

AEROSPACE CENTRE

WAR

A MATTER OF PRINCIPLES

AIR MARSHAL DAVID EVANS



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THE AEROSPACE CENTRE

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ABOUT THE AUTHOR

Air Marshal David Evans joined the RAAF two days after his 18th birthday on 5th June 1943. He graduated as a sergeant pilot in August 1944, flew as a staff pilot on Anson aircraft and converted to Beaufort bombers. At the end of the war he was transferred to transport aircraft – No 38 Squadron – flying a courier service to Japan in support of the occupation forces. In August 1948 he was posted as a member of the RAAF squadron sent to Europe to fly the Berlin Airlift. After 14 months service in Europe he served as a flying instructor for some time including an exchange posting with the Royal New Zealand Air Force. He was a member of the Queen's Flight during the 1954 Royal tour and personal pilot to the Duke of Edinburgh during his tour to open the Olympic Games in 1956.

After attending the RAAF Staff College in 1957 and a tour as Flight Commander with No 2 Bomber Squadron in Malaysia, he attended the RAF College of Air Warfare in the United Kingdom. He then held a number of flying and staff appointments including Assistant Air Attache Washington, Director of Air Force Plans, Director-General of Plans and Policy, Commanding Officer of No 2 Bomber Squadron in Vietnam, Officer Commanding the RAAF's largest base at Amberley, where part of his command included the F-111 Strike Reconnaissance Force. In 1972 he attended the Royal College of Defence Studies in London.

Promoted to Air Vice-Marshal in 1977, he served as Chief of Air Force operations, Deputy Chief of Air Staff, Chief of Joint Operations and Plans – Department of Defence. In 1982 he was appointed Chief of the Air Staff and promoted to the rank of Air Marshal. He continued to fly F-111C aircraft until his retirement in June 1985.

In 1957 Air Marshal Evans was awarded the Air Force Cross for his services in the RAAF VIP Squadron. He was awarded the Distinguished Service Order (DSO) for gallantry in operations in Vietnam. In 1981 he was made an Officer of the Order of Australia for distinguished service as Chief of Air Force Operations and in 1984 was made a Companion of the Order of Australia (AC) for duty as Chief of the Air Staff.

In his extensive flying career Air Marshal Evans flew some 8900 hours on a variety of service aircraft.

To those who still see moral courage as the
pre-eminent attribute required of a military officer.

Contents

<i>Foreword</i>	
Admiral Sir Anthony Synnot	ix
<i>Acknowledgements</i>	x
<i>Author's Note</i>	xi
<i>Abbreviations</i>	xii
<i>Notes on Contributors</i>	xiii
Introduction	1
1 Evolution of the Principles of War	5
2 Selection and Maintenance of the Aim	11
Addendum by General William C. Westmoreland	17
3 Morale	20
Addendum by Admiral Elmo R. Zumwalt	27
4 Offensive Action	31
Addendum by General Bennie L. Davis	37
5 Security	40
Addendum by Air Marshal Sir Ewan Jamieson	47
6 Surprise	52
Addendum by Major General R. Grey	64
7 Concentration of Force	70
Addendum by General Michael P. Carns	77
8 Economy of Effort	80
Addendum by Air Marshal J.W. Newham	88
9 Flexibility	93
Addendum by Dr Ross Babbage	99
10 Cooperation	103
Addendum by Marshal of the Royal Air Force Sir Peter Harding	112
11 Administration	117
Addendum by Major General Yu Jianzhong	123

12	Simplicity	125
	Addendum by Admiral Richard C. Macke	129
13	Manoeuvre	133
	Addendum by Lieutenant General John Grey	135
14	Timing and Tempo	140
	Addendum by General Michael J. Dugan	143
15	Review	146
16	Leadership	157
17	Moral Responsibility and Command	164
	<i>Notes</i>	168
	<i>Index</i>	175

Foreword

It is very pleasing to see that Air Marshal David Evans has taken up the cudgels for the principles of war. I can't speak too strongly in support of his initiative. The principles of war should be studied by all ambitious politicians and the senior public servants, as well as by military leaders. The principles of war should be brought up to date at intervals – perhaps every fifteen years.

When I was still serving, in about 1980, I tasked the Australian Joint Services Staff College, the senior Australian staff college at the time, to produce a review of the principles of war. They did this and had some good ideas. When their answer was eventually on the table in front of the Australian chiefs of staff, they had more pressing things to think about. They nevertheless considered the paper but not with the enthusiasm I had hoped for. They decided that the British principles would remain for the present, and that all proposed changes put forward by the college were implicit in the British principles or covered in the general service educational process. I did not entirely concur with this view, but nothing further was done during my time.

I can't overemphasise the importance of treating these principles seriously. I have read many articles on all facets of war, but not on the principles of war.

David Evans was chief of joint operations and plans when the staff college was involved in reviewing the principles; he has not forgotten the importance of the subject. His book is written in a very readable style. Each chapter which discusses a principle is followed by an article written quite independently by an experienced military officer and, in one case, by an academic. This is a novel idea and a very sensible one.

I commend this book for reading by anyone interested in the anatomy of war.

Admiral Sir Anthony Synnot

Acknowledgements

It will be obvious to readers that much of whatever quality this book may contain is due to the distinguished contributors. All of them, busy with their own important pursuits, have been generous enough to add to my own thoughts on one of the principles of war. I am fortunate to have friends so eminently qualified and willing to help. I am deeply grateful to them all: General William C. Westmoreland, Admiral Elmo R. Zumwalt, General Bennie Davis, Air Marshal Sir Ewan Jamieson, Major General Ron Grey, General Michael Carns, Air Marshal Jake Newham, Dr Ross Babbage, Marshal of the Royal Air Force Sir Peter Harding, Major General Yu Jianzhong, Admiral Richard C. Macke, General Mike Dugan, Lieutenant General John Grey and to Admiral Sir Anthony Synnot for the Foreword and for the example of military professionalism he set when I was a member of his staff many years ago.

My sincere thanks and appreciation for the support given by Peter Smith in arranging for the original manuscript to be printed and to Keith Rendell and Ian Macfarlane for doing it so well. Later to Dr Alan Stephens from the Air Power Studies Centre, Royal Australian Air Force, who gave encouragement and some sound advice on text and layout and to Sandra Di Guglielmo of the organisation who diligently converted my text on to disc in professional book form.

Finally, but certainly not least, my very deep gratitude to my wife Gail who suffered, yet again, my neglect of the normal gardening and maintenance tasks and above all, my selfish preoccupation with the task of writing. Also I must not omit her significant contribution to the typing of the original manuscript and (sometimes pungent) comment on my grammatical and spelling errors. With my thanks go an undertaking not to write another book – unless you insist!

David Evans
Canberra
April 1996

Author's Note

In examining each principle of war I have, with some reluctance, added to the verbiage by inserting the full description promulgated by each of the British and United States Services. The purpose is to expose to the reader the often significant differences in emphasis in interpreting the real essence of a particular principle. To save the reader frequent and annoying references to a set of appendices, I have placed them in the text of the chapter where the differences and merits or deficiencies of the descriptions are discussed.

As an addendum to each chapter on an extant principle of war there is a short article on the subject contributed by a senior and highly respected military officer and, in one case, by an equally esteemed academic. All but one of these articles have been written quite separately and without knowledge of the views to be expressed by the author. The one case where I asked the contributor to take a particular direction was on flexibility. It is a principle where there is a tendency to get carried away by the concept of having the ability to switch from one option to another to the extent that the main aim is lost or the planning becomes overly clever. Dr Babbage's negative approach simply introduces a note of caution. If, in other cases, there are different, even conflicting, views there is no attempt to rationalise or to argue one case against the other. Readers will be better served if left to digest the totality of the views advanced and to form their own opinions.

David Evans

Abbreviations

AOC	Air Officer Commanding
C4I	Command, Control, Communications, Computing, Intelligence
CINCPAC	Commander-in-Chief, Pacific
CINCPACAF	Commander-in-Chief, Pacific Air Forces
CINCPACFLT	Commander-in-Chief, Pacific Fleet
FUSAG	First United States Army Group
GOC	General Officer Commanding
JCS	Joint Chiefs of Staff
LOCS	Lines of Communications
MACV	Military Assistance Command Vietnam
METT-T	Mission, Enemy, Troops, Terrain, and Timetable
NATO	North Atlantic Treaty Organisation
NCA	National Command Authorities
NCOs	Non-Commissioned Officers
Ooda	Observation-Orientation-Decision-Action
Opsec	Operations Security
PACAF	Pacific Air Forces
RAAF	Royal Australian Air Force
RAF	Royal Air Force
SSN	Nuclear Submarine
UAV	Unmanned Aerial Vehicle
UN	United Nations
US	United States
USAF	United States Air Force
USN	United States Navy

Notes on Contributors

Dr Ross Babbage is Corporate Executive, Strategic Analysis at Australian Defence Industries Ltd. He supports the Managing Director and Board with analysis of international and domestic issues, and assessments of business options. Dr Babbage has wide-ranging expertise in international strategic affairs. He has held several senior positions in the Australian Public Service, including Head of Strategic Analysis in the Office of National Assessments, and he led the branches in the Department of Defence responsible for ANZUS policy and force development. From 1986–90 he was Deputy Head of the Strategic and International Studies Centre, Australian National University. He is author of *A Coast Too Far: Defending Australia Beyond the 1990s* and *Rethinking Australia's Defence*. He has also edited *The Soviets in the Pacific in the 1990s* and jointly edited *India's Strategic Future: Regional State or Global Power, Geographic Information Systems, Defence Applications and Maritime Change: Issues for Asia*.

General Michael P. Carns, United States Air Force (Ret), graduated from the US Military Academy in 1959 with a science degree and went on to complete flight training in 1960. In 1967 he obtained a Masters degree in Business Administration from Harvard University. The General completed an operational tour in Vietnam, flying F-4 aircraft out of Korat Air Base in Thailand. Following a command flying appointment in Torrejon, Spain, he attended the Royal College of Defence Studies in London after which he was assigned to the 81st Fighter Wing, Royal Air Force, Bentwood. Later, transferred to the Pacific area, he was Commanding General 13th Air Force and then Deputy Commander US Pacific Command. Returning to the United States in 1989 he was Director, Joint Staff and then Vice Chief of Staff United States Air Force. General Carns retired in 1994 after thirty-five years of distinguished service to the Air Force and the United States.

General Bennie L. Davis, United States Air Force (Ret). Few men are as qualified to write on offensive warfare as General Davis. The General was Commander-in-Chief, Strategic Air Command and Director, Joint Strategic Target Planning Staff from August 1981 to August 1985. General Davis graduated from the US Military Academy in 1950 and completed flight training in 1951. From the outset he flew bomber aircraft; eventually flying every strategic bomber in the United States Air Force during his service. In doing so he amassed over 9000 flying hours and flew 142 combat missions

over Vietnam. The General served in a number of high-level staff appointments, including Air Force Member of the Chairman's Staff Group, Office of the Joint Chiefs of Staff, Deputy Chief of Staff Manpower and Personnel, and Commander Air Force Recruiting Service. His major commands were Commander Training Command and Strategic Air Command. The latter he held until his retirement in 1985. The General serves as a Senior Fellow at the National Defence University, Fort McNair and as a Trustee with the Air Force Historical Foundation.

General Michael J. Dugan, United States Air Force (Ret), graduated from the US Military Academy in 1958 with a science degree and later obtained a Master of Business Administration degree from the University of Colorado. His early operational assignments were in F-100s and A-1s. He flew 300 combat missions out of Pleiku in Vietnam and Nakhon Phanom in Thailand. He commanded the 355th Tactical Fighter at Davis-Monthan Air Force Base and the 23rd Wing at England AFB. Later General Dugan commanded the 832nd Air Division with his Headquarters at Luke AFB Arizona. The General held a number of important staff appointments before being appointed Commander-in-Chief, US Forces in Europe and Commander, Allied Air Forces Central Europe. His Headquarters was located at Ramstein Air Base, West Germany. General Dugan was appointed Chief of Staff, United States Air Force and retired from that position. Since retirement the General has dedicated himself to the demanding position of President of the National Multiple Sclerosis Society.

Lieutenant General John C. Grey, Australian Regular Army (Ret), graduated from the Royal Military College Duntroon and was commissioned as a lieutenant into the Royal Australian Armoured Corps in 1960. In 1965 he was appointed to a staff position on the staff of 28th Commonwealth Brigade, Malaysia. While in the brigade he saw service in Vietnam with the 11th Armoured Cavalry Regiment, United States Army and Headquarters 1st Australian Task Force. In 1968 he returned to Vietnam on active service with the 3rd Cavalry Regiment Australian Army. General Grey attended the British Army Staff College at Camberley, the Australian Joint Services Staff College, Canberra, and the Indian National Defence, New Delhi. In 1989, as a Major General he was appointed Assistant Chief of Defence Staff for Logistics, and in 1991 he moved to the position of Deputy Chief of the General Staff. In 1992 he was promoted Lieutenant General and appointed Chief of the General Staff. General Grey retired from the Army in 1995 after thirty-eight years of distinguished service to the Army and to Australia.

Major General Ronald Alwyn Grey AO DSO FAIM entered the Royal Military College, Duntroon in 1948, graduating as a Lieutenant in the Royal Australian Infantry in December 1951. He was posted to the 3rd Battalion, Royal Australian Regiment in Korea for a period of one year as a platoon commander. While in Korea he was twice wounded. Later he was sent to the Commonwealth Division Battle School in Japan as an instructor and returned to Australia in 1954. He served in a number of Regimental and Staff appointments and attended the Royal Military College of Science and the Staff College at Camberley. He was Mentioned in Dispatches while on secondment to the British Army in Borneo during confrontation and later while commanding the 7th Battalion, Royal Australian Regiment in Vietnam he was made a Companion of the Distinguished Service Order. After attending the Royal College of Defence Studies in 1977 he was promoted to Major General, his first appointment was Chief of Operations – Army and later he took over Field Force Command with responsibility for all Field Force units throughout Australia. In late 1982 he was requested to assume the appointment of Commissioner of the Australian Federal Police. He resigned from the Army to take up that appointment.

Marshal of the Royal Air Force Sir Peter Harding served in many flying and staff appointments during his long career amassing over 5000 hours as a pilot in bomber, strike/reconnaissance aircraft and in the helicopter support role. He held flying commands at squadron, base and group levels. The Air Marshal held a number of senior operational commands including Commander-in-Chief Strike Command, RAF; Commander-in-Chief UK Air (NATO) before being appointed Chief of the Air Staff. From that position he was promoted to five-star rank and appointed Chief of the Defence Staff. Since retiring from the Royal Air Force Sir Peter has been appointed to the Board of GEC-Marconi as Deputy Chairman. He is a member of the Advisory Board of GIMCORP (USA) and is a Director of Double Sky Ltd.

Air Marshal Sir Ewan Jamieson, Royal New Zealand Air Force (Ret), retired from the Royal New Zealand Air Force in 1986, having spent the last seven years of his service as Chief of the Air Staff and then Chief of the Defence Staff. Sir Ewan gained wide experience flying fighter, bomber and helicopter aircraft in a variety of appointments in West Germany, Singapore and Malaysia. He exercised national command of New Zealand Forces deployed to Malaysia during the period of confrontation. During that period he was accredited to Headquarters US Army, Vietnam and to Headquarters 7th Air Force. He held the position of Chief of the Defence Staff during the tense period of dispute between his government and the United States over

visits by nuclear capable warships. In May 1989 Sir Ewan took up a one-year appointment as a Distinguished Fellow within the Institute of National Strategic Studies in Washington DC. He is author of the book *Friend or Ally*.

Admiral Richard C. Macke, United States Navy (Ret), graduated from the US Naval Academy with a Bachelor of Science degree in 1960 and was designated a Naval Aviator in 1961. After Naval Test Pilot School and a period carrying out trials of the A-7A aircraft he flew 150 combat missions in Southeast Asia from the *USS Independence*. Following nuclear propulsion training he served as Executive Officer on the *USS Nimitz* and later, after senior staff appointments, was appointed to command the *USS Dwight D. Eisenhower*. Upon leaving the 'Ike' he was selected for Flag rank and reported as Commander Naval Space Command. In 1988 he assumed command of Carrier Group Two and in 1990 was appointed to command Carrier Group Four. In 1992 he became Director Joint Staff. Admiral Macke became Commander-in-Chief, US Pacific Command in July 1994 – an operational command spanning more than 100 million square miles, more than 50 per cent of the world's surface.

Air Marshal J.W. (Jake) Newham AC, Royal Australian Air Force (Ret), graduated as a pilot in the Royal Australian Air Force in 1952 and was engaged in combat operations in Korea in 1953. During a career spanning thirty-five years he served in fighter squadrons in Malta, Malaysia and Australia holding a number of flying commands including the Aircraft Research and Development Unit and the Strike/Reconnaissance Wing when equipped with the F-111C aircraft – he led the first Flight of F-111C aircraft from the United States to Australia in 1974. A graduate of the Royal College of Defence Studies, London, he held several senior staff appointments, including Chief of Operations and Plans, Head of Australian Defence Staff, Washington, Deputy Chief of the Air Staff and Chief of the Air Staff 1985–7. Air Marshal Newham was made a Companion of the Order of Australia for his performance as Chief of the Air Staff. The Air Marshal is a keen student of military history and the study of air power.

Admiral Sir Anthony Synnot, Royal Australian Navy (Ret). One of Australia's most distinguished military officers, Admiral Sir Anthony Synnot is a former Chief of the Defence Force Staff, Australia. Prior to that he was Chief of the Naval Staff 1976–9. He held the position of Deputy Chief of the Naval Staff and was Flag Officer Commanding the Australian Fleet. The Admiral joined the Royal Australian Navy in 1939 and served in several ships of the Royal Navy and Royal Australian Navy during World War II. On

secondment, he was Officer Commanding the Royal Malaysian Navy 1962–5 and contributed significantly to the development of that service. After retirement he accepted the appointment as Chairman of the Council of the Australian War Memorial and served in that capacity until 1985. Sir Anthony is now a grazier in the Yass district of New South Wales.

General William C. Westmoreland, United States Army (Ret), graduated from the US Military Academy in 1936 having been awarded the Pershing Sword for military proficiency. He was commissioned in the Field Artillery. In May 1941 he joined the 9th Infantry Division at Fort Bragg and fought with that unit through the North African and European campaigns of Tunisia, Sicily, Normandy, Northern France, Rhineland, Ardennes and Central Europe. General Westmoreland distinguished himself in several actions during his extensive campaigning in World War II and was decorated on several occasions for outstanding performance. After the war the general completed airborne training and took command of the 504th Parachute Regiment. In 1952 he was transferred to the Far East and again saw combat in the Korean campaign. He was decorated for effective combat leadership, and promoted Brigadier General in November 1952. Following his command of the 101st Airborne Division he was appointed by President Eisenhower to be the 45th Superintendent of the US Military Academy. After command at Corps level he was made Deputy and then Commander of the US Military Assistance Command Vietnam. On assuming that command he was promoted to the rank of General. On completion of his Vietnam command General Westmoreland was appointed Chief of Staff, United States Army. One of America's most experienced soldiers, General Westmoreland took part in seventeen battle campaigns in three wars. He was awarded four Distinguished Service Medals and was decorated by sixteen foreign countries.

Major General Yu Jianzhong entered the People's Liberation Army in 1951 as a volunteer to serve in the Korean war. In the event he did not serve in that conflict but served with several units in China. Included in his career was a tour in the Tibet region where he gained first-hand experience at maintaining morale of troops serving in an unfamiliar cultural environment and far from home and family. Later General Yu held staff appointments in the intelligence field including that of Liaison Officer to foreign attachés in Beijing. An astute political observer, he served as Defence Attaché at the Chinese Embassy in Canberra, Australia for the last six years of his service with the People's Liberation Army; a position in which he gained the respect of the Corps of Military Attachés and those members of the Australian Defence with whom he had contact.

Admiral Elmo Russell Zumwalt Jr, United States Navy (Ret), culminated a distinguished career in the United States Navy when appointed by President Nixon to be Chief of Naval Operations in July 1970. Graduating from the Naval Academy in 1942, Elmo Zumwalt served in destroyers during World War II. He was awarded the Bronze Star for ‘Heroic service’ aboard the destroyer *USS Robinson* in the Battle of Leyte Gulf. After the war he served in a number of seagoing and shore appointments until seeing combat service again when serving as Navigation Officer aboard the battleship *Winconsin* in the Korean conflict. Later he held several commands including the first purpose-built guided missile ship, *USS Dewey* and cruiser/destroyer *Flotilla Seven*. In 1968 Admiral Zumwalt returned once more to combat duty when appointed to be Commander Naval Forces Vietnam and Chief of the Naval Advisory Group, US Military Assistance Command Vietnam. He remained in that position until appointed to his last post as Chief of Naval Operations. Whilst CNO Admiral Zumwalt took a particular and personal interest in all matters related to the morale and welfare of Naval personnel. His famous Z-Grams modernised the Navy and made Navy careers much more attractive. At the age of forty-four Admiral Zumwalt became the youngest officer of the US Navy ever promoted to Rear Admiral. At the age of forty-nine he became the youngest four-star Admiral in United States history. Since his retirement from the Navy Admiral Zumwalt has been extraordinarily busy, serving as a Director on a number of Boards in the industrial and commercial fields and on the Boards of many charitable/not-for-profit foundations and corporations., He has written two books, *On Watch* and *My Father, My Son*. He has also found time to run as the Democratic candidate for the United States Senate in Virginia in 1976.

Introduction

In almost every field of endeavour there are certain rules or principles laid down to guide exponents of a particular activity. Usually these rules are the result of many years of experience and observation. In war, much of what is now set down as ‘principles of war’ can be traced back more than 2000 years to a Chinese general, Sun Tzu. Sun Tzu wrote thirteen chapters on the art of war. Since then, down through the ages, books, essays and theses have been written, maxims and dictums promulgated by a succession of generals and admirals – and in more recent times, air marshals. The essential points of this mass of wisdom, of this vast experience, have been codified into a number of ‘principles’ and adopted by major armed Services during the twentieth century.

It has never been claimed that strict adherence to the principles of war would ensure victory – how could they if understood by professionals on both sides? In operational situations it is rarely practicable to abide by every principle. Often some will be mutually exclusive. All that is intended is that all factors encompassed by the principles of war be considered. To ignore any of them may entail some risk. However, it is the ability to assess correctly the priorities and the degree of risk involved in applying one principle and ignoring another (to achieve the objective) that is the true art of waging war. Indeed, the reader of Sun Tzu’s *The Art of War* will note what appear to be inconsistencies – one rule inconsistent with another. In essence, all that the master general intended was to place before his readers a list of matters for consideration. Judgements will always have to be made, one against the other to suit the situation. The essential was and remains, that they should be considered and weighed on all occasions. Perhaps this is stated most clearly in a phrase from the Basic Aerospace Doctrine of the United States Air Force: ‘a principle was a guide that could sometimes be violated but always had to be considered’.¹

On the other hand there are those, some at the highest professional level, who dismiss the high-sounding title of ‘principles’ and deem them to be no more than a checklist of possible considerations. Some suggest that there is no longer a need for principles to be set down as such, that they are part of general military education. They will point out that Clausewitz in his *On War* did not specify a set of principles. My view is that they are implicit in his writing as they are in the military writing of Mao Tse Tung. Perhaps we might be guided by the views of two successful generals of the twentieth century on the continuing relevance of the principles:

All military laws and military theories which are in the nature of principles are the experience of past wars summed up by people in former days, paid for in blood, which are a heritage of past wars.

(Mao Tse Tung, *Selected Military Writings*)

By studying the actions and methods of some of the great captains of the past we can learn how the practical side of war was handled in their day. Such study will illustrate the evolution of the art of war but also the uniformity of its basic conceptions. It will show the student that the same principles of war which were employed in the past appear again and again throughout history, only in different circumstances. Although weapons have become more powerful and the problems of the battlefield have grown more intricate and more complex, nonetheless the art of war is fundamentally the same today as it was in the days of ancient Greece, or when Rome and Carthage joined in battle.

(Field Marshal Montgomery of Alamein, *A History of Warfare*)

There are politicians, totally ignorant of the principles of war, who pay no regard to the considerations involved when making important, often critical decisions. This latter factor has assumed significantly greater importance during these past three decades as war in progress is presented to political leaders and the public in almost real time. This creates a situation where political leaders are tempted to make military decisions based on short-term political imperatives without regard to military imperatives or 'principles'. Sun Tzu appreciated, even 2500 years ago, the dangers of political interference. He made several references to interference by the ruler or the sovereign. The most pithy was, 'He will win who has the military capacity and is not interfered with by the sovereign.' And yet, inept political intrusion has contributed to defeat and the death of countless thousands down through the centuries to modern times – from the battle of Zama in 202 BC, to Vietnam. Of course, one would not deny for an instant the right of politicians to set the direction and limits of military action. Military strategy must always accord with the political 'aim'. However, if political leaders are to be able to discuss military strategy and even tactical method, they should do so with an understanding of the military principles involved. They, in turn, should be served by military commanders who have the moral courage to stand firm in their advice on vital military issues. As with all other areas of conventional wisdom, of past values, past doctrine, the principles of war are there to be questioned, to be tested and their continuing relevance verified. That is the purpose of this book. To re-examine the principles of war that have guided military commanders over much of this century. To validate,

delete, add or change as may be necessary to meet the challenges of the late 1990s and the twenty-first century.

Whatever these challenges will be cannot be stated with certainty. However, weapons are not developed and produced overnight. One might assume that weapons that have come into service during the last ten years and those now going into manufacture will set the battlefield environment for the next decade although they may be employed in a different manner.

Surveillance, to gather intelligence and to guard against surprise, will become increasingly sophisticated with a growing emphasis on space-based systems. For the battlefield itself, unmanned aerial vehicles (UAVs) will play an increasingly important role. Already the United States has embarked on the development of a UAV capable of remaining twenty-five hours on station at 50,000 feet. Stealth will be used to a greater degree in all three operational dimensions but possibly balanced by improved sensors and processors. Operations will become a full twenty-four-hour activity as sensor resolution and improved night-vision devices minimise the distinction between night and day.

Electromagnetic pulse weapons may be developed with the particular purpose of putting computer and communications networks and command and control centres out of action. Whether electromagnetic weapons are successfully developed or not, command and control and intelligence centres will be high priority targets. This in turn will lead to several layers of redundancy and dispersion being built into such systems.

Increases in the range of precision guided weapons, particularly when combined with the speed and mobility of air power, will affect the continuing viability of armoured forces based, as they presently are, on massive, heavy and relatively slow-moving tanks. It would seem logical for future armoured forces to be based on much smaller, faster, more fuel-efficient vehicles, operating in small groups perhaps with integral infantry support, rather than the highly vulnerable mass of the recent past.

Even though the threat may be low there will probably be a requirement for service personnel in combat areas to have available protective clothing in the event of attack by chemical or biological weapons. Decontamination units will need to be part of national force structures.

No matter what the battlefield environment, it will be a political imperative to minimise casualties to one's own forces and to prevent casualties amongst the civil population of the nation. National and international pressure is likely to demand minimum collateral damage in regard to civilian areas of the enemy's infrastructure. With these considerations as a basis, it may well be that air power, with its capability for precision and selective targeting, presents as the best way of 'setting the scene' for the final, quick, economical

neutralisation of the enemy's armed forces by a concentrated joint or combined force.

These thoughts on the mid-term future are intended only to provide a canvas against which to assess the future as well as the present viability of the principles of war. Whatever the outcome of this review it will be important that those responsible for political decisions that affect the conduct of war are familiar with the principles determined.

Whether they be titled principles, guidelines, checklists or whatever is of little consequence. I would argue very strongly against a pedantic attitude to this. The term 'principles' has been applied since they were first promulgated by the British Services in 1920. Principles was the title accepted by the American Services at the outset and remains so today. It would be pure humbug to argue on the designation rather than the substance.

Finally, in writing on this subject I have been at pains to be clear – to write in simple English. I deplore the modern tendency to be overly clever; to write in esoteric terms in the mistaken belief that it is indicative of academic rigour. It is just plain gobbledegook or, as the dictionary describes it, pretentious language. I can do no better than to quote Napoleon when replying to a letter: 'Your letter is too clever. Cleverness is not wanted in war. What is wanted is accuracy, character and simplicity.'²

1 Evolution of the Principles of War

All the evolution we know of proceeds from the vague to the definite.
Charles Sanders Peirce

Military scholars and historians generally credit the first writing that describes what we now title the principles of war to Sun Tzu, a Chinese general who, in 490 BC, wrote on the art of war. Whilst not adopting the high-sounding term 'principles' Sun Tzu described a number of crucial elements that he believed it vital to consider when preparing for, and waging, war. 'The art of war is of vital importance to the State. It is a matter of life and death, a road to either safety or ruin. Hence it is a subject of inquiry which can on no account, be neglected.'¹

Sun Tzu's writing encompassed many aspects of war such as political interference, deterrence, initiative and defence. Aspects that are not among the principles codified by the British or United States Services, although in some cases they are judged to be implicit in those principles. It will be useful to examine these edicts of Sun Tzu at a later stage and note where they coincide, as they frequently do, with those of other prominent military writers over the following centuries. But to note briefly the thirteen essential considerations specified by Sun Tzu in the Art of War:²

- Victory is the objective: 'In war then, let your great object be victory, not lengthy campaigns.'
- Morale: 'Without harmony in the State no military expedition can be undertaken; without harmony in the army no battle array can be formed.' And then, 'he will win whose Army is animated by the same spirit throughout all its ranks'.
- Offensive: 'Security against defeat implies defensive tactics; ability to defeat the enemy means taking the offensive.'
- Security: No doubt referring to a secure base, Sun Tzu said 'the good fighters of old, first put themselves beyond the possibility of defeat, and then waited for an opportunity of defeating the enemy'. Referring to security of plans: 'keep your army continually on the move, and devise unfathomable plans'.
- Surprise and Deception: Sun Tzu makes several references to surprise, for the most part, tactical surprise. 'Attack him where he is unprepared,

appear where you are not expected.’ Obviously, as an aid to surprise, ‘all warfare is based on deception’.

- **Cooperation:** Asked if disparate parts of an army can attack together like the Shuai-Jan (a snake with a head at each end of its body), Sun Tzu said ‘Yes. For the men of Wu and the men of Yueh are enemies; yet if they are crossing a river in the same boat and are caught in a storm, they will come to each other’s assistance just as the left hand helps the right.’ Clearly, if enemies cooperate in time of peril, how much more so the elements of a nation’s defence forces or those of allies arraigned against a common enemy!
- **Intelligence:** Sun Tzu makes repeated reference to the employment of spies and the gathering of intelligence. ‘Thus, what enables the wise sovereign and the good General to strike and conquer, and achieve things beyond the reach of ordinary men is foreknowledge.’
- **Concentration:** ‘By discovering the enemy’s dispositions and remaining invisible ourselves, we can keep our forces concentrated while the enemy’s must be divided.’ And again: ‘to compel the enemy to disperse his army, and then to concentrate superior forces against each fraction in turn’.
- **Speed:** ‘Let your rapidity be that of the wind, your compactness that of the forest.’
- **Mobility and Flexibility:** ‘Appear at places which the enemy must hasten to defend; march swiftly to places where you are not expected.’ Further, ‘do not repeat tactics which have gained you one victory, but let your methods be regulated by the infinite variety of circumstances’.
- **Administration:** ‘By method and discipline are to be understood the marshalling of the Army in its proper subdivisions, the gradations of rank amongst the Officers, the maintenance of roads by which supplies may reach the Army, and the control of military expenditure.’
- **Public Opinion:** One of the factors governing the art of war is the Moral Law. Sun Tzu says ‘the Moral Law causes people to be in complete accord with the Ruler, so that they will follow him regardless of their lives, undismayed by any danger’.
- **Command:** ‘The Commander stands for the virtues of wisdom, sincerity, benevolence, courage and strictness.’ Apart from enunciating some virtues of the Commander, Sun Tzu writes in strong terms against interference by the Ruler or Sovereign in the conduct of the military campaign. He was writing in a situation where the Sovereign was not usually the Military Commander, thus: ‘By attempting to govern an army in the same way as he administers a kingdom, being ignorant of

the conditions which obtain in the army. This causes restlessness in the soldiers' minds.'

It is not suggested that Sun Tzu originated the thought or philosophy embodied by his considerations – but he was the first to commit them in writing. Clearly, the military (tribal) leaders of the most primitive times would have appreciated the advantage of surprise. Indeed it was guarded against by early man, making his dwelling in caves in the side of cliffs or at the top of hills. The fortress at Jericho, constructed some 9000 years ago, saw an area of ten acres fortified by a wall seven metres high with an outer moat over four metres wide and three metres deep. Obviously the inhabitants appreciated the military virtues of guarding against surprise attack and having a secure base. Tribal wars and raids of early times were conducted with a well-defined aim. Mostly it was to do with supply of food or to secure good hunting grounds, or perhaps just to plunder – fundamentals. But the objective was clear in the minds of all those involved.

And so, down through the ages, experts have contributed their ideas, their perceptions of the conduct of war. The surprising factor is the sheer consistency of conclusions reached by the multitude of military leaders, scholars and analysts reporting their observations of war over a span of more than 2000 years; a time-span that has seen weapons develop from spears, bows and arrows, and chariots, to submarines, supersonic aircraft, cruise missiles and nuclear devices. The emphasis may have been different according to the time and other circumstances and the judgements of a particular individual, but essentially the considerations have been much the same.

Clausewitz, for instance, whilst allowing that 'surprise lies at the root of all operations', opines that it can rarely be outstandingly successful, it is too vulnerable to the mercy of chance. Nevertheless, in his writing *On War* he does credit surprise as an important consideration.

Clausewitz also shuns listing any aspect of the art of war as a *must* for consideration – what might be termed a principle. However, those matters that are presently listed as principles by major military powers are certainly implicit in Clausewitz's writing:

- Selection and Maintenance of the Aim,
- Offensive Action,
- Concentration,
- Mobility,
- Surprise,
- Pursuit, and
- Public Opinion.

The similarity of the theories of Clausewitz and Sun Tzu is remarkable given the time-lapse between their respective experience of war. However, the consistency extends to almost every writer on the military art – on fighting war. Jomini, a Swiss, has been widely read and, at a time, was influential in American military thinking. Perhaps he still is and perhaps this can be discerned in the propensity of American military commanders to concentrate mass. Of course, mass – or concentration of force – has been practised by successful commanders – Alexander the Great, to name but one – long before the influence of Jomini or even the writing of Sun Tzu.

Other writers – G.F.R. Henderson, Sir Arthur Bryant, J.F.C. Fuller and the one who Field Marshal Montgomery of Alamein considered the pre-eminent theorist, Liddell Hart³ – have reached similar conclusions on what is important in war; the factors to be considered.

To the best of the author's knowledge, the term 'principles' in describing factors in the conduct of war was first used by Colonel G.F.R. Henderson in an article titled 'Strategy' in the supplement to the *Encyclopaedia Britannica* in 1902.⁴ He identified what he described as 'The Principles of Strategy'. These were movement, supply, destruction and 'well organised masses ... and directed against a definite objective'. In other words, a definite aim – or purpose – or objective.

A decade later, Captain J.F.C. Fuller identified six principles. Three years after this, in a paper called 'The Principles of War with Reference to the Campaigns of 1914–15', he extended this to eight principles. Perhaps the importance of this particular paper was that it led to the official adoption of those eight principles and inclusion in *British Field Service Regulations 1920*. The principles as promulgated are set out below together with the wording now appearing in the relevant service publications – the *British Military Doctrine 1989*, the *Naval War Manual BRI 806* and the *Royal Air Force AP 3000*, second edition:

- The Principle of the Objective – now, Selection & Maintenance of the Aim.
- The Principle of the Offensive – now, Offensive Action.
- The Principle of Mass – now, Concentration of Force.
- The Principle of Economy of Force – now, Economy of Effort.
- The Principle of Movement – now, Flexibility.
- The Principle of Surprise.
- The Principle of Security.
- The Principle of Cooperation.

Those principles remained throughout the 1920s, 1930s and World War II. It was not until 1946 that Field Marshal Montgomery, then Chief of the Imperial General Staff, Great Britain, added two further principles: morale

and administration. It may seem extraordinary that almost 2500 years after these two important elements in the art of waging war had appeared in the writing of Sun Tzu, they should finally be accepted by the British. Noting that they were inserted at the direction of one of Britain's most experienced commanders, one must accept that the intention to do so was forged by his experience in battle. Indeed, Monty's preoccupation with morale was evident from his very regular talks to his troops, 'sometimes standing on the bonnet of a jeep, sometimes to a few men on the roadside or in a gun pit' ... a general had to 'get himself over'.⁵ As for administration, his realisation of its importance to success in battle is evident in his statement in *A History of Warfare*:

As the centuries passed, Commanders in the several grades were forced to grapple with problems of administration, often called 'logistics'. In my own case, I very soon learned by hard experience that the administrative situation in the rear, must be commensurate with what I wanted to achieve in battle in the forward area.⁶

The British accept selection and maintenance of the aim as the one master principle. The others are not set down or specified in any particular order – they should all be considered before any operation.

Quite clearly, unless there is a well defined aim to an action being taken, there must be uncertainty and confusion. Some would assert that the aim is applicable more to strategic plans than to tactical. The logic for this is hard to see. There is wide acceptance that every action should, no matter how small, contribute to the national aim. However, at the lower levels, no one is going to follow it level-by-level to that extent. For the sake of simplicity the person ordering an action need only establish that it will meet or contribute to the aim of his next superior. The essential point is that there must be an aim to every action. Thus the master or cardinal principle can never be neglected.

It was only a year after the British list that a set of principles was codified and placed into official documents of the United States Army. Whether the British action had any influence or not is not known, nor is it of any consequence. It is known that Jomini, Mahan and Fuller were well regarded in the United States, and it is reasonable to assume that the selection of the principles to meet the circumstances of the American Services was based on the express views of those people. But it is also worth remembering that America, still a young nation, had accrued significant experience of war: the War of Independence, the War between the States, the Spanish–American War and World War I – a not inconsiderable background!

Curiously, the first listing of principles appeared in Training Regulations in 1921. But this was simply a list of the principles themselves. There was

no explanation, description or qualifications. A year later, the list was rescinded only to see them published in Field Service Regulations in 1928. On this occasion the descriptions were published, the principles themselves were not named. It was not until 1949 that the principles were both named and discussed in an official document – *Field Manual 100-5*. Currently they are promulgated in *Army Field Manual 100-1*.

The United States Air Force has produced its own set of principles. There are eleven as against nine set down by Army.

The United States Navy did not produce a set of principles but for many years used those of the United States Army for strategic study and debate. The principles now used by the Navy are promulgated in *Naval Doctrine Publication 1, Naval Warfare* 1994. They are the same as those adopted by the Army although the descriptions are uniquely Navy.

An outsider may find it curious that there is not a common set of principles for the United States forces. Perhaps, when the descriptions and explanations are studied, it will be found that they are closer than would appear; the intent of a particular principle of one service may be subsumed in the description of another principle published by a sister Service.

A significant part of the basic information used in presenting the argument and discussion set down in this book has been derived from a review of the principles of war carried out by the Australian Joint Services Staff College in 1980. The review was done in depth and with great thoroughness. In the end, certain recommendations for change were made, involving additional principles. In their consideration the chiefs of staff rejected all proposed changes on the grounds that they were really implicit in existing principles or covered in the general service educational process. This decision portrayed a conservative attitude, tilted to ‘protecting’ the status quo lest the status of the principles be diluted by considerations of less importance. Now, sixteen years later, it is time to review that decision and to give consideration to any other aspect of war that might be a legitimate candidate for insertion as a principle of war.

2 Selection and Maintenance of the Aim

In war, then, let your great object be victory, not lengthy campaigns.

Sun Tzu

The simple fact is that few conscious actions are taken without a specific purpose. If one raises a hand it may be in greeting, in salute, or perhaps to shade one's eyes. Almost always there is a purpose. To go to war – a war in which countless lives will be lost and on which may depend the future of a nation, or the freedom and lifestyle of its people – without a clear and attainable objective, would be criminal negligence or sheer folly. In either case it is unforgivable. And yet, the world has witnessed such political ineptitude or irresponsibility on more than one occasion. One might judge the entry of America and its allies into the Vietnam conflict to be such a case. Although, to be fair, the domino theory was in vogue in the early 1960s and the western strategy was the containment of communist expansion. The fundamental error was the failure of the president, the commander in chief, to articulate a clear, unambiguous and attainable political aim/objective. Instead, what the president declared to the world at large was that the United States was not seeking to win the war but simply to preserve the independence of South Vietnam. The objective was at best unclear and, with the operating constraints imposed by politicians ignorant of the principles of war, unattainable. Unattainable without a continuing bleeding of the nations involved. The world's most powerful nation adopted a defensive posture. Perhaps it would have been useful to reflect on the writing of Sun Tzu: 'Security against defeat implies defensive tactics; ability to defeat the enemy means taking the offensive.' 'There is no instance of a country having benefited from prolonged warfare.'¹

To have prevented the carnage in Vietnam the allied forces would have needed to take the offensive against the enemy nation; the armed forces, the economy, all the means of waging war. This was a far cry from the limited offensive actions confined to 'in country' operations or, in the case of air power, to areas that excluded important strategic targets.

However, this study is concerned to relate principles to the conduct of war in general, not to dwell on specific failures except by way of illustrating cases where principles have been ignored.

The first thing to be noted in examining this master principle is the different wording used in the title. The British use the term ‘the selection and maintenance of the aim’; the United States Forces, ‘objective’. This can be argued at great length by those wishing to be pedantic – indeed, the study conducted by the Joint Services Staff College in Australia in 1980 gave some breadth to this. One of the reasons given for preferring ‘aim’ was that this is the form used in writing military appreciations and is more readily understood by the military. Common sense should prevail; whichever term is used the intent is the same. Sun Tzu used, and the United States still uses, ‘objective’. Clausewitz, the British and Australians use ‘selection and maintenance of the aim’ – ‘the aim’ for short. General William Westmoreland says very succinctly in his brief article at the end of this chapter: ‘the basic implicit questions are: what do we wish to do? what is the objective? what is the aim?’²

For the sake of simplicity, ‘aim’ will generally be used in this and following chapters except when referring specifically to American doctrine. The substance of the principle is of more importance than the form of words used to describe it. It is pertinent to this study to examine the definitions and descriptions of ‘the aim’ and ‘objective’ promulgated by the British and American Services.

Royal Navy

Selection and Maintenance of the Aim. In the conduct of all military operations it is essential to select and clearly define the aim. The ultimate aim is to break the enemy’s will to initiate war or to continue fighting once war has started. In war, each phase and each separate operation must be directed towards this supreme aim, but will have a more limited aim, which must be clearly defined, simple and direct. Once this aim is decided, all efforts must be directed to its attainment until a changed situation calls for its reappraisal and consequently a new aim. Every plan or action must be tested by its bearing on the chosen aim.

At any given time, a commander should have only one aim. He may have, in addition, one or more task but these must not prejudice attainment of the aim. The aims of junior commanders must always contribute to the aims of their next superiors.

The selection and maintenance of the aim is the ‘master principle’ and has therefore been placed first. The remaining principles are in no particular order, since their relative importance will vary according to the nature of the operation in question.³

British Army

The Selection and Maintenance of the Aim. In the conduct of war, and in all military activity, it is essential to select and define the aims clearly. The ultimate aim may be absolute, the overthrow of a hostile government, or more limited, the recovery of occupied territory. Within his strategic directive, a commander may have several courses of action open, each of which would fulfil the aim. The selection of the best course will lead to the mission and outline plan being issued, the mission being a statement of the aim and its purpose. The aim passed on to subordinate commanders may be precise or expressed in broader terms – for example, for a pursuit. It must nevertheless be unambiguous and attainable with the forces available. Once decided the aim must be circulated as widely as security allows so that all can direct their efforts to achieve the aim.⁴

Royal Air Force

The Selection and Maintenance of the Aim. In the conduct of war, and therefore in all military activity, it is essential to select and define the aims with absolute clarity before operations start. The ultimate aim may be absolute (eg the overthrow of a hostile government), or more limited (eg the recovery of captured territory). Once the aim is decided, all efforts must be bent on its attainment until a changed situation calls for a re-appreciation and consequently for a new aim. Every plan of action, on whatever level, must be tested by the extent to which it contributes to the attainment of the military aim at the next highest level of command, and ultimately to the overall military and hence political aim. Thus:

Governments must be quite clear about their military objectives.

Commanders at all levels must know exactly what they are required to achieve, must make that quite clear to their appropriate subordinates, and must not be led into expenditure of effort which does not contribute directly or indirectly to the attainment of their aim.⁵

United States Army

Objective. Direct every military operation toward a clearly defined, decisive, and attainable objective.

The ultimate military purpose of war is the destruction of the enemy's armed forces and will to fight. The ultimate objectives of operations other than war

might be more difficult to define; nonetheless, they too must be clear from the beginning. The linkage, therefore, between objectives at all levels of war is crucial; each operation must contribute to the ultimate strategic aim.

The attainment of intermediate objectives must directly, quickly, and economically contribute to the operation. Using the analytical framework of mission, enemy, troops, terrain, and timetable (METT-T), commanders designate physical objectives such as an enemy force, decisive or dominating terrain, a juncture of lines of communication (LOCS), or other vital areas essential to accomplishing the mission. These become the basis for all subordinate plans. Actions that do not contribute to achieving the objective must be avoided.⁶

United States Navy

Objective. Direct every military operation toward a clearly defined, decisive, and attainable objective. The naval Services focus their operations to achieve political purposes defined by the national command authorities. With national strategic purpose identified, we can select theatre military objectives and form operational and tactical objectives based on specific missions and capabilities. Whether the objective is destroying the enemy's armed forces or merely disrupting his ability to use his forces effectively, the most significant preparation a commander can make is to express clearly the objective of the operation to subordinate commanders.⁷

United States Air Force

Objective. Direct military operations toward a defined and attainable objective that contributes to strategic, operational, or tactical aims.

The military objective of a nation at war must be to apply whatever degree of force is necessary to attain the political purpose for which the war is being fought. Strategic, operational, and tactical objectives can be clearly identified and developed only when the political purpose has been determined and defined by the national command authorities (NCA). Thus, when the political purpose is the total defeat of the adversary, the strategic military objective will most likely be the defeat of the enemy's armed forces and the destruction of his will to resist.

Once developed, military objectives must be constantly analysed and reviewed to assure that they accurately reflect not only the ultimate political purposes but also any political constraints imposed on the application of military force. Selection of theatre objectives is based on the overall mission of the command, the commander's assigned mission, the means available,

the characteristics of the enemy, and the military characteristics of the operational area. All commanders must understand the hierarchy of objectives, the overall mission of the higher command, their own missions, and the tasks they must perform. They must communicate clearly the intent of their operations to subordinate commanders.⁸

Comment

Reading the descriptions of aim and objective promulgated by the British and American Services reveals, at first glance, a general sameness – and one would expect this to be so. However, on closer examination there are some significant differences that deserve comment. Importantly, four of the six service descriptions make absolutely no reference to the first essential – and the fact that it is the first essential cannot be emphasised too strongly – the selection of the national aim. This will be a political aim. In framing it governments will doubtless give due consideration to military factors, but the paramount aim is the national, political aim.

The description of objective set out by the United States Air Force does state, and with the emphasis it deserves, that military strategy cannot be identified until the political purpose has been determined by the national command authorities (NCA).

The US Navy also indicates that the object of naval operations is to achieve the political purpose defined by the NCA.

The Royal Air Force addresses the nexus between the political and military aims in a rather quaint way by saying that governments must be quite clear about their military objectives. It would seem to be more in keeping with democratic practice to say that military objectives must be directed to achieving the political aim. Perhaps the RAF description was intended to mean that governments must set military objectives that are attainable. And indeed they should do so.

The Royal Navy is the only one to propose, what is in effect, deterrence, ‘to break the enemy’s will to initiate war’. Perhaps it has taken account of the old master, Sun Tzu: ‘Hence to fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy’s resistance without fighting.’⁹

Both the British Army and the Royal Air Force say that the ultimate aim may be the overthrow of a hostile government, or it may be more limited. Is the overthrow of a hostile government a military aim? It may be achieved by military means but surely it is a political aim to which military force is directed. It is important that the military forces make this distinction. It has

not been made in these two descriptions. Politicians must be the ones to bear responsibility for the soundness of these political judgements.

The definition of the ultimate purpose of war stated by the United States Army is questionable. ‘The ultimate military purpose of war is the destruction of the enemy’s armed forces and will to fight.’ Good stirring stuff, but hardly sustainable in that the ultimate is an unlikely quest in this age. It may of course be necessary to defeat (but not necessarily destroy) the enemy’s armed forces in order to destroy his will to fight, but this is not always the case. The Japanese armed forces were not destroyed in 1945. There have been many cases where an enemy negotiated a peace well before its armed forces were defeated in battle. It might be more realistic to say that the ultimate aim is to destroy the enemy’s will to fight on – which may involve the defeat of his armed forces. This may seem overly pedantic but it probably reflects more accurately the political attitudes likely to obtain in the future. The demand for ‘unconditional surrender’ is likely to be too expensive in lives and treasure to get political or public support.

In considering this principle of war, there can be no doubt that selection and maintenance of the aim or its American equivalent, the objective, should be retained. It is of such overriding importance that it should continue to be accepted as the master or cardinal principle. Emphasis must be given to the fundamental issue, the selection of the national aim – the political aim of the nation. Then, and only then, can the military aims or objectives be formulated and defined. Clearly, the political aim, like all its subordinate military aims, must be attainable.

One factor that deserves consideration is the link between a national aim and military strategy in peacetime. It would be reasonable to assume that deterrence would be the first priority and a force structure appropriate to that aim would be planned and developed to the extent that domestic politics and resources allow. A peacetime aim might read in part: ‘To provide armed forces that possess, and are seen to possess, a military capability likely to deter actions that are inimical to the vital interests of the nation.’

The descriptions of this principle promulgated by the British and American armed forces are imprecise and in need of revision. In particular, all those involved in the study of defence and the art of war should recognise and have a full appreciation of the vital necessity for governments to frame a clear, unambiguous and attainable aim or objective that will provide a sound foundation for the formulation of a military strategy to achieve that national aim. Every subsequent military action must be directed to the attainment of that aim or objective. Military advice is essential if sound decisions are to be made in regard to military objectives and whether they are ‘attainable’.

ADDENDUM BY GENERAL WILLIAM C. WESTMORELAND**Aim (Objectives – US)**

Major nations have codified certain principles which some consider immutable in the successful conduct of war. Indeed, such is the case with the British, the Australians and Americans. Such principles are guidelines for the military and are not always accepted by political leaders. Indeed it is doubtful that politicians, excepting a few, are even aware of such codification of battlefield principles.

In the American military the ‘principles of war’ are taken for granted but have become an accepted guideline for the conduct of war. Such principles are implicit in the development of the military plans but do not always comprise a ‘checklist’ in the formulation of a battle plan although such practice could be desirable.

At the top of the list on the American military agenda is the principle of ‘the objective’. The Australians use the term ‘aim’. Webster’s dictionary defines ‘aim’ as: ‘to point (a weapon) toward some object – to direct one’s efforts; aspire; to direct to or toward a specific object or goal’; and ‘objective’: ‘an aim or end action; a goal’. Thus one can conclude that in a military context, ‘aim’ and ‘objective’ are synonymous. In other words, as one addresses the situation presented by circumstances, the basic implicit questions are: what do we wish to do? what is the objective? what is the aim? As one moves down the several echelons of the military organisation, these basic questions are germane whether one is considering the role of the military from the senior level all the way down to the level of the squad, ship or aircraft; the purpose, ‘the objective’, the ‘aim’ is pertinent.

From a practical standpoint the basic objective of most standard military units is deeply ingrained. But not so at the top political levels. At the national or theatre level the basic objective of the military should be spelled out but such is not always so. Such determination must be made by the senior governmental authority since it involves many things: the focus of intelligence, development and procurement of materiel, the composition of the military force, and so on. Politicians control the military posture of a democratic government in several ways but basically by the control of the military budget. Thence the objective of a military force is a function of many factors over which the military have limited control. In times of peace, this process is a continuing exercise. It is frequently difficult for the military to garner from senior civilian authority the ‘objective’ of the military as one looks into the future.

To put the subject into a practical context, I shall relate the experience of my country as I recall my personal recollection of three wars – World War II, the war in Korea and the war in Vietnam.

World War II was indeed a world war. It was an all-out war involving many nations. The strategic objective, set by the political leadership of the western countries, was ‘unconditional surrender’ of our military enemies. It was a costly, unprecedented strategy in the western world – but far more so for our battlefield enemies. Needless to say, at the tactical level, ‘unconditional surrender’ was not frequent. At that level, when on the offensive, the objective was either to seize a specific piece of terrain, or destroy the enemy on the immediate battlefield, and usually both.

When on the defensive which occurs from time to time on any battlefield, the objective or mission, as usually prescribed, was to defend a position and destroy an attacking enemy.

The war in Korea was strategically a different situation. Our national objective in the North Pacific, or Northeast Asia, was not made clear to the world or to the North Korean leadership. Thence, a surprise attack by North Korea, aided by the Chinese People’s Republic, caught America by surprise and unprepared. America, in the wake of World War II, took seriously the slogan ‘The war to end all wars’. The Korean experience defied that aspiration. Despite major obstacles the United States and the United Nations responded after the Korean attack in a marginal and barely adequate fashion. The objective of ‘readiness’ given to our forces in the Far East fell far short of requirements. As the war progressed, the Chinese joined the battle en masse. American and free world troops fought under the banner of the United Nations, resulting in our forces being reinforced by military units of many countries. The battlefield was in time, and after many battles, stabilised along the 38th parallel as is now the case. Our ‘objective’ in Northeast Asia was unclear. There was confusion as to the objective in that part of the world between the US defence department, the state department and the commander in the field, General MacArthur. The objective, our national ‘aim’, was unclear thus resulting in confusion, exploited by North Korea.

The war in Vietnam was yet another confused story from the beginning when we took over from the French the support of South Vietnam following the 1954 Geneva Accords.

At that time the South Vietnamese were allowed to ‘vote with their feet’ and there was a massive movement of Vietnamese from the north to the south. America’s policy – the US political objective – was not to unify North and South Vietnam but to police the Geneva Accords of 1954 and be a party to securing South Vietnam as a free, non-communist independent state. Hence, the US military were required by orders of President Lyndon Johnson, to

confine the ground war to the territory of South Vietnam as determined by the Geneva Accords. The objective of the armed forces of America and her allies was to protect the territory of South Vietnam until the South Vietnamese were considered strong enough to protect themselves. President Johnson was adamant in his effort not to risk bringing the Chinese to the battlefield as in Korea and hence expand the war geographically on land and to the sea. The strategic objective of the president of the United States was to confine the battlefield – not to expand it. We must leave to history the wisdom of that policy, which is broadly misunderstood.

The ‘principles of war’ are helpful. The first of those – the objective (aim) is the most important, but, like the other principles, ‘the objective’ is a guide for careful and deep consideration. The judgement involved is more than a military matter, at the national level it is a matter of state.

The ‘principles of war’ are not immutable, but they are practical guidelines which every military officer should heed and of which every politician should be cognisant.

3 Morale

The sand of the desert is sodden red,
Red with the wreck of a square that broke,
The Gatling's jammed and the Colonel dead
And the regiment blind with dust and smoke.
The river of death has brimmed his banks,
And England's far, and Honour a name,
But the voice of a schoolboy rallies the ranks
Play up! Play up! And play the game!

Vitae Lampada
Sir Henry Newbolt

One might dismiss the quote from *Vitae Lampada* as no more than a myth – a pleasant figment of the poet's imagination. But history is replete with examples from wars down through the centuries, of men being rallied by similar cries, or by example. Morale lifted in an instant by an inspiring call, a courageous act. Field Marshal Slim tells of when he was a young officer on the western front during World War I, his battalion faltered during an attack: 'As we wavered', wrote Slim, 'a private soldier beside me, who one would have thought untouched by imagination, ran forward. In a voice of brass he roared "Heads up the Warwicks! Show the blighters your cap badges!" Above the din, half a dozen men on each side of him heard. Their heads came up. They had no cap badges – they were wearing steel helmets – but they had remembered their Regiment.'¹ The attack went forward.

Again, on the second day of the Battle of Gettysburg a vital hill, Little Round Top, lay undefended. The 20th Maine, only 350 strong, its left flank bent back ninety degrees by a strong Confederate assault. Outnumbered three to one, the Maine regiment had fought an hour of tough, short-range combat. Half the men were down – killed or wounded – ammunition almost exhausted. A fresh confederate assault would certainly overwhelm them. The commanding officer, Colonel Joshua Chamberlain, made an extraordinary call on them. He shouted, 'bayonet!' and the command 'ran like fire along the line, man to man, and rose into a shout, with which they sprang forward upon the enemy, now not thirty yards away'.² The left wing of the 20th Maine, bayonets fixed and levelled, charged down the hill sweeping the disordered Confederates before it. The 20th Maine carried the day and took over 400 prisoners. The Battle of Gettysburg could well have been decided by the lifted morale of a handful of men.

The accounts of such actions are legion. Nothing in a desperate situation changed other than the morale – the fighting spirit – of a small band of men, inspired by an appeal to their pride, their sense of duty – play up! play up! and play the game.

Morale has had a far greater impact in war than on small tactical actions such as those described. In the Battle of Gaugamela in 331 BC, Alexander's army of 40,000 infantry and 7000 cavalry faced Darius with a force of 100,000 infantry and 40,000 cavalry.³ As the armies occupied positions, Alexander, having made a personal reconnaissance, ordered that his troops be well fed and rested overnight. Darius, on the other hand, had his army stand-to throughout the night. It is certain that the more alert, rested troops entered battle with a higher morale than their fatigued enemy – as Alexander intended. The already compromised morale of the Persians fell further when Darius deserted the field in the face of impending defeat.

Alexander, a charismatic, military genius, led his army eastwards to the Indus River and Alexander's Port (now Karachi). Finally, after eight years of warfare, having marched some 17,000 miles, morale was gone – they would go no further. The wonder is that morale was sustained for so long. It was maintained by outstanding leadership, repeated success in battle – and low casualties. Colonel du Picq writes that at the end of his campaigns, when many of his soldiers were sixty years old, Alexander had lost only 700 men by the sword.⁴ A remarkable achievement.

Commenting, after analysing the battle of Cannae, in which Hannibal – with an army outnumbered almost two to one – defeated the Roman, General Varro, inflicting losses in the order of 70,000 killed and suffering himself only 5500 killed, du Picq indirectly highlights the value of morale when describing Hannibal as:

the greatest general of antiquity by reason of his admirable comprehension of the morale of combat, of the morale of the soldier, whether his own or the enemy's. He shows his greatness in this respect in all the different incidents of war, of campaign, of action. His men were not better than the Roman soldiers. They were not as well armed, one half less in number. Yet he was always the conqueror. He understood the value of morale. He had the absolute confidence of his people. In addition, he had the art, in commanding an army, of always securing the advantage of morale.⁵

The fact of military history is that the value of morale has always been appreciated by successful commanders, its pre-eminent contribution to success in battle, recognised by each succeeding generation of military leaders and military historians. Sun Tzu identified it in his *Art of War* 2500 years ago; Napoleon's oft-quoted dictum was, 'moral is to the material as

three to one'.⁶ Clausewitz sees the physical factors as 'little more than the wooden hilt, while the moral factors are the precious metal, the real weapon, the finely-honed blade'.⁷ In 1946 Field Marshal Montgomery, then chief of staff, introduced morale as a principle of war for the British forces. It is worth recalling that Montgomery was then the most experienced combat commander still serving in Britain. His assessment of the vital importance of morale was not derived only from the writing of Sun Tzu, Clausewitz and others, but confirmed by his own experience in battle. Montgomery commented on the subject of morale: 'while the factors of command and control play a major role in battles, the greatest single factor making for success, is the spirit of the warrior. The best way to achieve a high morale in wartime is by success in battle'.⁸

So far, the comments and quotes dwell on the morale of the military forces prosecuting the war. This is essentially because this book is examining the principles of war promulgated by the military services of two major powers long experienced in the conduct of war. It would be grossly incorrect for the reader to infer from this that the quintessential position of morale was confined to the military. This is most certainly not the case. Perhaps the very first essential is the morale, the determination, the will, of the nation. This is contained in the quote of Sun Tzu referred to in Chapter 1 and worth repeating in part: 'Without harmony in the state, no military expedition can be undertaken.'⁹ Clausewitz and Montgomery have made similar comments.

However, surely the advice, the statements and dictums of past experts, both military and civilian, should not be necessary in convincing present-day military officers of this simple truth. The author accepts this absolutely but must confess to a degree of surprise that public opinion was a factor in the time of Sun Tzu when the absolute authority of the ruler was the order of the day. Nevertheless, he accepts the wisdom of Sun Tzu on the matter without reservation. How much more germane to the political realities of today!

Surely we should not need to look back past this century for examples where public support was absent; the morale of the nation adversely affected by prolonged military encounters and ever mounting casualties. We might simply note the attitude of the French public to France's involvement in Vietnam and Algeria and most poignantly, the tragic disillusionment of the American public – and the Australian public – with the lingering sore of Vietnam. It is rarely possible to sustain high morale in the military forces of a nation when the home population has lost confidence and the will to fight on. The reason for this public reaction is immaterial, the effect is the same. In an age where the suffering of war is portrayed almost continuously

on television screens, the taste for war quickly pales. A successful conclusion should be pursued with the utmost vigour. A quote from Sun Tzu yet again: 'there is no instance of a country having benefited from prolonged warfare'.¹⁰ Nothing has changed!

Two questions come immediately to mind. Why, with the experience of history, was morale not accepted as a principle of war until 1946 by the British – and not yet by the American Services? From the opinion of the most eminent and successful commanders and military historians, morale approaches the importance of the aim or objective. An examination of the principles taken from Liddell Hart and promulgated by the British in 1920 does not reveal in any of the principles adopted one that could be said to subsume morale. An examination of those now current in the American Services produces the same negative result. In regard to the British Services, it might be opined that the confirmation of the value of morale was consummated by the experience of Montgomery and other British commanders in World War II. This is not to say that the appreciation of morale as an extraordinarily important factor in war was not present well before then. The second question remains unanswered – why have the United States Services omitted morale as a principle of war?

Before probing further into the absence of morale as a principle of war in the United States, it would be useful to examine the description of morale set out by each of the British Services.

Royal Navy

Maintenance of Morale. In the context of war, morale may be interpreted as the determination to achieve the aim. From this will spring courage, energy, skill and the bold offensive spirit. Morale is encouraged by good leadership, sound training, good administration and the provision of first-class equipment. The existence of a high state of morale is essential if a commander is to get the best out of his men.¹¹

British Army

Maintenance of Morale. Because success in war depends as much on moral as physical factors, and morale is probably the single most important element of war. High morale fosters the offensive spirit and the will to win. It will inspire an army from the highest to the lowest ranks. Although primarily a moral aspect it is sensitive to material conditions and a commander should look after the well-being of his men.¹²

Royal Air Force

Maintenance of Morale. Success in all forms of war depends more on morale than on material qualities. Morale is a mental state, but it is very sensitive to material conditions. It is based on a clear understanding of the aim, on training and discipline, and is immediately responsive to good leadership. It is adversely affected by inferior or inefficient equipment. It also depends to a marked degree on sound administration. Outstanding leadership will sustain high morale when all other factors are against it and success in battle is the best stimulant of morale.¹³

Comment

The description of ‘morale’ produced by the Royal Navy does not seem to accord with the importance of this principle. It sees morale as the determination to achieve the aim. What aim? The national aim or the current tactical aim, or both? It asserts that from this will spring courage, energy, skill and the bold offensive spirit. Whilst certainly important, it is difficult to visualise ‘skill’ springing from high morale. Enthusiasm perhaps, but not skill! No mention is made of the morale of the civilian population, and yet this surely is something that military officers should have a very good feel for. Indeed, whilst it may be primarily the concern of politicians, it is something to which military officers, at a senior level, should also contribute.

The description put out by the British Army gives more emphasis to its importance but, like the Royal Navy, it does not address national morale; it simply addresses the importance of morale ‘from the highest to the lowest ranks’.

The Royal Air Force strikes the proper level of importance in stating that success in all forms of war depends more on morale than material qualities. Importantly it makes the point that good leadership is perhaps the predominant factor.

The descriptions make no reference to the overriding importance of civilian morale within the nation. Clausewitz’s reference to the ‘remarkable trinity’ between the government, the armed Services and people seems to have been ignored.¹⁴

Whilst morale is not included in the principles of war promulgated by any of the American Services, it is certainly a matter given inordinate attention by those Services. Probably in no other armed Services are the elements that create high morale present in the same preponderance as in the armed forces of the United States: uniforms, the combat paraphernalia of sailors, soldiers

and airmen, recreation facilities, the support of social workers and entertainers, the quality of weapons, logistical support and administration. Leadership? Yes, leadership certainly has been good. Over recent years however, the perception has emerged that the quality of leadership is judged more highly than it should be on academic attainment, rather than the more basic ability to lead men. To question the efficacy of assessing an officer's potential on academic grounds is not a criticism that is confined to American forces; it seems to have currency in many western military forces. And, in essence it may be too early to make a judgement on this 'academic bent'. However, it would seem imprudent to depart too readily from practices that have served the military forces of all nations well, over many centuries. One should pause to reflect on Napoleon's comment, 'there are men fit to translate a poem who are incapable of leading fifteen men'.¹⁵ Again, General Erwin Rommel, when commenting on a raid through Cyrenaica that made heavy calls on improvisation by his commanders, complained of the tardiness of some with his comment: 'a commander's drive and energy often count for more than his intellectual powers – a fact that is not generally understood by academic soldiers, although for the practical man, it is self-evident'.¹⁶

More currently, the following quotes from the American publication *The Armed Forces Officer* are pertinent and may allay some fears on this matter: 'brilliance of intellect and high achievement in scholarship are an advantage, though in the end they have little or no pay-off if character and courage are lacking' – and – 'no, brain trusting and whiz kidding are not what it takes'.¹⁷

Because leadership is so vital to morale and the latter vital to military success, it is worth pursuing leadership one step further? What might be regarded as the greatest attribute in a leader? Simply, it is confidence. There really is no way a leader, at any level, can inspire confidence in others if it is lacking in himself. Subordinates will soon sense the level of confidence the leader displays and will be affected by it.

An example of inspiring confidence, and they abound throughout history, is the example of General Ulysses S. Grant at Fort Donelson. He arrived to find his right wing crushed and his whole force on the verge of defeat. He said quietly to his chief subordinates, 'Gentlemen, the position on the right must be re-taken.' Then he mounted his horse and galloped along the line, shouting to his men: 'Fill your cartridge cases quick; the enemy is trying to escape and he must not be permitted to do so!'¹⁸ Confidence was restored in an instant. Once more, in a desperate situation the commander (leader) was able to inspire his troops with his own display of supreme confidence.

Military experience throughout the ages supports unequivocally the critical importance of morale; morale at every level – the people, the government,

the military. As stated by the British Army, in the armed forces it covers all personnel from the commander down to the private soldier. If anything, the impact of beaming the coverage of war into the households of the nation has added emphasis to the critical importance of morale. The dreadful consequences of low morale throughout large portions of the civil population in the United States, and, to a lesser extent, within the military units serving in Vietnam, must never be forgotten by those committing their nation and their armed forces to war. If the whole subject of morale is relegated to general education within the armed services, it will not be accorded the profound consideration it must attract within the military and by the government. It is most certainly of such importance that it should be included in the principles of war. The description given should address Clausewitz's 'remarkable trinity' in full.

Some military people and others who appreciate this linkage propose that public opinion should be included as a separate principle of war or, at least, that the principle of morale demonstrate the linkage by adopting the title morale and public opinion. There is certainly justification for examining these proposals.

A study of the principles of war carried out by the Australian Joint Services Staff College in 1980 recommended that public opinion be added to morale as a principle. However, the reviewing committee and later the chiefs of staff decided not to accept the recommendation. This decision was based on the argument that separating 'public' morale from the morale of the military tended to move away from the concept of national effort – a trinity, an inseparable link. However, the point was made quite unequivocally that the description of the principle of morale should make strong reference to the morale of the population in regard to its support of the government's objectives and to its support of the armed Services. Commitment to war must be a national commitment.

Also a factor in this deliberation was the possibility that, on occasion, an adverse public opinion based on incorrect or incomplete knowledge could jeopardise a contemplated strategy or major operation. It could be an action soundly based on classified information that, for reasons of security, could not be divulged at the time. Such situations are always likely to arise in war where national interests are best served by delaying full disclosure, even in the most open of democratic societies.

The final judgement is that morale should be included as a principle of war. The description of morale should cover every element of the nation – the government, the people, the military – the 'remarkable trinity'.

ADDENDUM BY ADMIRAL ELMO R. ZUMWALT**Morale**

Victory in war results from proper understanding and application of the principles of war. The achievement of high morale in a military organisation is a critical principle. Without high morale, even with the optimal application of all the other principles, defeat often results.

General Considerations

There is no certain formula for the achievement of good morale in war. Much depends on the circumstances leading to the war. For example, there is ample evidence that the morale in the Soviet conscript army before World War II was dreadful. But when Hitler invaded, the call of the reviled dictator Stalin for all soldiers to defend the motherland led to a patriotic fervour in which good morale was largely maintained. The intelligence is clear that in the long Iran–Iraq war of the 1980s the soldiers of each side maintained good morale when the soil of their own country was in contention and fought less well with much lower morale when fighting on enemy soil.

The extent of domestic public support of a war impacts heavily on morale. Americans serving in the military in World War II had total support back home as the public responded to Pearl Harbor. Morale remained high throughout that four-year war even though our forces were fighting far from home. On the other hand, the initial public support of US action in Korea and in Vietnam attenuated over time as victory eluded us. Morale in the Services dropped precipitately, with our own country not threatened and wartime objectives not understood. In contrast, morale in the US armed Services was superb during Desert Storm where the issues were clear and the objectives well understood.

Maintaining good morale in military organisations is more difficult in conscript than in volunteer forces. The change from a draft to an all-volunteer force in the US in 1973 led to more intelligent, more dedicated, better trained military Services, by an order of magnitude, and the resulting high morale demonstrated in Desert Storm is the norm. Those of us who spent our careers striving to achieve good morale while leading drafted (or draft-motivated volunteer) personnel, eager to return to civilian life, faced a much greater challenge.

Specific Considerations

At the level of a civilian or military head of a defence establishment or a military service much can be done in peacetime to achieve high morale that

will carry over into war. Achievement of high states of readiness is mandatory. Nothing hurts morale more effectively than lack of adequate spare parts, munitions, maintenance funds and training opportunities. With constricted budgets it takes courage to reduce force levels in order to maintain such readiness but this must be done. Morale in the US armed forces was at its lowest ebb in between World War II and the Korean War as we were required to maintain higher forces at the expense of catastrophically reduced readiness. On the other hand, the often maligned defence budget increases of the Reagan era produced a level of readiness that greatly improved morale.

Pride contributes to morale. Charismatic leaders, even at high levels, can enhance morale. President Jimmy Carter lacked charisma and some of his announcements created a perception of disinterest in the military. President Ronald Reagan made frequent contributions to morale – specifically by his ardent support for fair compensation and more generally by his public expressions of pride in the military. Morale soared.

A senior commander can enhance morale in wartime by general administrative changes far from the scene of battle. Secretary of Defense Melvin Laird by his strong support of the congressional legislation to transition in 1973 from a draft to an all-volunteer force enhanced the morale of the fighting forces.

My own experience as the chief of naval operations from 1970–4 taught me what can be accomplished from a high-level position in war. I came to that post from command of US naval forces in Vietnam. I had visited with thousands of fighting soldiers who had volunteered for combat in Vietnam. I had visited hundreds of our wounded. I had found some disenchantment with the indecisive way the country was fighting in Vietnam. But by an overwhelming margin the primary concerns were not related to war fighting. The typical questions were: ‘Why can’t we have beer in the barracks?’; ‘Why are we African-Americans treated as inferior?’; ‘Why can’t we have neatly trimmed beards and moustaches?’

When I assumed the top job I found that first-term re-enlistment rates in that anti-war, anti-military era were at an all-time low – 9.5 per cent. The Navy was clearly experiencing a haemorrhage of talent.

The series of changes – dubbed Z-Grams by the sailors – were designed to correct racial and gender discrimination; to fulfil legitimate aspirations for justifiable changes; and to make it clear that I desired the kind of leaders whose men would want to follow rather than those leaders who had to drive their men. Even though you can’t change a huge bureaucracy rapidly, even though the unpopular war continued, even though in my trips and visits I was not able to visit all Navy personnel, re-enlistment rates increased three-fold in a four-year period.

High-level officers can also greatly complicate the morale-building efforts of lower-echelon commanders. Meaningless paperwork, nitpicking directives, excessive deployments, lack of sensitivity in personnel matters, inadequate readiness can all increase the difficulty a subordinate commander faces. As a destroyer commanding officer in the 1950s I served under a type commander (commanding all destroyers in the Pacific fleet) who, during my two-year term, issued over 100 directives carrying the admonition 'the commanding officer will personally—'. Faced with the choice of commanding or of personally carrying out 100 nitpicks, most skippers chose to disregard the latter.

Notwithstanding all of the above, I believe that the primary responsibility for morale rests at the level of the individual ship or military unit. I believe that good morale can be maintained in peace or war, overcoming inadequate budgets or poor quality senior leadership. The challenge at the unit level is much greater when the external conditions are more difficult but good leadership at lower levels can compensate. Let me cite some examples.

In the post-World War II era, Secretary of Defense Louis Johnson had cut budgets so badly that spare parts support was inadequate to keep equipment operating, training funds were inadequate, and personnel were in such short supply that ships had to stop and drift or anchor after eight hours to let crews sleep. Senior petty officers had huge backlogs of leave on the books accumulated in World War II, but most ships could not spare them to be away. Re-enlistment rates were very poor. One commanding officer, despite shortages, and at great risk to his career, kept 25 per cent of his crew on leave for two years during both home and overseas operations. The knowledge by the crew that this skipper was taking such a risk for them greatly increased the efficiency and vigilance of those remaining on board. Re-enlistment rates soared.

In the 1950s a new destroyer division commander assembled the commanding officers of his four ships. Imbued with the fervour of recent graduation from a time, space, and motion management course, he directed the four commanding officers to initiate programmes in which every officer and man kept a log of each chore carried out throughout each twenty-four-hour period. Each ship was to collate and submit the data. One commanding officer suggested that, for appropriate comparison of results, one of the four ships should act as reference ship, not recording any data. He volunteered his ship to be that reference. The division commander approved. That commanding officer challenged his crew, outlining what the other ships would be doing. Unfettered by the paperwork of the other ships, the reference ship won all the battle efficiency awards for the year.

Obviously in each case what mattered was that the crews understood that their skippers were looking out for them. Morale and efficiency burgeoned as a result.

There are of course many characteristics of leadership which contribute to high morale in addition to the foregoing examples of caring. Communications are critical. Military personnel will accept changes in schedule, extension of deployments, non-delivery of mail, and all the other hardships of military service if they are kept continuously informed and if that information contains the reasons for disappointing circumstances.

The maintenance of discipline is essential to good morale. Failure to discipline those who require it causes a general let-down in unit discipline and morale. However, punishment of an entire unit for the misbehaviour or poor performance of a few is extremely counter-productive.

Good commanders put fun and zest into the daily routine. Creative leadership can produce ways of making even the duller routine palatable.

To be a good leader one should not try to be charismatic if one is not. One should not strive for humour if it doesn't come naturally. Insistence on discipline, high readiness and tough training can all be coupled with a high state of morale if communications are good and, above all, if a leader's subordinates know that he cares and strives to deal with individual and collective problems.

4 Offensive Action

God favours the bold and strong of heart.
General A.A. Vandergrift

No student of the military art would question the assertion that victory in war can only come from offensive action. And yet, at first glance this may seem inconsistent with Clausewitz's view that defence is a stronger form of warfare than offence. This is reconciled when it is realised that Clausewitz based that assertion on the judgement that it is 'easier to hold ground than to take it' and concluded, 'it follows that defence is easier than attack. Assuming that both sides have equal means'.¹ Today this may be arguable or, perhaps, valid only to land battles, which indeed is what Clausewitz had in mind. But even in these circumstances the defender is likely to be confronted with a variety of assault options open to an enemy with a selection of weapons and platforms and having the initiative in time, place and method. The pendulum may well have swung to offensive being the stronger form of war.

However, the purpose of this review of offensive action (or offensive, to use the American term) is not to debate the continuing validity of a theoretical comment made over a century ago, but rather to examine the present relevance of this article of military dogma and to establish its significance as a principle of war today. Before proceeding with this, fairness requires that a further Clausewitzian maxim be quoted in relation to his edict on defensive warfare: 'The fundamental principle is, never to remain completely passive, but to attack the enemy frontally and from the flanks even while he is attacking us.'² In other words there is room for offensive action even when adopting a defensive posture – in most cases! One would not think that to have been the judgement of Saddam Hussein's Republican Guard when, buried in fortifications under metres of sand, it was pounded relentlessly by bomb and shell.

On the assumption (and it should be unassailable) that a nation goes to war with victory the objective, to subject the enemy to its will, it follows that offensive action is essential if the objective is to be achieved. As logical as this may be, the fact of modern warfare is that political constraints of one kind or another have inhibited the offensive options available to military commanders throughout most of this century.

In the early days of World War II, Bomber Command RAF was confined to dropping propaganda leaflets over enemy territory and when permitted,

to attacking enemy naval vessels, crews were ordered to ensure that, were these ships in port, no bombs were to fall on German soil. German merchant ships were not to be attacked. The futility of this was exemplified by an operation on 18 December 1939. Twenty-four Wellington bombers had been ordered to attack German naval vessels in the port of Wilhelmshaven. The first formation to reach the target judged the ships to be too close to the shore to guarantee that some bombs would not fall on land; the formation leader turned away, aborting the mission; he had no discretion to do otherwise. German anti-aircraft and fighters were active, even if not particularly efficient at that time. Nevertheless only twelve aircraft survived. This type of constraint continued until Germany set the pace by concentrated attacks on targets in England.

Commanders in the Korean war were forced to allow enemy aircraft and other forces sanctuary beyond the Yalu River. This applied even after Chinese ‘volunteers’ entered the war. It was inevitable that the war would end either in stalemate or defeat of the United Nations forces.

And, yet again, there was the debacle of Vietnam, a tragedy in which the commander was never allowed to use offensive action in its true form. Fifty-eight thousand American servicemen, countless thousands of South Vietnamese and 500 Australians, died in the process of losing that war. It was a defensive battle to prevent the takeover of South Vietnam by communist forces. While offensive tactics were used to the greatest possible extent, it always had to be a defensive battle while confined to South Vietnam. Strategically offensive action, essential to victory, was not an option available to the commander. What joy to the enemy! The air arms, Air Force and Navy, were given some scope to carry out bombing missions in North Vietnam but operations were so frustratingly limited and frequently curtailed by the American President as to be ineffective. How sad it was that many of America’s fine young airmen died in that nugatory ‘non-offensive’.

For better or for worse, a product of democratic culture is that elected governments are unlikely to authorise aggressive or provocative actions in the first instance. Thus, for most western nations, pre-emptive offensive operations are not a credible option – unless the very survival of the nation is at stake. Israel, for instance, greatly inferior in numbers and equipment to the hostile forces that surround it, cannot afford such altruistic attitudes. Its survival to date is largely due to the fact that Israeli politicians have allowed the defence force to seize the initiative from – and on occasion before – the first hostile act.

Quite clearly it is not possible to attain the initiative without resorting to offensive action. Offensive action confers the initiative, just as it relegates

the enemy to the defensive mode. Of course the enemy will constantly strive to regain the initiative and can only do so by offensive action.

Having acknowledged that most advanced democratic countries would not resort to pre-emptive offensive action, it follows that some means must be found to gain the initiative at the earliest possible moment. The longer this is delayed the more difficult it is likely to become. Nevertheless it does imply that some period of defensive posture will have to be endured. The Battle of Britain is a good example of this situation. Also to be noted is that Fighter Command fought a tactically offensive battle to the extent that its commander thought prudent – just as Clausewitz advised a hundred years earlier. Even so, there were those who advocated a more offensive tactic using massed fighter formations, the ‘big wing’ theory. Whilst the debate on that will persist, one might make a judgement simply on the fact that the strategy employed in fighting that crucial battle was successful. It would be hard to argue that the balance of offence and defence was incorrect.

The history of warfare, as well as the experience and writings of successful commanders and military theorists, demonstrates overwhelmingly that offence is the essence of successful warfare: war that forces the enemy to acquiesce to your military and political aims.

It is also pertinent to consider the strain placed on the enemy when he has lost the initiative. He does not know when, from where or how the next blow will come. Consequently he cannot concentrate his forces with any certainty. If he does he takes the risk that it may be the wrong place. He must be hesitant in committing his reserves lest the move he seeks to counter is a feint. General Sheridan once explained the reason for General Grant’s victories by saying that, ‘while his opponents were kept fully employed wondering what he was going to do, he was thinking most of what he was going to do himself’.³ The seventeenth-century Samurai, Musashi, noted: ‘In contests of strategy it is bad to be led about by the enemy. You must always be able to lead the enemy about.’⁴ In the matter of offensive action, not a great deal has changed over the centuries.

A fundamental requirement is to understand the connection between attaining the initiative and offensive action. It is the latter that confers the initiative and indeed it is the latter that enables a commander to maintain it. Simple enough, but it is surprising just how often this has been ignored by very senior commanders.

An example of initiative lost by the failure to press on with vigorous offensive action was General Meade’s lack of urgency in pursuing Lee’s army after defeating him at Gettysburg. Lee conducted a very orderly retreat from Seminary Ridge, but Meade made no attempt to follow until a day and a half later, and the Union Army marched at a very leisurely pace. Lee was unable

to cross the swollen Potomac until ten days after the battle. Prior to that he had taken up a defensive position with the river behind him. Meade, with a larger force and a considerable moral advantage conferred by his success at Gettysburg, allowed him to cross to safety unopposed.⁵ Had Meade shown more enterprise and given consideration to the link between offensive action and initiative the Southern army may well have been defeated in July 1863. Meade's handling of the defensive battle was laudatory, his failure to exploit his success inglorious.

By contrast and perhaps one of the best examples of offensive warfare in modern times was operation *Sichelschnitt* ('Sickle cut'), the blitzkrieg of Rundstedt's army group A through the Ardennes and Belgium in 1940. In particular the aggressive tactics of Guderian's XIX Corps and Rommel's 7th Division were matchless as they combined panzer, dive bombers, artillery and motorised infantry to ravage through Belgium and northern France in four weeks – achieving what the Kaiser's army was unable to do in four years. The allied armies, not disadvantaged in numbers, except in aircraft, and not lacking in armour or other equipment, did not manage to gain the initiative for a single instant.

While the crucial importance of offensive action seems incontestable, it is again a useful course to examine the description of this principle given by the British and United States defence forces.

Royal Navy

Offensive Action. In war, offensive action is the necessary forerunner to the achievement of the aim; it may be delayed, but until the initiative is seized and the offensive taken, achievement of the aim is impossible. In these circumstances, the attacker has the advantage. He has time to make plans, specify objectives and dispose his forces. The defender has little or no time to appreciate what is happening, has lost the initiative and must conform to the attacker's actions. This principle does not mean 'attack at any price'. A defensive course may at times be essential; but no opportunity for regaining the initiative should ever be missed. The offensive spirit is a mental, moral and physical attitude, which may need intensive cultivation. It is closely allied to morale.

British Army

Offensive Action. Offensive action is the chief means open to a commander to influence the outcome of a campaign or a battle. It confers the initiative on the attacker, giving him the freedom of action necessary to secure a

decision. A successful defence must be followed by offensive action if it is to achieve a decisive result. Offensive action embodies a state of mind which breeds the determination to gain and hold the initiative: it is essential for the creation of confidence and to establish an ascendancy over the enemy, and thus has an effect on morale.

Royal Air Force

Offensive Action. Offensive Action is the chief means open to a commander to influence the outcome of a campaign or operation, and almost no military operation can be brought to a successful conclusion without it. Many defensive actions may have to be fought, but ultimately success must depend on the offensive use of available forces. Offensive action embodies a state of mind which brings the determination to gain and hold the initiative: it helps to create confidence and to establish a moral ascendancy over the enemy. In warfare the aim must be to wrest the initiative from the enemy, and to take offensive action at the earliest possible moment. Offensive action is needed not only to achieve victory, but also to avert defeat. As Napoleon pointed out: 'He who remains in his trenches will be beaten.'

United States Army

Offensive Action. Seize, retain, and exploit the initiative. Offensive action is the most effective and decisive way to attain a clearly defined common objective. Offensive operations are the means by which a military force seizes and holds the initiative while maintaining freedom of action and achieving decisive results. This is fundamentally true across all levels of war.

Commanders adopt the defensive only as a temporary expedient and must seek every opportunity to seize the initiative. An offensive spirit must therefore be inherent in the conduct of all defensive operations. The side that retains the initiative through offensive action forces the enemy to react rather than act.

United States Navy

Offensive Action. Seize, retain, and exploit the initiative. Since the days of sail – racing an opponent for the upwind advantage to take the initiative – offensive action has allowed us to set the terms and select the place of confrontation, exploit vulnerabilities and seize opportunities from unexpected developments. Taking the offensive through initiative is a philosophy we use

to employ available forces intelligently to deny an enemy his freedom of action.

United States Air Force

Offensive Action. Act rather than react and dictate the time, place, purpose, scope, intensity and pace of operations. The initiative must be seized, retained and fully exploited. The principle of the offensive suggests that offensive action, or maintaining the initiative, is the most effective and decisive way to pursue and to attain a clearly defined goal. This aspect of the principle is fundamentally true at the strategic, operational, and tactical levels of war. Although it may sometimes be necessary to adopt a defensive posture, this posture should be only temporary until the necessary means are available to resume offensive operations. An offensive spirit must be inherent in the conduct of all defensive operations – the defence must be active, not passive.

Offensive action, whatever form it takes, is the means by which the nation or armed forces capture and hold the initiative, maintain freedom of action, and achieve results. It permits political leaders or military commanders to capitalise on the initiative, impose their will on the enemy, set the terms and select the place of confrontation or battle, exploit vulnerabilities, and react to rapidly changing situations and unexpected developments. No matter what the level of war, the side that retains the initiative through offensive action forces the enemy to react rather than to act.

Comment

The Royal Navy description is low key and factual. It makes the essential point that offensive action is the forerunner to the achievement of the aim. It also makes the point that the attacker has the advantage which once again casts doubt on the theory that defence is the stronger form of warfare. An aspect that the Royal Navy description makes well is that the offensive spirit is a mental, moral and physical attitude and closely allied to morale. The British Army, on the other hand, states that offensive action has an effect on morale. While both statements are correct one must ask, what comes first?

Clearly a commander must be at pains to develop a high morale so that the offensive spirit is welling up in his force before the offensive action is commenced. It is important to have the sequence correct. The Royal Air Force description makes all the essential points on offensive action and fortunately has deleted the rather long and ambiguous reference to global war that was in earlier publications.

At the bottom end of the offensive scale but yet a point to be noted and absorbed is Rommel's authoritative comment on the value of opening fire first in tactical encounters. Rommel wrote:

At our first clash with French mechanised forces, prompt opening fire on our part led to a hasty French retreat. I have found again and again, that in encounter actions, the day goes to the side that is the first to plaster its opponent with fire – this applies even when the exact position of the enemy is unknown, in which case fire must simply be sprayed over enemy held territory. Observation of this rule, in my experience, substantially reduces one's own casualties.⁶

Offensive action is very clearly a prerequisite to victory at every level – a fact proven by centuries of experience and accepted unreservedly by military professionals. It must be retained as a principle of war.

ADDENDUM BY GENERAL BENNIE L. DAVIS

Offensive Action

Success in war requires mastery of the art of war as well as the science of war. Modern warfare is one of the most complex of human activities. A discussion of the principles of war helps provide a better understanding of warfare, but an understanding and a knowledge of the principles does not necessarily lead to success. Success or victory results from creating advantages against a foe who is equally determined to create his own advantages.

In stating the offensive principle of war it is clear that the commander, his staff and planners must act rather than react and dictate the time, place, purpose, scope, intensity and pace of operations. The initiative must be seized, retained and fully exploited.

In air campaign planning, air superiority, though not one of the distinct principles of war, is absolutely essential to the offence. Air superiority permits offensive air operations against any enemy target at a reasonable cost, and it denies the same opportunity to the enemy. If you concentrate on offensive operations, you reduce your enemy's air capability directly and force him to devote more of his resources to defence. Defence is a negative concept – and defence by itself can lead at best to a draw, never to a positive result.

On the other hand, offensive action, whatever form it takes, is the means by which the nation's armed forces capture and hold the initiative, maintain freedom of action, and achieve results. It permits political leaders and

military commanders to capitalise on the initiative, impose their will on the enemy, set the terms and select the place of confrontation, exploit vulnerabilities, and react to rapidly changing situations and unexpected developments. No matter what the level of war, strategic, operational or tactical, retaining the initiative through offensive action forces the enemy to react rather than to act. Therefore, maintaining the offensive is a definite advantage.

The boundaries of the three levels of war tend to blur and do not necessarily correspond to levels of command. In the current US system, the strategic level is usually the concern of the national command authorities (NCA) and the highest military commanders. The operational level is normally the concern of the theatre command, and the tactical level the focus of the subtheatre commands. In the American experience, the strategic level usually has been concerned with the destruction of the enemy's war-sustaining capabilities. Now, however, the strategic level has been expanded to include direct and indirect application of the US military and other national resources in operations short of war. Such applications also include support of low-intensity conflict, combating terrorism, peacekeeping and peacemaking operations in support of the United Nations. As the Persian Gulf conflict illustrated, the use of a conventional strategic air offensive campaign not only protected Saudi and the Gulf states territory but the greatest consequence of the Gulf War could turn out to be its effect as a strategic deterrent. Certainly, the devastation wrought by the offensive coalition air forces during Operation Desert Storm demonstrated that strategic effect in war is a condition independent of particular classes or types of weapons.

The significant impact on deterrence of such a decisive use of offensive conventional air power certainly illustrates the evolving context of deterrence. Conventional weapons may be a more viable option than nuclear weapons. Low observable and precision weapon technologies make conventional weapons more useable because their technologies reduce the risk of friendly losses, minimise collateral damage, and improve weapons delivery efficiency. These factors will alter the strategic perceptions of risk and military feasibility on which deterrence rests.

Because offensive air power provides unique, varied and far-ranging means of affecting the will and capability of the enemy, it will continue to be on the forward edge of the deterrent capability of the nation.

The operational level of war is concerned with employing offensive military forces in a theatre of operations to obtain an advantage over the enemy and thereby attain strategic military goals through the design, organisation and conduct of offensive campaigns and major operations. In war, a campaign involves employment of military forces in a series of related military operations to accomplish a common objective in a given time and space.

Commanders should design, orchestrate and coordinate operations and exploit tactical events to support overall campaign objectives. Where and when to conduct an offensive campaign is based on objectives, the threat, and limitations imposed by geographical and economic environments as well as the military assets available.

A principal task at the operational level is to identify and concentrate the offensive against the enemy's most susceptible centres of gravity. The proper identification of the centres of gravity by the commander and his planning staff is always the key to the success or failure of the operation. Then the application of the proper weight of effort to these key objectives is absolutely essential. The commander's concept of operations should be flexible enough to take advantage of his and his allies' strengths when probing the enemy's weaknesses. The concept should also recognise the operational environment and use timing, surprise, manoeuvre to create advantages for his forces. The concept of operations is key, but should be flexible enough to exploit changes in the tactical situation. Finally, the concept should visualise the final military disposition that will result in achieving the objective.

At the tactical level, application of offensive combat power ensures success in battles and engagements through wise decisions and bold actions that create advantages for the attacking force. The tactical level deals with the intricacies of prosecuting engagements and is sensitive to the changing environment of the battlefield. Thus, in warfare, the focus of the tactical level is generally on military objectives and combat.

There is nothing sacred in dividing modern war and combat into three levels. The point is that modern war and conflict, because of their increasing complexity, are more than what occurs at the battlefield tactical level. The operational level bridges the gap between the tactical and strategic levels. Thinking of war as being divided into three levels is both a convenient concept when planning an operation and a practical necessity when executing it. But in the final analysis, the commander must always remember that the advantage falls to the time-tested principle of the offensive.

5 Security

There is one safeguard known generally to the wise, which is an advantage and security to all, but especially to democracies as against despots. What is it? Distrust.

Demosthenes

While the essential need for security is acknowledged by the military practitioner, it often fails to produce the enthusiasm for planning and development that the more dynamic sounding principles such as offensive action, concentration of force, surprise and some others provoke. This very likely is due to the simplistic perception that security is a defensive posture satisfied by confinement within a secure base or bases. Its defensive purpose is to provide physical security against all forms of attack, protection of military assets and, in particular, the offensive elements of the force. If these are destroyed no offensive action will be possible. Also, it should be recognised that the deterrence posed by one's offensive forces will cease to be credible if they are seen to be vulnerable to attack – insecure. This was behind the essential need for a retaliatory strike capability during the decades of the Cold War when the two superpowers glared at each other across the globe; technically, just the push of a button away from a nuclear holocaust. It was the reason for President Reagan's quest for a new strategic defence initiative. It was a time when no nation or installation could be 100 per cent secure. Security was provided by the chilling assurance of retaliation.

Of course, there is nothing new in the principle of a secure base. The ancient forts were built, often, with the dual purpose of defence against marauding tribes and as a base for offensive action. The crusaders built many an elaborate fortress for these purposes. The secure base that Hannibal enjoyed in Spain for some fifteen years was the basis for his success in Italy. Scipio's destruction of that base forced Hannibal to retire from the Italian mainland. He was unable to further prosecute his offensive war against Rome once his logistic base had been destroyed.

Two thousand years later, forts occupied by the United States Army engaged in the Indian wars served the same dual purpose – protection of the lines of communication and 'settled areas' and also as bases for offensive action. It was the same theory General Navarre, the French commander in Indo China, had in mind when he established the isolated base at Dien Bien Phu. However, Navarre was unable to provide one of the essentials of a secure base, guaranteed logistic support. As well as that, the scale of offensive

operations possible with the limited resources at the base was not of sufficient strength to be effective.

At the higher level, the strategic level, the transfer of General Douglas MacArthur and his headquarters to Australia in March 1942, provided the allied nations with a secure base invaluable in the build-up and prosecution of the offensive war against Japan. Malaya, Singapore, the Philippines and the Dutch East Indies were soon to be in Japanese hands. On the other side of the globe the British Isles provided the base for the war against Hitler's Germany. Without such bases offensive operations against the axis enemies would have been immensely difficult. The load that would have been required of the maritime forces of the allied nations may well have been beyond their combined capabilities.

The availability of bases in peacetime, during the period of the Cold War and now beyond that era, creates something of a dilemma for the United States, the one nation having a global role and a global capability. It also applies to the United Nations Organisation in cases where that body and any coalition it may establish for a specific purpose is required to take action. For lower levels of conflict a maritime superpower like the United States may be able to depend on a secure base afloat for a limited period but the circumstances where this presents a practicable solution are indeed limited. Almost inevitably if the operation were to become protracted, it would be necessary to secure a foothold ashore.

The Middle East is one area where the availability of a secure base will continue to be problematical.

In the Gulf War, when the coalition carried the authority of the United Nations, only one suitable base was available – Saudi Arabia. It should be remembered that it was a most delicate and fragile situation. It is well to ask 'what were the options if the Saudi base had not been available?' The simple exercise of examining this question will put the essential need of a secure base in perspective and establish its continuing relevance.

Enough has been said here and experienced during this century and in the past, to establish the essentiality of a secure base for military operations to be successful, a secure base from which the sinews of war can be flexed offensively. The need has been judged to be of such importance as to justify the inclusion of security as a principle of war by many defence Services throughout the world, including Britain and the United States. In spite of this, one could well argue that the descriptions given this important principle are sparse and fail by a wide margin to address the myriad of essential areas that lie within the intended meaning of that simple, single-word title – security. Before amplifying that assertion, the descriptions of security given by the major Services should be examined.

Royal Navy

Security. A sufficient degree of security against enemy attack is essential in order to obtain freedom of action to launch an offensive in pursuit of the selected aim. This entails adequate defence of vital targets. Security does not imply undue caution and avoidance of all risks, for bold action is essential to success; on the contrary, with security provided for, unexpected developments are unlikely to interfere seriously with the pursuit of a vigorous offensive. Deterrent strategy and war are each essentially a matter of taking calculated risks; the principle of security demands that all risks should be foreseen and either accepted or guarded against. It is not a breach of security to take risks; but it is a serious breach not to realise they are being taken.

British Army

Security. A degree of security by physical protection and information denial is essential to all military operations. Security should enable friendly forces to achieve their objectives despite the enemy's interference. Active measures include the defence of bases and entry points, a favourable air situation, flank protection and maintenance of adequate reserves. The principles of concentration of force, economy of effort and security are all closely interrelated.

Royal Air Force

Security. A degree of security by physical protection and information denial is essential to all military operations. Security should enable friendly forces to achieve their objectives despite the enemy's interference. Active measures include the defence of bases and entry points. The principles of concentration of force, economy of effort and security are all closely interrelated.

United States Army

Security. Never permit the enemy to acquire unexpected advantage. Security enhances freedom of action by reducing vulnerability to hostile acts, influence or surprise. Security results from the measures taken by a commander to protect his forces. Knowledge and understanding of enemy strategy, tactics, doctrine, and staff planning improve the detailed planning of adequate security measures. Risk is inherent in war; however, commanders must not be overly cautious. To be successful, commanders must take necessary,

calculated risks to preserve the force and defeat the enemy. Protecting the force increases friendly combat power.

United States Navy

Security. Never permit the enemy to acquire unexpected advantage. Protecting the force increases our combat power. The alert watchstander, advanced picket, or such measures as electronic emission control all promote our freedom of action by reducing our vulnerability to hostile acts, influence, or surprise. Tools such as gaming and simulation allow us to look at ourselves from the enemy's perspective. We enhance our security by a thorough understanding of the enemy's strategy, doctrine and tactics.

United States Air Force

Security. Protect friendly forces and their operations from enemy actions which could provide the enemy with unexpected advantage. Security enhances freedom of action by reducing friendly vulnerability to hostile acts, influence or surprise. Security measures, however, should not be allowed to interfere with flexibility of thought and action, since rigidity and dogmatism increase vulnerability to enemy surprise. In this regard, detailed staff planning and thorough understanding of enemy strategy, tactics and doctrine can improve security and reduce vulnerability to surprise.

At the strategic level of war, security requires that active and passive measures be taken to protect the nation and its armed forces against espionage, subversion, and strategic intelligence collection. Campaigns depend on security of forces and security of plans for success. At the operational and tactical levels, security results from the measures taken by a command to protect itself from surprise, observation, detection, interference, espionage, sabotage, and harassment. Security may be achieved by establishing and maintaining protective measures against hostile acts or influence, or it may be assured by deception operations designed to confuse and dissipate enemy attempts to interfere with the forces being secured.

Comment

As this study has shown when examining other principles, there is significant difference in emphasis in the descriptions promulgated by the different Services – even the different Services of one nation. The subtle difference between the description of security given by the Royal Navy and those given by the British Army and the Royal Air Force is perhaps more meaningful

than would appear at first reading. The Royal Navy calls for a ‘sufficient degree’ of security as distinct from ‘degree’ of security by the other British Services. In regard to the latter, one may well ask, what degree? It certainly does not seem important and yet, in those same descriptions, is said to be important to all operations! Similarly, the Royal Navy calls for an ‘adequate’ defence of vital points as against the ‘defence’ of such places.

It is also worth noting the sensible manner in which the Royal Navy addresses risk taking. However, unlike the other British Services, it fails to warn against intelligence collection. This particular aspect of security is covered well in the description set out by the United States Air Force. Given modern technology and techniques it is a vulnerable area and should be afforded proper attention.

The USAF description focuses attention on two other areas of security neglected by the other Services, American and British. The first is security measures at the strategic level to protect the nation – as well as the armed Services. Security needs to extend well beyond the armed forces if it is to be applied effectively. The second USAF initiative, not adopted by the others, is a proactive approach to security by ‘deception operations designed to confuse and dissipate enemy attempts to interfere with the forces being secured’.

The description set out by the United States Navy is the most fundamental ‘motherhood’ statement aimed at an absurdly low level for a principle of war. It is the kind of instruction one would expect to see pinned to a duty statement for watchkeepers.

There are two matters that the descriptions set out above neglect or underplay. First, the importance of the very direct link between security and deterrence. The overriding aim of all peace-loving nations should be to avoid having to fight a war. The best method of achieving this is by being seen to possess such military capability that aggressive hostile action would be unlikely to succeed at an acceptable cost to the aggressor. Clearly, if the military capability in question is vulnerable to pre-emptive attack, the deterrent would lack credibility. Regard should be paid once again to Sun Tzu: ‘Hence to fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy’s resistance without fighting.’¹ In other words, to dissuade a potential enemy from taking the fatal step of hostile action against you.

The second important consideration missing in the published descriptions of all except the USAF, is not to describe security as a principle applicable to the nation as a whole, but rather to a command or an air force or a military service. It is indeed the war potential of the nation that has to be secure. Everything from the offensive and defensive military forces, embracing its

land, sea and air lines of communications, secure signals communications, space facilities, to the morale of the population. In modern war, this latter aspect will be an obvious target for enemy propaganda. The role of the national media will be of paramount importance. Politicians may well have to condone the withholding of information, at least temporarily, and even to the release of misinformation – if these methods will deceive the enemy and protect their own operations and personnel. A disagreeable process in a democracy, but one that politicians will have to face up to on occasion. A product of democracy is an irresponsible section of media, nurtured by total freedom and feeding on sensationalism rather than substance. In wartime, security will probably demand some measure of control if the best interests of the nation are to be served.

Another consideration that some readers may be surprised to find in a study on the principles of war concerns the moral health of the nation. This embodies discipline and a sense of responsibility for the maintenance of national ideals and values; a sense of patriotism and duty. These issues are perhaps the very foundations of national security and must be present in peacetime and capable of rising to the supreme test of war. This issue is stated simply but starkly by Field Marshal Viscount Montgomery writing on the nature of war and generalship, before addressing the history of warfare. It is worth quoting in full:

I will finish these few thoughts about generalship on a note which will be clear as the historical chapters are read. The late Field Marshal Wavell once told me that when the Spartans were at the height of their military fame they sent a deputation to the Oracle at Delphi and demanded, somewhat arrogantly: ‘Can anything harm Sparta?’ The answer came quickly: ‘Yes, luxury.’ I have visited Delphi, and spent some hours at the scene of this somewhat disturbing interview. But how true was the answer! Throughout our study it will be seen that national history is no story with a happy ending, but a fight which goes on from age to age: each advance has to be won, each position gained has to be held. In war, the enemy is plain and clear. In peace, a nation is confronted with a more insidious foe: the weakness within, from which alone great nations fall. If an example from modern times is needed, it is France – a great nation by any standards. But in the years before the 1939–45 war, the weakness within attacked her soul; and the crash came in 1940. She was given back her soul in 1958 by General de Gaulle, and has risen phoenix-like from the ashes – under a very great leader.²

The point to be made and understood by all military officers – and hopefully by politicians, community leaders and the populations of our nations – is that

security is central to the defence of the nation; it is all-embracing and is the responsibility of every individual in one way or another. The charismatic President John F. Kennedy said it all very simply: ‘Ask not what your country can do for you – ask what you can do for your country.’

When read simply as a principle of war, listed in some military manual, the reader is inclined to regard security as a rather prosaic, albeit essential, requirement calling for a secure base from which to launch effective action in due course. It is much more than that, and the descriptions promulgated by all Services need amending to say this. While not straying to prolixity, they should indicate the wide spectrum of this subject.

The description set out in a 1950 war office publication, *Conduct of War*, is short and embraces the breadth of the subject by including reference to the nation and the armed forces and, without detail, subsumes all the vital interests of the nation. It reads:

A sufficient degree of security is essential in order to obtain freedom of action to launch a bold offensive in pursuit of the selected aim. This entails adequate defence of vulnerable bases and other interests that are vital to the nation or the armed forces. Security does not imply undue caution and avoidance of all risks, for bold action is essential to success in war; on the contrary, with security provided for, unexpected developments are unlikely to interfere seriously with the pursuit of a vigorous offensive.³

Security remains a relevant principle of war.

Interestingly, in an earlier edition of *Air Force Manual 1-1*, the United States Air Force promulgated ‘Defensive’ as a principle of war with the description:

A sound defence capability contributes to gaining the offensive. The defence can protect important resources and inflict significant losses on attacking enemy forces. An active defence force and a reliable warning system can gain time and can ensure that resources are available for offensive operations. Although defensive action and adequate warning are essential in preserving the military base of operations and in countering enemy moves, defensive action alone will not win the air battle.⁴

This indicates a significant difference in perception as to how the important matter of defending the war-making assets of the nation should be addressed. The USAF had obviously considered it to be of such a discrete nature as to warrant the status of a separate principle of war. The importance of protecting the military, industrial and civil infrastructure is certainly a paramount consideration. However, it would seem that later consideration has led the

USAF to the view, long held by the other armed Services, that the factors described under defensive were subsumed fully in the principle of security. The former principle 'defensive', has sensibly been removed from the principles of war codified by the USAF. Although redundant, this has been included here simply to indicate the importance of a defensive capability within measures embraced in providing security.

ADDENDUM BY AIR MARSHAL SIR EWAN JAMIESON

Security

It is a particularly disturbing thought but, regrettably, not too far off the mark, to argue that the most effective agents in providing sensitive defence information to an enemy (or potential enemy) are members of our own media – followed closely by loose-mouthed politicians. Both are inclined to put advancement of their public ratings ahead of the demands of the confidentiality needed to keep the enemy in the dark and, so, reduce the danger to our own troops.

The danger posed to national security is too critical a matter to be put to one side because of the political sensitivities which must be confronted if it is to be dealt with successfully. As in the past, if effective policies are not developed and put in place long before another defence emergency arises, the ill-considered then adopted in haste will, once more, prove incoherent, ineffectual and too late. As a result the success of military operations will be prejudiced and more lives lost than need be. The politicians and journalists will then, as usual, throw up their virtuous hands and blame everyone – other than themselves.

There are, of course, essential aspects of security other than the preservation of the confidentiality of defence information of intelligence value. A comprehensive study would have to include, for example, the vital importance of ensuring the security of the home base from which to sustain military operations and security against pre-emptive or surprise attack. But, because of space restraints, I will concentrate on just the one facet.

Security of intelligence and surprise are two sides of the same coin. Concealment of one's military capabilities and tactical intentions has always been important in achieving victory at the lowest possible cost. In addition, any successful combat leader understands that where there is anything like balance between the opposing forces, the achievement of surprise is likely to prove crucial to the outcome. But, no matter how inspired a tactician he may be, no commander can rely on achieving surprise and, so, gain victory

while suffering the lowest possible casualties, if the security of military information is lax.

Developments in battlefield mobility and the lethality of weapons have made the difference between catching the enemy unprepared or being met by a reinforced and well deployed force, alert to one's intentions, more critical today than ever before. And yet, at the same time, the ever more insistent demand for unrestricted freedom of information has made maintenance of the security of sensitive defence information almost impossible in an open democratic society.

One of the more notorious modern examples of the loss of tactical advantage through a breach of security was the premature publicity given to the imminent British attack on Goose Green during the early phase of the Falklands land campaign. On the morning of the day before the attack, while lying up some five miles from their first target, the commander and troops of 2 Battalion, the parachute regiment, were astounded to hear the overseas service of the BBC announce their move and its objective. It is known that the Argentine garrison was reinforced by helicopter during that day and the well-dug-in defenders were at stand-by, ready to open fire as soon as the first assault was launched.

The ensuing firefight was the more fierce and the casualties the heavier because of the gratuitous warning transmitted to the world by the attacker's own people. Analysis, completed after the campaign, indicated that this costly security breach was, in the main, caused by the impatience of some politicians in London to satisfy the growing public clamour for evidence of its leaders' capacity to take resolute and effective action.

Turning again to the Falklands campaign, there was the glaring example of the British journalist who rushed to tell the world of the repeated failure of Argentinian bombs to explode after striking Royal Navy warships. Not only did the reports confirm the accuracy of the attacks and so give heart to the enemy pilots who must have been prey to harsh criticism from their commanders and self-doubts over their apparently inexplicable failure to inflict heavy damage; the media then went on to help them sort out their problems by speculating about why the failures were occurring. The explanation was simple. So, far from lacking courage, the pilots were pressing home their low-level attacks to such short range that there was insufficient time of fall for the arming process to be completed between bomb release and impact. Adjustments to either the fusing or release parameters could have cured the problem and have had a devastating effect on the British campaign.

If a few simple corrections had been made immediately, British ship and personnel losses would have increased dramatically. In the United Kingdom, commitment to the recovery of the remote islands by military action, shaken

by the early loss of *HMS Sheffield*, might then have failed as the cost came to be seen as disproportionate to what was at stake.

Conversely, in Argentina, a significant increase in the losses inflicted would have strengthened political and public determination to continue the battle. Publicising the matter served no useful purpose other than to increase the circulation of those papers that carried the titillating story. More important, it increased the possibility that the enemy would get it right next time.

It is not that either the offending politicians or journalists can claim ignorance of the likely consequences of their indiscretions. There is no lack of historical evidence to show the necessity to honour the demands of security and the penalties for failure to do so. Nor is there ever any lack of verbal commitment to the principle of preserving secrecy in the national interest. It is just that the temptation to gain a momentary advantage over their competitors too often overcomes discretion. The consequences daily become more serious as global communications by satellite link become standard tools of the reporting trade.

Today, any indiscreet comment is likely to be broadcast, instantly, to the world – friendly or unfriendly. That places nations of our kind in a more dangerous position than those run by such despots as Saddam Hussein (with whom democratic states are most likely to come into conflict) who suffer few practical or moral problems in pulling a thick blanket of secrecy over their capabilities and tactical intentions. Fear of the personal consequences will always apply a more effective curb on curiosity and loose tongues than appeal to self-disciplined regard for the national interest. It might fairly be argued that the problem stems, to a great extent, from conflict between the admirable democratic regard for freedom of speech – an ideal made explicit in the First Amendment of the United States Bill of Rights – and the military requirement to conceal from an enemy any information that he might find useful in forming his plans or adjusting his operations to best effect once battle has been joined.

The United States has long been seen as the originator of and principal authority on the modern concept of practical democratic government. That status has been reinforced recently by the spectacular collapse of its only near rival, totalitarian communism, as an alternative political system. As a consequence we are likely to see an even greater inclination on the part of other peoples, looking for the best preceptor for their own political advancement, to follow the example of so many Americans and see the United States Constitution and Bill of Rights as holy writ – beyond human question or qualification. Unfortunately, however, blind obedience to any creed is rarely healthy. In this case, slavish reverence for the letter of the First Amendment, by putting at risk the success of tactical plans and the lives of our warriors,

must be expected to jeopardise the effective defence of the very system it was devised to protect.

How are we best to deal with that paradox? There is probably no simple or complete answer to the question, but fundamental to the development of a practical policy calculated to contain the problem is public acceptance of the need to moderate idealistic aspirations and pure doctrine when vital national interests are at stake. Equally essential is the political courage to take the regulatory action necessary, despite the chorus of outraged protest which will always attend any moves designed to control access to sensitive information and the freedom to publish it.

The universality of freedom to publish, claimed to be enshrined in the First Amendment, is too often exaggerated by the media in pursuit of their own, less than idealistic, interests. The relevant section reads, 'congress shall make no law abridging the freedom of speech, or of the press'. Those who drafted the amendment, soon after the American colonists had rid themselves of the arbitrary, authoritarian form of government under which they had suffered, were thinking almost exclusively of protecting the right to criticise and oppose in free public debate the policies and practices of national rulers. It is, I would argue, going too far to extend the prohibition so indiscriminately as to preclude official restraint on the publication of sensitive information, the disclosure of which might prejudice the security of the nation and endanger the lives of its fighting men.

Something better than the present ineffectual control of confidentiality is needed. Members of the media have demonstrated clearly enough that they cannot be relied upon to impose their own discipline. In addition, to be effective, discipline needs to be backed by having a scale of penalties appropriate to the seriousness of the offence applied to those who transgress.

A correspondent who was with 2 Paras when the BBC report of its forthcoming attack on Goose Green was broadcast recorded that, in his rage at having the members of his force so recklessly placed in extra peril, the battalion commander vowed that, on his return, he would sue those responsible if any of his men were killed in battle. How the courts would have dealt with such a suit was not put to the test. Sadly, Lieutenant Colonel Jones' furious prediction that the premature news release would have tragic results was all too fully justified. He was among those killed in the first engagement.

The concept of seeking redress from those directly responsible, through the careless discharge of their professional obligations, for the injury or loss of life of others is accepted so far as medical practice is concerned. Why should the principle not be applied also to those who, from time to time, in their professions obtain access to information which, if made public, could be expected to prejudice the conduct of military operations and the lives of a

nation's servicemen and women? Knowledge that, if careless in the discharge of their responsibilities, doctors may be called to account and severely punished has been an important factor in encouraging members of the medical profession to institute and impose on their fellows strict codes of practice designed to minimise such risks.

It is for consideration that a similar discipline, through the provision of redress through the courts, should be made available by legislation in respect of harm inflicted upon members of the Services through irresponsible disregard for the security of sensitive defence information. Despite the predictable reluctance of politicians to accept direct responsibility, other than for ordering the armed forces into action, and contrary to the outraged appeals to the sanctity of their freedom to publish, which would surely go up from the media, such a move should be seen as calculated to help preserve rather than diminish the democratic system of government that the First Amendment was intended to foster. Lieutenant Colonel Herbert Jones, Victoria Cross (posthumous), Commanding Officer of 2 Para at Goose Green, may have pointed the way to imposing, within a democratic society, an effective restraint on those most likely to offend.

6 Surprise

The unexpectedness of an event accentuates it, be it pleasant or terrible. This is nowhere seen better than in war, where surprise terrorises even the strongest.

Xenophon

It may seem odd that the simple ruse of surprise rates the status of a principle of war; a factor to be given consideration by high commanders and indeed, by those directing military operations at any level. Surprise is a most elementary device, a fundamental instinct used even by young children in games or to frighten. Earliest man or before that, animals, used the device of surprise to hunt prey. It was an essential part of their success. By the same token, all living creatures from the earliest times have been concerned to guard against surprise. Dwellings were constructed on the top of hills, in caves in the sides of cliffs, even in trees, for security from surprise attack. The earliest forts were built for this purpose. Why then the necessity to include this basic and innate aptitude among the other more esoteric principles?

One could clutch at the old cliché that ‘familiarity breeds contempt’. In fact, although somewhat trite, this could be at least part of the answer. But of course there are many other factors. First, the historical fact that exploitation of surprise in both offensive and defensive operations has, time and again, been the decisive factor in redressing an otherwise overwhelming imbalance of forces. Another important factor is that having surprise as a principle, it will receive consideration even when planning defensive measures, a reminder to guard against surprise. It remains relevant in peacetime operations, even of a peacekeeping nature, to guard against terrorist attack – attacks that almost invariably depend on surprise for success.

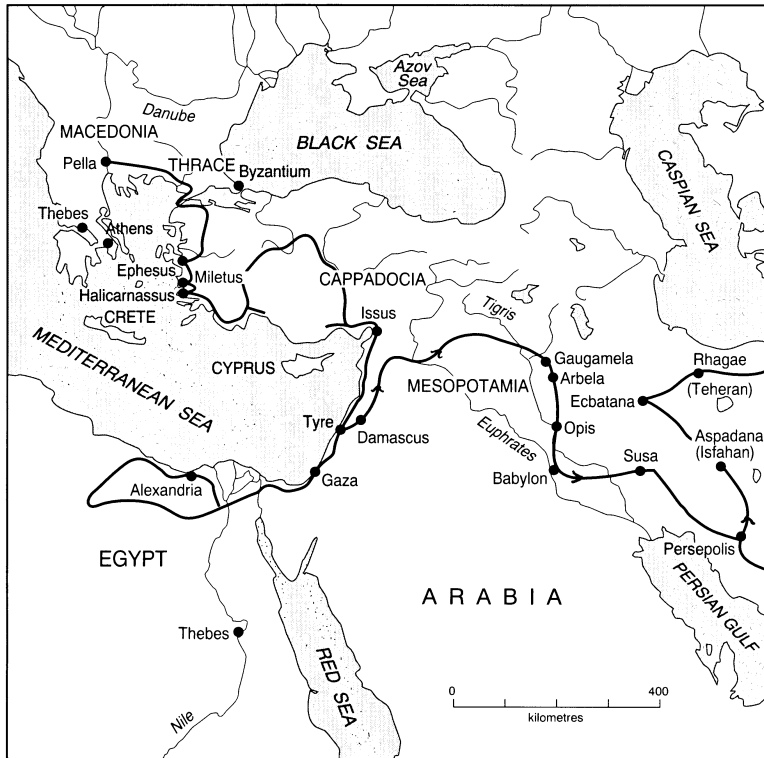
Even with centuries of experience as a guide, modern planners are apt to overlook this important consideration when formulating defensive plans. It would seem that the notion of surprise only springs to mind naturally when planning offensive operations. Even when on the offensive, surprise must be sought time after time after time in tactical operations. Whilst the achievement of initial surprise may be all that is attainable at the strategic level, this is not the case tactically. Every effort must be made to keep the enemy off balance by producing the unexpected. Liddell Hart, in his introduction to *The Rommel Papers*, after describing Rommel’s ‘insight, or psychological sense’, his ability to predict the actions or reactions of his opposing commander, had this to say:

Such psychological sense is in turn the foundation of another essential, and more positive, element of military genius – the power of creating surprise, of producing the unexpected move that upsets the opponent’s balance.¹

Surprise has been a weapon in the armoury of great commanders throughout history. At times it has been achieved by a lengthy and painstaking series of deception and at others by the simple device of doing the unexpected; of not taking the easiest route, the easiest river crossing, by moving with unexpected speed. Speed and deception are said to be the handmaidens of surprise.

The Battle of Gaugamela

Alexander the Great, apart from being an aggressive commander, was a master at throwing his enemy off balance simply by doing the unexpected, of taking



Map 1: Gaugamela – 331 BC

There were two possible routes for an army to take from Thapsacus to Babylon – directly down the Euphrates river or northeast across Mesopotamia and down the east side of the River Tigris. Darius was quite convinced that Alexander would take the shorter and easier approach and made his dispositions accordingly – on the plains north of Babylon. Alexander did the improbable by crossing into Mesopotamia and coming down the Tigris. Darius' plan had to be abandoned. He was caught off balance by the indirect approach.

the indirect approach. The Battle of Gaugamela in 331 BC was a prime example (see Map 1). Coming from Mesopotamia, his major goal was Babylon. His opponent, Darius III, King of Persia, logically judged that Alexander would move down the Euphrates river route – the direct approach. Instead, Alexander took the much longer northern route through eastern Mesopotamia and turned south to come down the Tigris river towards Arbela, about 250 miles to the north of Babylon. Darius was now off balance, but he moved north planning to engage Alexander's army as it crossed the Tigris at Mosul, the logical crossing place. Once again Alexander did the unexpected by crossing much further to the north. With his revised plan now pre-empted, Darius was once again off balance and unsure. Darius decided to engage the invader at Gaugamela, to the north of Arbela. In spite of a vast numerical superiority, 100,000 infantry and 34,000 cavalry to Alexander's 40,000 and 7000,² Darius was defeated, although he managed, personally, to escape. There is no doubt that Alexander's surprise moves had a psychological as well as a physical effect; a not uncommon result when surprise is achieved.

The Battle of Leuthen

Another classic example of surprise achieved by the indirect approach and leading to a resounding victory against a numerically superior enemy was the Battle of Leuthen in 1757 (see Map 2). Frederick the Great commanded a Prussian force of some 33,000 against an Austrian army of double that number under Prince Charles of Lorraine. Frederick made a strong feint against the Austrian right flank and, concealing the movement of his main force behind a range of low hills, carried out a difficult oblique attack against the enemy's left flank.

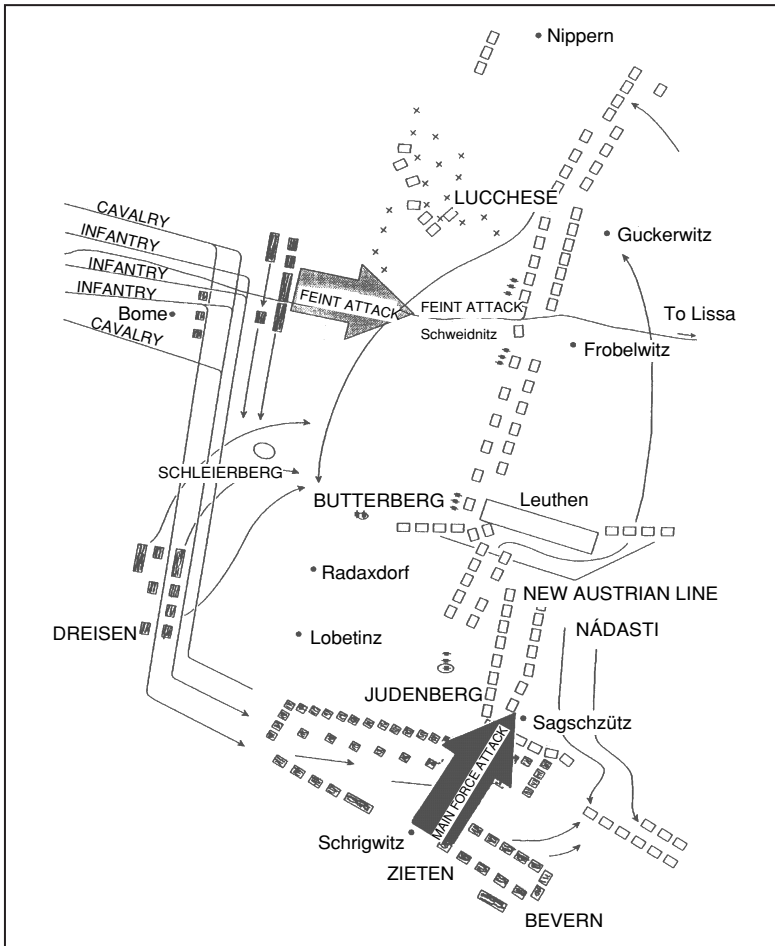
Prince Charles in the meantime had responded to a call for support from General Lucchese commanding the right flank. Believing this to be subject to the main attack he deployed cavalry from the left, thus weakening the very point of Frederick's major blow. Leuthen, one of Frederick's most stunning victories, was achieved by his ability to surprise his opponent as to the direction of attack.

The Battle of Meiktila

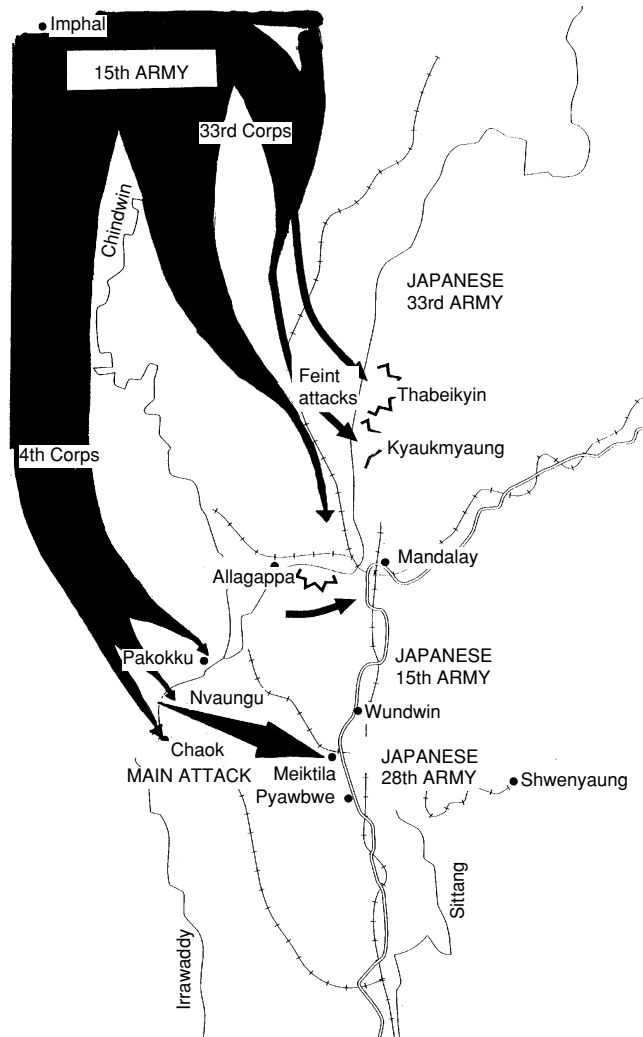
It is interesting and attests to the continued viability of this method of achieving surprise – by the indirect approach – that General Sir William Slim, commanding the 14th Army in Burma, employed a similar strategy leading up to the battle of Meiktila/Mandalay in 1943 (see Map 3). The Japanese commander, Lieutenant General Heitaro Kimura, an energetic and highly

imaginative strategist, thwarted Slim’s intention to engage him on the plains to the west of the Irrawaddy by retreating to the eastern side of that vast river where Slim’s superiority in armour would not be a predominant factor.

Slim and his 14th Army were faced with the awesome prospect of forcing a passage without proper landing craft, over one of the world’s greatest rivers,



Map 2: Battle of Leuthen 1757
 Frederick’s indirect attack at Leuthen. His plan of attack detailed a feint against the Austrian right while his main force marched south behind low hills – hidden from the enemy – and hit the enemy's left flank. The Austrian left had been reduced by sending forces to reinforce the right in answer to the Prussian feint – the indirect approach.



Map 3: Battle of Meiktila 1943

Slim had intended to engage the enemy on the plains to the west of the Irrawaddy river. However, Lieutenant General Kimura, an imaginative strategist, withdrew his force to the east of the great river leaving Slim the daunting task of an opposed crossing. Slim devised a new plan. He made a feint to the north of Mandalay – presumed to be the immediate objective – and without the Japanese knowing, moved his main force to cross the river almost 100 miles to the south and attack the main Japanese supply base at Meiktila. Meanwhile the Japanese commander, responding to the feint at Thabeikyin and Kyaukmyaung, took forces from the Meiktila area to reinforce the north – the indirect approach.

which was guarded at all possible landing points by a highly trained, fanatical enemy led by a most resourceful commander. He therefore devised a new strategy; it was simple, bold and highly imaginative.³

General Slim would first attack Meiktila, the principal Japanese base in Burma. It lay to the south of Mandalay and eighty miles behind the River Irrawaddy. He would make a strong feint north of Mandalay and his main thrust to the south, heading straight for Meiktila. Total air superiority saved him from the prying eyes of Japanese reconnaissance aircraft and he was able to move the entire 4th Corps from his left flank to the right without the Japanese becoming aware. Kimura remained ignorant of his true intentions. A dummy 4th Corps headquarters had been established in the north to reinforce Kimura's assessment that the northern thrust was the main attack. The Japanese commander ordered his reserves to that area, even taking some troops from Meiktila. Both Meiktila and Mandalay fell to the 14th Army. There is no doubt that the outcome would have been more protracted and casualties far heavier had it not been for deception and the resulting surprise that Slim's revised battle-plan created. Apart from surprise, the British commander's reaction to Kimura's uncharacteristic retreat to behind the Irrawaddy showed the flexibility of mind inherent in a great commander.

Although the distances involved were vastly greater, Slim's revised strategy bore a striking resemblance to that used by Frederick at Leuthen, almost 200 years earlier.

The use of the indirect approach to achieve strategic surprise has seen some remarkable victories over the centuries; none more illustrative of its value than the move of Scipio Africanus and his army to Cartagena, thus taking the war behind Hannibal's back. This was the precursor to the Battle of Zama where Scipio added tactical surprise to bring about the final defeat of Hannibal – aided by a touch of political interference by the Cartagenian Senate in insisting that Hannibal march out in pursuit of Scipio – in 202 BC.

In view of the long history of success often attributed in part and sometimes in full to the element of surprise it is little wonder that it has been the subject of comment and recommendation, and implementation, by military leaders and defence analysts for a very long time. The true import of this principle and its total acceptance by the most senior and experienced military leaders can be judged by the extraordinary measures endorsed by the Anglo-American combined chiefs of staff in the period leading up to 'Overlord', the cross-channel invasion by allied forces in 1944. In January 1944 they approved 'Plan Jael', 'a comprehensive scheme to lure German attention away from Normandy. This was to be done by creating several entirely fictitious land, sea and air operations, intended to force the Germans to divert troops and resources.'⁴

British and American deception experts had spent months creating the impression that the Pas de Calais was to be the Overlord lodgement area. One plan involved the creation of a vast military formation, the First United States Army Group – FUSAG – which did not in fact exist. It was given a commander, General Patton; bases; training grounds; a communications network; plans; order of battle; and a specific target, the French coast between Calais and Boulogne.⁵ Intelligence sources revealed that the Germans accepted FUSAG as a reality.

An equally fictitious 12th British Army was established. Its armoured and infantry divisions all to be equipped, deployed, trained and communicated with – but existing only on paper. Leaked information pointed to several plans, all spurious, for landings against Norway, Spain, Turkey, Romania, Greece, Albania and Calais. It became clear to the combined chiefs and allied leaders that the Germans were taking this misinformation very seriously and in several cases responded by the deployment of forces. The aim of Plan Jael was to persuade the Germans to make faulty strategic dispositions in northwest Europe before the cross-Channel invasion and also to induce them to make faulty tactical dispositions not only during but even after the Normandy landings by making the Pas de Calais the apparent location of the principal invasion force.⁶

The success of Plan Jael is now recorded history. The location of the actual landings, Normandy, came as a surprise to the Germans. The extent to which they were deceived can be judged by the fact that on 25 June 1944, almost three weeks after the initial landings in Normandy, Field Marshal von Rundstedt was still not convinced that Normandy was more than a diversion. On 25 June in his weekly situation report he referred to the (non-existent) FUSAG, which, he believed, was in Britain ready to embark. He believed it might be used for landings between the right bank of the Somme and the mouth of the Seine to encircle and capture Le Havre. With this fear in mind von Rundstedt kept many thousands of troops in the Pas de Calais area that otherwise may have tipped the balance in Normandy.⁷

Perhaps, after recalling some of the epic battles that owe success to the element of surprise, no matter in what form it was achieved, the retention of this principle is more readily understandable. But even something so convincingly proven does not stand alone. Often the pursuit of surprise will conflict with other principles: security and concentration of force, to name but two. Clearly, the very act of concentrating forces risks sending a signal of impending action to the enemy.

The highly publicised Bomber Command raids on Hamburg in July 1943 saw a dramatic drop in the loss rate as the bombers were equipped with a brilliant scientific device that would fog the radar screens of Germany. It was code-named ‘Window’. It consisted simply of bundles of narrow metal

foil strips pushed out of the aircraft during the flight over Germany. It was highly successful and the loss rate was far below the norm. However, German counter-measures very soon rendered it redundant. The interesting point was the conflict of this technical surprise with the principle of security.

The British had confirmed 'Window' as an effective method of confusing radar defences over twelve months before its use on the Hamburg raids. It was not used for fear that the Germans would quickly adopt it for use in raids on English cities. The fact was that the Germans had already developed 'Duppel' – their version of 'Window'. They had refrained from using it for the very same reason, security of the home base.⁸

To examine the elements that make up 'surprise' it will be useful to examine the descriptions given by the British and American Services.

Royal Navy

Surprise is a most effective and powerful influence in war, and its moral effect is very great. Every endeavour must be made both to surprise the enemy and to guard against being surprised.

By the use of surprise, results out of all proportion to the effort expended can be obtained; in some operations where other factors are unfavourable, surprise may be essential to success. Surprise can be achieved strategically, tactically, or by the use of new weapons or material. The elements of surprise are secrecy, concealment, deception, originality, audacity and rapidity.

Due to the development of detection devices, absolute surprise is becoming more and more difficult to achieve against an alert enemy. The use of diversions and feints to mislead the enemy has therefore become of greater importance.⁹

British Army

Surprise. The potency of surprise as a psychological weapon at all levels should not be underestimated. It causes confusion and paralysis in the enemy's chain of command and destroys the cohesion and morale of his troops.

In recognition of its vital part in achieving success, surprise is addressed in greater detail in a separate chapter of *The British Military Doctrine* which reads:

Surprise is a principle of war. Its inclusion here as a specific 'requirement' is recognition of the fact that it is a vital ingredient of success in modern warfare. It is a significant way of seizing the initiative at all levels of war, though it tends to be neglected in peace. Historical examples, some very

recent, show that even the simplest surprise can confer disproportionate advantage. It is necessary that commanders at all levels attempt surprise where practicable, and that all soldiers are aware that in war attempts will be made to surprise them. There is no prescription for the achievement of surprise.¹⁰

It then goes on to discuss certain aspects of surprise:

Surprise is not an end in itself.

Surprise should primarily be directed at the mind of the enemy commander rather than his forces.

Surprise need not be total.

Major factors in achieving surprise are intelligence, security, originality, speed and deception.¹¹

Royal Air Force

Surprise is a most powerful influence in war and its moral effect is very great. Commanders at all levels must endeavour to surprise the enemy while safeguarding their own forces against surprise action. Surprise action can achieve results out of all proportion to the effort expended; indeed, in some operations, particularly when other factors are unfavourable, surprise may be essential to success. Surprise can be achieved strategically, operationally, tactically, or by exploiting new technologies, material or techniques. Its elements are secrecy, concealment, deception, originality, audacity and speed.¹²

United States Army

Surprise. Strike the enemy at a time or place or in a manner for which he is unprepared. Surprise can decisively shift the balance of combat power. By seeking surprise, forces can achieve success well out of proportion to the effort expended. Rapid advances in surveillance technology and mass communication make it increasingly difficult to mask or cloak large-scale marshalling or movement of personnel and equipment. The enemy need not be taken completely by surprise, but only become aware too late to react effectively. Factors contributing to surprise include speed, effective intelligence, deception, application of unexpected combat power, operations security (Opsec), and variations in tactics and methods of operations. Surprise can be in tempo, size of force, direction or location of main effort, and timing. Deception can aid the probability of achieving surprise.¹³

United States Navy

Surprise. Strike the enemy at a time or place or in a manner for which he is unprepared. Catching the enemy off guard immediately puts him on the

defensive, allowing us to drive events. The element of surprise is desirable, but it is not essential that the enemy be taken completely unaware – only that he becomes aware too late to react effectively. Concealing our capabilities and intentions by using covert techniques and deceptions gives us the opportunity to strike the enemy when he is not ready.¹⁴

United States Air Force

Surprise. Strike the enemy at a time or place or in a manner for which he is unprepared. To a large degree, the principle of surprise is the reciprocal of the principle of security. Concealing one's capabilities and intentions creates the opportunity to strike the enemy when he is unaware or unprepared, but strategic surprise is difficult to achieve. Rapid advances in strategic surveillance technology make it increasingly difficult to mask or cloak large-scale marshalling or movement of personnel and equipment. Still, rapid deployment of combat forces into a crisis area can forestall or upset the plans and preparations of an enemy.

Surprise is important for the joint force for it can decisively affect the outcome of battles. With surprise, success out of proportion to the effort expended may be obtained. Surprise results from going against an enemy in a time, place, or manner for which he is unprepared. It is not essential that the enemy be taken unaware, but only that he become aware too late to react effectively. Factors contributing to surprise include speed and alacrity, employment of unexpected factors, effective intelligence, deception operations of all kinds, variations of tactics and methods of operation, and operations security.¹⁵

Comment

All Services promote the merit of surprise and accept that it has a strong influence on operations at both strategic and tactical levels. There is general agreement that it is more difficult to achieve at the strategic level and indeed, more difficult at both levels because of modern surveillance methods. This causes the Royal Navy to conclude that the use of diversions and feints to confuse the enemy will be a more common form of deception in the future.

The comment in the Royal Navy description that surprise 'may be essential to success' would seem to be more correct than the assertion by the British Army that it has a 'vital part in achieving success'. Furthermore the British Army expands on surprise in a separate chapter, naming surprise as a specific requirement 'because it is a vital ingredient to success in modern warfare'.

One might think that a principle of war, which should always be considered, should not need another layer of emphasis.

It is only the American army that gives proper attention to signals and electronic security – as a guard against surprise or, presumably, to deceive an enemy. This is quite a surprising omission by the other Services when account is taken of the devastating effect the breaking of German and Japanese codes by the allies had in major operations of World War II. Breaking of German code – ‘Enigma’ – gave the allies information on German dispositions throughout Europe in the time-scale leading up to D-Day. In the Pacific, it was the ability to decipher the Japanese coding machine ‘Purple’ that enabled American fighter aircraft to ambush Admiral Yamamoto’s aircraft on its arrival at Bougainville island. Thus the successful killing of the most illustrious of Japan’s war leaders, the commander-in-chief of the combined fleet, was a shattering blow to the Japanese. These lessons of World War II should be remembered. The descriptions of surprise should ensure that electronic and communications security is not overlooked. In general, descriptions of surprise could be reviewed and expanded to take account of modern technology; its capacities to be exploited and its vulnerabilities to be guarded against. A specific reference to computer security – to guard against the insertion of computer viruses in key facilities – might complement coverage of this topic given under the principle of security.

There is a body of opinion, and one that is reflected in some of the descriptions cited above, that modern surveillance methods render the achievement of surprise more difficult than in the past. However, at the strategic level it is pertinent to note that the western democracies were all surprised by the Soviets’ entry into Afghanistan, the Chinese sortie into Vietnam, the Argentine seizure of the Falklands, the collapse of the Soviet Union. Lack of warning of these actions would seem to contradict the view that surprise is significantly more difficult than in the past. The fact that strategic surprise has been more difficult than tactical surprise can be gauged from the statement of Field Marshal Montgomery: ‘Surprise is essential. Strategical surprise may often be difficult, if not impossible, but tactical surprise is always possible and must be given an essential place in planning.’¹⁶

Experience during and since World War II indicates that strategic surprise is still entirely possible and, notwithstanding that it may be difficult, it should be sought whenever possible.

Oddly enough, Clausewitz seems rather ambivalent on the subject – not on the necessity to achieve surprise, but rather to the extent of its value. The following quotes are evidence of this view:

It is still more important to remember that almost the only advantage of the attack rests on its initial surprise. Speed and impetus are its strongest elements and are usually indispensable if we are to defeat the enemy.¹⁷

But while the wish to achieve surprise is common and, indeed, indispensable, and whilst it is true that it will never be completely ineffective, it is equally true that by its very nature, surprise can rarely be outstandingly successful. It would be a mistake therefore, to regard surprise as a key element of success in war. The principle is highly attractive in theory but in practice it is often held up by the friction of the whole machine!¹⁸

Perhaps the best interpretation of Clausewitz's assessment is that surprise is no surefire guarantee of success. That surprise initially gained may soon be nullified by the enemy's ability to recover the initiative or the attacker's failure to exploit the advantage. The failure of General Lucas to immediately follow up after surprising the Germans by the landing at Anzio in January 1944 (he hesitated to advance before tanks and heavy artillery had been landed)¹⁹ is an example of the latter. The Israeli recovery of the positions on the Golan Heights and in the Sinai, after being the victim of strategic surprise in the Yom Kippur War of October 1973, is an example of the former.

Notwithstanding Clausewitz's cautious appreciation, the history of war is littered with examples of success achieved by surprise. Frederick at Leuthen with his new form of attack, Magruder's deception before Richmond, the speed and secrecy of the Zulu attack at Isandhlwana and Rosecrans' misleading feint at Chickamauga were stratagems that gave initial advantage and, in two cases, total success through surprise.²⁰

One thing that can be said with absolute certainty, is that surprise has played a major role in reducing casualties in attacking forces. There is no doubt that had the Germans known that the Normandy landings were to be the main thrust of 'Overlord' in 1944, the allied force would have faced a concentration of forces that would have guaranteed heavy casualties and may well have put the whole operation at risk.

Whilst it is true that modern methods of detection – from electronic eavesdropping to spy satellites – make concealment more difficult, they are perhaps just as prone to misinformation and deception as past methods have proven to be. There will still be the opportunity to achieve surprise, both strategically and tactically, and the rewards will remain on the field of battle to be harvested.

As the twenty-first century is approached it is very likely that the area of technical surprise will prove as useful as it has in the past. One can comb through battles throughout history to witness this. The first shift in the Battle

of Zama (202 BC) to Scipio's favour was when, at the first movement of Hannibal's elephants, he ordered a blare of trumpets and cornets along his entire front. Terrified at the loud and strident noise the elephants turned about and careered back toward their own lines, causing great confusion and providing Scipio with the opportunity to attack.

In modern times technical surprise was accomplished by the use of 'Window' in the raids on Hamburg; the destruction of the extensive and sophisticated surface-to-air missile complex Syria had established in the Beka'a Valley by the innovative use of electronic warfare and remotely piloted vehicles by the Israeli Air Force; and the use of stealth technology to penetrate undetected into Baghdad, supposedly protected by one of the most highly developed air defence systems in the world.

Surprise must remain a major consideration in planning every military mission from campaign to unit and subunit level – offensive or defensive. Its status as a principle of war should not be disturbed.

ADDENDUM BY MAJOR GENERAL R. GREY

Surprise

All's fair in love and war. (English Proverb)

Human experience largely consists of surprises superseding surmises.
(Ogden Nash)

The definitions of surprise are many, and different at varying levels of military command, but all imply secrecy, deception and cunning. Surprise may involve a sudden and unexpected action, being caught off-guard, napping or unaware. It can be the result of mistaken assumptions and preconceived notions; it can be achieved by new weapons, new tactics and techniques.

Examples at both strategic and tactical levels are found throughout the history of warfare. A look over the ages shows incidents as diverse as Gideon and his chosen 300 described in the Bible Book of Judges; the wooden horse at Troy told in the *Iliad* by Homer; Hannibal at Cannae; Wolfe at Quebec; the German assault through the 'impassable' Ardennes in 1940; the Japanese strategic and tactical surprise at Pearl Harbor on a Sunday morning in December 1941; the German blitzkrieg of 1939–40 using rapid concentration from a dispersed area to a narrow section of the enemy's front; the gaining of surprise by technical innovations and new weapons such as poison gas in 1915, and tanks in 1916 during World War I. The scope

and sweep of surprise in war is fascinating and awaits any earnest student of the military art, though there are few works of modern military theory on the subject. Analysis will reveal too, the counterpoint. Technical surprise was often not fully exploited; for example tanks and submarines were not concentrated enough at the right time and place to achieve decisive results. Certainly surprise was achieved but the result was also a forewarning to the enemy of the potential of the new weapons and the highly original tactical ideas of the enthusiasts of the time were rejected. Similarly, the speed and elegance of the blitzkrieg gave way in due course to the complexity of combined arms warfare.

The good tactical commander must always endeavour to put himself in the enemy's mind; and also get the 'feel' of the battlefield, an intuitive grip like an extra sense. The application of any principle including surprise is however no guarantee by itself of success; one must always keep in mind that the enemy has a very large say in the matter. The best laid plans can go awry, often caused by what A.P. Wavell described as 'the actualities that make war so complicated and so difficult – the effects of tiredness, hunger, fear, lack of sleep, weather, inaccurate information, the time factor and so forth ...'.

Here I will concentrate on the Australian army tradition and offer some thoughts on the practice of surprise. Surprise seems to have been neglected in Australia in both teaching and in training; little appears either in doctrine or is studied at military schools. There are, however, myriad incidents at all levels in our military history involving the effective achievement of surprise. Below are some random examples.

Gallipoli

The water drip rifle invented by Lance Corporal Bill Scurry and Private A.H. Lawrence was used in quantity to help mask the evacuation by deceiving the Turks into thinking the trenches were still manned.

France

The counter-attack at Villers Bretonneux on 4 April 1918. With the allied line crumbling and a fresh attack made by the Germans, the Australian brigade commander ordered his one reserve battalion, the 36th, to attack. Within only a few minutes after quick fragmentary verbal orders and no information on either German strength or exact dispositions, the 36th assaulted straight into the German attack. Taken completely by surprise the Germans broke and fled. The 36th re-established the line.

North Africa

At El Alamein on the 25 October 1941 the hill known as Trig 29 dominated the Northern Flank. The 2/48th Battalion under Lieutenant Colonel H.

Hammer executed a battalion attack with precision, vigour and great courage. The plan was to advance under cover of a barrage with two companies forward, and just as the barrage lifted rush a third company on to the objective in twenty-nine carriers and other vehicles. The surprised defenders were overcome but only after sharp hand-to-hand fighting.

Crete

During the night of 26/27 May 1941, the New Zealand 21st and 28th Battalions and the 2/7th Australian Battalion were withdrawn to a line known as 42nd St. The German 141st Mountain Regiment was moving towards Suda Bay unaware of the Anzac battalions, who believed they were in reserve and were at any rate out of communication with their headquarters. At about midday the 1st Battalion of the Germans appeared fully deployed, moving across the front. Without any fire support but seizing the unexpected opportunity, the Anzac forward companies charged. In a short time the Germans were driven back at least 600 yards leaving 350 killed. The gamble paid off.

New Guinea

At Cape Endaiadere near Buna in December 1942 and during the subsequent advance to Sanananda, the use of M3 light tanks of B Squadron 2/6th Armoured Regiment in support of 2/9th, 2/10th and 2/12th battalions in turn enabled enemy positions to be captured which would otherwise have imposed long delays and very heavy casualties. The M3 was quite unsuitable for infantry support but surprise and determination made the operation a success.

On 9 October 1943 in the Ramu valley the Japanese were occupying a high and extremely precipitous feature overlooking an important track. The 2/33rd Battalion, led by Major McDougal's company, was ordered to clear the feature, setting off at 1600 hours. By nightfall the company was still climbing and far from the top. It was decided to keep going, which meant a night attack – almost unknown in New Guinea. With no real information of the enemy, the company kept straight on reaching the top at about 2130 hours. Completely surprised, the Japanese resisted initially then broke and withdrew.

Korea

During the Battle of the Apple Orchard in October 1950 it became apparent that C Company of 3rd Royal Australian Regiment had driven into 239 North Korean Regiment as it was forming to again attack a battalion of 187 Regimental Combat Team (US). Enemy sprang up from everywhere. The commanding officer 3 RAR (Lieutenant Colonel C. Green) saw the need to link up with the US Regiment and decided to bounce the enemy with C

Company. The attacking platoons went in hard; the speed of the assault completely surprised the enemy who were caught with most of their attention directed north, not to this vigorous thrust from the south. There were however enemy groups who stoutly resisted the Australians. The leadership and example of the commanding officer and of the C Company commander, Captain A. P. Deness, were exemplary. Green's decision to drive hard and his insistence on a rapid movement through Yongyu provided the inestimable advantage of surprise which was never lost once battle was joined.

At the battle of Maryang San in Korea in October 1951 the 3rd Battalion Royal Australian Regiment achieved outstanding success due not least to surprise being exploited to the full. The enemy expected a main attack from the south but the battalion plan involved C Company attacking from the apparently impregnable eastern approach. Point 317 was seized before it could be reinforced. The brilliant command and control of the battle by the commanding officer (Lieutenant Colonel F.G. Hassett), the leadership of officers and NCOs and the sheer fighting ability of the men of all companies achieved the greatest single feat of the Australian Army during the Korean War.

Vietnam

The three common deployment means used by the Australian Task Force in Vietnam were helicopters, armoured personnel carriers and foot. There were obvious advantages and disadvantages of each, with helicopters being the quickest and most flexible, foot the most secure and best chance of achieving surprise. Deception and guile were often used, and all three methods utilised to block the enemy at every turn. Long insertions by foot at night and stay-behind groups provided surprise and success. Even in areas of civilian access, variations of time, place and insertion methods helped ensure success in ambushing; many successes at company level depended on ruses and stratagems. A detailed knowledge of the area of operations coupled with battle cunning paved the way for surprise and denied the enemy much of his infrastructural support in the latter years of Australian involvement.

From these examples we can derive a general tactical working definition: surprise results from striking the enemy at a time, place and/or in a manner for which he is not prepared. It is not essential that the enemy be taken unawares but that he becomes aware too late to react effectively.

Other hints for players emerge:

- A dark night and a rainy one if you can find your way will lead to success, but this often means fighting at night, not just marching and

tactical movement, to get into a favourable position from which to attack.

- Even with modern surveillance equipment and techniques, in war complete and accurate knowledge of the enemy is always lacking.
- Absolute surprise is much more difficult to achieve against an alert and battle-experienced enemy.
- One major form of surprise lies in the aggressive spirit and determination of good infantry – the ability to fight and keep on fighting without let-up for longer than the enemy.
- Opportunities can be created on the battlefield by the use of weapons, by aggressive fire and movement in the approach to the objective and to the final assault.
- Keep reacting before the enemy can, to rob him of his freedom of action. Speed, both in movement and (not least) in decision making and fragmentary orders, is the key.
- As a commander, watch for the golden moment when unexpected and decisive action will put the enemy off balance, but then such an advantage must be quickly exploited.
- Some yardsticks for holding reserves are a carry-over from the mass formations of the Romans, and later horsed cavalry. Holding too much in reserve can lead to defeat, especially the withholding of too many direct fire weapons in the initial battle.
- Too much of minor tactics becomes stereotyped and obvious to an enemy. Aggression and fast accurate shooting with effective fieldcraft must be inculcated.
- An ambush is really another term for fighting from ground of your choice, but with the added advantage, hopefully, of complete surprise.

There is unnecessary rigidity of approach in the teaching of tactics both in the classroom and in the field. All too often work is done to satisfy promotion requirement, keeping to instructions and safe standards which have little contact with reality. Australian military history is full of examples which, if put forward by a student seeking promotion, would result in failure, perhaps even ridicule – but yet were practical effective answers on the ground in battle. The actual fight is probably the most neglected area of tactics; it is much easier to give a recipe of principles for success, than actually to produce the meal. There must be more realistic and confused situations in training. Surprise and success require imagination, boldness and inventiveness with an ability to read the options inherent in a battlefield situation. At the minor tactical level the achievement of surprise can be related to the use of ruses and stratagems often based on weaponry; essentially ‘battle cunning’.

Ruses need practice for success and the start point is a mastery of basic military skills and sound battle discipline. It is not good enough to pay lip-service to surprise. Emphasis should be laid upon fresh and novel ideas. As Stonewall Jackson said: 'Always mystify, mislead and surprise the enemy, if possible.'

7 Concentration of Force

The highest Generalship is 'to compel the enemy to disperse his army, and then to concentrate superior force against each fraction in turn'.

Sun Tzu

Concentration of force, or 'mass' as it is titled by the United States Services, is one of the principles of war enthusiastically grasped by the military officer when learning his profession. Together with offensive action, surprise and flexibility, concentration of force appeals as a dynamic expression of the military art. He can visualise these principles being used and exploited on the field of battle – be it on land, at sea or in the air. On further reflection he will note that concentration of force, applied successfully, will embrace most of the other principles he has been studying. It could not be achieved without doing so, as the following considerations suggest.

In most cases forces would have been concentrated for the purpose of undertaking 'offensive action'. In defensive situations the commander is not aware of where the blow will fall and thus is unable to concentrate his forces with any certainty; his dispositions will be a compromise.

To the greatest possible extent the commander will embrace the principle of 'security' in an endeavour to conceal his concentration. He will be aiming to achieve 'surprise' in one way or another. He will have worked to boost the 'morale' of his force, a task made easier by the prospect of positive action, by taking the initiative – perhaps reminiscent of the spirit of light-hearted confidence that reigned in the bivouacs of the French on the eve of Austerlitz when the frosty night was illuminated by a torchlight dance of 70,000 men promising the emperor victory on the morn.¹

He will have considered all the 'what if?' situations likely to occur – weather, enemy reaction, exposure of his plan, an unexpected enemy manoeuvre and so forth and thus he will have given a good deal of thought to 'flexibility'.

If other Services or forces of the same service normally outside his command are involved, he will have been at pains to ensure 'cooperation'. He would have, as a matter of course, discussed with his staff plans for the 'administration' of the operation – logistics, casualty evacuation, prisoners and the myriad of items under this principle.

Availability of the resources required for the operational task was probably achieved by 'economy of effort' in other areas, by cutting back on allocations

to lower priority tasks. The assembled force would have been established and concentrated to achieve a specific 'aim'.

This process will have been followed whatever the level of the operation to be mounted – a minor tactical aim or a major strategic initiative. The principle of concentration of force brings with it consideration of all the principles of war during the planning stage. It presents boundless scope for innovation and initiative. It should excite the imagination of the military professional.

However, there is much to learn and understand on the subject of concentration of force. Even amongst the definitions written and approved by experienced professional military officers, the descriptions are somewhat superficial and, as with those of other principles, in need of rewriting to take account of modern warfare. This is apparent when the current descriptions of the British and United States Services are examined.

Royal Navy

To achieve success in war, it is essential to concentrate superior force to that of the enemy at the decisive time and place. Concentration does not just mean a massing of forces. It implies having forces so disposed as to be able to unite to deliver the decisive blow when and where required, or to counter the enemy's threats or attacks. Timing is an important element in the concentration of force, the effect of which can be further enhanced if the enemy can be induced to disperse.

British Army

Concentration of Force. Military success will normally result from the concentration of superior force, at the decisive time and place. This does not preclude dispersion which may be valuable for the purposes of deception and avoiding discovery and attack. Rapid concentration and dispersion depend on good communications and an efficient traffic control system. They also depend on balance, the essence of the next two principles. [The next two principles listed in the British Army Manual are economy of effort and flexibility.]

Royal Air Force

To achieve success in war it is essential to concentrate superior force against the enemy at the decisive time and place. Concentration does not necessarily imply massing forces in one place, but rather disposing them so as to be able

to deliver the decisive blow, or to counter an enemy threat, whenever and wherever required.

Concentration of sufficient force to achieve what is the decisive or most important task at the time is perhaps the cardinal principle in the employment of armed forces in war. This may well entail the use of all force available. It may be said that the art of war is to decide the aim, then decide the tasks needed to achieve that aim, and then to concentrate the required forces into those tasks until the aim is attained.

United States Army

Mass. Mass the effects of overwhelming combat power at the decisive place and time. Synchronising all the elements of combat power where they will have decisive effect on an enemy force in a short period of time is to achieve mass. To mass is to hit the enemy with a closed fist, not poke at him with fingers of an open hand. Mass must also be sustained so the effects have staying power. Thus, mass seeks to smash the enemy, not sting him. This results from the proper combination of combat power with the proper application of other principles of war. Massing effects, rather than concentrating forces, can enable numerically inferior forces to achieve decisive results, while limiting exposure to enemy fire.

United States Navy

Mass. Concentrate combat power at the decisive time and place. Use strength against weakness. A force, even one smaller than its adversary, can achieve decisive results when it concentrates or focuses its assets on defeating an enemy's critical vulnerability. A naval task force, using the sea as an ally, can compensate for numerical inferiority by the principle of mass. Mass further implies an ability to sustain momentum for decisive results.

United States Air Force

Mass. Concentrate combat power at the decisive time and place. At the strategic level of war, this principle suggests that the nation should commit, or be prepared to commit, a preponderance of national power to those regions or areas where the threat to vital security interests is greatest. Accurate and timely determination of where the threat to national interests is greatest is difficult. In today's volatile world, the nature and sources of threats often change in dramatic fashion. Since every possible contingency or trouble spot cannot be anticipated, much less planned for, planners and forces must retain

flexibility of thought and action. At the operational level, this principle suggests that superior combat power must be concentrated at the decisive time and place to achieve decisive results.

Comment

The first matter to make clear, and it is only the descriptions promulgated by the United States forces that do so, is that when referring to concentration (or mass) it is concentration of combat power that is the issue. This stems from the use of 'joint force packages' now used to apply optimum force. Thus the United States Army stresses the proper combination of combat power. It is important to stress this point. The simple use of the word 'force' might be interpreted to imply numbers, it is imprecise. Any military student who has read Clausewitz, or studied military history, will realise the fallacy of gauging the chances of success on the single factor of superior numbers. Combat power would seem more appropriate to joint force operations – now the more likely form of combat involvement.

Clausewitz astutely rates the relative merits of qualitative superiority and numerical superiority. Qualitative superiority 'must be regarded as fundamental – to be achieved in every case and to the fullest possible extent'; and on numerical superiority, 'but it would be seriously misunderstanding our argument, to consider numerical superiority as indispensable to victory'.²

Qualitative superiority is best achieved by concentrating the optimum mix of combat elements. In the 1940s the Germans found this to be the dive bomber, tank, artillery and motorised infantry. Half a century later, in the Gulf War of 1991, combat power in the air was optimised by creating force packages appropriate to the specific task. For some strike missions the optimum package consisted of the strike aircraft, aircraft for the suppression of enemy air defences, fighter cover – the package supported by airborne warning and control aircraft and tanker aircraft. Or, a more simple package could comprise OH-58 Kiowa helicopters to designate a target, operating with AH-64 Apaches to carry out the missile attack. The principle is the combination of force elements to enable superior combat power to be concentrated at the required place.

It is the description of mass set out by the United States Army that also brings attention to applying the principle of mass 'in conjunction with the other principles of war'; a factor covered, in some detail, earlier in this chapter. Also noted in that particular description is the fact that numerically inferior forces can prove superior. It is an excellent description elucidated in just 100 or so words.

The assertion of the United States Navy that ‘mass further implies an ability to sustain momentum for decisive results’ is not convincing. How does mass, by itself, imply the capacity to sustain? Momentum may well be a product of mass and velocity but sustainability does not follow.

In adapting the scope of this principle to accommodate modern weapon systems, particular attention should be given to the peculiar attributes of air power. For example, all descriptions refer to concentration in time and place. However, air power can be concentrated in time or space, or both. It may be necessary to concentrate decisive air power over an invasion point and over the enemy’s lines of communications leading into that area. For reasons of security and to maximise surprise it may be necessary to delay the air strikes until the very last moment; to coincide with or immediately prior to the ground assault – concentration in time and place. Maximum concentration in time and place was used extensively in bomber raids over Europe in World War II, in an effort to saturate the air defences. In another situation the aim may be to neutralise, disrupt or destroy a particular target system, be it the enemy’s command and control system, his transport system or some other large complex. In this case concentration is achieved by assigning the maximum available air combat power and concentrating it on the elements of that target system. There will be scores, perhaps hundreds of individual targets, widely spread, and over great distances. The operation may be conducted over a considerable time-scale. In some cases frequent revisits may be required. Nevertheless, this is an example of combat power being concentrated to achieve a particular aim. The principle of concentration of force remains valid for this application.

It is perhaps one of the prime attributes of the successful commander to determine the combat force required and to apply it at the appropriate place and time. Rommel, Guderian and Patton were masters of this art in World War II. General Chuck Horner applied it to air operations in the Gulf War in 1991, with devastating results. It was Rommel’s ability in this aspect of tactical warfare that was responsible for so much of his success against generally superior British forces in the desert campaigns of 1942. Commenting on his success in the battle for Gazala and Tobruk in May 1942, Rommel was critical of his British opponent for ignoring the principle of concentration.

For Ritchie had thrown his armour into the battle piecemeal and had thus given us the chance of engaging them on each separate occasion with just about enough of our own tanks. This dispersal of the British armoured brigades was incomprehensible.... The principle aim of the British should have been to have brought all the armour they had into action at one and the same time.³

Clearly, General Ritchie had not read, or had not absorbed Sun Tzu's edict, 'we can form a single united body, while the enemy must split up into fractions. Hence there will be a whole pitted against several parts of a whole, which means that we shall be many to the enemy's few.'⁴

Nevertheless, emphasising the virtue of concentration does not imply that there should never be dispersion. This is stated clearly in the British Army description of the principle. Dispersion may be necessary to mislead the enemy, as did Slim's feint in the battle for Meiktila, and Frederick's at Leuthen. On the other hand the risks must be calculated and weighed against other options. Again one may heed Sun Tzu who stated the (now) obvious by declaring that whether to concentrate or divide your force must be decided by circumstances. It is a consideration that can involve considerable risk and must be subjected to rigorous examination before adoption. When a plan calls for the division of a force it is usually part of a plan in which the main thrust will comprise an adequate concentration of combat power at the decisive point, or, it may involve a regrouping of the force at the appropriate time.

Ligny, Napoleon's last successful battle, fought in 1815, just two days before Waterloo, is a good example of where splitting the force was a logical course of action. Napoleon decided to seize the initiative and attack before his combined enemies – Britain, Holland, Prussia, Austria and Russia – could mobilise a potential combined force of some 600,000 troops. At the time of that decision only two armies were marching to take action against him: the Anglo-Dutch force from Brussels, numbering about 110,000 troops, and Blucher's Prussian Army of 117,000 coming from Liege. Napoleon, only 120,000 strong, devised a plan to engage each of these armies separately, thus minimising his numerical inferiority.⁵

The plan was essentially simple with the initial aim of keeping the two opposing armies apart. Napoleon split his army into two fighting wings: the left wing, under Marshal Ney, to engage and keep occupied Wellington's Anglo-Dutch force; the right, under Marshal Grouchy, to attack the Prussian army. Napoleon would control the reserve of 30,000 and would concentrate this force in support of Grouchy at the appropriate time and ensure the defeat and rout of the Prussian army. Then, with Blucher in flight, the whole force would be free to concentrate and engage Wellington. The plan was sound and could well have succeeded had it not been for poor command and control giving imprecise and often confusing orders to the main field commanders. This was an aberration thought to be caused by Napoleon's debilitating health over that vital period and the inexperience of his chief of staff, Marshal Soult. In the event the Prussian force was defeated at Ligny – but not routed. It was able to withdraw, regroup and later, at the eleventh hour, to tip the scales at Waterloo by reinforcing Wellington.

Napoleon, more versed than most commanders in the principle of concentrating combat force, recognised that, in his particular circumstances, splitting his force was the best option. There is little doubt that he would have preferred to fight with his whole force intact but obviously he judged it to be more important to prevent the enemy from concentrating the three armies at his disposal. It should be noted that the mature plan was based on regrouping and concentrating for what he judged to be the main battle; that against the Anglo-Dutch armies.

There are many instances where commanders have courted and suffered defeat by what was either impatience or impetuosity, by marching into battle before their full force was available for combat.

King Harold's impetuosity in moving to confront William, Duke of Normandy, at Hastings was such an occasion. The failure to assemble and organise his full force was one of the causes of his defeat. Failure to concentrate in the set-to tactical battle ensured that defeat. William had landed some 8000 fighting men at Pevensey and moved to Hastings. Harold set out from London on 12 October 1066, with a force of 5000, hoping to recruit others en route. He deployed his army near the town of Battle on 13 October. The Norman Army moved from Hastings on the morning of the 14th and battle was joined that same day.

In the conduct of the battle, Harold failed to employ his army offensively as a concentrated whole; his counter-attacks were piecemeal. After a strong Norman attack, first with infantry and then with cavalry, was beaten off, the fyrd on Harold's right flank moved out in counter-attack. This section of the Saxon line, forward and isolated from support, was defeated in detail. Not one man regained the Saxon line. After a second Norman attack was repulsed this inept manoeuvre was repeated. This time the fyrd on Harold's left flank counter-attacked and suffered the same fate. The scene was set. William launched a concentrated attack with his whole force. The English king was cut down, his two brothers had been killed earlier in the day; leadership had gone. The fyrd had had enough, they broke and fled.⁶

The same criticism of impetuosity and a failure to appreciate the importance of concentrating sufficient combat power could be levelled at Union General George McClellan for departing Fort Monroe, in April 1862, with the intention of engaging the Confederates at Yorktown. Only part of his army had been landed (about 58,000) and he had been informed that the 1st Corps, under General McDowell, was to be retained for the defence of Washington. The concentration he had obviously planned for the assault on Richmond was no longer possible, yet he persisted. Some opine that success might still have been possible given a more resolute and skilful commander. Be that as

it may, McClellan failed because of his inability to concentrate the force he, McClellan, needed for the task.

To illustrate the principle of concentration of force used in a contemporary setting one need go no further than the Gulf War of 1991. The allied commander, General Schwarzkopf, was insistent that the combat power he assessed as essential to his plan be in place before he would launch his attack for the relief of Kuwait. When his attacks were launched, first the air campaign, and then the combined offensive, they were launched with overwhelming force, concentrated initially against the enemy's infrastructure and then on the enemy's fielded forces. The commander's enthusiasm for the application of force can be gauged by his briefing to the army commander, General Yeosock, on the undue caution shown by the VII corps. 'The enemy is not worth shit. Go after them with audacity, shock action and surprise.'⁷

There can be little doubt that concentration of force, be it in time, in space, or both, or for that matter concentration on a particular objective such as a target system, is essential to success in waging war. The study of warfare and its greatest exponents throughout history demonstrates that the ability to concentrate sufficient combat power at the decisive place at the decisive time is the key to victory, whatever the level of encounter. This is stated succinctly in the description of the principle of concentration of force promulgated in the Royal Air Force doctrine manual (*AP 3000*). 'Concentration of sufficient force to achieve what is the decisive or most important task at the time is perhaps the cardinal principle in the employment of armed forces in war.' It would be hard to disagree with that assessment.

Whilst concentration of force, or mass, should certainly be retained as a principle of war, more attention needs to be given to the essence of this title. Clearly it is the concentration of combat power. The single word 'mass' becomes less meaningful when the myriad combination of weapon systems available in a modern joint force is considered. The best solution would seem to be to change the title of this principle to what has been discussed in this chapter – concentration of combat power. The intent is then self-evident. If the existing titles are retained then the descriptions should be rewritten to make it crystal clear that it means the concentration of combat power.

ADDENDUM BY GENERAL MICHAEL P. CARNES

Mass and Manoeuvre

The concept of massing forces to gain the advantage in combat has dominated discussions on military art and science. It has had a strong influence on the

American way of war as all American commanders have sought to bring forces together for the benefit of overwhelming firepower to decisively engage and destroy an enemy. Some have termed this 'attrition warfare'.

The value of massing forces in land warfare has been enshrined as an article of faith by many experts. One author described that the 'alternative to massing forces is piecemeal employment – defeat in detail'. So the presumption is often that failure to mass means defeat. As author B.H. Liddell Hart stated, 'The principles of war could, for brevity, be condensed into a single word: concentration.'

But reliance on massing forces brings with it certain baggage – like a lengthy logistical trail and certain inertia against speed. To some, one could argue that mass and speed are inherently contradictory elements of modern warfare.

Those that have mastered both have become some of the greatest military leaders. American military commanders like J.E.B. Stuart or George Patton stand out, partly because they relied on manoeuvre as the primary element of their success. German armour commanders like Guderian and Rommel likewise are touted as the champions of manoeuvre. Such great tacticians used manoeuvre to concentrate forces at the decisive point and decision time. Some argue that Guderian achieved only a tactical victory at Sedan, following his penetration through the Ardennes in May of 1940. But his tactical and subsequent exposed push into the French rear areas resulted in a strategic defeat for the French.

Proponents of manoeuvre cite Guderian's reliance on intangibles – like experience, will, initiative, speed, shock – as the keys for his success. They argue that Guderian downplayed the significance of quantifiable measures, like the number of tubes of artillery, armour, troops, ammunition.

In some ways, military planners turned to the airplane to regain the ability to manoeuvre and to quickly concentrate combat forces at the decisive time.

American air power employment has reinforced this emphasis. While taking the fight into the air restored manoeuvre to modern combat, Billy Mitchell relied on massing his air formations to achieve the desired result. At St Mihiel, he combined over 1000 aircraft to gain superiority and punch a hole in the German defences. This tactical combination proved a model for future operations.

During World War II, in the European Theatre, many recall the heroic massed bomber formations of 500 and 600 aircraft, striking deep at strategic targets at Schweinfurt or Ploesti. True, the airplane allowed military commanders to manoeuvre over the top of enemy lines, but the formations themselves were not manoeuvrable, lacked the element of surprise, and

proved costly in terms of lives and aircraft. But commanders still turned to the airplane to give them the desired effects of decisive mass.

In Desert Storm, the principles of mass and manoeuvre were given new meaning. The coalition's advantages in stealth and precision guided munitions dramatically changed how we conducted the war. Stealth regained tactical surprise, allowed us to manoeuvre freely. Precision guided weapons allowed us to produce mass effects at the desired, decisive point. For example, in Vietnam, we needed over forty F-4s delivering almost 200 bombs to destroy a single point target, like a bridge. Now, in Desert Storm, we found a single aircraft and a single weapon achieved the same effects.

So Desert Storm gave new meaning to mass by conducting a massed air attack on the enemy. In the past, manoeuvre sought to strike at an enemy's vulnerable centre of gravity with decisive force. But in Desert Storm, air forces manoeuvred en masse to strike simultaneously at multiple centres of gravities. During the first twenty-four hours of combat, the coalition launched over 1300 sorties. This massed wave attack inflicted paralysis not only at the national and strategic level, but also at the operational and tactical level – all within a few days.

But perhaps its most telling legacy was air power's ability to inflict a massive shock on the enemy's forces – disabling his will to fight as well as his forces.

Future conflict clearly will draw from these lessons. Stealth technology is being incorporated into almost all aircraft design. Its ability to defeat enemy radars means the airman once again will hold the high ground of tactical surprise. With surprise comes shock.

And precision guided weapons are being improved to permit all weather, day or night employment. We will manoeuvre across the entire battlefield and produce the effects of massing or concentrating forces at multiple locations.

These two factors alone promise a revolution in warfare. But, when combined with simultaneous improvements in our abilities to shorten the 'shooter to sensor' loop, will allow us to see enemy activities and targets and strike them in real time. So future conflict may well be dominated by air and space power in ways that not even the early pioneers could have anticipated.

Thus, modern air combat allows us to combine mass and manoeuvre in ways that are no longer contradictory. The technological advances will be impressive, but we should not rule out the intangible impact of these changes – the impact on the enemy's will to fight.

8 Economy of Effort

Economy is a distributive virtue, and consists not in saving but selection. Parsimony requires no providence, no sagacity, no powers of combination, no comparison, no judgment.

Edmund Burke

Economy of effort is a complicated principle that perhaps applies less to the conduct of a particular action than as a general consideration applicable to forward planning. Furthermore, it applies to policy decisions from the very highest strategic level, to the employment of forces on minor tasks. Often it is misunderstood in that some interpret the principle ‘economy of effort’ to mean using the absolute minimum of military resources to perform any given task. This is incorrect and could entail unnecessary risks.

Because it is a principle of war, economy of effort is often not thought to apply to the structuring of the defence forces of the nation in peacetime, and is not considered by bureaucrats and politicians in the proper sense. It is the simplistic goal of economy that receives consideration. However, unless the strategy for the nation’s perceived objectives is determined and a concept for the operations of the defence force derived from this, economising is likely to result in a disastrous imbalance.

If the defence force of a nation has the sole specified political aim of national defence, then it follows that the strategy for effecting that defence should be established. For example, if it is to be based on deterrence in the first place, and if that fails, then massive offensive action, forces able to provide that capability and to protect those forces will form the basis of the defence force. If, on the other hand, a nation feels itself secure from external threat, the government may decide that the primary role of the defence force is peacekeeping. In the first example it would be uneconomical to concentrate more than the minimum required for security on defensive forces, but rather to invest mainly in force elements applicable to offensive operations. In the latter example, such forces would be inappropriate and reduce the resources available for the defined task, peacekeeping.

The examples given are perhaps extremes, the purpose being to illustrate the fact that economy of force is decided, initially at the national planning level. In the considerations that influence force structuring decisions, the full meaning of the principle ‘economy of force’ should be understood by politicians and bureaucrats. They should be at pains to obtain the best

military advice possible on the military aspects of clearly stated political objectives, before allocating defence funds to particular areas. The 'method' of simply keeping a rough balance between each of the armed Services, each possibly concentrating on different concepts of operations, would be uneconomic, irresponsible and ineffective.

To return to the field of military operations on which the principle of 'economy of effort' was originally defined, the description of the British and American Services provide a suitable starting place for discussion.

Royal Navy

Economy of Effort. Economy of effort implies a balanced employment of forces and a judicious expenditure of all resources with the object of meeting the needs of both concentration and security. This principle does not mean that one should try to achieve results 'on the cheap'; this would be dangerous and is contrary to the principle of concentration. Economy of effort really means that the best possible use must be made of the forces and resources available.

British Army

Economy of Effort. The corollary of concentration of force is economy of effort. It is impossible to be strong everywhere, and if decisive strength is to be concentrated at the critical time and place there must be no wasteful expenditure of effort where it cannot significantly affect the issue. In order to gain a substantial advantage a commander will have to take a calculated risk in a less vital area. The application of the principle may be summed up as planning for a balanced deployment combined with a prudent allocation of resources strictly related to the aim.

Royal Air Force

Economy of Effort. The corollary of concentration of force is economy of effort. It is impossible to be strong everywhere, and if decisive strength is to be concentrated at the critical time and place there must be no wasteful expenditure of effort where it cannot significantly effect the issue. In the narrower sense economy of effort implies the correct use of weapons systems, a sound distribution of forces and a careful balance in the allocation of tasks with the object of achieving an effective concentration at the decisive time and place.

United States Army

Economy of Force. Employ all combat power available in the most effective way possible; allocate minimum essential combat power to secondary efforts.

Economy of force is the judicious employment and distribution of forces. No part of the force should ever be left without purpose. When the time comes for action, all parts must act. The allocation of available combat power to such tasks as limited attacks, defence, delays, deception, or even retrograde operations is measured in order to achieve mass elsewhere at the decisive point and time on the battlefield.

United States Navy

Economy of Force. Employ all combat power available in the most effective way possible; allocate minimum essential combat power to secondary efforts. With many more available targets than assets, each unit must focus its attention on primary objectives. A successfully coordinated naval strike at an enemy's critical vulnerability – for example, knocking specific command-and-control nodes out of commission – can have far more significance than an attempt to destroy the entire command-and-control system.

United States Air Force

Economy of Force. Create usable mass by using minimum combat power on secondary objectives. Make fullest use of all forces available.

As a reciprocal of the principle of mass, economy of force at the strategic level of war suggests that, in the absence of unlimited resources, a nation may have to accept some risks in areas where vital national interests are not immediately at stake. Since the NCA should focus predominant power toward a clearly defined primary objective, they cannot allow attainment of that objective to be compromised by diversions to areas of lower priority. Economy of force involves risks, requires astute strategic planning and judgment by political and military leaders, and again places a premium on the need for flexibility of thought and action.

At the operational level, the principle of economy of force requires that minimum means be employed in those areas where the main effort is not to be made. It requires, as at the strategic level, the acceptance of prudent risks in selected areas to achieve superiority in the area where decision is sought. Thus, economy of force may require forces in a particular area to attack, defend, or delay or to conduct deception operations, depending on the importance of the area.

Comment

All descriptions emphasise that the purpose of economy of effort, or force, is to harvest forces so that they are available for the concentration of maximum combat power when required – for the main effort. As pointed out by the Royal Navy, it does not mean ‘doing things on the cheap’. Where combat power is seen to be necessary it should be allocated at a level sufficient to meet the task. However, there will never be sufficient resources to meet every task and, as advised in the descriptions of the British Army and the USAF, a degree of risk will often have to be taken in the allocation of effort to secondary tasks. The decision of the Israelis to retain only twelve Mirage fighter aircraft for the air defence of the homeland in the 1967 war is an example of taking such a risk.¹

The USAF makes the very valid point that economy of force requires astute strategic planning by both political and military leaders. In general there is a tendency to overlook the essential factor of political involvement when addressing the military aspects of this principle. It is an essential ingredient which should be noted in the descriptions if the aim is to interest politicians in the principles of war – and it should be the aim.

The United States Army includes the Clausewitzian touch that ‘no part of the force should ever be left without purpose’.

It is surprising that not one of the descriptions refers to the pivotal role of intelligence in minimising the risk referred to or in helping to assess the judicious balance they all advocate. Good, reliable intelligence would allow minimum, or even no resources to be allocated to security in certain situations. Again the example is the breaking of German and Japanese codes (Ultra and Purple) in World War II, which gave the allies foreknowledge of enemy deployments and intentions and enabled substantial savings to be made in ‘insurance’ security tasks; tasks that otherwise would have had to be undertaken. At the same time the ability of the allies to feed misinformation to the enemy made it difficult for them (the Germans in particular) to concentrate maximum forces for the critical battles. The point that intelligence is an extremely important factor in achieving economy of force in the first instance and subsequently, concentration of force, should be emphasised so that this facility will be exploited to the fullest possible extent.

Another omission is reference to the importance of training. The point should be made that the higher level of skill and thus effectiveness that stems from quality training reduces the effort required to achieve a given objective. This is contrary to the notion that every cent spent on training reduces the resources available for operations. The value of high-calibre training was demonstrated in the application of air power in the Gulf War. The

outstandingly successful operational results were ample pay-off for the expensive but realistic training undertaken at Red Flag and similar exercises.

In the same vein the use of the far more expensive (to acquire) smart weapons confers very significant economies of effort in operations and, as was demonstrated in Desert Storm, in casualties. Evidence from that conflict shows that one sortie and one bomb from one F-117 tactical fighter was required per target, whereas 36,000 bombs and 4500 B-17 sorties were needed during World War II for each target, and ninety-five F-105 sorties and 190 bombs were needed against each target in Vietnam.²

Another factor pertinent to the use of precision guided munitions is that it has never been economical or preferable in war to destroy the enemy's civil infrastructure, beyond the extent to which it supported his military operations. One may look back to Sun Tzu: 'In the practical art of war, the best thing of all is to take the enemy's country whole and intact; to shatter and destroy it is not so profitable.'³

Although some of the descriptions quoted are incomplete, the fact does emerge that the essential aim is to husband resources in order to be able to concentrate an effective force at the critical time and place. There should be no misunderstanding that, for that event, the maximum force available should be used to overwhelm the enemy.

When contemplating war and victory it is usual to envisage the decisive time and place from the point of view of the commander with the initiative and taking the offensive. This, of course, is not always the case. Air Chief Marshal Sir Hugh Dowding, commander-in-chief of Fighter Command in the lead-up to and during the Battle of Britain, fought strenuously against the dissipation of his assets (pilots and aircraft) in the latter stages of the battle for France – a battle he judged to be lost. In doing so he incurred the animosity of Prime Minister Winston Churchill and the air staff. When the battle came he was able to muster a sufficient concentration to win that vital battle but it was a close thing. His handling of a force only marginally sufficient for the task displayed a rare genius for applying just what was necessary for the task today and retaining sufficient force for the morrow. Although he suffered resentment and ingratitude at the time, and was retired immediately the battle was won, Churchill, much later, was big enough to pay tribute to Dowding's perceptiveness and generalship when writing his account of World War II:

The foresight of Air Marshal Dowding in his direction of fighter command deserves high praise, but even more remarkable had been the restraint and the exact measurement of formidable stresses which had reserved a fighter force in the north during all these long weeks of mortal combat in the south.

We must regard the generalship here shown as an example of genius in the art of war.⁴

It is easy to apply the wisdom of hindsight to criticise examples of inefficient employment of resources, but, on the other hand, if it presents a lesson from which to learn, there is value in doing so. We can look to the Middle East in the early 1940s with the knowledge that Hitler and the German General Staff had no strategic concept for operations in North Africa in 1941 and 1942. The aim of deploying Rommel and two German divisions was simply to prevent an Italian defeat and avoid the strong psychological effect this was likely to have in Italy. Rommel's successes opened the way for strategic exploitation. Had Rommel been given the four additional German divisions he requested, there is little doubt that he would have reached Cairo and the Suez Canal early in 1942. At the time some 200 German divisions were being employed on the Russian front.⁵ Scores more were idle on the Channel coast at a time when a cross-Channel operation by the allies was not feasible. Clearly, the North African campaign was not an economical way for German forces to be employed. Either Rommel should have been directed to confine himself to the purpose for which his force was deployed, preventing an Italian defeat, or he should have been given the authorisation and the extra forces to achieve the strategic objective he saw to be within reach. The British venture into Greece was no less inept from the aspect of the principle of economy of effort. The political reasoning was much the same as that which persuaded Hitler to deploy German forces to North Africa, and equally ill-advised.

Perhaps these two examples give emphasis to the clause in the description of economy of force given by the Royal Navy: 'This principle does not mean that one should try to achieve results "on the cheap"; this would be dangerous and contrary to the principle of concentration.' And so it proved to be in the two examples here mentioned. Token deployments into combat situations are almost invariably the whim of politicians. They are difficult to justify and rarely successful. Such political contributions make a mockery of the principles of economy of effort and concentration of force. It is simply another reason why politicians with decision making authority should be familiar with the principles of war.

Douglas MacArthur is an outstanding example of a commander who understood and put into practice, economy of effort. He was also a general who appreciated fully the worth of superior combat power when mounting a major operation. In the Pacific campaign he was able to provide for this by the enormous economies he achieved in by-passing enemy strongholds. In New Guinea, where he by-passed well-defended Japanese positions at

Wewak and Aitape to take Hollandia, ‘the Japanese who he had passed at Wewak had to work their slow and murderous way through our greatest ally, the jungle, to attack us many weeks later – sick and demoralised through dysentery, starvation and malaria’.⁶ MacArthur was husbanding his strength for his landings back in the Philippines. When he landed at Leyte in October 1944, he had 200,000 to face the Japanese 16th Division of just 21,000 men.⁷ On the way he had evaded 220,000 enemy troops,⁸ saving American lives and resources for participation in battles that had to be fought and won.

Whilst the principle, economy of effort, has been developed and promulgated to guide members of defence forces on the conduct of military operations, it has, as stated above, relevance to the administration of the nation in general. The development of a force structure requires considerations at the political level on issues that would affect the rate of effort and thus the time-scale that war might involve and the level of technology that might be sought to minimise the cost in lives and effort. Whilst decisions on these matters will rest with politicians, military advice will be essential. It will be better received if the politicians themselves have an understanding of the principles involved.

Time is an obvious factor in the cost of war to a nation, the cost of maintaining a large military force, the cost of weapons and all the paraphernalia of war, of infrastructure, of consumables, the loss of trade, and so on. The longer the state of war – or even a situation of tension or high threat – remains, the greater the cost to the nation and to the living standards and prosperity of its people. The constant threat endured by Israel is an obvious modern-day example, as indeed was the forty years of the Cold War. In these cases there seemed little that could be done to resolve the situations. The retention of military strength was vital to survival. However, in formulating a strategy for war, if that catastrophe has to be faced, it should be a strategy designed to achieve the political aim at the earliest possible moment. ‘Unconditional surrender’, for instance, is not an aim likely to bring an enemy to terms at an early stage or to achieve maximum economy of effort, in blood and treasure. The following observation from Sun Tzu is as relevant today as when written 2500 years ago:

It is only one who is thoroughly acquainted with the evils of war that can thoroughly understand the profitable way of carrying it on. That is, with rapidity. Only one who knows the disastrous effects of a long war can realise the supreme importance of rapidity in bringing it to a close.⁹

As noted earlier in this chapter, a major factor in achieving economy of effort in modern war is the selection of weapons. Those countries having

available, and able to support and operate technically advanced weapons, are able to realise enormous economies in effort – although the cost in monetary terms may still be significant. Planners, when seeking to meet the constant calls from government for cuts in defence spending, endemic in peacetime, should do their utmost to illustrate the real economies to be obtained by the use of appropriate, precision weapons. Yet again the need for politicians to understand the principles that should guide the conduct of war is apparent.

Discussion in this chapter has deviated to some extent, to address matters pertaining to, but outside, the direct planning and conduct of military operations. This has been done so that all those engaged in planning the nation's engagement in war should know and comprehend the essence of this principle – economy of effort. This is, to have sufficient combat power, and preferably more than sufficient, to overwhelm the enemy at the critical time and place – to win. This applies whatever the level of the engagement, be it campaign, battle, or local action at company level. Just so long as it contributes to the aim. It is worth repeating that economy of effort does not mean using minimal combat force when fighting is necessary.

It is pertinent to comment on the different word used in the British and American titles, economy of effort (British) and economy of force (American). It may seem pedantic to establish a difference but, if the principle is to be applied across the board, from the formulation of a strategy, to the development of a military concept of operations, to the use of intelligence and to the acquisition of appropriate weapons, then it is 'effort' that is being addressed. The amount of effort necessary to create and to concentrate the force required to meet the military task. Effort from the factory to the front line. Again, given the logistics task that supports almost every military action, offensive and defensive, but particularly the former, effort would seem to be the more appropriate word to describe the intent of this principle.

Finally, should economy of effort be retained as a principle of war? One could take the view that it is a supplementary factor relating to concentration of force and security. That it could be subsumed in the description of those two 'primary' principles. However, were this to be done, it is likely that only those people directly involved in military planning and military operations would be conscious of the need. Realisation of its importance would come too late in the process; particularly in those processes involving government ministers and bureaucrats. Furthermore, it is all too easy to overlook or downgrade the importance of this essentially forward planning factor if it is not emphasised by giving it the status of a principle of war in its own right.

ADDENDUM BY AIR MARSHAL J.W. NEWHAM**Economy of Effort**

Economy of effort in the prosecution of military operations probably receives less consideration by students of the principles of war than any of the others. It is regarded as a rather obvious principle: linked with concentration of force in the operational sense, and with prudent husbandry of national and defence resources in the broader. In Australia the principle assumes greater importance as an inescapable consequence of small population and national wealth, especially in the context of homeland defence (21,000 kilometre coastline, seven million square kilometre littoral).

What does economy of effort mean, then: effectiveness? efficiency? value? success in battle as against failure? avoidance of conflict, perhaps? or minimal battle casualties? or all of the above? (In terms of battle casualties one cannot avoid comparison of the carnage of World War I trench warfare with General MacArthur's economical conduct of the Western Pacific campaign of World War II.) Economy of effort seems to reach wider and deeper than first indicated. As no one principle stands alone, economical military operations will result from adherence not only to all the principles but to several imperatives that too frequently get short shrift in a comfortable peacetime climate that eases focus elsewhere as the corporate memory of the realities of war fade.

Chronicles of warfare abound with reasons for military failure, and it would seem a safe bet that initial clashes by nations defending against an aggressor will fail – Israel excepted, perhaps. General Slim's reflections at the end of the Japanese defeat of allied forces in Burma provide a professional analysis. He opens his comments:

I had now an opportunity for a few days to sit down and think out what had happened during the last crowded months and why it had happened. The outstanding and incontrovertible fact was that we had taken a thorough beating. We, the allies, had been outmanoeuvred, outfought and outgeneralled. It was easy, of course, as it always is, to find excuses for our failure, but excuses are of no use for the next time; what is wanted are causes and remedies.

There were certain basic causes for our defeat. The first and overriding one was lack of preparation. Until a few weeks before it happened, no higher authority, civil or military, had expected an invasion of Burma. They were all grievously pressed in other quarters, and what was held to be the comparatively minor responsibility of the defence of Burma was tossed

from one to the other, so that no one held it long enough to plan and provide over an adequate period. The two great errors that grew from this were the military separation of Burma from India and the division of operational from administrative control. An army whose plan of campaign is founded on fundamental errors in organisation cannot hope for success unless it has vast superiority over the enemy in numbers and material. Another fatal omission, springing from the same cause, was that until too late no serious attempt was made to connect India and Burma by road, so that when Rangoon fell the army in Burma was for all practical purposes isolated.

A most obvious instance of the lack of preparation was the smallness and unsuitability of the forces provided to protect Burma. Two ill-found, hurriedly collected and inexperienced divisions, of which one had been trained and equipped for desert warfare and the other contained a large proportion of raw and unreliable Burmese troops, were tragically insufficient to meet superior Japanese forces in a country the size and topography of Burma. The completely inadequate air forces and their total elimination in the campaign were most grievous disadvantages to the army. The extreme inefficiency of our whole intelligence system in Burma was probably our greatest single handicap.¹⁰

Sadly, Slim's analysis is not unique to the Burma campaign; indeed the pattern is common to many of the early World War II campaigns even though the military and government leaders of the day had had first-hand experience of World War I.¹¹

On the other hand, history records a number of military achievements that exemplify economy of effort. The Roman armies established and held an extraordinary empire for over 500 years through sound preparation, carefully structured and disciplined training of troops hardened to field conditions, and mostly outstanding leadership across and down well-established organisational lines. Tactics and battle plans were well disseminated and learned; application of the principles of war as we know them today were second nature. For over half a millennium numerically small forces defeated much larger armies in battle.¹²

Whilst gazing back afar, the Battle of Crecy, 1346, deserves a glimpse in terms of military economy.¹³ Edward III took with him to France 12,000 archers, 2400 cavalry and some infantry. These men were not pressed, but well-paid, well-trained professionals. Indeed, the longbowmen were relatively pampered because they could loose their shafts with considerable rapidity and accuracy over 250 yards with sufficient momentum to penetrate light armour or to maim a horse. On the morning of 26 August Edward fed, rested and deployed his forces, acting on the information brought in by his

reconnaissance parties: 6000 bowmen in ‘portcullis’ formation, the remainder in reserve. King Philip of France arrived with between 30,000 and 40,000 men, the majority armoured cavalry; about 6000 Genoese crossbowmen were hurriedly pressed into engagement, hungry and tired. These unfortunates were out-gunned in every respect; they fell in thousands; the French cavalry found this simple weapon equally devastating. Edward conducted the battle with considerable skill and aplomb, not having to commit all his reserves. Indeed on that day his son, who was to become known as the Black Prince, won his spurs at the head of his cavalry division on the right of the line.

The Battle of Crecy demonstrates the economic value of thorough training and preparation, of marksmanship, high morale through inspired leadership, of reconnaissance and a technological edge.

Before quitting this theme, it would be remiss to overlook the performances of Rommel’s Afrika Corps.¹⁴ Rommel was daring, with an unsurpassed grounding in the theory and practice of mobile warfare. His men retained complete confidence in him through victory into adversity, they were tough and battle-hardened, skilled at squeezing the last ounce from meagre resources. As element commanders at all levels suffered casualties, deputies would step into the breaches to sustain the momentum of battle. All understood the battle plan and were thoroughly accustomed to working with each other; above all they understood their commander’s *modus operandi*. They possessed good weapons and used them flexibly, with telling effect.

Force parity didn’t seem to concern Rommel while his nerve held; he fought and won on a logistic shoestring. He retired his army from Egypt through Libya into Tunisia with remarkable success long after he’d been deprived of logistic support, of reconnaissance and any form of air support. A number of historians and contemporaries have criticised Rommel for overstretching his administrative support. This may well be fair comment, as he did act before his logistics were in place, believing in surprise over ponderous preparation, and gambling on overrunning enemy caches of food and fuel. Notwithstanding, his every action exemplified economy of effort.¹⁵

Advancing a further fifty years, we find an abundant example of military economy in the Gulf War, although the straight dollar costs were high. Intelligence, mobilisation, and deployments were wholehearted and unstinted. The 100-day high-tech air phase demonstrated how a recalcitrant and aggressive nation can be dominated to the point of being neutralised at the cost of a handful of casualties. Short of avoidance of armed conflict, the Gulf War will stand as a magnificent example of military economy.

The proposition that economy of effort is not so much an orthodox exercise in thrift, but one of getting other factors right seems to be well supported. These latter include: technological edge, force multipliers, intelligence,

sensible teeth/tail ratios, quality of manpower, political and military will and competence, diplomatic skill and vigour, and force sustainability – a function of preparedness.

Turning to force multipliers, the most important centres on capable and responsive maintenance reaching from industry to elements organic to the fighting units. It is indeed alarming that the peacetime thrust can be directed towards a level of contracted commercial support that might well impair operational efficiency because neither the second shift nor ready field replacements would be available for sustained deployed operations. The answer that industry will provide is too glib and ignores the likelihood that manpower will need to be retained to sustain increased output at the factory level, or of the civil air fleets for example. The perceived economies are beguilingly attractive but may well prove false economy when the acid test is applied. Top-grade field maintenance is so important that care is required in drawing the peacetime line between in-house and commercial support.

Force multipliers may not feature prominently in orders of battle, yet they enhance substantially the effectiveness of the front line units. Obvious examples are underway replenishment and air refuelling which add value to the overhead of mounting operational missions: extended time on station, extended range and payload, enhanced flexibility and therefore survivability.

In the broad sphere of preparedness, teeth to tail ratios are the most popular source of critical comment and probably the least understood by dilettantes. One must concede that numbers in support can be staggering. Churchill certainly thought them so. Field Marshal Sir Alan Brooke records: 'In the middle of a cabinet meeting he would turn to me and say, "Please explain, CIGS, how is it in the Middle East 750,000 men always turn up for their pay and rations, but when it comes to fighting only 100,000 turn up. Explain to us exactly how the remaining 650,000 are occupied."' Brooke comments, 'Not exactly an easy answer to give in the middle of a cabinet meeting.'¹⁶ The facts of life are that support of military operations is expensive. Even seemingly simple peacekeeping operations will have a large cost if the forces are unable to live off the civilian infrastructure. A serviceman cannot do for himself and give the hours to his job that most operations demand. It is a difficult problem: responsive support is essential for the man and machine in the field; the tendency to featherbed will be present, though probably not as great as perceived by the journalist, or politician, or analyst anxious to make headlines. There will be times too, when the fighting serviceman will be called upon to operate frugally and he will accept the circumstances and fight well without diminution of his fighting spirit.

Leadership and sound intelligence stand out as the dominant factors that determine the efficient employment of military effort. Intelligence across the spectrum of strategic, theatre, and tactical scenes should receive the highest priority. Likewise, informed and completely unselfish leadership from the prime minister to the smallest military entity will have the greatest bearing on the effectiveness of finite forces charged with the prosecution of hazardous operations. Furthermore, preparation and training has to be hard and realistic. The writer recalls paying a compliment to the Royal Air Force on its low air accident rate in 1985–6. The chief of air staff's response was as chilling as it was unexpected: 'Well thank you, we're concerned though that we may not be training with sufficient realism.' Ruthless? Not at all. The comment leads our consideration to the more unpalatable fact that the highest casualties in war fall on the inexperienced, which is why the RAAF and other air forces seek to join the USAF in Red Flag exercises where warshot weapons are released in a realistically simulated unfriendly environment. This is the toughest training available and the debriefing process is devoid of self-delusion.

Peacetime parsimony is an unfair burden to heap on military shoulders. The opening battles should never provide the training grounds for one's own forces. Economy of effort is best achieved if political leadership and diplomacy equips itself with sufficient teeth to either avoid conflict or commit forces to battle with the knowledge that they are indeed ready.

9 Flexibility

There are 2,000 years of experience to tell us that the only thing harder than getting a new idea into the military mind is to get an old one out.

Captain Sir B. Liddell Hart

Flexibility

‘Able to bend easily without breaking, adaptable or variable.’ Flexibility is defined thus in the *Collins English Dictionary*. In the military jargon describing flexibility as a principle of war, the wording is intended to convey much more than the meaning shown in the *Collins English Dictionary*. One may adapt to a situation simply by accepting its influence on a set plan or, under duress, be forced to introduce an unwanted variation. The exercise of flexibility as intended in military use – and indeed in modern usage generally – is to change the plan, to adopt or create other options, to do whatever is necessary to achieve the set objective, ‘the aim’.

Flexibility has an enormous and widespread influence on planning. It is a consideration that should constantly occupy the mind of every military officer from the staff officer to the most senior commanders and their staffs. The lieutenant colonel or equivalent writing the staff requirement for a weapons system to come into his service in eight or ten years hence, and to remain in service for perhaps another twenty years, should aim to ensure that every possible capability that can be derived without unacceptable compromise of its primary role, or unacceptable cost escalation, is obtained. He should be looking to provide the future commander and operator with options to enhance operational flexibility.

But, and this is central to this whole chapter, the actual exercise of flexibility is germinated in the mind of the commander – at whatever level.

It is not difficult to show evidence of this planning in the development of weapons over time, particularly in recent decades where software has replaced hard wired systems. A modern naval frigate, primarily required for ocean surveillance and anti-submarine warfare, can provide a good contribution to air defence, not only of a fleet, but of the port or other area in which it is located. It can carry helicopters for reconnaissance and for over-the-horizon identification. It can carry a stand-off smart weapon that provides the potential to engage major enemy surface ships. Aircraft such as the F-111, designated a tactical fighter, can be used for strategic or tactical strike, anti-shipping strike, ocean surveillance, long-range intercept, close air support, offensive

counter-air. In fact it was used successfully in several of these roles in the Gulf War. But this is not a new phenomenon: Rommel used the 88 mm anti-aircraft gun as a very useful piece of general artillery and particularly as an effective anti-tank weapon in 1941, much to the discomfort of his British adversary.¹

There is clearly a requirement for defence industry to be developed and administered in a way that will allow rapid changes to production and to facilitate quick-time research and development, and modification that might be required to meet the urgent needs of the defence force. The sudden and enormous increase in helicopter production necessitated by the Vietnam War, and the unexpectedly high use of cruise missiles and precision guided missiles in the Gulf War imposed severe strains on industry but were able to be accommodated by a sound infrastructure and trained, skilled and innovative personnel. This is an aspect of flexibility that tends to be overlooked by politicians and bureaucrats in time of low threat; a time when the armed Services themselves are having options, and thus flexibility, reduced by that political euphemism ‘downsizing’.

War is an activity that involves the nation as a whole. Those directing the civil structures – government, the bureaucracy, industry and private enterprise – should all possess that flexibility of mind that the principle flexibility requires of the military officer. The need for this is not recognised, nor is it taught in most civil institutions. Fortunately the trait of flexibility is inherent in many top managers and businessmen just as it is in some military people. It could be more widely developed by education.

It is in the operations of war where events move swiftly and where the stakes are high – in human life and perhaps the fate of the nation – that flexibility is an essential attribute of the successful commander. In war it is rare for an operation to go wholly as planned. A change in the weather, in the expected reaction of the enemy, the failure of planned support or supply may all plague the commander at some time. Addressing his officers, Helmuth von Moltke, Prussian chief of staff for some thirty years, cautioned ‘you will usually find that the enemy has three courses open to him; of these, he will adopt the fourth!’ To retain or to regain the initiative the commander must respond to a changed circumstance by modifying his plan as necessary to achieve the aim. On occasion it may even be necessary to develop an intermediate aim as a way of proceeding. The capacity to decide and to implement change in a timely and decisive manner is probably the most demanding and yet the most essential characteristic of the good commander – flexibility of mind.

However, flexibility can also be, and should be, exercised in a positive way and planned in advance. It does not always have to be reactive. It can

be exploited by taking advantage of flexibility in the forces available. On the first day of the 1967 Arab–Israeli war the Israeli Air Force allocated all but twelve Mirage fighter aircraft, retained for air defence, to strikes against the Egyptian, Syrian and Jordanian air forces: almost a total commitment to offensive counter-air operations. For the rest of the week the Israeli Air Force swept the Sinai desert annihilating Egyptian ground forces in support of the advancing armoured columns of the Israeli Army; a classic air superiority battle exploited by changing the immediate role of the available air assets.² Twenty-three years later the multi-role capability of the aircraft assigned to Desert Storm was used to the full extent as the air battle with all its facets and then the ground battle unfolded.

The flexibility conferred by the multi-role capability of modern weapon systems is of particular importance to the forces of middle and small powers. It has a force multiplying effect that can often provide second- and third-rate powers with a range of capabilities hitherto confined to major powers – but to a more limited extent.

It has been mooted in discussion on flexibility as a principle of war that it should make special reference to mobility, even to the extent that the principle be retitled ‘flexibility and mobility’.³ There is no doubt that a high level of mobility enhances the opportunity for the exercise of flexibility. This is recognised in the capabilities of naval and air forces in particular. However, flexibility can be applied to a range of situations which may have no relation to mobility. Rules of engagement may need to be flexible for military or political reasons – they have nothing to do with mobility. There are a myriad of situations where mobility is not relevant. For this reason it would be wrong to include ‘mobility’ in the title. Nevertheless it should be well recognised and stated in the description, that mobility adds a dimension which enhances the flexibility available to a commander in the use and manoeuvre of assigned forces.

It is interesting to see how this aspect – and indeed, flexibility in general – is covered in the descriptions of the British Services. Flexibility is not included as a principle of war by the US Services. This omission will be discussed later.

Royal Navy

Flexibility. War demands a high degree of flexibility to enable pre-arranged plans to be altered to meet changing situations and unexpected developments. This entails good training, organisation, discipline, and staff work, and, above all, that flexibility of mind and rapidity of decision on the part of both the commander and his subordinates which ensures that time is never lost.

It calls also for physical mobility of a high order, both strategically and tactically, so that forces can be concentrated rapidly and economically at decisive times and places. In short, flexibility is the capacity to compete with a rapidly changing situation and to seize fleeting opportunities. Flexibility is inherent in maritime warfare, and the mobility of maritime forces is their most valuable asset. Sound logistics organisation is an essential support of flexibility.

British Army

Flexibility. ‘No plan of operations can look with any certainty beyond the first meeting with the major forces of the enemy. The commander is compelled ... to reach decisions on the basis of situations which cannot be predicted’ (General Field Marshal von Moltke). Although the aim may not alter, a commander will be required to exercise judgement and flexibility in modifying his plans to meet changed circumstances, taking advantage of fleeting chances or shifting a point of emphasis. Flexibility depends upon the mental component of openness of mind on the one hand, and simple plans which can easily be modified on the other. A balanced reserve is a prerequisite for tactical or operational flexibility.

Royal Air Force

Flexibility. Although the aim may not alter, a commander may be required to exercise judgement and flexibility and modify his plans to meet changing circumstances, take advantage of fleeting chances or shift a point of emphasis. Flexibility demands trust, good training, organisation, discipline, staff work and, above all, that flexibility of mind and rapidity of decision on the part of commanders and their subordinates which ensures that time is not wasted. It also calls for a degree of mobility which ensures that redeployments can be adopted rapidly and economically. This poses an inherent danger: air power is a particularly flexible instrument of military force but care must be exercised in diverting it for tasks not directly linked to the main aim. Although diversions may be necessary in crisis, all demands should be critically examined in the light of the overall strategic situation before diversionary tasks are undertaken. Unless this examination is unbiased, air power may be frittered away in secondary tasks with consequent prejudice to the overall aim.

Comment

All three Services rightly stress that flexibility demands flexibility of mind and rapidity of decision on the part of the commander and his subordinates.

It would be correct to say that this is the cardinal point of flexibility. The other factors, all important, simply determine the extent to which the commander may exploit this principle.

The British Army opines that flexibility entails the maintaining of a reserve. It is difficult to see this being essential to a commander's exercise of flexibility. It implies that once reserves have been committed, the opportunity for flexible response to changing circumstances has gone. This is obviously not so. It would be more correct to put the view that the availability of a reserve will extend the options available and thus enhance the degree of flexibility a commander can exercise.

The Royal Air Force says that flexibility calls for a degree of mobility for the purpose of redeployment. It is certainly true that mobility will enhance the opportunity for flexibility but there are many ways where flexibility can be exercised without having the slightest bearing on mobility. For instance, the flexibility to switch the concentration of strike operations from offensive counter-air operations to concentrating on the enemy's command and control infrastructure may have no link whatsoever with mobility. In Desert Storm the coalition air forces went from the assaults on strategic targets to support of the ground offensive, without any change in the requirement for mobility. As stated earlier in this chapter it would be more correct and would keep the matter of mobility in proper perspective to describe how the opportunity to apply flexibility can be greatly enhanced by a high degree of mobility. It may well be that this is more apparent in the strategic sense than tactically. This could vary with the situation.

Although flexibility is very often a matter of the moment, the outcome of the many considerations that beset a commander in battle, pre-planning will enhance the commander's options. Pre-planning in the sense that the forces allocated to the task provide for a range of options. This means multi-role weapons systems, a full array of weapons, flexible administrative and logistic plans – and authority commensurate with the commander's responsibilities. It is then up to those having command authority to take advantage of the flexibility offered.

It is somewhat surprising that this principle does not find a place in the principles of war codified by the armed forces of the United States. More particularly so as American commanders from Washington to Schwarzkopf have demonstrated an inherent bent for this attribute. (This is not to deny that there have been notable exceptions.)

A good modern example of flexibility is General Schwarzkopf's quick response to an unexpected action during the Gulf War. In his own words these were the considerations that faced him:

Just before noon a crucial bit of news came in: the Kuwaiti resistance radioed that the Iraqis had blown up Kuwait City's desalination plant. Since Kuwait City had no other source of drinking water, this could only mean that the Iraqis were about to leave. And if they intended to pull out of Kuwait City, I reasoned that they intended to pull out of Kuwait. At this point I knew I had to act. Timing is everything in battle, and unless we adjusted the plan, we stood to lose the momentum of the initial gains. I'd fought this campaign a thousand times in my mind, visualising all the ways it might unfold, and from the fragmentary reports coming into the war room I could discern that the Iraqis were reeling. If we moved fast we could force them to fight at a huge disadvantage; if we stayed with the original timetable, they might escape relatively intact.

After contacting his subordinate commanders and securing the agreement of the Egyptian, Saudi and other Arab commanders, Schwarzkopf gave the order and, at three o'clock that afternoon, 'we let loose the main attack of Desert Storm'.⁴ Just three hours after the report on the destruction of the desalination plant!

On the subject of innovation and flexibility of mind, Field Marshal Rommel had this to say when commenting on his victory over General Ritchie in the Western Desert in May/June 1942, referring to the traditional inflexibility of the officer corps, German as well as British:

The only military thinking that was acceptable was that which followed their standardised rules. Everything outside the rules was regarded as a gamble; if it succeeded then it was a result of luck or accident. This attitude of mind creates fixed, preconceived ideas, the consequences of which are incalculable.

And a paragraph later:

Thus the modern army commander must free himself from routine methods and show a comprehensive grasp of technical matters, for he must be in a position continually to adapt his ideas of warfare to the facts and possibilities of the moment. If circumstances require it he must be able to turn the whole structure of his thinking inside out.⁵

Does flexibility rate inclusion in the principles of war? Yes it does. So widespread are the possible areas for implementation that provision to enable a capable commander to exploit it should be a consideration in all planning, from the specification of weapons systems to the formulation of industrial, logistic and administrative plans at national level and at command. Whilst this may come about as a result of training, it is unlikely that such training

would extend beyond the military. Even in military circles modern warfare has continued to expose an abysmal inflexibility of mind amongst military officers. If regard is paid to the view of Captain Sir Basil Liddell Hart quoted at the commencement of this chapter, there should be a strong preference for retaining flexibility as a principle of war. Together with the other principles, it will remind those formulating military plans and plans for the military that they should not inhibit future flexibility. It never hurts to remind even the most senior of commanders of the value of a flexible mind when waging war.

ADDENDUM BY DR ROSS BABBAGE⁶

Flexibility – The Negative Aspects

Introduction

Flexibility in the military context is taken here to mean the capacity to adapt readily to unforeseen or changed circumstances. Flexibility, together with mobility, is a key factor in the economic concentration of force.

Flexibility is fundamentally about opportunities. Military force should be threatened or applied so as to create opportunities which can be flexibly and decisively exploited. Corollaries involve active anticipation, early comprehension and rapid reaction.

As a principle, therefore, flexibility is an important consideration at all three levels of war – strategic, operational and tactical. The overriding limit to flexibility is best explained by a tenet of management theory which holds that ‘flexibility is the capacity to suffer change without severe disorganisation’. The generation and exploitation of opportunities (true offensive action) must be limited by prudent risk concerning surprise, attrition and exposure of one’s own centre of gravity.

Within the framework of internal and external limitations applying at each level of war, flexibility can be discussed usefully in terms of personnel and equipment – the basic ingredients of military force. High-quality personnel is the indispensable condition to the exercise of flexibility. Flexibility of mind recognises or creates the opportunity; the extent to which it is exploited depends in a large part on the force structure available.

Internal Constraints on Flexibility

Numerous factors that constrain flexibility are intrinsic to defence organisations. Aside from the critical issue of personnel quality they normally include limitations in defence budgets, equipment affordability, training

facilities and training time, and practical operational experience at unit, high command and political levels. Other constraints on flexibility may be caused by factors such as inadequate surveillance and intelligence, weak command, control and communications, poor or non-existent planning, inappropriate or over-specialised equipment and units and undeveloped logistic capacities.

External Constraints on Flexibility

Beyond a defence organisation, many other factors may seriously limit military flexibility. They include the nature of the international political environment, the location of a dispute, the form of an opponent's military activities, the level of understanding of a country's leadership (and its willingness to avoid interfering in tactical decision making), the knowledge and commitment of a nation's people and the scale and nature of a country's resources – its population, territory, finances, technology and so on.

There is little point in attempting to list the wide range of other external factors that may be relevant in constraining flexibility. It is sufficient for the purposes of this brief discussion to note that some limits on military flexibility are the product of broader circumstances and are largely unavoidable. However, many other factors are amenable to planning, influence and change.

Trends in Flexibility

One needs to be cautious in generalising about trends in military flexibility. Much depends on specific circumstances and conditions. For almost every potential trend, it is possible to identify an exception.

Some factors are clearly increasing flexibility, especially at the tactical and operational level. For example, long-range surveillance, precision guided weapons, stealth technologies and highly integrated electronic communication, command and control systems certainly offer greater military flexibility in many environments. They have the effect of providing tactical and operational options in many circumstances that simply did not exist forty years ago.

However, at the strategic level, the trend is generally in the opposite direction – towards significantly reduced flexibility. This is primarily a result of several important changes in the international and national contexts for military operations.

The world of the 1990s is clearly a substantially different place to that of the late 1940s and the consequences for strategic flexibility are profound. One important change has been a marked diffusion of global power. Since the end of World War II, the United States' share of world economic product has halved and the shares held by Japan, Europe and a number of developing countries have risen sharply. This trend has been mirrored by similar shifts in the balance of advanced technologies and military capabilities. Following

the collapse of the Cold War, the United States remains clearly the single most powerful country. In purely military terms it retains daunting capacities for precision strikes and selective intervention. But for a broader range of military operations, and even more importantly in political terms, the United States has far less strategic flexibility than in the past.

A second and related factor that is affecting the context for military operations is the rise of economic issues on international security agenda. Economic growth and all factors relevant to its development and maintenance is now central to the concerns of most national governments, and economic issues are frequently the prime focus of international negotiation and competition. There is a general appreciation that in the long run, economic strength is generally a more influential and decisive element of national power than military capability, and hence there is a frequent preference to employ economical and political measures when a generation ago military forces may have been engaged.

This reduced attractiveness of military measures has been reinforced by the rapid growth in world trade and in the level of economic interdependence. World trade as a percentage of global economic product has risen from under 12 per cent in 1960, to over 20 per cent in 1990. In general, this has not invalidated the international employment of military force, but it has raised its costs and reduced greatly the flexibility for its use in many situations.

Another factor that has strengthened limitations on strategic flexibility is the greatly increased sensitivity of many, if not most, domestic publics to the employment of military force. While war has always been a political act, the instantaneous beaming of battlefield activity into the lounge rooms of nations has an impact on strategic and operational flexibility that did not exist in the 1940s or 1950s. Many types of military activities are subjected to instantaneous scrutiny, frequently by people not well-equipped to understand or assess the images they see. This is extremely difficult to control.

The greatly increased international transparency and the collapse of the Cold War have strengthened another layer of strategic level constraint – that generated by international organisations. The United Nations, the Conference on Security Cooperation in Europe, the Organisation of American States, the Association of Southeast Asian Nations and other similar agencies are in a much better position than in the past to act as foci of response or reaction to breaches of unacceptable international behaviour. In only a few instances can such organisations prevent or veto military operations, but in many situations they can mobilise and apply very substantial international pressure to constrain military activity.

In combination, these important changes in the strategic context for military operations have had the effect of constraining strategic flexibility

significantly. This is not to say that military force can no longer be applied. It can. But the clear trend at the strategic level has been to narrow the flexibility available for the application of military force.

The strength of these strategic constraints on flexibility varies according to circumstances and, especially, the contingency type. Flexibility is probably greatest at each end of the contingency spectrum. In a defence of the homeland situation, where a nation is literally fighting for its survival, political limits on military flexibility are likely to be few. At the other extreme, when small forces are deployed for signal or display purposes in peacetime, strategic flexibility may again be largely unconstrained.

Strategic flexibility is probably subject to greatest constraint in limited war. This is particularly the case when a nation (especially a western democracy) seeks to deploy substantial forces (with the prospect of significant losses) for an extended period for a very limited political objective. The French experience in Algeria and Vietnam, the American and Australian experience in Vietnam and the Israeli experience in Lebanon in 1982–5 are cases in point. When large-scale forces are required to engage in limited conflicts, most countries are politically ill-equipped to sustain such operations for extended periods. An important corollary is that for most countries contemplating the prospect of limited war, there are greatly strengthened incentives to insure rapid and decisive victory.

Conclusion

This brief discussion not only underlines the fact that there are numerous constraints on flexibility, but that many are growing stronger, particularly at the strategic level. The international context for military operations is, in many ways, quite different to that of the 1940s. The consequent constraints on flexibility are clearest in the circumstances of limited conflict when there are likely to be severe political limitations on the types of operations, their scale, location and duration.

When looking to the future, it seems probable that the international political context for military planning and operations will continue to change. This deserves close monitoring because the scope for miscalculating available flexibility is great and the consequences of error for the outcome of campaigns may be far-reaching.

10 Cooperation

Four brave men who do not know each other will not dare to attack a lion. Four less brave, but knowing each other well, sure of their reliability and consequently of mutual aid, will attack resolutely. There is the science of the organisation of the army in a nutshell.

Colonel Ardant du Picq

The quote of Colonel du Picq may well be extrapolated to encompass the mass of agencies involved in modern war. Even within a single service there are great fiefdoms that guard jealously the boundaries of their responsibilities. Extend this to the government, bureaucracy, industry and the separate Services, and the breadth of agencies required to cooperate in prosecuting a war, is vast. Add allied or coalition forces and the requirement is increased by several orders of magnitude. And yet, how very important is this seemingly innocuous and self-evident principle of war. Indeed, one may say that it should be so self-evident to parties trying to reach a common goal that it hardly needs to be promulgated. In that vein, it is of interest that cooperation is not included as such in the principles set down by the United States armed forces. The reason for this will be examined later in this chapter.

From these few observations two questions arise. In the art of warfare, where is cooperation required? How is it achieved? Clausewitz wrote of a 'remarkable trinity' that has been referred to earlier. A trinity of the government, the armed forces, and the people. This trinity of course, includes the range of activities of each element so that it incorporates the economy, industry, commerce, the service industries, and so on. In total war, each has a part to play. In writing on cooperation for a narrow military document, it would be permissible to address only those aspects that apply to the armed Services. To a large extent this has been the method in writing the descriptions of the British Services that embrace cooperation as a principle of war. These can be examined at this stage.

Royal Navy

Cooperation is based on team spirit and entails the coordination of all units so as to achieve the maximum combined effort from the whole. Above all, goodwill and the desire to cooperate are essential at all levels. The increased interdependence of the Services on one another has made cooperation between them of vital importance in war. Cooperation between two forces

or units in war often makes it possible to achieve something which neither could achieve independently. Another important aspect of this principle is the need for cooperation in dealing with an unforeseen situation. The ability to see the other man's point of view, and to relate it to one's own, is an essential preliminary to true cooperation.

British Army

Cooperation. Cooperation is based on team spirit and training, and entails the coordination of the activities of all arms, of the Services and of allies, for the optimum combined effort. Goodwill, a common aim, a clear division of responsibilities and understanding of the capabilities and limitations of others are essential for cooperation.

Royal Air Force

Cooperation is based on team spirit and entails the coordination of all activities to achieve the maximum combined effort from the whole. It is a means to attaining concentration of force with economy of effort in pursuance of the aim. Above all, goodwill and the desire to cooperate are essential at all levels, not only within any one service, but also between the separate national Services and between allies. Only by full cooperation between the Services can the right balance of forces be achieved and joint service plans be made to provide effective defence.

Comment

While these descriptions vary in the breadth, they all state quite unequivocally that cooperation is based on team spirit, goodwill, and a desire to cooperate, to see the other's point of view. The Royal Air Force description rightly points to the ultimate purpose, to achieve concentration of force and economy of effort in pursuance of the aim.

One may look at past operations to see how cooperation has indeed been an essential ingredient of success, providing for the most effective and economical use of the forces available.

Wellington was successful at Waterloo because of the cooperation of Blucher and his Prussians. Indeed, his decision to defend the Mont St Jean position was taken only on the assurance that the Prussians (even one corps) would engage Napoleon's right flank. In spite of a clear-cut tactical defeat at Ligny just two days before, Blucher was determined to honour that

commitment. He was able to regroup his forces at Wavre and launch his troops against the French right flank ... albeit at the eleventh hour.

The cooperation between the *Luftwaffe* and the *Wehrmacht* in ground operations and, indeed, by all corps of the German field army in the blitzkrieg of 1940 and throughout the war, whilst capability to do so remained intact, was the model that prompted the allied forces to develop a similar degree of cooperation, and quickly. Perhaps the first example to emerge was in the Middle East between the Desert Air Force and the 8th Army. Close and intimate cooperation was hammered out rather painfully between 1941 and October 1942, but thereafter it was efficient and effective throughout the campaign. In a lengthy and laudatory comment on army–air cooperation in 1943, Montgomery stated, ‘there are not two plans, army and air, but one plan, army-air which is made by me and the Air Vice-Marshal together’.¹

The degree of personal closeness and thus cooperation may be gathered from the fact that Montgomery on arrival moved his headquarters; to be adjacent to the air headquarters and from the report of Air Marshal Barratt who visited advanced air headquarters during the Battle of Alam el Halfar, 30 August to 6 September 1942:

Each evening the GOC had a personal meeting with the AOC at which I was present. Montgomery gave him the clearest possible appreciation of the situation, the information as he knew it, what he intended to do himself, and what he expected the enemy to do. The AOC then said what he could do himself, and a general air plan was agreed upon. A further conversation took place the following morning as the result of events, ground and air, during the night.²

The United States Army Air Force quickly displayed its readiness to cooperate when the 316th Troop Carrier Command, using DC-3 (Dakota) aircraft, lifted 130,000 gallons of fuel for the Desert Air Force in the El Agheila operation and again 153,000 gallons to the Marble Arch desert landing ground in December 1942 and January 1943.³ It was a capability not available from the RAF transport aircraft at that time.

Appreciating the readiness of the Royal Navy to cooperate when planning Operation Torch, the assault on North Africa in 1943, General Eisenhower said, in referring to the naval commander of the operation, Admiral Andrew Cunningham, Royal Navy, ‘There will always live with me his answer when I asked him in the fall of 1943 to send the British battle fleet, carrying a division of soldiers, into Taranto Harbour, known to be filled with mines and treachery’: ‘Sir’, he said, ‘His Majesty’s Fleet is here to go wherever you may send it!’⁴

In the Southeast Asian Region there was the close cooperation between the irascible American, General Stillwell ('Vinegar Joe'), and Britain's hard-headed General Bill Slim. A cooperation built on mutual respect and the genuine desire to cooperate that such respect generates. It was in sharp contrast to the rivalry and jealousy that obtained between Stillwell and the other senior American commander in the region, Major-General Claire Chennault, commanding the China-based air forces. As General Slim noted, 'Their enmity did not help the allied cause; still less did the activities of their publicity merchants.'⁵

However, on the credit side, as Slim frequently declared, victory in Burma would not have been possible without the total and continuous cooperation between the allied air forces and the 14th Army, particularly in providing tactical transport support.

One could go on with examples of close cooperation in war at all levels; in ancient times, often assured by virtue of autocratic rule. In more modern times, by genuine desire at all levels; the ability of industry to provide for the operational needs of the defence forces, to invest in costly research and development in order to produce better weapons. The long-range fighter of World War II is simply one of hundreds of examples that could be noted. The willingness of the civilian community to accept shortages of fuel, clothing, consumer items and to work extended hours (often under less than satisfactory conditions) are all examples of cooperation readily given.

It would seem, therefore, that the need for the matter of cooperation to be designated a principle of war is superfluous, unnecessary. As stated earlier, the need for cooperation is self-evident. However, a more thorough examination of warfare indicates that cooperation has often been subordinated to self-interest – in earlier times, when mercenaries and conscripted armies formed the bulk of a defence force, and regrettably during World War II and later conflicts of the twentieth century.

The United States Navy's antipathy to General Douglas MacArthur and the belief of its top echelon that the Pacific War was predominantly a navy preserve was a barrier to genuine cooperation. There was strong opposition to MacArthur's appointment as supreme commander, with Admiral King, chief of naval operations, arguing that since the war with Japan would be largely naval, naming an army officer as supreme commander made no sense. He refused to allocate carrier forces to MacArthur. His nomination for command was Admiral Chester W. Nimitz. The chiefs of staff compromised by creating two separate theatres of operation. Whilst this violated all conventional military precepts, the complementary nature of the operations mounted turned out to be quite successful.⁶ Actually, it came about

because of the unwillingness of Navy to cooperate with an Army-led theatre command.

On the other side of the globe, self-interest or self-delusion exposed many examples of an unwillingness to cooperate.

In the summer of 1942, when German U-boats were inflicting staggering shipping losses on the lifeline from America, there was every chance that the war could be lost in the Battle of the Atlantic. The Royal Navy, realising the critical value of support from the Royal Air Force Coastal Command, sought significant allocations of long-range aircraft to that command. Whilst the size of the request, in the order of 800 aircraft, was unrealistic, the need was urgent and a more modest allocation well justified. However, the Chief of the Air Staff opposed the dissipation of RAF resources in order to strengthen Coastal Command alone. Sir Arthur Harris chose that time to pen a minute directly to the prime minister, expounding his views on the proper use of air power:

We are free, if we will, to employ our rapidly increasing air strength in the proper manner. In such a manner as would avail to knock Germany out of the war in a matter of months, if we decide upon the right course. If we decide upon the wrong course, then our air power will now, and increasingly in the future, become inextricably implicated as a subsidiary weapon in the prosecution of vastly protracted, and avoidable land and sea campaigns.⁷

Clearly, Harris lacked a balanced perception of the vast operations of war taking place outside his own operations. He was blinded by introspection. One might find it difficult to accept that he genuinely believed, in mid-1942, that Bomber Command could 'knock Germany out of the war in a matter of months'. If this is not accepted, then his only conceivable motive in penning such a message to the prime minister was to pre-empt any attempt to reinforce the sorely placed Coastal Command from the resources of Bomber Command. Hardly an exercise in cooperation for defence of the realm! However, to be fair, after the declaration of the combined chiefs of staff at the Casablanca conference (January 1943) that 'the defeat of the U-boat must remain a first charge on the resources of the united nations', Harris allocated bombers to attack U-boat construction yards in Germany – regrettably with only very modest success.

Harris was not the only senior officer to jealously guard his own domain. What might have been seen as a basic requirement in the vital Battle of the Atlantic was a unified command to control all operational assets and activities. Indeed, since the strained joint service relationships of the Spanish–American War in 1898, American commanders have been aware of the need for

something better than cooperation; for instance, unity of command. But, in spite of this, the proposal for a unified command for the Atlantic was rejected by the formidable Admiral Ernest King, United States Navy, allegedly on the grounds that, at the time, command would have been vested in a British commander.

One might think, or might like to think, that these unfortunate displays of parochialism would have vanished as latter-day officers learned the lessons of earlier campaigns. Regrettably this has not proven to be the case. Vietnam again saw what might almost be described as an indecent struggle for command authority. In the first instance this may have been due to a different perception on the part of the United States Services of the Vietnam situation. The Army saw it simply as a counter-insurgency affair to be countered by ground action, with air power in support. The Navy and Air Force looked to the likelihood of escalation, possibly involving China. Thus, where the Army saw the command structure being based on the Military Assistance Command Vietnam (MACV) and later advocated an Army-specified command; that is, commanded by the Army with the other Services in support, MACV or a specified command if formed, would report directly to the joint chiefs of staff (JCS). (In actual fact this means to the secretary for defence, through the JCS.) The commander-in-chief Pacific (CINCPAC) saw Vietnam as part of his command area and his responsibility. Under this arrangement MACV would report to him. His air component commander, commander-in-chief Pacific air forces (CINCPACAF) would command the air elements supporting MACV through subordinate formations. The Army tried again in 1964 for a specified command but again the CINCPAC view prevailed.

At the same time as this controversy was going on, the Air Force, recognising the central role of air power in tactical operations, sought to have an Air Force general appointed as deputy commander MACV. The commander would not sanction this on the familiar story that it was predominantly a ground operation and he needed an Army deputy. Instead he proposed the establishment of a deputy commander for air operations. Air Force would not agree to MACV's proposal and continued to press for an airman as deputy commander. Eventually a post of deputy commander for air operations was created and filled. However, the logical assumption that this would bring unity of command to air operations in South Vietnam was thwarted by the decision of the Commander MACV not to place army helicopters or marine tactical air assets under the control of the deputy commander for air operations.

A similar degree of stupidity was introduced into the control of air operations in North Vietnam. The logical arrangement, taking cognisance

of the principle of unity of command, would have been for CINCPAC's air component commander, CINCPACAF, to control those operations. This was put to him strongly by the Air Force. It was just as strongly opposed by the Navy and the commander, Pacific fleets (CINCPACFLT). The commander-in-chief Pacific sided with his Navy colleague and the absurd system of route packages whereby North Vietnam was divided into six discrete areas was introduced. Route Package I was allocated to the Air Force (strikes directed by MACV); Route Packages II, III and IV to the Navy, V and VI to the Air Force (directed by PACAF). Route Package VI, containing the most important targets and the strongest defences, was divided into Route Packages VIA and VIB. The Air Force was allocated VIA; and the Navy, VIB.

The command arrangements become even more ludicrous when air operations in Laos and from Thailand are examined. However, enough has surely been divulged to convince the reader that the matter of 'cooperation' or 'unity of command' was far from guaranteed by the wisdom of experience, or from promulgated principles of war by the time the Vietnam War had reached its sad conclusion. Indeed, almost a decade later it was the clumsy, inappropriate command arrangements, created to satisfy competing service bids, that contributed to the failure of the attempt to rescue hostages from the American embassy in Tehran.

The point of this discussion has been to establish the ongoing importance of cooperation. Clearly, it is vital to efficient operations, to economising effort and to the ability to concentrate at the right time and place. Arrangements that simply coordinate are not good enough.

However, adopting cooperation as a principle of war as the British have done is clearly not enough; it has not prevented frequent violation. The 'desire' to cooperate is not guaranteed. It would seem that the United States Army and Navy have appreciated this deficiency and sought to achieve cooperation by embracing the principle, unity of command. Part of the reasoning for this, taken from a now superseded issue of Army Manual FM-105, reads: 'While coordination may be achieved by cooperation, it is best achieved by investing a single commander with requisite authority.'

As the examples recounted above show, this seems to have been singularly unsuccessful, possibly because the command arrangements failed to confer adequate authority to that single commander.

Surprisingly, and regrettably, the most current description of unity of command promulgated by the United States Army is less precise than earlier versions. In endeavouring to tie unity of command and unity of effort together it clouds the issue rather than clarifying it. It tends to be all things to all men for all occasions and in so doing dilutes the authority that stems from unity

of command. The extant description of the principle unity of command promulgated by the United States army states:

Unity of Command

For every objective, seek unity of command and unity of effort. At all levels of war, employment of military forces in a manner that masses combat power toward a common objective requires unity of command and unity of effort. Unity of command means that all the forces are under one responsible commander. It demands a single commander with the requisite authority to direct all forces in pursuit of a unified purpose.

Unity of effort, on the other hand, requires coordination and cooperation among all forces – even though they may not necessarily be part of the same command structure – toward a commonly recognised objective. Collateral and main force operations might go on simultaneously, united by intent and purpose, if not command. The means to achieve unity of purpose is a nested concept whereby each succeeding echelon's concept is nested in the other. In combined and interagency operations, unity of command may not be possible, but the requirement for unity of effort becomes paramount. Unity of effort – coordination through cooperation and common interests – is an essential complement to unity of command.

What is sought overall is the cooperation of the whole nation. However, the government and civil agencies are not subject to the discipline of command and thus unity of command cannot apply outside the armed Services. One can only suggest education and public awareness as the best way to achieve this in the general community. Within the military organisation, the best way of ensuring cooperation must be in a sound command structure. The fact that this has not succeeded in the examples quoted in this chapter, does not render it impossible. The simple fact is that, on occasion, powerful individuals have been able (allowed is probably a better word) to thwart the system. To prevent this it should be a responsibility of the command organisation at the highest level to guard against such breaches; a matter, in the United States system, for the Joint Chiefs of Staff and the equivalent in other organisations.

An important course to follow in the first instance must be to emphasise the essential nature of cooperation and ensure that it is covered adequately in military education at all levels. In the past this has not been helped by the use of different titles for a principle that seeks the same result, nor by very different descriptions.

Like the Army, the United States Navy has selected 'unity of command'. However, the Navy description is rather simplistic:

Ensure unity of effort for every objective under one responsible commander. Whether the scope of responsibility involves a single, independent ship at sea or the conduct of an amphibious landing, we achieve unity in forces by assigning a single commander. After he expresses his intent and provides an overall focus, he permits subordinate commanders to make timely, critical decisions and maintain a high tempo in pursuit of a unified objective. The result is success, generated by unity of purpose, unit cohesion, and flexibility in responding to the uncertainties of combat.⁸

Before finalising discussion on this principle, it is convenient to examine the principle of war now listed by the United States Air Force as unity of command. The description given in the *Air Force Manual* is:

Unity of Command. Ensure unity of effort for every objective under one responsible commander. This principle emphasises that all efforts should be directed and coordinated toward a common goal. At the strategic level of war, this common goal equates to national political purposes and the broad strategic objectives that flow from them. The common goal at the strategic level determines the military forces necessary for its achievement. To develop full combat power, these forces must be coordinated through unity of effort. Coordination may be achieved by cooperation; it is, however, best achieved by vesting a single commander with the requisite authority to direct all forces employed in pursuit of a common goal.

In the United States, the president is the commander-in-chief of the armed forces and, at the strategic level, is assisted in this role by the secretary of defence and the chairman of the joint chiefs of staff. Combatant commanders contribute to attaining national objectives by achieving theatre and subtheatre goals.⁹

Just as the latest description of unity of command issued by the United States Army weakens the intent of the principle, that now promulgated by the USAF is a significant improvement, designed to tighten cooperation through command authority. Also the change of title from unity of effort to unity of command brings it into line with the other American Services. Unfortunately the descriptions set down by the Services are still too diverse.

In summary, cooperation is vitally important and particularly in modern war. Much remains to be done in educating military personnel, and others involved in the conduct of war, in the essential nature of the team approach that cooperation calls for. On balance it is more likely to be achieved by sound, logical command arrangements. This should be an aspect emphasised very strongly in the principle, unity of command. The title, unity of command, is preferable to cooperation used in the British principles of war and also to

unity of effort formerly promulgated by the United States Air Force. If the British title is changed at some time in the future, the descriptions should be reviewed so that the aspect of cooperation is given adequate attention.

In the case of the armed forces of the United States some important steps have been taken to resolve the contentious problem of cooperation by legislation. The provisions of the Department of Defense Reorganisation Act 1986 is intended to give combat commanders the full range of authority needed to meet their responsibilities. This is expanded in the publication *Unified Action Armed Forces* which defines a flexible range of command relationships specifying degrees of command authority that can be granted to operational commanders to accomplish their mission.¹⁰ No doubt it was the authority decreed under these provisions that enabled General Schwarzkopf to insist on unity of the air war under one commander in Desert Storm. However, loopholes are still there to enable minimal response if another service is so inclined. The provision that they are not required to assign forces required for their own operational needs leaves latitude for only partial cooperation if a particular service wishes to be 'difficult'. In the Gulf War was the assignment of the Navy air effort all that it could have been?

It is somewhat surprising that the descriptions of unity of command promulgated by the United States Army, Navy and Air Force do not refer to the orders and instructions referring specifically to this matter. The steps taken by the United States joint forces to introduce legislation to resolve the long-standing problem of cooperation are commendable. They could well be considered by other nations. However, could the 1986 Defense Reorganisation Act be improved? Does limiting 'combatant command' (command authority) to combatant commanders only leave the problem half solved? Are the loopholes just another compromise? All these matters should be resolved before another operational situation appears – while there is the opportunity to consider them in slow time.

ADDENDUM BY MARSHAL OF THE ROYAL AIR FORCE SIR PETER HARDING

Cooperation

I strongly believe that, irrespective of developments in modern warfare, the principles of war remain as valid today as they were when they were written. Indeed, I always had a copy in my desk or a printed list on display in my office for all to see.

One of the most important principles, in view of modern technology and the speed at which events now take place, is 'cooperation'. Today, for most operations we call it 'jointery'. But it still means the vital need for all forces to operate together. Cooperation is essentially team spirit and entails the coordination of all activities to achieve the maximum combined effort. This can only be done with well-developed, well-understood and well-practised techniques. Moreover, goodwill and the desire to operate together are essential at all levels, not only within and between the Services, but also increasingly between allies and friends.

The risk of all-out global war has receded significantly, so in one way the threat to world peace has reduced, but there is clearly an increase in lesser but still significant conflict and, if anything, this is likely to worsen. With the demise of the Cold War and the balance between the two great superpowers, which provided a measure of discipline among some countries, a growing number of nations have become less constrained, and the tendency immediately to resort to conflict to solve their problems or achieve their goals is growing. The seriousness of this should not be underestimated in view of, among other things, the growing complexity of civilisation (and the stability needed to sustain it) and the serious proliferation of nuclear, biological and chemical weapons, the horrors of which do not need explanation. Less threat: more conflict! All this results in an ever-increasing need for organisations such as the United Nations and NATO to respond.

Many conflicts may start merely as a need for a presence, such as the traditional UN 'blue beret' force; others may require very large and complex forces, working under the auspices of the UN, such as those in the Gulf War. Some starting with a light infantry battalion in the conventional UN role may soon escalate into a requirement for an all-arms, highly technological force as has happened in the former Yugoslavia where, among other things, fighters, aircraft carriers and armoured ground forces have been deployed.

If future conflict is likely not only to include forces from all three elements – air, land and sea – but also from many different nations, the vital need for cooperation is clear. This will pose a significant challenge for the future. Without NATO and its clearly understood concepts of operations, and well-practised tactical doctrines and standard operational procedures, which the bulk of the force understood and the other nations were able to learn over a period of preparation (which will not always be the case), it is arguable whether such an ambitious and brilliant Gulf War campaign could have taken place. Cooperation in this case started nearly forty years ago in response to the old Soviet threat. Years of harmonising activities in a multinational, multidisciplinary environment showed their enormous worth.

There are few operations today where a single-nation, single-service force would be anything like sufficient. The vast majority of actions, and certainly the most important ones, require at least two of them and more than one arm of each. For example, modern anti-submarine operations are best carried out with a combination of towed-array nuclear submarines (SSN) and very capable long-range maritime patrol aircraft. The 'jointery' or cooperation ashore required for such operations over a large area of ocean is considerable, particularly if a significant surface force is also present and an air threat pertains. In the land/air context, the modern battle requires the interactions of air defence, strategic and tactical aircraft, with their necessary tanker support, and all-arms ground forces (including their organic air defences). Many, if not most, aircraft will be operating at low level, often in direct support of those ground forces. The coordination of air and ground-based air defence alone is difficult enough, but to ensure that the risk of 'blue-on-blue' engagements is minimal and that optimum firepower is placed exactly where it is most wanted and in a timely manner, requires a formidable set of joint procedures and, perhaps even more important, the correct attitude at the overall joint headquarters right down to the individual ground unit and aircraft captain. Without full and eager cooperation and an immense amount of earlier joint training, such operations could only end in disaster.

A superb example of such cooperation between a number of air forces was, indeed, the Gulf War air campaign, where thousands of sorties per day were carried out throughout each twenty-four-hour period in complete R/T silence and without any 'blue-on-blue' engagements. Truly a model of cooperation.

Why then, some say, is it not time for an end to individual Services and the merging of all arms into a single defence force? There are many, but in particular two, compelling reasons why this should not be so. The first is that, in most joint international conflicts, it is the navies and ground and air forces which merge into single fighting arms. This was particularly so in the Gulf War, where a long multinational air campaign and numerous maritime operations took place before the ground war started. Of course, all operations were carried out under joint command, but each element was under a sea, land and air component commander and thus integration below the top level of command was between the various national sea, land and air forces. Another joint force below the main headquarters would have been disastrous and led to conflicting orders and actions since, for example, aircraft must be free to roam over the whole theatre as the situation demands. Moreover, it is 'peacetime' cooperation between international single Services which ensures that they get to know each other's tactics and operational procedures, enabling them more easily to come together in times of stress. Second, more and more in this increasingly unstable world, men and women are likely to

find themselves in situations where operations are ordered overnight and where such actions will not be concerned with the survival or even the security of their own country and yet these men and women may be asked to carry out tasks that could result in death or serious injury. For me, that requires something more than the mere statement that 'that is what they are paid for'. Forces in democratic countries are not mercenaries. Men and women need to believe in something bigger than themselves – something they cannot let down, something that has tradition and history, like the regiment or service. Without this sense of identity, people will not always go to the limit, which is so often essential to ensure that comrades are protected and that the operation is carried out as quickly, effectively and economically as possible. For me, the words 'regimental spirit' sum it up for all the Services. Thus, whatever the needs of 'jointery', I believe it remains vital to retain the individual Services and regiments.

However, fighting under one's own colours or in one's own uniform puts yet further emphasis on bringing people up to a 'joint way'; otherwise, for example, petty jealousies or internecine fights over resources may produce an ethos which, when it came to action, could jeopardise lives or even the operation.

But how to do this? I believe that it starts by setting an example at the lower and middle levels of command. It is easy to gain popularity with one's own kind at hitting out at the others or by denigrating their efforts. I am glad to say that, in the British armed forces, this is almost a thing of the past, and the current marriage of the three Services is an example to many. Nevertheless, marriages need constant attention and so does the attitude to 'jointery'. Second, it is important to introduce joint issues at an early stage of operational training. This should not be difficult because today many forces are operating together on a regular basis, the number of international crises and national operations occurring concurrently being legion. Third, later in life, joint staff training is essential. I do not believe in merely replacing existing single-service staff colleges with a joint one for I feel that each individual needs to become expert in his or her own discipline first. It would be like trying to grow one's beef, cabbages and potatoes in the same field. All one would get to eat would be hash. Better to have well-grown foods, separately raised then covered with 'purple' or 'joint' gravy! If individuals in a joint headquarters are not complete experts in their own arm, then the commander is likely to get poor advice. Moreover, one element below will invariably be a single element command, where expertise is no less than vital to ensure success. So, after staff college, there should be joint service staff training. It is not cheap to have both, but it is even more expensive to experience

setbacks or even failure later in the field, and the political costs could be very high.

It is impossible in a short essay to do justice to such an important principle of war as cooperation, but if I end with a final comment it is this. We must find a balance between the traditional needs of the individual fighting Services and those of cooperation or ‘jointery’. The latter is vital to success if forces are to operate in highly complex environments, but so is the former if they are to succeed; we tamper with our traditional values at our peril. I do not see a problem if it is approached in the right spirit. There are those who feel that all must be sacrificed on the altar of ‘jointery’, and clearly those who believe that the good of their individual Services must be paramount. Happily, both camps are getting smaller. But, at the end of the day, the only way to win is to have first-class fighting Services, which are eager and prepared fully to cooperate to ensure success.

11 Administration

At Dien Bien Phu, the French simply had not got the means to keep the base supplied with reinforcements, ammunition, food and medical necessities.

William Seymour

It was Field Marshal Montgomery, when chief of the imperial general staff in 1946, who recommended administration as a principle of war for the British Services. It was adopted by the three Services. Obviously it was his extensive experience of high command in North Africa, Italy and France/Germany that impressed this aspect of modern warfare on his mind. Twenty years later, writing on generalship, he said how hard experience in battle had taught him that what he wanted to achieve at the front had to be matched by the administrative situation in the rear. Thus commanders had to become involved in administration which, he noted, was often called logistics.

It is interesting to note the connection Montgomery made between administration and logistics. It would seem that he considered them one and the same. However, the definition of each as agreed in the NATO glossary is:

Administration. The management and execution of all military matters not included in tactics or strategy, primarily in the field of logistics and personnel management.¹

Logistics. The science of planning and carrying out the movement and maintenance of forces in the most comprehensive sense, those aspects of military operations that deal with:

- design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel;
- movement, evacuation and hospitalisation of personnel;
- acquisition of construction, maintenance, operation and disposition of facilities; and
- acquisition or funding of Services.²

Clearly, by definition, administration encompasses a larger field than logistics and in fact subsumes the latter. However, in spite of these agreed definitions there are many who contend that the principle should be titled logistics rather than administration. This will be addressed later in the chapter.

Taking cognisance of the scope of this principle it is surprising that the United States armed forces do not include it as a principle of war. If it is

accepted that the principles of war are important guidelines that commanders should consider in relation to every plan, be it at the highest strategic level or a tactical action, it would be difficult to assert that administration does not warrant consideration. History shows that disregard of administrative detail in war has often led to failure. Given the complexity of modern warfare, often fought thousands of miles from the main national base, it is even more likely to do so in the future.

The irony of this omission by the United States forces is that in the field of logistics, the capability of the United States is unmatched by any other nation. One might assume that this capability is due simply to a super abundance of materiel and transportation vehicles enjoyed by the Americans. To do so would be to ignore the superior administrative capability demonstrated by the Union army in the war between the states over 130 years ago. Defeat of the Confederate army was certainly not because the masters of operational strategy were to be found in the north. Lee, Jackson and Stuart were not outclassed by superior generalship but by the capacity of their enemies 'to mobilise superior industrial strength and manpower into armies which leaders like Grant were able, thanks largely to road and river transport, to deploy in such strength that the operational skills of their adversaries were rendered almost irrelevant'.³ Victory lay in the ability to bring the largest and best equipped forces into the operational theatre and maintain them there. This administrative capability has been a dominant feature of American war fighting since that time. Perhaps because it has become such a national characteristic, evident in commerce and industry as well as in the military, that it is not thought necessary to formalise it as a principle of war.

The power of logistics and the penalties of failing logistic support was demonstrated repeatedly in World War II. Rommel in the Western Desert and later in Tunisia was defeated by the failure of logistic support from German and Italian base areas. Charles Douglas-Home concludes:

During his two years in Africa Rommel twice marched 1,500 miles eastward up the desert and twice retreated 1,500 miles down the desert with the British Army performing the same movement in reverse. The key to the strategy of the desert war – but not its tactics – was logistics. The reason each army was compelled to beat such a hasty retreat each time it had completed a speedy advance was because it had overstretched its supply lines farther than the 300 or 400 miles that was the farthest from base that a desert army could operate. Rommel tried to defy these logistic imperatives in 1942 by pushing his advance to the absolute limit of his troops' physical endurance and beyond the limits of supply. He failed.⁴

Whilst the criticism is substantially correct in that Rommel's failures were due mainly to lack of supply, the limits of 300–400 miles are arguable. Furthermore Douglas-Home fails to comment on the attrition to the German and Italian forces inflicted by the Desert Air Force in the first instance and later by the allied air forces interdicting supplies transiting across the Mediterranean Sea. This observation is made only to indicate the importance of targets affecting the enemy's administrative capability.

Rommel's situation is poignantly illustrated by short extracts from letters to his wife:

20 Dec 1941

Dearest Lu,

We're pulling out. There is simply nothing else for it. I hope we manage to get back to the line we've chosen. Christmas is going to be completely messed up. I'm very well. I've now managed to get a bath and a change, having slept in my coat for most of the time for the last few weeks. Some supplies have arrived – the first since October. My commanding officers are ill – all those who aren't dead or wounded.

22 Dec 1941

Retreat to A— ! You can't imagine what it's like. Hoping to get the bulk of my force through and make a stand somewhere. Little ammunition and petrol, no air support. Quite the reverse with the enemy. But enough of that⁵

Perhaps Rommel's immediate German superior, Field Marshal Kesselring, summed it up succinctly with: 'the supply problem still remained the joker in the pack as far as North Africa was concerned'.⁶

If further evidence were needed to demonstrate the crucial importance of sound administration and logistics it can be found in the total defeat of Nazi Germany in World War II. No qualified military historian, military officer or student of the military art would judge the fighting quality of the German soldier or the ability of *Wehrmacht* generals to be less than outstanding – by any standards. In the end the crushing defeat inflicted was, in no small way, brought about by the failed ability to deploy rapidly and sustain men in battle. The plight of vast armies, inadequately clothed for the Russian winter, short of fuel and other crucial supplies, their generals given no leeway for manoeuvre or retreat, is all well documented. Even given the inflexibility of Hitler's direct command they may well have survived had the logistics organisation been able to maintain them in fighting condition. In the west the fighting capacity of the German divisions was continually eroded as allied air power struck at the administrative and industrial infrastructure.

By contrast one can note the extraordinary capacity of the logistic organisation supporting the allied forces. From 1943 on it was an effective colossus supporting forces in three theatres, the Pacific, the Mediterranean and the build-up of invasion forces in the United Kingdom. In 1944, with the invasion of Europe in full swing the demands were enormous and commanders had to plan their operations to accord with the reality of the supply situation. General Omar Bradley illustrates this when writing of the situation that constrained his activities in September 1943:

It had become increasingly clear that sooner or later we would be forced to halt, regroup, and establish a new line of supply from the deep water ports on the Channel north of the Seine. Until those new and shorter supply lines were established we dared not even contemplate a major offensive across the Rhine.⁷

The sheer size of the logistic organisations and the scope of logistic operations presents a visibility that dwarfs the parent principle – ‘administration’. Before widening the examination to administration as a whole, it will be useful to note the descriptions promulgated by each of the British Services.

Royal Navy

The administrative arrangements of a force (ie., the logistic organisation and the management of units) must be designed to give the commander the maximum freedom of action in carrying out his plan. The administrative organisation must be well understood by those in command. Every operational commander must have a degree of control over the administrative plan for his sphere of command corresponding to the scope of his responsibilities for the operational plan. In short, this principle means that careful attention must be paid to everything that a force requires to keep it efficient and in fighting trim; the operational commander must know what the administrative arrangements are so that he can take them into account when drawing up his plans.

British Army

Administration. Sound administration is a prerequisite for the success of any operation. Logistic considerations are often the deciding factor in assessing the feasibility of an operation. A clear appreciation of logistic constraints is as important to a commander as his ability to make a sound estimate of the operational situation. No tactical plan can succeed without administrative

support commensurate with the aim of the operation: it follows that a commander must have a degree of control over the administrative plan proportionate to the degree of his responsibility for the operation. Scarce resources must be controlled at a high level: the administrative organisation must be flexible enough to react to changes in the situation with the most economic use of the available resources.

Royal Air Force

Administration. Sound administration is the pre-requisite for success in any operation. Logistic considerations are often the deciding factor in assessing the feasibility and influencing the outcome of an operation. A clear appreciation of logistic constraints is as important to a commander as his ability to make a sound estimate of the operational situation. No tactical plan can succeed without administrative support commensurate with the aim of the operation: it follows that a commander must have a degree of control over the administrative plan proportionate to the degree of his responsibility for the operation. Scarce resources must be controlled at high level. Administrative arrangements must be designed to give the commander the maximum freedom of action in executing the plan. Every administrative organisation must be as simple as possible. The operational commander must have a clear understanding of the administrative factors which may affect his activities. He must control the administrative plan which supports his operational plan.

Comment

All these descriptions stress, very correctly, that the administrative arrangements must be devised to allow the commander the maximum freedom of action. They stress also that he should have control of administrative plans within his sphere of command and appropriate to his operational responsibilities. By the same token the commander must be aware of constraints that administrative factors place on his operations. The description presented by the Royal Air Force makes the point that the administrative plan must be as simple as possible. A simple plan, being more easily modified, confers greater flexibility, should change be necessary. The crux of the matter is that the administrative tail should not wag the operational dog. Clearly, all aspects of the administrative plan, but particularly the area of logistics, must be as flexible as possible. Wherever possible the commander must have the flexibility to modify the operational plan in reaction to an unexpected event. The logistics plan that allowed Slim to swing his main attack from the

Mandalay area to Meiktila, some eighty miles to the south, during the Burma campaign in 1945, is a good example. It was typical of Slim's grasp of logistics. Commenting on Slim's generalship, Lieutenant General Sir Geoffrey Evans observed, 'In the operational field Slim's success in Burma sprang from his meticulous strategic and logistics planning.'⁸

The other area where good administration is crucial is in the field of personnel management. Servicemen and women, often separated from family and friends and a normal lifestyle, subject to service discipline and the constraints and demands it involves, at times living in harsh conditions and exposed to extreme danger, are particularly sensitive to poor, inept, uncaring, inefficient administrative arrangements and procedures. The efficiency of arrangements for the effective provision of rations, mail delivery, news, recreation, religious services, health facilities, casualty evacuation and so on, will have a very definite effect on morale. Service people will accept enormous hardship and privation when it is due to enemy action or any circumstance beyond the control of their organisation, but they will not tolerate administrative inefficiency – humbug. Experience has shown quite clearly that the quality of administration is reflected in the fighting quality of the operational elements. As a general rule all systems dealing with the welfare of military personnel should be simple, easily understood, widely promulgated and efficient.

In reviewing this principle, consideration has been given to the fact that administration was not introduced as a principle of war until 1946 and then only by the British. (But later by Australia and some other commonwealth countries.) It has not been adopted by any of the United States Services; Services that display an outstanding capability in this aspect of warfare. The demonstration of American administrative capability in the Gulf War was overwhelming evidence of this. So, one might ask, is it necessary to include administration as a formal principle of war?

We get no hint of this from Clausewitz. He concentrated on the strategic and operational use of armed forces rather than the raising and maintenance of such forces and thus did not demonstrate the importance of administration and logistics in his writing. On the other hand one might interpret his statement, 'The best strategy is always to be very strong, first in general, and then at the decisive point',⁹ to assume the administrative and logistics capability to do so. It is perhaps a serious weakness in Clausewitz's writing that he gives no emphasis to this essential aspect of warfare.

The author holds firmly to the view that there is a surfeit of evidence throughout the history of warfare to support the retention of administration as a principle of war. More important to this review is the fact that administration/logistics is becoming an increasingly crucial factor in modern

war where global distances, combined operations, and a mix of coalition partners, often of different cultural background, add to the complexity of the task. Indeed, as stated in the descriptions given by the British Army and the Royal Air Force, logistic considerations are often the deciding factor in assessing the feasibility of an operation.

Notwithstanding the point made earlier in this chapter that the definition of administration actually subsumes the logistic task, the latter, by dint of modern usage, may be better understood by military personnel than is administration. However, to change the title simply to logistics could be seen to dilute the importance of administration, with its very crucial considerations in regard to the management of personnel. To adopt a new title of Administration and Logistics would focus attention on all aspects of what is presently subsumed in the principle of administration. This should not require a consequential change to the NATO glossary.

ADDENDUM BY MAJOR GENERAL YU JIANZHONG

Administration and Logistics

Administration and logistics in Chinese military terminology have different meanings. They refer to different areas of activities. Administration concerns the management of the daily routine of units. It focuses on the handling of the internal relationship within the armed forces. Logistics, more or less, carries the same meaning as other major armed forces interpret it. We think that administration is important, though it is not a principle of war. One of the three cardinal principles of the political work of our armed forces is to achieve the unity between officers and men. The other two are the unity between the army and the people, and undermining enemy forces by treating leniently the prisoners of war. One cannot imagine that any army will be victorious while its internal relationship is very poor.

Logistics is a principle of war. This is the hard truth people have learned from the war itself. Even our ancestors knew it very well. China has had a long history which witnessed numerous wars. Many lessons have been drawn from those wars. One of them is that people came to understand the enormous importance of logistics in any warfare. There was a motto amongst our ancient generals, 'To transport grains and fodder to the right places before you move your troops.' That carried almost exactly the same idea as the present-day's 'forward deployment'. One of the military essentials to win a battle in those old days was to destroy the enemy's grain and fodder stores before you attacked the enemy. If you succeeded in doing so, the battle was

already half won. In ancient times, logistics mainly concerned soldiers' rations and horses' fodder. Logistics in modern warfare is much more complicated yet, its importance, far from being reduced, has been increased. In the Korean war of the early 1950s, the front line was more or less stabilised on the 38th parallel. Apart from political considerations, the key factor was logistics. Neither side had the capabilities to go further and sustain operations, due to logistics problems.

I fully agree with the author's view, logistics is a principle of war.

12 Simplicity

The art of war is simple enough. Find out where your enemy is. Get at him as soon as you can. Strike at him as hard as you can and as often as you can, and keep moving on.

Ulysses S. Grant

No military officer would dispute the efficacy of simplicity in every area of military endeavour – operations, administration, strategy, tactics, in combat or in staff work. It has been demonstrated and extolled by many of the most successful and perceptive exponents of war over many years.

Simplicity is stressed in staff training by all western countries. Brief, pithy, written papers presenting courses of action and military solutions are expected of students attending staff colleges. Indeed, what has been developed and proudly presented as ‘military writing’ is the essence of simple, non-extravagant prose – concise and accurate. It was the hallmark of the staff college graduate.

Unfortunately, as military officers took their place in the higher defence organisations, integrated with civilians of the civil service in the task of preparing reports and appreciations for civilian and political masters, the difference in the approach and writing technique was immediately evident. To gain acceptance the military have found it necessary to adopt the lengthy, ponderous, over-wordy practice of the Civil Service – introducing aspects that clearly do not warrant argument, simply to satisfy a misguided demand for ‘completeness’. It would seem that the value of a report is judged more by the number of pages (or volumes) than its substance. The ‘executive summary’, which bears a close resemblance to a military paper in total, has become the normal accessory. In 90 per cent of cases it is the only part-read by busy executives.

Although regrettable, the advent of this nugatory staff effort does no harm in itself. However, after years of exposure to this convoluted process, military officers can have difficulty in re-establishing the simplicity of approach so important in the military art. It is a factor to be appreciated and guarded against. Perhaps Napoleon’s comment on over-cleverness, referred to in the introduction to this book, should be impressed on officers returning to field appointments.

Actually, the well-read military officer will have the comments of many of the great captains to guide him along the path of simplicity. Clausewitz referred specifically to the language of military theorists and their propensity

to over-use jargon, technicalities and metaphors where at times the analyst 'no longer knows just what he is thinking and soothes himself with obscure ideas which would not satisfy him if expressed in plain speech'.¹ This tendency is not confined to theorists but, if not stamped out from the outset of officer training, is apt to surface in the writing of military orders and instructions, so that no one will know what the writer really means.

Rommel, writing on the Battle of Sollum in 1941, commented that 'Wavell's strategic planning of this offensive had been excellent. The enemy's plan had been extremely simple, but simple plans are in most cases more menacing than complex ones.'²

Field Marshal Sir William Slim, commander of the 14th Army in Burma and later chief of the imperial general staff, wrote:

The principles on which I planned all operations were: The ultimate intention must be an offensive one. The main idea on which the plan was based must be simple. The idea must be held in view throughout and everything else must give way to it. The plan must have in it an element of surprise.³

And from Montgomery, one of the most cautious of successful commanders, a meticulous planner, he succinctly exposes the art and the difficulty of keeping things simple: 'Military problems are in essence simple; but the ability to simplify, and to detect from the mass of detail those things and only those things which are important, is not always easy.'⁴

Simplicity therefore seems to be widely, if not universally, accepted by military staffs and commanders. One might then ask, why it has not been adopted by the British forces as a principle of war? Or alternatively, why is it included in the principles selected by the United States armed forces?

That the British regard simplicity as a factor of significant importance can be deduced from the descriptions of 'the aim' and 'administration' put out by the British Army and the Royal Air Force. For example, the British Army states: 'It is essential to select and define the aim clearly'; and again, 'it must be unambiguous and attainable with the forces available'.

In a similar way the Royal Air Force stresses clarity and simplicity in defining both 'the aim' and 'administration'.

In essence the British view seems to be that simplicity – brevity, conciseness, simple, non-extravagant language, clarity and accuracy – are stressed from the earliest stages of officer training and that of senior non-commissioned officers. It is given further emphasis in staff and leadership training. It is therefore expected to be so ingrained in senior military personnel that to promulgate it as a discrete principle of war is unnecessary.

It is pertinent therefore to examine and consider the descriptions of this principle promulgated by the American forces before making a judgement as to whether it should be included as a principle of war.

United States Army

Simplicity. Prepare clear uncomplicated plans and concise orders to ensure thorough understanding.

Everything in war is very simple, but the simple thing is difficult. To the uninitiated, military operations are not difficult. Simplicity contributes to successful operations. Simple plans and clear, concise orders minimise misunderstanding and confusion. Other factors being equal, the simplest plan is preferable. Simplicity is especially valuable when soldiers and leaders are tired. Simplicity in plans allows better understanding and troop leading at all echelons and permits branches and sequels to be more easily understood and executed.

United States Navy

Simplicity. Avoid unnecessary complexity in preparing, planning, and conducting military operations. The implementing orders for some of the most influential naval battles ever fought have been little more than a paragraph. Broad guidance rather than detailed and involved instructions promote flexibility and simplicity. Simple plans and clear direction promote understanding and minimise confusion.

Operations Order 91-001, dated 17 January 1991 summarised the allied objectives for the Desert Storm campaign into a single sentence: 'Attack Iraqi political-military leadership and command and control; sever Iraqi supply lines; destroy chemical, biological and nuclear capability; destroy Republican Guard forces in the Kuwaiti theatre; liberate Kuwait.' These objectives were succinct, tangible, and limited.

United States Air Force

Simplicity. Avoid unnecessary complexity in preparing, planning, and conducting military operations.

Guidance, plans, and orders should be as simple and direct as attainment of the objective will allow. At the national level, the strategic importance of the principle of simplicity extends well beyond its more traditional military application. It is an important element in the development and enhancement

of public support. Political and military objectives and operations must therefore be presented in clear, concise, and understandable terms.

In its military application, this principle promotes strategic flexibility by encouraging broad guidance rather than detailed and involved instruction. At the joint force level, simplicity of plans and instructions contributes to successful operations. Direct, simple plans and clear, concise orders are essential in reducing misunderstanding and confusion. A simple plan executed properly and promptly may be preferable to a complex plan executed later.

Comment

In reviewing these descriptions one might observe that the American Services practise what they preach – brief, concise definitions. Perhaps a little too skeletal to cover the definition adequately. However, the United States Air Force is more expansive, making the important link to public support. Obviously this is more likely to be obtained if political and military objectives are presented in clear, understandable terms. The USAF also makes the point that a simple plan executed promptly may be preferable to a complex plan later.

Given the technical complexity of modern weapon systems, some reference could perhaps be made to the importance of simplifying field maintenance of such equipment. This is a matter that should be considered at the design stage.

Before reaching a conclusion on the need to include simplicity as a principle of war it is worth recalling the purpose of these principles. They have been adopted because they have stood the test of time; principles of war that were employed in the past appear again and again throughout history. It has been established that they are aspects of war that should be given particular attention when undertaking military activity at any level – in planning and in operations. However, it will have been noted in earlier chapters that a single principle may, if so defined, subsume what another service may promulgate as a discrete principle. For example, in Chapter 5 I contend that ‘defensive’, which had been adopted by the USAF as a separate principle of war, is subsumed by the principle of ‘security’. But essentially, the purpose of codifying principles of war is to confer a status that demands that they be taken into account in planning military operations. That is to say, they should all be considered but not necessarily all applied – there will be occasions where they are in conflict.

Having confirmed the purpose, the question now arises, should simplicity be included? One might say that it has not historically been established as a principle of war and therefore accept the British view that simplicity – and

the attributes that attach to it, conciseness, brevity, unambiguity, clarity – is fundamental and should be so ingrained by training that it is unnecessary. It might be considered no more necessary than to include, for example, discipline. However, this view in itself may be over-simplistic. It may well hold good in peacetime but to assume that it will do so in war is to ignore the stress inevitably brought about by the friction of war; the fog of uncertainty whereby plans and actions may be put in jeopardy. Quite clearly, the more simple the plan, the less the likelihood of its being compromised or misunderstood, and the easier it will be to modify as required by circumstances. It would therefore seem prudent that simplicity be included in the guidelines commanders and other military authorities consider at the very outset of their planning. It is of sufficient importance to be included as a principle of war. The description promulgated by the United States Services exemplifies what is intended by this principle. However, a brief expansion to include the link between this principle and public support would have merit – as would reference to the field maintenance of weapons systems.

ADDENDUM BY ADMIRAL RICHARD C. MACKE

Simplicity

I find a cruel paradox in the ‘principles of war’: ensigns and lieutenants find them to be ‘too simple’; admirals and generals hold them to be ‘too complex’.

Early in our careers, our military experience is a ‘blank slate’ on which we are eager to inscribe ‘the bedrock of doctrine’⁵ and concepts advertised by none other than Napoleon to ‘have regulated the great captains whose deeds have been handed down to us by history’.⁶ But as junior officers, we find the principles of war to be too general and too abstract. The principles of war, like the Oracle of Delphi, seem to justify any and all courses of action.

As senior officers, we revisit the principles of war, this time from the vantage point of a lifetime of memories and opinion. But this rich context of experience clouds our perception with a keen awareness of exceptions, doubts and contradictions inherent to the principles of war. When most eager to embrace the principles, we cannot appreciate them; when most prepared to understand them, that very understanding urges caution!

Convinced that we must enthusiastically preserve any institution that can indiscriminately torment both lieutenants and admirals, I am pleased to contribute my own observations on the principles of war, particularly the principle of simplicity.

The historian Bernard Brodie suggested that a principle of war is ‘a sort of short-hand, wherein a mere phrase can convey a considerable body of thought and mutual understanding’.⁷ This definition is not too far off the mark, but serves the purposes of the academic rather than the warfighter. I define a principle of war as ‘a fundamental idea that focuses the application of combat power’. The history of warfare is the story of our endless search for more effective and more efficient application of combat power. Writing after the American Civil War, General Ulysses S. Grant stated that:

The art of war is simple enough. Find out where your enemy is. Get at him as soon as you can. Strike at him as hard as you can and as often as you can, and keep moving on.

Condensing almost forty years of study and experience in the application of combat power to fifty words or less, I would characterise the essence of war as follows: Hit the enemy where he least expects, applying overwhelming force at the point of contact. Secure and consolidate your gains, and then – as your enemy reacts to your first blow – hit again in another place.

Like that of U.S. Grant, my personal formulation incorporates mass, manoeuvre, surprise, security, offensive, and – to some degree – all the other principles of war. Most importantly, it encompasses the very important notion that *war is a duel*. Battle is not a unilateral undertaking. We must never lose sight of the fact that we are dealing with a living, thinking opponent.

Although we seek simplicity and enhanced understanding in our own minds, we seek overwhelming complexity and anxiety in the mind of the enemy commander. Given that we share the same battle, how do we reconcile this apparent contradiction between friendly simplicity and enemy complexity? To do this, we distinguish between ‘simplicity in execution’ and ‘complexity in concept’.

The challenge of ‘simplicity in execution’ has been recognised for a long time. Clausewitz noted that:

The conduct of war resembles the workings of an intricate machine with tremendous friction, so that combinations which are easily planned on paper can be executed only with great effort. The free will and the mind of the military commanders, therefore, find themselves constantly hampered, and one needs remarkable strength of mind and soul to overcome this resistance. Many good ideas have perished because of this friction, and we must carry out more simply and moderately what under a more complicated form would have given greater results.⁸

If Clausewitz described Napoleonic warfare as ‘the workings of an intricate machine’, we can only imagine his assessment of modern joint and combined

arms operations. The enhanced complexity of modern combat offers even greater opportunity for friction, with adherence to simplicity – wherever possible – the only antidote.

Fortunately, modernisation has also brought enhanced tools for intelligence and planning. Simplicity in execution does not mean that we are restricted to simplicity in concept. We can employ advanced intelligence systems and planning procedures to develop concepts of operation that carefully synchronise our multiple combat means and anticipate the entire range of enemy reactions. A sophisticated concept of operation is reduced to clear, simple orders to facilitate simplicity in friendly execution. Through the simultaneous, concentrated focus of multiple combat systems, that same execution presents overwhelming complexity to the enemy.

In illustration I offer the ‘left hook’ by the US Army in Desert Storm. Fundamentally, the move around the flank of the Iraqi Army was a sophisticated concept developed after months of advanced intelligence analysis, planning, and logistic preparations. Wargaming, clear orders, and superior command and control facilitated simplicity in execution. From Saddam Hussein’s perspective, the complexities brought on by the air campaign were suddenly exacerbated exponentially by an immediate, deep threat to his lines of communication. With too many problems to solve in too little time – and virtually no information – headlong withdrawal was his only option.

The principle of simplicity is fundamental to the application of combat power. The drive to maximise the relative disparity between friendly simplicity and enemy complexity, moreover, is at the heart of our interest in Information Warfare. We have only begun to tap the potential of the digital revolution. The enemy’s decision cycle is extended; ours is compressed. The end result is victory.⁹

Simplicity in United States Doctrine

Why does United States doctrine stand alone in the advocacy of simplicity as a principle of war? Several aspects of our historical experience account for this.

Over the last century, much of the American military experience has been characterised by overseas expeditionary warfare. The complexities and coordination challenges inherent in these operations underscore the imperative of simplicity in plans and orders. Similarly, our planning usually must accommodate the technical and political complexities of coalition warfare. More recently, United States armed forces have advanced joint warfare to

a high art. This complex challenge reinforces our drive for simplicity in operational execution.

In addition, as the military arm of a democracy, we must win not only victory but also the support of the people and their elected representatives. Interestingly, a 1981 doctrinal explanation of simplicity cited this factor quite explicitly:

If the American people are to commit their lives and resources to a military operation, they must understand the purpose which is to be achieved. Political and military objectives and operations must therefore be presented in clear, concise, understandable terms.

Although it is always dangerous to characterise the ‘typical American’, I would add that we are generally inclined to disparage complexity. Although few Americans can rattle off the principles of war, most of us can translate the acronym ‘KISS’: ‘Keep It Simple, Stupid.’

I will sum up, therefore, in the true spirit of my topic. Simplicity is a fundamental principle of war. Embrace it.

13 Manoeuvre

I never thought myself beaten so long as I could present a front to the enemy. If I was beaten at one point I went to another, and in that way I won all my victories.

The Duke of Wellington

As noted in Chapter 9, the principle of flexibility has not been adopted by the armed forces of the United States. There was some thought that the principle of manoeuvre was simply an American adaptation of flexibility. However, an examination of the descriptions does not support this view. The descriptions of the United States Army, Navy and Air Force should be read before further consideration of this principle.

United States Army

Manoeuvre. Place the enemy in a position of disadvantage through the flexible application of combat power.

Manoeuvre is the movement of forces in relation to the enemy to gain positional advantage. Effective manoeuvre keeps the enemy off balance and protects the force. It is used to exploit successes, to preserve freedom of action, and to reduce vulnerability. It continually poses new problems for the enemy by rendering his actions ineffective, eventually leading to defeat.

At all levels of war, successful application of manoeuvre requires agility of thought, plans, operations, and organisations. It requires designating and then shifting points of main effort and the considered application of the principles of mass and economy of force. At the operational level, manoeuvre is the means by which the commander determines where and when to fight by setting the terms of battle, declining battle, or acting to take advantage of tactical actions. Manoeuvre is dynamic warfare that rejects predictable patterns of operations.

United States Navy

Manoeuvre. Place the enemy in a position of disadvantage through the feasible application of combat power. Use of manoeuvre (mobility) capitalises on the speed and agility of our forces (platforms and weapons) to gain an advantage in time and space relative to the enemy's vulnerabilities. Whether in historic warships 'crossing the T' or modern ground forces enveloping

an enemy, or forcing the tempo of combat beyond an adversary's ability to respond, manoeuvre allows us to get ahead of the enemy in several dimensions. Our advantage comes from exploiting the manoeuvre differential – our superiority in speed and position relative to our adversary.

United States Air Force

Manoeuvre. Place the enemy in a position of disadvantage through the flexible application of combat power. In the strategic sense, this principle has three interrelated dimensions: flexibility, mobility, and manoeuvrability. The first of these involves the need for flexibility in thoughts, plans, and operations. Such flexibility enhances the ability to react rapidly to unforeseen circumstances. The second dimension involves strategic mobility, which is especially critical in reacting promptly to concentrate and project power against the primary objective. The final strategic dimension involves manoeuvrability within a theatre to focus maximum strength against enemy weakness and thereby gain strategic advantage.

In a theatre of operations, manoeuvre is an essential element of combat power. It contributes significantly to sustaining the initiative, to exploiting success, to preserving freedom of action, and to reducing vulnerability. The object of manoeuvre is to concentrate or to disperse forces in a manner designed to place the enemy at a disadvantage, thus achieving results that would otherwise be more costly in men and materiel.

At all levels of war, successful application of this principle requires not only fire and movement but also flexibility of thought, plans, and operations and the considered application of the principles of mass and economy of force. Manoeuvre is the means by which the commander sets the terms for battle, declines battle, or acts to take advantage of tactical actions.

Comment

The descriptions make it clear that manoeuvre is not the same as flexibility. Flexibility may well subsume the aims of manoeuvre but the reverse is not the case. Discussion on flexibility in Chapter 9 pointed out that although flexibility was not dependent on mobility, it (mobility) would offer increased opportunity to exploit flexibility. Whether mobility is essential to manoeuvre is, to some extent, a matter of semantics. If changing the point of attack is considered mobility then this is so. However, if an air force wing, operating from base A, switches attacks from targets U, V, and W to targets X, Y and Z some hundreds of miles away, but is still operating from base A, this surely is flexibility rather than mobility. It is flexibility rather than manoeuvre. The

ability to reprogramme missiles to alternative targets confers flexibility rather than mobility or manoeuvre. Essentially, flexibility would appear to offer wider options than manoeuvre. This is particularly the case when used in combination with other principles such as concentration of force, economy of effort or surprise.

The USAF description has the principle 'manoeuvre' as the master directive with three interrelated dimensions: flexibility, mobility and manoeuvrability. For the reasons given in the previous paragraph, this review judges 'flexibility' as more appropriate to that position.

Another statement in the USAF description that stems from the concept of three interrelated dimensions is: 'The second dimension involves strategic mobility, which is especially critical in reacting promptly to concentrate and project power against the primary objective.' This is nothing more than 'a strategic deployment'. It does not embrace manoeuvre, in the true sense of the word.

Whilst the questioning of this principle may seem overly pedantic it is worth recalling the purpose of this review. It is to question all the principles of war presently codified by the British and American Services. In so doing, one of the aims is to ensure that duplication of purpose and overlapping does not result in a lengthy list of principles; a list that becomes so extensive that instead of the principles of war being used as a quick but important checklist of considerations, they will be ignored.

In the case of this principle, manoeuvre, it can be seen that its objectives will be achieved by attention to other principles, particularly offensive action, surprise and flexibility. This is not to deny that manoeuvre will very often play a critical role in operations that embody these principles. But then so does mobility, fire power, speed and other characteristics that do not rate being adopted as a principle of war.

This review would judge flexibility to be a more overarching and thus preferable choice for endorsement as a principle of war than manoeuvre. No advantage would accrue from retaining manoeuvre.

ADDENDUM BY LIEUTENANT GENERAL JOHN GREY¹

Manoeuvre

Introduction

The Australian Army recognises that manoeuvre as well as firepower and morale is an essential element of combat power. We teach our officers and soldiers that manoeuvre is the adroit movement of troops, materiel or firepower to place them in a position of advantage over the enemy. Our

training stresses that manoeuvre involves the disruption or destruction of the enemy rather than the taking or holding of ground for its own sake.²

Manoeuvre and the Principles of War

The Australian Defence Force does not include manoeuvre as a principle of war because it is believed that other principles of war, in particular, flexibility, concentration of effort and surprise, combine to cover manoeuvre. This does not assert that each principle has equal weight in every circumstance when employing manoeuvre. Indeed, it will be the decision of the commander at the time which determines the balance. However, if he ignores them he risks serious failure.

Flexibility requires flexible plans and commanders and forces that can take advantage of changed circumstances and move smoothly from one course of action to another.³ Concentration of effort brings superior forces to bear when and where required. In this way a numerically inferior force may achieve local superiority to defeat a potentially superior enemy. Force ratios are not seen solely as a matter of numbers. Other important aspects are superior combat skills, morale, timing, selection of objectives and the effective employment of advanced technology.⁴ Surprise, achieved through the skilled use of new doctrine, intelligence, secrecy, concealment, deception, simplicity, originality, audacity, timing, speed of action and technology, can produce results out of all proportion to the effort expended.⁵

The United States Army includes manoeuvre as a principle of war and sees that it is the movement of forces to gain positional advantage over an enemy. Effective manoeuvre keeps the enemy off balance and protects the force. Manoeuvre is used to exploit successes, to preserve freedom of action and to reduce vulnerability. It continuously poses new problems for the enemy by rendering his actions ineffective, eventually leading to defeat.⁶

I do not believe that this apparent contradiction between the two national lists of the principles of war is of any great concern, because they are in themselves individual responses to particular national circumstances. In his writings Clausewitz avoided the encapsulation of principles in simple statements and emphasised the complex nature of strategy. He was concerned as much about the qualifications and exceptions to principles as principles themselves. The principles of war should initiate thought, develop strategies and concepts, and test plans. They should not be viewed as laws to be followed blindly.

The Australian Strategic Context

Australian strategic guidance indicates that operations in the defence of Australia will be primarily in the north of Australia. The vastness of northern

Australia makes the use of firepower and provision of adequate communications and mobility difficult. Additionally, in the early stages of a campaign for the defence of Australia the enemy will probably use deception and surprise, and it may be difficult to determine his exact dispositions. As a result it will not be possible to deploy forces to cover all eventualities and the majority of operations are likely to be dispersed and characterised by low force to space ratios. Once an enemy is detected the Australian defence force must be prepared to concentrate forces in order to defeat his forces or protect key assets and infrastructure while larger forces are brought into a position where the enemy can be defeated.

While not considered as a formal principle of war, manoeuvre will be key to the defence of Australia because, unlike attrition warfare, it allows locally numerically smaller forces, possessing the right firepower and determination, to succeed against larger adversary forces. It will also ensure that the limited forces at our disposal are sufficiently adaptable and versatile to provide a broad range of strategic, operational and tactical options across the breadth of the Australian continent. In this way our highly mobile, potent combat forces will effectively and rapidly deal with any incursion by an adversary. This degree of manoeuvre and versatility is not easy to achieve and requires considerable investment in personnel, training and equipment.

The Future Battlefield and Manoeuvre

The shape of the future battlefield will place greater emphasis on rapid, coordinated manoeuvre. Manoeuvre, above all else, requires two things; flexibility of mind and versatility of forces.

Training alone cannot introduce flexibility of mind. It requires particular cultural, command and doctrinal environments that encourage commanders to be flexible in the conduct of operations. Commanders must not be constrained by formal doctrinaire approaches and must avoid a formula approach to warfare. We must ensure that commanders give mission type orders and that they understand how to analyse orders and implement a superior commander's intent. Innovative thinking should be encouraged and a continuing education programme needs to be established for officers and soldiers of all ranks.

As the pace of change of the revolution in military affairs continues, armies must adjust their use of technology, doctrine and organisational structures. Decision making processes will be enhanced by the application of command, control, communication, computing and intelligence (C4I) structures that will ensure that commanders at all levels are better informed and able to decide and act more quickly than an enemy. Simulation can model concepts, equipment and doctrine before they are fielded. Simulation can also enhance operational flexibility by testing and validating operational and

tactical plans before implementation. Command and control cultures must support commanders who take calculated risks, exploit developing opportunities and allow their subordinates adequate freedom of action.

Technology will support manoeuvre warfare by allowing the early observation and detection of enemy forces. Once detected, reaction forces can be quickly moved to positions of advantage. Modern, accurate, long-range firepower delivered by a variety of means will also enhance manoeuvre and increasingly allow for disengaged combat. The development of direct sensor to shooter links will be an important element contributing to effective and flexible combat forces.

Flexibility of forces can best be accomplished by well structured and agile units with increased integral capabilities for firepower and mobility. Modular forces with well-developed regrouping procedures will ensure that force packages can be quickly tailored to meet a variety of operational requirements. The capacity to retain and deploy a well-structured reserve is essential to retaining the initiative at any level. There can be no doubt that manoeuvre requires well-trained ready forces with high states of collective and individual training.

Joint Operations

Manoeuvre aims to resolve a conflict as quickly as possible by maximising the disruption and dislocation of the enemy by a series of coordinated actions that strike at the enemy's weak points. The attacks are conducted at ever-increasing tempo until the enemy succumbs. This approach to war is best pursued as part of a national course which uses all the elements of power available to a government; diplomatic, economic and military. Within the military element, manoeuvre is enhanced if it is a part of a joint approach to warfare. Manoeuvre theory aims to achieve success without wasting resources and is well suited to the limited personnel numbers and equipment of the Australian Defence Force. It is only through best integrating the joint capabilities of the Australian Defence Force and building on the strengths of individual Services that Australia will realise the benefits of manoeuvre warfare.

Manoeuvre needs to be considered through all dimensions of warfare to gain best effect and it is particularly well suited to joint operations. The use of joint assets allows the application of the most suitable assets at the right place at the right time.

Conclusion

Manoeuvre requires a particular attitude of mind as well as requiring technological, doctrinal and organisational solutions. It is applicable to all

levels of warfare and in both defensive and offensive operations. It also suits Australia's geo-strategic circumstances and it is for this reason that every Australian army officer, warrant officer, NCO and soldier is taught that manoeuvre at all levels is an essential element of successful combat operations. It is also for this reason that developments to the Australian Army will emphasise the equipment and force structure needed to enhance manoeuvre as an element of combat power.

14 Timing and Tempo

Reduce hostile chiefs by inflicting damage on them; make trouble for them, and keep them constantly engaged; hold out specious allurements, and make them rush to any given point.

Sun Tzu

Timing and tempo is no longer listed by the United States Air Force as a principle of war. However for many years it enjoyed the status of a principle of war in the list codified by that service. As it was the only service to do so, some may have concluded that it was a consideration that was uniquely or especially applicable to the application of air power. And indeed, given the characteristics inherent in a balanced air force – speed of action and reaction, reach, extreme mobility, flexibility, fire power and the ability to concentrate combat power over a wide area – timing and tempo could well have special relevance to air forces. On the other hand why had no other air force embraced this principle, particularly as it had been brought to notice by the world's largest and most powerful air force?

The question is best addressed by examining the description of the principle, timing and tempo, promulgated by the USAF at the time. As then stated in *Air Force Manual 1-1*:

Timing and Tempo: Control of crisis or combat situations should be sought by maintaining a faster tempo of action and reaction than that of the enemy. To generate this control and dominate the battle, we must operate within the enemy's observation-orientation-decision-action-feedback time cycle. The timely and skilful use of all principles of war can disrupt the enemy's plan by breaking the cohesion of the enemy force and destroying the force's morale and will. Maintaining a quicker tempo of action helps to disrupt the enemy's strategy and operations, by creating confusion and disorder that can lead to the enemy's defeat.

What this is about is stated very clearly – it is to gain the initiative from the outset. But the USAF (and other forces) says this in the descriptions of 'offensive' and 'offensive action'. To quote the USAF: 'Offensive action gives our forces the initiative.' Why therefore adopt another principle of war to refine the explanation; to describe how, or at what rate, offensive actions can be implemented?

It is true enough that air forces, because of their inherent flexibility and outstanding mobility, can bring pressure to bear on an enemy over a vast

area – the whole theatre of combat or, if necessary, multiple theatres. This presupposes of course that the air force, or air forces, concerned have the required capacity. Capacity, not the capability of air power, is the limiting factor. Here the consideration applies to the USAF, the one service to adopt timing and tempo as a principle. The principle is thus tied to an air force of unmatched capacity. An air force able to move forces, air or ground, over great areas; to strike at a variety of targets over intercontinental distances; to exploit time and space. These capabilities must create an enormous air of uncertainty for the enemy's planning staffs. Air power certainly has the potential to impose on the enemy all the problems that the friction of war can create, from the onset of tension to the end.

Like some other forms of offensive action, air power is able to relate the psychological to the physical. An incredibly valuable asset that should be used to break the cohesion of the enemy and force him into a reactive role; to prevent him being able to concentrate his forces or to achieve that economy of effort that would allow him to do so at a later date. All this, perhaps, is encapsulated in the statement of Lieutenant General Raymond B. Furlong, a former commander of the Air University, Maxwell Air Force Base: 'The concept has as its dominant objective the ability to present the enemy with challenges and to do so more rapidly than the enemy can receive the information, process it, and act on it.'¹

There is nothing at all new or exclusive in what the USAF aims to achieve – to prevent the enemy gaining the initiative. Every successful commander in history has sought to do so. It is stated, very simply, by Montgomery: 'the enemy must be forced to dance to your tune at all times'.²

The aim of timing and tempo is certainly subsumed by 'offensive action' and 'offensive' as described by the British and American Services. One is therefore left with the question, 'why did the USAF introduced it?', unanswered. No obvious reason is discernible from the description. It is perhaps justifiable to claim that, because of the nature of air power, the USAF is able to put the enemy on the defensive – in a reactive role – and keep him in this mode more readily than other forces. But this does not support the creation of a separate principle of war.

The second question as to why the other Services have not adopted timing and tempo as a principle of war has obviously been addressed indirectly in assessing the USAF creation of this principle. Simply, it is unnecessary. It is subsumed by the long-standing principle, offensive.

Some might seek to counter the argument so far advanced by saying that it gives an emphasis that is likely to prompt and ignite initiatives at the very conceptual stage of potential action, or simply, that the adoption of this principle does no harm.

In regard to the first of these, the answer is to keep it simple. Commanders have enough to consider without introducing duplicating guidelines. They will be keen to adopt the offensive at the first opportunity – an operational aim prompted almost automatically by familiarity with the principle of offensive.

In regard to the notion that it does no harm, one might well consider whether it compromises other principles or diverts attention from the main operational objectives. At the very onset, possibly without knowing the extent of the enemy's ability, one could envisage a frenzy of activity, not aimed at a considered, constructive strategy, but simply devised to keep the enemy off balance. In so doing, resources and effort might be applied out of all proportion to the object of the exercise. What effect does this type of activity have on economy of effort? It certainly will eat into the resources available for concentration, to be applied to the planned offensive.

One would not see timing and tempo as a basis for separate action engaged in by the air commander in isolation. Air activity would be part of the main plan. The Gulf War gives us some insight into the preliminaries to the final offensive. Once sufficient air power had been deployed and the political decision to initiate hostile action had been taken, the commander implemented offensive air action. But this action was planned to achieve specific objectives – it was not done exclusively, or even primarily, to keep the enemy on the defensive. Broadly, the commander wanted the enemy's ability reduced by 50 per cent. This was an objective, it had substance. The attacks on the enemy's command and control systems, his airfields and other targets were designed to reduce his ability to wage war, not merely to prevent him gaining the initiative – although the latter was certainly a by-product of the offensive being taken. The mounting of some 2000 air sorties a day was certainly in excess of the tempo required to keep the enemy's reactive planning cycle at bay.

Finally, it is pertinent to consider the effect of this principle on more junior officers and less experienced commanders. The principles of war are said to apply to actions taken at all levels, strategic and tactical. With 'offensive' or 'offensive action' even the most junior platoon commander will understand this to be a positive action, planned with a definite aim in view. If he is required, in addition, to consider timing and tempo, he may well feel obliged to engage in nugatory pursuits that are more likely to divert attention from the basic aim – to become a distraction. Of course it is true and has been stated several times in this study, that not all principles of war can be invoked in every action; that they may well be in conflict. However, it would seem from the description of timing and tempo that it could well seduce an inexperienced commander to afford it a priority that would be detrimental

to the main objective. Perhaps it is the rapid-fire impression implied by the title and by the description that causes concern and signals a need for caution lest the true aim/objective be lost.

Whilst one may well overlook some of the secondary reasons advanced in rejecting the addition of timing and tempo to the principles of war, the primary reason for doing so is simply that it is unnecessary. All that timing and tempo seeks to achieve will be achieved by proper attention to the existing principle – offensive, or offensive action. Perhaps a case could be made for expanding the description of the existing principle to extol some merit from timing and rate. This is very doubtful and would not seem worth pursuing. In any case, the commander on the spot is in the best position to determine this aspect.

Whether or not the decision of the USAF to remove ‘timing and tempo’ as a principle of war was based on the type of consideration addressed above is immaterial. The important point is that it has been removed. Even so, bearing in mind its attraction to tempo over many years, it is surprising that this aspect of offensive did not get a mention in the USAF description of offensive.

ADDENDUM BY GENERAL MICHAEL J. DUGAN

Timing and Tempo

Alone among the military Services of the various nations, the US Air Force holds the view that the ‘timing and tempo’ of military operations merits special consideration. At one time this view was designated as a USAF ‘principle of war’; however, in the mid-1980s, when the USAF dropped the formal and separate listing and exposition of ‘principles,’ this aspect of air power thinking lost some visibility and, unfortunately, perhaps, some emphasis.

While the USAF does not currently articulate its own separate set of principles of war, it does acknowledge a generic set of principles and recognises that such principles provide a useful framework for study and analysis of the application of air power.

Air operations clearly differ from surface operations; yet the vocabulary and the two-dimensional frame of reference developed over centuries of military and naval history have dominated the thinking and the development of modern military doctrine and concepts – including those relating to air power. In the brief century of history since man first took to the air in manoeuvrable, heavier-than-air vehicles, great strides have been made in the means and the methods of warfare, but the lexicons of military vocabulary

have created limits and boundary conditions on thinking and discourse tied to traditional two dimensional forms of warfare.

Thus timing and tempo are generally disregarded in discussions of the 'principles' or 'permanently operating factors in warfare'. Timing and tempo are very difficult to manage as first order issues on the traditional battlefield; they become derivatives, subordinate to other considerations. When timing and tempo are considered it is usually as the stuff of offensive efficiency; the better the plan and its execution, the more quickly the enemy will be penetrated, surrounded, sunk or otherwise collapse. The enemy will be attacked at the forward edge of the battle area, at the 'front', defeated at successive 'lines of defence' and pursued in a centripetal scheme until the friendly forces achieve a dominant position at the centre of an enemy's politico-military power base.

All this is two-dimensional thinking – forward edges, fronts, lines and sequential operations. Two-dimensional warfare requires that the 'first enemy' in a line of advance be disposed of first then the next 'first enemy' in line; then the next 'first' enemy; then the first Each battle is fought on the periphery against the first enemy until each 'first' enemy is defeated. In two-dimensional warfare timing and tempo are dependent variables resulting largely from evolving force ratios and geography at the front, or, better, the location of the first enemy.

This explains why in Desert Storm, for example, there was so much angst felt and offered by many of the frontline division commanders over the relatively small number of air attacks flown against division nominated targets. If air operations did not service 'first enemy' targets, they were viewed as useless; they did not contribute to the local objectives of the planned actions; timing and tempo were not an issue. General Schwarzkopf, who drove the operational decisions, on the other hand, had a different perspective; he had local and theatre-wide views; he had both two- and three-dimensional views. He was able to manage much of the timing and tempo of air operations, Scud destruction being a notable exception, while the ground actions in each of the divisions developed a dynamic of their own.

In two-dimensional warfare timing and tempo is a dependent variable, dependent on the objectives and results of individual engagements, battles and campaigns within a war. Prompt pursuit and decisive engagements are in all of the classical texts; however, to employ timing and tempo of operations, per se, as an offensive technique is foreign.

In three-dimensional warfare the timing and tempo of operations can, and I argue should, be viewed as an independent variable, wielded by an operational level commander to deal with overall war aims directly; to seize the initiative in time and space; to disrupt and defeat the enemy commander's

war plans; and, to deal with 'first enemy' engagements to the extent that they offer a higher priority war, campaign or battle winning opportunities than other objectives.

In three-dimensional thinking, the need for spatially or geographically related, sequential, operations is largely unimportant; geography does not drive the priority of objectives or operations. Timing and tempo are 'employed' as a capability to overload or to stress the enemy's organic combat systems at the operational level. The skilled commander manages the enemy's timing and tempo by systematically attacking, for example, fuel, electrical or communications networks, degrading whole functions of an enemy's essential military and supporting fabric.

Many of the issues related to timing and tempo are discussed by John Boyd, the creator of energy-manoeuverability theory for aerial combat and a great personal practitioner of that art. Boyd applies energy-manoeuverability theory to organisational dynamics in his OODA loop concept. OODA (Observation, Orientation, Decision, Action) loops describe the actions of an organisation to sense, relate, decide and implement those decisions over time. In a combat environment, Boyd argues, the successful organisation will develop shorter OODA loops. The successful military commander will manage timing and tempo to stay inside the enemy's OODA loop, thus denying the enemy the opportunity to make better decisions and carry out optimum actions.

The ability to manage timing and tempo differs between two-dimensional and three-dimensional warfare. In three-dimensional war, operational commanders are empowered to employ timing and tempo, per se, to select the most significant objectives and pursue their destruction directly; when disposing of 'first enemy' capability is most important, appropriate capabilities can be employed; when broader objectives are more appropriate, the commander can pursue those, at the outset and throughout the conduct of operations. In two-dimensional war, operational commanders lose not only the third dimension, but also the capabilities that accompany it. Management of timing and tempo thus becomes an additional weapon in the hands of a skilled commander.

15 Review

The practice of 'reviewing' ... in general has nothing in common with the art of criticism.

Henry James

The purpose of this book has been to review the extant principles of war as promulgated by the armed forces of Great Britain and the United States – and as adopted in part or in full by other military Services. It is to determine their ongoing validity, to delete altogether or to make or suggest changes to the title or description. Before summarising the assessment of each current principle it is pertinent to say that the study has established convincingly the continuing relevance of a codified set of principles of war. They are set down to guide all those involved in the conduct of war and in preparing their nation for the contingency of war. This latter aspect is concerned with the organisation and structure of the nation's armed forces in peacetime when consideration of the principles that would arise in war is essential to sound planning. The conclusions and recommendations of this study are summarised in the following paragraphs.

Selection and Maintenance of the Aim

The aim or objective remains the cardinal principle of war. The pre-eminent position of this principle is beyond challenge. The government must set a clear political agenda that, other methods having failed, the military is called upon to achieve. After all, as succinctly described by Clausewitz, 'war is nothing but the continuance of policy with other means'.¹ The use of 'selection and maintenance' in the title is a good reminder that this must be done at the outset. One does not simply just drift into an aim or objective.

Mandatory as this simple factor should be, it is not stated with clarity in the descriptions given by several of the armed Services reviewed. There is a need to state with absolute clarity that in war, the main aim – the cardinal objective – is the political aim. This is the national aim. Military means are devised to attain that aim. The means so devised, the military strategy, is the military 'aim' or 'objective'. The distinction must be perfectly understood by military personnel. Emphasis should be given to the fact that the military aim is subordinate to and in support of, the political aim.

Both aims should be clearly understood and attainable. In the war against Germany (World War II) the allied governments had decided the political

objective to be the unconditional surrender of Nazi Germany. The military aim as set out in the directive of the combined chiefs of staff to General Eisenhower read, in part:

You will enter the continent of Europe and, in conjunction with other allied nations, undertake operations aimed at the heart of Germany and the destruction of her armed forces.²

Both the political aim and the military aim were clear and attainable. It was the lack of such a clear-cut political aim and the consequent ambivalent political direction to the military that led to the debacle of Vietnam. This principle of war must be retained. Whether it be titled the aim or objective is of no consequence. The descriptions currently promulgated by all Services are imprecise and in need of revision.

Morale

Chapter 3 addressed morale and, on the overwhelming evidence of war over many centuries, confirmed that on many occasions morale had been a determining factor in the successful outcome of battle. Conversely, there is no evidence of forces plagued by low morale having triumphed. The spirit of the warrior, the offensive spirit, is a vital element of success in war and springs from a state of high morale within a force. It does seem extraordinary that morale, as a discrete entity, is not included in the principles of war adopted by the armed forces of the United States. It is a matter of record that the American Services pay great attention to morale; in particular, to important ingredients of morale – weapons, amenities, recreation facilities, mail, rations and of course, leadership. And yet it is not afforded the importance and status of a principle of war! One can only assume that American military authorities consider morale to be a matter of discipline – or to be so fundamental in the training of officers and non-commissioned officers that high morale will be pursued without the prompt of a principle of war. This is a mistake; morale should be included. In war and the approach to war, morale is not a matter for the military alone; it has national connotations. All those involved in the employment of military forces, politicians and bureaucrats, as well as military officers, should be acquainted with the vital importance of morale. This is more likely to occur if it is included in the nation's principles of war. Certainly it would be easier for military leaders to bring to the attention of those outside the armed Services.

Surprisingly, the descriptions of morale set out by the British Services fail to address the importance of civilian morale. Surely the importance of this is not new. Sun Tzu made reference to it over 2000 years ago. Clausewitz

spoke of the ‘remarkable trinity’ of the government, the civil community and the military. And, if nothing else, the state of civilian morale in the United States during the latter years of the Vietnam War should be an object lesson as to its importance. To quite a large extent the morale of the military and of the population at large are interdependent. Again, one can draw on Vietnam to illustrate the point. The Russians found a similar situation during their long drawn-out venture in Afghanistan. The military needs to appreciate that it has a part to play in the maintenance of civilian morale and vice versa. This gives emphasis to the need for morale to be constantly considered. It reinforces the recommendation that it be retained, or in the case of the United States forces, adopted as a principle of war.

The review did not support the notion, often expressed, that this principle should be retitled ‘morale and public opinion’ or that public opinion be included as a discrete principle of war. However, in regard to public opinion and the morale of the public, a relevant point that has not been made is the role of the media in the maintenance of national morale. Regrettably the media reporting of military operations during the second half of the twentieth century gives little confidence that it would exercise this grave responsibility in the best interests of the nation – certainly not on a voluntary basis. Experience suggests that a measure of control will be necessary but this, of course, is a matter for politicians to resolve. It is not a matter for the military, although it is often the military that is put at risk by irresponsible reporting. The arrangements put in place during the Gulf War seemed sensible enough – except for the bizarre situation of allied media personnel being present and reporting from the heart of enemy territory.

Offensive Action

The next principle to be examined was offensive action or offensive (US). This was relatively straightforward as the history of warfare reveals that, whilst defeat may be delayed or even prevented by defensive action, victory can only be attained by gaining the initiative and waging offensive warfare. This has been the conclusion of military commanders, historians and military analysts from the time of Sun Tzu to the present day. The British were forced to a defensive strategy in the Battle of Britain (although always striving to employ offensive tactics). Success in that battle saved defeat – it could not in itself bring victory. Modern war has confirmed the lessons of history that the more offensively minded commanders are the more successful, other factors being equal, and indeed, often when facing superior odds. Rommel, Guderian, Patton, MacArthur, Harris, Spaatz, Schwarzkopf, Horner, all have demonstrated the merit of bold offensive action in modern times.

History reveals a host of great captains of the same ilk. So dominant is offensive warfare that one may seriously doubt the contention of Clausewitz that the defensive is the stronger form of warfare.

Defensive

Chapter 5 considered the antonym of offensive, defensive, as this was a principle of war formerly adopted by the United States Air Force. Noting the description of defensive then given by the USAF and its definition of the principle of security; noting also the descriptions of security promulgated by all the other Services, American and British, the inescapable conclusion is that the imperatives of defence are subsumed by the principle of security. To include defensive as a principle of war would seem to be an unnecessary duplication and clearly the USAF has come to this conclusion – thus deleting defensive as a principle of war.

Security

The need of a secure base or bases for waging war has always been an essential requirement, be they forts, as in the days of the Crusades, or whole countries as obtained in World War II when Australia and the United Kingdom filled such roles – as did Saudi Arabia in the Gulf War.

Quite apart from foreign bases, the home country, its military bases and supporting infrastructure, administration and industry must all be secure from debilitating attack, in any form. Indeed this type of secure environment is an essential prerequisite to offensive action and to the credibility of any deterrent the national military forces may pose to a potential enemy.

Once again the descriptions promulgated are inadequate. In particular they fail to address additional threats posed by modern technology and techniques. Examples are the targeting of national morale – or national ideals and values – by enemy propaganda, psychological warfare; the security of computer networks against viruses and other high technology assault and communications security – infiltrated so successfully by the allied nations in World War II.

Security is a factor to be considered both in war and in peace and on a continuous basis. It is essential that security be retained as a principle of war. The descriptions of this principle promulgated by the military of both nations are incomplete, and out of date. They should be rewritten.

Surprise

Notwithstanding that surprise is an elementary instinct exploited way back in antiquity, it remains as relevant and as effective as ever. Although basic

and instinctive its inclusion as a principle of war is important to ensure that it is given consideration in every military circumstance, offensive and defensive. Indeed, it is in the latter case that a reminder is probably the more necessary – a reminder to guard against surprise. This has particular relevance when considering the possibility of terrorist attack, a form of war that relies heavily on the element of surprise for success. In general, the descriptions promulgated by all six Services fail to emphasise the role of intelligence in countering surprise and to give adequate warning on signals and electronic security.

In spite of modern surveillance capabilities surprise will continue to be a factor to exploit and to guard against. It remains an important principle of war. The descriptions need to be expanded.

Concentration of Force

One of the foremost skills of a commander is the ability to concentrate a force superior to that of the enemy at the decisive place and time. This does not necessarily imply that the force so concentrated should be numerically superior to the enemy, be it in infantry, tanks, aircraft or whatever. Rather it calls for superior combat power which often will stem from qualitative superiority, or even high morale over a demoralised force.

The crux of this principle is concentration of combat power. It is only the descriptions of the United States armed Services that make this point. The term combat power becomes more relevant as the conduct of war, more often than not, involves the employment of more than one service in joint operations. A study of the German offensive through Belgium and France in 1940 gives a striking example of the successful concentration of combat power by a force that was not superior in numbers or armament.

In view of the emphasis on achieving superior combat power rather than quantitative superiority, the title ‘mass’ used by the American forces, would seem inappropriate. A new title, ‘concentration of combat power’, would describe the intention of this principle better than either mass or concentration of force. For this reason the recommendation is that the principle concentration of force/mass be retained as a principle of war but retitled ‘concentration of combat power’. If this is not done and a new description promulgated, then the existing descriptions should be rewritten to describe fully what is required – the optimum concentration of arms available for the task.

Economy of Effort

The purpose of economy of effort is to harvest resources so that sufficient combat power is available to concentrate at the decisive place and time in

order to overwhelm the enemy. Usually it is a precursor to offensive action. As such it applies to forward planning, and indeed, to forward thinking. For example, one application that has particular relevance in peacetime is the preservation of assets – the judicious and sparing use of expensive weapons systems and weapons, so that they remain available if required for war. The same consideration applies in war where unnecessary, subsidiary operations should be avoided. In particular, in planning for a future operation it may be necessary to withdraw assets from less critical activities.

A point to stress is that economy of effort does not mean using the absolute minimum of combat power to perform a task. That can entail significant risk. Once an action is decided upon an adequate concentration of combat power should be provided. It is in deciding on when and where to engage the enemy or to secure against attack, that economy should be exercised. Economy of effort actually applies well before participation in war; it is a consideration to be addressed in peacetime planning at the national level – as indeed do other principles of war; security for example.

In considering the two titles, economy of effort and economy of force, the former is preferred. Effort is required long before the use of force; effort in planning, in production, in administration, in training. A sensible degree of economy is needed in all these areas which mostly involve effort rather than force.

Given the fact that economy of effort is a consideration in forward planning it needs to be addressed at the outset. This is more likely to occur if it stands as a discrete principle of war. It should be retained. Again, the descriptions need to be expanded and brought up to date. It is surprising that the importance of intelligence is not emphasised as an aid to achieving economy of effort.

Flexibility

Perhaps the point to be stressed in this principle is that the most important place for flexibility is in the mind of the commander. Of course, flexibility has much wider application, but again, always having its genesis in the minds of men and women. Flexibility applies to the ability of industry to change, modify or increase the production of weapons to meet unexpected requirements. The junior and middle level staff officer must consider multi-purpose capabilities when writing specifications for weapons to be in service ten to fifteen years into the future. All planning – operational, administrative, logistic – should be devised to allow the commander the maximum degree of flexibility to meet unforeseen circumstances or to exploit any opportunity that might be presented during the course of action.

Whilst flexibility is a virtue in all walks of life it can be a critical factor in war. In war, events can move swiftly requiring quick, almost instinctive reactions, very often in an environment steeped in confusion and uncertainty. It is why the more simple plans afford greater flexibility. It is important to realise that provision for flexibility can and should be planned in advance. Flexibility does not have to be reactive.

The Royal Air Force description of the principle flexibility is technically in error where it states that 'flexibility calls for a degree of mobility'. One can exercise flexibility to a major extent without mobility ever coming into consideration. It is more accurate to say that mobility enhances the opportunity to exercise flexibility. For this reason the inclusion of mobility in the title, that is, mobility and flexibility, as once suggested in an Australian review, could not be supported.

It seems quite incongruous that the United States armed services do not include flexibility as a principle of war. Perhaps the principle 'manoeuvre' adopted by the United States Army and the Air Force is thought to embody flexibility – at least operationally. If this is the case it ignores the fact that flexibility has application over a far wider range than addressed in the descriptions of manoeuvre.

Whilst one could perhaps delete flexibility as a principle of war and cover this by emphasis in training, it would then be addressed only by military personnel. As has been asserted repeatedly in this book, the principles of war should be a subject for study and comprehension by all those charged with responsibilities that impact on the conduct of war – politician, bureaucrat, industrialist. Even without this extended purpose there is every reason to include flexibility as a principle of war. This is to ensure its consideration at all levels of planning for war and for formulating operational plans. It is not covered by the United States principle 'manoeuvre'. Flexibility should be a principle of war.

Cooperation

That modern war demands a high degree of cooperation is indisputable. Cooperation not only between the single Services of a defence force but by a veritable host of other agencies within the nation, the government, the bureaucracy, industry and the people. Joint operations between at least two arms of the nation's defence force is the normal method of waging war. Indeed, in many cases, and almost always when operating under the authority of the United Nations, war will be conducted by a coalition of forces in what is termed combined operations. Clearly cooperation is essential.

Whilst there have been many examples of cooperation being provided willingly and in full, there are, regrettably, almost as many cases, even between the armed Services of one nation, where this has not been the case; occasions where jealousy, self-interest or a simple failure to recognise the need, has seen cooperation withheld or exercised grudgingly and to a minimum extent – to the detriment of operational efficiency. Having regard to the lessons of history in this matter and taking particular cognisance of the experiences of World War II, Vietnam and, to a far lesser extent, Desert Storm, it would seem that the principle of cooperation, depending as it does on goodwill, does not provide sufficient guarantee of genuine cooperation.

Although it has proven to be no more effective than the guidance given under the principle titled cooperation, it is judged that the principle, ‘unity of command’, promulgated by the United States armed forces, has the greater probability of obtaining this vital interaction. The command arrangements put in place must specify in the clearest possible terms, the overriding authority of commanders at the various levels. Compliance should be supervised at the highest practicable level – the joint chiefs of staff or equivalent, for combined operations or at ‘theatre’ level. Although the United States has introduced measures to give combatant commanders authority over assigned and attached forces (1986 Department of Defense Reorganisation Act), loopholes still exist to allow recalcitrant commanders to withhold the full measure of cooperation.

The principle of cooperation should be changed to ‘unity of command’. The description of unity of command should be rewritten, still referring specifically to the need for cooperation, but noting that it is a matter to be assured by command authority. A look back to Eisenhower’s use of command authority to enforce cooperation within his combined staff and in organisations within his command for Operations Torch and Overlord seems to reinforce the view that Unity of command is the best option. This did not lessen the difficulties he experienced in obtaining a full measure of cooperation from commands outside his own assigned forces. Cooperation will continue to be a difficult subject requiring tact, firmness – and authority.

Administration

History, ancient and contemporary, provides overwhelming evidence that sound administration is an essential element of war fighting. Administrative plans are put in place to support operational activity, strategic and tactical. It is important that these plans are formulated to allow the operational commander the maximum degree of flexibility possible. For this reason the commander should have the necessary degree of control over the

administrative plan within his sphere of command. At the same time he should have a clear understanding of administrative factors that could affect his operations.

As defined in the NATO glossary, administration includes, as well as other non-operational aspects, both logistics and personnel management and thus it subsumes logistics. This matter is raised because, in modern war, logistic support of operational forces, often spanning continents and oceans across the globe, is a massive and high profile operation. By its sheer size and by dint of modern usage of the term, one might easily conclude that logistics subsumed other administrative tasks and therefore the principle should be titled logistics. However, not to lessen the importance of administration, particularly in regard to the management of personnel, a compromise solution is probably preferable and thus the title 'administration and logistics' is recommended. The descriptions would have to be reviewed and rewritten, although consequential amendment to the NATO glossary should not be necessary. Logistics is the basic ingredient of all combat power in modern war. It provides for concentration of combat power (mass), offensive action, morale and flexibility. It must be planned in meticulous detail. It would seem to ignore its signal importance to successful operations not to ensure attention to detailed logistic planning at every stage of the operational plan.

Administration, preferably renamed 'administration and logistics', should be included in the principles of war.

Simplicity

The value of simplicity in expression, oral and written, in the development and presentation of plans and instructions and in administration has long been appreciated by military professionals. It has been a feature of leadership and staff training in almost all military forces – certainly in the western alliance countries. The fact that the British Services have not adopted simplicity as a principle of war is probably due to the belief that it is so ingrained by training that adoption as a principle is unnecessary. However, notwithstanding the extent of this training, the practice of applying simplicity in all staff endeavours has been compromised as military officers, at all levels, become integrated with sections of the civil service within the higher defence organisations. The danger is that the tendency to prolixity and circuitous writing and thinking that obtains in those portals will stay with officers so exposed when they return to field appointments. Given the very significant importance of simplicity in military matters, particularly when actions are to be strained by the friction of war, it is well to have the prompt of a principle of war to remind officers of the well-established requirement for simplicity and accuracy; a piece of military lore that has stood the test of time.

Simplicity should be included as a principle of war as a reminder to those preparing plans, issuing orders and instructions of the importance of this practice – particularly in war.

Manoeuvre

Manoeuvre, a principle of war listed by the three United States Services is, as set out in the descriptions, designed to seize the initiative and to exploit success, to achieve surprise and to conduct offensive operations. In the discussion at Chapter 13 the point was made that the descriptions given seem to confuse ‘manoeuvre’ and ‘mobility’. Although it is acknowledged that mobility is essential to manoeuvre, they are not by any means the same thing. In essence it was concluded that including manoeuvre as a principle of war would contribute nothing not attainable by pursuing the principles of offensive action, flexibility and surprise. Manoeuvre may very often be used in implementing these principles, but as a means rather than as the purpose. Manoeuvre is not recommended for inclusion as a principle of war.

Timing and Tempo

Timing and tempo was a principle created by the United States Air Force and adopted as a principle of war by that service. It has not been adopted by any other service. Its stated purpose was to gain and retain the initiative or, taking the negative approach, to prevent the enemy doing so. To prevent the enemy being able to achieve economy of effort and concentration of his forces. All quite laudatory objectives and clearly, air forces have the inherent capability to put great strain on the enemy and to maintain the pressure.

However, discussion in Chapter 14 leads to the clear conclusion that a principle of timing and tempo is not necessary. All that it aims to achieve will be accomplished by proper attention to the principle of offensive action/offensive. Indeed, timing and tempo could be counter-productive in that it might tempt inexperienced commanders to engage in nugatory actions to the detriment of other principles such as economy of effort and concentration of force.

The United States Air Force has, sensibly, deleted timing and tempo from its codified principles of war.

Summary

This review has established the current relevancy of most of the principles examined. Where an extant principle has been judged inappropriate or

unnecessary it has been because its objective is covered by another principle or principles or because it could divert attention from the main objectives. The considerations discussed confirm the long accepted fact that the principles will often be in conflict and on most occasions, cannot all be exercised in a particular action or plan. However, they are of such importance that they each warrant full consideration on every occasion that military action is contemplated. This includes the peacetime formulation of policies and plans involving the military forces.

The principles of war recommended as relevant to warfare in the 1990s are:

- Selection and Maintenance of the Aim (or Objective);
- Morale;
- Offensive Action;
- Security;
- Surprise;
- Concentration of Combat Power;
- Economy of Effort;
- Flexibility;
- Unity of Command;
- Administration and Logistics; and
- Simplicity.

In most cases the descriptions of principles currently promulgated are in need of review and rewriting to encompass all the aspects of warfare that may be relevant. This is not to propose long-winded explanations but simply prompts to alert the minds of knowledgeable officers and other authorities involved in the conduct of war.

Finally, it should be accepted that the principles of war, originally codified for the guidance of military officers, should in future be understood by politicians responsible for the authorisation and control of military operations in war, and their civilian advisers. Only then will they be able to properly appreciate the fundamentals of military advice presented by their military chiefs.

16 Leadership

Keep your fears to yourself but share your courage with others.
Robert Louis Stevenson

It is inevitable in searching one's mind and researching history to review a subject as wide as the principles of war, that thoughts get diverted to a plethora of associated factors which, although important in themselves, do not amount to principles. The list of subjects grows as the search proceeds – leadership, political interference, technology, intelligence, education, discipline, attitude of society, morality, moral responsibilities of the commander, and so on.

To surrender to the temptation would mean that the purpose of the book would soon be lost and indeed, an end would never be in sight. The aim set out in the introductory paragraphs would have been lost. Hardly an example for a book reviewing the principles of war.

However, there are two matters that should be pursued: one having a direct bearing on the application of the principles, and the other a moral dilemma that has plagued the author as a subject desperately in need of exposure and discussion. This chapter will address the first of these two issues – leadership.

The principles of war, although tried and confirmed by centuries of experience are, like all other military learning, only effective when subjected to the judgement and skilled implementation of a competent military leader. The ultimate execution of a plan of military action will be the responsibility of one man operating within the directives of higher military and political authority; the military commander who fights the battle. The weight of decision will rest on him alone. It can be an awesome responsibility for which mistakes or incompetence will be paid for in lives lost. Clearly, it behoves those in authority to give much thought to the selection of a commander and the subject of leadership.

What is leadership? How are military leaders trained, prepared for war? Some of these issues have been touched on in earlier chapters, particularly when discussing morale. However, leadership is of such fundamental importance to the conduct of war that a modicum of iteration will do no harm.

To address the first question. A study of successful military leaders will reveal a multitude of shapes and personalities, of personal idiosyncrasies, of styles from the flamboyant to the introspective, but all were able to exercise authority. They did not shrink from making decisions and accepting

full responsibility for those decisions, come what may. Their moral courage in this regard would have earned the respect of their subordinates – but not necessarily their affection. But the definition, what is leadership?

The *Collins English Dictionary* defines a leader as ‘a person who rules, guides, or inspires’. In the case of a military leader, one would wish to see the ‘or’ deleted and replaced by ‘and’. Men in combat, or preparing for combat, need to be inspired – by the cause, by the leader. Often the immediate cause is not apparent, the leader must be the font of inspiration.

The Royal Air Force until recent times defined leadership as: ‘A combination of the will to dominate and the character which inspires confidence.’¹ Certainly a leader needs to inspire confidence, but one would question someone with the will to dominate! To dominate the enemy, yes. But to dominate one’s subordinates has an undesirable connotation. Fortunately, that definition has been deleted in the new manual (*AP 3000*).

One could probe the qualities of leadership ad infinitum but really it can be defined in simple terms. Terms that those aspiring to leadership, which should apply to all military officers, can grasp and understand as a goal. Is it not ‘the ability to inspire loyalty, respect, and confidence’? Some might say ‘and affection’. But this is not something a leader needs to pursue. In doing so, he may be tempted to resile from unpopular decisions – to forsake moral courage for popularity. If a leader is successful, if he pays attention to administration including those aspects relating to the welfare of his personnel, affection will often follow – not that it is an essential element of leadership. Perhaps the most important trait is the ability to inspire confidence. To inspire confidence in the formation, the unit, and importantly, in the individuals themselves. Men must go into combat confident in all these and in their leader. They may be apprehensive, in fear for their lives, but confident in the judgement of their leader. After the battle there is relief, the euphoria of success, and gratitude for the leader who saw them through the ordeal.

It goes without saying that to inspire confidence in others, the leader must exude confidence – always. He may well be in turmoil within himself. The stakes are high, the soundness of his military judgement will be counted in the lives of his men. His staff may not share his confidence, particularly if he is audacious, the plan bold. But he must remain resolute, secure in his judgement of the situation.

To be effective the leader must also have the confidence of his superiors. He will require the resources to carry out his mission; he will want to pursue his own plan, unencumbered by overly restrictive limits; to be given a measure of operational freedom and flexibility. These will only accrue to a commander enjoying the confidence of his superiors.

Clearly, confidence can be seen to be a major element in leadership. The personal confidence of the leader in his own judgement and in the supporting confidence of his subordinates and his superiors in his ability. Confidence of this order does not come about by chance, it has to be earned. Success in battle is the surest way to gain the confidence of those above and below, but this is an opportunity that only presents in war. Without this, decisiveness, professional knowledge and sound judgement are the benchmarks on which assessments of leadership are made.

Having briefly addressed the qualities of leadership, it is necessary to consider the training of a military leader; a training that, unfortunately, can only be tested realistically by the supreme test of battle. No matter how thorough the training is considered to be, how realistic it is made by modern simulation, nothing can really simulate the friction of war, the uncertainty, the fear – not only fear of physical injury or death, but fear of failure and its consequences.

In a speech in 1963, President John F. Kennedy said: 'Leadership and learning are indispensable to each other.'² No one would dispute the correctness of this view, but one has to ask 'Leadership of what?' 'Learning of what?' If one is to lead a football team, one's learning need only apply to football – all aspects of football, from rules, tactics, perhaps economics of the game, but not much else. If one were leading an expedition to the Arctic one would need learning germane to the task. In these cases the requirement is apparent, it is definable. But what learning does one need to lead in war? How wide does the scope of learning need to be? How does it apply to a profession where the task cannot be specified because the 'where' and the 'when' are not known? The scale, the weapons, the size and capability of the opposition only to be guessed at! This latter consideration may not be complimentary to intelligence Services, but the fact is that their predictions, before the outbreaks of hostility, have not been encouraging.

Perhaps the one requirement that is constant, whatever the discipline to be pursued – and it accords with President Kennedy's statement referred to above – is knowledge. The quintessential requirement is a thorough knowledge of the profession one intends to practise. Why should this be less relevant in practising the art of war? Marshal Foch, when an instructor at the Ecole de Guerre, stated bluntly: 'Our task is to study and teach war ... We must understand what war really is.'³ He pointed out that 'The art of war, like every other art, possesses its theories, its principles; otherwise it would not be an art.'⁴ And to set the place of knowledge of one's profession '... knowledge, a necessary condition, soon provides convictions, confidence, the faculty of enlightened decision. It creates the power to act and indeed makes the men of action. It lies at the root of will.'⁵

A century before Foch's exhortations to his students, Napoleon urged the study of great commanders. Before that, Frederick the Great's oft-quoted remark to officers who relied on their practical experience and who neglected to study was that he had in his army two mules who had been through forty campaigns, but they were still mules!

In more modern times, Montgomery in defining generalship: 'Generalship is the science and art of command. It is a science in that it must be studied theoretically by officers, and an art because the theory must be put to practical use.'⁶ And, commenting on study, 'By the very nature of things, skill in the profession of arms has to be learned mostly in theory by studying the science of war ... the great captains have always been serious students of military history.'⁷

One could go on at length quoting the great captains on the essentiality of what is simply military history. It is well summed up by a modern, successful 'Captain', Major General Jeremy Moore, victorious commander of the British land forces in the Falkland Islands 1982: 'future commanders must largely glean their experience from history'.⁸

The detailed study of military history would seem to be a basic and essential ingredient in the training of a military leader. It will impart knowledge of his profession that will engender confidence to make decisions and the will to act. It will, perhaps more than anything else, bring to notice the willingness to accept responsibility – a product of moral courage and leadership – and the realisation that this trait of character does not come automatically with rank, with being appointed to command. It is nurtured throughout an officer's training.

The reader may wonder why this point is being made, and made so strongly. It is done to counter what might be seen as the modern trend to over emphasise the education of officers along traditional academic lines. Conventional university courses are given precedence over military studies to the extent that the latter are neglected. The implication is that military history and the study of warfare is less relevant than other disciplines in the development of military officers. There is the erroneous belief in some higher military circles – and it might well be described as 'a military cringe' – that military officers must have a recognisable degree to indicate to their civil service counterparts and the community at large that they are well educated. But of course, the pertinent question is, who is it that will be going to war? Who will command their countrymen in battle? Will a doctorate help? Will a knowledge of economics or law give confidence in deciding when and where to attack?

It would seem that these very basic questions have not been addressed for a long time as the military hierarchy seeks to free the armed forces from such ancient taunts as ‘a rapacious and licentious soldiery’⁹ and the inflexible military mind.

The purpose of this criticism is not to suggest for an instant that leaders in today’s armed forces should not be well educated. Indeed, we should want to see them superbly educated and trained so that they are able to comprehend and exploit the complex and sophisticated systems of modern war. To be acquainted with the additional complexities of international and domestic politics. To be prepared for exposure to a media seeking sensationalism in preference to fact. But, they must be educated thoroughly in their own profession before pursuing less relevant disciplines. The essence of this discussion is that the military should be bent to the training of leaders – commanders. It is not to train managers. A manager can call for reports from all quarters, discuss with others in the same business, put off a decision until more information is available, until further assessments are made, or to await more propitious conditions. At worst, his enterprise will fail. The military leader must assess a situation as best he can from whatever information is available, there may be no time for conferences or discussion. He alone must decide, and often, decide instantly, the course of action to be taken. In this case, the worst is that the battle will be lost, his men killed or captured. He has that honoured but awesome responsibility. Why then is the present trend in the education of future military leaders, slanted towards producing managers rather than commanders?

There is no suggestion that good management is not an essential ingredient of command. In particular, certain disciplines within a defence force need specialised managerial skills. Logistics is a prime example of this need. After, and often in concert with, military studies individuals appointed to such specialist areas should be channelled into appropriate training courses. In general, this is facilitated by the corps or branch systems within military organisations. But, notwithstanding this, military officers in all branches and corps need to be well versed in the art of war.

The balance of the educational process needs to be reviewed. The complexity of logistics and administration in war, often spanning oceans and continents, is breathtaking. The technical and scientific knowledge required to operate, to use and exploit state-of-the-art weapons, to direct research and to formulate requirements looking well into the future, demands the study of appropriate subjects at the tertiary level. However, none of these requirements diminish, not by one iota, the need to study the art of war. It is achieving the proper balance that presents a dilemma. Over recent years

the immediate demands of a technical education have received priority to the extent that the balance is distorted. The answer may lie in customising 'military' degrees to meet the needs of the various corps and branches but paying due regard to studying the art of war. The guiding term of reference should be, 'What is the aim, what is the objective?'

The last question to address in examining the training of military officers is to consider at what stage and at what rate officers should be developing their military skills – leadership, tactics, strategy, and knowledge of war. As stated above, the education of the soldier cannot be complete without political understanding. Clausewitz very sensibly observed that: 'No major proposal required for war can be worked out in ignorance of political factors.'¹⁰ A military officer's training must include studies in politics and government.

Sir Charles Napier, writing to a young officer some years ago, gave the following advice:

By reading you will be distinguished ... a man cannot learn his profession without constant study to prepare, especially for the higher ranks. When in a position of responsibility, he has no time to read; and if he comes to such a post with an empty skull, it is too late to fill it.¹¹

This would seem particularly sound advice, and yet there are countries that persist in some quite senior officers undertaking degree courses in subjects not remotely applicable to their profession. The point to be made is that an early start and constant study should be the lot of the military officer of whatever service. This, of course, is not new to the twentieth century. Napoleon entered the Military Academy at Brienne at the age of nine and the Ecole Militaire in Paris in 1784 at the age of fifteen. The renowned Field Marshal von Rundstedt entered Cadet College at Oranienstein at thirteen years of age. At fifteen he transferred to the Central Cadet College at Lichterfelde, and in 1892, aged seventeen, he entered the Military College at Hanover. The Royal Navy, until well after World War II, accepted naval cadets at the age of thirteen.

It is not suggested that military training – even as peripheral subjects – need be commenced at such an early age. Indeed, it would seem far better for those aspiring to a military career to undertake primary and secondary education as members of their community. After all, as Cromwell's soldiers claimed: 'On becoming soldiers, we have not ceased to be citizens.'¹² The separation of those seeking a military career from the normal civil community in their early years would be likely to alienate them from that society, not by design but by circumstance. This is not desirable in the 1990s nor is it

likely to be so in the twenty-first century. But the plea remains that military studies and leadership, the training for command in battle, be the basis of officer training. Thus the recommendation is that the education of military cadets and serving officers be weighted heavily in the study of the military art, the history and the science of war. These to be complemented by subjects germane to the understanding of modern weapons systems and political awareness.

17 Moral Responsibility and Command

War is an ugly thing, but not the ugliest of things:
the decayed and degraded state
of moral and patriotic feeling
which thinks nothing worth a war
is worse ... A man who has nothing
which he is willing to fight for,
nothing he cares more about than he does about personal safety,
is a miserable creature,
who has no chance of being free,
except made and kept so by the
exertions of better men than himself.

John Stuart Mill

There are those who refuse to see war as anything but totally immoral, and indeed, it is an abomination. It is estimated that some eighty million people have died in wars of the twentieth century; a telling testimony to man's ...? To man's what? Megalomania? Aggression? Greed? ... or stupidity? It is all of these. But there is another side to the saga of war that must also be recognised. That is, that in many cases there is the aggressor and there are those who resist aggression, who feel a moral obligation to fight rather than submit. There are those who feel a moral obligation to come to the aid of a nation that is under threat or under attack. Surely this is not immoral. Chaos and anarchy would rule if aggression were allowed to go unresisted.

Of war itself it is true to say that it brings out the best and the worst in man. Whilst the wanton slaughter is to be deplored, the atrocities reviled, the self-sacrifice and the unparalleled bravery and courage that some display is surely worthy of commendation. Men who lay down their lives that others might be saved cannot be accused of immorality.

This willingness to admit something commendable in war strays from the political correctness to which one is expected to conform – just as not to do so would be to stray from the truth. When referring to some feat of arms, or attending some commemoration service or reunion one is expected to dutifully declare that the purpose of the occasion is not to glorify war. But one would hope that the poignant words of John Stuart Mill continue to have meaning in nations where freedom is still cherished. The simple fact is that

there is a price to be paid for freedom. It is to accept responsibility for its protection. It is one of those things worth fighting for.

The fact that one side in war might be occupying the moral high ground does not remove it from the ongoing moral responsibility to minimise the inevitable suffering and loss of life. This, in the first place, is a matter for governments. It is the government that sets the limits of war, the weight of force, the rules of engagement. It is the government that selects and approves the military options presented by its military advisers. Those appointed to command operate strictly to the policies and objectives set by government – the civil power. Clausewitz had much to say on this and indeed, the subject has been discussed in earlier chapters.

However, to establish that government has the prime responsibility for the conduct of war does not absolve military commanders from their specific responsibilities for the conduct of operations under their control. The war crimes trials at Nuremberg after World War II settled any ideas to the contrary and set a precedent of which all military officers should be cognisant. There are clear legal constraints to be observed and there are moral constraints. The former are laid down in protocols of the United Nations and it behoves commanders to be aware of the laws of war that flow from them. The latter are less clear and, as time has shown, subject to quite dramatic change. Being a product of community attitudes such changes are unpredictable and, in war, are likely to differ to those obtaining in peace or when the nation is not at risk.

To grasp the extent of this changing in moral values it is only necessary to go back half a century and note the attitude of the British and American people to the quite horrendous bombing of Germany and Japan. Despite the fact that deaths were counted in hundreds of thousands, mostly non-combatants, there was hardly a word of criticism. Concern perhaps, and a degree of sorrow that such things had to be, but no outrage. Now go back just a few years to the Gulf War. Recall the storm of protest and concern when a selected (and legitimate) target was found to house hundreds of civilians, 300 of whom were killed by air attack. A very major change of attitude in the international community.

One might wonder how deep is this concern for casualties. In the example of World War II the allied nations were gravely threatened by massive military forces controlled by authoritarian, tyrannical leaders. The populations of the allied nations harboured real fears for the consequences of defeat. Almost any action that would reduce that risk was acceptable in the desperate circumstances that prevailed in the early stages. It was only in 1945 when victory was assured that some very muted thought was given to the severity of the destruction being inflicted. But the Gulf War was a different matter (except perhaps to those immediately threatened). To the principal coalition

partners and their civil populations, it was a long way from home. They were not under threat, they could afford to set a high moral standard in regard to the conduct of the war. They could afford to protest at any collateral damage, intended or unintended. Would this moral value have remained had London, Washington, Paris or Berlin been at risk? Perhaps the only thing that modern history tells us is that this cannot be predicted with any certainty. However, despite this cynicism, most nations embracing democratic ideals would hope that, if war has to be suffered, those prosecuting it would aim to minimise casualties to the extent that this was consistent with a quick and successful conclusion. This would seem a reasonable expectation on which to plan for the future.

In practice, one should expect government to give absolute priority to minimising casualties amongst its own people, both civilian and military personnel. What would one expect to be the attitude of the civil community, in a democratic society, toward a government that so limited the options available to its own military that it significantly advantaged the enemy – to the extent that its own forces suffered unnecessary casualties? Surely, if such truths were known, it would be anger and outrage. But these issues are never quite clear to the public. Black and white are presented as shades of grey on the grounds of security or political expediency and so, instead of anger, there is just unease. However, if this situation continues, if combat and casualties linger as a running sore, the unease erodes morale. The people become fed-up with the government – and with the armed forces who are presumed to share responsibility for the lack of progress, the lack of will.

Vietnam was a classic example of this syndrome, – of government's lack of will, lack of courage, lack of resolve, of fear of escalation and, because of this, tying the combat hands of its own military. A central issue in these situations is the responsibility of governments to its own servicemen and women. Loyalty should be high on the list. Government expects, and has every right to expect, the unqualified loyalty of its military forces. But loyalty should be a two-way affair. When a government pursues a policy that puts its servicemen at greater risk than is necessary, that loyalty is questionable. If the government believes that proper, strategically sound prosecution of the war entails unacceptable risk then it should withdraw. With the constraints placed on commanders in Vietnam, an ongoing defensive war and ongoing casualties, was the only alternative to defeat. Victory was not an option, nor was it being sought by the American president. As commander-in-chief he owed his servicemen a better deal.

However, the object of this examination is to establish, if it is possible to do so, the moral responsibility of the military commander in such a situation. He has been placed in a position where he cannot win the war he has been

appointed to fight. At the same time he knows that his country has the military strength to do so if this were the political objective. In the meantime his forces are suffering casualties each day that it continues. The enemy has the strategic initiative and the war will continue just so long as the enemy wants it to go on. It is an absurd situation where the enemy is encouraged to fight on by the clearly stated policy that the American president does not seek a military victory.

Here is the moral dilemma of the military commander. Loyalty to his country is his first duty – there is no question of this. But is he being loyal to his country by presiding over the death and maiming of its young men engaged in a futile war? There is loyalty to his commander-in-chief, which he had always thought to be inviolable, but which now conflicts with another loyalty: loyalty to the half a million young men under his command.

He has just three options. The first is to carry on, loyal to his commander-in-chief. The second option is to prevail on the commander-in-chief to allow him to prosecute the war aggressively with the attainable aim of bringing it to a successful conclusion – or to disengage. And the third option, if the second is refused, is to ask to be relieved of his command on the grounds that he cannot continue to preside over a mounting casualty rate without an end in sight. The third option would have no effect unless the public were made aware of the reason. In putting the second he would not be proposing, as did MacArthur almost two decades before, to take the war to China! The judgement on that would remain a matter for government and would doubtless influence the alternatives offered in option two.

I do not claim to have the answer to this dilemma, if indeed, there is an answer. The matter is addressed with the aim of provoking discussion amongst those likely to be involved in the conduct of war in the future. This should include politicians, bureaucrats, military officers, academics. It is a problem for the 1990s and the twenty-first century when the media will want to present the stark horror of war in people's homes, minute by minute. There must be the realisation and acceptance by the whole nation, that those men and women of the armed forces fighting the war, bear the brunt of political decisions, and that they deserve the same measure of loyalty as is expected of them. Loyalty that should come from the government in the first place. If that is not forthcoming, does the commander have a responsibility? And what of the joint chiefs of staff?

Of course, this controversial situation will be avoided if governments hearken to the advice proffered by Sun Tzu over two centuries ago: 'In war, then, let your great object be victory, not lengthy campaigns.'

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Index

- administration, 6, 9, 117–23
 - to allow flexibility, 121–2, 153–4
 - British Services doctrine, 120–1
 - and economy of effort, 89, 91
 - importance of, 118–20
 - Major General Yu on, 123–4
 - personnel management in, 122, 154
 - reviewed, 153–4
 - see also* logistic support; logistics
- affection, for leaders, 158
- Afghanistan, 62, 148
- aggression, 164
- aim, 2, 5, 7, 9
 - Clausewitz on, 7, 12
 - use of term, 12, 17
 - see also* aim, selection and maintenance of; objective; political aim
- aim, selection and maintenance of, 11–19
 - attainability of, 11, 16, 86
 - British Services doctrine, 9, 12–13
 - General Westmoreland on, 17–19
 - limited, 12, 13, 15
 - re-appreciation of, 12, 13, 14
 - reviewed, 146–7
 - US Services doctrine, 13–14
 - see also* objective; political aim
- air power
 - to concentrate force, 73, 74, 78–9
 - and mobility, 134–5
 - for offensive action, 37
 - timing and tempo in, 140–1, 144
 - vocabulary of, 143–4
- Alam el Halfar, Battle of (1942), 105
- Alexander the Great, 8
 - at Gaugamela, 21, 53–4, 53(*map*)
- Algeria, French war in, 102
- ambush, 68
- American Civil War, 20, 25, 33–4, 118
- Anzio landings (1944), 63
- Arab–Israeli War (1967), 83, 95
- Ardennes campaign (1940), 34
- Argentina, and Falklands, 49
- Association of Southeast Asian Nations (ASEAN), 101
- Atlantic, Battle of, 107
- Austerlitz, Battle of (1805), 70
- Australia, 22, 136–7
- Australian Army, 66–7
 - and economy of effort, 88
 - and manoeuvre, 135–6, 137, 138–9
 - use of surprise, 65–6
- Australian Joint Services Staff College,
 - review of principles of war, 10, 26
- authority, in unified command, 109, 110
- Babbage, Dr Ross, xiii
 - on flexibility, 99–102
- Barratt, Air Marshal, 105
- base, secure *see under* security
- Battle of Britain, 33, 148
- BBC, and Falklands, 48, 50
- blitzkrieg, 34, 64, 65
- Blücher, Field Marshal Prince, 75
- Bougainville island, 62
- Boyd, John, OODA loop concept, 145
- Bradley, General Omar, 120
- British Army
 - administration, 120–1
 - concentration of force, 71
 - cooperation, 104
 - economy of effort, 81, 83
 - flexibility, 96, 97
 - morale, 23, 24
 - offensive action, 34–5, 36
 - security, 42, 43–4
 - selection and maintenance of aim, 13, 15
 - simplicity implied by, 126
 - surprise, 59–60, 61
- British Field Service Regulations 1920*, 8
- British Military Doctrine 1989*, 8
- British Services
 - adoption of principles of war, 8–9
 - Conduct of War* (1950), 46
 - simplicity omitted, 126, 154
 - see also* British Army; Royal Air Force; Royal Navy
- Brodie, Bernard, historian, 130
- Brooke, Field Marshal Sir Alan, 91
- Bryant, Sir Arthur, 8
- budget (defence), 17
 - effect on morale, 28, 29
- Burke, Edmund, on economy, 80
- Burma campaign, 88–9, 106
 - see also* Meiktila, Battle of
- C4I, in decision-making, 137
- Cannae, Battle of (216 BC), 21
- Carns, General Michael P., xiii
 - on concentration of force, 77–9

- Carter, J., US President, 28
- casualties
 civilian and military, 3, 166
 economy of effort and, 88
 and morale, 21, 166
 and public opinion, 165
 role of surprise in reducing, 63
- Chamberlain, Colonel Joshua, 20
- Charles of Lorraine, Prince, 54
- Chennault, Major-General Claire, 106
- Chickamauga, Battle of, 63
- China, administration and logistics in, 123–4
- Churchill, Winston, 84–5, 91
- Civil Service, prolixity in, 125, 154
- Clausewitz, Carl von, 12, 122, 163
 on defensive warfare, 31, 149
 on morale, 22
On War, 1, 7
 principles implicit in, 7–8, 136
 on qualitative superiority, 73
 ‘remarkable trinity’, 24, 26, 103, 147–8
 on simplicity, 125–6, 130–1
 on surprise, 62–3
- Cold War, end of, 62, 113
- collateral damage, 3, 84
- combat power *see* concentration of force
- command
 moral responsibility and, 164–7
 Sun Tzu’s principle of, 6–7
 unity of, 107–8, 109, 110–12, 153
- commanders
 and control of administrative plans, 121–2
 and cooperation, 115
 exercise of flexibility, 93, 94, 95–6, 151
 loyalties of, 166–7
 moral courage of, 2
 selection and maintenance of aim, 12, 13, 15
 traditional inflexibility of, 93, 98
 use of timing and tempo, 142, 144–5
 and value of morale, 21–2, 29
see also staff training
- communications, 30, 49, 71
- concentration of force, 6, 7, 8, 70–7, 136
 application of, 74–7
 British Services doctrine, 71–2
 and conflict with surprise, 58
 economy of effort as corollary, 81, 88
 General Carns on, 77–9
 and manoeuvre, 78
 in operational offensive action, 39
 as proper use of combat power, 73, 150
 reviewed, 150
 US Services doctrine, 72–3
 use of air power, 73, 74
- Conference on Security Cooperation in Europe, 101
- confidence, essence of leadership, 25, 158–9
- conscript armies, morale in, 27
- constraints
 on flexibility, 94, 99–100
 political, 14, 31–3, 165
- cooperation, 6, 70, 103–12
 between services, 103, 110, 114–15, 152
 British Services doctrine, 103–4, 112
 of civilian population, 106, 110
 and coalition warfare, 103–4, 131–2
 desire for, 103–4, 113
 examples of, 104–6
 by legislation (US), 112, 153
 Marshal of the RAF Sir Peter Harding on, 112–16
 reviewed, 152–3
 subordinated to self-interest, 106–9, 153
see also unity of command
- Crecy, Battle of (1346), 89–90
- Crete (1941), use of surprise, 66
- Cromwell, Oliver, 162
- Crusades, 40
- Cunningham, Admiral Andrew, 105
- Darius III, King of Persia, 21, 53–4
- Davis, General Bennie L., xiii–xiv
 on offensive action, 37–9
- deception, to aid surprise, 6, 53, 57–8, 60, 61, 64, 67
- decisiveness, in leadership, 159
- defensive action
 guarding against surprise, 52
 as negative, 37
 as principle of war, 46–7, 149
- defensive positions, 18, 70
 offensive action in, 31, 33
- democracy
 constraints on offensive action, 32–3
 and freedom of information, 49–50
- Demosthenes, on security, 40
- Deness, Captain A.P., 67
- Desert Storm, Operation
 cooperation in, 153
 flexibility, 97
 simplicity in, 127, 131
 US morale in, 27
 use of air power, 38, 79, 144
see also Gulf War
- detection *see* surveillance

- deterrence, 15, 38, 44, 80
 Dien Bien Phu, secure base, 40, 117
 directives, nit-picking, 29
 discipline, 6, 30
 dispersion, use of, 71, 75
 Douglas-Home, Charles, on Rommel, 118–19
 Dowding, Air Marshal Sir Hugh, 84
 du Picq, Colonel Ardant, 21, 103
 Dugan, General Michael J., xiv
 on timing and tempo, 143–5
- economy of effort, 8, 70–1, 80–7
 Air Marshal Newham on, 88–92
 British Services doctrine, 81
 as factor in planning, 80–1, 82, 83, 86, 87
 factors in, 83, 84–5, 90–1
 and failure in Burma, 88–9
 not financial economy, 87, 90
 preferred to economy of force (US), 87, 151
 reviewed, 150–1
 training and, 83–4, 90, 92
 US Services doctrine, 82
- education
 academic, 160, 161
 to develop flexibility, 94
 and leadership, 25, 159–63
 military, 162, 163
see also knowledge; staff training; training
- Edward III, King, at Crecy, 89–90
 Eisenhower, General Dwight D., 147, 153
 El Alamein, Battle of, 65–6
 elephants, 64
Encyclopaedia Britannica (1902), 8
- enemy
 effect of surprise on, 68
 loss of initiative, 33
 will to fight, 13, 16, 79
- Enigma coding system, 62, 83
- Evans, Lieutenant General Sir Geoffrey, 122
- Falklands, invasion of, 62
- Falklands campaign
 Goose Green, 50, 51
 security in, 48–9, 50
- flexibility, 70, 93–9, 133, 136
 British Services doctrine, 95–6
 Dr Babbage on negative aspects of, 99–102
 external constraints on, 100
 internal constraints on, 99–100
 and mobility, 6, 95, 96, 97, 152
 in planning, 93, 94–5, 151
 reviewed, 151–2
 of weapon use, 93–4
see also manoeuvre
- Foch, Marshal Ferdinand, 159
- force multipliers, and economy of effort, 90, 91
- France
 and Algeria, 22
 and Indochina (Vietnam), 18, 22
- Frederick II, the Great, 54, 55(*map*), 63, 75, 160
- freedom of information, and security, 48, 49–50
- Fuller, J.F.C., 8, 9
- Furlong, Lieutenant General Raymond B., 141
- Gallipoli campaign, 65
- Gaugamela, Battle of (331 BC), 21, 53–4, 53(*map*)
- Geneva Accords (1954), 18
- Germany, in World War II, 85, 105, 119
- Gettysburg, Battle of, 20
- global power, reduces flexibility, 100–1
- goodwill, for cooperation, 104, 113
- Goose Green, Battle of, 50, 51
- governments
 despotic, 49
 military budget, 17
 responsibility in war, 165–7
see also political aim; politicians
- Grant, General Ulysses S., 25, 33, 118, 125, 130
- Greece, in World War II, 85
- Green, Lieutenant Colonel C., 66–7
- Grey, Lieutenant General John C., xiv
 on manoeuvre, 135–9
- Grey, Major General Ronald Alwyn, xv
 on surprise, 64–9
- Grouchy, Marshal Marquis de, 75
- Guderian, General Heinz, 34, 74, 78
- Gulf War (1991), 64, 94
 administration in, 122
 concentration of force, 77
 economy of effort, 90
 flexibility, 97–8
 importance of training, 83–4
 media in, 148
 objectives in, 142
 public opinion and, 165–6
 secure base in Saudi Arabia, 41
 unity of command and cooperation, 112, 113, 114
see also Desert Storm

- Hamburg, Bomber Command raids on (1943), 58–9, 64
- Hammer, Lieutenant Colonel H., 65–6
- Hannibal, 21, 40
Battle of Zama, 2, 57, 64
- Harding, Marshal of the RAF Sir Peter, xv
on cooperation, 112–16
- Harold, King of England, 76
- Harris, Sir Arthur, C-in-C Bomber Command, 107
- Hassett, Lieutenant Colonel F.G., 67
- Hastings, Battle of, 76
- Henderson, G.F.R., 8
- Hitler, Adolf, deployment of resources, 85
- Horner, General Chuck, 74
- identity, need for sense of, 115
- industry, 91
need for flexibility in, 94, 151
- Information Warfare, 131
- initiative
gaining, 32–4
recovery of, 63
- intelligence, 6, 150
to give economy of effort, 83, 92
security protection of, 43, 44
see also surveillance
- international organisations, reduce flexibility, 101
- Iran–Iraq war (1980–88), 27
- Iraq *see* Gulf War
- Isandhlwana, 63
- Israel, 32, 102
- Israeli Air Force, 64, 83, 95
- Israeli Army, Yom Kippur War, 63
- Jackson, General Thomas ('Stonewall'), 69, 118
- Jael, Plan (1944), 57–8
- James, Henry, 146
- Jamieson, Air Marshal Sir Ewan, xv–xvi
on security, 47–51
- Japan
defeat (1945), 16
see also Meiktila, Battle of
- Jericho, fortress of, 7
- Johnson, Louis, US Defense Secretary, 29
- Johnson, Lyndon, US President, 18–19
- Jomini, Baron Henri, 8, 9
- Jones, Lieutenant Colonel H., 50, 51
- Kennedy, John F., US President, 159
- Kesselring, Field Marshal Albert, 119
- Kimura, Lieutenant General Heitaro, 54–5, 56(*map*), 57
- King, Admiral Ernest J., 106, 108
- KISS, 132
- knowledge
professional, 159–63
technical and scientific, 161–2
- Korean War, 18, 32, 66–7, 124
- Laird, Melvin, US Defense Secretary, 28
- Lawrence, Private A.H., 65
- leadership, 157–63
confidence as essence of, 25, 158–9
defined, 157–8
and economy of effort, 92
and maintenance of morale, 25, 29–30
- Lebanon, Israeli war in, 102
- Lee, General Robert E., 33–4, 118
- legislation
for cooperation, 112, 153
to safeguard security, 50–1
- Leuthen, Battle of (1757), 54, 55(*map*), 63, 75
- Liddell Hart, B.H., 8, 52, 78, 93, 99
- Ligny, Battle of (1815), 75, 104
- lines of communication (LOCs), 14
- logistic support, 40, 78, 91, 96
- logistics, 6, 9, 154
in Chinese terminology, 123–4
determine feasibility, 120–1, 123
training in, 161
see also administration
- loyalty, 166
- Lucas, General, at Anzio, 63
- Lucchese, General, 54
- MacArthur, General Douglas, 41, 106–7
economy of effort, 85–6, 88
- McClellan, General George, 76–7
- McDougal, Major, in New Guinea, 66
- McDowell, General, 76
- Macke, Admiral Richard C., xvi
- Mahan, Alfred Thayer, 9
- management theory, on flexibility, 99
- management training, 161
- manoeuvre, 133–5
in future battlefield, 137–8
Lieutenant General Grey on, 135–9
reviewed, 155
subordinate to flexibility, 135, 136
US Services doctrine, 133–4
use of, 78, 79
see also flexibility; mobility
- Mao Tse Tung, 2

- Maryang San, Battle of (Korea 1951), 67
 mass *see* concentration of force
 Meade, General George Gordon, 33–4
 media
 instantaneous coverage of war, 22–3, 26, 101, 167
 and morale, 148
 and national security, 45, 47, 50–1
 see also BBC; public opinion
 Meiktila, Battle of (1943), 54–7, 56(*map*), 75
 METT-T framework, 14
 Middle East, secure bases in, 41
 military history, study of, 160, 162–3
 Mill, John Stuart, 164
 Mitchell, William, on air power, 78
 mobility
 in Clausewitz, 7
 and flexibility, 6, 95, 96, 97, 134
 see also manoeuvre
 Moltke, Field Marshal Count Helmuth von, 94, 96
 Montgomery of Alamein, Field Marshal Lord
 A History of Warfare, 9
 on administration, 8–9, 117
 cooperation with RAF, 105
 on generalship, 160
 on moral health of nation, 45
 on morale, 8–9, 22
 on principles of war, 2
 on simplicity, 126
 on surprise, 62
 on timing and tempo, 141
 Moore, Major General Jeremy, 160
 moral responsibility, 164–7
 moral values, changing, 45, 165
 morale, 20–6
 Admiral Zumwalt on, 27–30
 effect of surprise on, 54, 59
 good administration and, 122
 Montgomery on, 8–9, 22
 of nation, 5, 22–3, 26, 27, 147–8
 and offensive action, 35, 36
 reviewed, 147–8
 within army, 5, 20, 24–5, 27–8, 70
 see also public opinion
 Musashi, Samurai leader, 33
 Napier, Sir Charles, 162
 Napoleon (Bonaparte), 162
 on cleverness, 4, 125
 and concentration of force, 75–6
 on leadership, 25, 160
 at Ligny, 75, 104
 on morale, 21–2
 Nash, Ogden, 64
 nation
 and constraints on flexibility, 94, 100
 intelligence and security of, 44–5
 morale of, 5, 22–3, 26, 27, 147–8
 see also national level; political aim; public opinion
 national command authorities (NCA), definition of aim, 14, 15
 national level
 aim in, 2, 9, 12, 13, 15–16
 economy in planning, 80–1, 86, 87
 NATO
 administration and logistics, 117, 154
 role of, 113
Naval War Manual BRI 806, 8
 Navarre, General, in Indochina, 40
 New Guinea, 66, 85–6
 Newbolt, Sir Henry, *Vitai Lampada*, 20
 Newham, Air Marshal J.W., xvi
 on economy of effort, 88–92
 Ney, Marshal, 75
 night attacks, 66, 68
 Nimitz, Admiral Chester W., 106
 North Africa campaign, German, 85
 Nuremberg, war crimes trials, 165
 objective
 attainability of, 11, 16
 clarity of, 11
 intermediate, 14
 use of term, 12, 17
 see also aim; aim, selection and maintenance of
 offensive action, 5, 7, 31–9, 34, 36
 gaining the initiative by, 33–4
 General Davis on, 37–9
 and morale, 35, 36
 political constraints on, 31–2
 pre-emptive, 32
 reviewed, 148–9
 use of surprise, 52
 see also timing and tempo
 Ooda loop concept, 145
 operational level
 economy of effort at, 82, 151
 offensive action at, 38–9
 Organisation of American States, 101
 Overlord, Operation, 57–8, 153
 paperwork, and morale, 29
 patriotism, and morale, 27
 Patton, General George, 57, 74, 78

- peacekeeping, as national strategy, 80
- peacetime
 - joint training in, 114–15
 - maintenance of morale in, 27–8
 - national defence planning, 17, 80, 92
 - principles of war in, 156
 - secure bases in, 41
- Peirce, Charles Sanders, 5
- personnel
 - management of, 122, 154
 - quality of, 99
- Philip VI, King of France, 90
- planning
 - flexibility in, 93, 97, 98, 151
 - simplicity in, 126
 - see also* strategic planning; tactical planning
- political aim, 12, 13, 17, 18–19
 - defining, 80–1, 146
 - military aim subordinate to, 2, 9, 14, 15–16
- politicians, 2, 11, 28, 47, 156
 - interference by, 2, 6–7
 - see also* governments
- precision guided weapons, 3, 38, 79, 84
- principles of war, 1, 5–10, 156
 - complexity and simplicity in, 129–31
 - reviewed, 10, 146–56
- public opinion, 6, 7
 - and changing moral values, 165
 - and clarity of objectives, 128, 132
 - and disclosure of information, 26
 - factor in reduced flexibility, 101
 - and media coverage of war, 22–3, 26
 - and national morale, 22, 148
 - see also* media; morale
- Purple coding machine (Japanese), 62, 83
- purpose, 11
 - of war, 13, 16
- pursuit, in Clausewitz, 7

- Reagan, Ronald, US President, 28, 40
- regiment, pride in, 20, 115
- reserves, holding of, 68, 84
- responsibility
 - in leadership, 157, 160
 - moral, 164–7
- Richmond, siege of, 63
- risk, 38
 - in economy of effort, 81, 82, 83
 - and security, 42–3, 44
- Ritchie, General Sir Neil, 74–5, 98
- Roman army, economy of effort, 89
- Rommel, General Erwin, 34, 85, 90
 - on concentrated combat power, 74–5, 78
 - failure of logistic support, 118–19
 - flexibility, 94, 98
 - on leadership, 25
 - on offensive action, 37
 - on simplicity, 126
 - on surprise, 52
- Rosecrans, General William, 63
- Royal Air Force
 - administration, 121
 - Bomber Command, 31–2, 58–9, 107
 - Coastal Command, 107
 - concentration of force, 71–2
 - cooperation, 104, 105
 - definition of leadership, 158
 - Desert Air Force, 105, 119
 - economy of effort, 81
 - Fighter Command, 33
 - flexibility, 96, 97
 - morale, 24
 - offensive action, 35, 36
 - security, 42, 43–4
 - selection and maintenance of aim, 13, 15
 - simplicity implied by, 126
 - surprise, 60
 - training, 92
- Royal Air Force AP 3000*, 8, 77
- Royal Australian Air Force, 92
- Royal Navy
 - administration, 120
 - and Battle of the Atlantic, 107
 - concentration of force, 71
 - cooperation, 103–4, 105
 - economy of effort, 81, 83, 85
 - flexibility, 95–6
 - morale, 23, 24
 - naval cadets, 162
 - offensive action, 34, 36
 - security, 42, 43–4
 - selection and maintenance of aim, 12, 15
 - surprise, 59, 61
- Rundstedt, Field Marshal Karl von, 34, 58, 162

- Saudi Arabia, and Gulf War, 41
- Schwarzkopf, General Norman, 77, 112
 - flexibility, 97–8, 144
- Scipio Africanus, 40, 57
- Scurry, Lance Corporal Bill, 65
- security, 40–7
 - against intelligence collection, 43, 44, 149
 - Air Marshal Jamieson on, 47–51
 - British Services doctrine, 42

- centrality of, 46–7
- computer, 62, 149
- of intelligence, 5, 44, 47–9, 50–1
- national, 44–5, 47, 49–50
- operations (Opsec), 60
- reviewed, 149
- of secure base, 5, 40–1, 46, 149
- subsumes defensive action, 46–7, 149
- and surprise, 47–8, 62, 70
- US Services doctrine, 42–3
- Sedan (1940), 78
- self-interest, cooperation subordinated to, 106–9
- Seymour, William, 117
- Sheridan, General Philip, 33
- simplicity, 125–9
 - Admiral Macke on, 129–32
 - of language, 125–6
 - and public support, 128, 129
 - reviewed, 154–5
 - US Services doctrine, 127–8, 131–2
 - of weapons maintenance, 128, 129
- simulation, to model flexibility, 137–8
- Slim, General Sir William, 20, 106, 126
 - Battle of Meiktila, 54–7, 56(*map*), 75
 - on failure of Burma campaign, 88–9
 - and logistic planning, 121–2
- Soult, Marshal Nicholas, 75
- space, concentration of force in, 71–3, 74
- space power, use of, 79
- Spanish-American War (1898), 107
- speed, 53, 78
 - Sun Tzu on, 6, 86
- staff training
 - joint service, 115–16
 - military studies in, 160, 162–3
 - on simplicity, 125, 126, 129
 - on tactics, 68–9
- stealth technology, 3, 64, 79
- Stevenson, Robert Louis, 157
- Stillwell, General ('Vinegar Joe'), 106
- strategic level, 38, 62, 111
 - reduced flexibility at, 100–2
- strategic planning
 - aim in, 9, 18
 - for economy of effort, 80–1, 82, 83
 - see also* political aim
- Stuart, General J.E.B., 78, 118
- Sun Tzu
 - on aim of war, 15, 86, 167
 - on concentration of force, 75
 - on deterrence, 44
 - on minimising damage, 84
 - on political interference, 2
 - The Art of War*, 1, 5–7
 - on timing and tempo, 140
 - use of term objective, 11, 12
 - value of morale, 21, 22, 147
- superiority, qualitative and numerical, 73
- surprise, 5–6, 7, 52–64
 - aspects of, 60, 68, 70
 - Australian Army's use of, 65–7, 136, 137
 - British Services doctrine, 59–60
 - Clausewitz on, 7, 62–3
 - factors in, 60, 68–9, 150
 - at Gaugamela (331 BC), 21, 53–4, 53(*map*)
 - guarding against, 52, 150
 - at Leuthen (1757), 54, 55(*map*)
 - Major General Grey on, 64–9
 - at Meiktila (1943), 54–7, 56(*map*)
 - reviewed, 149–50
 - and security, 47–8, 62
 - success not guaranteed, 63, 65
 - technical, 58–9, 63–4, 65
 - US Services doctrine, 60–1
 - in World War II, 57–9
- surveillance, 3
 - and opportunity for surprise, 61, 63, 150
 - see also* intelligence; stealth
- Synnot, Admiral Sir Anthony, ix, xvi–xvii
- tactical level
 - offensive action at, 38, 39
 - surprise at, 68–9
- tactical planning, aim in, 9, 18
- team spirit, for cooperation, 104, 111, 113
- technology
 - use of, 64, 90–1, 100, 131, 138
 - see also* precision guide weapons; stealth technology; surveillance
- Tehran, US embassy hostage crisis, 109
- tempo *see* timing and tempo
- terrorism, 52, 150
- time, and economy of effort, 86
- timing, in concentration of force, 71, 72
- timing and tempo, 140–3
 - in air power, 140–1, 144–5
 - General Dugan on, 143–5
 - reviewed, 155
 - and risk of nugatory activity, 142–3
 - subsumed by offensive action, 140, 141, 143
- Torch, Operation, 105, 153
- traffic control, 71
- training
 - to give economy of effort, 83–4, 90, 92
 - to give flexibility, 98–9, 137
 - joint, 114, 115–16
 - see also* staff training

- Ultra *see* Enigma
- Unified Action Armed Forces* (1991) (US), 112
- unit level, morale at, 20, 29, 115
- United Nations, 101, 113, 165
and Gulf War, 113
and Korean War, 18
and secure bases, 41
- United States
Department of Defense Reorganisation Act (1986), 112, 153
and freedom of information, 49–50
Indian wars, 40
political objectives of, 18–19
secure bases, 41
strategic level of command, 38, 100–1
and Vietnam, 18–19, 22, 26
- United States Air Force
Air Force Manual 1-1, 46, 140
concentration of force (mass), 72–3
economy of effort, 82, 83
manoeuvre, 134, 135
objective, 14–15
offensive action, 36
principle of defensive, 46–7, 149
principles of war, 1, 10, 143
realism of training, 92
security, 43, 44
simplicity, 127–8
surprise, 61
timing and tempo, 140–1, 143, 155
unity of command, 111
- United States Army
Army Field Manual 100-1 (current), 10
concentration of force (mass), 72, 73
economy of effort, 82, 83
Field Manual 100-5 (1949), 10
Field Service Regulations (1928), 10
manoeuvre, 133, 136
objective, 13–14, 16
offensive action, 35
security, 42–3
simplicity, 127
surprise, 60
Training Regulations (1921), 9
unity of command, 110
- United States Army Air Force, and RAF, 105
- United States Navy
concentration of force (mass), 72, 74
economy of effort, 82
manoeuvre, 133–4
Naval Doctrine Publication 1, Naval Warfare (1994), 10
objective, 14, 15
offensive action, 35–6
principles, 10
security, 43
simplicity, 127
surprise, 60–1
unity of command, 110–11
- United States Services, 9–10
administration omitted, 117–18
command rivalries in Vietnam, 108–9
cooperation omitted, 103
flexibility omitted, 95, 97–8
morale omitted, 23, 24–5, 147
see also United States Air Force; United States Army; United States Navy
- United States Union Army, 118
20th Maine regiment, 20
unity of command, 107–8, 109, 110–12, 153
see also cooperation
- unity of effort, 110, 111–12
- USSR, 27, 148
collapse of, 62, 113
- Vandergrift, General A.A., 31
- Varro, Roman general, 21
- Vietnam War, 18–19, 22, 26, 62, 102
air power in, 79
command rivalries in, 108–9
helicopter production, 94
morale in, 28, 148, 166
objective in, 11, 147
political constraints in, 32
use of deception in, 67
- Villers Bretonneux (1918), 65
- war crimes, 165
- warfare, 113, 130
coalition, 131–2
limited, 102
moral responsibility in, 164–5
prolonged, 11, 86, 167
three-dimensional, 144–5
- Waterloo, Battle of, 104–5
- Wavell, Field Marshal Lord, 126
- weapons
development of, 3, 93
field maintenance of, 128, 129
flexibility in use of, 93–4, 151
to give economy of effort, 84, 86–7
psychological, 59
specifications for, 151
see also precision guided weapons
- Wellington, Duke of, 75, 104–5
- Westmoreland, General William C., xvii, 12
on selection and maintenance of aim, 17–19
- Wilhelmshaven, attack on (1939), 32

- will to fight, destruction of enemy's, 13, 16, 79
- William I, Duke of Normandy, 76
- 'Window' anti-radar device, 58–9, 64
- World War I, use of air power, 78
- World War II
- administration in, 118–20
 - command rivalries in, 106–8
 - concentration of force in, 73, 74
 - examples of cooperation, 105–6
 - Middle East campaign, 85, 105
 - morale in, 27, 165
 - political constraints in, 31–2
 - political objectives in, 18, 146–7
 - secure bases in, 41
 - use of air power, 78–9
 - use of surprise in, 57–9
- Xenophon, on surprise, 52
- Yeosock, General, 77
- Yom Kippur War (1973), 63
- Yu Jianzhong, Major General, xvii
- on administration, 123–4
- Yugoslavia (former), 113
- Zama, Battle of (202 BC), 2, 57, 64
- Zulu wars, 63
- Zumwalt, Admiral Elmo Russell, xviii
- on morale, 27–30
- Z-Grams, xviii, 28

Index by Auriol Griffith-Jones