



**Australian Army
Research Centre**



Land Warfare

**An Introduction for Soldiers, Sailors,
Aviators and Defence Civilians**

Dr Albert Palazzo

Australian Army Occasional Paper No. 14



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Serving the Nation

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Introduction

This publication has an express purpose. It is to provide soldiers with an understanding of their trade. Waging war is a complex and dangerous business, but it is also an essential one for the Australian state and people. The maxim that ‘if you want peace you must prepare for war’ remains as true as ever.¹ The converse also remains true. If you want war, disarm. Australia needs soldiers who are physically and mentally prepared to do what is needed in times of danger, and to do it better than their adversary.

While this work’s primary audience is Australian Army soldiers, the sailors and aviators of the Royal Australian Navy and the Royal Australian Air Force will also find utility in its reading. War today is a joint enterprise and the distinctions between operations on land, at sea and in the air are not as important as they once were. Sailors and aviators aspiring to high command will also need to understand land operations, much as present-day soldiers need to be comfortable with directing operations against targets on the sea and in the air. The final intended audience is the civilian policymakers in the Department of Defence and the political staffs who serve their ministers. In a democracy, civilians need to understand war because ultimately it is their responsibility to oversee its waging. Moreover, in the present-day Australian Defence Force (ADF), those not in uniform are responsible for many of the decisions that provide the resources with which soldiers will fight and the facilities at which they will train. Meanwhile, other civilians play critical roles in interpreting the future strategic environment. If defence civilians are to make good decisions and provide sound advice they must firstly understand war, both its nature and character and how it adapts to the context of the age.

As an introduction, this work should be seen as the starting point for an exploration of the nature and character of war. It is not meant to be the final say on land warfare, or war more generally. Rather, it is the author's hope that it will find a place in the professional military education of the next generation of those wearing an Australian uniform, no matter the rank, trade or service. Commanders should find it an accessible assignment for unit discussions and the professional development of subordinates. The ADF may also use it as an aid for those starting their military careers, such as entrants to the Australian Defence Force Academy or the service schools. It is meant to be the starting point for a career-long journey of study and reflection. Finally, to foster ongoing study, the work includes a list of further reading as an appendix.

Chapter 1 — What Is Land Warfare?

Defining Land Warfare

Humanity conducts war in every environment in which it is possible to fight. As new technology provides access to previously inaccessible environments, operations in those environments soon become incorporated into the art of war. Even non-physical environments have become weaponised; militaries now routinely conduct operations across the electromagnetic spectrum and throughout the cyber and social media spaces. The ADF officially recognises five broad domains in which war takes place. They are air, land, sea, space, and information/cyberspace.² Other militaries use similar terms to identify these domains. For example, the United States calls its domains land, sea, air, space, and cyber,³ whereas the United Kingdom uses cyber, space, maritime, land, and air.⁴ As technology advances, it is highly likely that the military will define additional domains. Indeed, arguments are already being made for the identification of sub-surface and the human as domains.⁵

Not all domains are equal, however. Of the range of domains that have been categorised, the land is the original and the oldest. Because humans are a terrestrial species, it comes as little surprise that the land domain is also the most important. The land is humanity's natural home and, barring some evolutionary adaptation, the sea, air, space and cyber domains will always remain alien environments. Unlike activities conducted in other domains, war on land is so deeply ingrained in human consciousness as to be self-evident.⁶ But there is more to the claim of the land's importance than just evolutionary determinism. People are at the centre of all war, and human agency is fundamental to its conduct.⁷ No military is motivated to conduct operations in the sea, air, space and cyber domains in order to achieve an outcome in those domains. Invariably, actions taken in the non-terrestrial domains are part of a broader plan to gain outcomes on the land—the place where the people are.

TR Fehrenbach, the author of a highly praised work on the Korean War, suggests a working definition for warfare which highlights the centrality of the land in the pursuit of war. He wrote that 'the object of warfare is to dominate a portion of the earth, with its peoples ... It is not to destroy the land and

people, unless you have gone wholly mad'.⁸ Writing during the Cold War, his reference to madness is understandable given the prospect of nuclear annihilation between the United States and the Soviet Union. However, his statement also contains two other points that require elucidation. First, land warfare is not a subset of war. Rather it is war's collective environment. Second, the people are as valuable as the land—and the resources it contains—because war is ultimately about the control of people.

As a former soldier, Fehrenbach could be considered biased towards the land domain, but Julian Corbett, one of the foundational theorists of maritime war, also emphasised its importance. He wrote:

*Since men live upon the land and not upon the sea, great issues between nations at war have always been decided—except in the rarest cases—either by what your army can do against your enemy's territory and national life, or else by fear of what the fleet makes it possible for your army to do.*⁹

Corbett preceded this observation with an outline of the hierarchy inherent within strategy. He accepted that naval strategy was concerned with the movement of the fleet. Sitting above naval strategy was maritime strategy, which Corbett believed determined the role of the fleet in relation to the action of the land force. This was because, Corbett asserted, 'it scarcely needs saying that it is almost impossible that a war can be decided by naval action alone'.¹⁰

Corbett is not alone among maritime theorists in establishing such a strategic hierarchy. One of the more gifted modern thinkers on strategy, Rear Admiral JC Wylie, reached similar conclusions. Writing in 1967, Wylie noted that there were two parts to maritime theory. The first dealt with the control of the sea, while the second dealt with the 'exploitation of the sea toward establishment of control on the land'.¹¹

In a similar vein, the foundational author of air power theory, Giulio Douhet, made it clear that, while the first objective of an air force is to control the air, that control is a means to an end.¹² The ultimate task of an aircraft is to deliver bombs onto targets—military and civilian—in order to demolish the enemy's military capability, industrial production, and transport and communications links, thereby rendering it powerless to resist your terms. Thus, in Douhet's formulation, the true target of air power is the land and the will of the people who live upon it—the very same position taken by

Fehrenbach, Corbett and Wylie. By this calculation, while the militarisation of the air revolutionised the character of war in many ways, at its core the goal of airpower remained the same as that of both sea power and land power.

To date, there have been comparatively few examples of war in the cyber domain and, while space has been weaponised for some years (by the launching of military communication and GPS satellites), no hostile acts have taken place.¹³ Still, it is evident that the aim of military operations in the newer domains is also to contribute to the crushing of the will of the enemy's military and civilian population. Thus, while naval, air, space, and cyber and information forces play a vital and far-reaching role in the waging of war, they remain supporting arms to the conduct of war against people who live on the land.

The supremacy of the land domain in warfare is further underscored by its close connection to the purpose of war. War, according to Carl von Clausewitz, is '*an act of force to compel our enemy to do our will*'.¹⁴ This is one of the most important observations ever made on the nature of war. It means that a human sits at the centre of everything done in war, and coercing people to do what you want is a military's sole objective. As Clausewitz explains, war is a contest between two adversaries, each striving to overcome their opponent's will to continue the struggle.

Other theorists have echoed Clausewitz's ideas. BH Liddell Hart, writing a century after Clausewitz, similarly focused his thoughts on the importance of will. He wrote that the 'real target in war is the mind of the enemy command, not the bodies of his troops'.¹⁵ By this he meant that, once those in command have lost heart, the mass of their troops will soon follow. Colin S Gray simplified the hierarchy of war's domains by reducing the concept to 'the land matters most'.¹⁶ The rationale for his assertion was that land is the location where nearly everything of value to humans is located and is held at risk. Only people exert will and so the scope of land warfare comes down not only to a geographical space such as the sea or space but also to the interaction with the enemy and its spirit. It follows then that mastery of a particular domain of war is a means to an end; mastery of the people is the end.¹⁷

A historical example may help explain the point that the land is the first of the domains of war. In 2003, the United States and its coalition partners, including Australia, invaded Iraq. Soon after crossing the border, the United States could claim control of the space and sea domains. Control of the air followed a short time later. The land domain, however, represented a

different situation. The United States and its partner forces did not succeed in overwhelming the will of the Iraqi people. The war continued for many years, through a painful insurgency, and ended in US defeat. Unfortunately for the United States, securing dominance in three of the four domains did not bring victory. This is because the domain that mattered, the land, remained uncontrolled, and the will of the people who lived there unbroken.

So far, this section—Defining Land Warfare—has identified the context of the land domain without providing a definition for waging war in the domain. The Australian Army's overarching doctrine, *The Fundamentals of Land Warfare*, does not provide a definition of land warfare per se. Instead, it defines land power, which it describes as:

*The ability to project force in and from land in peace, crisis and war to achieve strategic and operational objectives.*¹⁸

This is an inadequate expression of land warfare because it comes from the perspective of power, which is not the same as war. The definition is also deficient in that it limits itself to one domain. *The Oxford Companion to American Military History* offers a more expansive definition:

*[Land] warfare involves military operations to defeat an adversary to attain political, economic, or social ends. It is conducted on behalf of a nation-state, international coalition or other political entity, in accordance with a strategy formulated to achieve specific ends ... Though conducted on land, modern land warfare doctrine incorporates the combined capabilities of landpower, seapower, and airpower to achieve operational objectives.*¹⁹

This is a more comprehensive definition, but it still does not mention the people or their will. This omission is a critical oversight because all war must target an adversary's will. It is not appropriate to define land warfare with reference solely to geographic exclusion, or to overlook the importance of will as the most important target of all operations. Further, the division of war into domains should not be confused with the technical requirements of operating in different environments. Indeed, if the conceptual framework were anchored this way, there would be no end to the possible stratification of war into different domains. Instead, since people are the objective of all war, and because people live on the land, the simplest and most precise definition of land warfare is: *land warfare is the conduct of war against an adversary's will, and is supported by actions taken in other domains.*

Blurring the Domains of War

That the definition of land warfare is not a function of spatial determinism is borne out by the increased blurring that exists between the domains attendant upon the ongoing march of technology. For many thousands of years, humans could only fight on the land. This situation changed once someone realised that they could manoeuvre on water—probably by holding onto a floating log at first instance—a realisation that set in motion the art of war on water.

The establishment of more than one domain of war created a division, but also an overlap. Sailors were initially soldiers who went to sea, and wars on water resembled those on land. Ships drew alongside each other, crews leapt into their opponent's vessel, and close combat employing swords and spears decided the issue. As technology advanced, the precise boundary between domains became increasingly hard to distinguish. With the commencement of the gunpowder age, ships could fire on the land, and coastal forts could attack ships. Once aircraft arrived on the scene, they could bombard targets on the land or the sea, while anti-aircraft guns could fire at planes. The onset of the missile age further widened the overlap between domains. Today, modern land-based weapons can reach out to the sea and the air for several thousand kilometres. Conversely, ship-borne or air-launched weapons can project deeply over the land. Ballistic missiles can reach across continents, while for a cyber-based attack the range is potentially unlimited. As range has increased, the time to target has reduced. Minutes or less now separate the transit from launch to impact.

The range of contemporary weapons has made it largely pointless to draw a hard dividing line between domains. This situation has led the US Army to implement a new military principle known as Multi-Domain Operations. This concept contends that it is no longer important to distinguish from which domain a target is identified or destroyed. A platform in one domain is able to attack a target in another one. So it is immaterial which of the services initiates the action, or whether the effect sought lies in another domain. For example, a sensor operated by the air force may identify an enemy ship which is attacked by a land-based missile. In the Australian Future Land Operating Concept, it is also recognised that, as the domains increasingly overlap, the foundation for operational success remains war's original zone of contest: control of the human and human will.

The concept of domains will remain important because the technical demands of war will continue to require specialised knowledge for operations in different environments. It would be as unwise for the land force to take responsibility for the design of ships as it would be for the navy to design armoured fighting vehicles. To a large extent, domains came into existence because of the challenge to survival that humans face in operating within them. Gaining the knowledge and experience to master sailing and navigating on the ocean, or flying and navigating in the air, requires sailors and aviators who dedicate their lives to the study of the challenges posed by these environments. Similarly, the diverse terrain within which soldiers may fight necessitates that armies raise, train and sustain military personnel with specialised knowledge. The exploitation of space and cyber will require similarly focused efforts. While it is critical for the ADF to be able to contest (if not control) all domains, it must avoid conflating the waging of war with the technical requirements of operating in different environments. However, there is no escaping that the determining factor, in the fate of the people and the land they live upon, will be the strength and effectiveness of the land force.²⁰ This will not change, no matter how quickly technology accelerates. To return to Fehrenbach, the future of war will not be very different from what it has always been. As he observed:

*You may fly over a land forever; you may bomb it, atomize it, pulverize it and wipe it clean of life—but if you desire to defend it, protect it, and keep it for civilization, you must do this on the ground, the way the Roman legions did, by putting your young men into the mud.*²¹

Chapter 2—What Is War?

Defining War

It appears likely that people have battled each other since our species came into existence, with some suggestion that even our humanoid ancestors fought each other.²² War is an expression of our humanity. It is among the oldest and most basic of human acts. As far back as historians and archaeologists can project, war has been present.²³ Ötzi (the name given to the mummified 5,300 year old human remains found in the Alps) died violently.²⁴ Indeed, at no time in human civilisation has a major power or culture ever eschewed the business of war. Rather, it is evident that rejecting war ‘would have been as fatal as rejecting agriculture’.²⁵

That warfare has been a feature of humanity from the dawn of the species is an observation made without any judgement as to its morality or acceptability. It is simply an acknowledgement of a condition that is seemingly hardwired into human consciousness. There is no doubt that the waging of war is a horrible experience, as many military veterans, civilian victims and witnesses, commentators and historians attest. The oft-paraphrased remark by the US Civil War General William Tecumseh Sherman is simple but accurate: ‘War is Hell.’²⁶ However, despite the death, destruction and suffering it causes, war should not be labelled as a dehumanising experience. Instead, as Margaret MacMillan has observed, ‘war raises fundamental questions about what it is to be human and about the essence of human society’.²⁷ She continues that war is ‘woven in like an original sin from the time our ancestors first started organising themselves into social groups’.²⁸ We are human, and war is a part of that humanity. To understand war, one must understand the human.

The Purpose of War

Since our species has waged war for all its existence, war must have purpose and that purpose must be beneficial; otherwise, its practice would have ceased long ago. It may be comforting to see war as an evil, but it is nonetheless a necessary one.²⁹ Some scholars identify war as an essential evolutionary tool.³⁰ The reality is that a society chooses to go to war and

does so for one and only one reason: it is a useful way to obtain something it wants or to retain something it values.

According to the historian Michael Howard, war is 'a normal way of conducting disputes between political groups'.³¹ When a war begins, one of the parties has one or more aims it wishes to secure. The other party—or parties—also has an aim (or aims), even if this is only to deny the other side theirs. The aim of warfare may be far-reaching, including the complete destruction of the enemy's military and the elimination of its society and culture. Alternatively, it may be more limited, such as the annexing of a piece of territory, the taking of a resource, or the securing of a right. War may even be waged over a point of pride. For example, while conflicts such as the American Civil War or the Second World War had such large aims that they were wars of national survival, by contrast the Falklands War of 1982, between Britain and Argentina, was waged over the possession of a group of islands inhabited by few people and many sheep, and the outcome did not threaten the existence of either state.

Besides its persistence in the human experience, war is also one of the great shapers of history, and civilisations have risen and fallen on its outcome. According to Jeremy Black:

*War is a key element in world history ... wars have played crucial roles in geopolitics, social development, economic history and in the cultural/mass psychological dimensions of human life. War indeed is cause, means and consequence of change.*³²

There is no shortage of examples that illustrate the role of war in guiding change in human development. In 480 BCE, had the Greeks from Sparta and Thebes not held the Persians at Thermopylae for as long as they did, democratic liberalism may not have appeared as a basis for organising a society. If the Confederacy had been successful in its rebellion against the United States, how much longer would African-Americans have remained enslaved? The Mughal Empire owes its origin to Babur's victory at the Battle of Panipat in 1526, where he overthrew the existing Lodi Dynasty. Such decision points define the context of the life into which you are born. Wise societies rightly appreciate the hazards of war and as a consequence are willing to spend vast sums on its preparation, waging and aftermath. It is also the most physical, emotional and morally demanding enterprise that humans undertake collectively.³³

Most cultures recognise that there is something worse than the waging of war—the loss of an independent existence as a nation state and a people.³⁴ This observation was an early one in humankind’s written history; Sun Tzu opens *The Art of War* by stating:

*War is a matter of vital importance to the State; the province of life or death; the road to survival or ruin. It is mandatory that it be thoroughly studied.*³⁵

Strength in war is a preserver of sovereignty, and success in its practice potentially guarantees a society’s continued survival. Nations willingly bear the financial and social costs of maintaining land, sea, air, space and cyber forces, because possessing military strength is the only way for a people to be assured that they alone decide the values and principles by which they live.

The Types of Wars

There are only two types of wars: those that are waged for existence and those that are not. All wars fit into either of these two categories, and the great majority of wars are over lesser issues than existence. Carl von Clausewitz made this clear in his 1827 notes for a planned revision of *On War*. He categorised wars as either those to ‘*over-throw the enemy*’ or those ‘*merely to occupy some of his frontier districts*’. As defined by Clausewitz, the goal of the first type of warfare is to render the enemy impotent to such an extent that they must accept your will. In the case of the second type, the goal is to gain a bargaining chip for negotiations that will bring the war to a mutually agreeable end.³⁶ Corbett accepted Clausewitz’s dual categorisation, but he chose to call them Unlimited and Limited Wars.³⁷ To put it into terms with which the veterans of the Iraq and Afghanistan wars would be familiar, wars are either for regime change or for something less than regime change.³⁸ Some wars are a mixture of both depending on the objectives of the participants. For the Vietnamese, of both the North and South, the Vietnam War was about the survival of their respective states. For the United States the stakes were not as great. Even in defeat, the United States remained a great power.

That there are only two types of wars may come as a surprise to some readers. This is because military practitioners, defence thinkers, policymakers and military historians invest great time and effort in trying to divide war into a vast array of subcategories. These are called spectrums of war, or spectrums of conflict. While they come in many designs, they usually

share the same sequence: a left-to-right or bottom-to-top progression of increasing tension and risk. At the lower end are military operations other than war, such as peace stabilisation, while on the opposite end is high-end, state-on-state warfare ending at nuclear war.

As the character of war evolves, theorists and practitioners define new terms with which to locate a 'new' type of war on the 'spectrum'. The present favourite is *Operations in the Grey Zone*, although other recent creations include *New Wars*, *Ambiguous Wars*, *Hybrid Wars* and *Cyber War*. Total War remains popular and it stands in opposition to *Limited Wars*. Insurgency struggles are usually described as a special case and lumped together under the heading COIN (Counter-Insurgency). Descriptive terms go in and out of favour, or are reused with different meanings. For the US Marine Corps, *Small Wars* referred to an intervention in an unstable state.³⁹ By contrast, as described by the British soldier and war theorist Charles Callwell, *Small Wars* were a category of military actions in which only one side fielded regular troops. True to his Imperial background, Callwell took Small Wars to mean those fought by 'proper' European armies against the soldiers and peoples of (what he called) the semi-civilised races.⁴⁰ Neither the Marines nor Callwell took 'small' as an indicator of a war's size.

Admittedly, there is nothing new in this drive to label war. Baron Antoine-Henri Jomini devoted an entire chapter to the enterprise in his 1838 book *The Art of War*.⁴¹ Unfortunately, the consequences of this practice are of similar long standing: it sows confusion, distracts from understanding and hinders planning. This is because defining a multitude of war types requires militaries to think on, and prepare for, a particular type of war—usually the type they prefer to wage. This situation risks losing focus on the essence of war: its political purpose. As Donald Stoker pointed out, the list of war's variation goes on ad infinitum, yet all fit within Clausewitz's typology that all wars are fought for political objectives. Consequently, the belief in 'New Wars', in all their myriad forms, is a falsehood.⁴²

Clausewitz, Corbett and others based their classification of war on a sound theoretical basis which could accommodate all forms of warfare. Those who respond to the next 'new thing' in war confuse the waging of war with the purpose of war. Rather than making distinctions where none are needed, military practitioners and their political masters would be better served to spend their time reflecting upon the political objective which they wish to achieve. Once one determines the purpose of a war, the means required to wage it will become evident.

The Decision for War

Thucydides, the Greek historian of the Peloponnesian War, concluded that people go to war over issues of 'fear, honour and interest'.⁴³ In deciding to wage war, both sides have accepted that they have more to gain by fighting than by negotiating.⁴⁴ The decision for war is never forced upon any society; even the target of aggression must decide to resist or not to resist.

Wars are not accidents. Their commencement requires a decision. In a well-functioning democracy, a people (through its political representatives) must decide what it wants to achieve and how best to achieve it. In an autocracy, the people's role in the decision is lessened, but it is not entirely eliminated. Before commencing, the leaders of the society initiating the war are obliged to determine why they are going to war, what they want to achieve, and how their forces will achieve it. Then the politicians and their military advisers must test whether what is desired is attainable within the limits of the power their country possesses, and at a price their society is willing to pay in lives, treasure and reputation. To make this calculation, political leaders (in close consultation with their military advisers) must understand the context of the war, the physical and moral strengths of the opponent's military, and the resolve of the opponent's population. They must also assess the price of failure, for defeat will come with additional costs. Without this test being honestly and frankly undertaken, a society's leadership risks embarking on a war that cannot be won, or at least not won at an acceptable price. Allowing emotion or hubris to make the decision is almost certainly a guarantee of defeat. This is the fate of the United States, for example, in its recent wars in the Middle East.

While not an accident, war can come about because of an error in judgement or a miscalculation. A classic incident of misjudgement occurred in 1870 when the Chancellor of Prussia, Otto von Bismarck, deftly manoeuvred the Emperor of France, Louis-Napoleon, into declaring war.⁴⁵ The prideful French Emperor took the bait and led his nation into a war with Prussia that he did not understand. France lost and Bismarck secured his aim, the unification of Germany under Prussian leadership. Louis-Napoleon lost his crown.

The main cause of miscalculation is ignorance and hubris. Those making the decision to wage war must be well versed in their understanding of strategy, the context of the time and, most importantly, their knowledge of history.

Williamson Murray was correct when he observed that:

*... ignorance of the past, dismissal of history, or simply distortions of recent events have resulted in disastrous choices by statesmen, political leaders, and generals. But that has not prevented successive generations of rulers and their political and military advisers from ignoring the lessons of history and marching down the road to disaster.*⁴⁶

The need to honestly test one's reasoning for going to war is of such critical importance that further elaboration is warranted. As Murray and his colleague Allan R Millett have pointed out, it can be difficult to ascertain the true strength of one's future adversary. Even the strength of your own military, and the willingness of your population to support the effort, may prove challenging to assess.⁴⁷ Much of the information that forms the basis of the decision will be incomplete, subject to misinterpretation, and discounted or ignored because of human foibles. One such common foible is prejudice: an unfounded or exaggerated belief in one's own national superiority. To put it more simply, racist attitudes have a tendency to corrupt the decision-making process.

Despite the inherent difficulties in making decisions in an incomplete and confusing knowledge environment, an honest and probing assessment must be undertaken. To embark upon a war without such consideration is rash at best, and stupid at worst. It is also a dereliction of duty to one's society, whose fate may be at stake.

The Non-Existence of Peace

If waging war is a normal endeavour for humanity, what does that imply for another state of human society: peace? War and peace are typically described in oppositional terms. In the Western military tradition, a nation and its citizens are either at peace or at war. It is a binary relationship; if one is occurring, the other is not. This mindset, however, posits an incorrect relationship between the two conditions. War and peace are not opposites; they are different stages in the relationship that exists between two or more societies. A description of similar relationships in the natural world can help explain the true connection between war and peace. Cold and hot are two extremes on the scale that defines temperature. Cold, however, does not

exist. It is simply the absence of heat. Similarly, dark does not exist; it is only the absence of light. In the same vein, peace is not a condition that can be defined without reference to war. It exists only in war's absence.

The fallacy of the Western binary relationship can be contrasted with how other states treat the distinction between war and peace. For example, in his brilliant analysis of Soviet/Russian military doctrine, Oscar Jonsson outlines how contemporary Russian military leaders and thinkers no longer draw a distinction between peace and war. According to such thinkers, Russia is presently at war with the West, even if Western States do not see it that way.⁴⁸ For Russia, peace is at best only a preamble to war. Lenin, the Soviet Union's intellectual founder, reversed Clausewitz, whose work *On War* he had read. For the Soviets, war was not a continuation of politics as Clausewitz asserted. Rather, politics was a continuation of war.⁴⁹

War is the norm, peace is a human construct, and it is a paradox that a prerequisite for the establishment of peace is often war. Alternatively, to quote one of the oldest sayings on the creation of peace:

*Therefore, he who desires peace, let him prepare for war. He who wants victory, let him train soldiers diligently. He who wishes a successful outcome, let him fight with strategy, not at random. No one dares challenge or harm one who he realizes will win if he fights.*⁵⁰

The True Extent of War

How societies relate to each other is more complex than just the two conditions of war and peace. While war always involves the use of physical violence (or its threat), societies can also secure their desires and fulfil their needs without resort to the type of violence that is typically associated with war. States (and sub-state actors) can employ other means of coercion to get what they want. For those that adhere to Western values, this can be a difficult situation to accept. But it is no less true for that fact. As US Army General Joseph Dunford has acknowledged, potential adversaries do not necessarily accept a clear distinction between war and peace.⁵¹ Not everyone accepts our rules.⁵² The uncomfortable reality (that those who follow Western values have denied for far too long) is that, with or without violence, societies are in a constant state of competition, striving for advantageous positions with which to leverage their goals or to lay the

foundation for a more secure position in a war to come.⁵³ Reflecting on the difference between Western powers and others in their perspectives on warfare, the Chief of the General Staff of the Armed Forces of Russia, General Valery Gerasimov, observed that 'while the West considers these non-military measures as ways of avoiding war, Russia considers these measures as war'.⁵⁴ His conclusion is similar to what the Chinese military have called 'unrestricted warfare', which is defined as 'the ability to exploit virtually any element of a targeted society for your advantage'.⁵⁵

Competition actions between societies may involve coercive attacks in a coordinated, yet outwardly non-violent, assault. Such measures may include cyber or social media campaigns, or the use of national fishing fleets to stake a claim on someone else's waters. In fact, in the absence of physical violence it might not be obvious that one is, in effect, at war until it is too late and an opponent has gained a decisive advantage.⁵⁶ The Russian interference in the United States election in 2016 provides a compelling example of one state aggressively working to shape an adversary's domestic situation to its favour.⁵⁷ Competition actions can also involve calculated undertakings that contravene international norms; for example, China seized disputed islands and built artificial ones in the South China Sea without firing a shot, and achieved its goal of having the ability to contest, if not control, the area.⁵⁸

A contest between two or more societies is not over until a new mutually agreed-upon relationship emerges. This is the aimed-for end state of all war, competition and cooperation. Soldiers cannot, therefore, afford to be interested only in the combat phase of a contest with an adversary. The military cannot isolate itself from the broader objectives of its government. This is the critical mistake that the United State military made in Iraq. As the United States prepared to invade, its planners paid little attention to Phase 4 operations: the re-establishment of civil government. Instead, with Saddam Hussein's removal, the US Commander, General Tommy Franks, left Iraq believing that his job was done.⁵⁹ Unfortunately, the real war was only just beginning.

Because war is about creating a better peace (from your state's point of view), commanders and their staffs must foresee what the new relationship will be. Further, they must be prepared to assist other government agencies in achieving the sought-after end state. Only then can it be said that the war is over, notwithstanding that this juncture is simply the point at which a new cycle of societal interaction begins.

Chapter 3—The Soldier’s Job

What Soldiers Do

American General George S Patton of Second World War fame was known for blunt and profane language. One of his most famous lines captures the essence of a soldier’s job. He said:

*[N]o dumb bastard ever won a war by going out and dying for his country. He won it by making some other dumb bastard die for his country.*⁶⁰

As Patton makes clear, the job of the soldier is to apply state-sanctioned violence against those designated by her/his government as the enemy. Those who serve in the military are alone among the various agencies of government that have this prerogative. A soldier’s job (as well as that of a sailor or aviator) is a simple one: to kill or support those who kill.

There was a time when soldiers could comfortably divide themselves into combat arms and supporting arms. This still occurs, but in practice it no longer matches the reality of the modern battlefield; the distinction between front line, communication zone, rear area and even national support base is increasingly meaningless. An improvised explosive device can just as easily destroy an armoured vehicle on a patrol as it can demolish a truck carrying supplies while transiting the line of communications. For some weapons, such as cyber, the range is immaterial. On today’s distributed battlefield, every soldier must be ready to fight and to kill no matter their job or location; otherwise they are likely to become one of Patton’s poor bastards.

The Army and Australian Society

As in other Western-style liberal democracies, the state exists in Australia because the people bring it into existence. The people’s will is the basis of the government’s right to rule. This holds particular relevance for the ADF because it means that those who serve do so at the behest of the Australian people. Ultimately, the people are the military’s employer through the agency of the government. Soldiers are drawn from within the community and

remain members of the community even after they join the Army. They return to the community when their service in the Army ends.

The Australian Army is one Australia's oldest institutions, and it is certainly among its most revered. The image of the 'Digger' is symbolic of more than the nation's martial valour. Its veneration is based on the unique calling of soldiers—their willingness to go into harm's way and to sacrifice themselves in order to secure the safety and future of others. Soldiering is a profession built upon the foundation of duty: duty to the nation, to the community and to fellow citizens. In a dangerous world, it is soldiers who stand before chaos so that ordinary Australians can enjoy their lives in safety, peace and tranquillity.

The term used to describe the connection between the government, the people and the Army is the 'civil-military relationship'. In this relationship, those in the military are subservient to the commands of the government, the laws of the nation and the ethical standards of the community, as well as to the international laws of war. In practice, this means that the military is answerable to the Minister for Defence. This may seem obvious, but this is the case only in those nations that adhere to this form of civil-military relationship.

In many other countries, the military holds a much more assertive position in domestic affairs than it does in Australia. The recent military coup in Myanmar aptly demonstrates a different civil-military relationship.⁶¹ In other countries, the military may be under the personal control of an autocratic ruler. The Army's main role in these societies is to protect the regime from its own people. This is the case in North Korea and in Venezuela. In such countries, to serve in the military is not to serve the people. It is to serve the leader of the state.

The Army and Support to the Government

Although the sole reason for the Army is to wage war, the Australian Government can employ land power for other purposes and does so with some frequency. The Australian Army has a long history of conducting domestic operations to assist the Australian community, as well as other non-warfighting tasks such as serving on United Nations missions. The Australian community expects that the military will help protect it during times of natural disaster, such as bushfires or severe storms, and to help in the clean-up after a flood.⁶² The most significant ADF community response

in Australia's history took place after Cyclone Tracy destroyed Darwin on Christmas Eve, 1974. This tragedy took 49 lives and blew away or damaged all but 408 of the city's estimated 10,000 buildings. Tracy left the city without power, water or sanitation—a situation that prompted Darwin's evacuation by the military. A prolonged recovery followed in which soldiers, sailors and aviators played a prominent part.⁶³

Similarly, the ADF has participated in a large number of assistance missions to neighbouring countries battered by storms, tsunamis, earthquakes and other natural disasters. The Boxing Day Tsunami of 2004 was the most destructive of these; it killed an estimated 230,000 people across 14 Indian Ocean countries.⁶⁴ As climate change increases the frequency and magnitude of storm and drought events, and accelerates sea-level rise, more frequent humanitarian and disaster relief interventions by the ADF are likely.

The Australian Government also calls upon the Army to conduct domestic aid to the civil power when tasks require a security capability that exceeds the resources of State or Federal police forces. In 1999, for example, the ADF activated Joint Task Force Gold to support New South Wales's running of the Sydney Olympics that was to take place the following year. Five thousand mainly Army military personnel, including 2,000 reservists, assisted in the security of the Games. The Commonwealth Games in Melbourne received similar support, as did the Brisbane Games.

Domestic counterterrorism is another aid-to-the-civil-community task which the military undertake. In 1978, a terrorist's bomb detonated outside a Sydney hotel at which the Commonwealth Heads of Government Regional Meeting had convened. The explosion killed three people. The following day, the government called out the military to assist the police. Nearly 2,000 soldiers, supported by 50 armoured personnel carriers from Holsworthy on Sydney's outskirts, soon found themselves conducting search, guard and convoy duties in order to protect the meeting from further attacks. The Army also helped police to evacuate the delegates to Bowral, where the meeting resumed. This terror attack demonstrated the Army's ability to provide the government with a security response on a stand-by basis.⁶⁵

The Army and Politics

In a democracy, it is the convention that the Army is not a political organisation. This does raise some challenges for the conduct of war. The nation's military leaders are apolitical, yet war is a political endeavour. However, few of the nation's political leaders have served in the military, and most lack a detailed understanding of military affairs, or of war. Waging war requires a balance between the political objective—the aim—and the means of its attainment: warfighting. This being the case, the nation's politicians and senior military leadership must bridge the gap that separates their respective specialisations. This civil-military relationship is essential in order to formulate sound strategy, to allocate suitable resources and to mobilise forces to prosecute military missions. This is not an easy task and it is fraught with cultural and social difficulties. This challenge will be discussed more fully in the next chapter.

Chapter 4—The Government and War

The Army as a Lever of Policy

The Australian Army is an organ of the Australian state. It is one of a number of levers available to the government to achieve its policy goals. Although the Army is capable of fulfilling other tasks, soldiers are recruited, trained, organised and equipped to apply violence—or its threat—against adversaries which the government believes are a risk to Australian territory, nationals or interests. From the perspective of policy fulfilment, the Army is no different to any other part of the government, even if the methods it uses are unique to the military; it does the government's bidding.

Because the Army is a subset of the government, another feature of the employment of military power should be clear: soldiers do not start wars. That is a prerogative reserved to the nation's political leaders. It is the leaders of the government who make the decision for war. The nation's political leaders employ the military to secure an aim.

The Army, and the other services, help advance the government's regional policy goals by engaging with the militaries of nearby states. For example, the Australian Army works with the land forces of regional countries through the conduct of joint exercises and personnel exchanges, as well as by welcoming foreign soldiers to its schools. To this end, the ADF maintains a robust international engagement policy. For example, Australian engineers have a longstanding relationship with the engineers of the Papua New Guinea Defence Force (PNGDF). Annually, Australian Army engineers conduct a joint training exercise with their PNGDF counterparts in PNG, sharing skills and also building relationships.

Tasking Army in support of non-warfighting objectives is not a misuse of scarce resources, because these operations have strong military benefits. They provide Army with the opportunity to test procedures, command relationships and equipment, as well as the leadership ability of its own commanders. These activities are a way to prepare the land force for war without going to war, and thus help ready the force for its true purpose.

Creating Combat Power

The Australian Government provides soldiers with the myriad tools they require to do their job. Equipment ranges from the uniforms and body armour soldiers wear, to the personal weapons they carry and the food they eat. It also includes the vehicles in which they ride or from which they fight, the devices they use to communicate, and the medical equipment needed to treat the wounded and ill. The military is responsible for the identification of equipment requirements and the recommendation of quantities and types to purchase. The final decision on what to acquire, and in what number and time frame, however, is reserved to the government. Because of this, the acquisition of any equipment, facility or infrastructure is both a military and a political decision, and any spending on the military must be balanced against the needs of the wider Australian community. There are many calls on the nation's purse, and the military is not necessarily the most important.

The equipment an army issues to soldiers, and the training undertaken, has two purposes. First, it protects and empowers the individual, giving soldiers the basic tools with which to do their job. The army then builds what can be called 'combat power'. Combat power is the ability of a military force to apply effects that physically and psychologically damage an adversary, leading to the breaking of the enemy's will and increasing its willingness to submit. Achieving combat power involves linking soldiers into teams, units and formations to achieve the necessary cohesion to work in combination (under the direction of their commanders) and in cooperation with the navy and air force, as well as with coalition partners. Combat power is the measure of an army's worth. For a government, 'the utility and strength of an army lie most of all in its capacity to fight'.⁶⁶ Importantly too, the generation of combat power enhances a force's ability to absorb damage and to be resilient, which assists in the retention of the army's will to fight.

The Army and System War

By training the individual to work within a team, and having teams work with other teams, the Army creates a system for fighting. That an army fights as a system is no different to how the other military services wage war, even if they tend to describe their fighting platform in terms of ships or aircraft rather than people. For example, the Royal Australian Navy and the Royal Australian Air Force base their systems on platforms, whereas for the Australian Army the basis of its warfighting system is the individual soldier working with other soldiers. Soldiers who are properly equipped, trained and educated become components of a team that is significantly more powerful than the sum of the individuals of which it is comprised. This means that a unit or formation, such as a company team or a battalion group, is a cohesive entity that fights in unison with other elements of the organisation. It is also possible, indeed desirable, to integrate systems so that one system leverages the capabilities of another, or exploits weaknesses in enemy systems. For example, soldiers have the ability to access fire support from aircraft.

The Army system is highly flexible, and planners can optimise a force for a particular mission, whether it is warfighting or some other role. By adding or subtracting a variety of teams (for example artillerists, signallers or logisticians) the Army can modify the system in accordance with the particular need of the particular mission. This is a result of Army being a skill-based and not a platform-based organisation. Of the three services, this makes the land force the most flexible in terms of the capabilities it can offer government in order to meet national security objectives.

That soldiers conduct system war is not an innovation or a product of our technology-focused age. It is a situation that dates back to the origins of organised war. From the classical age to the present, soldiers who had learned to fight together came to dominate their era. For example, for more than two centuries, Swiss infantry ruled the European battlefield, and between 1315 and 1515 they did not lose a contest. Swiss soldiers did not possess a technological advantage. Their weapons were the same ones that their enemies carried: pikes, halberds, crossbows and axes. Nor did they have superior armour, as they typically fought without any, unlike the medieval mounted knights they defeated. Instead, the superiority of the Swiss resulted from two interwoven factors. The Swiss instilled in their troops a sense of duty and discipline, and soldiers fought together as a cohesive

system.⁶⁷ Similarly, the killing power of the Roman Legion derived from strong discipline, hard training, and learning how to fight together as a team.⁶⁸

In addition to providing the army with its equipment, the government provides funding with which to train its soldiers. No one is born a natural soldier (although some individuals may have a certain aptitude). It is only by hard and realistic training that soldiers come to coordinate their actions and learn how to rely on each other. Today, soldiers carry rifles, not pikes, and contemporary range weapons can hit targets hundreds—if not thousands—of kilometres away. In teaching soldiers how to fight together, the Australian Army strives to achieve the same effect as the Swiss and the Romans who preceded them: superiority in military effectiveness designed to achieve the government's aims.

Chapter 5—How We Fight

The Australian Approach to War

How a land force fights should not be fixed in its methodology. It results from the interaction of factors, some of which are relatively constant and others that are variable. The relatively constant factors include history, geography and cultural preference. The variables include the context of the war, the available technology, and the combat readiness and capability of the force. Of equal importance in determining how a military fights are the readiness and capabilities of the enemy, although an accurate assessment of the adversary's strengths and weaknesses may be difficult to establish.

However, despite the various factors, there is actually only one way Australian soldiers, sailors and aviators should fight. The ADF's leaders must conduct war in the most effective manner in order to achieve, in the most efficient way, the government's aim for the war. As is always the case, a country's war aim may be limited to denying the enemy the achievement of its goals. No matter whether a society is the victim of aggression or is its perpetrator, the manner of fighting must align with the attainment of the government's political aim or aims.

Even before a war starts, a commander must understand what it is the Australian Government wants her or him to achieve, the likely means by which the enemy will strive to deny success, and the character of the conflict to be embarked upon. This means that before the commencement of a war, Australia's political leaders must think hard on what they want to achieve by taking the country into war and the provision of the necessary resources they will need to commit to the effort.

How the ADF prepares and trains for war may not necessarily be appropriate to the war that it must fight. The government may assign the military a task for which it has not trained, and available personnel, equipment and ordnance may be insufficient for the mission. If this is the case, senior military leaders must inform the government if they believe that what is asked of them is not achievable. Thus, going to war requires a back-and-forth exchange of information between the military and the government and an honest judgement of what can and cannot be done. Complicating

the matter further in war, the enemy gets a vote. For example, in the Vietnam War the United States would have preferred the North Vietnamese and Vietcong to fight in a manner more susceptible to the Americans' overwhelming firepower. That the enemy refused to do as the US wished should have come as no surprise.

In fact, it is impossible to anticipate all the variables in war. Instead, the enemy will do what it can to make warfighting as hard as possible, including doing what a commander did not anticipate or even think feasible. For example, the improvised explosive device became the enemy's weapon of choice in Afghanistan because, for the Taliban, doing so offered a clear operational advantage. Attempting to force a war into a preferred way of fighting rarely works and usually ends in catastrophe, as the United States learned in Vietnam and the Russians and Americans in Afghanistan.

A military should realise that if it declares a way of fighting it is only stating a way of training. Adversaries will choose to avoid an opponent's strengths while targeting their weaknesses. In Afghanistan, the US-led coalition's weak point was its massive logistic tail. In response, the Taliban focused its efforts on logistics disruption. Upon the commencement of hostilities, a military should anticipate the need to adapt to operational realities rather than remaining hostage to pre-deployment doctrine, training, techniques and procedures.

Even if the Australian Army incorporates all these factors into the way it fights, and becomes a master at military effectiveness, it is not enough. The Army's leaders must be ready to react to the unexpected. War is too complex for any commander to control, no matter her or his genius.⁶⁹ Commanders are hostage to the unknowable, a feature of all complex activities which in military terms is called the fog and friction of war.⁷⁰ War is also waged against a living, thinking opponent whose own aim is to win. A veteran of war captured the essence of the challenge of defining a way of fighting when he wrote:

For what art can surpass that of the general?—an art which deals not with dead matter but with living beings, who are subject to every impression of the moment, such as fear, precipitation, exhaustion—in short, to every human passion and excitement. The general has not only to reckon with unknown quantities, such as time, weather, accidents of all kinds, but he has before him one who seeks to disturb and frustrate his plans and labours in every way.⁷¹

Lieutenant General Albrecht von Boguslawski fought for Prussia in the 19th century, but his words still resonate for today's soldiers.

The complexity of waging war means that commanders struggle to control actions and shape events on their own side. The enemy's actions and the events to which they will respond are even less controllable. War's conduct is infinitely variable. This is why it is critical for a commander to understand the kind of war in which she or he finds herself or himself. Misinterpreting your war aims, and those of your opponent, will invariably create difficulties that may prove fatal to your cause.⁷² Perhaps, therefore, the most important attribute required of a commander, and the officers and soldiers she or he leads, is the ability to understand the context of the fight and adjust to it as needed, and to do so quickly. Therefore, for a military to focus on waging a particular form of war is likely to be a mistake since one cannot predict the future. The better approach is to follow Michael Howard's adage and accept that you will get the future war wrong and that the better approach to have is the ability to get it right quickly.⁷³

The Australian Army's Aspiration: a Manoeuvrist Way of War

Despite recognising that war's conduct is highly variable, the Australian Army does narrow its preparations to a definable style of war. No military has the resources or time to prepare for all eventualities. In response, the particular style of warfighting to which the Australian Army aspires is a 'manoeuvrist' approach.

A manoeuvrist style of war places the priority on defeating the enemy's plan, rather than the enemy's forces.⁷⁴ Liddell Hart termed this technique the *Strategy of the Indirect Approach* and defined the objective as the dislocation of the enemy's moral and material balance rather than its destruction.⁷⁵ In manoeuvre war, one pits one's strengths against enemy weaknesses. This approach seeks to neutralise the enemy's ability to resist and its will to continue the fight. In practice, it calls for shattering the enemy's cohesion so that its ability to fight as a single entity, or as an effective system, is reduced. In manoeuvre warfare the enemy's command, communication and support organisations are prime targets for attack because they are relatively weak in comparison to the opponent's offensive capability. Thus the goal of manoeuvre warfare is to 'incapacitate by systemic disruption'.⁷⁶ As the enemy's forces lose their cohesion, the ability

of enemy commanders to control that force declines, resulting in reduced effectiveness and ability to coordinate force and seek effect.

Manoeuvre is not limited to actions in the physical space. While the term manoeuvre may bring forth images of armoured vehicles racing across desert sands with helicopters and aerial drones supporting from above, the more likely reality is that of women and men at computer terminals in darkened bunkers identifying targets for kinetic, cyber or information strikes. In today's digital age the ability to target, hit and destabilise the enemy physically and psychologically through electronic means is a likely prerequisite for any physical manoeuvre.

Adopting a manoeuvrist approach holds promise for an army with the resources and technical skills of a nation such as Australia. Lacking mass and ready reserves of personnel and materiel, when compared to larger potential rivals, the Army's pursuit of manoeuvre is a useful one and has the potential to offset a potential adversary's strength. The ability to draw on the skills of a technologically adept and educated society also offers advantages that a manoeuvrist force can exploit. As the Fourth Industrial Age unfolds, the Australian Army should be able to leverage additional avenues to overcome the enemy through indirect means.

Unfortunately, while Australia aspires to a manoeuvrist style of war, the Army has tended to fight in an attritionist style, with the goal of exhausting the enemy's reserves of soldiers and materials as a prerequisite for the exhaustion of its will. In some of their wars, such as Vietnam, the United States and Australia sought the destruction of the enemy's forces as the means to victory. Throughout the Vietnam War, the tactical method was to locate the enemy, fix it in place, and destroy it with firepower. Therefore, while manoeuvre is a useful focus for the Army's preparation for war, once a war begins Australia predictably finds itself in a struggle for which its preferred style is not well suited.

The Reality of War—Exhaustion

When a nation decides for war, its political and military leaders are predictably overoptimistic in their expectations of a short war in which they will prevail at minimal cost. No-one plans for a long war or a war they cannot win, although a nation's political and military leaders may be aware of that

possibility and still decide to roll the dice. For example, the consensus of European combatants at the onset of the First World War in August 1914 was that the coming storm would last weeks, or at worst months, and that it would definitely be over by winter.⁷⁷ More than four years and 40 million fatalities later, the war ended.⁷⁸ In a similar vein, when the Japanese chose to attack the United States in 1941, its leaders understood that America's economic might dwarfed their own, and that they would not prevail in a long struggle. Seeing no other route to achieve their aims, they still took the risk, convincing themselves that the United States would concede after a series of opening losses, a calculation that proved misguided and led to Japan's total defeat.

Short wars do happen. Prussia's victory over Austria in 1866 and its even easier defeat of Denmark in 1864 are examples. Japan's undeclared 1939 war with the Soviet Union over their mutual border lasted a couple of months—that is, until the Russians crushed the Japanese at the Battle of Nomonhan. When the United States invaded Grenada in 1983, it took only a few days to overcome the island's resistance.

Short wars are the exception, however. The likelihood is that most wars will see prolonged struggle between determined adversaries and will end with one or both sides' exhaustion. This is the case even in those wars where one side has a technological or economic superiority. Despite its enormous advantages, for example, the United States still failed to subdue Afghanistan. The French experience in Vietnam provides another example. In its effort to re-exert its colonial authority after the end of the Second World War, France outclassed the North Vietnamese Communists in virtually every category of military effectiveness. Yet it was the French will which broke first.

When wars occur between large states it is even more likely that a long war will result. This is because big states can absorb the initial blow and draw upon deep reserves of strength. This is not just a function of modern industrial-age war. The Hundred Years War between France and England lasted 116 years. As war grinds on, attitudes on both sides tend to harden, as do the terms of settlement, and concession becomes more and more difficult, until finally one combatant nears or actually reaches collapse. In the First World War, Germany's declared terms for peace became ever more extreme as its military situation continued to deteriorate. In 1941, when the Soviet Union did not collapse as quickly as the invading Germans had planned, its resistance bought sufficient time to mobilise considerable

reserves of labour and industrial capacity. As a result, Nazi Germany was slowly ground down by a power with a superior depth of resources. In both World Wars of the 20th century, Germany launched what needed to be short wars for goals that could only be accomplished by prolonged campaigns, a significant failure of strategic judgement.⁷⁹

Sometimes there may be pauses in a conflict before its resumption, as was the case at intervals during the Hundred Years War. In reality, however, such breaks are merely periods in which tired combatants rest, rearm and train replacements before the fighting resumes. Ultimately, attrition and national exhaustion are how most wars end, a reality that should be of concern for the Australian Army and that it needs to acknowledge.⁸⁰

Explaining the Manoeuvrist Contradiction

Why, then, does the Australian Army aspire to a manoeuvre style of war when nearly all wars in general, and Australia's wars in particular, are resolved by attrition and exhaustion? The answer lies in part in Australia's modest population when compared to that of other nation states. While it is a wealthy and resource-rich country, Australia does not have the scale of population that potential adversaries possess. Therefore, it is rational to pursue a way of war that does not rely on mass, even if it means overlooking one of the historical truths of war.

The other question to consider is that if mass is a requirement for a long war, how did Australia sustain the fight in the wars it has already fought? The answer is that Australia always fights as part of a coalition in which the other members contribute the mass and depth of materiel needed to prosecute the war to its eventual end. Australia's only requirement for sustaining a long war is the national will to stand by the coalition leader and continue the struggle to its conclusion, no matter the outcome. The coalition leader supplies nearly everything that Australia and the coalition need, whether that leader has been the United Kingdom or the United States. Australia therefore accepts a degree of dependence on a larger power in order to be provided that which it cannot provide itself.

There have been a few small and limited exceptions in which Australia acted independently, but they are the exceptions that prove the rule. In the First World War, Australia raised and dispatched the force that captured German colonial territory in what is today known as Papua New Guinea. Australian

forces also predominated during the opening phase of the campaign in New Guinea in the Second World War. This proved a temporary state of affairs. Once US troops, aircraft and ships began to pour into the theatre, Australian forces were pushed to the operational periphery. By the war's end, the Australian Army was confined to the struggle's backwaters.⁸¹

While these factors explain the contradiction in the Australian way of war, they do not resolve the tension inherent in preparing to fight one way but having to fight a different way. Worryingly, across Australia's primary area of national strategic interest the technological, demographic and wealth trendlines are all moving unfavourably relative to Australia. Additionally, the balance of power throughout the Western Pacific is changing as other countries become more economically and militarily powerful, as well as more assertive. This means that Australia's ability to manage a war of exhaustion will become even less certain in the future.

Squaring the Future War Circle

Unable to supply the necessary mass on its own, and facing a more disruptive and dangerous future as regional powers gain in influence, Australia faces a wicked problem in providing for its own future security. The simplest solution would be to increase the nation's reliance on the United States for the provision of the mass that Australia lacks. But while this is a valid approach, it does come with the need to participate in US-led operations that may not be in Australia's best interests.

There is another option, but its implementation requires Australia to recognise an uncomfortable truth. Australia needs to accept that it is militarily weak relative to potential adversaries.⁸² Moreover, its relative weakness will only increase as the region's powers grow in strength. The posture of the weak has always been defence and a deliberate prolonging of a conflict in order to wear down the will of the strong, as the North Vietnamese did to the United States in the Vietnam War. To accept a state of weakness will challenge the widely held belief in ANZAC superiority, no matter the situation. However, under future conditions, the Australian Army may do better to look not to Blamey and Monash for inspiration but instead to leaders such as Mao Tse-Tung, Ho Chi Minh and Che Guevara. For these leaders the objective was not to be the one exhausted, but to be the one doing the exhausting.⁸³

The Levels of War

Military practitioners divide the waging of war into three subsets, namely strategy, operations and tactics. Strategy and tactics are ancient ideas and the words derive from classical Greek. By contrast, the term operations is of more recent origin. Strategy is the art of generalship. It is how military and civilian leaders translate war aims into a series of steps that the armed forces prosecute, along with making decisions on the allocation of resources and the provision of materials. In essence, strategy is ‘the art of creating power’ or, expressed differently, the ‘glue that holds together the purposeful activities of [the] state’.⁸⁴ Tactics is easier to understand: it is simply the waging of battle. Operations sit between the two and encompass the coordination of a series of battles towards a larger goal.

Of the three—strategy, tactics and operations—strategy is the most important. It is also the most difficult and has the greatest consequences if done poorly.⁸⁵ It is worth remembering that it is possible to win every battle and still lose a war if the strategy followed is inappropriate to the achievement of the government’s aim or to the context of the conflict. In his analysis of the Vietnam War, Colonel Harry G Summers made this point powerfully by relating a conversation between an American officer and his North Vietnamese counterpart. The American stated that the Vietnamese had never defeated the United States in battle. The North Vietnamese officer admitted that this was true and then added that it was also irrelevant.⁸⁶ Failure at tactics is more forgiving than failure at strategy. Since most wars are long, a combatant may have the chance to correct battlefield mistakes, adapt tactics or deploy new weapons, but political and strategic mistakes live forever—or at least until failure results in a radical redefinition of war aims.⁸⁷

Empowering strategic, operational and tactical levels of war is a military concept called logistics, another old word also from the Greeks. Military logistics, or the administration of war, brings a commander’s plan into existence. Wise commanders know that mastering logistics is ‘the real foundation[s] of military knowledge’.⁸⁸ Logistics sets boundaries on the art of what is possible, and what is not possible, and breaching these boundaries usually results in failure or worse. In planning and conducting war, time spent on logistics is rarely wasted and logisticians should be central to the design of any mission.

Even the most renowned generals can sometimes get logistics wrong, and the consequences of this happening are invariably severe. When Alexander the Great's carefully conceived logistic plan failed as he traversed southern Persia, it precipitated the greatest crisis of his military career. Seventy-five per cent of his army did not survive the march.⁸⁹ A commander who does not pay close attention to logistics is courting disaster.

Since Australia has always fought as a junior partner in a coalition, it has little experience at the strategic level of war. Australia has tended to defer strategy making to its bigger allies. This was the case in the Second World War, for example, when all key decisions were made by the leaders of the United States, the United Kingdom and the Soviet Union. Indeed, the American General Douglas MacArthur became Australia's de facto military commander. Such is the fate of the small power, but this fate can have consequences that are outside the junior partner's control or ability to influence. For example, in the Second World War, American, British and Soviet strategic leadership led to victory, whereas in the 2003 war with Iraq, US strategic leadership led to defeat.

As the army of a small power, tactics is the level of war at which the Australian Army has excelled. Its most significant contribution on the Western Front in the First World War was its troops' ability to dominate 'no man's land'. In Vietnam, it was the Australian skill at patrolling and ambushing that was most noted. Skill at tactics is important because, as Charles Callwell has observed, it, not strategy, is the final arbiter in war. That is because 'the battlefield decides'.⁹⁰

Logistics is another aspect of war that suffers due to Australia's tendency to be a junior partner. As much as Australia is dependent on a great power to formulate strategy and to provide warfighting mass, it is even more dependent on its senior partner for logistic support. In all of its wars, Australia's forces consistently received the majority of their support from its coalition partner. To make its support easier in Vietnam, Australia even switched some of its weapons to those from the United States so that it no longer had to ship ammunition and spare parts from home.

Grand Strategy

Sitting above military strategy is Grand Strategy, a nation's most important guidance for the planning and waging of war. It is in the practice of Grand Strategy that a government coordinates and directs the resources of the entire nation, not just the military, towards the attainment of the object of war. These resources include population, industrial and agricultural output, resources, diplomatic advantage and all other assets that the state can harness to the war effort. The pursuit of Grand Strategy is a whole-of-government mission that requires input from a host of departments. The design and implementation of Grand Strategy is, therefore, a matter not just for the military but for the most senior members of the government. The government can also decide upon a Grand Strategy to set a path towards a domestic objective that may not sit within the realm of war. For example, upon his election as Prime Minister, Bob Hawke set out to modernise and open the Australian economy in order to make it more competitive in a globalising world.⁹¹

Since states constantly compete and cooperate with each other in order to gain advantage, the conduct of Grand Strategy is not just a matter for wartime. Grand Strategy also involves the coordination of resources to achieve national ends that do not require the application or threat of violence. Consequently, Australia requires a Grand Strategy (or, to use a broader term, a national vision) even when it is not at war, or at least not war as currently defined by Western powers. Not only must Australia have a Grand Strategy; it must also have a coherent narrative by which this vision can be explained to the Australian public and others. For example, the success enjoyed by China in the South China Sea has been accomplished by means that do not fit within the West's definition of war. Chinese leaders have been adept at articulating a plan—a Grand Strategy—and coordinating the resources and means of the state to achieve that goal. Their success demonstrates that Grand Strategy is needed if coordinated action is to result.

This form of competition and cooperation is called 'political warfare', a term first defined by George Kennan in a policy memorandum written in 1948. He stated:

[P]olitical warfare is the employment of all the means at a nation's command, short of war, to achieve its national objectives. Such operations are both overt and covert. They range from such overt

*actions as political alliances, economic measures, and 'white' propaganda to such covert operations as clandestine support of 'friendly' foreign elements, 'black' psychological warfare and even encouragement of underground resistance in hostile states.*⁹²

As highlighted by the Chief of the Defence Force, General Angus Campbell, in a speech to the Australian Strategic and Policy Institute, political warfare waged by nations with interests inimical to Australia is an active threat.⁹³ He observed that political warfare has the ability to subvert, erode and undermine international norms without crossing the threshold of war.

Australia does profess a Grand Strategy, but it is not one of its own making. Australian political leaders and security documents make frequent mention of the need to maintain the rules-based world order that the United States implemented in the aftermath of the Second World War.⁹⁴ While this adherence to a rules-based world order is the present Grand Strategy, it is not clear how much longer it will serve, due to shifting forces in the international community that Australia can barely influence. The existing world order is under threat as wealth and power shift to East Asia. Climate change and other challenges to the global ecosystem add another degree of future uncertainty.⁹⁵

Australia has not articulated a vision for the more disruptive future that is likely coming as the existing world order disintegrates and climate change accelerates. If Australia is to succeed in a disruptive and transformative 21st century, it must decide where it is going. The nation requires a goal towards which it can direct its many national resources. Once the government settles on a future Grand Strategy, a national vision, the ADF will be able to contribute to its attainment, from competition through to violent war.

Training for War

Sweating on exercise, manoeuvring through the rain and mud, forging a team of fighters and building resiliency by pushing your body to its limit are all part of the essential training required to become an effective combatant. Hard and realistic training enables mission success and enhances the odds of personal survival in the most dangerous of all human occupations. This is how it has always been and how it will remain, no matter where technology takes war. The opening words of Roman author Vegetius in his manual of

war state that Rome conquered solely because of the training of its soldiers. He continues that it is usually not numbers or bravery that matter in battle but skill and training.⁹⁶

There is nevertheless another dimension to training that is as important as the expenditure of sweat. Specifically, for those who lead, the training of the mind is as critical as the training of the body. For every hour spent at physical exertion an equal amount, if not more, should be directed at intellectual development. This observation is not a new one. Maurice de Saxe in his *Reveries on the Art of War* commented that a general must possess three qualities: courage, intelligence and health. He expands on the necessity of intelligence:

*He should possess a talent for sudden and appropriate improvisation. He should be able to penetrate the minds of other men, while remaining impenetrable himself. He should be endowed with the capacity of being prepared for everything, with activity accompanied by judgment, with skill to make a proper decision on all occasions, and with exactness of discernment.*⁹⁷

Centuries earlier, Sun Tzu included wisdom as one of the five qualities of a general.⁹⁸

Soldiers need a great and probing intellect because, as Clausewitz has highlighted, success in any complex activity requires the mind to be harnessed. Of human activities there is arguably no trade that is more complex than waging war. This is because not only is war physically and morally demanding but also the enemy is a fellow human whose intent can, at best, be suggested and never truly known.⁹⁹ Clausewitz captured this reality when he stated that war takes place in the realm of uncertainty and asserted that:

*... three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgement is called for; a skilled intelligence to scent out the truth.*¹⁰⁰

What remains is to explore how one develops the skilled intelligence that Clausewitz, and others, say commanders require. For this there is considerable guidance, including from some of the greatest commanders in history. Napoleon urged soldiers:

*Peruse again and again the campaigns of Alexander, Hannibal, Caesar, Gustavus Adolphus, Turenne, Eugene and Frederick. Model yourself upon them. This is the only means of becoming a great captain, and of acquiring the secret of the art of war. Your own genius will be enlightened and improved by this study, and you will learn to reject all maxims foreign to the principles of these great commanders.*¹⁰¹

What Napoleon was saying is that to become a great military commander you must study the history of war. There is no way to overcome the uncertainty of war other than to study its history. Others have come to a similar conclusion. The historian of American naval power Alfred Thayer Mahan was quite direct on this point, writing that ‘the study of military history lies at the foundation of all sound military conclusions and practices’.¹⁰²

Experience is also not a reliable substitute for study. War is, hopefully, a rarity for most Australians. A soldier who joined the Australian Army at the end of 1972 would likely have spent an entire military career at peace, the next war not being until 2002. Michael Howard captured the need for military professionals to gain knowledge and understanding through study, not experience, in his oft-repeated quote on learning. He wrote:

*First, his profession is almost unique in that he [or she] may have to exercise it only once in a lifetime, if indeed that often. It is as if a surgeon had to practise throughout his [or her] life on dummies for one real operation; or a barrister appeared only once or twice in court towards the close of his [or her] career; or a professional swimmer had to spend his life practicing on dry land for an Olympic championship on which the fortune of his entire nation depended.*¹⁰³

Possessing a deep knowledge of history has one further benefit — it lowers the risk of making decisions in ignorance. An inability to reflect wisely on the past dooms leaders to likely defeat. In 2002, the US security advisers who argued in favour of war with Iraq did so largely without an understanding of the region’s culture and history while also discounting the challenges of post-conflict reconstruction. The US Army’s failure to retain the counter-insurgency knowledge and skills taught to it by the Vietcong in Vietnam meant that these lessons had to be painfully relearned in Iraq and Afghanistan.¹⁰⁴ Political and military leaders who are ignorant of the past lay the seeds for their nation’s defeat in war as well as the loss of the women and men who serve them.

Chapter 6—The Changing Character of War

Why War Changes—and Why It Does Not

Humans understand that in war there is a better chance of success if one has an advantage over one's opponent. Only fools seek to wage war as equals. If one combatant has an advantage over an adversary, the other must offset that advantage and seek one of its own. One of the features of war, therefore, is a constant cycle of adaptation and counter-adaptation as both parties pursue an advantage.

If how humans wage war is dynamic, its practitioners must also remember that some aspects of war remain constant. As previously discussed, the most important is that war must have an aim. The possession of an aim is what gives war its rationality and distinguishes its waging from mere violence and criminality.

Although war is a rational act, it is waged by humans, who are not fully rational but are also driven by a host of emotions. This gives war another of its constants: its unpredictability and randomness. Even in an age of increasing reliance on artificial intelligence, human emotion and intellect mean that war will never be a quantifiable act whose course is assured. Every war will contain elements of surprise and uncertainty.

Another constant is that nations go to war to force a change in the existing relationship with their opponent. War ends when a new relationship is established—one which, since success is never guaranteed, may or may not be what the aggressor sought.

Since war is meant to force an opponent to accept something that it may not desire, its nature is adversarial. For this reason the will to persevere is perhaps the most important factor in determining a war's outcome. Despite seemingly overwhelming military advantage, the United States and its partners, including Australia, lost the Vietnam War because their opponent had a greater determination to maintain the fight and pay the price.

Success in war requires commanders to possess an understanding of how to act within the constraints of factors that do not change, and the

willingness to adapt to opportunities that arise where change is possible. Great commanders are those who can balance the eternal nature and the shifting character of war.

The Pace and Intensity of Change

The intensity and pace of invention and adaptation has varied over the history of war. Contemporary military and defence commentators believe that humanity has again entered a period where a significant shift in the character of war is possible due to a number of advances, including artificial intelligence, nanotechnology, robotics and other technologies. Quantum computing promises to be as important to humanity as the perfection of the steam engine or the internet. Globally, defence forces are actively seeking to exploit these advancements for advantage. Additionally, an increasingly networked world is creating opportunities for the weaponisation of social media and suggesting a greater role for information operations, including cyber, in warfare.¹⁰⁵ In future war, the key factor in success may be the mastery of information, and the ability to exploit this information at a pace faster than your opponent. Some commentators go as far as to foresee a future in which close combat is the domain of machines and the presence of the human on a battlefield will be quite rare.¹⁰⁶

Change in the character of war is driven by a number of factors. Novel technologies, or the repurposing of existing technologies, often receive the most attention, but such factors may not be the most important. Developments in social organisation across an increasingly interconnected world, in which people are less bound by the limitations of distance and time, may prove more significant in war's evolution.

Humanity is also experiencing a shift in the climate that is the foundation for civilisation. Forecasts are that Australia and its regional neighbours will be significantly affected by climate change, with a consequent increase in instability and the likelihood for war. The global balance of power is also changing as wealth continues its move to the East from the West. This is significant because wealth translates into military might. Those within the ADF charged with determining the future character of war and designing the future force must, therefore, be cognisant of much more than just technology.

As we are only at the start of this potential cycle of change, it is not yet clear which technologies and their combination with military culture and national capabilities will lead to the most advantageous generation of combat power. The Australian Army will have to negotiate many potential pitfalls before a more effective way of war results. Success is not necessarily guaranteed. For example, in the 1990s the United States embarked on a transition plan that became known as the 'Revolution in Military Affairs'. Driving this US modernisation effort were advances in stealth, sensor and precision technologies. The result was a joint force of seemingly overwhelming might that promised never before seen battlespace clarity. Unfortunately, it also proved an expensive false dawn which was unsuited for the wars that the United States actually had to fight.

It is also possible to embrace a new technology but fail to understand its potential for incorporation into the art of war. The classic example is the development of armoured warfare in the French and German armies during the interwar period. The French designed and manufactured the better tank but the Germans incorporated their inferior platforms into a more powerful combat system. The result was that France surrendered to Germany in a six-week campaign.¹⁰⁷

In light of these developments, the Australian Army faces a challenging period as it attempts to draw the future towards it. There is no doubt that the operating environment with which Australia must contend is changing. How Army, and the wider ADF, responds to this challenge will determine its future utility to the government and the Australian people. Everyone in Army has a stake in the outcome, and a role to play in charting the best path forward.

Change in Peace and War

Change tends to be quicker during any given war than during the preceding or following periods of peace. This is because when someone is trying to kill you, it tends to focus your mind. Problems that appeared distant in peacetime gain immediacy in war, and budgetary pressures become less constrained. It is also a factor of learned experience. In peacetime, the tactics that the enemy might use are theoretical. Once war commences, the enemy's tactics become a known quantity that needs countering. For example, the enemy's use of improvised explosive devices in Iraq and Afghanistan led to extemporised countermeasures in the field, as well as the establishment of task forces to seek long-term solutions.

Exposure to combat encourages novel thinking, including innovations from those who would struggle to have their ideas considered under peacetime conditions. One of the best examples of ideas rising from the bottom grew out of the US Army's difficulty in piercing the *bocage* country of Normandy in 1944. The Germans had converted these traditional farm hedges into strong defensive lines. Sergeant Curtis Cullen provided the solution. He suggested mounting fork-like prongs onto the front of a tank. The tank drove into the hedge; the prongs gripped the earth and carried it away, creating a breach in the *bocage*.¹⁰⁸ The German defensive system was broken.

In peacetime, change slows. In part, this results from a more risk-averse disposition that permeates the government bureaucracy, and the need to provide for fiscal accountability. Money for investment in new weapons and training dries up as the government rightly allocates a smaller share of the nation's wealth to the military. But the pace of change slows mainly because the nature of the threat is no longer clear and, for most countries, there is no longer a definitive and pressing strategic imperative. Vested interests push back against anything that questions their dominance, while military culture places blinders on the vision of the art of the possible. For example, the Australian Army is in the process of acquiring a long-range missile strike capability and replacing its small boats. Each project is proceeding independently, ignoring the possible synergies between the two.¹⁰⁹ The critical factor in how well the Army adjusts to change will be the degree of flexibility allowed by the institution's culture.

The role of culture in accommodating an institutional change is of such importance that further elaboration is necessary. Culture played a particularly important role during the debates over the future of war that took place during the period between the two World Wars. These years were marked by major advances in the art of war of such significance that they continue to hold lessons for today's planners.¹¹⁰ Throughout this period, the world's major navies debated the balance between carrier-based aviation and the big-gun battleship. Debates took place and the US Navy held exercises to test ideas, but the solutions were always ambiguous. Though the carrier would come to dominate even to the end of the Second World War, battleships retained their utility.¹¹¹ For armies, the key question to answer was the role of the horse-mounted soldier versus the tank. There were sound arguments on each side because the crucible of war had not yet indicated a clear path forward.¹¹² Once the Second World War commenced, however, the advantages of mechanised manoeuvre, armour protection and

mobile firepower became clear and the horse departed the field of battle. As the Australian Army navigates the present inflection point, it will need to both challenge the status quo and experiment with its ideas if it is to optimise its capability in the art of future war.

The Consequences of Failure to Change

It should be clear that the competitive nature of war does not advantage those who prefer to stand still. Yet sometimes those responsible for implementing change fail to rise to the challenge, even when they sense what is coming. For example, from about 1880 onwards, it was clear to most military leaders in Europe and the United States that advances in firepower were shifting the balance between the offence and the defence decidedly in favour of the defender. In the decades preceding the First World War they recognised the problem and its likely consequences but were unable to overcome institutional lethargy and myopia to conceive a viable solution. The best these leaders could come up with was a cult-like belief in the offence.¹¹³ The price for their failure was paid in lives, including Australian ones, at Gallipoli and on the Western Front. The answer to the dominance of the defence was found by soldiers and officers amidst the carnage of the Western Front. The Australians utilised the resulting new form of warfighting, which today we know as combined arms, at the Battle of Hamel on 4 July 1918.

Perhaps this is unavoidable, but while military culture serves as the glue that binds an army into a collective whole, army leaders cannot allow it to prevent or delay change. In most historical cases, the failure of generals to think through the future character of war while at peace has translated into the sacrifice of their subordinates who have been left to learn while fighting. Commanders at all levels must encourage thinking, foster debate and allow for the examination of new ideas. This does not take place by happenstance. It requires a systematic organisational approach that promotes intellectualism. Before the First World War, leaders failed to grasp this fact. While they sensed the problem that defensive firepower posed, they did not allocate resources to allow for serious study and experimentation on solutions.¹¹⁴ The Germans did not repeat this mistake after the First World War and committed serious resources to learning its lessons.¹¹⁵

For Australia, a country with an anti-intellectual bias, the cognitive side of the profession of arms is perpetually undervalued.¹¹⁶ Not all ideas will have utility, but in allowing debate, the organisation can test its current way of war against possible futures that can be examined in detail by experimentation. Yet new ideas struggle for traction because of an organisation-wide fear of risk taking. Perfection in decision-making is sought to prevent undesirable outcomes that might attract the attention of the media and, as a consequence, the minister. Yet to succeed in becoming more capable, the force should no longer guide outcomes with stultifying control and should accept failure as a learning cost. Ultimately, if a military wants to gain an advantage over an adversary it must do something novel and unexpected. Hence, failure needs to be encouraged, even rewarded, as failure in peace is far less costly than failure in war.

Chapter 7—Principles and Fallacies of War

The Principles of War

The Australian Army, like most militaries, has adopted a set of principles of war. They are found in the force's capstone doctrine, *Land Warfare Doctrine 1: The Fundamentals of Land Warfare* (LWD-1).¹¹⁷ The Australian Army identifies 11 principles:

- 1—Selection and maintenance of the aim
- 2—Concentration of force
- 3—Cooperation
- 4—Economy of effort
- 5—Security
- 6—Offensive action
- 7—Surprise
- 8—Flexibility
- 9—Sustainment
- 10—Maintenance of morale
- 11—Understanding war and warfare.

LWD-1 describes these as a 'series of factors that successful commanders have found necessary to consider in the past. The weight given to any particular principle depends on the circumstances ... [C]ommanders will need to use their professional judgement in their application'.¹¹⁸ Expanded descriptions of the Australian Army's 11 principles of war are provided in Appendix A.

The concept of principles of war is has with a remarkably long ancestry. In one form or another, such principles are expressed throughout the annals of war dating back to Sun Tzu, who coined some around 500 BC.¹¹⁹ Remarkably, Sun Tzu's observations still remain highly relevant for

the present. The same can be said for the observations of more recent philosophers of war, ranging from Carl von Clausewitz to Colin Gray, whose thoughts were also been expressed as principles.¹²⁰

It is a hallmark of the Western tradition of military professionalism that an army possesses a set of principles of war, although there is no universal agreement on their type or definition. Even amongst close allies—the United States, United Kingdom, Canada, Australia and New Zealand community—the number, identification and definition of each army's principles vary. Despite individual variations, however, for these states with common British ancestry, the differing principles all trace their existence back to those articulated by Major General JFC Fuller in 1916, when he identified seven principles of war.¹²¹ For those military organisations with different heritages or cultures, the number and description of principles of war vary even more widely. Some earlier military leaders identified large numbers of principles—Napoleon, for example, identified 78.¹²² In his history of the principles of war, John Alger lists 68 different sets of principles throughout the world with varying intent and range, and more have appeared since the book's publication.¹²³

Over time, the principles of war inevitably evolve. The United States recently added three new ones to its existing nine to reflect the requirements of irregular operations.¹²⁴ As new technologies emerge, and with the defining of new domains of war, there are calls for updates to the existing principles.¹²⁵ As with domains, there is no set limit on the number of principles one can have. Today, they tend to be fairly broad in definition and typically number around 10.

Despite the principles of war's long pedigree, there is no universal agreement on the concept's importance, purpose and usefulness. Some scholars have expressed serious concern over the potential for principles of war to make a negative contribution to the creation of military effectiveness. Williamson Murray, for one, is scathing of their utility, labelling them 'playthings for military academics and theorists'. He believes that such principles encourage soldiers to reduce war to an 'engineering problem' which tries to solve adversary challenges with technology and in doing so denies war its true nature. Instead of learning principles, Murray believes, military leaders must try to understand their opponents at all levels—their history, culture and language, for example—and to study the history of war.¹²⁶

The variety of principles and their tendency to evolve suggests that they are not based on any fundamental laws of war, or of its waging. Rather, military leaders and writers deduce them from observations on the history of war. They are human constructs, not unchanging natural ones found in the physical world. Further, they are created in the context of a particular time and circumstance—a consideration that may reduce their utility in different situations. Because of war's infinite variability, no principle of war is of permanent or universal application. Consequently, commanders must take care when they resort to the principles of war.¹²⁷

The employment of the principles of war may also be subject to abuse. Those applying them must take care if they are to avoid descending into unthinking predictive actions that an enemy will recognise, anticipate and punish; a diligent opponent will be familiar with the adversary's principles of war. Striving to wage war in exact accordance with defined principles of war will impose rules on the conduct of military operations that lesser minds might insist on following, even when they are inappropriate. Coining principles of war also allows commanders to avoid thinking on the endless variability that characterises the history of war. Some of war's great generals warned of the risk of making principles into dogma. The US General Ulysses S Grant observed that 'if men make war in slavish obedience to the rules of war, they will fail'. Similarly, General Archibald Wavell commented on the British Army's Regulations 'for heaven's sake, don't treat those as holy writ, like the Ten Commandments, to be learned by heart, and as having by their repetition some magic'.¹²⁸ Ultimately, the value of the principles of war lies less in their practice than in the knowledge gained in achieving intellectual mastery over them.¹²⁹

This does not mean that the principles of war do not have utility. Rather, it means that their use must be judicious. Their most important role may be as an instrument to further professional military education, particularly at the early stages of a military career. However, they cannot be mastered by rote but must rather be seen as a starting point for research and debate that leads to a deeper understanding of each individually and in combination. Later in one's career, as an operational planner, the principles of war can serve as a starting point for evaluating strategy, operations, tactics and logistics. In any way that military professionals use them, they must accept that the utility of each principle depends on the circumstances in which they are to be employed and on the sound professional judgement

of the individual—a judgement derived from deep thinking and extensive knowledge of war. Lastly, the mark of military greatness may be found in a leader who recognises when the principles of war should be ignored.

The Fallacies of War¹³⁰

While there are appropriate opportunities for planners and commanders to employ the principles of war, there is no similar opportunity for the so-called ‘fallacies of war’. Fallacies of war are mistaken beliefs held by individuals or organisations and are usually based on unsound arguments or defects in reasoning. Military and political leaders must avoid fallacies of war in their entirety. They have no benefit to the waging of war, can only work against the achievement of the aim, and serve to increase the cost of war and the likelihood of defeat. Surprisingly, unlike for the principles of war, no military organisation appears to have compiled a list of fallacies.

Despite their toxicity, the pursuit of fallacies continues to play an enduring role in war—albeit a negative one. This is a result of human frailty, self-interest and the willingness to adopt something that is untrue because it supports one’s world view. An ignorance of history—knowledge of what has worked and not worked in past wars—is also a contributing factor in the continued survival of these fallacies, as are the demands of special interests. Defence industry, for example, must continue to hype new technologies as war winners because of the need to sell products. Potential buyers who embrace this pitch may succumb to the comfort of such advocacy because they fear having their world view challenged or they wish to avoid hard choices.

The fallacies that one must take care to avoid are:

1—Not all problems have a military solution: This is a particularly pernicious fallacy as it preys on the general optimism of the military as to their ability to solve problems. Soldiers, and their comrades-in-arms on the sea and in the air, are trained problem solvers. All problems must have a solution which only needs to be found or which just needs a repeat of technique, but with a greater application of force. Too often, military leaders assume that if their troops fail it is not because the assigned task is impossible but because of inadequate resources—a deficiency that promotes escalation and repeated doomed undertakings. Military leaders, and their political superiors, however, need to accept that for some

problems there are no solutions for which an armed response is appropriate or can deliver the desired outcome in a useful time period and at an acceptable price.¹³¹

A telling example of this fallacy is the attempt by the United States to impose democracy on Iraq by conquest. Not only has Western-style liberalism failed to take hold in the region but also its wars in the Middle East distracted the United States from other interests. Rather than a military campaign, only education and a broadening of the base of societal power over many generations could have achieved this goal for Iraq.

2—The purpose of war is to destroy the enemy's force: Liddell Hart reminds us that when a war commences, the objective is the resumption of peace with the shortest and least costly interruption of peacetime life.¹³² While combatants may utilise violence to inflict injury or death on their opponents, the objective of such violence is rarely the enemy's destruction. Rather, it is to apply force, including non-kinetic force, in such a way that the adversary accepts a change in the relationship between two parties. Violence is simply a means to this end. It is not the goal, and the application of violence must be appropriate, proportional and closely related to the achievement of the aim. The only time total destruction is justifiable is when the enemy's will knows no limit, but such instances are rare. One such example is soldiers of some German units in the final days of the Second World War for whom surrender was not an option.

3—Super weapons win wars: Possessing novel or advanced weapons does not necessarily confer a war-winning advantage over an opponent who is less well equipped. Instead, such weapons are a poor substitute for hard and honest thinking, good tactics and the development and implementation of sound strategy. For example, as the Second World War turned against Germany, its scientists and engineers delivered an array of unguided flying bombs (V1) and missiles (V2). While extraordinarily advanced weapons, they did little to change the balance of power, at the cost of great amounts of intellectual effort and material resources that Germany could have employed better elsewhere. Those advocating super weapons also often promise that the device will make war cheap to wage and will eliminate the need for close combat and casualties. Such individuals are false prophets. A reliance on super weapons generally suggests a poor understanding of strategy and reflects an organisation's inability to generate military power that is appropriate to the task.

4—Total battlespace clarity is possible: A longstanding goal in war has been to make the battlefield transparent so that a commander has all the information that exists with which to make the best decision. This is a futile quest that is based on the wrong assumption that war is exclusively a science rather than also an art. No amount of data collected and analysed can account for all the factors that a commander must consider. Nor can it reveal what lies in the opposition commander's soul. For a commander to seek only the 'best' decision is to accept the likelihood of no decision, because war does not stand still. Your opponent will act while you wait for clarity.

5—Technology wins wars: Of all of the fallacies, this is perhaps the most common and also perhaps the most dangerous. War is a human activity waged by, and against, humans. Despite the reality that the human sits at the centre of everything in war, claims that a new or improved technology can render war simpler, cheaper, quicker and more decisive abound. This fallacy is facilitated by a general ignorance of the past. Technology is just one of the many tools humans use to succeed (or fail) in war, and nothing more. What is critical is how the technology is employed to maximise combat power. The key element in achieving technological advantage is human genius, not the device itself. The classic example of this fallacy is the 1940 campaign in France during the Second World War. France fielded the technically better tanks, but it was Germany's better employment of its inferior armour which prevailed. When considering technology's ability to win wars, it pays to keep the words of retired Marine General James Mattis in mind: 'it is a messy, unpredictable affair conducted by humans and ... technological systems can fail'.¹³³

6—Natural soldiers exist: Despite its falseness, this fallacy has been widely embraced, usually with disastrous results for soldiers and states. Good soldiers were not born that way. Instead, they are the product of hard training, deep education and integration into a fighting team and joint warfare system. In brief, good soldiers are made and no nationality or ethnicity possesses a natural advantage in war. The English defeat of the French at Agincourt in 1415 was due to their proficiency with the longbow, a weapon taken up in childhood and mastered after years of practice. To believe in natural soldiers is to succumb to racism and the folly that your soldiers are better than others by virtue of their origins. This is a dangerous belief because in making an assessment for war it leads to an overvaluation of your strength. Those commentators who profess faith in the superiority of the 'ANZAC Spirit' do soldiers, and the nation, a disservice.

7—Wars are short and decisive: The belief that it is possible to develop a concept of warfighting that will enable you to win wars quickly and with little damage to yourself is widespread, but it goes against the evidence of history. Wars are usually prolonged and won by the exhaustion of one of the participants. Instead of decisive victory, the most likely outcome is a partial success and the postponement of the issue at hand to a later date. To believe that wars can be won quickly represents weakness, not strength. It offers the weak the means to convince themselves that they have discovered some secret that will bring them victory. Instead, the result is likely to be a grinding defeat. Those who embrace this fallacy are also usually guilty of poor judgement as they do not understand the human element in war. Even the strong can find that their strength does not allow them to prevail, as was the fate of France and the United States in Vietnam and the Soviet Union in Afghanistan, to identify but a couple of examples. The false superiority of these countries was revealed when they were pitted against the stronger will of their materially weaker opponents.

8—Logistics can be ignored: This is a partial fallacy because it is possible to ignore logistics in the short term, particularly if support is on its way. However, to discount logistics in your planning, or to assume that what you require will be found, is to set yourself up for painful failure. There was a time when it was possible for an army to feed itself off the land, particularly if it was in the enemy's territory. In modern war, however, any operation requires a detailed and realistic logistic plan because of the complexity of equipment that requires specialised servicing, the dependency on liquid fuels of multiple types, and the quantities of ammunition needed. If this is not done, combat capability will suffer as food grows short, disease takes hold and equipment becomes inoperable. When their logistics failed in New Guinea in the Second World War, Japanese soldiers resorted to cannibalism to survive. Meanwhile, in other garrisons in more fertile locales, such as Bougainville, commanders had to assign the majority of their troops to food-growing tasks, leaving only a minority of weakened soldiers to fight. This outcome was a result of Japan's under-appreciation of logistics, as well as an unreasonable faith in the natural superiority of its soldiers (see Fallacy 6).

There is no doubt that other fallacies exist. The ones presented here are simply amongst the most commonplace. What makes a fallacy tempting is the willingness to accept something that is false because it supports your world view or is essential to your rationale for going to war. Weaker individuals also fall prey to the temptation of interest. The Japanese military and government knew that the odds were long when they decided to attack the United States in 1941. By embracing a belief in the natural superiority of their race, by adhering to the short-war myth, and in demonstrating a willingness to discount the importance of logistics, Japan's leaders were able to make an assessment for success that supported their desire for war. Honest analysis and a deep awareness of the history of war are the best guardians against falling into a fallacy trap. However, such practice also means accepting that you may not agree with the answer you get.

Conclusion

The words of General Sherman 'War is Hell' remain as relevant today as when he said them in 1879. Those who make the decision for war would do well to remember these words before committing their nation's women and men to combat and their civilian population to the hardships and risks of military operations. But if one does decide for war, then it is the responsibility of the nation's leaders to provide their military with achievable aims as well as the resources the military needs.

Creating an effective military takes time and requires investment in training, equipment, thinking and, most importantly of all, the preparation of the mind. In his lectures on generalship, the future British Field Marshal Archibald Wavell spoke of the need for commanders to possess a robust mind that was capable of meeting operational shocks while also being able to respond to the changing character of war. Thinking is hard, so the effort must be commensurate with the challenge, and militaries must provide the time and incentive for soldiers to ponder the future. Bing West, in *The Wrong War*, highlights what happens when soldiers advance in an organisation that does not put the highest priority on intellectual reward. In Afghanistan, a series of commanders imbued with a conventional war mindset adhered for too long to conventional war tactics in a struggle that was anything but conventional. Soldiers, of all ranks, must ready themselves for what the future will bring. This is achieved best by developing our minds to think deeply while remaining flexible to accommodate the unexpected.

It is hard to imagine that war will ever disappear from human history. It has proven too useful for humans to abandon it completely, although it is possible to moderate war's cost and frequency. Every member of the Australian Army, therefore, has an obligation to be ready when the government decides to send the nation's soldiers into combat. As servants of Australia, soldiers do not have the luxury of choosing what they will and will not do. All must broadly prepare for an uncertain future and for an unknown operation against an unidentified aggressor.

This work offers some thoughts on what Australian soldiers, sailors, aviators, and defence civilians need to think about and how they are to prepare their minds for the wars of the future. Like all such works, it offers no rules or guidelines on how best to fight, other than the need to study seriously and think hard on your profession. It does not offer simple reassurances as to the complexity of war; nor does it provide a master plan for all situations. No book or body of work can do all that. Rather, the most important trait for a soldier is the ability to learn and adjust in order to be prepared for whatever may come. Hopefully, these thoughts will assist in that task.

Biography

Dr. Albert Palazzo is currently an Adjunct Professor at UNSW-Canberra and formally was the long serving Director of War Studies for the Australian Army. He completed his Ph.D. at The Ohio State University in 1996 and his dissertation was published as *Seeking Victory on The Western Front, The British Army and Chemical Warfare in World War I*. His publications include: *The Australian Army: A History of its Organisation, 1901–2001*, *The Australian Army and the War in Iraq*, and *Planning to Not Lose: The Australian Army's New Philosophy of War*. His latest book *Climate Change and National Security: The Implications for the Military* was published in 2022 by the US Army Army University Press. His next book will argue the utility of the strategic defensive as Australia's security policy.

Appendix A

The Australian Army's Principles of War¹³⁴

1—Selection and maintenance of the aim. Military action is never an end in itself; it is always a means to an end. The end must always remain clearly in view. This cardinal principle applies equally to the strategic, operational and tactical levels of conflict. It relates to taking advantage of local opportunities only where they support the commander's intent. The aim must be simple, direct, unambiguous and within the means of the force available. It must be the one best calculated to further the favourable conclusion of the operation, the campaign, or the war. Once the aim has been decided, all effort must continually be directed towards its attainment so long as this is possible, and every plan or action must be tested by its bearing on the aim.

2—Concentration of force. Success in conflict depends on achieving a concentration of force at critical locations and times. Concentration of force is the ability to apply decisive military force at the right place, at the right time and in such a way as to achieve a decisive result. In non-contiguous battlespaces, this requires small, disaggregated teams with the ability to converge rapidly, access joint fires, achieve local superiority and decisive advantage, and then redeploy or regroup when the task is complete. Importantly, concentration of non-kinetic capabilities can achieve effects in the moral and intellectual domains just as the concentration of force achieves effects in the physical domain.

3—Cooperation. Cooperation within joint combined arms interagency teams, allies and coalition partners is vital for success. Only in this way can the resources and energies of each be harnessed so as to achieve success. Synchronisation and orchestration are implicit in cooperation. The principle of cooperation is fundamental to combined arms teams.

4—Economy of effort. Economy of effort is the prudent allocation and application of resources to achieve the desired results and needs to be balanced with the other principles of war, notably security and sustainment. For example, the more resources allocated to ensuring security, the fewer are available for offensive action. Economy of effort is required to achieve, maintain or switch the main effort elsewhere. Supporting efforts are designed to contribute to the achievement of the main effort and subsequent mission success.

5—Security. Security is concerned with measures taken by a command to protect itself from espionage, sabotage, subversion, observation, or surprise. It is of basic concern during any campaign or operation. Security is required to operate effectively with minimal interference from the enemy. Commanders at all levels are responsible for the security of their force. Security can often best be obtained by offensive operations which, by threatening the enemy's security, restrict his freedom of action. Security applies especially to information, and requires that the enemy be deprived of the knowledge of one's own actions, dispositions and intentions.

6—Offensive action. Military forces take offensive action to gain and retain the initiative. In most circumstances, such action is essential to the achievement of victory. When offensive action is required, it must be swift, decisive and should be directed toward the achievement of the end state. Offensive action is not limited to the application of force but encompasses the proactive use of non-kinetic capabilities such as information dominance and influence.

7—Surprise. Surprise can produce results out of all proportion to the effort expended and is closely related to security. The ability of the land force to disperse and rapidly concentrate is critical to achieving surprise. Not all activities can remain concealed, so deception should be employed to conceal the intent of any action.

8—Flexibility. Flexibility is the capacity to adapt plans to take account of unforeseen circumstances to ensure success in the face of friction, unexpected resistance, or setbacks, or to capitalise on unexpected opportunities. It relates to the ability to maintain effectiveness across a range of tasks, situations and conditions; the ability to dynamically manage the balance and weight of effort across different lines of operation in space and time; and the ability to rapidly identify then appropriately respond to new threats and opportunities.

9—Sustainment. Sustainment refers to the support arrangements necessary to implement strategies and operational plans. These arrangements include those logistic and personnel efforts necessary for the efficient support of a force committed to operations. This refers to the requirement to logistically support a large number of small, dispersed combat teams without revealing the location of those teams to the enemy. In a contemporary context, sustainment may also be extended to other actors or stakeholders, such as non-combatants.

10—Maintenance of morale. Morale is an essential element of combat power. High morale engenders courage, energy, cohesion, endurance, steadfastness, determination and a bold, offensive spirit. In any given situation, military success may depend as much on morale as on material advantages. Good leadership, thorough training and success on operations will all contribute to high morale. Actions taken directly or indirectly to destroy the enemy's morale are an important means of reducing the enemy's combat effectiveness.

11—Understanding war and warfare. Understanding what's changed about the character of war and what endures in the nature of war requires significant analysis. Such analysis is essential because the deductions drawn and the trusted principles relied upon will fundamentally shape an army's preparation for the conduct of war. This preparation is underpinned by the knowledge that the Army is an entity that threatens and when necessary applies violence to achieve national objectives.

Appendix B

Further Reading

Further reading lists are always a personal affair and these suggestions are no different. These works are here because I enjoyed reading them and benefited from what their authors said. Some are recent publications while others are among the earliest writings on the art of war. By no means is this list final—on a different day a different list would have resulted. And as I am an author, I could not resist the temptation to include one of my own, but only one. I hope you enjoy them as much as I have.

Introductory

- Jeffrey Grey, *A Military History of Australia*
- Sun Tzu, *The Art of War*
- Machiavelli, *The Prince*
- Vegetius, *Epitome of Military Science*
- Margaret MacMillan, *War: How Conflict Shaped Us*
- John Blaxland, *The Australian Army from Whitlam to Howard*
- Bernard Callinan, *Independent Company*
- Michael E Mann, *The New Climate War: The Fight to Take Back Our Planet*
- Nathan Fick, *One Bullet Away: The Making of a Marine Officer*
- William Slim, *Defeat into Victory: Battling Japan in Burma and India, 1942–1945*

Intermediary

- Peter Paret, ed., *Makers of Modern Strategy*
- Russell W Glenn, *Trust and Leadership: The Australian Army Approach to Mission Command*
- Herodotus, *The Histories*
- Thucydides, *The Peloponnesian War*
- Cathal J Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost*

- Harald Welzer, *Climate Wars: Why People Will Be Killed in the 21st Century*
- Donald Stoker, *Why America Loses Wars: Limited War and US Strategy from the Korean War to the Present*
- Ian Morris, *War! What Is It Good For? Conflict and the Progress of Civilization from Primates to Robots*
- Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed*
- Albert Palazzo, *The Australian Army: A History of Its Organisation, 1901–2001*

Advanced

- Williamson Murray, MacGregor Knox and Alvin Bernstein, *The Making of Strategy: Rulers, States, and War*
- JC Wylie, *Military Strategy: A General Theory of Power Control*
- Azar Gat, *War in Human Civilization*
- Anatol Lieven, *Climate Change and the Nation State*
- Peter Frankopan, *The Silk Roads: A New History of the World*
- Carl von Clausewitz, *On War*
- Charles E White, *The Enlightened Soldier: Scharnhorst and the Militärische Gesellschaft in Berlin, 1801–1805*
- Oscar Jonsson, *The Russian Understanding of War: Blurring the Lines between War and Peace*
- Williamson Murray, *Military Adaptation in War: With Fear of Change*
- Toby Ord, *The Precipice: Existential Risk and the Future of Humanity*

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