Printed and published for the Australian Army by Ruskin Press, and issued through Supply
Battalions on the scale of one per officer, officer of cadets, and cadet under officer.

Contributions, which should be addressed to the Editor, Army Journal, Department of
Defence (Army Office), Canberra, A.C.T. 2600, are invited from all ranks of the Army,
Cadet Corps and Reserve of Officers.

$10 will be paid to the author of the best article published in each issue. In addition, annual
prizes of $60 and $20 respectively will be awarded to the authors gaining first and second
places in the year.

The information given in this Journal is not to be communicated either directly or indirectly
to the Press or to any person not authorized to receive it.
No. 325, June 1976

Contents

Editorial
Alexander and Eisenhower: Their Career Lines of Ascent
Captain W. J. Graco

Logistics can be Logical — Maintenance Areas, Operating Stocks and Reserves
Lieutenant Colonel G. J. Loughton

The Fat Canary — A Unique Leadership Challenge
Captain L. J. Gregson

New Warfare Concepts for the Industrial Society
Lieutenant Colonel Carl D. Walbeck

Book Reviews

Foreword to "The Grim Glory of the 2/19 Battalion AIF"
Brigadier J. H. Thyer CBE DSO

Letters to the Editor

No article in this Journal is to be reproduced in whole or in part without authority.

The views expressed in the articles are the authors' own and do not necessarily represent official opinion or policy.

© Commonwealth of Australia 1976
An Army Light Observation Helicopter, the Kalkadoon, hovers as a slung load is attached for delivery to a forward area during an exercise in New South Wales.
A distinguished Editor of the *Australian Army Journal*, as it then was, Colonel Keogh, when reviewing the first eighteen months of the Journal's existence in February 1950, wrote:

"The editor of a commercial journal sold in open competition with numerous other periodicals is never in any doubt about the success or otherwise of his publication. The value set upon it by the readers he aims to attract will be accurately reflected by the volume of his sales. On the other hand, the editor of a periodical like the *Australian Army Journal*, which is circulated privately and without charge, has no accurate gauge for measuring the esteem in which his publication is held."

The Journal is now twenty-eight years old. It has had its ups and downs. It has changed its outward appearance several times and is now known as the *Army Journal*, relying on its cover to give it a nationality.

The problems of the editor remain. Is the Journal being read, or just thrown in the waste-paper-basket? Is it enjoyed and discussed throughout the Army? Do its articles "stimulate thought and encourage the study of military art", to quote one of the stated aims of the Journal as laid down in issue number one of June and July 1948?

Feedback should come by word of mouth, through the volume of articles submitted, and by "Letters to the Editor" about those articles which provoke comment and honest argument. The first two are encouraging, though, of necessity come from a limited area of the Army Community. Of letters, there are all too few, although there must be many people who disagree violently with the views expressed each month, few sit down and put their views on paper.
I make no excuse for the inclusion, from time to time, of articles from overseas. These are deliberately chosen to cover areas not previously touched on by home-grown authors, and to provoke others to write down their thoughts on a particular subject. In addition, they cover the first aim set down all those years ago: "to provide a medium through which to convey to . . . the Army . . . the latest trends in military thought at home and abroad." 

* * * *

A SYMPOSIUM OF
AN AUSTRALIAN NUCLEAR WEAPONS CAPABILITY

On 6th August 1975, the United Services Institution of the Australian Capital Territory held a symposium on the question of "An Australian Nuclear Weapons Capability". Two Syndicates which contained USI members as well as a number of non-members examined the problem and their resultant reports were presented to a General Meeting of the USI.

The results of the Syndicates' work have been published and copies of a 32 page pamphlet entitled "An Australian Nuclear Weapons Capability" are available from the Secretary, USI of the A.C.T., Major M. C. N. D'Arcy, MPO Staff, Department of Defence (F-3-07), Canberra, at a cost of $1 each."
Alexander and Eisenhower: Their Career Lines of Ascent

Captain Warwick J. Graco
Australian Army Psychology Corps

INTRODUCTION

This article outlines the critical learning experiences in the service careers of Field Marshal Alexander and General of the Army Dwight D. Eisenhower. This account covers their careers until the triumph of their training and experience as senior service commanders in World War Two. The aim of the article is to elucidate those incidents and events which were instrumental in influencing their attitudes and behaviour and in teaching them new perspectives, knowledges and skills.

First, a summary will be given of different basic types of career lines in the military and the different types of military leaders. This summary will serve as a background to summarize the career lines of Alexander and Eisenhower.

A BACKGROUND

Career Lines

The father of Military Sociology, Morris Janowitz, distinguished the following types of career lines of ascent:

a. Prescribed career. This is a career in which the officer has followed the idealized pattern; for example, he attended staff, corps and tactical courses; he has had proper command and staff assignments; he has avoided low prestige jobs.

b. Routine career. Officers who follow the rules of the game but who, at crucial points of their careers, were not given the opportunity to attend higher schools, or who refused to accept

Captain Graco graduated from the University of New South Wales in 1970 with a degree in Psychology. He was called up for National Service and attended the OTU in 1971. He was posted as a Psychologist and served in Sydney, Singleton and Kapooka. He transferred to the ARA in 1972, and is as present serving in 1 Psych Research Unit, Melbourne.
those staff posts which have come to be thought of as part of the prescribed career. These officers usually rise to command technical services or specialized support formations.

c. *Adaptive career.* These officers had the essential elements of the prescribed career, but, for their time, they had additional and unusual experiences. For example, they were officers who reached into the future by associating with experimental weapons; or who, early in their careers, had unique educational experiences or politico-military assignments which taught them negotiation skills and innovative perspectives. These experiences, though thought to be barriers to a successful career, in the end helped them to enter the military elite.

Furthermore, in his research, Janowitz found that prescribed careers performed with high competence leads to entrance into the professional elite, the highest point in the military at which technical and staff functions are performed. By contrast, entrance into the smaller group — the elite nucleus — where innovating perspectives, discretionary responsibility and political skills are required, is assigned to persons with unconventional and adaptive careers.

Janowitz explained that top leadership, especially in a crisis, is seldom reserved for those who take no risks. An unconventional career, within limits, can imply a predisposition toward innovation, or at least, criticism of the operation of the military establishment at any given moment. It implies the officer has undergone experiences which have enabled him to acquire new perspectives, new skills, and a broader outlook than is afforded by a routine career. Unconventional or unusual careers, however, must be developed within the framework of existing institutions, since officers who express too openly their desire to innovate and criticize are not likely to survive.

Janowitz further discovered, after studying a sample of the officers who gained entrance into the “elite nucleus”, that they tended to be rule breakers and individualists; that is, they tended to be “mavericks”. Their perspectives were not captured and blocked by traditions of the profession. He also emphasized it is these innovators who have the responsibility of adapting the military to new tasks.

**Military Leaders**

In addition to outlining three different military career lines, Janowitz identified three types of military leaders. These are:
a. **Heroic leader.** He embodies traditionalism and glory. He is a perpetuation of the warrior type, the mounted officer who embodies the martial spirit and the theme of personal valour. Examples of heroic leaders include General George S. Patton, Field Marshal Bernard Montgomery, General Joseph Stilwell, General Douglas MacArthur and Marshal Georgi Zhukov.

b. **Military manager.** He is concerned with the national and scientific conduct of war. He is a professional with effective links with civilian society. Examples of military managers include General George C. Marshall, General Dwight D. Eisenhower, Field Marshal Allan Brooke, Admiral Louis Mountbatten and Field Marshal Harold Alexander.

c. **Military technologist.** He is the technical expert or specialist concerned with the design, development, production, evaluation, operation and employment of military technology. Examples of prominent military technologists include Captain Basil Liddell Hart, General Percy Hobart, General Billy Mitchell and Admiral Hyman Rickover.

Though Janowitz established that officers who gain entrance to the nucleus of the elite usually have followed unconventional career lines and tend to have “maverick” personalities, he has not addressed himself to the problem of what learning experiences in the career of “elite” leaders are critical in preparing them for their ultimate role.

As stated, Alexander and Eisenhower were both military managers and both gained entrance to the nucleus of the elite. Attention will now be focused on the critical learning experiences in their military careers. First there will be outlined a summary of Eisenhower’s career. This is based on the accounts of his life given by John Gunther and General E. K. Sixsmith.

**EISENHOWER’S CAREER**

Eisenhower was an obscure Lieutenant Colonel in 1941 and by 1946 was a hero and a substantive five star general. Early in his career he was considered by his peers to be a sound but not brilliant officer. Few thought he had a promising future. Though promotions were slow at this period (he spent sixteen years in the rank of major), almost every day was spent seasoning and educating himself for the formidable task ahead. Examination of his military career reveals there were three specific periods of preparation that served him well.
First Period

One strong but little known influence on him was that of a tough officer named Major General Fox Connor, formerly General Pershing’s operations staff officer in France. Eisenhower worked for him for two and a half years from January 1922 to September 1924. Connor taught Eisenhower the following lessons:

a. The value and virtue of military reading. At West Point Eisenhower had shown nothing but contempt for military history. Connor had a well stocked library of his own and impressed upon him the need for incessant study of the classics of war and the importance of critical thinking.

b. An order was an order. He should never put a personal view forward unless asked.

c. To watch George C. Marshall, who he considered to be a promising officer destined to rise to the top.

d. The Treaty of Versailles made another war inevitable and that this war would be a coalition war. It would be won by co-ordination of the western allies under a unified command. It would come in thirty years.

e. The chief problem of this war would be logistics.

Second Period

This period of preparation occurred in the late twenties where, as a member of the staff of the Assistant Secretary of War, he had to study ways to mobilize American industry in a future war. Though he did not receive much help from the firms he visited, because of the depression he gained assistance from Bernard Baruch, Chief of the War Industries Board in 1918, who thought that as soon as war was imminent an agency would be needed to control prices, wages and raw materials. There was considerable opposition to Baruch’s views but a congressional committee was working on the problem of how to take the profit out of war. This gave an opportunity to the War Department to do something about the problem. Consequently, in conjunction with Colonel Williams, an engineer, Eisenhower drafted a plan for the reform of the technical services and for industrial mobilization. MacArthur, after his appointment as chief of staff, being receptive to new ideas, gave weight to their proposal. Though their plan was far from a masterpiece it made an impression on the General Staff. As a
result, officers of ability from the Army and Navy were sent to the recently established Industrial College to study the relation between industry and military preparation. This experience was beneficial to Eisenhower, as it taught him the intricacies of industrial mobilization.

Third Period

This period lasted to June 1942 after he was called to Washington in December 1941. It was here he met Marshall, on whom he made an immediate favourable impression. Marshall immediately tested him to see how he would handle the Pacific Strategy. Eisenhower took only a few hours to produce a detailed plan, with which Marshall agreed.

Eisenhower was first appointed Assistant Chief of the War Plans Division. Shortly afterwards he was appointed Chief of the Division — which was later renamed the “Operations Division”.

During his stay in Washington, he worked on the Pacific and European strategies — especially problems of allied command and operational priorities. As a result of his detailed studies, he came to
the conclusion a cross channel operation from the UK was required to open up a second front against Germany and relieve pressure on the Russian Front. He also became an advocate of all allied forces in each theatre being placed under the command of a supreme commander. He was also fortunate to attend the Arcadia Conference, where Roosevelt and Churchill discussed the course the war should take against the Axis powers. This gave him valuable insight into policy making at the top level.

While still measuring him and in particular seeking to find out how he would relate to the British, Marshall despatched Eisenhower to the United Kingdom in May 1942. On his return he produced a masterly thirty-page directive providing for unified command of all American troops allocated to the European War and outlining the course American participation should take. Marshall read the document carefully and three days later announced Eisenhower would command American forces allocated to Europe.

This posting to Washington had given Eisenhower insight into the personalities of Roosevelt, Churchill, and Marshall and taught him much about politico-military policy making. These experiences were to ably assist him in his role as Supreme Commander Allied Forces Europe.

Other Experiences

These learning experiences alone were not sufficient to prepare Eisenhower for the momentous task that lay ahead of him. Other learning experiences critical in his preparation included serving as an instructor and later as a commander of a tanks corps training centre in World War One. This experience taught him much about citizen soldiers and introduced him to the tank. Shortly after the war had finished he met Patton and, in collaboration with him, developed a new doctrine for the use of tanks as an independent mobile force instead of being an appendage of infantry. At that stage this idea was contrary to orthodox thinking and he was censured by his Chief of Infantry and told his ideas were not only wrong but dangerous. He was ordered that what he wrote had to be compatible with current doctrine. Though disappointed, this experience taught him the potentialities of the weapon he would later use in Europe with Patton.

Just after the First World War finished, he took part in an ambitious truck convoy operation over ten thousand miles of American
roads. This was before properly sealed highways existed. This exercise taught him much about mobility and problems of supply to mechanized columns.

In 1925 he attended Command and General Staff School at Fort Leavenworth. He topped his class after fearing he would fail through lack of technical experience. He worked mercilessly hard and was assisted by the preparation he had received from General Fox Connor. A few years later he attended War College when Connor was its Commandant.

In the late 1920's he spent eight months in France as a member of the American Battle Monuments Commission. He seized the opportunity to look over minutely every battlefield of World War One, little realising he was observing the scenes where his own day of reckoning would come.

As a junior officer he had several appointments as an assistant to senior commanders. One of these postings was Military Assistant to Macarthur, at that time Chief of Staff of the US Army. Eisenhower's job included drafting statements and letters and organizing MacArthur's Office. This posting introduced him to the fact that political and military problems cannot always be separated. Though he aspired to be a field commander, most of his later postings were staff appointments. He had a remarkable record as Chief of Staff to General MacArthur in the Philippines; to General Thompson, Commander Third Infantry Division; to General Joyce, Commander Tenth Corps; and to General Krueger, Commander Third Army. He was, as stated, one of General Marshall's chief staff officers. All of these officers were impressed with his performance. These postings were invaluable in developing his managerial expertise.

The grinding interminable pre-war years had one advantage: he had a wide range of postings and thus built up a broad acquaintance with Generals Omar Bradley, Mark Clark, Bedell Smith, George Patton and others. Eisenhower was perceptive in detecting what his colleagues' strengths and weaknesses were and later, when they were his subordinate commanders in the Second World War, he was able to select them for jobs for which they were suited.

While serving as a Military Assistant to MacArthur in the Philippines, he was forced to study the defence of the islands after it was
decided by Congress that the Philippines would be given its independence in 1946. His task was to plan a force which would be ready to take full burden of defence when American protection was removed and at a cost the Philippines government could afford. Part of this study included the analysis of air defence. As a result of this study and his learning to fly at the age of 46, he found out much about the aeroplane as a weapon of war.

The final critical learning experience was the Louisiana Manoeuvres of 1941. At that time it was the largest, most elaborate, and realistic exercise held in American history. Eisenhower was largely credited with being the brains of General Walter Krueger’s Third Army defeat of rival General Ben Lear’s Second Army. Everything Eisenhower had learned in twenty years of military service came to full expression in these manoeuvres.

CONCLUSIONS

The factors which stand out as being important in Eisenhower’s career include:

a. The first ten years of his service were spent with troops. Here he learned the art of leadership and how to get the most out of the men under his command.

b. Through his association with Patton and Connor he matured into a hard working officer who appreciated the value of reading widely and of critical thought.

c. Being given an accurate portrait of the war to come by Connor and the requirements for his ascendancy.

d. Gaining managerial expertise via assistant and staff appointments.

e. Through posting rotations, meeting and establishing fraternal ties with his future subordinates who would execute his directives.

f. Gaining knowledge of the tank and aeroplane — their strengths and weaknesses.

g. Being assigned projects which taught him much about politico-military problems, strategy, tactics and industrial mobilization.

h. Being an active participant in two large exercises which gave him first-hand knowledge of the problems of tactical mobility, logistics and the command, control and co-ordination of large formations.

i. Gaining insight into the citizen soldier who would make up the bulk of the US Army of World War Two.
j. Finally, visiting the scene in Europe as a prelude to where his own crucial campaigns would be fought.

These then are the learning experiences which prepared Eisenhower for his ultimate role.

ALEXANDER’S CAREER

Alexander’s First Apprenticeship: The First World War

Attention will now be focused on Alexander’s career. The summary given below is based upon General W. G. F. Jackson’s biography of Alexander’s life.

Alexander, after graduation from Sandhurst, joined the Irish Guards as a platoon commander. From this point he was to rise to command a brigade at the end of the First World War. The first part of this apprenticeship was his baptism under fire, where he was confronted with the test of fear.

During this testing period he felt and saw the effects of fear, fatigue, and combat exhaustion. He quickly learned how much soldiers could endure before there was a dramatic deterioration in their performance. As a result he learned the first important lesson of war: what was physically and psychologically possible from soldiers in conditions of war. He also became an exponent of the Battle Techniques School, where he saw training consisting of battle PT, battle inoculation training, and teaching of simple drills which soldiers would automatically use in combat.

In terms of war itself, he learned how unpredictable it is and how a commander has to, where possible, minimize risks and uncertainties. He also learned:

a. Need for foresight, careful planning, training and rehearsals.
b. Need for balanced dispositions to exploit success and stem failure.
c. Need for a properly constituted reserve with its routes clearly marked forward so it could follow through after the opposition’s defences were breached.
d. Need to maintain a sense of what was practicable, no matter how bad the situation.
e. How to improvise.
f. How, at Ypres and on the Somme, it was profitless to struggle against the weather — a lesson he was to put into practice during the winter months in Italy during 1944-45.
He learned all this while the old Imperial Army, of which he was a member, perished whilst fighting machine guns and artillery with rifle marksmanship, discipline, and comradeship.

The second part of his first apprenticeship was his baptism as a leader. Alexander was thoroughly tested in this role from platoon commander to brigade commander and he proved to be a sound leader who was reliable under fire. Factors contributing to his effective leadership were his stability; his proven judgement; his higher character as displayed by his sense of integrity, duty and humanity; his insistence on high standards and his standing by his men.

The First World War also taught him how to lead, inspire and organise his men through the harsh realities of war. He especially learned how to launch his men into battle; that inexperienced troops had to be carefully committed to battle so to build up their confidence, and that the sub-units under his command had to be given tasks to execute which were within their capabilities.

Another aspect of his style of command to emerge in this period was his tendency to improve on methods and techniques available rather than experiment with new ideas. His secret of success lay in achieving a high standard of professionalism with what was already in practice.

Second Apprenticeship: International Regimental Experience

From 1919, until he entered staff college in 1926, Alexander gained experience as a regimental officer, first in Poland, then as part of the Talents Mission in the Baltic States, and finally as a battalion commander in Turkey. These experiences taught him about the nuances of politico-military problems and helped to foster the development of his political acumen and his negotiating skills.

After the Treaty of Versailles and the re-creation of Poland and the Baltic States, he had to help restore political stability in situations where there was an explosive mixture of different nationalities competing for sovereignty over their country. As a result of his involvement in these situations, Alexander learned to appreciate another nation’s point of view and gained experience in disentangling the webs of political intrigue by finding solutions or compromises suitable to all parties. He also gained an intimate knowledge and respect for Germans, whom he commanded during the Baltic crisis, and of the Polish people. These experiences were invaluable in helping him to understand his future foe in World War Two and helping him to manage the Polish Division
which was given the task of storming Cassino in Italy in 1944. It should also be pointed out that these experiences put him in good standing for managing the political crisis in Greece in 1944.

The final aspect of this period was the evolution and refinement of his style of command, which was based on suggestion rather than direct orders. In one sense this style was advantageous in managing armies made up of different nationalities but it was to be a weakness in his make-up in the Second World War with Americans. American commanders experienced difficulty in comprehending what was required of them because they were used to command by direct orders.

**Third Apprenticeship: Staff Training**

In 1926, at the age of thirty-five, Alexander entered Staff College to be taught the intricate organizational problems of co-ordinating all arms. In what can only be labelled a “theoretical environment” Alexander did well, impressing his instructors with his problem solving ability and his uncanny knack of arriving at a practical and common sense solution. It was here he met his future subordinate commander Bernard Montgomery, who was an instructor at the college, and thus gained an appreciation of Montgomery’s personality.

From 1928-30 Alexander was appointed as Colonel of the Irish Guards’ Depot. In January 1930, he entered the Imperial Defence College to be taught the strategic aspects of higher command.

After completion of this course he was posted as GSO 2 and shortly afterwards as GSO 1 in the Directorate of Military Training. This was Alexander’s first and only staff posting in his military career.

**Fourth Apprenticeship: Prelude to Higher Command**

After a two year posting as a staff officer, Alexander was posted to India as a brigade commander. His job basically entailed quelling tribal unrest and violent outbreaks in frontier regions. This posting was invaluable as it gave him further practical experience in commanding a formation, an appreciation of Indians which was a prelude to his overall command of Indian divisions in the Middle East and Italy in World War Two, and it taught him the rudiments of mountain warfare which also was a prelude to mountain fighting in Italy in World War Two.

**Higher Command: Divisional Commander**

In 1936, he was posted as ADC to King George VI. He was then promoted over many people senior to him to be a divisional commander in 1939.
As part of the BEF in France, Alexander witnessed the German blitzkrieg. It taught him the value of achieving and exploiting surprise by throwing the enemy off balance and not allowing him to recover. He was also impressed by the timing of Von Bock’s Army Group secondary attack when it struck at the junction of the Belgian and British Armies to draw away reserves before the primary attack was delivered by Von Rundstedt’s Army Group. This experience confirmed his own conviction in using a boxer’s style to defeat the enemy — feinting with a left hook before delivering the knock-out blow with the right.

It was during this period that Alexander met and made a favourable impression on General Allan Brooke. Brooke was impressed by the way he competently managed his division in retreat and his willingness to co-operate when chaos and confusion reigned.

**High Command: Corps Commander**

Upon his return to Britain, Alexander was made a Lieutenant-General and given command of I Corps in northern England. Here he was forced to make a detailed study of the problems of repelling a German seaborne invasion. This planning was a prelude to his planning and executing the seaborne invasion of Sicily and then Italy.

**High Command: Army Commander**

In 1942, he was sent on a rescue mission to Burma. Though out-generalled and defeated by the Japanese, Alexander confirmed Brooke’s confidence in him and Churchill’s belief that he was his ‘champion’. The Burma retreat also showed it was his soundness and reliability rather than his brilliance which were instrumental in preventing a retreat from becoming a rout.

**High Command: Theatre Commander**

After Burma and with Churchill’s loss of confidence in Auchinleck, Alexander was again despatched on another rescue mission to the Middle East. As a commander of the Middle East theatre, Alexander met and made a favourable impression on the Supreme Commander, Eisenhower. This mutual respect and liking of each other established an atmosphere of co-operation between the two men. This establishment of favourable ties was to be invaluable to both when Alexander became Eisenhower’s Army Group Commander.
Alexander's role in the Middle East Theatre was secondary to that of the brilliant Montgomery. In what was a purely military role, Montgomery was to execute Alexander's directives in defeating and driving Rommel's Axis forces out of the Middle East. Alexander, as a chairman of the board, protected his managing director from the political and strategic problems of command.

After allied ships were sunk off Tobruk because of lack of air support, Alexander realised that Tedder's warnings had been correct. He was not to forget this lesson when planning the invasion of Sicily and Italy.

**High Command: Army Group Commander**

After the Axis forces were expelled from Libya, Alexander was made an Army Group Commander to co-ordinate the destruction of the remaining Axis forces in Tunisia. In leading polyglot armies made up of British, Free French, and American soldiers he had to use all his tact and diplomacy in resolving differences, misunderstanding, and
national ambitions between these forces. This campaign demonstrated his ability to obtain cohesion where friction and disunity threatened. The campaign taught him the timely lesson of not to underestimate the ability of the Americans.

CONCLUSIONS

The critical learning experiences in Alexander's career included:

a. His initial apprenticeship where he was subjected to the test of fear and test of command. The First World War taught him how soldiers react to battle and what was physically and psychologically possible from them in conditions of war. This war also taught him how to lead, organize and inspire men when their lives were threatened. Finally, his first apprenticeship taught him about the nature of war itself and the requirements for success in battle.

b. His second apprenticeship taught him how to lead soldiers of other nationalities and it fostered the development of his political acumen and negotiating skills.

c. His third apprenticeship was academic, where his field training was supplemented by training in the managerial functions required for higher command.

d. His fourth apprenticeship, though only brief, gave him further practical experience in commanding a formation.

It should also be recognised from when he joined the Army before the First World War until the triumph of his training and experience in Sicily and Italy in the Second World War he was taught the following lessons:

a. The superiority of machine gun and artillery fire.

b. The rudiments of mountain warfare.

c. The intricate problems of seaborne invasion.

d. The integral need for cover by fighter aircraft in operations, and

e. How not to underestimate the technological expertise and fighting capabilities of the Americans.

COMPARISON OF ALEXANDER'S WITH EISENHOWER'S CAREER

a. Alexander had only one staff posting in his career, most of his postings being field commands. In contrast, Eisenhower received many staff and assistant postings but few field commands. This point is
significant when it is realised Alexander’s ultimate role was that of a field commander and Eisenhower’s ultimate role was that of a theatre commander.

b. When formal and informal learning experiences are compared, such as staff training and “on job experience”, it is evident both types made significant contributions to their development as senior commanders. In terms of importance, informal learning experiences proved to be more crucial; that is, perspectives, knowledge and skills gained from their various postings influenced their outlook more than formal training.

c. There are many similarities between their personalities. Both were men of proven judgement, both were hard workers, both had high moral character and both were free of signs of instability. From a negative point of view, one characteristic Alexander lacked was creativity. Alexander’s lack of imagination at the senior level was compensated by his successive Chiefs-of-Staff, McCreery and Harding. Both subordinates had creative minds. Eisenhower showed from the beginning of his career a capacity for innovative thinking. This capacity was assisted by his magnificent command of the English language — especially his ability to put his ideas across verbally.

d. A study of their careers indicate that the Second World War was a significant culmination point in their lives, where their struggling and striving to master the tools of their trade bore fruit and they fulfilled themselves. For Alexander, the triumph of his personal striving, his training and his experience was in Italy where he succeeded in drawing away from the European Theatre sufficient troops to allow Eisenhower to mount a successful invasion and where he finally defeated the German forces still stationed there in 1945. Eisenhower’s triumph and fulfilment occurred after he was appointed Supreme Commander of the Mediterranean and later European Theatres. He successfully welded together forces of different nationalities as a co-ordinated organization to drive the Axis from Africa and the Mediterranean Sea and later mounted a successful invasion of Europe and defeat in detail the remaining German Forces.

AN OVERVIEW

This examination of Alexander’s and Eisenhower’s military careers provided many important insights into the requirements for identifying and preparing future senior military commanders. It must
be emphasized these findings must be viewed with caution for the following reasons. Firstly, only the careers of two military managers were examined. It is likely that a broader sample of subjects would modify these findings. Secondly, the careers of military fighters and military technologists warrant exploring to see if there are any significant differences in their career lines of ascent as compared to those of military managers. Finally, it must be recognised that Alexander and Eisenhower represent two commanders who rose to the very top. Only a privileged few ever attain these heights. For the remainder, they have to accept they will not rise as far. Therefore, it is possible many of those who do not make it to the top might have been ruled out for reasons other than lacking the required potential or following the desired career line. To put it in the perspective of Janowitz’s findings, a “maverick” personality and an adaptive career line assist those who aspire to ascend to the top but these factors should not be construed as being the only ones required. There are others.

Taking these warnings into consideration, these findings still provide some valuable lessons. Alexander’s and Eisenhower’s lives demonstrate that both had meteoric rises once the critical point in their careers was reached. Prior to this point, both had what would appear to be superficially mundane careers where few thought they had spectacular tasks ahead of them. As this study has shown, the various postings and jobs they were assigned laid foundations upon which the edifice of their careers was built. It took the fortuitous event of World War Two to catalyze their ascension. If this event did not occur it could be argued they would have been left to “wither on the vine”.

Since they were “late risers”, a complementary lesson to be learned is that it took their seniors a long time to recognise they had the required credentials before starting to use their talents in a significant way. This point also implies that it took in excess of twenty years of training and job experience to prepare them for their ultimate roles and to show they had the required qualifications. This lesson casts an element of doubt on those individuals who have premature promotions because of some service exigency or because of promising talents. Without an adequately laid foundation they could experience failure if they meet a situation beyond their capabilities and for which they have insufficient time to readapt or make compensations for their deficiencies. One has only to think of Lieutenant General Ritchie being appointed by Field Marshal, (then General) Auchinleck, to Command
the 8th Army in 1942 while still junior in age and seniority to his corps commanders. Here a competent officer was sacked after being soundly beaten by Field Marshal Rommel, because he had been rushed into a job he was not fully prepared to undertake. Fortunately, later in the war he proved to be a successful division and corps commander. From this point of view Alexander’s and Eisenhower’s careers were successful because they each had a wide, varied and balanced preparation through a broad range of learning experiences.

Though these lessons are evident, it cannot be over-emphasized that a broader sample of commanders would assist to clarify the determinants of career ascension and help identify more clearly those learning experiences which are critical in the preparation of senior commanders.

**SOME SIGNIFICANT LESSONS**

From a study of their careers, some tentative conclusions are stated in the paragraphs below.

Greater premium should be given to informal learning experiences gained from posting assignments. That is, postings should achieve the following goals:

a. Familiarise officers with the possible geographic regions where future wars could be waged.

b. Test those officers who appear suitable for command at the strategic/policy making level in their ability to relate to people — especially people of different nationalities. Particular attention should be paid to:

(1) how well they weld people with conflicting personalities or policies together as a team and get them working towards common objectives;

(2) their political acumen or how well they understand the nuances of political/strategic problems and are cognizant of the political consequences of any recommendations they make; and

(3) their negotiating skills, or their diplomacy or tact, and how well they can manage and resolve political problems and conflicts and reach solutions or compromises acceptable to all parties.

c. Test those officers who actually prosecute the war; how they cope with fear and how they fare as leaders in battle. These officers, once they have proven themselves under fire, irrespective of whether they be military managers or military fighters, should be prepared for their ultimate roles as commanders of operational formations and units. It must be noted soldiers would rather be led by a commander who has
proven himself in battle than someone who is of doubtful ability or a novice.

d. Familiarize officers with the different organizational structures, their technologies and their operational concepts so they can gain an intimate knowledge of their strengths and weaknesses and their practical applications. For example, Eisenhower through his prior experience with the tank knew what it could do and could not do in the Second World War.

e. Give officers a working knowledge, through field exercises or postings to combat zones, of operational mobility, operational logistics and the command, control and co-ordination of Army organizations in various scenarios — amphibious operations, mountain warfare and jungle warfare. It should be noted that the emphasis should be on teaching officers by practice rather than by theory.

f. Assist officers to establish fraternal ties with colleagues who could be their future superiors, equals or subordinates in war. The opportunity of meeting and gaining knowledge of the strengths and the weaknesses of a substantial cross section of the officers corps allows potential senior commanders to:

(1) identify and select those officers who they will weld together as their team when they are promoted to senior command, or

(2) help them to be familiar with those officers they will work with if they are brought together as a team in peace or war.

In terms of formal training, courses should be construed as “compressed learning experiences” where officers can be given a grounding in various principles, concepts and facts. This training supplements their career development. It should be noted the value of formal training lies not in an officer’s ability to absorb knowledge taught but in his ability to apply it to practical situations.

In summary, the military careers of Alexander and Eisenhower have obvious implications for officer career management in a modern army. %

NOTES
2 ibid., pp. 11, 12.
3 ibid., Ch. 8.
4 ibid., Chs. 2 and 8.
JUST about every logistic problem on a tactical exercise, and just about every logistic exercise, considers whether or not to establish a maintenance area for a task force, a TFMA. Some exercises also consider DMAs, FMAs etc. Almost invariably the decision is to establish an MA. This is often for no better reason than that an MA is there as a concept so it must be meant to be used. And the directing staff often have no better reason, either. Similarly, a stocking policy is usually arrived at by a pretty arbitrary setting of so many days operating stocks and so many days reserves. I believe there are clear and understandable implications in saying yes or no to MAs, and in setting stock levels. Yet obviously few people do understand the implications. I believe I do, hence this article.

Maintenance Areas

The essential point about an MA is that it is undesirable. Avoid it if you can. An MA, by definition, is stocks on the ground. Stocks on the ground mean there is a price to be paid. The price is reduced mobility for the commander or else waste of transport resources to shift stocks unnecessarily. If you put five days' stock on the ground either
the commander needs to give five days’ notice of an intention to move, so stocks can be eaten out, or else the leftover has to be loaded, transported and unloaded — all as completely extra tasks.

Another disadvantage of an MA is that its establishment will cost engineer effort. The more days of stock to be held the bigger the area occupied and the more engineer effort. And the more supply platoons are needed.

So if an MA is undesirable, when is it, nevertheless, necessary? The answer depends on the reliability of your delivery system. If a delivery of combat supplies to user units could be guaranteed for each and every day, there would be no need for an MA!

To depart slightly from that categoric statement, the reality is that the best possible delivery is likely to be to TF each day, but that isn’t to user units. Hence there has to be up to, say, one day’s worth being processed by a TF supply platoon. However that, I think, deserves the label “bulk break”, rather than “an MA with working stock of one day.” So provided the pipeline is filled first (ie three days in the unit — until breakfast has been eaten — and one in the supply platoon) regular daily delivery from then on would mean an MA could be avoided. Thus the answer to the question “so when do you have to have an MA?” is when you can’t guarantee daily delivery — but only then.

**Operating Stock**

The level of operating stock is directly set by the delivery plan. If the plan is to deliver every three days, then operating stock is set
at three days. That, by the way, means stock at any time can be anywhere between 0-3. In fact that is exactly what you are planning — to have your level go up and down between 0 and 3 on a regular cycle.

The statement above is that operating stock is set by the delivery plan and so it is. To the extent that you are uncertain about how well you will keep to the delivery plan, then you set up reserves. Reserves will be considered below. Enough for now to observe that if you plan to deliver every four days, but tell yourself that your operating stock is 10 days, then really you have a six day reserve and you are fooling yourself.

The theme of these remarks is “first set your delivery plan and that will give you your operating stock”. Obviously the sequence can be the other way around. In fact it should go backwards and forwards. four days, you have at least these options — use all the trucks each four days, use half each two days or use a quarter of them every day. I hope you will want to keep forward stocks low but there can be other factors. Are infrequent convoys more easily protected? Do you know the TF won’t move for a month anyway? What is the TF going to do next? Low or no stocks is a desirable objective, but it has to be weighed against what delivery frequency is best for other reasons.

The idea that operating stock is set for you once you know your delivery plan is just as true at all levels, at Div, FMA, and Theatre (if any). If it is said that Theatre operating stocks are 30 days, this might mean for example, TF — 3, Div — 5, FMA — 10, Theatre — 12. Note that these figures add up to 30 — or they should. What they say is:

a. The support area resupplies the Theatre every 12 days;
b. The Theatre resupplies the FMA every 10 days;
c. The FMA resupplies the DMA every 5 days;
d. The DMA resupplies the TFMA every 3 days.

Thus in this case we are saying that operating stocks are 30 days because a ship arrives every 12 days and it takes 10 days to DMA, etc.

If what you really meant was that a ship arrives every 30 days, your Theatre stocks were really 30 + 18 (not 12 + 18) in the above example. So it isn’t enough to say “Theatre stocks are 30 days” unless
you also say what the operating levels are at each stage further forward. Then, just to be thorough, it should be pointed out that it is only the task force strengths that need the full, say, 30 days in Theatre, Div strength needs 30 — 3 = 27, FMA strength 30 — 8 = 22 (or 12 + 10 = 22 if you like).

By the way, it is worth observing that all inventory control systems have this sort of logic behind them. For example, 2 AOD in South Vietnam supplied items with usage rates that varied much more than usage rates for combat supplies. Even so, 2 AOD's basic control figure was a 90 day operating stock level. It was set at 90 days because it was desired to give a delivery of each item to the depot once every three months (on the average). The same logic, as you can see.

**Reserves**

Earlier, I said that operating stocks were set according to the frequency of delivery *planned*. That deserves emphasis. Operating stocks depend on the plan and only on the plan. But no plan can be guaranteed. There must be uncertainty and that is what the reserves are for.

Reserves, too, should be set on a basis of logic (though not of certainty since no one can predict the future). A logical approach is to ask how long the normal delivery might be delayed. If the plan is to deliver to a TFMA every four days, is a delay likely to be one day, two days or even a full cycle of four days? Or could it be two full cycles? If it could reasonably be one full cycle, the reserve would be set at four days. But the allowance should not be for the really remote possibilities unless, perhaps, they would mean disaster. For example, on a planned four day road delivery cycle where it is probable that you could lose a full cycle but only remotely possible that two cycles could be lost — and you could use air delivery if you had to — then you ought to keep the reserve to one cycle's worth only, ie four days.

But as well as late delivery you should allow for intense usage rates, though only for certain commodities. Thus if you could double your tank ammunition usage you should have a reserve of a full extra operating stock's worth. This will cover the normal *period* between deliveries but with double the normal *rate*. But obviously you don't do this for everything. Foodstuff usage isn't likely to vary upwards much. And if some items do, can you issue something else for a day?
Note also that you could have more than one reserve. For example a TFMA might have:

a. Operating Stock 4 days
b. Reserve (assuming possible \( \frac{1}{2} \) cycle delay) 2 days
   (and the comd has in mind to put a second TF in there at short notice, for which the worst case would be a need for 4 days operating stock and a \( \frac{1}{2} \) cycle reserve) so,
c. Div Comd Reserve 6 days

\[ \begin{array}{l}
\text{Operating Stock} & 4 \text{ days} \\
\text{Reserve} & 2 \text{ days} \\
\text{Div Comd Reserve} & 6 \text{ days} \\
\hline
\text{Total} & 12 \text{ days}
\end{array} \]

Conclusion

The conclusion can be put briefly:

a. Don’t use maintainance areas unless you can’t guarantee daily delivery.

b. Some maintenance areas will be inevitable but use as few as possible, eg deliver direct from FMA to TFMA.

c. If you do use maintenance areas remember they absorb engineer resources, impair mobility and cause double handling, so keep the stock levels low.

d. Set your operating stock level as the delivery frequency you plan to achieve.

e. If you think you are setting the operating stock at some higher figure you aren’t really, you just have a hidden reserve.

f. Set reserves after an appreciation of what might go wrong — quantified.

g. And remember, if you don’t use it you will have to shift it.
THE FAT CANARY
A UNIQUE LEADERSHIP CHALLENGE

Captain L. J. Gregson
Women's Royal Australian Army Corps

In the past two and a half years, several sound steps have been taken towards better, more effective utilization of female troops. We have seen the opening to women of numerous employments formerly not available, the posting of Other Rank women to units of the Field Force, the growing acceptance by many corps of junior officers into corps-training and the disbandment of WRAAC Companies of the Army Reserve. Every day sees a closer identification of women soldiers with their employer corps and a decline in the relevance of the corps of women. We are witnessing the effective disbandment of the WRAAC. Many hundreds of women have been serving in a de facto relationship with their employer corps for years — it won't be much longer before the marriages are legitimized.

These changes however, are bringing with them a leadership problem unique in professional soldiering. It is simply, that many women officers and soldiers will decline the opportunities being offered them. This phenomenon is probably best described by the maxim — "the cage door is open, but the canary won't fly out". To military leaders at all levels and of either sex, this negative attitude presents a perplexing predicament. How can we make the canary want to be an eagle, for whom any cage is too small?

Such leadership should perhaps come primarily from women officers and NCOs. However, many of these are canaries themselves.

Captain Gregson has previously contributed to the Army Journal in September 1973. She is at present OC Melbourne Transport Unit.
There are several reasons for their disinclination. Among some women officers and NCOs there is a strong feeling of sentiment for past sensations. This retrospection is nothing as useful and durable as tradition or esprit de corps — just sentiment, and a rather maudlin longing for a return to the chummy, all-girls-together atmosphere of WRAAC Barracks of the distant past. They are suffering a sort of chronic future shock. Society, the Army, the world is changing around them, but they, like people sitting in a bathtub of cold water, are too uncomfortable to move.

Among other women officers and NCOs there are some different attitudes, equally useless and some more dangerous. Some will not want the disbandment of the WRAAC because it will erode a potential power base. Many readers will have observed the young "Ma'am WRAAC" who, because she is the senior ranking servicewoman in an area, attempts to set herself up as some sort of authority separate from and higher than the command structure of the women's own units. She personifies a crucial issue in the whole matter, that of the fundamental hazards of a second chain of command. Command and control must derive from function, not sex.

Another of the less savoury attitudes which will prevent some women leaders from accepting basic changes on a large scale is a reluctance to compete on equal terms with men. They know only too well that total commitment and involvement in a large dynamic corps will bring with it stiffer competition for promotion and training as well as a new kind of responsibility which cannot be sidestepped by fluttering eyelashes. They will want no part of any changes. Things are going along very nicely, thank you. After all, we will get equal pay one day....

Other less harmful, but very widespread forces militating against change are ignorance and a certain passive neutrality to the whole affair. These are personified in the woman who has not yet woken up to herself, the Army or a changing world. She goes through life not quite taking herself seriously as a person, as a woman, and certainly not as a professional soldier. She is the sort of woman officer who takes short service commission after short service commission for fifteen years or more, then concludes that perhaps she might as well take a permanent commission after all. If you don't believe me, check the Burgundy Book.* She doesn't quite take the Army seriously either.
It's all something of a big game. The women are never referred to as 'women' — they are 'girls' or 'kids'. At some magical moment they stop being girls and become ladies, but they are never women.

These are some of the sorts of canaries the Australian Army has in its aviary. The United States Army has discovered it has similar sorts of birds who don't want to fly. Despite an enormous increase in recent years in the number of employments open to women, in mid-74 over 90 per cent of the total number of WAC personnel were concentrated in 10 of a possible 59 career fields. Four of those 10 career fields (namely, the 'traditional' female employments) had over 70 per cent of the total number of WAC personnel. Much improvement in this area has been brought about since that time. Not least in the efforts to achieve better utilization of military womanpower are those of DACO-WITS — Defense Advisory Committee on Women in the Services — established (with much foresight) in 1951. This, and other high-level 'encouragement' agencies provide leadership in the area of policy direction and generally ride herd on those as yet unenthused on the subject of equal employment opportunity. They make the system respond.

The military canary is an extraordinary bird. Given the present attitude of such women, commanders are hard pressed to exploit to any significant degree the potential that these women undeniably possess. Their potential is vast. A female soldier can do anything a male soldier can do. She is equally a volunteer, equally a soldier, equally capable of absorbing training, equally able to attempt any task. It is her own failure to respond to the challenges now presented which is so limiting her own achievement. The psychology of the matter merits the deepest study in order that the Army, and its women, may comprehend their problem and act appropriately.

The tasks at hand then, are to develop a leadership method by which the Australian servicewoman may overcome all the myths she herself has come to believe, and to provide strong, steady guidance, particularly for this first generation of New Military Women. She must however, be led, not carried. She must recognise her cage for what it is, she must make the decision and hers must be the effort and the perseverance to achieve her own fulfilment.

* The Corps Lists of Officers of the Australian Regular Army and Regular Army Supplement.
NEW WARFARE CONCEPTS FOR THE INDUSTRIAL SOCIETY

When two major modern armies oppose each other in the Urban Environment, history has shown us that the destruction of the Urban Area is practically guaranteed.¹

Lieutenant Colonel Carl D. Walbeck
United States Army Reserve

The art of warfare has come a long way from the days when wandering tribes of Neolithic men opposed one another with stones and clubs. From these small tactical encounters, it has developed through evermore destructive processes until, today, man possesses the capability completely to destroy large parts, or all, of civilization. Believing the preservation of society is desirable, new warfare concepts must be found to solve conflict problems between nations, for it will probably long remain that the general political function of war is the decision of issues in conflict between groups.²

What makes the matter of pressing importance is that, while the ability to destroy is growing exponentially, such destruction is resulting in fewer clear-cut, win-lose decisions. It appears that military power may be becoming less adequate in resolving conflict between groups. A recent article³ explores this subject in detail and concludes that the application of traditional military force is inappropriate for today's highly interdependent industrial societies. There are other less destructive ways of applying pressure to an opponent that will result in favourable decisions.

Reprinted from Military Review with permission of the Managing Editor.
Characteristics of the Industrial Society

It is desirable to enumerate some of the characteristics of the industrial society in order to establish a common base for understanding its implications. For this purpose, "industrial society," "urban society" and "technological society" refer to the nonagrarian society characterized by interdependence among peoples to the degree that few can be truly self-reliant. Its indicators are high-density land usage, reliance on science and technology to replace muscle power and rapid communications over vast distances, all resulting in a very fragile balance between having a stable and a nonstable society.

In 1789, American society consisted of four million persons, with New York City having a population of 33,000. In all, 200,000 persons lived in "urban areas" of more than 2,500 people. Contrast that to today's population of over 200 million, with over half living in 6,000 such urban areas. The modern transportation and communications media have made possible huge, multimillion cities surrounded by sprawling suburbs. The trend is now in the direction of large metropolitan regions extending for hundreds of miles. The largest in the US are the Boston-Washington, Chicago-Cleveland-Pittsburgh, Dallas-Fort Worth, and San Francisco-San Diego megalopolises. All of these require an incredibly complex structure of supporting systems to satisfy the ever-increasing demands for food, clothing, shelter, energy and raw materials.

The rest of the world is growing at an even faster rate. In the next 25 years, the current world population is expected to grow from today's 3.5 billion to 7.5 billion, and by the year 2000, more people will be living in cities than in the countryside for the first time in history. In 1950, there were 75 cities of more than a million in the world, but, by the year 2000, there will be 275.

About half of the population of Latin America are townspeople, with countries like Venezuela, Uruguay and Argentina as highly urbanized as Britain or the United States. In the Common Market countries, a population density of 156 per square kilometer versus 21 per square kilometer in the United States is indicative of high urbanization. The Rhine-Main, Rhine-Ruhr, and Stuttgart areas have 700 to 1000 kilometers, while Western Holland, the most crowded of all, is in danger of becoming a single continuous suburb.
The USSR, with a current population of 241 million, has gone from 18 per cent urban in 1913 to 56 per cent urban today. Russia has 18 identified "major economic regions" with populations in excess of five million each, as well as 600 individual cities of over 20,000 population. Urban areas in China and the Far East are growing at similar, or faster, rates.

All the Western countries, and some of the developing ones, are engaged in large road-building programs to accommodate the increased desire for mobility that seems to accompany urbanization. The most crowded ones, notably in Western Europe and Japan, are developing complex mass transit systems to handle the huge daily movements of people.

Concurrent with transportation developments in urban areas is a vastly increased reliance on technology to speed the conduct of business and industry. Some examples are computerization of financial transactions; microwave signal transmission; automation of the power
system, railway and production operations; and use of synthetics to replace scarce or expensive raw materials. In fact, this tremendous reliance on technology in the urban environment is the single most definitive characteristic of the industrial society. Technological applications have increasingly wider ramifications as increasingly concentrations of people and organizations become dependent on technological systems.¹³

*By urbanizing, man shifts his dependence from what nature makes to what he intentionally creates and protects...we have created our own synthetic environment, and have in turn become reliant upon it.*¹⁴

### Urban Areas as Warfare Objectives

*War, when properly conducted, according to human superstition, belongs in civilianless open country-side.*¹⁵

If the above statement was really true, we would have no immediate concern about the destruction of society. Armies and navies could engage in combat with one another, and the victor could be declared the winner without any loss except to military personnel and equipment. History, however, is replete with examples of military commanders carrying combat to man’s settlements. From Babylon, to Cathage, to Atlanta, to Hiroshima, war has increasingly involved the destruction of urban areas.

To ask why urban areas have become warfare objectives, we must begin with the fact that people are most comfortable when in the company of other people. This dictated settlements, towns and cities and, with the advent of the industrial age, large urban areas. Additionally, large numbers of people in a relatively small area meant a concentrated volume of wealth in a single location. Wealth, and the promise of capturing people for slaves, dictated that settlements would be warfare objectives.

Knowing this, man since Neolithic times has endeavoured to render his settlements safe from aggression by fortifying them.¹⁶ Fortifications served well until near the end of the 15th Century, when it became evident that no masonry walls could stand the repeated impact of iron cannonballs.¹⁷ For a time, this increased the emphasis on maneuver forces and moved combat away from the cities.

It soon became apparent, however, that settlements were where the weapons and supplies of war were produced and stored, where
personnel for manning armies resided and where governmental decisions were made. Cities, therefore, had to be viewed as an important objective of warfare. Clausewitz recognized this when he stated that the capture of the enemy’s capital city, if it was the center of power of the state, was one of the circumstances that could bring about the overthrow of the enemy. Further, the battle itself is not the only means of destroying the enemy; the capture of a fortress or a portion of territory is also a destruction of the enemy’s strength.

Some military commanders believe that built-up areas are just terrain features and should be looked at in that light. More sophisticated commanders recognize that, in the industrial society, all military actions are enveloped in political goals, and, until the big cities are taken, you achieve very little. This rationale is based on the fact that government, communications, industry and population are all located in big cities. Rural areas are less important because national strength, power and influence today depend mostly on technology and gross national product, both of which are closely related to industrial development and urbanization. Therefore, we may say that the fundamental environment of land warfare is rapidly being revised by changing patterns of urban growth in the industrial nations.

The Spectrum of Warfare

Too often, warfare is thought of only as physical combat between opposing military forces, when, in actuality, it has many other forms. The US Army recognizes that the spectrum of war encompasses the full range of conflict — cold, limited and general war — and this spectrum reflects the differing nature and magnitude of violence involved in each form. With the increasing urbanization of society, recognition of these differing spectrum levels assumes greater importance than in Clausewitz’ time, when he could avow that the destruction of the enemy’s military force was the leading principle of war and that the introduction of an element of moderation into it was an absurdity. The destructive capabilities possessed by modern nations virtually dictate that some degree of restraint be employed, ere all opponents end up losers.

At the lower end of the conflict spectrum is cold war which is a state of international tension wherein political, economic, technological, sociological, psychological, paramilitary and military measures short of overt armed conflict are employed to achieve national objectives. Cold
war, and the less violent levels of limited war, are referred to as unconventional war, while more violent levels of limited war and general war are known as conventional war. It is ironic that, since World War II, conventional wars have occupied most of our attention and defence planning, but unconventional wars have been the most frequent and persistent.²⁸

It is unconventional war which attracts attention for methods of engaging in conflict in the industrial society. This occurs because an opponent’s deterrent military power may cause our own military power to be a very poor and self-defeating way of protecting or fulfilling national interests; at times, an ability to fight with military force may not be directly translatable into political authority.²⁹ The Arab oil embargo is the most recent example of this factor. In unconventional war, there are methods which permit opponents to engage in conflict for the solution of political problems without resorting to destructive war. Certainly, our destruction of the Mid-East oil fields would not have solved the political problems there, let alone our own energy supply problems.

Conventional warfare methods are also becoming increasingly restricted by society’s abhorrence of violence. The International Committee of the Red Cross seeks to limit conventional warfare by forbidding weapons calculated to cause unnecessary suffering and those which do not allow precision against specific targets.³⁰ This worthy humanitarian goal, if achieved, will force conflict down at least to the methods of limited war.

Recognition that the spectrum of warfare ranges from the non-violent to extremely violent is the first requirement for determining methods of conducting warfare in the industrial society. It then becomes a political question of knowing precisely what we want to achieve in each limited engagement.³¹

**Why General War Must Be Avoided**

*Advances in military technology have made possible the destruction of mankind on an unprecedented scale . . . .³²*

* . . . conquest no longer seems profitable, even if otherwise successful.³³*

The above statements summarize quite succinctly why general war must be avoided in the industrial society. They are essentially negative,
however, and do not offer any guidance on how to engage in conflict in this society.

Lest the conventionally trained person doubt the necessity of avoiding general war except as a last resort, it seems appropriate to consider the consequences of such war. Basically, they revolve around the tremendous destruction society will experience if modern, mass destruction weapons are used in quantity.

*Even before the discovery of nuclear power and long-range missiles (and even more so after them), this ability to attack enemy cities had made modern war different... from the traditional war between professional volunteer armies...*\(^3\)

Traditional warfare envisions armies opposing one another in a rural environment. But, in the advanced nations — in North America, Western Europe, Japan and a few other areas — most of the people live in cities, and the maneuver room outside urban areas is rapidly

(Suburban Development — Melbourne. *Australian Information Service*)
shrinking. It seems evident, then, that if conventional warfare is conducted in these industrialized societies, it will be in and through large urban areas.

How does warfare in urban areas differ from rural warfare? Bruce-Briggs tells us:

- The environment... is predominantly man-made....
- In a built-up area, the physical terrain is less difficult....
- Paved roads give access to nearly every point.
- Huge numbers of noncombatants will probably be present.
- There is a lot of stuff around that is better not destroyed; some of it is irreplaceable.
- The defense seems to have a much greater advantage over offense....

Points four and five show why heavy destruction is undesirable, while the others indicate that conventional warfare will result in tremendous amounts of destruction. The use of tactical nuclear devices is impossible in Western Europe or in most continental areas without great damage to non-military targets and to civilian populations, and without increasing the risk of escalation to large strategic weapons to a virtual certainty. In Germany and the other NATO nations, the high rate of urbanization almost assures that any military operation in that part of the world will involve urban fighting to some degree.

Even if major industrial nations initiate warfare in a rural environment, escalation to general war presents a bitter paradox. Since urban areas are warfare objectives, current weapons technology now precludes a nation from avoiding damage to its cities no matter where the field armies are committed.

It is elementary that the first consideration of military strategy is to minimize destruction to one's homeland. In view of the ease of escalation to general war, and the potential destructiveness of general war, it seems that inhibitions of some sort to deliberate resort to war have been a growing in the latter part of the 20th Century, inhibitions that reflect a diminished political feasibility or an increased political cost associated with any deliberate initiation of war. A major feature of the McNamara Doctrine in 1961 precluded attacks on Soviet cities. By this doctrine, he hoped to avoid attacks on US cities. This policy
of restraint in warfare to an acceptance of something less than "victory" in military conflict has been hard to swallow because it runs counter to all American military training, but it just may be that both civilians and combatants would benefit from the prohibition of weapons or methods of war which cause unnecessary suffering. The alternative to such restraint at least requires its consideration.

**US Army Doctrine for Urban Area Warfare**

Today's conventional military wisdom when expressed by NATO and the Soviet Bloc countries is that armored forces are the key to success. But our Armor Field Manuals in the US Army say 'except in cities'. So the very armament that's supposed to win the war for us is no good in the city, which is... really the decisive place you have to fight and win.

It is a principle of this article that the US Army does not currently have an adequate doctrine for warfare in urban areas. Field Manual (FM) 17-30, *The Armored Division Brigade*, says that combat in towns and cities is normally considered a mission for dismounted infantry, while FM 31-50, *Combat in Fortified and Built-Up Areas*, recommends by-passing or destroying such areas rather than engaging in the time-consuming task of seizing them. FM 31-50 does cover some of the techniques of house-to-house fighting, but no coverage is given to those technological aspects of urban areas that make them objectives in the first place. Even FM 100-5, *Operations of Army Forces in the Field*, only repeats the statements of FM 31-50, and its title implies the Army operates mostly in a nonurban environment. In the absence of training and doctrine, commanders must learn from experience, and experience gives the expectation of slow advance, enormous casualties and ruthless destruction of property. Therefore, the first law of urban warfare has been simple to learn — stay out of cities!

**Deficiencies of Current US Army Doctrine**

It is obvious that the Army has no broad doctrine for warfare in urban areas. At best, it tells the military commander to either by-pass or destroy the area. Without regard to traditional conservatism that resists development of new tactics, it may be that the value of urban structures and the very presence of a noncombatant population may have created an attitude that we must avoid their destruction, and, therefore, we should stay away from them. This lack of doctrinal advancement
perpetuates the idea that the military is always planning to refight the last war instead of looking toward future conflicts.

One deficiency has to do with control of large-scale population movements during military operations. Lack of doctrine in this matter contributed to the rapid defeat of France in 1940, and the US Army has done little to overcome it in the succeeding 35 years.

The US Army experienced urban combat in several European cities during World War II and later in Seoul, Santo Domingo, Saigon and Hue, but still is groping for weapons and tactics for urban war. There does not seem to be an appreciation for those elements of a city’s infrastructure whose control or disruption could aid in the task of securing it.

Why has the United States been so indifferent to urban warfare? One factor is that urban training grounds are hard to come by, so most training must be done in the countryside. Additionally, practically anyone can easily be taught how to operate in a rural environment, but urban operations require an intimate knowledge and appreciation of the complexities of urban areas.

Even today, with military literature emphasizing the changing nature of warfare’s environment, the service schools are doing little to prepare for it. The US Army Infantry School devotes 0.4 of one per cent of its 1081-hour Infantry Officer Advanced Course to “Combat in Built-Up Areas,” the US Army Armor School 0.5 of one per cent of its 1200-hour Advanced Course to “Urban Insurgency” and “Urban Operations,” while the US Army Field Artillery School does not even recognize the subject in its advanced course! Even this may be excused on the grounds that these schools are teaching officers to be small-unit leaders, the US Army Command and General Staff College devotes only 3.5 per cent, 40 hours, of its 1164-hour regular course to the subject of “Combat in Built-Up and Fortified Areas.” Even this course deals only with combat tactics. Where the future field commander is to learn about the complexities of urban warfare is still unclear.

As future war becomes more related to advancing technology, it must be conducted by commanders who operate with a technological strategy. However, our military organizations have not been geared for commanders who understand technological war, and the military school system is not producing such commanders.
Vulnerabilities of the Industrial Society

People often forget how fundamentally they rely for their survival and standard of living on the workings of the great economic machines of which they are a part.56

One of the greatest vulnerabilities of the industrial society is that the individual feels he has less and less power to make his presence felt. As such, he is unsure of his purpose and, in times of unrest, may surrender his freedom in return for purposeful leadership.57 Since national will is composed of the sum of these individual feelings, the absence of demonstrated, purposeful leadership during crisis periods can contribute mightily to a nation’s defeat. This type of defeat, through the weakening of national will, is the warfare objective in the industrial society. Properly employed, it permits the fulfillment of national objectives without the necessity of inflicting mass destruction on an opponent.

Technology, while advancing the standard of living, also contributes to the societal vulnerabilities. It appears that the more a society utilizes the benefits of technology — that is, becomes more industrialized — the more susceptible it becomes to paralyzing forms of disorganization.58 Providing raw materials and consumables to the industrial society requires complex, but interdependent, supply and distribution systems. The nature of these systems makes them susceptible to easy disruption, and the disruptions can occur in the most unlikely places. The loss of memory in a large city’s financial computer can bring to a halt the sale of goods and services to the city, pay of its active and retired employees and countless other operations related to money management.59 For systems that are highly mechanized or automated, the failure of a small control device can have consequences far in excess of its individual value. The resulting disruptions become part of the crises that industrial society leaders fear and are almost powerless to do anything about. Strikes in critical areas such as transportation, police, fire fighting, sanitation, health services and many others have a similar ability to paralyze the urban society.

In the area of deliberate disruptions, a sustained campaign of political violence has a corroding effect on society, and the government eventually comes under criticism for not keeping order.60 This attack on order and economic activity makes it difficult for the government to run its affairs in an orderly way and eventually weakens citizen support for the government.61
Another area of vulnerability is the reliance on foreign sources of supply for critical raw materials. The most recent and extreme example of such vulnerability was the Arab oil embargo of 1973-74. The solidarity of the entire Atlantic Alliance was seriously threatened as members scrambled to solve their individual problems.

The Common Market had been shown to be barely more than a weak collection of nationally-inclined states by its divided reaction to the Arab oil embargo.... The myth of a united Europe, a 'third' power in the world, taking its place alongside the United States and the Soviet Union, was easily shattered. 62

The above-mentioned vulnerabilities show that, while there may be a level at which national problems call for the use of military force, there are many noncombat measures that can be taken before and even after such a threshold is reached63 to lessen an opponent's will to resist.

A Military Capability for Urban Warfare

We cannot continue to assume that our military organizations which have been constituted to fight in rural environments will be effective in urban warfare.... they must be able to tailor the military task force for each future mission, and this should include the capability to produce urban warfare task forces at several levels of intensity.64

It is generally accepted that the Army should be capable of engaging in combat in any environment, including the urban one. The fact that the Army has not, up to this time, given serious consideration to development of new doctrine for the application of military force to the urban scene is regrettable, but capable of correction. Steps are currently being taken through symposiums, studies65 and seminars66 to grapple with the tactical problems, and, no doubt, new combat doctrine and weapons will evolve.

What is lamentable is that there appears to be a paucity of investigation on the subject of non-destructive urban warfare, and this may well turn out to be the most important warfare of all. It is perfectly feasible that "... pitched battles by conventional forces in cities may be the least likely type of urban warfare."67 The destructive capabilities of modern weapons may dictate that urban areas be taken by disruption to their infrastructure through various pressures applied to the delicately balanced, technological systems that permit them to exist. Here, the Army is weak, possibly because it considers itself in
However, some government organization should possess the knowledge and capability of engaging in these new types of warfare. While the US State Department has some of the expertise needed, it is basically peace-oriented and not philosophically equipped to attack other countries deliberately. Additionally, it does not have the operating units to do so on the spot. Similarly, the Central Intelligence Agency, while equipped to practice intelligence collection and subversion, appears to be oriented to perform on an assigned task basis and not the continuing development of plans for non-combat engagements, particularly on the technological level.

This leaves the US Army, possibly by default but probably through need, as the organization required to possess the capability for warfare in the industrial society. Used to thinking in terms of “enemy”, “attack” and “conflict”, the Army is philosophically prepared for the fighting business, not in the business of tinkering with economic and technological systems, or engaging in subversion.
warfare and needs only to acquire the necessary knowledge and develop the doctrine to have this new capability.

Central to the development of this new capability is the need for people — people who understand the functioning of the industrial society, who can plan the application of pressure at weak points in an opponent’s society and who can carry out the planned disruptions in the field.

A base of personnel for the latter function already exists within Military Assistance and Special Forces personnel. These people are trained to analyze a country’s strengths and weaknesses and to engage in unconventional warfare techniques. With some new direction and intelligence on the urban infrastructure, they can become the “combat forces” of urban warfare.

People who can develop strategy and plans for warfare in the industrial society present a greater problem. Dietchman tells us the Army should take advantage of experts outside the military in diverse fields. While this may be desirable on a supplemental basis, the Army should acquire an in-house capability for development of technological war strategy and tactics. Here, the military/civilian concept, frequently found on senior headquarters staff levels, can be used to great advantage with civilians providing long-term continuity and technical knowledge and the military providing direction and field experience. The military person must be a “special breed of cat”, for he must be both technically and combat oriented and have a broad knowledge of international relations and economic systems. Like officers in other specialties, he should be identified early and his career managed in this direction.

Another resource currently available to the Army is a large number of senior field grade officers in the US Army Reserve Civil Affairs Program. These personnel have spent years studying the functioning of foreign countries for the purpose of restoring and strengthening the country’s governmental, economic and social systems following conflict. They are among the most highly educated officers within the Reserve components, and their background knowledge could make them extremely valuable in developing this new warfare capability. In fact, the USAR program may be the ideal place to begin implementation of this new capability, at low cost and even lower public visibility.

Conflict between man and man, tribes and races and nations — and with it, war in some form — will persist tomorrow. Therefore, the
marshaling of resources, the utilization of power to achieve national
goals, the formulation of strategic concepts will continue to preoccupy
the planners of tomorrow.70

Warfare in the industrial society may begin at any time. We
must hurry to develop the capability to meet it. 92

NOTES

1 Major General Vincent H. Ellis, USAMUCOM, quoted in Symposium on
Combat in Urban Areas, US Army Munitions Command (USAMUCOM) and
US Army Materiel Systems Analysis Agency (AMSAA), Pptatinny Arsenal,
2 Steven J. Rosen, The Ideal Type of War, Ph.D. Dissertation in International
Relations, Syracuse University, University Microfilms. Ann Arbor, Mich.,
1972, p. 38.
3 Colonel Robert Leider, USA, and Colonel Charles Bunnell Jr., USMC,
"Military Implications of Societal Vulnerabilities," Parameters, Volume 3,
Number 1, 1973, pp. 3-22.
4 The Technological Threat, Edited by Jack D. Douglas, Prentice-Hall Inc.,
5 Victor Basiuk, "Technology and World Power", Headline Series No. 200,
7 Robert Moss, The War for the Cities, Coward, McCann & Geoghegan Inc.,
N.Y., 1972, p. 131.
8 Anthony Sampson, Anatomy of Europe, Harper & Row Publishers, N.Y.,
p. 61.
11 ibid., p. 60.
12 Governing Soviet Cities; Bureaucratic Policies and Urban Development in the
p. 117.
13 Emanuel G. Mesthene, Technological Change; Its Impact on Man and Society,
14 Edward Higbee. A Question of Priorities; New Strategies for Our Urbanized
Materiel Systems Analysis Agency, Aberdeen Proving Ground, MD., April
1973, p. 52.
16 Horst DeLaCroix, Military Considerations in City Planning: Fortifications,
17 ibid., p. 40.
18 A Short Guide to Clausewitz on War, Edited by Robert A. Leonard, G. P.
19 ibid., p. 185.
20 General Lewis W. Walt, USMC, quoted in Symposium on Combat in Urban
Areas, op. cit., p. 7.
21 Major General Mordechai Gur, Israeli Army, quoted in Symposium on
Combat in Urban Areas, op. cit., p. 33.
22 Herman Kahn and B. Bruce-Briggs, Things to Come, Thinking About the
23 Bruce-Briggs, op. cit., p. 3.
25 A Short Guide to Clausewitz on War, op. cit., p. 151.
26 ibid., p. 42.
31 Dietchman, op. cit., p. 15.
33 Donald G. Brennan, Fashions in Military Technology 50 Years Hence, Hudson Institute, N.Y., 1968, p. 3.
34 Bailey, op. cit., p. 38.
35 Bruce-Briggs, op. cit., p. 3.
36 ibid., p. 6.
42 Bailey, op. cit., p. 102.
45 Field Manual 31-50, Combat in Fortified and Built-Up Areas, Change 1, May 1967, p. 27.
47 Bruce-Briggs, op. cit., p. 7.
48 Ellis, op. cit.
50 Bruce-Briggs, op. cit., p. 6.
51 Program of Instruction for Infantry Officer Advanced Course, US Army Infantry School, Fort Benning, GA., August 1973, p. 3A01.
56 Kahn and Bruce-Briggs, op. cit., p. 22.
NEW WARFARE CONCEPTS FOR THE INDUSTRIAL SOCIETY

58 ibid., p. 81.
60 Moss, op. cit., p. 31.
61 Dietetchman, op. cit., pp. 35-36.
64 Dr. Brooks McClure, DOD quoted in Symposium on Combat in Urban Areas, op. cit., p. 87.
65 Ibid. (While the symposium was organized to discuss munitions requirements for urban warfare, the discussions kept shifting to talk of theories and doctrine. Several mentions were made of ongoing studies within the Department of Defence on the subject of urban warfare.)
66 Sanders to Walbeck, op. cit. (In his letter, Mr Sanders gives the names of two individuals he considers to be "recognized experts in the field of Urban Warfare," and lists seminars they have held.)
67 Dr. William Schneider, Hudson Institute, quoted in Symposium on Combat in Urban Areas, op. cit., p. 91.
68 Dr. W. Scott Payne, Systems Planning Corporation, quoted in Symposium on Combat in Urban Areas, op. cit., p. 74.
69 Dietetchman, op. cit., pp. 228-29.
70 Baldwin, op. cit., p. 9.

* * * * *

The following advice contained in paragraph 613 of Staff Duties in the Field revised 1962 (as amended).

"The criteria to be applied to the use of all points of minor staff duties are "Do they make the (paper) more intelligible? Do they save time?" If so their use is justified. Pedantic insistence on functionless trivialities merely creates difficulties where none really exists."


Mourned by junior staff officers the world over.

Contributed by Captain I. R. Cooling, Intelligence Corps, U.K.

Reviewed by G. P. Walsh, Senior Lecturer in History, Faculty of Military Studies, University of New South Wales, RMC, Duntroon.

This book is both a very useful and timely publication: in fact it is only the fourth such work devoted specifically to the history of the British Army in the last century. It is divided into five parts: Part I lists bibliographies, guides and indexes; Part II general works; Part III covers army organization, management and personnel; Part IV military theory, tactics, drill and equipment, and Part V deals with the various military campaigns and foreign stations of the Army. Each part is further sub-divided into sections and in some cases sub-sections. The material is arranged alphabetically except in the case of studies of military campaigns and works on tactics, discipline and drill which are obviously better treated chronologically. There is also an excellent index.

Noting the deficiencies of earlier bibliographical works, Dr Bruce has tried to give a general survey of full-length published studies on the British Army from the post-Restoration Army to World War I — the period so imaginatively portrayed in the magnificent National Army Museum in London. He has aimed to include all the major scholarly works on the Army and studies which give different interpretations. He also includes studies produced at different periods which, of course, is very valuable for the historian. In general, the author has achieved his aim admirably.
A test of any bibliography is to check whether certain items, both well-known and more obscure ones, appear in it, and the Bibliography passes this test well. The annotations, too, are very good, particularly on the sources dealing with the Napoleonic Wars and the Army in the Victorian period.

The Bibliography will be of considerable use for military and social historians, not only for the sources it contains, but also for the illumination of the areas that need further research.


Reviewed by Squadron Leader J. R. de Bomford, Air Office Canberra.

AFTER the terms of the Versailles Treaty were agreed, Marshal Foch remarked prophetically “this is not peace; it is an armistice for twenty years”. The old marshal and some others perceived that the savage reparation and disarmament provisions, when added to the frustration and deep despair of many Germans, would make another war inevitable.

The treaty imposed a complete prohibition on military aviation but allowed for the limited development of civil aviation, after six months. This book is a well researched record of the lies, duplicity, secret international agreements and bluff to which Germany resorted in circumventing the treaty. It is also a fascinating account of the personalities and events which raised German aviation from nothing to become in 1940, the most awesome air force in the world.

The lavish illustrations ably complement the narrative and are commendable for their relevance and quality; however one of the two Hawker Hurricane photographs might have been dropped in favour of another subject. Favourable mention must be made too of the superb bibliography which is a bonus to serious students of the era 1918-1940.

Because of the title, some criticism is merited regarding the scant reference to the Luftwaffe’s parachute and anti-aircraft artillery forces, particularly when one remembers their importance during 1939-45.
The book is written in a style which suits the general reader but also makes absorbing reading for serious students of air warfare. The vast number of books available concerning German air operations in World War 1 and World War 2 emphasize the dearth of literature about the intervening years; *The Rise of the Luftwaffe* is a welcome addition in restoring the balance and must surely become a well regarded reference in the future.

**FOREWORD TO "THE GRIM GLORY OF THE 2/19 BATTALION A.I.F."**

Brigadier J. H. Thyer CBE DSO  
(Colonel GSO I. 8 Australian Division 2nd A.I.F.)

It has been my firm belief, a belief which developed during the formative months of the Division and which still holds firm, that the personnel which comprised the 8 Division of the second A.I.F. was the finest cross-section of Australian manhood that has ever left our shores. As a regular army officer I had been associated with the 6th and 7th Divisions and the I Corps, before I joined the Division. I feel therefore that my opinion is reasonably well based and free from personal bias.

The Division was formed after the fall of France in 1940, at a time when the people of Australia had at last realised that our freedom was threatened and that active service overseas was not only a duty for young men but that it would be perilous. Many young men were now enlisted who each made a considerable sacrifice by so doing, young men who put aside for the duration of the war a profession, a trade, a business, or above all a young family. The dominating influence was therefore dedication rather than adventure.

One of the outstanding fighting units of the Division was the 2/19 Battalion. It will give great satisfaction to the surviving members of the Battalion and to the next-of-kin of their departed comrades, and indeed to the public generally, to know that their epic story is now told.

*The History of the 2/19 Battalion A.I.F., by R. W. Newton for the Unit Association, $25 plus postage, 837 pages, 272 photographs, 40 Maps and Sketches, obtainable only from 2/19 Battalion AIF Association, Box 2664, GPO Sydney. This book will be reviewed in a later issue.*
The amount of material that has been provided by many members for their Unit history, and the interesting and painstaking manner in which it has been assembled, is in itself a tribute to the enduring pride that is strongly held by them all. Reg Newton and his editorial committee have done a grand job in the presentation of the Unit's great tradition.

The opening chapter which deals with the formation and training of the Battalion took my mind back to the 8 Infantry Bde of pre-war days. Of that Brigade three officers were prominent leaders of the 8 Division in its fighting in Malaya, Colonel (Boots) Callaghan, the Brigade commander, Lt Col Harold Taylor of the NSW Scottish Regiment (30 Bn) and Lt Col (Black Jack) Galleghan of the 17 Battalion. Of the contingent from the Riverina, I was only slightly acquainted with Lt Col Duncan Maxwell and Major Charles Anderson, but Major "Rowley" Oakes had been a cadet with me at Duntroon Military College in 1914-16.

As Brigade Major of the 8 Infantry Brigade I was deeply impressed by the dedication and enthusiasm of the Militia. The ambitious exercises we carried out at Campelltown, "Nagalac Cove" and Nelson Bay were enjoyable and educational. From this source came a large proportion of the personnel of the Battalion. The actual proportion was:—

<table>
<thead>
<tr>
<th>Officers</th>
<th>Militia</th>
<th>37</th>
<th>others</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>W.O.1</td>
<td>Regular Army A.I.C.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W.O.2</td>
<td>Militia</td>
<td>5</td>
<td>total</td>
<td>5</td>
</tr>
<tr>
<td>Sergeants</td>
<td>Militia</td>
<td>36</td>
<td>others</td>
<td>4</td>
</tr>
<tr>
<td>Corporals</td>
<td>Militia</td>
<td>44</td>
<td>others</td>
<td>25</td>
</tr>
<tr>
<td>Other ranks</td>
<td>Militia</td>
<td>350</td>
<td>others</td>
<td>442</td>
</tr>
</tbody>
</table>

It will be seen from these figures that the command structure of the unit, as with most other A.I.F. units was predominately Militia. It must be appreciated and remembered that the peace time volunteers, the Militia, have in two world wars been the principal factor permitting the celerity with which all units were formed and which ensured the ultimate achievement of efficiency.

The Regular Army and the Reserve (as the Militia or C.M.F. is now termed) are now closely integrated. The responsibility of training the Reserve will keep the Regular Army instructors on the alert, will give a continuing occupation enrichment and will prevent
boredom. The Reserve in turn will acquire enthusiasm and efficiency by having a specified role in Australian defence. Our security, now and in the future, demands that this major factor must be given full consideration in the maintenance of a credible defence.

The period from the arrival of the 2/19 Battalion in Malaya until the Japanese onslaught on 8 December 1941 was devoted to a programme of training to adapt the Australians to the tropical climate and to the jungle. It was planned on lines which the command considered suitable to the type of operations that could be predicted at the time. It was carried through with conscientious vigour and makes interesting and instructive reading. During this period peace time conditions prevailed in Malaya. Each Battalion of the Brigade was garrisoned in a town area, and when off duty the members enjoyed the hospitality of the local inhabitants, mainly Malay and Chinese.

This pleasant circumstance created an opportunity for some journalists, lacking in perception, to send back to Australia exaggerated and derogatory reports which later were linked with the failure of our units to resist effectively the oncoming Japanese. This was a completely false conclusion. The men at the time were suffering a frustration in not having been sent to the Middle East. The social activities, minor and minute as they were, were in a way a compensation and prevented boredom. When the crucial moment came the men were alert and fit.

In the story of the Brigade exercise at Kluang in cooperation with the Singapore Command mention is made of the clash between the GOC (Maj. General Bennett) and Brigadier Taylor. The temperaments of the two leaders were completely incompatible. In the interests of harmony within the Division and smooth cooperation it is unfortunate that the quarrel was patched up and not effectively resolved at the time.

When the Japanese invasion began on 8 December the two Infantry Brigades went to "battle stations". Advanced Divisional HQ was at Jemaluang and I was mainly in that location for the first week or two. I had close contact with Brigadier Taylor and had many discussions with him. The first reports of the Japanese successes in the north gave us considerable concern. Their army was no longer a "bubble waiting to be pricked". This would no longer be a pushover. Their advance had to be stopped — but how?
There was nothing new in the tactics of the enemy. The same exceptional mobility, the same endurance, the same dedication was the secret of Drake's defeat of the Armada 400 years ago.

His hardy seamen, his manoeuvrable corvettes were pitted against the ponderous galleons of the Spaniards. We must realise that in our lush economy and permissive society it will be extremely hard to achieve these military virtues.

Taylor and I finally agreed that the most sure way of holding the enemy would be defensive areas covering the main arteries and astride the peninsula. These areas of at least a brigade strength had to be held at all cost. I discussed the idea with the Chief of Staff to General Percival. There was only one objection, but it was an inhibiting one. The fortresses in this concept would depend entirely on "Air support" for all supplies, for reinforcements and for evacuations. We had practically no "Air" available, and little in sight. The discussion is of interest for reasons given later.

I was in the Jemaluang area when the local Chinese were evacuated. It was a distressing necessity and applied to the whole area including Mersing, but I was proud to see the humane and sympathetic way in which our men carried out their unenviable duty. The rapport with the local inhabitants was always good and the "diggers" always got the "Ullo Joe" call with the "thumbs up" sign from cheering children. When we were prisoners of war they helped us in many ways at great risk to themselves. We have, ever since the war, and as a way of expressing our grateful thanks, sponsored the training of Malayan nurses, two at a time, in our hospitals.

After the initial landings by the Japanese at Singora, Patani and Kota Bahru the situation in the north rapidly deteriorated and General Percival decided to make a clean break by establishing a defence in the north of Johore, through which he proposed to withdraw the exhausted and battered III Indian Corps. This Corps was commanded by Lieut Gen Sir Lewis Heath who had come to Malaya from Eritrea where he had achieved some distinction. His two divisional commanders each had had distinguished careers in the 1914-18 war and later on the Indian frontier. This important fact is generally lost sight of by those who bestow ill-informed criticism on General Percival.

I was with General Bennett when he received his orders from Percival at our headquarters in Johore Bahru to command the newly
created Westforce. His task was to fight a defensive battle on the general line, Segamat-Mount Ophir-Muar. On the right in the Segamat area was the 9 Indian Division (Barstow), the two Indian Brigades had been engaged, one since the landing at Kota Bahru and the other at the Kuantan landing, and the defence in the area was to be shared with the Australian 27 Bde (Maxwell). On the left at Muar was the 45 Indian Bde (Duncan) newly raised and only recently arrived from India.

Percival emphasised the importance of this line and added that if we lost Johore the battle would be lost. The defence of Singapore had originally been based on the Kota Tinghi-Rengam-Pontian Kechil line and no doubt this was in Percival's mind as he spoke. The preparation of this line had been abandoned shortly before the war due to lack of treasury appropriation.

Gen. Bennett had now been given the responsibility of resisting the main Japanese thrust, a task which he relished, but it was at the cost of temporarily losing his 22 Brigade at Mersing. Since our arrival in Malaya he had strenuously, and rightly, resisted the splitting of his command. It proved a most unfortunate decision, both in principle and in the light of subsequent tactical failures.

At 10 am on 14 January the control of the front passed from Heath of the III Indian Corps to Bennett of Westforce. On that day the 2/30 Battalion under Galleghan had achieved some success at Gemenchah Bridge — forward of his main position at Gemas, a contact which initiated the relentless pressure of the Japanese.

On 15 January the Imperial Guards Division of the Japanese Army commenced its assault at Muar. The 45 Indian Brigade although resolutely supported by the 65 Australian 25 pounder battery, was unable to prevent the crossing of the Sungei Muar. The left flank of the Westforce was now imperilled. Whatever the circumstances the task of withstanding the elite Japanese Guards was completely beyond the capabilities of this newly formed brigade. It would have required the skill and tenacity of a highly trained unit.

The 45 Indian Bde consisted mainly of young recruits. At the HQ of the 45 Indian Bde at Bakri, I saw a company of these men who were manning an inner defence position. I watched the brigade commander adjust a rifle into the shoulder of a prone soldier and reassure him. The junior officers had been recently commissioned
and given a crash language course. Consequently there was little communication at the junior level. To add to the commander's difficulties he had been instructed by Bennett to set ambushes across the river thus splitting the unit commands.

Having regard to all the circumstances it would be quite unethical to criticise in any way this unfortunate brigade or its commander. What is demanded is understanding and indeed compassion.

For similar reasons it would be unfair to blame the 53 Brigade of the newly arrived British Division whose responsibility it was to keep open the communications between Parit Sulong and Yong Peng. Colonel Anderson has given, in the narrative, the correct and comprehending assessment of its failure.

Through the depressing story of the action at Muar shines the gallant and devastating shooting of the 65 Battery. Japanese records pay tribute to the harassment and delay caused by artillery concentrations over the river crossings. The battery was commanded by Major Julius, a young Duntroon graduate, who was killed during the action.

The other artillery unit, a troop of the 4 Anti-Tank Regt. equally distinguished itself in courage and effectiveness. The gun crews practically destroyed the Japanese tank capacity in the area.

A wireless detachment from the Divisional Signals was allotted to the 45 Brigade and it continued to provide an effective radio link with divisional HQ until the climax at Parit Sulong. The war artist, Ivor Hele, has adapted this courageous devotion to duty as the theme for the painting accepted by the Royal Australian Corps of Signals for its 1939-45 War Memorial to its members.

Immediately the GOC Westforce became aware of the deteriorating situation on his left flank he detached the 2/29 Battalion from the 27 Australian Brigade and sent it to Muar to restore the situation. Robertson found on arrival that he was restricted to adopting a defensive role forward of Bakri. Bennett then withdrew the 2/19 Battalion from the Mersing group and ordered it forward.

The narrative at this point seems to hold portents of some great and significant event:

"The whole atmosphere of Jemaluang was eerie with the dark night under the rubber trees, and the mustering of the various companies
in the old camp area ready for embussing”. Lines from “The eve of Waterloo” come to mind:

“And Ardennes waves above them her green leaves dewy with nature’s teardrops, grieving, if aught inanimate e’er grieves over the unreturning brave...”.

I was with Lt. Col. J. C. Robertson at Labis when he was briefed by the General. I talked to him again at Bakri at the HQ of the 45 Bde when I went forward with the 2/19 Battalion. I said farewell to him as he rode away to rejoin his Battalion, riding pillion on a motor cycle. Minutes later he was mortally wounded.

I had met Lt. Col. Anderson at Yong Peng leading his embussed unit to Bakri. I remarked that he had two grenades in the binocular pouch of his web equipment. “Yes,” he said, “they are more useful than glasses in this type of country”. I sensed an aura of greatness when Charles shared my billet the night the weary survivors staggered out of the jungle a week later.

Both Commanders inspired me with confidence as indeed they had their Battalions. The 45 Bde had now become a brigade group by the addition of the 2/19 and 2/29 Bns., the 65 Battery and the Anti-Tank Troop. As the battle progressed units became merged into one heroic force. For one week of stubborn resistance the group with the utmost gallantry defied the 5 Imperial Guards Division, achieving a delay which General Yamashita admitted had prevented him fulfilling the promise he had made to his Emperor that he would be in possession of Singapore on 11 February.

In his diary published in 1963 the Japanese General wrote “In all fairness however the survivors can feel proud because in a week long bloody battle, without heavy tank or air support, they had held up the whole of my army.”

The official historian in “The Japanese Thrust” writes: “General Percival was to record:—

The Battle of Muar was one of the epics of the Malayan campaign. Our little force by dogged resistance, had held up a division of the Japanese Imperial Guards attacking with all the advantages of air and tank support for nearly a week, and in doing so had saved the Segamat force from encirclement and probable annihilation. The award of the
Victoria Cross to Lieut. Colonel Anderson of the A.I.F. was a fitting tribute both to his own prowess and to the valour of his men."

The history of the British Empire is studded with heroic gems. They are conveyed to the rising generation in song, in verse, and in story. The heroism of this gallant Brigade Group is now simply and yet adequately recorded in this Unit history. The experiences of all ranks are fittingly woven into the fabric. The story is now another jewel in the gem studded pages of Australian Military History.

After Muar there was little left of the unit. This remnant was sent to Base Depot to be reconstructed with approximately 700 partly trained recruits from Australia. It could be expected that this melancholy task might have strained the dedication of wearied officers and NCO’s. It is to their great credit that the surviving leaders set about their task with ungrudging haste. The Unit was fully manned and ready to rejoin the 22 Bde under the command of Brigadier Taylor within one week.

Shortly afterwards came the short and unhappy defence of Singapore Island. Much has been written of the “Naked Island”. Much of it is of little consequence, ill-informed and lacking in perception. Suffice it to say that the reformed Battalion acquitted itself with credit.

The traumatic experience of defeat and consequent imprisonment has nurtured festering questions in most of our minds — what was the basic cause of defeat, where did the fault lie, was it all an exercise in futility?

If we are to find the answers we must look beyond the “on the spot” judgments of involvement. Faulty leadership there was, and the north of the Island of Singapore had not been fortified. But had it been otherwise the capitulation may have been delayed a month or two at the most. Unacceptable civilian casualties in the city of Singapore would have resulted, and, in all probability, the 6th and 7th A.I.F. Divisions, both of which were close at hand, would have been irrevocably committed on the island of Java, there to be isolated for the duration of the war or worse, to have been imprisoned with us.

The British Empire was in 1938 completely unprepared for war. This unpreparedness had been brought about largely by wishful thinking and the fond hope that the rising power of Nazi Germany would be a bulwark against any Russian threat. The truth was agonis-
ingly revealed at Munich. It then required a colossal effort on the part of Britain to stave off defeat. After five years of war she was only able to match the air strength of Germany. The urgent requirements of planes, both in quantity and in quality for Malaya simply could not be met.

Our air strength on 8 December 1941 was a total of 158 planes consisting mainly of cumbersome Hudsons and Buffaloes. The Japanese had 612 planes in their 3rd Air Group and 187 planes in the Naval units, a total of 800 planes all vastly superior to ours in all capabilities. Air power was the deciding factor in the Malayan war. With the required air strength the Japanese landings at Singora, Patani and Kota Bahru would at the least have been badly mauled. The superior mobility of the enemy on land would have been negatived and he could have been held on a chain of fortified areas.

Field Marshall Lord Slim in his book "Defeat into Victory" deals at length with the Japanese tactic based on the hook and the "road block", and concludes "Lastly there was at least a partial answer in supply by air, which would have removed our dependence on the road... Equipped and trained as we were in 1942 we had no satisfactory answer to the Japanese road block".

This deficiency in air-force was exacerbated by the cardinal sin of under-estimating the enemy. We were led to believe that the Japanese Army was a "bubble waiting to be pricked", that their air-force was second rate and would be grounded at night, that an Australian soldier was a match for ten Japanese. We probably had our doubts but nevertheless our training and our preparations were not nearly as purposeful as they should have been. Our demands for essential aircraft and armour would have been put more forcibly. In this regard the Intelligence services of the Allies was incredibly weak and lacking in initiative.

Although there was little of the Royal Navy to occupy the Singapore Base, the Malayan Peninsula was valuable to the Allies particularly as a source of rubber, tin and other essential war commodities. Its defence was therefore imperative and an Australian component was acceptable both to the parliament and to the people. It may well have been that the Japanese after their relatively easy victory were lured into the advance on India through Burma, an exercise which eventually proved a disastrous violation of the principle of concentration of force.
Our involvement was by no means an exercise in futility and more particularly if the lessons the campaign teaches are learned and applied. Above all we must remember that the immeasurable suffering of all nations involved in the war was brought about by the betrayal of the people by their leaders; the leaders of the Western Allies by their culpable neglect, the leaders of the Axis Powers by their unprovoked and brutal aggression.

The sacrifice of our people will not have been in vain if we see to it that those we elect to lead us, now and in the future, adequately fulfil the moral obligations of their high office and do not barter our security for a mess of pottage.

The history of the 2/19 Battalion will preserve for all time the service to their country of all its members, their resolution in the vital struggle of Bakri and Parit Sulong and on the Island; and after they were surrendered, their fortitude in captivity, their endurance under the worst privations, their mutual help and ever present sense of humour.

Having read the story so fully, so simply, and so effectively told, one feels that underneath it all there lies an inherent patriotism, a love of freedom, a love of family, a love of democratic government, a love of Australia.

The immortal words of Pericles spoken 2400 years ago in his oration over the Athenean dead, come to mind:

"And so they gave their bodies to the Commonwealth and earned each for himself praise that will never die, and with it the most glorious of sepulchres, not that in which their mortal bones are laid, but a house in the minds of men where their glory remains fresh to stir to speech or to action as the occasion arises."

Erindale. Jim Thyer SA

South Australia, January 1975.
I have gained the impression that Captain Horner in her article "Women in the Services — A Majority View" Army Journal, February 1976, is arguing for continuation of the subservient female role in our military environment. I also detect an animosity to 'radicals', viz Captain Lyn Gregson and perhaps a dislike of 'Women's Liberation' per se.

I suspect that psychologically she has accepted a Freudian viewpoint that women who aspire to equality with the males in this society are in effect seeking to acquire masculine traits. I am sure that most female activists would refute this rather vehemently. I am disappointed that a servicewoman places such misinterpretation on equality of the sexes particularly in the military.

It is a fallacy, emanating from our traditionally male orientated Australian society, that the military must be primarily a man's world. The current moves to appoint women to command mixed units is some years behind the times. In typical fashion we are not being innovative — merely slowly catching up. For instance, in all four of the US services since the early 1970s women have commanded units made up mostly of men. In the USAF, a woman Colonel commanded a unit of 2000 men and 14 women. In addition, women can apply for 432 different categories of work in the US Army, the only role barred to them (at this stage) is direct combat. The US Navy has a ship crewed by both male and female sailors and has started to train women as pilots.

The motivation for women to join the services is surely based on aspirations that now go beyond the traditional stereotype roles of secretary, stenographer, typist, etc. The appeal is of a different voca-
Letters to the Editor

It is unfortunately a reality that effective change in society is only achieved by ‘militant’ action. The actions of the supposed ‘radicals’, although derided by supporters of the status quo, are none the less the instruments of change which bring benefits to all. I doubt if Captain Gregson would now be commanding a mixed unit of reasonable size if she had not been ‘radical’. As the doors of opportunity are slowly being opened, so further pressure may also achieve a belated equality in pay. I am sure Captain Horner will not refuse receipt of equivalent pay to a male psychologist.

Despite some snide male insinuations and the apparent concern of Captain Horner, I do not see the advancement of women in the services affecting their femininity. From a typical male viewpoint, it is most apparent that Israeli women soldiers have never lost their femininity even in the front line, so why should Australian women? I believe that Captain Horner’s article does not in fact represent the majority view.

L. N. Francis
HQ LOGCOMD, Melbourne
Major, RAAOC

**Women in the Services — Not a Majority View**

Having read Capt S. I. Horner’s article “Women in the Services — A Majority View”, *Army Journal*, February 1976, I felt bound to take issue on almost every point raised by her. Capt Horner seems to have laid the mantle of the silent majority on her not unwilling shoulders.

I dispute strongly that the views expressed are those of the majority of servicewomen, officers and other ranks. I have, for instance, heard nothing but praise for Colonel K. M. Fowler’s article, “The Changing Role of Women in the Armed Forces”, and a general feeling of relief that here was a D WRAAC who was willing to publicly express the feelings of servicewomen in regard to their position in the service. Equal opportunity and employment is a prerequisite of equal
pay. You can't have one without the other, and the WRAAC who does want more in her pay packet is rare indeed.

Captain Gregson's article "Open Letter to the Female Officers of the Australian Army" may have embarrassed some women in the manner of its expression, but even "moderates" agreed with many of her aims. It is perhaps easier for Capt Horner to hold her views than it is for women officers who served for many years on a pay scale that, at one stage, reached an all time low of 57½% of male rates of pay. It became obvious that unless we proved that we could do as many non-combative roles as possible, we would never receive the pay and allowances that are overdue.

Capt Horner tells us that her article "attempts to dispel the confusions and delusions that have arisen because of the recent emphasis on the ever growing role of women in the Military Environment". I know of very few deluded or confused women in the services. In fact, most women seem to know exactly what they want to a marked degree, be it career, husband and family, or husband and career.

**Role Conflict**

I contend that women in the Army suffer no more of a role conflict than women in civilian life during these times of rapid change. No proof is offered in Capt Horner's argument that society does not accept women in a military role. Proof points the other way. The number of young girls who join the Army Reserve, and the visible pride of their parents when seeing their daughters in a soldierly role is very visible indeed during Army Reserve 'Open Days'; Australia having a long and honourable history of female participation in military conflicts; the excellent press reports of WRAAC activities, especially when a woman is pictured toting a firearm, all point to public acceptance of women in the Army.

When a woman leaves the Army it is for many reasons, few of which are directly associated with guilt over "rebelling from the charters of womanhood". Main reasons given for discharge are:

a. Marriage;

b. Pregnancy;

c. Sickness in the family;

d. Further education; and

e. Travel overseas.
The only two which could possibly support Capt Horner's postulation are a. and b. A woman usually leaves the service for marriage because her fiance will not "allow" his future wife to serve on in a career which makes heavy demands on her time. This is more of a guilt problem for the male rather than the servicewoman, who often expresses regret at leaving the Army.

Capt Horner offers us two alternatives:

a. Be a feminine woman with a guilt complex; or
b. Be a "hardened" female who, to be accepted by men, adopts their attitude and manner.

I am loth to introduce individuals, but in which category would Capt Horner place Col D. E. Verinder, a career officer of outstanding achievement noted for her elegance, femininity and ability? In which category does she place myself, a married career officer happy with both career and marriage? I could go on to list exceptions to Capt Horner's dogmatic classifications, but I will refrain from doing so. Each person who reads this can no doubt compile a list of their own with very little effort.

The "solace" offered to woman who feel a role conflict is terrible indeed. Feel conflict? Never mind, console ourself with the thought that your Army life "will help you to be a better wife and mother". It would be more applicable to say, "it will help you to be a better person". If a woman wishes to be a better wife and mother I suggest that she request her discharge and enrol in a mothercraft course.

What Women can gain from the Services

I come here to a rare agreement with Capt Horner. Women do need to be more assertive. I do not agree that, in this respect, men could be our best mentors. Experience has shown that, by watching and listening, we can learn much from male leadership qualities and thought processes. In the past men have shown themselves unlikely to attempt conscious guidance, still less act as "mentors". Indeed, they should not be required to do so. We are not children who need to be taught to think logically.

Conclusion

The Army has yet to use the Women's Liberation Movement as an "expedient" for utilising women in positions more suitable for men.
While we remain to be unemployed in direct combat roles it cannot be said that women are being used in tasks unsuitable to their capacities.

Capt Horner presumed to argue about a problem that, if it exists at all, is anything but a problem for the majority she purports to represent.

Adjutant
WRAAC School
Mosman, N.S.W.

E. Anderson  
Capt