accepted the philosophy of Maneuver Theory: "The Army has embraced a warfighting philosophy called *the maneuverist* [sic] *approach...*The maneuverist [sic] approach is based on manoeuver theory, which is way of thinking about warfare rather than a particular set of tactics or techniques".[24] The Australian Army doctrine embraces three conceptual components which combine to form its fighting power: the intellectual, moral and physical components.   It is with this warfighting philosophy that the Australian Army will face the challenges of Fourth Generation Warfare.

While Army doctrine may "embrace" the philosophy of Maneuver Theory, it is not automatically the case that the officer corps has embraced it. Important changes in the Australian Army's philosophical approach to warfighting cannot be implemented, however, by merely rewriting doctrine. A warfighting philosophy requires an Army that can execute it. As Richard D. Hooker suggests in *Implementing Maneuver Warfare* (1993), written doctrine is necessary but not sufficient to implement maneuver-based doctrine. The Australian Army must therefore institute changes to support the doctrinal adoption of Maneuver Theory as the intellectual basis for warfighting.   Institutional changes are necessary to fully realize the potential of this widely applicable warfighting concept.

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[23]   *Formation Tactics*, Chapter 1, 6.
[24]   *The Fundamentals of Land Warfare* (2001-final draft), chap 4, 1.

PART TWO
IMPLEMENTING MANEUVER THEORY

A Roadmap for Implementing Maneuver Theory

To realize the potential of Maneuver Theory as a warfighting philosophy, simply rewriting doctrine will not suffice. ***Institutional change*** is required to support this doctrinal shift. The reason for this is that a philosophy of warfighting requires an army that can implement it. The consequence of a new warfighting philosophy is the requirement to *adapt* the structure and mind-set of the organization to ensure it can *implement* the new philosophy. Therefore institutional change is essential. By promulgating doctrine which states that "the Army has embraced a warfighting philosophy called the maneuverist approach",[25] the Australian Army has taken the initial step in the process of implementing maneuver theory. While an important advance, more critical is the process by which the maneuverist approach is **accepted** as a warfighting philosophy in the Army. Publishing doctrine does not automatically equate to institutional understanding or acceptance

By their very nature, military organizations are resistant to change. Institutional change is not always an easy process. As Richard Hooker wrote:

> Institutional change is always difficult and can often engender resistance. Calls for change can be interpreted as criticisms of institutional norms and values and of service traditions and service culture. To some extent, senior leaders may feel vested in a system they understand, were raised in, and which nurtured and prepared them for command. They may interpret pressures for change as criticisms of the institution, and attack the credentials and qualifications of juniors and outsiders.[26]

Stephen Rosen even suggests that military organizations are "designed not to change".[27] When the subject of change arises, the Australian Army is no different to any other military service. As the 2000 *Project OPERA Review* recognized:

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[25]   *The Fundamentals of Land Warfare* (2001), chap 4, 1.
[26]   Richard Hooker, "Implementing Maneuver Warfare", *Maneuver Warfare: An Anthology* (Novato: Presidio Press, 1993), 217.
[27]   Stephen Rosen, *Innovation in the Modern Military: Winning the Next War* (New York: Cornell University Press, 1991), 2.

The practice of the *soldier's art* encourages reliance on tradition, precedent and *tribal* wisdom. First-hand experience of operations is valued and respected, and the more the better. *Regimental espirit*, much of it derived from past battle honours or simply from unit identity, is regarded as a key element of fighting power. It is not surprising, therefore, that Army officers…are somewhat suspicious of organisational change that, in subtle and unforeseeable ways, might endanger units and their traditions.[28]

But military organizations are capable of changing, and the Australian Army must do so if it is to realize the potential of Maneuver Theory as its basis for warfighting.

Institutionalizing the maneuverist approach in the minds of Australian Army officers need not be dramatic or traumatic for either the senior leadership or junior officers. The reason for this is that, while the term Maneuver Warfare may be relatively recent, the concepts that underpin it are not new. Many of these ideas have been present in Army doctrine for many years. Therefore this should not require a great change in mindset to qualify and implement.[29]

The first issue to be examined will be how the philosophy of Maneuver Theory can contribute to the Fighting Power of the Australian Army. An important constituent of Fighting Power is the intellectual component. Given that it is a "way of thinking about warfare rather than a particular set of tactics or techniques",[30] Maneuver Theory is an important element of this intellectual component. From this, a logical conclusion follows: the successful implementation of Maneuver Theory requires a highly developed professional military education system. Linked to this must be a method of institutionalizing Maneuver Theory. The object should be to ensure that Maneuver Theory realizes its potential as a warfighting philosophy for the Australian Army.

Maneuver Theory and Fighting Power

Individuals and organisations contribute to winning the land battle by exerting their intellectual, moral and physical strengths to defeat the enemy's will. Fighting power encompasses how the Army combines individuals and their supporting equipment into combat organisations.[31]

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[28]   *Project OPERA Review* (Australian Army, 2000), Annex E, E-9.
[29]   The Australian Army's 1991 publication Manual of Land Warfare 1.1.4, *Formation Tactics*, discusses concepts such as directive control, deception, dispersed operations and rapid concentration. Additionally, Maneuver Theory has been taught on Australian Army officer PME courses for at least the past four years.
[30]   *The Fundamentals of Land Warfare* (2001), chap 4, 1.
[31]   *The Fundamentals of Land Warfare* – final draft, 2001, chap 5, 9.

In 1998, the Australian Army adopted the concept of Fighting Power to describe its capacity to fight and win. This concept incorporated, and broadened, the previous concept of Combat Power.[32] The Fighting Power model proposes that land forces generate their combat capability through the combination of three interdependent components: intellectual, moral and physical. This is a derivation of J.F.C. Fuller's dictum that: "Human force is threefold: it is mental, moral and physical, but none of these forms of force can be expended without influencing the other two."[33]

In 2001, the revised draft edition of *The Fundamentals of Land Warfare* elaborated upon this concept of Fighting Power. A recurrent theme is the importance of the intellectual component in the generation of the Army's fighting power. As *The Fundamentals of Land Warfare* (2001) postulates, a maneuverist approach is primarily an intellectual construct rather than a physical one:

> "The maneuverist approach is based on maneuver theory, which is a way of thinking about warfare rather than a particular set of tactics or techniques…"[34]

The application of the intellectual component is expressed in three ways: analytical excellence, adaptability and concept-led innovation.[35]

Analytical Excellence. The epitome of analytical excellence is the ability of the commander and staff to produce successful outcomes through a superior decision cycle.[36] This follows the principles established in Colonel John Boyd's "Boyd Cycle" or OODA loop. *The Fundamentals of Land Warfare* (2001) formalizes the acceptance of this concept in the Australian Army. The Army expects a major contribution to success on the battlefield will be by its constantly going through the Boyd Cycle faster than an adversary.

As Bill Lind notes, the essence of maneuver is "…Boyd Cycling the enemy, being consistently faster through however many OODA Loops it takes until the enemy loses his cohesion".[37] Achieving this speed is not necessarily the preserve of physical assets such as fast moving armored

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[32]   Combat Power is described in *The Fundamentals of Land Warfare* (1998) as being the total means of destructive or disruptive force, which can be applied against an enemy at any given time. It comprises maneuver, firepower and morale. *The Fundamentals of Land Warfare* (1998), chap 5, 1.
[33]   J.F.C. Fuller quoted in *The Fundamentals of Land Warfare*, 2001, chap 5, 1.
[34]   *The Fundamentals of Land Warfare* – final draft, 2001, chap 4, 1.
[35]   *The Fundamentals of Land Warfare* – final draft, 2001, chap 5, 2.
[36]   *The Fundamentals of Land Warfare* – final draft, 2001, chap 5, 2.

formations, although these are still important. As John Antal wrote in *Thoughts About Maneuver Warfare* (1995), this speed comes through faster and more focused thinking. [38]

Adaptability. In any conflict, successful commanders must be able to accommodate continuously changing circumstances without being overwhelmed or neutralized. It requires individuals to be confident in their training and preparation for battle, and in their ability to master chaos. In *Understanding Maneuver as the Basis for a Doctrine,* John Schmitt addresses this. He wrote that Maneuver Theory is a: "…mental approach to conflict, born of opportunism, variety, and cunning, by which we create and exploit advantage as a means for success by creating a rapidly and continuously changing situation in which our enemy cannot cope."[39]

This description shares a common theme with Simpkin, when he suggests that 'Manoeuvre [sic] Theory draws its power mainly from opportunism.'[40] Maneuver Theory eschews the formulaic approach to warfare. It relies on the chaotic nature of war to permit quick thinking commanders to use speed, resolution, shock, and the enemy's lack of imagination[41] to produce successful outcomes. Australian Army officers must be tactical and operational opportunists. Adaptability thus becomes a key element of the intellectual component of Fighting Power. It is also a key element of the successful application of Maneuver Theory. As Lind penned in his *Maneuver Warfare Handbook*: "Maneuver warfare means you will not only accept confusion and disorder and operate successfully within it, through decentralization, you will also generate confusion and disorder."[42]

Concept-led Innovation. While a more abstract element of the intellectual component, concept-led innovation plays an important part in the realization of Fighting Power. A significant element of concept-led innovation is the development of concepts and doctrine to support military operations.   The foundation of new doctrine and concepts will be the Army's warfighting philosophy: the maneuverist approach.

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[37]   William Lind, *Maneuver Warfare Handbook* (Boulder, 1985), 6.
[38]   John Antal, "Thoughts About Maneuver Warfare", *Maneuver Warfare: An Anthology*, *Anthology* (Novato: Presidio Press, 1993), 70.
[39]   Schmitt, *Understanding Maneuver as the Basis for a Doctrine*, 98.
[40]   Richard Simpkin, *Race to the Swift: Thoughts on 21ˢᵗ Century Warfare* (New Delhi: Brassey's Defence Publishers, 1997), 22.
[41]   Richard Hooker, "Ten Myths About Maneuver Warfare", *Maneuver Warfare: An Anthology* (Novato: Presidio Press, 1993), 79.
[42]   Lind, *Maneuver Warfare Handbook*, 7.

From the above examination of the intellectual component of Fighting Power, it is clear that the primary focus of adopting Maneuver Theory as a warfighting philosophy is the fostering of military intellects able to thrive in chaotic wartime environments. Consequently, the implementation of Maneuver Theory as a warfighting philosophy requires a robust education system, aimed at developing the military intellect.

Maneuver Theory demands an intellectual officer. Morris Janowitz, in *The Professional Officer*, examined this concept. He defines such an individual as one who brings an intellectual dimension to his job, but where that intellectual quality is "held in check by the needs of the profession". Differentiating the intellectual officer from the military intellectual, it is the intellectual officer who applies Maneuver Theory. [43]

Some Views on Implementing Maneuver Theory

> *The process of selling maneuver (ist)…doctrine to the army may be far more difficult than the development of the doctrine itself.*[44]

A large number of books and journal articles on Maneuver Theory, and Maneuver Warfare, have been published in the past two decades. These publications, however, normally focused on the components of Maneuver Theory and Maneuver Warfare. The majority of the writers have discussed the core themes of these concepts, without proposing how military organizations can implement them. However, three prominent theorists have discussed how to achieve the institutional acceptance of the maneuverist approach. Each has contributed either through their written work (books and professional journals) or through their actual experience in implementing the concept in a military organization. The aim of this examination is to find common threads which may assist in producing a workable plan for the implementation of Maneuver Theory in the Australian Army.

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[43] Janowitz defines the military intellectual as one whose attachments and identifications are primarily with intellectuals and intellectual activities. This in no way infers that military intellectuals are less important than intellectual officers. In many cases it is these military intellectuals who produce the foundations for strategy and tactics. Examples of this are Clausewitz and A.T. Mahan. Janowitz, *The Professional Officer*, (New York, 1960), 431-2.

[44] Michael Meese, "Institutionalizing Maneuver Warfare: The Process of Organizational Change", *Maneuver Warfare: An Anthology*, *Anthology* (Novato: Presidio Press, 1993), 212.

Richard Hooker.

Richard Hooker has written on methods to implement a maneuverist thought process. In his essay, *Implementing Maneuver Warfare*, Hooker asserts that merely rewriting doctrine will not result in a change in the way an army fights. A warfighting philosophy requires an army that can implement it. As a consequence, ***institutional change*** is required to support doctrinal change. As he wrote:

> Maneuver warfare, to be accepted and embraced service wide, must be perceived internally as a sound, effective, evolutionary step leading to a more capable army. Viewed in this light, institutional changes needed to complement evolutionary changes need not be interpreted as challenges to the status quo. Instead, they should be seen as opportunities to build upon existing strengths to improve the…warfighting capabilities of the force.[45]

Hooker proposes that a key requirement is to re-examine the leader training process as a precursor to implementing maneuver warfare. He accepts and postulates that not all individuals will be able to grasp the philosophy of maneuver theory. The key is to identify those that can and place them in positions where their talent will have the greatest impact.[46] Leader selection should not be based on fairness. In a "fair" system all officers are provided maximum schooling, competitive postings, and equal opportunity to compete for promotion. Recognition must be made of the fact that not all officers will be equally capable.[47] To do so, the Army must overcome what Hooker terms its "aversion to elitism". However, only by doing so can any military force most effectively realize the intellectual potential of its leaders.

Hooker proposes that unit-conducted individual training plays a vital role in implementing a maneuverist approach. Commanders must be freed of some of their administrative responsibilities in order to participate in, and lead, additional officer training. He states that instruction should focus on two elements: battle and how to think. Anything outside of these two subjects should not be

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[45]   Hooker, "Implementing Maneuver Warfare", 217.
[46]   Hooker, "Implementing Maneuver Warfare", 218.
[47]   Project OPERA has recognised the shortfalls of this system of "fairness" as contributing to fewer officers becoming expert at their profession, a lowering of morale as officers recognize they are unlikely to make a difference in individual postings that are too short, and the focus on building individuals at the expense of organizational effectiveness. *Project OPERA Review*, Submission 1, 31-34.

allowed to dominate.[48]   While tactics and techniques are important, they must be taught within the context of the desired thought process.

Leaders must be educated to operate within the "framework of the commander's intent to achieve the desired outcome".[49]   Commanders must personally conduct training, which rewards aggressiveness, risk taking (as opposed to foolhardiness), innovation and initiative.[50]   Officers must be trained to understand operations two levels up from their own command. As Hooker states: "In every conceivable way, every leader must be imbued with the fundamentals of maneuver warfare: the commander's intent, focus of effort, mission orders and the use of strength against weakness…Leaders at every level must understand that what matters most is their results."[51]

Students must be forced to come to a decision and defend it. The best way to train officers to make decisions is to give them plenty of practice in making decisions. Hooker's approach to officer education focuses on the ability for officers to assess, decide, and act. He advocates the emphasis on results, not adherence to proscribed formats.

Michael Meese.

Michael Meese is another writer on how to implement maneuver warfare. In doing so, he combines military history and innovation in the business sector, including studies of organizational culture and stress. As he states in his paper "Institutionalizing Maneuver Warfare", *innovation in military organizations is a long process*.[52]   Meese proposes strategies that can aid in the innovation process leading to the institutional acceptance of Maneuver Theory. While accepting that no one step can assure the acceptance of the maneuverist approach, he proposes five key elements:

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[48]   Hooker, "Implementing Maneuver Warfare", 225.
[49]   Hooker, "Implementing Maneuver Warfare", 223.
[50]   While this may appear to be obvious, a trend of risk aversion by junior officers in the Australian Army has been identified. This issue was highlighted in the Project OPERA review, which found that "…many commanders and officers…told us that ADFA graduates tend to be more risk-averse than most of their peers. There are two sides to this problem. The first is adversity to chancing failure and the second is individual survival…Since its inception ADFA, for good reasons, has been the subject of many internal and external enquires. Public critics watch it closely. The result is that the organisational climate of ADFA is one of 'zero defect', where many staff members are very concerned about their own survival. This flows down to the cadets: as each new class of impressionable young men and women arrive they learn to survive – to look after No 1." What the report implies is that this climate is due to the external pressure from senior defense officers and civilians to avoid scandal and controversy at ADFA. This pressure is hardly conducive to developing a maneuverist approach to warfighting in these future officers. *Project OPERA Review*, 27.
[51]   Hooker, "Implementing Maneuver Warfare", 224.
[52]   Meese, "Institutionalizing Maneuver Warfare: The Process of Organizational Change", 211.

1.   Developing an understanding for the process of doctrinal innovation,

2.   Choosing analogies and simplifications with care,

3.   Focusing on organizational champions,

4.   Cautious evaluation, and

5.   Supporting the complements to maneuver warfare.[53]

By understanding the innovation process for new doctrine, Meese asserts that doctrinal debate must remain fixed at the appropriate level. The concept of Maneuver Theory, and supporting concepts, must remain the focus of debate. For example, during the process of doctrinal innovation, it is not necessary to argue whether wheeled or tracked armored vehicles best fit the maneuverist approach in the Australian context. This type of decision will be made during what Meese calls the "diffusion stage". Using business innovation models, Meese defines the diffusion stage as "the phase that determines the permanence of the organizational change".[54] Meese then proposes that in the implementation of Maneuver Theory, this may take the form of rewarding officers who adhere to the new concepts.

Meese proposes that organizational champions are essential for the implementation of the maneuverist approach. By doing so, however, Maneuver Theory should not be associated with specific individuals as this can lead to an assessment of the concept based on the individual. Organizational champions are necessary to first, assimilate the new doctrine, and then facilitate its implementation. These organizational champions must support and facilitate rigorous analysis of the new doctrine. Truly objective evaluation of the concept supports the organizational champions in their process.

According to Meese, a major part of the implementation process is supporting the complements of the maneuverist approach. The key to this is the increased education of officers and senior non-commissioned officers. Meese proposes increased study in military history, war gaming, tactics, and professional development as essential to implementing Maneuver Theory.

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[53]   Meese, "Institutionalizing Maneuver Warfare: The Process of Organizational Change", 206-208.
[54]   Meese, "Institutionalizing Maneuver Warfare: The Process of Organizational Change", 200.

General Alfred M. Gray, USMC.

> *Historically, maneuver warfare has been the means by which smaller but more intelligently led forces have achieved victory. It is, therefore, my intention to have us improve upon our understanding of the concepts behind maneuver warfare theory and to train our units in their application.[55]*

In 1981, General A.M. Gray preempted Marine Corps doctrine by implementing the concept of Maneuver Theory while commanding the 2nd Marine Division.[56] The institutionalization of Maneuver Theory occurred in the United States Marine Corps when Gray became Commandant. Under his direction, the Maneuver Warfare warfighting philosophy replaced Methodical Battle,[57] and his methods of institutionalizing the change are worth examining here.

According to McKenzie, Gray was "an aggressive innovator and maneuverist, he soon transformed the 2nd Division into a virtual cauldron of bubbling, evolving doctrine".[58] Gray advocated and reinforced the maneuverist approach in two important ways. First, he established a 2nd Marine Division Maneuver Warfare Board. The role of the board was to coordinate the dissemination of lessons from Maneuver Warfare experiments conducted by units within the division. It also disseminated recommended reading lists and published a Maneuver Warfare 'battle book' for 2nd Division commanders.[59] This "battle book", entitled *Study on the History and Modern Application of Maneuver Warfare*, provided guidance to these commanders on the principles for maneuver warfare by functional grouping.[60]

His second innovation was to identify and promulgate his five concepts for the realization of the maneuverist approach. These then became the focus in training and education within the 2nd

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[55]   General Alfred M. Grey, quoted in CAPT Kevin Clovers article "Maneuver Warfare: Where are we now?", *United States Marine Corps Gazette*, February 1988, 54.
[56]   General Gray's implementation of the maneuverist approach in the 2nd Marine Division is covered in the Lieutenant Colonel K.F. McKenzie's article, "On the Verge of a New Era: The Marine Corps and Maneuver Warfare", *United States Marine Corps Gazette*, July 1993, 64.
[57]   Colonel Michael Wyly, USMC, "Teaching Maneuver Warfare", *Maneuver Warfare: An Anthology*, 248. Wyly's paper on teaching Maneuver Warfare contains a comparison of the U.S. Marine Corps doctrine prior to 1989 - Methodical Battle - and afterwards - Maneuver Warfare.
[58]   McKenzie, "On the Verge of a New Era: The Marine Corps and Maneuver Warfare", 64.
[59]   Marine Corps Research Centre Archives, Gray II PC# 2580, Box 39, 2nd Marine Division *Maneuver Warfare Newsletter*, Issue No. 1, undated, 1.
[60]   The functional areas covered in the "Battlebook" were: Field Order, Battlefield Communications, Combat Intelligence, Reconnaissance, Operations, Battlefield Logistics, Combat Engineer Operations, Supporting Arms, and Conduct of Field Exercises. Marine Corps Research Centre Archives, Gray II PC# 2580, Box 40, 2nd Marine Division *Study on the History and Modern Application of Maneuver Warfare*, undated.

Marine Division. These five ideas were: the Boyd OODA loop, mission tactics, commander's intent, the concept of Point of Main Effort, and the concept of Surfaces and Gaps. As stated in the 1983 2nd Marine Division Training Program:

> We in the 2nd Marine Division believe there is more to winning than simply practicing and mastering the basic techniques which have been tested and proven over time. The best way to produce commanders who can think and fight effectively…is to train them early. The maneuver style of fighting, or 'audacity warfare' presents the best opportunity today for future success against a formidable and perhaps even superior force. The concepts are simple, though often misunderstood, and need to be practiced. [61]

During the experimentation with Maneuver Warfare in the 2nd Division, General Gray strived to "create an atmosphere that nurtured mission tactics, or decentralized execution". [62] This was done within the construct of commander's intent.

In 1987, when General Gray became Commandant of the Marine Corps, he had a major goal: the adoption of Maneuver Warfare throughout the entire United States Marine Corps. As Commandant, he sought to compliment this new warfighting doctrine with enhanced education for those who would practice Maneuver Warfare. During his tenure as Commandant, Quantico became the intellectual centre for the U.S. Marine Corps. The Marine Corps War College and School of Advanced Warfighting were established, and a new Marine Corps Research Centre built.[63] This leadership of General Gray in the campaign to implement Maneuver Warfare culminated in the publication of FMFM 1, *Warfighting* in 1989.[64] The result of General Gray's advocacy and leadership on this issue resulted in Maneuver Warfare being accepted into Marine Corps doctrine as its warfighting philosophy.

Review of Strategies - Summary.   While the foundation concepts of Maneuver Theory may be found in the new version of *The Fundamentals of Land Warfare* and the joint publication *Decisive Maneuver,* institutionalizing the philosophy of Maneuver Theory among the officers of the Australian Army will be a much greater challenge. With regards to the implementation of

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[61]   The focus on these five foundations for realizing the maneuverist approach to warfighting is explained in the 2nd Marine Division *Training Program*, June 1983, 6.
[62]   McKenzie, "On the Verge of a New Era: The Marine Corps and Maneuver Warfare", 64.
[63]   This process was summarized in Headquarters U.S. Marine Corps, *Concepts and Issues*, 1990.
[64]   McKenzie, "On the Verge of a New Era: The Marine Corps and Maneuver Warfare", 64.

Maneuver Theory, it is clear that one fundamental element is a robust system of professional military education. As Lind states, "military education is basic to the definition of maneuver warfare and is an integral component of tactics and the operational art. Without military education, tactics and operations become little more than applied checklists."[65] However, to succeed, the robust military education required to underpin maneuver warfare must be encouraged and supported at the highest levels of the Army. This requires an organizational champion who has both the will and the power to undertake the institutional change needed to realize a more positive environment in the Army for enhanced military education. It must be followed by a sound and objective assessment system.

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[65]   Lind, *Maneuver Warfare Handbook*, 42.

PART THREE
A PLAN FOR IMPLEMENTING MANEUVER THEORY IN THE
AUSTRALIAN ARMY

The following three-step plan is a proposed strategy for the implementation of Maneuver Theory in the Australian Army:

STEP 1. **INSTITUTIONAL CHANGE - BROUGHT ABOUT THROUGH LEADERSHIP AND ORGANIZATIONAL CHAMPIONS.**

STEP 2. **IMPLEMENTATION OF A ROBUST SYSTEM OF MILITARY EDUCATION AND TRAINING DELIVERED IN BOTH TRAINING SCHOOLS AND UNITS.**

STEP 3. **IMPLEMENTATION OF A SOUND VALIDATION SYSTEM WHICH ASSESSES BOTH INDIVIDUAL AND COLLECTIVE (STAFF) COMPETENCE IN THE MANEUVERIST APPROACH TO WARFIGHTING.**

STEP 1
INSTITUTIONAL ADAPTATION THROUGH LEADERSHIP
AND ORGANIZATIONAL CHAMPIONS

Institutional Adaptation

The requirement for institutional adaptation, or change, is a common theme among the writings of those who have proposed strategies for implementing Maneuver Theory. Meese, Hooker, and Lind are all advocates of institutional change in order to implement Maneuver Theory. An important aspect of this institutional change is the requirement for *organizational champions* to lead this process.. Examination of literature that has studied organizational change in the business and government sectors also indicates that the role of senior leaders in becoming role models is

extremely important.[66]   This is not always simple; as H.L. Tosi states in *Why Leadership Isn't Enough*, "there is no one more skeptical of a change to a more organic organization than a senior, high-level official in a mechanistic organization that has performed effectively for a long time."[67]

However, just as General Gray was an advocate throughout the 1980s for the implementation of maneuver warfare in the United States Marine Corps, the Australian Army must possess its own organizational champion(s) to implement Maneuver Theory.   The leadership of this process of implementing Maneuver Theory must be highly visible, yet open to debate on the subject. Organizational champions must come from within the Australian Army.

In the United States Army, a well-known advocate of change was General Don Starry. In his published essay *To Change an Army* (1983), General Starry noted the requirements for effecting change and ascertained these through an examination of the principle agents of change in major armies in the 20th century.   Three of General Starry's ideas provide further insight into the process of change required in the Australian Army to implement Maneuver Theory.   These three key elements are: someone near the top of the organization supporting the change, the requirement for building consensus, and the need for a spokesman for change.[68]

General Starry articulated the need for "some one near the top of the institution" to embrace new operational concepts and be a champion for the cause of change. There is also a requirement for a spokesman who can advocate this whilst building consensus. Starry notes that this spokesman can be an institution, a staff agency, or even a maverick.[69]   While the use of 'mavericks' to effect change is sometimes attempted, Stephen Rosen proposes that history shows that this has in the vast majority of cases been counter-productive by reducing the willingness of the professional military to

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[66]   Stephen Robbins, *Organizational Behavior: Concepts, Controversies, Applications* (New Jersey: Prentice-Hall, 1998), 616.

[67]   H.L. Tosi, "Why Leadership Isn't Enough", *Leadership on the Future Battlefield*, 131.

[68]   General Don Starry, "To Change an Army", *Military Review*, March 1983, 23.

[69]   The themes developed by General Starry were further developed by Colonel Huba Wass de Czege, U.S. Army, in his 1984 paper, "How to Change an Army" which was published in the *Military Review*, November 1984.   It is apparent, however, that not all senior US Army officers share these views on the role of mavericks in the system. On 20February 2002, *The Washington Post* published allegations that Colonel Douglas Macgregor, a well known advocate for change and author of *Breaking the Phalanx* (1997), had angered senior Army generals because of his views on Army transformation. The newspaper asserted that he had been removed from the US Department of Defense's Office for Force Transformation and sidelined in an Army position.   Thomas Ricks, "A test Case for Bush's Military reform Pledge?", *The Washington Post*, 20 February 2002.

accept new ideas.[70] Hooker also found that "externally driven change which does not embody the organization and which neglects the normal process of consensus building will often fail".[71]

Therefore, senior officers from the Chief of Army down must be the role models for junior officers. Not only must senior officers encourage the pursuit of excellence in professional military education of their subordinates, but they must be receptive to new ideas and the debate that is associated with them. They must also be seen to be furthering their own professional capabilities and expertise. There is no substitute for leadership by example.[72] Officers who are brought up within an environment where professional military education is strongly encouraged, and the pursuit of excellence institutionalized, will be more likely to encourage and nurture their own subordinate officers.

While leadership is required at the highest levels, leaders at all levels down to company command have a responsibility to inculcate in their subordinates the enablers for the maneuverist approach. Army officers, from their first day at the Royal Military College Duntroon, must be inculcated with the desire to learn more about their profession.   This desire must be nurtured and encouraged to produce graduates firmly focused on warfighting and leadership, who also independently seek learning opportunities. The entire process of re-socializing young men and women into young Army officers must instill the pursuit of both intellectual as well as physical excellence.[73]

On arrival in their first units, the encouragement and nurturing of junior officers must pass to their Commanding Officers. While commanders have a wide range of responsibilities, the continuing education and preparation of their officers for future duties is a necessary building block

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[70]   In *Winning the Next War*, Rosen provides the examples of Mitchell, Liddell-Hart, and Hyman Rickover as examples of 'military mavericks' who sought to innovate by going outside of the military system. In the case of Mitchell, Rosen found that even his greatest advocate, Hap Arnold, believed Mitchell's period of influence benefited the development of the U.S. Air Force. In the case of Liddell-Hart, his ideas were not taken up by the British Army until the Second World War. Rosen found that in the case of Hyman Rickover, nuclear propulsion was in the obvious interest of the U.S. Navy and senior officers therefore supported him despite his fiery advocacy of nuclear submarines, not because of it. Rosen, *Winning the Next War*, 12-13.
[71]   Hooker, "Implementing Maneuver Warfare", 217.
[72]   Leading by example is one of the nine principles of leadership listed in the Australian Army's *Handbook on Leadership*, 1973, chap. 7, 1.
[73]   The pursuit of excellence was found to be a key enabler, by the Project OPERA review, for officers to become masters of their profession. *Project OPERA Review*, 50.

in preparing their units for conflict. They must undertake a regular and robust program of officer education and training, the content of which will be covered later in this paper.

An important part of implementing new ideas is the existence of a common cultural perspective among the officers of the Australian Army. General Starry and Colonel Wass de Czege, writing in *How to Change an Army* (1984) postulated that the pre-World War II German Army readily accepted new ideas. Because of thorough common theoretical preparation of the German General Staff, there was little theoretical debate on the 'why' level, but on the quality of those ideas.[74] The Australian Army, at present, lacks robust, open debate about new doctrine on either level.

Therefore, a second element of any institutional change is the need to examine the culture of the organization to ensure it is one that encourages and nurtures the desire to learn and innovate. Changing the culture of any organization is difficult, but this is especially so within the military because change is often interpreted as criticism of institutional norms, values and service traditions.[75] But cultural change is possible, and it is necessary, to implement Maneuver Theory in the Australian Army.

An Impediment to Change - the Australian Army's Culture?

> *To maximise the intellectual capital of the Officer Corps, Army's senior leaders must commit to fostering a culture and climate that searches for new information, is open to challenge and receptive to change. Adopting such an approach accepts the turbulence associated with change and will produce officers who are better able to anticipate opportunity, manage risk, act decisively, and to learn from experience.[76]*

The Culture of the Australian Army

An organization's culture is an expression of its enduring values and purpose, and represents the shared foundation for organizational understanding and action.[77] This culture develops over

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[74]   Wass de Czege, "How to Change an Army"*,* 37.
[75]   Hooker, "Implementing Maneuver Warfare", 217.
[76]   *Project OPERA Review*, Submission 2, 52.
[77]   Lieutenant Colonel Greg De Somer and Lieutenant Colonel D. Schmidtchen, *Professional Mastery: The Human Dimension of Warfighting Capability for the Army-After-Next,* Land Warfare Studies Centre, Working Paper 107 (Canberra: Land Warfare Studies Centre, 1999), 31.

time as a result of the shared experiences of its members, past and present, exists within the organization. Military organizations possess their own unique cultures. As Samuel Huntington wrote in 1985, "the members of a profession share a sense of organic unity and consciousness of themselves as a group apart from laymen. This collective sense has its origins in the lengthy discipline and training necessary for professional competence, the common bond of work, and the sharing of a unique social responsibility."[78]

Like the military forces of other nations, the Australian Army possesses its own unique culture. Forged in battle over the past 100 years, the ANZAC tradition of mateship is just one element of culture in what *The Fundamentals of Land Warfare* calls "a unique national institution".[79] There have been various other influences that have, or continue to, affect the culture of the Australian Army.

An excellent examination of the culture of the Australian Army was conducted in *the Project OPERA Review* (2000). Contained in the report is an annex entitled "What is an Army Officer?" This is a detailed exploration of the existing culture of the Australian Army, and examines it with a view to developing the competencies of officers employed at the tactical, operational and strategic levels of command.[80] This is important, for "Knowing who or what the Australian Army's officer corps is, is essential to developing ways of improving officer professional effectiveness within today's Army and for growing officers to command and lead the Enhanced Combat Force (ECF) and the Army After Next (AAN)."[81]

What has influenced the Army's culture?

Major A.J. Campbell examined this in *The Need for an Australian Philosophy of War* (1996). Campbell contends that there have been five major influences that have shaped culture within the Australian Army. These are:

1. Australia's colonial history and its British military heritage.

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[78]   Samuel Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: The Belknap Press of Harvard University Press, 1985), 10.
[79]   *The Fundamentals of Land Warfare*, 1998, iii.
[80]   *Project OPERA Review*, Submission 1, Annex E, E-1.
[81]   *Project OPERA Review*, Submission 1, Annex E, E-1.

2. Modern American concepts of warfighting.

3. The Germanic legacy of the General Staff era, which Campbell believes
    continues to hold a romantic influence within many western militaries as the
    ideal of operational proficiency.

4. Australia's existing strategic guidance.

5. Emerging social trends which indicate the influence of society on its
    warfighting organisation.[82]

Campbell's fifth influence, social trends, been very significant in the evolution of the Australian Army's culture. These influences have included national traditions, attitudes, habits, values, symbols, and particular ways of adapting to the environment and solving problems.[83]

Unfortunately, these influences of wider society have not always been positive. Negative aspects of Australian society such as anti-intellectualism have also been in evidence in the Australian Army.[84] Regarding professional military education, there exists a subtle yet definite anti-intellectual bias with the Australian Army. Michael Evans' study paper *Forward from the Past* (1999) proposes out that the Australian Army possesses an anti-intellectual culture.[85] Evans contends that:

> A striking characteristic of the Australian regular Army is the paradox of an officer corps composed of many highly talented individuals but possessing a weak collective intellectual ethos…a lack of collective intellectual rigour in the Army's culture has affected both doctrine development and intellectual debate over the last quarter of a

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[82]   Major Angus Campbell, *The Need for an Australian Philosophy of War*, Fort Queenscliff Papers, (Queenscliff: Australian Army Command and Staff College, 1996), 34.

[83]   De Somer, *Professional Mastery*, 31.

[84]   Robert Dessaix conducted an open debate on anti-intellectualism in Australian society on the Australian Broadcasting Corporation radio network in 1997. Entitled *Rethinking Australia: Intellectuals and Public Culture*, the debate was broadcast between 6 April and 29 June 1997. It featured well-known Australians such as Helen Garner, Donald Horne, Phillip Adams, and Robert Manne. In the concluding session broadcast on 29 June 1997, Andrew Riemer, a lecturer in the English Department at Sydney University and freelance literary commentator, stated that **"** I guess the intellectual life is something where you're capable of broad thought, of analytical thought, even perhaps of theoretical thought, above and beyond the particular discipline or a particular expertise. And that would be my definition of an intellectual. As far as public intellectuals are concerned, I think that there is not the circumstances in this country…where such an individual can emerge… I think for a public intellectual there has to be a culture, a genuine urban culture, which provides a matrix of talk… I don't think it's there so much now." http://www.abc.net.au/rn/rethink/ accessed 9 Jan 2002.

[85]   Dr Michael Evans, *Forward from the Past: The Development of Australian Army Doctrine 1972-Present* (Canberra: Land Warfare Studies Centre, 1999), 75.

century…The officer corps has often demonstrated an intellectual reluctance to debate new concepts in the context of a doctrinal framework.[86]

If true, this is a critical judgment of the Army's approach to a profession that, in the words of the Marine Corps publication *Warfighting*, is a "thinking profession". [87]

Further evidence of this anti-intellectualism can be found in the limited amount of open debate in military literature. The Australian Army currently produces one edition of the *Australian Army Journal* per year: in 1999 and 2000, only one issue was produced.[88] To have only approximately 10 journal articles produced per year, in an army with 6067 officer positions,[89] should be a concern for an organisation that sees itself as possessing officers that pride themselves on "their competence and values, their critical and conceptual thinking, their expertise and dedication to learning".[90] Between 1979 and 1989, when Maneuver Warfare was introduced as the United States Marine Corps warfighting philosophy, 39 separate articles on Maneuver Theory and Maneuver Warfare alone were published in the *Marine Corps Gazette*.[91] No equivalent open debate has occurred prior to the introduction of Maneuver Theory as the Australian Army's warfighting philosophy.

In a message at the start of the 1999 edition of the *Australian Army Journal*, then Chief of Army Lieutenant General Frank Hickling wrote that the aim of the journal was "To provide a medium through which to convey the latest trends in military thought and developments, and to stimulate thought and encourage the study of military art…the aims for the journal will not be realized without the professional effort of all ranks in providing contributions."[92]

Unfortunately, the journal appears to have failed in this objective. This is primarily due to the lack of emphasis in the Army on thinking about, and discussing, conceptual, technological, and

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[86]   Evans, *Forward from the Past*, 75.
[87]   MCDP 1, *Warfighting*, 57.
[88]   The 1999 *Army Journal* incorporated the previous *Combat Arms Journal* and *Combat Services Support Journal*. This edition contained 12 articles and the 2000 edition contained 10 articles. No journal was published in 2001 – the 100th birthday of the Australian Army.
[89]   This total includes 758 Officer Cadet positions. The total regular Army Officer liability quoted is that current as at 28 February 2002. Of these positions, 5220 were filled as at 28 march 2002. In addition to regular officer positions, the Australian Army Reserve has a liability of 4594 officers and officer cadets (as at 14 March 2002), with 3443 of these positions filled as at 14 March 2002. "State of the Army – Personnel Issues", *Army: The Soldiers Newspaper*, Australian Army, 28 March 2002.
[90]   Taken from the Army Officer Corps vision statement contained in *Project OPERA Review*, Submission 2, 11.
[91]   McKenzie, *On the verge of a new era: The Marine Corps and Maneuver Warfare*, 63-7.
[92]   *Australian Army Journal*, Issue 1/99, iv.

doctrinal issues. The Army does not possess a professional journal that can yet be compared to *Parameters*, *Military Review,* or the *Marine Corps Gazette.*

The problems of anti-intellectualism are exacerbated by the lack of intellectual diversity. This deficiency was a key finding of the *Project OPERA Review*. As the review document states, diversity 'enables members of a command and staff team to view problems from different perspectives and the team to understand a much broader set of connections and relationships'.[93] Given that Maneuver Theory has a wide range of interpretations, intellectual diversity across the officer corps is a necessity.

This anti-intellectualism is not unique to the Australian Army and has been explored in literature which has analyzed military culture. In *The Professional Soldier*, Morris Janowitz examined the inclination of military organizations to tend towards anti-intellectualism. He concludes that:

> Negativism toward intellectual pursuits is rooted partially in the fear that unguided intellectualism produces irresponsibility. Clearly, action, and responsibility for one's action, are more valued than reflection in an organisation where combat is the basic goal. Thus, despite its propensity to introduce technological change, the military establishment remains resistant to sudden innovations or brilliant insights which might cause doubt and temporary paralysis.[94]

This resistance to change that Janowitz explored is also one element examined by Richard Simpkin in *Race to the Swift*. Simpkin's theory of "The 50-year Cycle" examines how difficult it is to change the culture of a military organisation. He discusses how even small armies can possess an organizational inertia greater than size alone would suggest. In his examination of the history of warfare, Simpkin suggests that a 30-50 year time lag exists between when a new technique (or idea) becomes feasible or apparent, and then its full scale adoption. [95]

The current pace of technological development and innovation, with its ensuing ramifications for military forces, has compressed Simpkin's 50-year Cycle. However, rapid technological

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[93] *Project OPERA Review*, Submission 1, 35. To its credit, the review notes that '…the Australian Army must consider ways of diversifying its officer corps, especially more diverse undergraduate education than that currently offered at ADFA.
[94] Janowitz, *The Professional Soldier*, 431.
[95] For a more detailed examination of this theory, see Simpkin, *Race to the Swift,* 4-8.

development does not automatically remove organizational inertia from military forces. This is possible for a culture to remain which can be an impediment for doctrinal and organizational innovation and change.[96]

One conclusion thus becomes obvious: To institutionalize a philosophy that emphasizes the intellectual approach to war, the Australian Army must alter its current culture. It must overcome the barrier of anti-intellectualism in the service. This is easier said than done, for as Schmidtchen and de Somer point out, "culture is the element of any organisation most difficult to change".[97] But with determined leadership, and a robust professional military education system, change can be effected.

Summary - Institutional Change. In order to implement Maneuver Theory as a warfighting philosophy, the Australian Army requires change. There must be a champion for the cause. There must be a member of the Army who not only understands the concept, but is also able to build a consensus for its implementation. This person must be a senior officer, who in General Starry's words must be "near the top of the institution". This individual must effect changes to ensure that the Army overcomes its anti-intellectual culture so that Army officers embrace this philosophy of warfighting.

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STEP 2

IMPLEMENTATION OF A ROBUST SYSTEM OF

MILITARY EDUCATION AND TRAINING

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Professional Military Education and Training

It is postulated that the philosophy of Maneuver Theory cannot be taught. The philosophy of Maneuver Theory can only be developed indirectly through an officer's exposure to a wide range of educational and training experiences. *The Fundamentals of Land Warfare* (2001) lists a variety of enabling concepts for the implementation of the maneuverist approach. These are: joint warfighting, the employment of combined-arms teams, the capability to generate the effects in the

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[96]   It is also fair to note that culture is often a stabilizing influence in military forces undergoing rapid change. The established culture of an organisation can provide the "firm base" for its development from an industrial age military to an information age force.

[97]   De Somer, *Professional Mastery*, 31.

combat functions, a knowledge edge, and the principles of command and training.[98] Before these enabling concepts can be applied, the intellectual foundations must be secure.

The Australian Army is dedicated to producing a well-educated officer corps.[99] The Army has an excellent basis for the enhancement of its professional military education to implement Maneuver Theory. This foundation was examined in the Project OPERA review, which recommended four principles of military education: the focus on operational effectiveness, intellectual diversity, the integration of work and study, and equitable access to higher education.[100]

Education alone, however, does not guarantee success in this process. As James Mrazek states in *The Art of Winning Wars* (1968): "'We must not be misled into thinking that high intellectual ability or prolonged education alone are sufficient to provide the media through which the mind is stimulated to greater activity…"[101]

Both Hooker and Wyly have noted that it is necessary to ensure officers undertake training and education, and gain experience in tactics, command styles, and decision-making. Both authors see this as an integral part of the implementation of Maneuver Theory.[102] As a consequence, both education and training combined must employed to provide the foundations for the realization of a maneuverist mind-set within the Australian Army's officer corps. The review of strategies for the implementation of Maneuver Theory reveals three common areas that must be covered.

1. **PROVIDE EXPERIENCE IN DECISION MAKING, INCLUDING INTUITIVE DECISION MAKING.**

2. **TEACH AND PRACTICE OFFICERS IN THE APPLICATION OF MISSION COMMAND.**

3. **ESTABLISH A FIRM FOUNDATION IN MILITARY ART AND SCIENCE.**

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[98]   *The Fundamentals of Land Warfare* - final draft, 2001, chap 4, 6.
[99]   The Commander's Guidance for the Project OPERA Review, which was provided by the Chief of Army, focuses on the improvement of professional effectiveness. This includes professional education. *Project OPERA Review*, Annex B.
[100]   *Project OPERA Review*, 49.
[101]   Colonel James Mrazek, *The Art of Winning Wars* (New York: Walker and Company, 1968), 119.
[102]   For more detailed discussion on this topic, see Hooker, "Implementing Maneuver Warfare", 217-235; Wyly, "Teaching Maneuver Warfare", 248-269.

Developing Decision Makers

> *Maneuver Warfare is decision making; that is, the application of mission tactics. So the teacher must equip his students to make decisions.*[103]

There is a conspicuous link between Maneuver Theory and decision-making. The application of Maneuver Theory demands adroit decisions, made quickly, in order to "out-Boyd Cycle" the enemy. In reviewing strategies for the implementation of Maneuver Theory, many writers have highlighted the importance of practicing and reinforcing the individual's decision-making capacity. Therefore the ability to do this must be an integral component of developing a maneuverist philosophy in Army officers.

The rapid pace of current and future warfare requires commanders to be able to swiftly produce solutions to tactical and operational dilemmas. Current and future trends indicate that there will be closer scrutiny of decisions by superiors and the media. The luxury of a formal MAP[104] style decision-making process will rarely be available to commanders. As a consequence, Army officers must become so well practiced in decision making that making decisions during crises becomes a matter of routine. In doing so, the decision maker must out-think the enemy and disrupt his decision cycle. The ability to successfully do this is called "Decision Superiority" in *The Fundamentals of Land Warfare* (1998).[105]

There are two primary methods of decision-making: intuitive and analytical.[106] The *intuitive* decision making process relies on training, education and experience. The aim of intuitive decision-making is 'satisficing', or producing the first solution which satisfactorily solve a dilemma. Like intuitive decision making, *analytical* decision making also relies on training, education and experience. However, it is a process where several different options are generated, compared against set criteria, and a preferred option chosen. It is a more methodical, yet time-consuming,

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[103]   Wyly, "Teaching Maneuver Warfare", 251.
[104]   MAP refers to the Australian Army's deliberate decision-making process, the Military Appreciation Process.
[105]   *The Fundamentals of Land Warfare*, chap 6, 14.
[106]   In his paper titled *Improving Military Decision-Making and Problem-Solving: The Australian Perspective* (2000), Major Shayne Elder substitutes the term **natualistic** for **intuitive**. Major Shayne Elder, *Improving Military Decision Making and Problem Solving: The Australian Perspective*, Masters Paper, United States Marine Corps Command and Staff College, 2000, 3.

approach to decision making.[107]   Traditional military decision making processes, such as the Australian Army's MAP, are analytical in nature. The intuitive and analytical models of decision making comprise a decision making continuum: intuitive at one end and analytical at the other.[108] Within this continuum sits a third model for decision making: *Recognitional* Decision Making (RDM).

In *Strategies of Decision Making* (1989), Gary Klein explores the concept of RDM. Klein advocates that traditional military decision making processes do not work under time pressure; and even when there is sufficient time, they lack flexibility.[109]   As a consequence, he offers the Recognition-Primed Decision (RPD) process. This method relies on officers using their personal experience to recognize key elements of a situation in order to enable a rapid reaction. The decision maker identifies an action, and imagines what will happen if carried out in this specific situation. The decision maker then modifies this action, or rejects it and identifies another, until a workable action is derived.[110]

It is apparent that one or more of these decision-making models may be applied, depending on the situation. However, in attempting to generate an ever-increasing operational tempo within a Maneuver Warfare construct, time and uncertainty will drive most military decisions. In his paper *Improving Military Decision-Making and Problem-Solving: The Australian Context*[111](2000), Major Shayne Elder found that the Australian Army relies heavily on the formal decision-making process; The Military Appreciation Process (MAP). His interviews with staff who used this process in the East Timor deployment revealed one key problem: the MAP does not fully take time management into account.[112] Consequently, the faster intuitive decision-making and RPD must assume a greater role in the application of the maneuverist approach in the Australian Army.[113] However, this does not negate the requirement for an analytical and deliberate approach to decision making such as the

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[107]   The relative strengths of each model is explored in United States Marine Corps Doctrinal Publication (MCDP) 6, *Command and Control*, 101-104.
[108]   Major Mike Mulligan, *Decisions, decisions, decisions: How does the Army develop decision makers that exploit the power of maneuver warfare?* Monash Paper, (Queenslcliff: Australian Army Command and Staff College, 1998), 5.
[109]   Gary Klein, "Strategies of Decision Making", *Military Review* (May 1989), 56.
[110]   Klein also calls this strategy "satisficing": it similar in character to the U.S. Marine Corps definition of the term. Klein, "Strategies of Decision Making", 58-59.
[111]   Hereafter cited as *Improving Military Decision-Making*.
[112]   Elder, *Improving Military Decision-Making*, 3.
[113]   For the U.S. Marine Corps, MCDP 6, *Command and Control* emphasizes intuitive decision making as the norm for Maneuver Warfare. MCDP 6, *Command and Control*, 117.

MAP, if the situation permits. But it does mean there is a need to ensure that a primary focus for training is intuitive/RPD, or hasty, methods of decision-making.

Training to Make Decisions. The development of decision makers is a complex, yet necessary element of developing officers who apply the maneuverist approach. Training to make decisions has been the subject of a wide variety of studies, books, and journal articles in the past two decades.[114] As a result of the review of this literature, there are two elements which appear to be almost universally accepted in the development of decision-makers: not surprisingly, these are education and training.

Education. The aim of education is to increase the knowledge base that forms the basis of making sound decisions. The process of education, aimed at developing decision makers, requires a tremendous amount of effort on the part of officers. Some of this education will be conducted during professional military education courses, such as the Australian Army's Intermediate Operations Course.[115] However, the vast majority of it must take place while an officer is in his unit. It is a process that will require time from both the officers unit and his own time.

A key element of the education process is professional reading.[116] This program of professional reading must include three elements: military history; military professional journals, and self-education books. The effective study of military history provides the decision-maker with the knowledge and experience of others who have been commanders or staff officers. Campaign or battles studies, and biographies of military commanders, are particularly helpful. As E.G. Keogh wrote in 1973, by studying appropriate military history the Army officer "…without consciously thinking about it… will have cultivated awareness of the pitfalls which strew the path of the commander…and he will see the possibilities and dangers of any situation or any course of

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[114]   Besides Major Elder's paper, among those considered for this paper is the British Defence Research Agency 1994 report, *Strategic Research Package AS01BW05*, which undertook the study of decision-making issues. This is a comprehensive study of decision-making issues. It is detailed in the level of technical issues studied, and provides a range of recommendations and proposals for further study. British Defence Research Agency, *Strategic Research Package AS01BW05*, Final Report, April 1994; A variety of books such as Hooker's *Maneuver Warfare: An Anthology* have been examined. Also reviewed has been a range of journal articles from publication such as *Parameters*, *Military Review*, the *Australian Defence Force Journal*, *Military Science and Technology* and the *Marine Corps Gazette*.
[115]   The Intermediate Officers Course's aim is to train Captain and Majors in the planning and conduct of operations at the Task Force level.
[116]   Mulligan in *Decisions, decisions, decisions* provides a detailed description of the process, and benefits, of a professional reading program.

action".[117]   The development of this situational awareness is key to the development of decision-makers.

Professional journals offer another method of education in the development of an officer's decision-making capability. Journals such as the *Marine Corps Gazette* often include tactical decision-making games to help develop decision-making skills in junior officers. These tactical decision games provide a scenario, forces assigned and a mission or commanders intent and then require the reader to produce a workable solution.[118]

Finally, self-education books and journals can also assist in decision-making development. Many of them offer the reader a situation with three or four courses of action. When the decision is made, the reader moves to the next part of the book indicated by his choice. These interactive books stimulate the thought process and give the reader practice in decision-making.[119]

As Elder found in *Improving Military Decision-Making* (2000), a key aim of this study is the provision of pattern data to facilitate the recognition-primed decision process.[120]   While not an absolute guarantee of success, professional reading provides lessons and education where operational experience is not available. Units, as well as the officer, must provide time for this professional reading.

While a large amount of the officers' education in decision making must be conducted within units, PME courses at Army training establishments are a significant part of this process. Intuitive, or RPD processes, should be taught alongside the more formal MAP. Army units must be responsible for the thorough preparation of officers for their attendance on these career courses. This may involve a formal mentoring process, which could feature pairings of a junior and a senior officer within the unit. Using this construct, the senior as well as the junior can learn from the relationship.[121]   To facilitate this, all junior officers within a regimental setting should be allotted a

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[117]   E.G. Keogh, *The Study of Military History*, Australian Army Journal, October 1973, 50.

[118]   The most recent example of these Tactical Decision Games can be found in the January 2002 edition *of Marine Corps Gazette*. Tactical Decision Game #02-1 provides a peacekeeping scenario for a junior commander requiring a quick decision (within 30 seconds) to a challenging situation. *Marine Corps Gazette*, Vol. 86, No. 1, January 2002.

[119]   Mulligan, *Decisions, Decisions, Decisions*, 8.

[120]   Elder, *Improving Military Decision-Making*, 30.

[121]   Walter Ulmer, "Military Leadership into the 21st Century: Another 'Bridge to Far'?", *Parameters*, Spring 1998.

mentor who is one rank senior, and who is responsible for the fostering and encouragement of that young officer.

The ultimate aim of this education is to provide the firm-base upon which an officer can develop his decision-making ability. It requires dedication and perseverance on the part of both units and individual officers. But it is a wise investment in time. A strong proponent of this education process was the successful World War II commander, General George S. Patton. Patton undertook a wide range of self-education activities, especially in the interwar years, to prepare himself for future conflicts.[122] The result was his ability to make tactically sound decisions, under great pressure in short times. As he stated, "for years I have been accused of making snap judgments. Honestly, this is not the case because I am a profound military student and thoughts I express, perhaps too flippantly, are the result of years of thought and study."[123]

Training. The aim of training in decision-making is to automate some parts of the decision making process. As Armour states in *Decision Making Processes*, the crux of this is: *practice, practice, practice*.[124] Officers must conduct meaningful training, constantly, in order to become adept at decision making. Team decision-making skills must also be practiced for headquarters staffs. This involves officers being required to make decisions in a variety of situations repeatedly and often as part of this process, as Colonel Wyly notes, "subject to the harshest of criticism".[125] Officers must be forced to defend their decisions and the thought process by which they are derived.[126] Such critiques must be open, positive and professional - and not personal or degrading.

Unit officers must set time aside to play decision games, war games and conduct TEWTs without their soldiers. These activities, however, must rest on a firm foundation of enduring principles; otherwise the wrong lessons will be learned.[127] Computer simulations, such as TACOPs, are simple and effective means of practicing decision-making. Another method that can be utilized

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[122]   Many of these activities, including reading military history, writing journal articles, and walking the ground of possible future battlefield, is described in Carlo D'Este, *A Genius for War: A Life of General George S. Patton* (London: Harper Collins Publishers, 1995).
[123]   Quotation from USMC CSC presentation by LTCOL Fitzgerald on the Marine Air Ground Task Force on 3 Jan 2002.
[124]   Major Michael Armour, "Decision Making Processes", *Military Review*, April 1994, 74.
[125]   Wyly, "Teaching Maneuver Warfare", 251.
[126]   Hooker, "Implementing Maneuver Warfare", 227.
[127]   Wass de Czege, "How to Change an Army", 47.

is Tactical Discussions.   The aim of Tactical Discussions is to develop a common understanding of doctrine and military language. A vehicle that Tactical Discussions could employ is the rigorous analysis, or even role-playing, of a historical battle.[128]   There is a range of activities that can be undertaken to practice decision-making. It is vital, however, that unit officers are provided with these opportunities to do so.

Another dimension of training for decision-making is the provision of adequate experience to officers in "real time" decision-making.   Officers must be provided with a range of opportunities that offer real challenges to their decision-making capabilities. These can include field exercises and command post exercises where decisions made affect real people. While this is riskier than the theoretical "classroom" decision-making practice, it is essential in building the confidence and "knowledge domain" in the officer. [129]

Whether conducted in the classroom or in the field, decision-making exercises should always be critiqued. This should involve some form of 'walk through-talk through' process that thoroughly examines decisions made and provides feedback to enhance future decision-making. The use of mentors in shadowing personnel during decision-making exercises is also encouraged.

The greater the exposure of officers to a wide variety of decision making practice in peace time, the greater their ability to make informed decisions under pressure in 21st century conflict whatever its form. In cultivating this decision-making proficiency, officers will be able to "out-decide" their adversaries. In the words of John Boyd, they will contribute to the development of the ability to "operate at a faster tempo or rhythm than an adversary enable(ing) one to fold the adversary back inside himself so he can neither appreciate nor keep up with what is going on."[130]

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[128]   For more detail, see John Antal, "The First Team: Training the Command-Staff team for Battle Command and Rapid Decision Making", *Military Science and Technology*, June 1995, 34.
[129]   Armour, "Decision Making Processes", 73. In his article "Tactical Intuition", *Military Review*, September-October 2000, 79-88, Major Brian Reinwald also discusses the benefits of demanding, and realistic collective training in developing in encouraging audacious and creative solutions to tactical problems.
[130]   Colonel John Boyd, quoted in G. Hammond's *The Mind of War: John Boyd and American Security*, (Washington D.C.: Smithsonian Institution Press, 2001), 160.

Institutionalizing Mission Command

The Australian Army formally introduced *Directive Control* as a philosophy for command in 1988.[131] Whether called Directive Control, Mission Tactics[132] or Mission Orders, the clear expression of **commander's intent**, followed by subordinate commanders being given the freedom of action to achieve it, is almost universally accepted as a key element of the philosophy of Maneuver Theory.

Simpkin wrote at length on the subject of Mission Command, or Directive Control as he termed it. He asserted that "the be-all and end-all of directive control is mutual trust and respect, leaving the subordinate free to act as he thinks fit in furtherance of his superior's intention, and assuring him of support even if he makes an error of judgement". [133] The basis of directive control is the nurturing of an unbroken chain of trust from the highest levels of command down to junior commanders.

The Australian Army has transitioned from the term Directive Control to that of Mission Command. Regardless, it remains the same command philosophy which must be implemented if Maneuver Theory is to be fully implemented.   As the Project OPERA review states, "as a 'philosophy' it must be accepted and reflected in the culture and practice of the entire organisation at every level and in every undertaking. Its principles must be practiced as the behavioural norm."[134]

However, there is evidence to suggest that despite this philosophy being officially encouraged since 1988, its practice and acceptance have been limited.[135] If this is the case, rewriting the doctrine utilizing different terminology will not ensure the adoption of directive control or mission

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[131]   Australian Army (1988), Training Information Letter (Number 1/88), *Directive Control*. This TIL was later discontinued and the concept of Directive Control detailed in the Manual of Land Warfare 1.1.2, *Conduct of Operations.*
[132]   Also known by its German term, **Auftragstaktik**. For a discussion on the origin of German Mission Orders, see Franz Uhle-Wettler "Auftragstaktik: Mission Orders and the German Experience" *Maneuver Warfare: An Anthology*, 236-247.
[133]   Simpkin, *Race to the Swift*, 239.
[134]   *Project OPERA Review*, Annex Q, Q-1.
[135]   Evidence of this is cited in the *Project OPERA Review*, Annex Q. The source quoted is an unpublished study undertaken in 1997 by LTCOL D.J. Schmidtchen, entitled *The State of Leadership in the Australian Army: A qualitative analysis of the 1997 Officer Attitude and Opinion Survey*. LTCOL Schmidtchen draws on the results of an Australian Army *Officer Attitude and Opinion Survey*, which was conducted in 1997. It it he finds that "Many officers and soldiers cast the peacetime Army in a bureaucratic light. Descriptions of the command climate refer to the frustration of 'micro-management', perceptions that subordinates are not trusted to do the job for which they have been trained and the lack of attention given to focused development through experience." *Project OPERA Review*, Annex Q, 3-4.

orders. In the Australian context, there have been a variety of descriptions proposed for Mission Command. *The Fundamentals of Land Warfare* (2001) records the concepts that underpin Mission Command are initiative, trust, and strong leadership.[136] In the Manual of Land Warfare 1.1.2, *Command and Control*, five prerequisites for directive control are listed: common tactical doctrine, reliability, trust, understanding, and risk.

Regardless of how Mission Command is to be defined in the Australian context, one thing is certain: Mission Command itself cannot be "introduced". In *Auftragstaktik: Mission Orders and the German Experience*, Uhle-Wettler asserts that the introduction of mission orders or mission command is primarily about educating supervisors: the highest army officers. In the words of Uhle-Wettler, senior army officer must "create the fertile soil from which the tactics they desire can grow. If they do so, they can forget deliberate actions to introduce *Auftragstaktik*."[137] In the Australian context, this means that the most senior officers must create this "fertile soil", of trust and independence from the top down. Once this has been created, subordinate formation and unit commanders will be able fully adopt this philosophy of command. The advice of Uhle-Wettler is probably the most cogent for those who wish to implement Mission Command in the Australian Army:

> If you try to introduce *Auftragstaktik*, you will be like the farmer who sows wheat in the arid desert. You are bound to fail. There is only one sure way to succeed: if you want *Auftragstaktik*, forget about it. Instead, create an army in which independence has become a life style, and in which a high level of professionalism prevails as well as a cocky, well-founded self-confidence. If you create such an army, independent action…will follow naturally.[138]

Establish a Firm Foundation in Military Art and Science

> *Know the enemy and know yourself; in one hundred battles you will never be in peril. When you are ignorant of the enemy but know yourself, your chances of winning or losing are equal. If ignorant both of your enemy and of yourself, you are certain in every battle to be in peril.[139]*

[136] *The Fundamentals of Land Warfare* - final draft (2001), chap. 4, 5.
[137] Uhle-Wettler, "Auftragstaktik: Mission Orders and the German Experience", 244.
[138] Uhle-Wettler, "Auftragstaktik: Mission Orders and the German Experience", 245.
[139] Sun Tsu, *The Art of War*, translated by S. Griffith (New York: Oxford University Press, 1963), 84.

Sun Tsu's dictums of 2500 years ago are just as applicable today as they were in his time. Officers must have an excellent understanding of the capabilities of their own organizations as well as those of their potential adversaries. This is the foundation for the implementation of Maneuver Theory as the warfighting philosophy of the Australian Army. Regardless of periodic fads in tactics or operational theory, this will remain a constant. Officers must be well versed in the art and science of war.

Theory of War. All officers must understand the theory of war. Study of the theoretical structure of war is a time-tested method of preparing the mind for war. While it should be studied with some skepticism, military theory assists in the organization and fusion of professional knowledge. The examination of theory helps to raise questions and test new assumptions on the conduct of war.[140] The purpose of these theoretical efforts must be to measure, enlighten, guide, and drive change and action.[141]

A key element in the study of the theory and nature of war is professional reading. Effective study of military theory and history provides officers with the knowledge and experience of others at minimal cost. While officers do not need to be engulfed by the study of military theory, there is a need to teach the fundamentals which underpin doctrine. Officers, before Command and Staff College, must be exposed to theorists such as Sun-Tzu, Clausewitz, Jomini, du Picq, Liddell-Hart, Boyd, and Simpkin.[142]

Military history is the story of the profession of arms. This is essential to understand how it conditions our professional outlook. Chosen wisely, and approached with a critical eye, the study of military history will develop a mind rich in the experience of war. The study of military history also aids in the development of the power of analysis. Finally, as E.G. Keogh wrote, the study of military history by an officer can "…fill his mind with knowledge of human beings in combat, and that is essential knowledge for the soldier".[143]

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[140] United States Marine Corps, Command and Staff College, *Theory and Nature of War Syllabus*, 2001, 9
[141] Wass de Czege, "How to Change an Army", 41.
[142] Wass de Czege, "How to Change an Army", 42.
[143] E.G. Keogh, "The Study of Military History", in Australian Army Journal, October 1973, 50-51.

Understand Fighting Power. The Australian Army uses the term Fighting Power to describe how it seeks to exploit its moral, physical and intellectual resources in the pursuit of success on battlefield. The intellectual and moral components of Fighting Power are the human dimensions of warfighting. This concerns how people, individually and collectively, exert their non-physical resources to fight and win. As *The Fundamentals of Land Warfare* notes, "The capacity for exertion is a critically important element in the human dimension of warfighting. It is what enables individuals and teams to succeed in a complex and chaotic battlespace characterized by danger, uncertainty and friction."[144]

Fighting Power's physical component is represented by the *Battlespace Operating Systems* (BOS). The BOS are the building blocks of Army capability. The eight BOS are: Maneuver; fire support; information operations; intelligence, surveillance and reconnaissance; mobility and survivability; air defense; command and control; and, combat service support. In becoming an expert in the art and science of war, Army officers must know and understand not only the components of Fighting Power but how these components are integrated to defeat an adversary.

Tactics. Complementary to this understanding of Fighting Power is an intimate understanding of tactics. The ability to understand and apply tactical concepts is a key building block in the implementation of the maneuverist approach. While the importance of tactical proficiency may seem apparent, it is not obvious that this is the case of the officers of the Australian Army. In his paper *Tactical Understanding in the Australian Army Officer Corps* (1999), Lieutenant Colonel Luke Carroll found that the status of training in tactics in the Australian Army was low.[145] He rejects that this is the result of conscious neglect, but rather is the sum of a variety of complex issues. Carroll's thesis has revealed a significant weakness in the training of Australian Army officers.

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[144]   *The Fundamentals of Land Warfare* - final draft, 2001, chap 5, 1.
[145]   Carroll, *Tactical Understanding in the Australian Army Officer Corps,* 61; LTCOL Carroll proposed several factors which contributed to this lack of tactical understanding in the Australian Army. The first of these was that the "requirements and standards for tactical training are inadequately articulated and essentially unmeasured". This has led to a significant number of officers being unaware of their responsibilities for self-development in this fundamental subject. Another factor was that the standard and frequency of tactical training in units was low. Indirectly, this places great strain on formal training courses, which have become the primary medium for tactical training. Also contributing to this low understanding of tactics is that the Army's formal tactics courses, which shoulder the burden of training, are shorter and in some cases significantly shorter, than other armies. Carroll, *Tactical Understanding in the Australian Army Officer Corps,* 55-61.

Among Carroll's key recommendations of *Tactical Understanding in the Australian Army Officer Corps* are:

> The requirement for a clearly articulated, widely disseminated, and physically attainable statement of professional requirement for the level of tactical understanding expected of the members of the officer corps.
>
> Emphasis placed in the conduct of tactical training for officers in units which is personally conducted by the Commanding Officer of that unit, headquarters, branch or section.
>
> An individual professional development (IPD) program tailored to rank designed to keep officers up to date, and in particular, to prepare them for their next course.[146]

Implementation of these recommendations is vital to the health of tactics training among Australian Army officers. Tactical excellence must be the hallmark of an Australian Army officer. Officers with a minimal understanding of tactics, regardless of how strong their desire to adopt a maneuverist philosophy, will not be able to implement Maneuver Warfare.

Know the Enemy. The knowledge of one's enemy or potential enemy is a prerequisite for the development of a firm foundation in the art and science of the profession of arms. All officers must understand the capabilities of their foe as well as they understand their own. The development of this knowledge will require frequent briefings on regional capabilities, as well as many war games and TEWTs. Given the orientation on the enemy required for successful application of the maneuverist approach, knowledge of an adversary, or potential adversaries, is indispensable.

Summary. This process of developing an individuals' foundation in the art and science of war requires a tremendous amount of effort by each officer and their units. While some of this preparation will be conducted on career courses, the vast majority of it will need to be conducted while an officer is in his unit. It will require time from the officers' unit as well as personal time.

Coupled with this emphasis on the training and education of officers within units must be a clear, but simple, strategy stating why this accent on professional military education is important. A

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[146] Carroll, *Tactical Understanding in the Australian Army Officer Corps,* 62-3.

clear and well articulated overarching strategy that is widely understood can be a compelling means to shape culture.[147]

The conduct of professional military education within units in no way detracts from the importance of structured officer training and education such as the Combined Regimental Officers Advanced Course or the Intermediate Operations Course. However, officers spend the majority of their time in units or on staffs, not on courses. Therefore, the officer training continuum must make the greatest possible use of their time while posted to units.

STEP 3
IMPLEMENTATION OF A VALIDATION SYSTEM

Objective Evaluation

In any training or education system, there must be a means to validate the success or otherwise of that process. Consequently, the implementation of the maneuverist approach in the Australian Army must be subject to a method of assessment. Just as the Australian Army Training System has outcomes and competencies as its emphasis, so must the implementation of Maneuver Theory. [148]

In assessing military doctrine, however, objective methods of determining effectiveness are elusive.[149] The ultimate test of military doctrine is war. But even with combat experience, hypothetical situations cannot be categorically rejected. As a consequence, the parameters for the validation process for the implementation of Maneuver Theory must be crafted in a scrupulous manner. In the Australian Army context, this may involve both civilian academics and military officers. There must also be some underlying principles which must be adhered to in drafting the parameters.

In drafting the parameters for a validation system, there should be a single underlying principle: the determination of the effectiveness of Maneuver Theory implementation must focus on the building blocks of Maneuver Warfare. It is proposed that three building blocks examined earlier

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[147]   This principle is borne out in a range of books on organisational culture and change consulted for this paper.
[148]   Australian Army , Manual of Land Warfare 3.4.2, *Handbook of the Army Training System*, chap 1, 3.
[149]   Meese, "Institutionalizing Maneuver Warfare: The Process of Organizational Change", 207.

in this paper should be the focus of any measure of effectiveness in implementing Maneuver Theory. These are: decision making skills, competence in exercising mission command, and knowledge of military art and science. For each of these building blocks, desired outcomes or performance levels for individuals and groups must be established. A system of validation then assesses whether these required outcomes have been achieved. By focusing on such foundation concepts as tactical proficiency, decision making ability and trust relationships between senior and junior officers, a better judgement can be made on how maneuver theory is being institutionalized.

Desired Outcomes

Decision Making Skills. Individuals and groups (such as Headquarters staffs) must be assessed, and effectively critiqued, in their ability to make decisions employing both intuitive and analytical decision making skills. Formal assessment is required against benchmarks such as timeliness and appropriateness of decisions and the standard of judgement used in reaching a decision. This formal assessment must be conducted by personnel themselves experienced in intuitive and analytical decision making processes.

Competence in Exercising Mission Command. As Uhle-Wetter proposes in *Auftragstaktik: Mission Orders and the German Experience,* mission command is about educating supervisors.[150] The primary means to assess the success of implementing mission command is the measurement of the degree of mutual trust and understanding, and acceptance of responsibility and risk, in a military organization.[151]

Knowledge of Military Art and Science. Officers must be able to display an appropriate understanding of military theory and military history. The more senior and officer, the more detailed the understanding and application of these topics must be. Army officers must also be able to demonstrate their understanding of, and ability to work within, the Fighting Power construct. This will require assessment of the capacity of individuals and groups within the Army to exert their non-physical resources to fight and win. Included in this is the setting of benchmarks for tactical proficiency for different ranks, and a system to assess whether those standards are being achieved.

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[150] Uhle-Wettler, "Auftragstaktik: Mission Orders and the German Experience", 244-5.
[151] LTCOL Schmidtchen, *Project OPERA Review*, Annex Q, 2-3.

The Validation Process

> *Validation ensures that training is relevant and provides to higher management and decision-makers on the effectiveness of the training. To be effective, validation must be a planned series of activities involving rigorous data collection, analysis, and feedback to all concerned.*[152]

The Australian Army already possesses an effective, and proven, system which can be employed in the confirmation of the institutionalization of Maneuver Theory. Described in the Manual of Land Warfare 3.4.2 *The Handbook of Army Training*, the systems approach to training has as its final stage the **validation of training**. The two objectives of this are: to assess if an issue with performance has been solved, and whether training has been transferred to the workplace.[153]

This process can be used to identify if the officer corps has adopted the intellectual process of applying Maneuver Theory. It can also be employed to assess the efficacy of the concept of Maneuver Theory and determine if it meets the current and future requirements of the Australian Army. The validation process must be conducted by agencies external to units or brigades being assessed. Borrowing from the process described in *The Handbook of Army Training*, it is proposed that the methodology contained in this manual provide the foundation of assessing the effectiveness of Maneuver Theory's institutionalization.

The central aim of this process must be to determine the level of success in achieving the desired outcomes. As discussed above, these desired outcomes are: mastering individual and group decision making skills, developing competence in exercising mission command, and displaying an applied knowledge of military art and science. To verify progress towards these desired effects, it is proposed that this validation be composed of five techniques: observation in the workplace, interviews, analysis of Post Activity Reports, annual reports and questionnaires.

Observation in the Workplace. The observation of officers in their normal environment, in a tactical setting, is described in *The Handbook of Army Training* as the most credible method of validation. This must involve the observation of officers in command and staff positions by experienced assessors who observe for the application of the three building blocks of Maneuver

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[152]   *Handbook of Army Training*, chap 7, 1.
[153]   *Handbook of Army Training*, chap 1, 3.

Theory discussed above. It must be done in an atmosphere where the assessor is as unobtrusive as possible to ensure the observed officer does not feel he is being assessed and therefore modifies his normal behavior through stress. Observation in the workplace is especially suited to assessing the decision making skills of individuals in command appointments, and groups employed in staff appointments. It also assists in building a picture of how leaders have developed the culture of mission command within their units.

Interviews. Personnel should be interviewed to ascertain the adoption of concepts such as Mission Orders. By conducting interviews in a confidential setting, officers and non-commissioned officers can be questioned about the level of trust established within their chain of command and how much responsibility is devolved to subordinates. This would provide an indicator as to the success of implementing the key foundations of the maneuverist approach. Interviews can also be employed to assess individuals' understanding of the relevance and application of military theory and history.

Post Activity Report Analysis. The analysis of Post Activity Reports (PAR) for collective training activities can provide a starting point in the construction of questionnaire or interview questions. However, it should be noted that PARs are rarely written in an objective fashion and should be examined by experienced personnel with a critical eye.

Annual Reports. Annual Reports provide one means for officers to be assessed for their performance and use this as a guide to their future employment. These reports, traditionally written by officers who have observed their subordinates over a 12 month period, only provide an insight into how subordinates are viewed by their superiors. However, in assessing if the conditions of mutual trust exist within a unit to enhance its ability to employ mission command, a 360 degree examination of officers is required.

To this end, annual reports for officers should include sections to be completed by a cross section of their subordinates, in addition to their superior's comments. This will provide more complete feedback on the level of trust and responsibility placed in officers, and that they place in their subordinates. This will contribute to the assessment of the degree of implementation of mission command within a given unit.

Questionnaires. The use of questionnaires is an effective means of eliciting data from a larger percentage of the population being surveyed than previous methods. As stated in *The Handbook of Army Training*, the questionnaires must "ask the right questions and allow the answers to be analysed easily".[154] The use of questionnaires is ideal for assessing the ability of officers to understand and apply the lessons of military theory and history. It can also be used to provide a written test of the decision making skills of individuals or groups.

The questionnaire form of validation may take the form of exams for officers upon which depends their next promotion. These exams could assess the tactical and general military knowledge of officers, their analytical ability, and their written communication skills

Summary. To effectively implement the maneuverist approach, the Australian Army requires the means to assess how successful that implementation is. At the beginning of this process, desired outcomes must be established and widely disseminated. Validation then occurs, and determines the success or otherwise of realizing these desired outcomes.

The guidelines for validation above are a broad-brush view of the requirements for assessing the success of the implementation of Maneuver Theory in the Australian Army. In order to ensure that this is scrupulously conducted, it will require both military and civilian academic personnel with a wide range of experience and knowledge in military affairs. The feedback provided by this step in the Maneuver Theory implementation process will inform the Army's senior leaders about the success, or otherwise, of the maneuverist approach. While time-consuming and laborious, this third step in the proposed implementation process is essential. It is also crucial in the continuous validation of the concept of Maneuver Theory itself.

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[154] *Handbook of Army Training*, chap 7, 6.

CONCLUSION

The Army's warfighting philosophy is derived from multiple sources, including its understanding of the national character, the nature and history of warfare, the utility of land forces and their role in national military strategy. It also takes account of the nature of future conflict, the resources likely to be assigned, and the expectations of the Australian people...To this end, the Army has embraced a warfighting philosophy called the manoeuverist [sic] approach.[155]
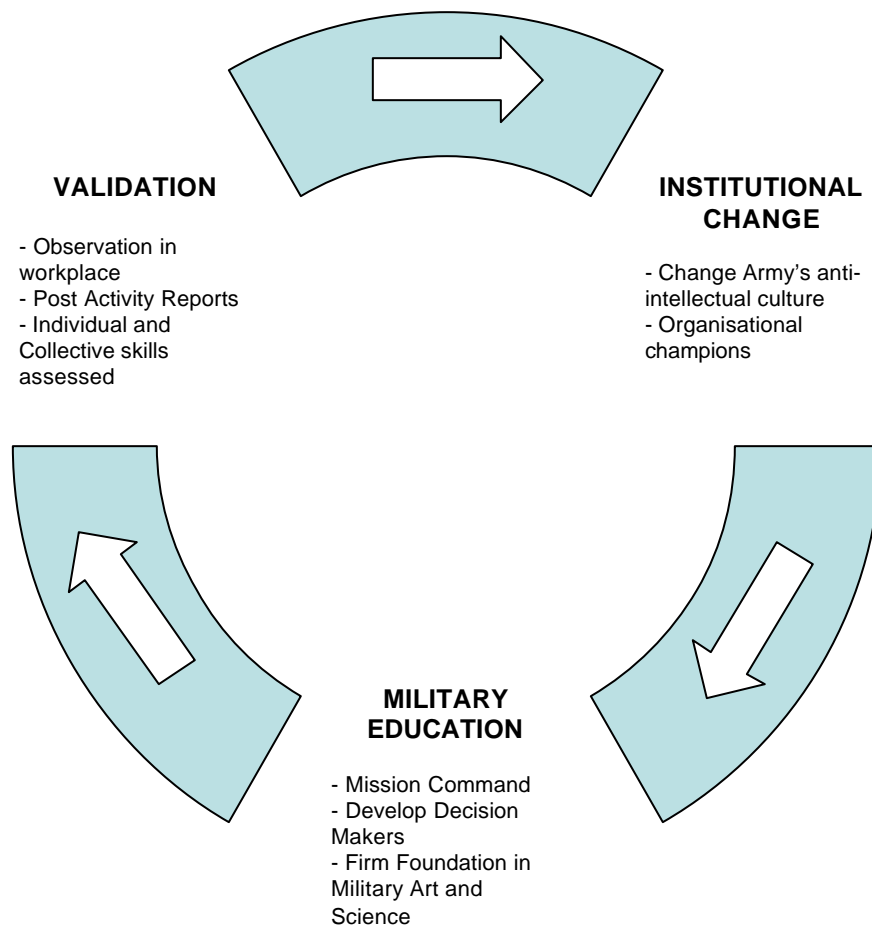
The Australian Army's warfighting philosophy for Fourth-Generation War will be the maneuverist approach. As Hammes has proposed, Fourth-Generation Warfare is still evolving. The tactics used in Fourth-Generation Warfare will be a mix of all four generations of warfare. The Australian Army has appreciated this paradigm shift with its publication of Land Warfare Doctrine 1: *The Fundamentals of Land Warfare (2001)*. This publication recognizes that the major influence on the conduct of modern land warfare will remain the changing nature of the international system. Globalization, ethnic strife, non-state actors, population growth, environmental degradation, and media presence would be significant drivers of change in the international system. As a consequence these factors will exert a large influence on the conduct of military operations.[156]

Introducing a new warfighting philosophy will necessitate changes in how Army officers develop their warfighting skills. Maneuver Theory as a doctrine must be carefully implemented to ensure it fully achieves its potential as the philosophical and intellectual foundation for warfighting in the Australian Army. This paper has explored the means by which the written doctrine of Maneuver Theory can transition from doctrine to be the intellectual foundation for the Australian Army's warfighting. It has examined the context for the introduction of Maneuver Theory into the Australian Army, and has also proposed the means by which it can be institutionalized.

The second part of this paper examined the introduction of Maneuver Theory into doctrine. The third part proposed a means for its implementation in the Australian Army. During this assessment, it was argued that the implementation of Maneuver Theory requires the enhancement of the Army's "intellectual capital". A process for the implementation of Maneuver Theory was then proposed. This process is summarized in the following diagram:

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[155]   *The Fundamentals of Land Warfare* – final draft, 2001, chap 4, 1.
[156]   *The Fundamentals of Land Warfare* (1998), chap 4, 2-3.

VALIDATION

- Observation in
workplace
- Post Activity Reports
- Individual and
Collective skills
assessed

**INSTITUTIONAL
CHANGE**

- Change Army's anti-
intellectual culture
- Organisational
champions

**MILITARY
EDUCATION**

- Mission Command
- Develop Decision
Makers
- Firm Foundation in
Military Art and
Science

The Army requires a degree of institutional change in order to implement the maneuverist approach. Organizational champions are needed to lead the process of change. The Australian Army must have these committed leaders promote the implementation of Maneuver Theory. The leadership of this process of implementing Maneuver Theory must be highly visible, inclusive, and open to debate. And as General Starry has advocated, the organizational champion, or champions, must be "some one near the top" of the Australian Army. This role model must also champion the changes required to ensure that the Army overcomes its anti-intellectual culture to ensure that the service's officers embrace this philosophy of warfighting.

It has also been postulated that the philosophy of Maneuver Theory cannot be taught. Rather, it can only be developed indirectly through an officer's exposure to a wide range of educational and training experiences. However, a rigorous professional military education system can instill the

foundations of the maneuverist approach. The three most significant building blocks in developing a maneuverist approach are:

1. Providing experience in decision-making, including intuitive and recognitional primed decision-making. The development of this skill requires elements of both education and training.

2. Teaching and practicing officers in the foundation concepts that are prerequisites for the application of mission command, or directive control.

3. The establishment of a firm foundation in military art and science for all Army officers. This requires a good understanding of the theory of war, the concept of Fighting Power, the application of tactics and possible adversaries.

Equally important, the implementation of the maneuverist approach will require a robust system of validation to ensure that the Australian Army is embracing it. The process by which this can be implemented may be via the current Army validation system.

For an Army that expects to fight out-numbered on the future battlefield, the maneuverist approach is vital. As Liddell-Hart wrote, the history of warfare has shown that success on the battlefield has always relied on the indirect approach. Indeed, he states the indirect approach is "a law of life in all spheres: a truth of philosophy…the idea of the indirect approach is closely related to all problems of the influence of mind upon mind - the most influential factor in human history..."[157]

The maneuverist approach is an *intellectual* method of winning wars. It does not totally eschew attritional style warfare, but seeks to minimize it. It relies on commanders and staff officers who are masters of the art and science of warfare. It demands intellectual professionals who can out-think, and out-decide, their enemy. Most of all, it is a philosophy that demands officers be profound military students, constantly yearning to improve their knowledge and skills in the profession of arms. In a small army such as that of Australia, the principle advantage available to it on the future battlefield will always be its intellectual power. By instituting the changes proposed in

this paper, this intellectual power can be harnessed and applied by the Australian Army across the spectrum of future conflict.

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[157]   Liddell-Hart, *The Strategy of Indirect Approach,* x.

MANEUVER THEORY

Maneuver Theory - A Short History

Maneuver Theory has been widely interpreted.   To some, it is a philosophy which is grounded in the friction of war, and how commanders can use that friction and chaos of the battlefield to defeat the enemy.   As Ricky Waddell states in his paper, *Maneuver Warfare and Low Intensity Conflict*, Maneuver Theory requires soldiers to dispense with checklists and templated solutions and adopt new means of thinking.[158]

The essence of Maneuver Theory is that it is 'a way of thinking about warfare rather than a particular set of tactics or techniques.'[159] Conceptually, Maneuver Theory endeavors to achieve objectives through the effective and economic use of force to defeat an enemy plan rather than enemy forces.   By establishing an operational tempo consistently faster relative to an enemy's tempo, the basic aim of Maneuver Theory is to maximize advantage.[160]

For many theorists, the key element of Maneuver Theory is the battle for ***psychological supremacy*** over an adversary.   As David Grossman wrote in *Defeating the Enemy's Will*: "Ultimately, the final and most important battle takes place, not in the last 300 meters, nor even in the last 30 meters, but in the last three inches: inside the mind of the commander.   Maneuver warfare, a 'thought process' directed at the enemy's mind, must win that battle above all others…"[161]

Liddell-Hart also saw the psychological domination as the key element in any indirect approach. He found in his survey of over 250 decisive battles in history that "in almost all the victor had his opponent at a psychological disadvantage."[162]   The generation of a tempo superior to the

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[158]   Ricky Waddell, "Maneuver Warfare and Low Intensity Conflict", *Maneuver Warfare: An Anthology*, (Novato: Presidio Press, 1993), 121.
[159]   *The Fundamentals of Land Warfare* (2001), p. 4-1.
[160]   Major John Schmitt, "Understanding Maneuver as the Basis for a Doctrine", *United States Marine Corps Gazette*, August 1990, 94.
[161]   David Grossman, "Defeating the Enemy's Will", *Maneuver Warfare: An Anthology*, (Novato: Presidio Press, 1993), 178.
[162]   Basil Liddell-Hart, *The Strategy of Indirect Approach* (London: Faber and Faber Limited, 1941)*,* 181.

enemy is also recognized as another vital element of Maneuver Theory. Perhaps the best known advocate of this approach was the late Colonel John Boyd, USAF.

The past 15 years has seen many books and journal articles expounding the principles of Maneuver Theory and Maneuver Warfare.   However, the conceptual foundation for Maneuver Theory pre-dates writers such as Simpkin, Lind, and Leonhard. The fundamentals of Maneuver Theory have been practiced, but not written about, by history's great commanders, from Alexander the Great to Ulysses S. Grant. In Appendix B, four prominent theorists are reviewed to analyze their contribution to the development of Maneuver Theory. While not an exclusive list, the theorists examined are Sun Tzu, Brigadier Richard Simpkin (British Army) and Colonel John Boyd - and each made major contributions to the evolution of Maneuver Theory.

The Utility of Maneuver Theory

> *The components of Maneuver ... creating and exploiting advantage in any form; opportunism; superior speed and tempo; focusing ruthlessly on critical enemy factors; surprise in the form of deception, ambiguity or unpredictability; distraction; variety; creativity; and enemy orientation - would seem to apply quite obviously to any kind of war.*[163]

As Schmitt acknowledges, the components of Maneuver Theory can be applied to any kind of competitive endeavor.[164] This is the greatest strength of Maneuver Theory. It is applicable across the wide spectrum of military operations, wherever there is an adversary to overcome. As an intellectual basis for the creation and exploitation of advantage to defeat an adversary quickly, effectively and economically, it remains as applicable to warfare in the Fourth Generation as it does to Third Generation Warfare.

Maneuver Theory can be applied to the entire spectrum of operations which the Australian Army must prepare for.[165] Whether a Warfighting or Military Support operation, or a combination of both, future conflicts will be more complex than ever before. Conducting operations within this environment therefore requires a flexible and widely applicable operational philosophy.   The

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[163]   Schmitt, *Understanding maneuver as the Basis for Doctrine*, 97.
[164]   Schmitt, *Understanding maneuver as the Basis for Doctrine*, 97.
[165]   *The Fundamentals of Land Warfare* (1998), Chapter 2, p. 9, provides a full description of this Spectrum of Conflict.

response must be an evolution in how the Australian Army thinks and operates. Maneuver Theory provides this.

APPENDIX B

FOUR PROMINENT MANEUVER THEORISTS

Sun Tzu

According to some histories, Sun Wu (known honorifically as Sun Tzu) was a famous military scientist and one of the ablest military commanders in ancient China. While the exact dates of his birth and death are not known, it is believed he lived around 500BC.[166] Based on a Sung Dynasty (960-1279) edition of his works, Sun Tzu's writings on warfare were believed to consist of 13 chapters. Recent discoveries during the excavation of a 2nd century BC tomb in Shantung province, China have revealed an additional five chapters. These are in addition to the much earlier ones of about one thousand years earlier.[167]

Four important concepts from *The Art of War* have contributed to the evolution of Maneuver Theory.[168] The first of these is the aim to ***overcome the enemy by wisdom, not by force alone***. Sun Tzu considered it best to defeat an enemy army without fighting. As he pointed out: "…to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill."[169]

The aim of the commander is to defeat the enemy, not necessarily to attack him.[170] Sun Tzu advocated that generally the best policy was to attack an enemy's strategy. This has been heeded in *The Fundamentals of Land Warfare*, which states that: "The fundamental tenets of manoeuver theory concentrate on…focusing friendly planning on defeating an enemy plan rather than defeating the enemy's forces."[171]

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[166] Sun Tzu, *The Art of War,* translated by S. Griffith, ix.
[167] Roger Ames conducts a fascinating examination of the discovery of these new texts in his book *Sun Tzu: The Art of Warfare* (New York: Ballantine Books, 1993), 4-5.
[168] These four concepts are also explored, in greater detail, by Robert Leonhard in his book *The Art of Maneuver*.
[169] Sun Tzu, *The Art of War,* trans. Griffith, 77.
[170] R. Leonhard, *The Art of Maneuver*, 29.
[171] *The Fundamentals of Land Warfare* - final draft (2001), Chap 4, 1.

This does not, however, mean that Sun Tzu believed that all battles and wars could be won without fighting. He accepted that battle might be necessary; however it should occur only after efforts to attack the enemy's strategy and alliances have failed to yield the desired outcomes.[172]

Sun Tzu's second important contribution to Maneuver Theory is on the **psychology** of war. Sun Tzu insisted on the need to work against the **mind of the enemy** - both the commander and his troops. He also believed that "all warfare is based on deception"[173] and continually emphasized this aspect of warfare throughout *The Art of War*. Finally, Sun Tzu believed in knowing the strong points of his own commanders in order to ensure they could be given tasks which they were best suited to.

Sun Tzu's third contribution to the evolution of Maneuver Theory was his **differentiation between normal and extraordinary forces**. Extraordinary forces were not 'special forces' in the modern sense. The primary difference between these forces was how they were used on the battlefield. Sun Tzu, writing in the chapter titled Posture of Army, believed that the normal force would be used to engage the enemy (or to create an advantage) while the extraordinary force would be used to win[174] (to exploit the advantage already created). Sun Tzu emphasized that the normal and extraordinary forces differed by function only. As a consequence, extraordinary forces take an infinite number of forms and they are interchangeable with normal forces.

Among the most significant interpretations of this concept was by Red Army General Vladimir Triandafillov, in his work *The Character of the Operations of Modern Armies*. In the early 1930's, Triandafillov developed the concepts of deep battle and deep operations. Triandafillov's concept was to use a shock army to realize the concept of ordinary and extraordinary forces. The shock army first holds the enemy and then creates a breakthrough. The shock army would then reorganize to create a separate mobile force to exploit the breakthrough already created and operate in depth.[175] This mobile force would then dislocate and collapse enemy units during the deep battle.

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[172]   Sun Tzu advocated that the best policy was to attack the enemy's strategy. The next best approach was to disrupt his alliances through diplomacy. The next in order was to attack the enemy army in the field. The worst policy was to attack cities. Sun Tzu, *The Art of War,* trans. Griffith, 77-8.
[173]   Sun Tzu, *The Art of War,* translated by S. Griffith, p. 66.
[174]   Sun Tzu, *The Art of War,* translated by S. Griffith, p. 91-92.
[175]   This concept is explained in Richard Simpkin's *Race to the Swift*, p. 37-39.

The concept of ordinary and extraordinary forces requires flexible organizations. It also emphasizes the need for a flexible and adaptable command philosophy which applies different solutions in different situations. The principle of ordinary and extraordinary forces is the essence of Maneuver Theory. It provides the means to dislocate the enemy and defeat him indirectly. This is related to the fourth important contribution by Sun Tzu to maneuver Theory: the concept of *surfaces and gaps*.

In his chapter entitled *Weaknesses and Strengths*, Sun Tzu stresses the need to focus friendly strength on enemy weakness. As he wrote: "If I am able to determine the enemy's dispositions while at the same time I conceal my own then I can concentrate and he must divide. And if I concentrate while he divides, I can use my entire strength to attack a fraction of his."[176]

Sun Tzu discusses both the requirement to determine enemy weak spots, and the requirement to exploit that to friendly advantage. He seeks to exploit the enemy weakness through concentration of force at that point. In modern terms, this relates to the focus of effort on such weaknesses. As Major John Schmitt wrote in his 1990 article *Understanding Maneuver as the Basis for Doctrine:* "Maneuver requires not only that we go after such critical vulnerabilities, but also that we focus our own efforts against them…The willingness to gang up (at least in purpose if not in mass) on critical enemy vulnerabilities demands a certain streak of ruthlessness and opportunism. It also demands the willingness to accept risk."[177]

A combination of philosophy and tactics, *The Art of War* has contributed to the evolution of Maneuver Theory. The four elements discussed above are the most important of these contributions. Sun Tzu's influence is still great, particularly in Asian armed forces. However, its utility has also been long recognized in Russian and Western military forces. This has ensured that Sun Tzu's 2500 year old maxims on war continue to play a key role in the development of Maneuver Theory.

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[176]   Sun Tzu, *The Art of War,* 98.
[177]   Schmitt, "Understanding Maneuver as the Basis for Doctrine", 93.

Brigadier Richard Simpkin (British Army)

Brigadier Richard Simpkin, until his death in 1986, was a prominent author on the topics of Soviet doctrine and Maneuver Theory. Drawing on a wide range of theorists, such as Sun Tzu, Mahan, Clausewitz, Guderian, Liddell-Hart, and Tukhachevskii, Simpkin sets forth his philosophy on war in his influential book *Race to the Swift*. He saw Maneuver Theory as a philosophy that:

> Regards fighting as only one way of applying military force to the attainment of the politico-economic aim-and a rather inelegant last resort at that. True success lies in pre-emption, or in decision by initial surprise…Manoeuvre [sic] theory draws its power mainly from opportunism-the calculated risk, and the exploitation both of chance circumstances and…of 'forced and unforced errors' by the opposition; still more on winning the battle of wills by surprise or, failing this, by speed and aptness of response.[178]

Simpkin's application of physics to the battlefield is one of his most significant contributions to Maneuver Theory. Using terms such as momentum, length, depth, and physical maneuver value, he concluded that understanding the ***concept of momentum*** lies at the heart of understanding Maneuver Theory.[179]

Simpkin also conducted a detailed examination of the concept of ***tempo***. The generation of superior operating tempo is well accepted by Maneuver theorists as one of the most important tenets of Maneuver Theory.[180] Simpkin describes tempo as the interaction between seven distinct elements:

1. Physical mobility.
2. Tactical rate of advance.
3. Quantity and reliability of information.
4. C3 timings.
5. Times to complete moves.
6. Pattern of combat support.
7. Pattern of service support.

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[178]   Simpkin, *Race to the Swift*, 22.
[179]   Simpkin, *Race to the Swift*, 115.
[180]   See John Schmitt's "Understanding Maneuver as the Basis for Doctrine", 95-6, as well as Lind's Theory and Practice of Maneuver Warfare, 8-9 and *The Fundamentals of Land Warfare* (2001-draft), Chap 4, 5.

Each of these separate elements is subject to the 'friction' of war, as described by Clausewitz.[181] Simpkin further refines tempo, dividing it into 'mounting tempo' - from receipt of orders to first crossing the line of initial contact, and Execution Tempo - from that time on. Mounting Tempo is mainly influenced by movement and command and control timings.

Simpkin's definition of Execution Tempo expands on a dominant theme of *Race to the Swift*: the responsibilities of holding forces (Sun Tzu's ordinary forces) and mobile forces (Sun Tzu's extraordinary forces). Consequently, Execution Tempo breaks down into the two following elements:

1. Tempo to operational depth, which is determined by the activities of the holding force.

2. Tempo beyond operational depth, which is determined by the actions of the mobile force.[182]

Simpkin's analysis of tempo, and the prominent position he gives it within Maneuver Theory, is supported by many other theorists, from COL John Boyd and his OODA Loop concept[183] to theorist and author Douglas MacGregor.[184] Simpkin's influence on the development of Australian warfighting doctrine in relation to tempo is apparent. *The Fundamentals of Land Warfare* (2001) describes tempo as: "…the rhythm or rate of activity relative to the enemy, within tactical engagements and battles, and between operations…It is derived from three elements: speed of decision, speed of execution and speed of transition from one activity to the next."[185]

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[181] For Simpkin's excellent examination of tempo, see pages 106 - 112 of *Race to the Swift*.

[182] Simpkin, *Race to the Swift*, p. 107.

[183] OODA - Observe-Orient-Decide-Act. COL Boyd derived this concept as a result of his observations of aerial combat between U.S. and Korean fighter aircraft during the Korean War. Also known as the Boyd Cycle, whichever side in a conflict can go through this cycle consistently faster than their adversary gains a tremendous advantage. Lind, *The Theory and Practice of Maneuver*, p. 9.

[184] Then Major MacGregor was the Operations Officer for the 2nd Squadron, 2nd Armored Cavalry Regiment during Operation Desert Storm. Prior to H-Hour, his guidance to all members of the Squadron was to "never stop moving or shooting".

[185] *The Fundamentals of Land Warfare* (2001), Chap 4, p. 5.

Colonel John R. Boyd, United States Air Force

The Boyd theory is the theory of maneuver warfare.[186]

Colonel John Richard Boyd was a United States Air Force pilot whose name has become synonymous with the development of the Observe-Orient-Decide-Act Loops, or OODA Loop. Starting his career as a private in the United States Army, he used his GI Bill entitlements to study at the University of Iowa. Shortly after graduation, he joined the United States Air Force as a pilot. While he served in Korea as a fighter pilot, he observed how the US F-86 fighter was able to maintain a 10:1 kill ratio over the Russian MiG-15 - this despite the Russian aircraft's superiority in speed, a higher operational ceiling, and tighter turning radius. This intrigued Boyd, and after further exploration, he realized the F-86 had two key advantages over the MiG-15: better visibility and a faster roll-rate. Boyd's fascination with gaining advantage through reacting and maneuvering faster than an opponent was to "constitute the basis for nearly everything he thought and did later".[187]

The first manifestation of his thoughts on warfare was *Aerial Attack Study*, first published in 1960. A book of 150 pages, the *Aerial Attack Study* was Boyd's first significant contribution to warfare (albeit fighter tactics), and has since been absorbed into the tactics of the world's air forces.[188]

Throughout the 1960's and early 1970's, Colonel Boyd continued to refine his theories on warfare. In September 1976, he completed his paper *Destruction and Creation*,[189] which was the synthesis of his ideas and theories to that date. However, it was in his later *Patterns of Conflict* briefings that he would seek to expound his ideas to military audiences. In his *Patterns of Conflict: Warp X* briefing, delivered on 16 September 1977, the beginnings of the OODA loop philosophy begin to emerge. In this briefing, Boyd notes that the key action for successful operations is the requirement to 'exploit (the) ability to observe, decide and act more inconspicuously, more quickly, and with more fluidity, without losing cohesion of overall effort…'[190].

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[186]   Lind, "Defining maneuver warfare for the Marine Corps", 56.
[187]   Grant Hammond, *The Mind of War: John Boyd and American Security*, (Washington: Smithsonian Institution Press, 2001), 35.
[188]   Major Jeffrey Cowan, *From Air Force Fighter Pilot to Marine Corps Warfighting: Colonel John R. Boyd, His Theories on War, and Their Unexpected Legacy*, Masters Paper, United States Marine Corps Command and Staff College, 2000, 13. Hereafter cited as *From Air Force Fighter Pilot to Marine Corps Warfighting*.
[189]   Colonel John Boyd, *Destruction and Creation*, signed unpublished paper dated 3 September 1976.
[190]   Colonel John Boyd, *Patterns of Conflict: Warp X*, signed unpublished briefing, dated 16 September 1977.

Boyd continued to develop this thesis until the OODA loop appeared in its current form in a 1978 brief entitled *Patterns of Conflict: Warp XII.*[191] In this refinement of previous briefs, he articulated the requirement to "Observe, Orient, Decide and Act inside (the) adversary's Mind-Time-Space". In a 1995 briefing, Boyd further explained the OODA Loop concept by expanding the concept of ***orientation*** to be based not solely on the observations of the individual concerned, but also on that opponents cultural traditions, genetic heritage, and previous experiences.[192]

During the period that he was refining his thoughts in the Patterns of Conflict briefings, Boyd became concerned that the U.S. military appeared willing to continue to use a philosophy of *attrition warfare* to win wars.[193] Opposing this style of warfare, he sought out examples of operational philosophies that were consistently successful in situations where the winning side was outnumbered and outgunned. In doing so, Boyd studied commanders employing eastern philosophies as well as German infiltration tactics of World War I and Blitzkrieg tactics of WWII. The results of his studies are best summarized in the final version of his Patterns of Conflict briefings. The key elements of Boyd's theories in this briefing are:

> 'Evolve and exploit insight/initiative/adaptability/harmony together with a unifying vision, via a grand ideal or an overarching theme or a noble philosophy…
>
> Shape or influence events so that we not only amplify our spirit and strength but also influence the uncommitted or potential adversaries so that they are drawn toward our philosophy and are empathetic toward our success…
>
> Operate inside an adversary's observation-orientation-decision-action loops or get inside his mind-time-space…
>
> Penetrate (the) adversary's moral-mental-physical being in order to pull him apart and collapse his will to resist.'[194]

Colonel Boyd's ideas proved to be influential among some key civilians and members of the United States Marine Corps. Prominent theorist William Lind grasped the theories of Boyd,

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[191]   Colonel John Boyd, *Patterns of Conflict: Warp XII*, signed unpublished briefing, dated 20 March 1978.
Contained in the Colonel Boyd Personal Papers collection, General Alfred M. Grey Research Centre, Quantico.
[192]   Colonel John Boyd, *The Essence of Winning and Losing*, signed unpublished briefing, dated 28 June 1995.
Contained in the Colonel Boyd Personal Papers collection, General Alfred M. Grey Research Centre, Quantico.
[193]   Cowan, *From Air Force Fighter Pilot to Marine Corps Warfighting*, 26.

particularly the OODA loop, in his efforts to change the philosophy of the Marine Corps in the 1980's. He readily acknowledged that Boyd was the first to provide a convincing model for the application of maneuver warfare.[195] Boyd began to directly influence the development of U.S. Marine Corps doctrine after his first address to the Amphibious Warfare School in 1979. His ideas, however, were not immediately accepted.[196] It was only when General Alfred M. Gray implemented Maneuver Warfare as the warfighting philosophy for his 2nd Marine Division in the early 1980's that Boyd's ideas began to gain some acceptance within the Marine Corps.

The culmination of Boyd's collaboration with the U.S. Marine Corps was the publication of the FMFM 1: *Warfighting* - after General Gray was Commandant of the Marine Corps. The publication was designed to be the Marine Corps' keystone doctrinal publication, expounding the Corps' warfighting philosophy. Its adoption of Maneuver Warfare as the Marine Corps warfighting philosophy is a tribute to the theories of Colonel Boyd. His contribution to the Marine Corps has been recognised by, among others, General Gray and General Charles H. Krulak, the latter another Commandant of the Marine Corps.

Despite this, Boyd's ideas were not without their critics. In a critique prepared after he listened to Boyd's four hour *Patterns of Conflict* lecture, Professor Roger Spiller wrote that Boyd appeared to take an 'excessively flexible approach to historical fact and interpretation'[197] and that he projected "too much of the present into the past".[198] Spiller, formerly a member of the faculty at the US Army Command and General Staff College recommended that "no alteration in (Command and General Staff College) curriculum occur without a thorough evaluation of Colonel Boyd's views".[199] Jay Luvaas, a US Army War College faculty member, in his 1981 critique of Patterns of Conflict also criticized Boyd for his "insistence on forcing history into convenient patters".[200] Luvaas went so far as to state that: "Most historians would probably write Boyd off as an over-

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[194]   Colonel John Boyd, *Patterns of Conflict: Warp XII*, (final version) unpublished briefing, undated. Contained in the Colonel Boyd Personal Papers collection, General Alfred M. Grey Research Centre, Quantico.
[195]   William Lind, *Maneuver Warfare Handbook*. Boulder, 1985, 4.
[196]   Cowan provides a detailed summary of Boyd's interaction with the U.S. Marine Corps. Cowan, *From Air Force Fighter Pilot to Marine Corps Warfighting*, 33-40.
[197]   Roger Spiller, *Critique of John Boyd's 'Patterns of Conflict'*, undated, 6. Contained in the Colonel Boyd Personal Papers collection, General Alfred M. Grey Research Centre, Quantico.
[198]   Spiller, *Critique of John Boyd's 'Patterns of Conflict'*, 10.
[199]   Spiller, *Critique of John Boyd's 'Patterns of Conflict'*, 17.
[200]   Jay Luvaas, *Patterns of Conflict in History*, 9 March 1981, 6. Contained in the Colonel Boyd Personal Papers collection, General Alfred M. Grey Research Centre, Quantico.

enthusiastic amateur with no real understanding of history and its processes, a well-intended man who marshaled facts to suit his own beliefs."[201]

Despite these criticisms, Boyd's ideas have proved to be very influential: in particular, his OODA loop theory is widely known and accepted with the military. General Krulak, when preparing Boyd's obituary for *Inside the Pentagon* in March 1997, paid homage to him when he referred to Operation Desert Storm and wrote that: "John Boyd was the architect of that victory as surely as if he'd commanded a fighter wing or a maneuver division in the desert. His thinking, his theories…were there with us in Desert Storm".[202]

Basil Liddell-Hart

In 1929, Liddell-Hart published his first study of the indirect approach to war, called *The Decisive Wars of History*. Originally an examination of pure strategy, Liddell-Hart writes in the preface to the 1941 edition of *The Strategy of Indirect Approach* that: "With deepening reflection, however, I began to realize that the indirect approach had a much wider application - that it was a law of life in all spheres: a truth of philosophy …The idea of the indirect approach is closely related to all problems of the influence of mind upon mind - the most influential factor in human history..."[203]

Through the use (and misuse) of military history, Liddell-Hart sought to explain the superiority of the indirect approach to warfare over that of the direct. He found that consistently ***successful*** commanders, when faced with a numerically superior enemy, have rarely attacked their objective directly. Great commanders had risked the greatest hazards on indirect approaches to secure victory.[204] His most important conclusion, however, was that in almost every decisive battle in history, the victor had his opponent at a ***psychological disadvantage*** before battle. He strongly endorsed Napoleon's maxim that "the moral is to the physical as three to one".[205] To

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[201]   Luvaas, *Patterns of Conflict in History*, 12.
[202]   General Krulak quoted in Cowan, *From Air Force Fighter Pilot to Marine Corps Warfighting*, 7.
[203]   Liddell-Hart, *The Strategy of Indirect Approach,* x.
[204]   Liddell-Hart, *The Strategy of Indirect Approach,* 180-181.
[205]   Liddell-Hart, *The Strategy of Indirect Approach,* 2-3.

psychologically dislocate an opponent, when taken in conjunction with the physical aspects of movement, etc, is the realization of a truly indirect approach.[206]

His final guidance on planning strategy was that there always remained two major problems to be solved: dislocation and exploitation.[207]   Liddell-Hart's writings have left a major imprint on western doctrine, in particular British and European armies.   Maneuver Theorists, writing in the past decade, have frequently drawn on Liddell-Hart's work to support their own theses.   Among these has been William S. Lind.[208]   Ricky Waddell even defined Maneuver Warfare as the link between Liddell-Hart's indirect approach, and Colonel John Boyd's OODA loop concept.

Liddell-Hart's contribution to the development of Maneuver Theory is significant primarily because he was able to distill military history into common-sense principles which could be understood and applied for strategy.   His eight maxims for planning strategy, whilst not original concepts, do provide a practical approach to the subject.   In the end, Liddell-Hart knew that the greatest victories were produced by commanders willing to take the greatest risks, by applying an indirect approach.   As he wrote: "…the unexpected cannot guarantee success.   But it guarantees the best chance of success".[209]

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[206]   Liddell-Hart, *The Strategy of Indirect Approach,* 194-5. Liddell-Hart also left eight maxims to be used as practical guides, when planning strategy: 1. Adjust your end to your means; 2. Keep your object always in mind; 3. Choose the line (or course) of least expectation; 4. Exploit the line of least resistance; 5. Take a line of operation which offers alternative objectives; 6. Ensure that both plan and dispositions are flexible - adaptable to circumstances; 7. Do not throw your weight into a stroke whilst your opponent is on guard; and, 8. Do not renew an attack along the same line (or in the same form) after it has once failed. Liddell-Hart, *The Strategy of Indirect Approach,* p. 213-5.
[207]   Liddell-Hart, *The Strategy of Indirect Approach,* p. 215.
[208]   Lind uses Liddell-Harts likening of offensive infiltration tactics to flowing waters. W. Lind, "The Theory and Practice of Maneuver Warfare", *Maneuver Warfare: An Anthology*, 7.
[209]   Liddell-Hart, *The Strategy of Indirect Approach,* 216.

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In the course of preparing this paper, Australian and U.S. military doctrine was consulted. The review of these sources provided background on the adoption of Maneuver Theory in the Australian Army, as well as in the United States Marine Corps. In particular, the final draft of the unpublished Australian Army doctrinal publication Land Warfare Doctrine 1: *The Fundamentals of Land Warfare*, (2001) provided the starting point for this paper. Several reports and working papers from Australia were also used. These not only provided background on the training of Australian Army officers, but also information on some of the perceived weaknesses of the extant officer training regime, and possible solutions to remedy this situation. In particular, the *Project Opera* (2000) papers were helpful in this regard.

The personal papers of General Alfred Gray and Colonel John Boyd, held in the United States Marine Corps Research Centre (recently renamed the General Alfred M. Gray Research Centre) at Quantico provided an invaluable insight into the early debates about maneuver warfare in the U.S. Marine Corps. General Gray's paper, in particular, are revealing in regards to how Maneuver Theory was implemented in the 2nd Marine Division and the Corps, both before and after it was officially adopted as the Marine Corps warfighting philosophy in 1989. Being aware of how the Marine Corps approached the introduction of maneuver warfare may inform how a similar process is implemented for the Australian Army.

Colonel Boyd's personal papers, which consist mainly of the original copies of briefing slides for his presentations on *Destruction and Creation*, *Patterns of Conflict* and *Conceptual Spiral*, were indispensable. These are a record of Boyd's thinking as he progressed from the early 1970s' to the mid-1990's. It was Boyd's ideas, presented on these briefing slides, which influenced such key people as General Gray, Colonel Mike Wyly, and Mr William Lind, in their struggle to change the philosophy of the United States Marine Corps. Included in Boyd's papers were two critiques of his work. These provided some balance in my review of his contributions to Maneuver Theory in Appendix B.

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