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A YEAR ago, the first issue of the *Defence Force Journal* appeared. In his Introduction, the Minister for Defence, the Honourable D. J. Killen, MP, expressed a hope that the Journal would "encourage and stimulate professional discussion of the issues involved in the broad fields of military and defence matters." General Sir Francis Hassett, at that time Chief of Defence Force Staff, called for "imaginatively argued" articles; and the Secretary, Sir Arthur Tange, said that a profession "is healthiest when it . . . exchanges innovative ideas." Such phrases, coming from the men at the top of the Profession are encouraging to a new Journal.

How far has the *Defence Force Journal* lived up to these ideals? How far have we, the editorial staff, the authors, letter writers and the general readership, helped to make the Journal something of which the Defence Community of Australia can be proud?

The articles are coming in, particularly in an encouragingly increasing volume and quality from both the Navy and the Air Force. Letters have been stimulating and constructively critical of articles. Book reviewers have come forward in numbers and have set about their task with a professional zeal and objectivity which is, I'm sure, encouraging both to the authors and to the publishers.

Together with all these, the distribution problem is beginning to be rationalised; the Journal is reaching the readership within a reasonable time after it leaves the printers in Melbourne.

This does not mean that we can be complacent. The quality and style of articles can always be improved, and with it the quality and readability of the Journal. We promote discussion, but is that discussion far-reaching? Are the many stimulating and controversial defence subjects facing Australia covered adequately or at all? Or are we just shovelling them into the 'Too Difficult' tray? Most importantly, does discussion embrace, not only officers in the senior and middle ranks, but those young officers, Warrant officers and senior ratings and NCOs, who, in our highly complex and technical profession, must keep abreast of present thinking, and add their ideas?

If, as I suspect, the answer is "no", then how can we improve the Journal so that it can, at least in part, appeal to a wider audience within the Defence Community, without destroying its quality and professionalism? That is something to ponder in 1978.

If you are interested in statistics, from a total of 48 authors, writing 49 articles, 7 came from the Navy, including the Royal Navy, Royal Marines and the Irish Naval Service, 26 from the Army and Army Reserve, including the United States Army, 8 from the Air Force, including the RAF, and 7 were civilians. For book reviewers, there was a more equitable distribution.

I am particularly happy, in view of my earlier remarks, to include in this rather shortened issue the article by Warrant Officer Watts (p. 30). I commend it to all young officers and NCOs, but it should raise a twinge of conscience among the more senior members. How often have we behaved in the past in one of the ways he so clearly describes and perhaps lost a young soldier to the Service for ever?

May we wish you, and I'm sure the Board of Management would like to be included, a Happy Christmas and a stimulating and successful New Year.
CAN AUSTRALIA SURVIVE?

In DFJ No 2 (January/February 1977) I criticized the article "The Second Time Around. Can Australia Survive?" by Major A. R. Black. I now find myself in the situation of supporting him. Although I believe that Major Black was wrong about MacArthur's intentions, I believe that he was right when stating the organisation of the army in April 1942. Major Black's article has been criticised in DFJ No 4 (May/June 1977) by Colonel J. W. Carey, who challenged Major Black's assertion that six divisions were allocated to the two corps of 1st Army. He also stated that in March/April 1942 HQ 2nd Army was located at Parramatta, New South Wales. I would like to take up Colonel Carey's challenge, for unfortunately his line-up of infantry divisions in April 1942 has substantial errors.

HQ 2nd Army was, in fact, located in Melbourne until August 1942, when it moved to Parramatta replacing II Corps, which moved on to Queensland, in turn replacing I Corps which had moved to New Guinea. (LHQ Operation Instruction No 25 AWM 243/6/121).

Colonel Carey states that 1 Division was located in NSW and therefore under the command of II Corps. From the above, it is clear that it was under command of II Corps until August 1942.

Colonel Carey also states that 2 Division was located in Western Australia. In fact it did not move to WA until July 1942. (War Cabinet Agendum No 281/1942, 30 June 1942, CRS A2670). Before that date it was in NSW under command of II Corps. Until May 1942, 2 Division consisted of three brigades, but in that month one went to New Guinea.

Colonel Carey states that 6 Division had not arrived in Australia at the time. This is true, but the Headquarters of the Division (Major General Herring) and 19 Brigade had arrived. In late March General Herring moved to Darwin, where he commanded the troops of the Darwin Fortress, 3 and 23 Brigades — in essence a division and known as Northern Territory Force. 19 Brigade was to join this Force as soon as transport could be arranged. It began to move from Adelaide to Darwin in May 1942.

10 Division is disregarded because it was disbanded in August 1942. But surely this is irrelevant because both Major Black and Colonel Carey were discussing March/April 1942. 10 Division came under command of II Corps.

Colonel Carey states that 11 Division was within the 1st Army framework. This is incorrect as 11 Division was formed from Milne Force in late 1942 and did not join 1st Army until later in the war. Milne Force became a divisional size force when General Clowes assumed command in August 1942.

Although Colonel Carey is correct in stating that 12 Division was formed in 1943, this is irrelevant to the situation in April 1942 when General Herring commanded a divisional size formation known as Northern Territory Force.

The only mistake in this area of Major Black's account is the statement that there were six infantry divisions in I and II Corps. Major Black overlooked the fact that 5 Division in Townsville remained under HQ 1st Army. However he is correct that in April 1942 there were six infantry divisions in 1st Army. These were 1, 2, 3, 5, 7 and 10.

VULNERABILITY OF RESOURCES

After reading Captain Smith's article in the Defence Force Journal No. 3 (March/April 1977), The Australian-American Alliance:
Some Possible Restrictions on a US Response,
I would like to contribute my cents' worth.

I was somewhat surprised, as no doubt are most other servicemen, how vulnerable our natural resources are. I gather from listening to the radio and television news and from reading the Press that the majority of Australians are apathetic towards the problem.

Australia is indeed sitting on a powder keg with our almost unlimited uranium and iron ore deposits. I read in a news item that our iron ore and energy reserves still in the ground equal the amount already tapped throughout the ages in the whole world.

In addition, once there is a better understanding of uranium, namely a safe way to dispose of the waste, we in Australia can 'stand from under'. Our resources could be 'up for grabs'.

However, we can consider ourselves relatively safe whilst America has satellite bases here, and yet are they so important to the United States?

For our own safety, and lacking the number of personnel to defend ourselves in open confrontation on our shore, we should develop our own sophisticated weapons from our own resources. These, developed early, would act as a deterrent to any hostile nation contemplating a move against us.

HMAS Albatross, Petty Officer Aviation
G. F. Tearle
Nowra, NSW.

UN OBSERVER

I wish to challenge statements made in the 'Observations by a UN Observer' letter to the Editor in the Defence Force Journal No. 4 (May/June 1977). I hope Major Mayes does not think me impertinent as I have never been to the Middle East. I have had occasion to speak with officers who have endured the 'hell' of no-man's-land and have nothing but respect for all who have done so.

My challenge is directed to the last half of his letter. While he and many other October War observers may believe the SAGGER type weapons have marked the beginning of the end for tanks, the facts do not support these conclusions. I have read a large number of authorative articles written on the 'Lessons Learnt' from the October War and not one of these authorities would agree with Major Mayes' conclusions. I will agree that initial press reports of the war did much to contribute to the myth of the super SAGGER.

The distorted view of the nature, distribution and causes of losses in armour during the October War is due almost entirely to two factors, namely:

- The relevant statistics are only taken from a very small sample which only includes the Israeli armour losses during the opening stages of the war in the Sinai.
- The assessments completely disregard the human element; that is they focus upon weapon systems in isolation and never consider tactics used and the principles of war that were exploited.

The interim findings of the Agranat Commission tells the story of the significant Israeli armour loss on 7/8 October 1973. (The day upon which journalistic analysis seems to have concentrated almost to the exclusion of the rest of the war). The Israelis in the Sinai lost about 10 per cent of their total armour holding, much of it to SAGGER and the RPG-7. There was no single factor that could be given the blame for the loss. The most significant were:

- The Egyptians effectively used the principle of surprise and had established a well fortified bridgehead before a quick and poorly planned Israeli counter-attack tried to dislodge them.
- An insufficient number of Israeli tanks had to be flung into battle without being able to wait for adequate infantry or artillery support from reserve units still in the process of mobilisation. (We will never know if Israeli commanders learnt the wrong lessons in the '67 War or forgot that combined arms operations are essential and that tanks without artillery and infantry support are subject to serious losses. This principle was relearnt at the second battle of Cambrai in November 1917, so it would not be the first time it was neglected).
- There is evidence of confusion and mutually incompatible orders (or inter-
preparation of orders) on the part of usually highly competent Israeli commanders.

When the total losses in armour for both sides are investigated, a clear majority of tanks was destroyed by other tanks. Both on the Golan and in Sinai it was the tank that played a decisive role in the end. The Israeli armoured columns eventually swept the Syrians off the Golan, in spite of the initial Syrian breakthrough. In the Sinai it was General Sharon’s Armoured Division that crossed the canal and enclosed the Egyptian Third Army. By the final week of the conflict the tank controlled the battlefield, the SAGGER and the RPG-7 had ceased to play a significant role.

It is my contention that any study of wars since the ‘Bombs’ of 1945 would indicate the tank to be even better suited to the battlefields of the future than any other type of weapon system. All other weapon systems are equally susceptible to the weapon systems which could be said to threaten the future of the tank.

As for Major Mayes praise of the SAGGER, I believe the ENTAC and the SAGGER have the same guidance technology and about the same performance and they first entered operational service no more than six years apart. (See ‘Jane’s Weapon Systems’). I do agree that our ‘powers that be’ should think about buying a similar weapon. However, unless someone can identify a tank threat to Australia within the next ten years, I believe we should use this time to upgrade our MALKARA expertise and develop the ability to produce our own precision guided munitions (PGM) for all three Services. The operational versatility and defensive nature of PGMs are in line with the Defence White Paper of November 1976— ‘Current Requirements for Defence Capability’ (Page 13, Paragraph 27).

As a reader of the DFJ I compliment Captain Linwood for his practical article ‘Put Your Head in the Sand—Here Comes Their Armour’ of DFJ No. 1, which prompted Major Mayes’ letter. Also of interest to Major Mayes would be Lt. Col. J. Viksne’s two articles on ‘The Yom Kippur War’ which appeared in that better distributed monthly Army Journal in April and May 1976.

Department of Defence, Canberra, ACT.

REASSURING, VERY

Those of us at the middle level of Defence requirement, determination and procurement found Mr Eltringham’s article, “Defence Procurement in Australia” (Defence Force Journal No 4, May/June 1977) most edifying. Australia’s Armed Forces may not get what they need when they need it, but we all relieved to know that, by God, it will have been bought immaculately.

Air Force Office, Canberra, ACT.

AID TO CIVIL POWER — AN EXERCISE IN FUTILITY?

I question the present situation regarding employment of the Army in this role. It seemed hard to believe but there it was — live, in colour — a television picture transmitted via satellite. British soldiers were trading punches with rioters in the streets of Belfast, Northern Ireland. A not too unusual event these days and fully expected on this particular day for it marked the first visit of H.M. the Queen to Northern Ireland for eleven years.

The preceding day had seen a teenage bomb thrower shot dead by the Army and a soldier killed in retaliation. The sobering thought that accompanies these actions is the massive and instant publicity which surrounds them. Millions of viewers throughout the world make instant judgements or even more frightening, become so indifferent as to make no judgement at all. It is in this atmosphere that soldiers must carry out their mission — aid to the civil power. Although this mission is nothing new to the profession of arms, the methods undoubtedly are. More and more it would appear the emphasis has been towards a political solution rather than a military one. It would appear today’s soldier, in fulfilling this role, must be a politician first and a trained killer last. Here, I believe, is the danger which could face our Army if it has not already done so in South Vietnam.

High powered rifle bullets have been changed for rubber bullets. In many cases rifles of any description have been changed for shields and batons. Rioters have found themselves on equal
terms with soldiers for the first time. Bricks, molotov cocktails and the sniper's bullet have put soldiers in an impossible situation. By far the biggest weapon the rioters have made use of is television. No longer do television crews record events from behind the lines of soldiers but they appear to be within the ranks of the rioters advancing towards them. Whatever decision the soldier holding a rifle makes when he sees his mate suddenly knocked to the ground and swarmed over by rioters, he had better make the right one because millions of viewers will be watching him make it.

Riot control, in aid to the civil power, was not always carried out thus. In the past the method has always been clear cut and laid down in training manuals as a definite drill — a warning to disperse was given, a line drawn, a target marked and a target shot if necessary. In other words a military problem (which a riot unable to be contained by civil police is) was overcome with a strictly military solution. Today the soldier who takes the decision to shoot, or is ordered to shoot, must justify his actions to the television reporter breathing down his back or indeed standing in front alongside the rioter who has just thrown a house brick at him.

I think that the danger in this development is that each concession made towards rioters encourages the use of the Army in an increasingly futile exercise which actually prolongs the disturbance. This statement in no way denigrates the need for sound political initiatives to overcome the underlying reasons for the riot in the first place. The civil police have the power to use that force necessary to disperse most crowds being incited to riot. The use of the Army must be a final act where civil order has broken down and cannot be restored without its employment. In this case, there would be a few questions as to the necessity of methods employed. Yes, television cameras would still be there — but aspiring rioters might think twice about taking part in the next one.

Land Warfare Centre, Captain
Canungra, Qld.

THE BANTAMS

"The Bantams" were a special force recruited by the British Army in the First World War. It was composed of soldiers below average height. I am a professional writer engaged in researching a book about these men. I would be most interested and grateful to receive any information your readers may be able to provide me with on the subject — personal reminiscences, family anecdotes, letters, old photographs, book references, diaries, regimental histories, even "pub tales".

The Bantams were an unusual and valiant brigade, and their story is well worth being set down. Hopefully, your readers will be able to help me to gather additional information about this unique piece of military history. I would welcome such aid, and can promise to take the greatest care in returning any material offered regarding the Bantams.

102 Owen Boulevard,
Willowdale, Ontario.

Sidney Allinson
Canada M2P 1G3.

AWARD: ISSUE No. 6 (September/October 1977)

The Board of Management has awarded the prize of $30 for the best original article in the September/October 1977 issue (No 6) of the Defence Force Journal to Group Captain F. B. Sutton, DFC, RAF (Retd), for his article Air Strategy and the Prospect of Being Hanged.
THE FACE OF REALITY - WAR WITHIN OUR MEANS

Captain E. L. A. Tonna, MM
Royal Australian Infantry

Introduction

QUIETLY and almost without a stir this generation has accepted the formulation of two of the most important decisions ever made affecting Australia's security.

The first decision was to assume an independent foreign policy. In all our past conflicts Australia has closely allied itself to a more powerful nation, become a part of their forces, relied rather heavily on them for the supply of major defence items and abided by their policy and decisions. From this a wealth of experience has been accumulated in modern conventional warfare. At the same time we have succumbed to the misconception that a nation with so small a population and limited war production can fight a purely conventional war as an independent, self-contained force.

The second decision was to adopt the concept of continental defence. From the conventional warfare point of view this represents large areas to be defended with very limited numbers, extensive lines of communication and a logistic problem to match.

We must also face the fact that our potential enemies are capable of achieving superiority in terms of manpower and equipment. Should they be incapable of this, it must be assumed that they would not contemplate an invasion.

In a world of increasing isolationism and big power stalemate, one wonders whether the massive aid required to fight a purely conventional war will still be available to us. If our traditional allies are simultaneously threatened they may see their priorities as lying closer to home.

Having stepped onto the threshold of independence as a nation, it behoves us to face our limitations and specific problems realistically by examining every available possibility within our means to successfully defend the Continent. One of the means which is admirably suited to our particular situation is Guerrilla Warfare (GW). It is with GW and its application to continental defence that this article is concerned.

Looking back over the last 30 years, countries with relatively small populations have fought and won against seemingly overwhelming odds and the most modern of armies. Conventional strategists have brushed these glaring examples aside as some sort of recurring phenomena from which there were few, if any, lessons to be learnt (except, perhaps, not to get involved in another guerrilla war). Others regard GW as being within the exclusive domain of the Communists. In World War II the Allies were firmly committed in the Occupied Countries to the most concentrated guerrilla effort the world has known. Much of the foresight for seeing the effectiveness in this form of warfare must be credited to Sir Winston Churchill. Germany's blitzkrieg offensives achieved astonishing results in defeating various European armies. Yet Germany could not find a similar solution against the Resistance (guerrilla) movements which sprang up in the wake of Occupation. Australia herself was committed to a substantial guerrilla effort throughout South West Pacific area. One of the many examples is the splendid effort of the 2/2 Independent Company in Timor. Cut off from Australia and faced with a seasoned Japanese Division the 2/2 showed how a body of troops trained in GW can operate successfully under such conditions. Other Australian forces on
the Island, trained only in conventional warfare did not fare as well (quite justifiably).

However, the Communists should be given their due. Over 50% of the world’s population is under Communist domination and much of this gain was achieved through GW. The Communists did not invent GW nor do they possess some secret formula, but they did see in it a means by which apparent weakness can conquer strength. The fact that Communists treated the subject of GW as a serious military science accounts for what successes they have achieved employing this form of warfare. In terms of military might available to us, we would do well to consider their lessons.

Acceptance of GW as a means of significantly increasing the defence capability of Australia requires a breaking away from traditional concepts established in a different era. Australia’s past commitments have been expeditionary in nature — conducted on foreign soil and as an integral part of the armed forces of a major power. Thus we have fought as part of a large army capable of producing an overwhelming conventional warfare effort. Our current policy requires us to be capable of fighting as a small self-contained army and as such a clearly defined GW policy is indispensable to the overall strategy for the defence of the Continent. Modern history repeatedly demonstrates that in the event of an invasion, guerrilla warfare in one form or another by a nation’s people against the enemy is almost inevitable. However, as in conventional warfare, it is the planning and preparation carried out in peace time that will ensure maximum effectiveness in wartime. Properly conducted GW is a military science abiding by the rules of warfare and recognised under the terms of the Geneva Conventions. By its emphasis on surprise offensive action and at the same time never presenting a target to the enemy, GW would conserve what is Australia’s most priceless and scarce commodity — manpower. It needs a fraction of the defence resources to fight conventional warfare and presents a force that is very difficult to locate and destroy. These measures have produced results even when employed by guerrilla forces sadly lacking in military knowledge, organisational capability and technical expertise.

**The Strategy of GW**

GW strategy should be viewed in relation to the overall effort against the enemy. Guerrilla forces traditionally operate over as much as possible of enemy controlled territory or territory through which the enemy passes. Thus in a well organised guerrilla effort, the enemy should feel the danger of guerrilla attack exists from his ports of entry right through to the combat zone. The ideal situation being to present the enemy with what has been termed ‘war in depth’ — that is, he will be confronted by our conventional forces to his front and our guerrilla forces to his rear and flanks. The enemy cannot employ war in depth in return as GW is only successful with the support of the people. He is thus forced to a purely conventional effort which is the ideal target for the Guerrilla. Within this setting, the major functions of a guerrilla force are to:

- **Avoid** the type of set piece battle the enemy will seek, and be rigidly geared for, to bring the country quickly to its knees.
- **Employ** solely offensive action to attack the enemy unexpectedly or at his weakest joints.
- **Destroy** the enemy’s supply system by concentrated action in his Lines of Communication (L of C). Faced with an unfriendly land and population, the enemy must place great emphasis on the reliability of his supply line to remain a viable fighting force. Operations against the enemy’s supply system are an important aspect in withering away his ability to fight.
- **Rely** heavily on mobility, concealment and surprise thus never offering a target and yet capable of swift attacks on large forces.
- **Force** the enemy to divert troops away from the combat zone to protect rear areas.

A well conceived strategy allows a guerrilla force to continually achieve local numerical and firepower superiority in offensive action spread over the whole length of ground the enemy claims or moves through. Simultaneously the enemy is frustrated by not giving him the opportunity to strike back.
When the stage is reached where the enemy has been morally, physically, psychologically or logistically depleted to the extent that he can be defeated in a final battle, then in conjunction with our conventional forces the massing of guerrilla units and the employment of conventional strategy by the guerrilla force commences. For obvious reasons this step should never be taken too early. Mao called this his Third Phase, used in his defeat of the Nationalists and later by the Viet Minh at Dien Bien Phu. Not all guerrilla wars have ended in a Dien Bien Phu, some have simply outlasted the enemy (Protracted War).

Modern expeditionary wars are costly affairs requiring a substantial majority in numbers and massive support. For example, in 1944, Tito’s Yugoslavian Partisans (guerrillas) faced more than twenty German divisions in a country about the size of Victoria. Expeditionary forces amount to a continuing drain on a country’s resources. Conventional Generals in a counter guerrilla role are forced to state a timetable for victory to appease political leaders, the people and the economy. This timetable is further used to set a goal for their Army. On more than one occasion a sustained guerrilla effort which continually frustrates the enemy’s timetable has caused him to lose faith and withdraw from a seemingly futile and expensive campaign. Although the enemy may lay claim to various statistics, the reality of only being able to claim the ground he actually stands on becomes increasingly evident with the progress of time.

Organisation and Tactics

To maintain its offensive nature a guerrilla force must use ground rather than hold it; thus denying the enemy the opportunity of a successful offensive against it. Certainly the enemy will mount counter guerrilla operations and on occasions should be encouraged to expend energy and resources in futile pursuits. It is while the enemy’s efforts are channelled and concentrated in the direction of such operation that the guerrilla force must take the opportunity for offensive action in other areas. Thus mobility, elusiveness, ability to strike hard and enemy tactics influence guerrilla organisation and tactics. There is no rigid formula, rigidity is usually the first step to setting a pattern, something the enemy would dearly like to see. However, the general principles that have proved successful follow the same pattern.

To maintain total surprise guerrilla units require base areas providing complete concealment or which are just out of the enemy’s reach. Although a large part of Australia consists of desert country there are sufficient areas of cover to engulf a number of small countries which have previously fought guerrilla wars. The Great Dividing Ranges for example provide the cover, rugged mountainous terrain and water to make them ideally suited for guerrilla bases.

The desert itself, although restrictive, is not beyond the scope of operations for guerrilla troops who are trained to live with it. As Lawrence of Arabia proved with his Arab guerrillas, so the value of trained Aborigines in guerrilla units would prove an immense advantage particularly in the harsher climatic areas of the Continent.

A guerrilla unit operating independently may vary in size from a platoon to a battalion numbering between 250 and 500 soldiers. Larger formations have operated as an entity but tend to be harder to conceal, lose mobility and offer a sizeable target.

Offensive action is planned so that it is brief but extremely violent in its concentration of effort. Independent units are capable of a high degree of firepower and are equipped with their own integral fire support. As units combine for a specific task their fire support is grouped to provide a withering concentration of fire. Fire support is normally provided by a combination of manportable weapons such as GPMGs, LAWs, MAWs, mortars and rockets. Although light artillery has been employed by guerrilla forces, it should never be employed where it will impair their high mobility.

Mobility in GW is the ability to move long distances over terrain considered difficult, inaccessible or impassable to a conventional enemy who is burdened with heavy or mechanised fire support, armour and the limits of the transport in his supply line. The enemy cannot afford to operate without all these requirements so long as he is under the constant threat of surprise attack. By moving under cover, at night or during inclement
weather the guerrilla force further deceives
the enemy by attacking him in the most
unexpected locations and at the most unlikely
times.

Although guerrilla units operate within
defined Area of Operations (AOs) over a large
area, they must be capable of concentrating
for large offensive tasks of up to brigade size
or higher. Dispersion being again quickly
achieved as soon as the task is completed.
This provides the key to large scale operations
and does not offer the enemy a target for a
counter offensive once he regains his balance.

Although guerrilla operations are planned
and co-ordinated through the normal chain of
command to achieve the overall strategic aim,
there must be a high degree of decentralisation
in execution. Unit commanders are allowed
maximum flexibility to achieve the stated aims.
It is the unit commander who can best appreciate
the situation in his area of operations
and thus decide on the targets, timings and
methods of execution as opportunities present
themselves.

Occasions will arise when a concentrated
overall effort by all units will be ordered at a
particular time. A general offensive of this
nature will cover targets from the enemy's
rear maintenance area through to his combat
units and will range from sabotage to ambushes
and large scale attacks. Its success will rely
on thorough planning, good security and wide­
spread simultaneous action.

Well trained guerrilla units must reverse
the daily cycle by operating mainly at night.
Soldiers experienced in night operations develop
a sixth sense for the night and are far superior
in such operations to the soldier trained to
fight in daylight. The advantages of night
guerrilla operations in terms of freedom of
movement, the achievement of surprise and
safe withdrawal are obvious. The enemy means­
while suffers a substantial reduction in the
effect of his heavy supporting arms, armour
and air. Night operations create an adverse psy­
chological effect on the enemy, furthermore,
as the enemy cannot conceal himself in the
same manner as the guerrilla force he must
remain active in daylight which prejudices the
amount of activity he can maintain at night.
This does not mean that guerrilla operations
are mounted exclusively at night, this would
again be setting a pattern.

The theory that air superiority is the means
for defeating a guerrilla force has been dis­
counted in several guerrilla wars. Although
various hand held anti-aircraft missiles are
now available to a guerrilla force the chief
means of defence from air stems in not offer­
ing a target. This is achieved through good
security, deception, expert concealment and
use of the night.

The dispersion and concealment employed
in GW makes it very suitable to nuclear war­
fare. A potential nuclear enemy will not find
the concentration of forces he needs to explode
his nuclear devices and thus score a decisive
victory on the battlefield. In this setting, the
enemy will be required to disperse his units
and installations thus offering guerrilla forces
more targets and making it difficult to concen­
trate forces for counter guerrilla operations.

As guerrilla forces operate within enemy
territory they can provide detailed and timely
intelligence to conventional forces facing the
enemy. With adequate training, guerrilla units
can supply accurate locations to enemy targets
and direct air and long range artillery followed
by bomb damage assessments for such strikes.
Downed friendly pilots, soldiers or even units
cut off by the enemy will be able to contact
guerrilla escape networks and be returned to
friendly lines or beach heads and landing
grounds for extraction. However, conventional
units/sub units who are cut off and face a long
delay prior to return to friendly lines should
adopt their alternate role of GW in conjunc­
tion with local guerrilla forces.

Urban Guerrilla Warfare

Australia ranks as one of the most urbanised
nations in the world with over 90% of the
population living in an urban environment.
In keeping with the tradition of a large block
of land per family, our cities cover great areas.
Obviously the enemy will devote special atten­
tion to seizing and holding the cities. His
interest will focus on the industry, ports, com­
munications, power and fuel production within
a city. Because of the size of our cities he will
be unable to control much more than key
points, thus perfore the population will enjoy
some freedom of action.
Australia's cities are well suited to organised urban guerrilla warfare. The stress is on the word 'organised' for it is an exacting and demanding form of warfare which must be kept within the rules and conventions of land warfare, thus remaining legal in its conduct. Much can be learnt from freely available accounts of urban operations in World War II particularly as conducted in Occupied Europe.

Urban GW is normally conducted by small, self-contained and well trained groups and requires tight security. It has a passive and an active stage depending on the situation.

In the passive stage it is mainly concerned with gathering intelligence on the enemy, supplying items not available outside the city, conducting psychological operations (psyops) and minor acts of 'accidental' sabotage. It supplies passive support to military operations by providing guides, safe houses and conducting escape networks.

In addition to activities of the passive stage, the active stage employs direct offensive action. Carefully planned raids against enemy HQs, communications (signals) centres, logistic units, port areas and transportation are conducted. Industry, power and fuel sources supplying the enemy are destroyed or put out of action.

Members employed in this highly dangerous form of warfare must be well trained not only in the techniques of surviving in this environment but also in weapons, demolitions, incendiaryism and a variety of other skills. They are controlled by a chain of command which in itself applies tight security and the 'need to know' basis.

Progressing to the active stage in urban GW will require careful deliberation. The dangers involved are obvious, but may be, under the circumstances, totally justifiable. An alternative under certain circumstances is the infiltration of guerrilla forces into a city for a specific operation, which are withdrawn immediately on completion.

Command and Control

The Russian example in World War II best illustrates command, control and effective use of guerrilla forces. As early as 1933 plans were laid for guerrilla warfare in the event of an invasion of Russia. Later, cadres were trained in villages and towns and equipment was suitably dispersed so that effective 'stay behind' operations could be undertaken in an enemy's rear. At the height of the German invasion of Russia, an estimated 1.5 million Russian partisans were operating against the Germans. This force, although widely dispersed, was controlled and directed at the highest level by the Russian High Command where it was represented by a Lieutenant General. Most of the larger guerrilla units contained Red Army officers or teams specially trained in GW. Such was the coordination between partisans and regular armed forces that a massive guerrilla effort could be mounted at a specific point in time. An example of coordination was demonstrated 24 hours prior to a Red Army offensive in June 1944 in the Brobuisk-Vitebsk area where Soviet partisans mounted 10,000 raids and incidents within the German lines of communication.

Control of guerrilla forces stems from the highest (Joint Chiefs of Staff) level through State (Province) headquarters down to district headquarters. The situation in a particular area of operations may dictate that guerrilla units be placed under the direct command of the conventional force commander. This ensures guerrilla forces within the area of operations work closely in support of the adjacent conventional force. The general principle applicable remains that guerrilla forces are directed at the highest level possible. Control at too low a level tends to lead to the misemployment of guerrilla forces as conventional forces — a task for which they are ill equipped and totally unsuited to carry out. Control should be such as to allow guerrilla units the flexibility, surprise and unpredictability necessary to their survival and conduct of operations.

The importance of radio communications both for command and control over Australia's vast areas and for guerrilla forces to pass timely intelligence to their conventional counterparts cannot be understated. In GW, radio communications involve both transceiver communications and general broadcasting on public wavebands. Being equipped with powerful transmitters, the ABC is capable of reaching outback areas and could provide a valuable service in transmitting coded messages which
can be received by guerrilla units on easily available transistor radios. Such broadcasts can also provide guerrillas with the vital instruction in tactics, techniques and methods of sabotage.

The Economics of GW

Sheer necessity requires a guerrilla unit to be capable of moving over terrain regarded as impassable to conventional forces and to operate without a logistic tail as we know it. This means dispensing with many of the expensive, complex and cumbersome items of conventional warfare which require a multitude of personnel to operate and maintain. These become nothing more than impediments to the flexibility of a guerrilla force. The lack of sophisticated equipment must not be regarded as a restriction to operations, for example the guerrillas' ability to destroy enemy armour without offering a target in return is demonstrated in Bernard Fall's 'Street Without Joy', which is an object lesson on how a modern mechanised force can be destroyed by a disciplined guerrilla effort. The more complex and sophisticated the enemy, the more lucrative the targets he provides.

Being to a large extent self supporting, guerrilla forces mean a substantial saving in the costly equipment required to equip a force of equal size for conventional warfare. This is an important consideration since many key items of equipment essential to conventional war cannot be produced in Australia or would prove an enormous strain on the economy to afford in the large numbers required on mobilisation. GW does not require the multitude of technicians, specialists and administrative personnel associated with conventional warfare and therefore achieves a very high ratio of combat troops over supporting personnel.

Training for conventional warfare is a complex and expensive process subject to being quickly outmoded by new techniques and weaponry. The basic simplicity of GW, which is one of the keys to its flexibility, employs tactics and techniques which are not dependent on the whims of machinery, technology or changing conceptions and yet have proved successful against them. The training of a guerrilla force is an enduring process which is achieved quickly, rationally and at minimum cost. The major items of equipment required are within the productive capability of Australian industry.

It is a common fallacy that successful guerrilla forces 'live and fight off the land'. Even amongst a friendly population guerrillas require support if they are to produce maximum results against the enemy.

A population which has everything to lose and nothing to gain by enemy occupation will not require prompting to support its forces. This support may be moral, financial, physical, or in the form of goods, services or supplies. Trained administrative personnel are required to organise this support, to allocate fair quotas, to collect, transport and store supplies for local units.

The large number of well trained tradesmen and technicians per head of population in Australia gives us the capability for a high standard of local production in support of guerrilla forces. Thus improvised weapons, explosives and equipment produced in secret factory locations can be available locally to the guerrillas.

Support will be harder to obtain in areas of close enemy scrutiny, but then the enemy is incapable of observing everyone simultaneously. Security is essential so that those providing support are not implicated in any way.

The enemy is an important source of weapons, equipment and supplies to the guerrilla force. Every endeavour is made during operations to capture all that can be taken and destroy what must be left behind. Specially planned operations should be mounted stretching from enemy held ports through to supply installations and routes of communication to relieve the enemy of every desirable item. It follows that guerrillas should be as well versed in the use of enemy weapons and equipment as they are with their own.

Inevitably, the supply of military equipment not available or in short supply from internal sources will fall upon the normal military system. Resupply operations to units situated well behind enemy lines will usually take the form of night air or sea resupply which require skill and accurate timing to implement.

Most guerrilla wars have been sponsored by an outside nation. Sponsorship may be overt (open support), covert (secret or deniable) or
a subtle combination of both. It may take the form of political pressure, financial aid or supply of war material. International events have shown that sponsorship which is largely or wholly covert can still leave the sponsoring nation in a neutral position and does not involve the costly commitment required in backing a conventional war. An aggressor nation invading Australia will pose an indirect threat to various other countries in terms of trade, control of the sea and location of bases. This may prove insufficient reason for a foreign nation to commit itself openly or risk nuclear confrontation but it will undoubtedly provide one or more sponsors who can still maintain a neutral stance.

Quite apart from logistic sources, logistic preparation for GW has often been left too late by threatened nations to be totally effective against the enemy. In times of threat, preparation involves the concealment of arms and equipment caches in areas of likely invasion to provide an immediate and effective effort in the enemy’s rear.

The People

It would be fair to say that the new generation of Australians believe their contribution to defence ends with paying taxes and observing the progress of a far off war. This attitude persists due to our past history to the point where a war in Australia cannot be imagined. There is a need to educate the citizen to the reality of war at home, for he will be involved just as much as the Serviceman and in some cases will suffer more. When the stakes are the survival of a nation there can be no clearly defined line between those who are designated to fight and those who are not. Defence becomes the responsibility of every citizen and he must be expected to contribute to his utmost in the effort against the enemy. The overall effort of GW supported by a well organised population is commonly referred to as the Resistance. History has proved that countries still relatively intact and untouched by war have capitulated where others less fortunate but with an organised population (Resistance) have succeeded.

The Resistance is controlled and directed through the channels discussed previously to combine the efforts of the guerrilla force and the people into a single cohesive effort. The general concepts of Resistance are discussed in subsequent paragraphs.

The primary requirement in case of threat is the ability to quickly raise a guerrilla force in sufficient numbers to pose an immediate threat to the enemy. This must be achieved before the enemy can exercise any form of effective control over that portion of country initially invaded. The simplicity of training for GW provides the means for rapid expansion on a decentralised basis. Wherever possible, members should serve in units located at or near the region they come from, thus maintaining their intimate knowledge of the country side and close links with the people of that area. Recruiting should not be restricted to men, volunteer women have served equally well in guerrilla units.

The logistic and administrative support of guerrilla units is provided for by Resistance members organised into ‘auxiliary’ units on a decentralised basis and supporting one or more fighting units. These members may be so employed on a full time or part time basis and will include those civilian trades applicable to supporting fighting units. Auxiliaries are in close contact with farmers, industry and business who provide a portion of their product or finance which the auxiliaries collect, transport, store or distribute to fighting units. In areas closely controlled by the enemy this process becomes difficult, requiring strict security, courage and dedication to implement.

The final element of the Resistance is provided by the ‘Underground’. This element is normally found in urban areas occupied by the enemy. Members of the Underground pursue their normal civilian employment and because of their environment employ both stages of urban GW discussed previously. However, due to the proximity of the enemy, they are mainly concerned with the passive stage (intelligence, supply, psyops, escape and evasion networks etc).

To achieve the unexpected and retain the initiative a guerrilla force requires extremely detailed and timely intelligence on the enemy. A wide intelligence network consisting of guerrillas, auxiliaries, underground and in fact any member of the population who can provide information must be thoroughly organised and possess a system to process and communicate
information and intelligence quickly. GW employs all the normal means of military intelligence collection, but has the added advantage of collecting intelligence from members of the population in close proximity to the enemy. A multitude of people will have access to information: people such as forced civilian labour in enemy establishments, women who socialise with enemy soldiers, railwaymen with access to enemy rail movements, elderly people and young children situated near any enemy supply route. Most of this information can be lost unless a system is organised to collect and disseminate it to conventional and guerrilla forces alike.

By embracing GW, so the hardships associated with this form of warfare must be borne. The guerrilla soldier has to be prepared to serve without remuneration, to live without even the most basic comforts available to a conventional soldier in the field, to move on foot for distances considered impossible by the enemy, to survive on inadequate rations, to suffer upon capture and to die without recognition or compensation. Yet such is the makeup of men that he can overcome hardship and produce of his best when most threatened. Because of his way of life the Australian citizen would find subjugation in any form to a foreign nation far harder to bear than would most other peoples of the world. And this would prove the prime motivator towards GW.

The argument that the Australian citizen is too 'soft' to make an effective guerrilla soldier is dispelled by the fact that Australia has gained its combat reputation largely from its Infantry soldier right up to very recent times. The guerrilla soldier and the Infantryman endure somewhat similar hardships and conditions.

A study of guerrilla campaigns shows that in many cases deep political beliefs, religious fragmentation and varying factions within a country have caused guerrilla groups to oppose each other as vigorously as they oppose the common enemy. Because of the relative lack of extremism of any sort in Australia, so a united effort can be expected against the enemy. Again, the Russian example in World War II where the Government took control of the guerrilla effort, gave it a clear cause and a common aim is pertinent in the often underrated results obtained.

**Preparing for War**

The ability for the rapid formation of guerrilla units capable of effective operations early in an invasion must exist in peacetime. The prime factor in achieving such an ability lies in the formation within the Army of small, self contained training teams capable of deploying quickly to recruit, organise, train and advise units up to battalion strength in GW. Team members must be qualified instructors and possess all the skills among them to train a unit and organise the auxiliary and underground supporting it. In peace time these teams can fulfil their roles as instructional teams. Areas of likely deployment should be allocated to teams so they may be studied and reconnoitred in detail in terms of topography, population, communications and industry. From these studies will emerge plans for mobilisation, potential guerrilla leaders, cache sites, base areas, demolition plans, DZs, LZs and general strategy. The advantages of deploying a team in that part of the country they know in detail, and amongst people who trust them, are obvious.

The 'team' concept is not a new idea and demands a great deal from team members. They have to cover every conceivable skill required to turn a body of civilians into an operational unit. They may further have to organise the auxiliary and underground in their respective area of operations. Thus the total operational, logistic and administrative organisation in a particular area may fall totally on a team's shoulders. These tasks will have to be carried out within enemy controlled territory under harsh and primitive conditions with minimal support. Teams situated deep inside enemy territory will prove the greatest factor in raising the population's morale in the area, not only will they be soldiers but will also represent government authority in a seemingly inaccessible situation. The ultimate aim of a team is to bring guerrilla, auxiliary and underground forces to a level where they may carry out operations with a minimum of assistance. If this ideal situation is reached then the team should be reallocated to a new task. It may be, however, that the team or certain key members of the team will remain in an AO indefinitely to direct a maximum effort against the enemy.
The Army, largely through the above mentioned teams, needs to develop a close relationship with the population and seek their co-operation and assistance in whatever small way it can be given during training and other activities. In this way a feeling of participation, loyalty and close mutual trust will develop within the community which will manifest itself even more in time of war. Close liaison with government and semi government agencies such as local government bodies and police will reinforce the onus of responsibility for the organising of the Resistance in areas not reached initially by the teams.

**Conclusion**

We have never needed GW in the past as the prospect of Continental Defence has been a remote possibility. Its relevance to the present cannot and must not be ignored.

Our GW policy should not be modelled strictly to that which may have been conducted elsewhere, rather it should suit our specific needs and conditions. Accepted as an integral part of our Defence system and conducted by a people renowned for their initiative and individualism it will prove a strong deterrent. Implementation of GW will not require major Defence reorganisation or expenditure, nor will it offer any external threat leading to arms escalation.

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Whosoever commands the sea commands the trade; whosoever commands the trade of the world commands the riches of the world, and consequently the world itself.

*Sir Walter Raleigh (1552-1618)*

The first thing that is seen to disappear in a state which is disintegrating is the navy.

*Daveluy*

Defence is more important than opulence.

*Adam Smith (1723-1790), Wealth of Nations (1776).*
At a cursory glance the air power of the People’s Liberation Army (PLA) of the People’s Republic of China (PRC) appears impressive. Together, the air force (PLAAF) and naval air force (PLANAF) represent the world’s third largest forces quantitatively. The PLA has the only air arm in Asia with a strategic nuclear capability. Production facilities handle a range of tactical and strategic aircraft types for the air forces and some models have been exported. On paper this appears very formidable. Upon a closer examination of the qualitative features of this air power however, serious deficiencies are evident. Although the organisation of the air forces is balanced and modelled on standard lines, they are not modern. All aircraft in service are at least one generation behind current types in modern forces. Weapons are also technologically obsolescent. Any aggressive political signs are largely neutralised by an overwhelmingly defensive military posture and an inability to conduct sustained offensive operations far beyond China’s borders. Although well disciplined, the levels of training and tactical doctrine in the PLAAF and PLANAF have repeatedly been demonstrated as inferior during armed conflicts. Aircraft production facilities are basically only producing copies of outdated models originally developed by the USSR, and are incapable of developing sophisticated modern aircraft. Frequent recourse to the use of force has been retained as an option by the PRC and in view of the repeated pronouncements on threats confronting China, describing forces of such size as comparatively weak may appear paradoxical. It would seem therefore that factors other than pure military determinants have also influenced the development of current potential and will dictate the course of future modernisation. According to Maoist doctrine, military affairs must be subordinated to politics and politics must command military affairs. Economic, social and foreign policy considerations are further agents of force development. An understanding of the interaction of a variety of factors is necessary to identify how air power in the PRC has evolved with in-built deficiencies and to indicate how any movement toward modernisation in the future will be effected.

Past Applications

The basic strategic objectives of the PRC have remained virtually constant since 1949 and can be summarised as the:

- maintenance of national security
- achievement of great power status
- rectification and consolidation of PRC frontiers
- achievement of influence in the Asian region and world communist theatre.

When these objectives have been threatened or when conditions have been favourable for their strengthening, the PRC has often resorted to armed actions. Air power has frequently been applied during these situations as an adjunct to ground force operations, and the relative success of military actions can be gauged through the performance of the air forces. If not directly committed, air power has been held in reserve. The history of air actions has repeatedly demonstrated basic weaknesses and limitations in capabilities, and is therefore relevant to later discussion on

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development and current potential of the PLAAF and PLANAF.

Korean War. In October 1950 when the proximity of hostile allied forces in North Korea threatened the PRC, China reacted and entered the war. North Korean air forces had been almost totally destroyed during the allied counter invasion earlier, and the provision of air power became a responsibility of the PLAAF. Soviet assistance to the still fledgling air force was increased and the aircraft inventory was boosted with TU-2, TU-4 and (later) IL-28 bombers, MiG-15 fighters and IL-10 attack types. Recognising the PLAAF as a potential threat to positions in South Korea, the allies threatened that if attacks were made beyond the 38th Parallel the PRC would in turn be subjected to reprisals, possibly even nuclear bombardment. In consequence, the air war became effectively confined to North Korean airspace. Tactical advantages were conferred to the PLAAF as a result. Flight endurance was more favourable for the Chinese and they could operate from within the PRC, virtually immune from "hot pursuit". Opposing sides needed air superiority as an advantage to their conduct of ground operations. Although the MiG-15 and USAF F-86 were approximately evenly matched in performance, the PLAAF was unable to achieve air superiority and suffered massive losses. Over 850 MiG-15s were reportedly destroyed. Soviet air tactics and PLAAF pilot proficiency were no match for the allied air forces. Without achieving the primary objective, the air force was unable to successfully mount an offensive air campaign. The resultant effect on PLA ground elements, committed to operations without air support, was significant. However, the large number of troops and the seemingly endless supply of Soviet aircraft effectively stalemated the war. Intervention had also forestalled any attack on the Taiwan Straits as a prelude to ground support, but were defeated. With the USSR refusing support and the US poised to intercede on the site of the Nationalists, the PRC assault was terminated. Inability of the PLAAF to pave the way for increased action was one of the military factors influencing this decision. Air engagements continued intermittently in the ensuing years until by 1961 a total of 41 MiG-17 and at least 2 MiG-15s had been lost by the PRC. Supremacy in the air was held by the Nationalists. Chinese tactical air power had again proved inferior, against an opponent trained and equipped by the US.

Sino/Indian Border Dispute. When full scale fighting involving several divisions each erupted between India and the PRC in September 1962, the PLAAF was poised for commitment. Decisive military victory by the PLA was however achieved and Indian attacks were successfully repulsed without air support. The Chinese halted their drive into Indian territory and declared a ceasefire. Having secured both military victory and a strategic asset in the border region (the Aksai Chin Road), the PRC was not concerned to prolong the dispute. Air power had been available but was not necessary for the successful prosecution of the conflict. Its effectiveness under the extreme topographic and climatic conditions would probably have been negligible and this realisation may have weighed in the decision not to escalate or prolong the hostilities.

Taiwan Straits. The failure of the communist forces to secure the offshore islands, including Quemoy, Matsu and indeed Taiwan, in 1949 left the conclusion of the civil war and the rectification of border areas unfinished in PRC considerations. Sporadic air attacks by Nationalist aircraft against mainland sites were flown during the early 1950s, ostensibly to warn against communist aggression. During late 1954 and the beginning of 1955, PLAAF air actions with MiG-15, MiG-17 fighters and IL-28 bombers against the Tachen islands near the mainland coast led to the Nationalists withdrawing in February 1955. Chinese aircraft losses were comparatively high and when Taiwan threatened retaliation the PRC contented itself with the partial victory. Intermittent air engagements continued, generally with the Nationalists enjoying air superiority. Then in August 1958, the PLA commenced artillery bombardment of Quemoy and Matsu as a possible prelude to seizure, thereby pre-empting any threat of a Nationalist invasion attempt. The PLAAF was used in supportive actions. MiG-15 and MiG-17 fighters struggled to achieve air superiority over the Taiwan Straits as a prelude to ground support, but were defeated. With the USSR refusing support and the US poised to intercede on the site of the Nationalists, the PRC assault was terminated. Inability of the PLAAF to pave the way for increased action was one of the military factors influencing this decision. Air engagements continued intermittently in the ensuing years until by 1961 a total of 41 MiG-17 and at least 2 MiG-15s had been lost by the PRC. Supremacy in the air was held by the Nationalists. Chinese tactical air power had again proved inferior, against an opponent trained and equipped by the US.
Vietnam War. Use of PLA air power during the Vietnam war was basically confined to ensuring the integrity of China’s airspace against hostile penetration. In May 1966 when PLAAF MiG-17s attacked a straying USAF RB-66 allegedly over PRC airspace, US F-4s retaliated and shot down one of the attackers. Earlier, in September 1965 and April 1966, both the PLAAF and PLANAF had destroyed US aircraft over the PRC. Further losses were recorded in 1967. Numerous Chinese protests against US intrusions were lodged during the early war years, but the fact that few US aircraft were intercepted or engaged would indicate either an exaggeration of the claims or a reticence to combat the intruders. The complaints did however cause the US to alter its policy and forbid any flights that might draw a Chinese reaction. Although there were reports of PLAAF aircraft operating over North Vietnam, the monitoring of pilot communications suggested these were low-key ventures with the pilots instructed to avoid contact or combat with the enemy. Rather than risking direct involvement in the war, the PRC chose to provide only that support which it could reasonably afford and which would not provide a US reaction. By avoiding combat alongside a client state, the Chinese opted for minimum risk with a high pay-off. 50,000 support troops including engineer and construction units were committed to the war effort, and PLAAF anti-aircraft elements provided for their air defence. Whilst the air forces of the PLA demonstrated an improved ability to defend PRC airspace, there was no intention to commit offensive air power. Doubt in relation to the effectiveness of the PLAAF against US or client air forces probably figured in the calculation to refrain from any such commitment.

Paracel Islands Dispute. When South Vietnamese troops invaded Chinese occupied islands of the Paracel group in January 1974, China reacted. In claiming the island group was historically part of PRC territory, intervention was justified as protection of territorial frontiers. PRC naval units dispatched to the islands were subjected to air and naval attack by South Vietnamese forces, indicating the inability of the PLANAF (or PLAAF) to provide effective air cover. An air attack against the Chinese on Duncan Island was also made. Chinese air superiority would have prevented hostile action against the naval vessels and permitted offensive action against the South Vietnamese units. However, the South Vietnamese forces were withdrawn following dislodgement from some islands by PLA ground elements and to prevent an escalation of the dispute whilst committed to another war. Threats of retaliatory air strikes against the confirmed PRC presence continued. Whether or not these eventuated is unknown, but Chinese fighters would have been severely restricted in providing blanket air cover. The deficiencies of PLA air power in supporting armed actions against threats to strategic objectives had again been demonstrated.

Development

Whilst military factors should have dictated the upgrading of the air forces to rectify the revealed deficiencies following military actions, wholesale development was not always made. As a result, the deficiencies evident in air power manifested themselves and severely curtailed the operations of the whole PLA. Determinants other than military have interceded and influenced the development and modernisation of the capabilities of China’s air power. When extraneous conditions have been favourable, military development has been marked. The obverse has equally applied. The present state of China’s air power in many ways reflects the unevenness of the nation’s development.

Post Korean War. Lessons of the Korean War clearly demonstrated to China the requirement for strong air power. Following a period of establishment and consolidation of communist power in the PRC, the smooth transfer of political control from the PLA to civil leaders was effected. Acceptance by the military of its subordination to party interests was evident at an early stage, and this served to enhance its reliability within the political framework. For a regime struggling to put the country on its growing feet, economic commitment to large scale defence development was not feasible. Soviet military assistance was however readily available. The cost of a form of political dependence engendered by reliance on foreign assistance must have been assessed as relatively minor in comparison to the benefits. Thus, by 1956 the inventories of the PLAAF and newly created PLANAF
numbered over 3,000 aircraft, and of these nearly eighty percent were jet fighters, mainly MiG-15 and MiG-17. Even at this early stage of development a primary concern for defensive capability was evident. Beside the fighter force, TU-2 and IL-28 light and TU-4 medium bombers were incorporated into the air arm. Coinciding with the aircraft acquisition and modernisation program, production facilities for the series manufacture of aircraft (primarily MiG-15/17), engines and equipment were established with USSR technical aid. Aircrew training was conducted by the Soviets and was therefore strongly influenced by their methods.

Commensurate with an increase in potential, attention and status, an elitist attitude developed within the officer corps of the PLAAF and PLANAF. The professional perspective on military strategy and organisation exhibited by this corps tended to differ fundamentally from the Party politically oriented approach to military matters. Party recognition of the necessity to build modern armed forces nevertheless demanded a continuation of the revolutionary substance inherited from the struggle against the Nationalists. Closely linked with the concept of People’s War came the belief that politics was more important than military technique and that people are more decisive in conflict than weapons. The role of ground forces of the PLA within this concept was recognised as paramount. An apparent contradiction between Maoist doctrines and the efforts being made to upgrade the air forces from the lessons of Korea had emerged. Superiority of weapons and technique were more vital to the air force, and without effective air cover PLA ground operations were hampered. This conflict in views was inextricably connected with the modernisation which had transformed the PLA into the era of modern conventional warfare. Whilst improvements were being applied to the air forces, debate was more theoretical and low-key and was therefore tolerated.

**Sino-Soviet Split.** By 1958, modernisation of the PLAAF and PLANAF had progressed to the point where the PRC was confident these forces were thoroughly organised, disciplined and trained. Aircraft production facilities were fully operational. Politically, the overwhelming success of the program for collectivisation of agriculture had consolidated the regime’s control over the country and guaranteed welfare and subsistence to the people, beside demonstrating the ‘success’ of Chinese Communism. Mao had begun to question the continued legitimacy of the Soviet claim to head the international communist movement, particularly following the 1956 denunciation of Stalin by Kruschev seen as causing irreparable damage to the bloc. The Great Leap Forward program aimed primarily at organising the people into communes and transforming the economy and society, but also further indicating the success of Mao’s communism, was initiated in late 1957. Mobilisation of support for this program was desirable. The nagging presence of the Nationalist island bastions near the coast of the PRC and the recently concluded mutual defence treaty with the US for defence of these islands or Taiwan in the event of a PRC attack, posed a potential threat from what China regarded as its territory. A combination of these political, economic, foreign policy and military considerations probably led to the decision for the 1958 bombardment of Quemoy and Matsu. At a time when Chinese confidence in its air power was at a peak, the humiliating ‘defeat’ was to have a profound effect on future development.

It was evident the Great Leap Forward was a failure by early 1959. The economy was suffering. Mao’s political consensus was also weakening due to the economic set-backs and the humiliation over the Taiwan Straits crisis. Soviet reticence to back the PRC’s action against Taiwan (and the US) exacerbated the growing rift between the two communist countries. China’s attempt to develop an independent military posture with nuclear weapons encountered a severe reversal in 1960 when Soviet advisers were withdrawn. Production capabilities for conventional weapons were also affected. With an economic system striving for modernisation and unable to afford large scale defence expenditure without Soviet aid, the continuous military improvements that would have seemed necessary after the recent defeats could not be implemented. Other sectors required priority attention. In an attempt to maintain political supremacy, Mao instituted a series of programs against ‘rightist deviationists’ challenging his position in the party. He also aimed to re-infuse revolutionary
values into the Party and society as a whole. Lin Piao spearheaded one such campaign which offered the PLA as the revolutionary model for the nation to follow. The PLA was to most perfectly embody the thoughts of Mao. Increased reliance on the concept of People’s War in the absence of a nuclear deterrent force and less than perfect conventional forces, as well as on its revolutionary value, developed. Professional disagreement over politically motivated changes to defence programs ran counter to the popularised image of the PLA. Efforts to discourage growing discontent from those who believed modernisation was still necessary, were enforced. Political indoctrination within the PLA was increased and, following several defections of aircraft and crews of the PLAAF, political ‘reliability’ achieved prominence over military proficiency. Distinctive air force uniforms and all badges of rank were abolished in 1965 to further defuse elitist attitudes. The role of the political commissar as the link between PLA and party increased.

Equipment modernisation programs for the air forces suffered. Without Soviet assistance, on which the PRC aircraft industry had become almost totally dependent, capacity to produce or further develop virtually ceased. Licensed production of the MiG-19 which had commenced in 1959 slowed dramatically. Some MiG-21 fighters and TU-16 medium bombers were acquired from the USSR before relations deteriorated too dramatically but no production rights were obtained. Serviceability difficulties encountered after the split and the small numbers of these new aircraft barely improved the capabilities of the PLAAF. Cannibalisation of aircraft illustrated the serious debilitation of the forces and the inability for self-sufficiency. Any priority treatment for the air forces under the doctrines of People’s War, superiority of man over weapons and politics over technique, coupled with the growth of the peasant militia, could not be expected. The diversion of attention away from capital improvements to the forces in favour of reliance on a vast ill-armed national resistance force and political and economic development led to a marked rundown in the effectiveness of air power. Limitation of hostilities with India may have been compelled by an unwillingness to escalate PLA involvement with diminished capabilities. Equipment-intensive support to the North Vietnamese cause was also probably not feasible for qualitative and cost reasons.

**Cultural Revolution.** Gravitation of political power to the PLA under the programs of Mao and Lin Piao was inevitable although there was a distinction in involvement. The largely static, localised regional forces of the military districts provided the link with the provincial party committees whilst the strategic main force units (including the air forces) were used more as a source of national power and were under close central control. Due also to their defence roles, the main force elements were not directly involved in the politicisation process, although political allegiances were obviously affected. Mao’s attempts to reinvigorate the revolutionary fervour in China developed into the Cultural Revolution. Regional force elements became involved in 1966 on the side...
weakened the viability of the PLA as a centrally political instrument and defensive force. When the Cultural Revolution was drawn to a rapid close by 1969, the PLA was still however the dominant political and administrative authority in China.

The Soviet Threat. Another reason for the dénouement of the Cultural Revolution was the outbreak of serious hostilities along the Sino-Soviet border in 1969, and the intensification of the Vietnam war. The prospect of hostile super-power threats from the northern, eastern and southern PRC flanks against a political and economic system weakened by the disruption of the Cultural Revolution caused immediate and profound concern. Military impotence to meet these threats was serious. As the PLA now enjoyed positions of political predominance, priority for military modernisation was more readily realised. Obstacles had to be overcome however before an increased defence budget could be applied to modernisation efforts. The PLA had to be welded into a more cohesive body. Debate over which branch of the armed forces should be given priority treatment had also to be resolved. The new threats clearly required modernised air and naval forces but doctrinal priority of the ground forces was aided by their political prominence. Accelerated development of both nuclear and conventional weapons was required but economic constraints demanded rationalisation of necessary improvements. Although the air forces were to be upgraded, the impact of the Cultural Revolution had disrupted the technological capacity of China's aircraft industry. A slow-down in research and development during the period had restricted the self-reliance of industry to assembly of a few aircraft types. Illegal copied manufacture of the TU-16, IL-28 and MiG-21 had commenced and the Chinese designed F-9, itself a limited development of the MiG-19, entered production. Indigenous development of new aircraft was restricted by an insufficiently broad based capability within industry. Despite these limitations, the PLAAF and PLANAF received quantitative upgrading, but with standard, ageing military aircraft, and they were accorded a more realistic role in defence doctrine.

Lin Piao Affair. In September 1971 Defence Minister Lin Piao allegedly attempted to overthrow Mao and, whilst endeavouring to flee to the USSR following the failure of his coup, was killed in an air crash. The Commander of the PLAAF, General Wu Fa-hsien and three other top military leaders also disappeared. However, PLA support of the abortive coup was not widespread. Lin's excessive politicisation of the PLA and his continued alliance with extreme radicals after the Cultural Revolution had not endeared him to the more conservative military professionals. Mao's triumph was due largely to the PLA's general professional dislike of left-wing elements within the defence hierarchy. A gradual but significant disengagement process of the military from widespread involvement in the political system and the reaffirmation of military values at the expense of politicisation ensued. Lin was criticised for his neglect of the military functions of the PLA. Although the PLA continued to play an important role in provincial and to a lesser extent central hierarchies, the influence of professional military men declined between 1971 and 1975. To reduce the risk of power seizure by regional forces in the provinces, the political commissars of the PLA, who had no military authority over the forces, were assigned a greater role in regional politics. Central control over the PLA increased. The rehabilitation by 1976 of cadres purged or mistrusted during the turbulent years of the Cultural Revolution represented the ingredients for conflict with the radicals, as the purger was again confronted with the purgee. After the death of Chou En-lai in 1976 the radicals spearheaded a campaign against these “rightists”, notably Teng Hsiao-ping, and the “undesirable” role of the PLA in China's politics which they saw as the major obstacle to gaining power. Successful resistance to this radical pressure resulted in Hua Kuo-feng's emergence in the wake of Mao's death in late 1976.

Although defence expenditure had been boosted in the period 1969-1972, turbulence in the political system and economic priorities diminished the PLA's slice of the budgetary pie thereafter. Decline of the PLA's political role and the impact of radical pressure ushered in a period of virtual stagnation for the military. Aircraft deliveries to the air forces continued but no essentially new types or weapons systems, apart from the F-9, were introduced. Reliance on obsolete weapons and aircraft was
unavoidable due to prior neglect of scientific research and development facilities. However, despite military weaknesses the PRC maintained its resolve to commit its armed forces to counteract threats, as evidenced with the Paracel Islands dispute in 1974.

Military Capabilities

An examination of the current status of the air forces (Table 1) indicates the PRC has followed a typically balanced approach to the tasks of providing air power. Air defence, tactical air, strategic strike, maritime, and air transport forces have all been developed. Actual development has fluctuated and an overwhelming influence of extraneous factors on the expansion of military capabilities has severely limited the power of the forces. Little has apparently been done to overcome deficiencies in evidence since Korea.

Threats. In line with strategic objectives, the PLAAF and PLANAF were conceived and developed as defensive forces. Although a limited offensive potential may be available, this would probably only be utilised within a defensive situation. Threats perceived by the PRC have had an obvious bearing on the development of the forces. Those currently seen by the PRC are probably:

- USSR: Nuclear bombardment, or conventional invasion along common border areas or from areas of increased influence in Asia (e.g. Vietnam).
- Taiwan: Conventional invasion across the Taiwan Straits.
- US: Nuclear attack, or conventional assault from Asian positions.
- Disputed territories: Paracel, Spratly, Pratas and Chungsha islands in the South China Sea.

The air forces ability to repel air aspects associated with these threats may be seen through consideration of individual facets.

Air Defence. The primary mission of the PLAAF has always been the air defence of the PRC, as reflected in the prominent size of this element. As such, this facet could be expected as the area of main strength. Integrated into the air force controlled air defence system of the PRC is the fighter force of the PLANAF, providing an available total of over 4,000 aircraft for this role. All fighters are however at least a generation behind equivalent types of the more powerful potential enemies. With virtually no air-to-air missile (AAM) capability resultant reliance on close-in gun kills would be totally unrealistic for modern interception, as both the Vietnam and Yom Kippur wars demonstrated. Any AAM in the inventory would probably be of the old Soviet AA-2/Atoll type which proved largely ineffective in the Middle East.11 Fitted only to some MiG-17 and MiG-19 aircraft, air intercept (AI) radars are likely outdated and susceptible to electronic counter-measure (ECM). The Chinese manufactured MiG-21 has no AI radar and is limited to day fighter roles. Of the supersonic fighters, the MiG-19 has been superseded in this role in all other major air forces and the MiG-21 suffers from many inherent deficiencies. The F-9, a deve-
development of the MiG-19, would be far from an ideal fighter despite its uprated engines, being heavier than its forebear and having fixed engine intakes and restricted pilot vision. The subsonic MiG-17 poses little potential in the AI role. Early-warning and air-surveillance radar facilities are extensive and provide continuous coverage of perceived threat approaches to the PRC. Competent performance under hostile ECM conditions or against low-level penetration would be questionable given their technological age. Surface-to-air missile (SAM) and anti-aircraft artillery (AAA) sites number in the thousands and are situated for the defence of major urban, industrial, political and military areas. SAMs are of the old SA-2/ Guideline variety which were of only limited effectiveness against modern aircraft and ECM in the Vietnam and Middle East conflicts, and AAA is of the unsophisticated, slow-firing, non-radar tracking type which was used with limited success in Vietnam. Against modern potential enemies it seems the greatest asset of the air defence system is the high numbers of radars, aircraft and ground-based defence systems, which could provide a degree of “saturation” cover. Effective articulation of the force is prevented by weaknesses in each component of the system. Certain natural advantages, such as the exposed approaches and distance to the PRC which could require aircraft to adopt more “convenient” flight profiles, are enjoyed. However, even in its primary role, the capability of the PLA’s air power is significantly inferior to combat all perceived threats.

Tactical Air. A tactical air capability is available within the air forces of the PLA. To deny enemy use of PRC airspace for hostile purposes, air superiority would be an absolute necessity. Some limitations of air defence fighters are equally applicable in the air-superiority role. The PRC has reportedly been developing an advanced delta-wing fighter (the “Sino A”) since the early 1970s in recognition of this deficiency. The type has apparently not yet entered production or service, and the long development period indicates both the limited capability of the aircraft industry and lack of success with the program. Lack of air superiority has repeatedly plagued the air forces in combat, but little has been, or can be done to resolve the deficiency. To secure complete victory over China, any enemy is virtually committed to invasion with conventional forces, even after a nuclear attack. Tactical interdiction of enemy supply lines or close air support (CAS) of friendly ground forces under such circumstances would fall to the PLAAF. Aircraft types available for CAS include the MiG-17, MiG-19, F-9, with the IL-28 and TU-2 as well for interdiction. Even with PRC air-superiority, the capabilities of these aircraft against modern counter-air weapons of potential enemies would be extremely limited. CAS requirements for rapid target acquisition, accurate weapons delivery and low-level penetration have led the world’s major air forces to develop specialised ground attack aircraft. Although some role differentiation may be entering considerations, the PLA has previously assigned dual roles to its aircraft. Whilst the MiG-17 was used to some advantage by Arab forces in the Yom Kippur war and some Warsaw Pact countries still retain the type in inventories for ground-attack, it is not a modern aircraft. The MiG-19 was probably never envisaged as a primary CAS platform and limitations in this role possibly led to development of the F-9 which would have improved low-level performance and weapons-load capacity. If so, a trend toward aircraft-role definition for both ground-attack and air-superiority missions would be evident. An apparent lack of precision guided or stand-off weapons would intensify aircraft shortcomings, although exposure to this type of technology would almost certainly have been gained from the Vietnam experience and the offer of military aid to Egypt. Unlike major modern air forces, the PLAAF has no armed attack helicopters. Effective tactical air operations also depend upon accurate, constant and rapid reconnaissance information which requires specialised systems and compatible aircraft. Although the capacity of the PLAAF or PLANAF in this role is not known, there seems little doubt that any sensor equipment would be well below modern standards. Tactical transport support is available in the relatively large numbers of Mi-4 and An-2 light transport types but their capabilities barely compare with specialised tactical aircraft developed for this role by other major air forces.

Maritime Air. Application of air power in the maritime context by the PLA is limited
to defending coastal waters rather than extended control of sea lanes and lines of communication. This is the primary role of the PLANAF, a force composed entirely of land-based aircraft. With no ship-borne capability, the force is committed to close-in defensive situations. A major strategic threat to the PRC is posed by both Soviet and US ballistic missile and conventional submarine forces but the PLANAF has virtually no airborne anti-submarine warfare (ASW) capability. A few old Be-6/Madge maritime aircraft are insufficient in number or potential to provide any counter to this modern submarine threat. Maritime reconnaissance could be conducted by Be-6, IL-28 or possibly TU-16s. The IL-28 has a torpedo dropping capability but the effectiveness would be degraded by lack of target designation equipment and unsophisticated weapons. Air defence of naval installations and surface vessels in coastal waters is the more realistic role of the PLANAF. An almost complete lack of anti-air weaponry on Chinese naval vessels dictates the provision of any air defence by ground-based fighter aircraft, thereby severely limiting the safe operating range of the navy to within a few hundred miles of the PRC. This deficiency was exposed during the 1974 Paracel Islands incident. Even within this confined area, the ability of such aircraft as the MiG-19 to secure air superiority is highly questionable. Anti-ship missions would probably involve MiG-17, MiG-19, F-9 and IL-28 aircraft in offensive roles, but all these types are limited in range and penetrability of modern fleet defensive systems. Lack of stand-off weapons demands close-in attacks, where the attrition rate would be high. With PLANAF aircraft also allocated for air defence roles with the PLAAF, availability of naval fighters for fleet operations would be dependent on the priority of other air situations. Operation of PLA naval vessels conceivably without air cover limits any real capability to a coastal defence force only. The ability to militarily prosecute claims against Taiwan or disputed South China Sea islands is difficult to conceive from present potential.

Strategic Strike. A modest nuclear second strike capability (targeted against the USSR) has been developed by the PRC as a deterrent against nuclear attack. This is dependent on static land-based missile systems and is therefore vulnerable to attack. A force of TU-16 medium bombers is maintained as a strategic adjunct but these are almost certainly not armed with air-launched nuclear missiles and are therefore reliant on more conventional nuclear bombs. Little chance of the TU-16 penetrating modern air defences as a result of its subsonic medium-altitude flight profile could be expected. World War II vintage TU-4 bombers have virtually no capability in a modern strategic air force. A nuclear strike threat to other potential enemies within the PRC area of concern is however credible. The PRC is not known to have any air-to-air refuelling capability to extend the range or weapons load of strike aircraft, including tactical fighters.

Air Transport. A key requirement of any armed force is mobility and the ability to rapidly deploy men and materials when and where required. The isolation and identification of specific threats by the PRC and the high force levels of the PLA has meant the Chinese can permanently deploy forces to the major threat areas, thereby lessening the immediacy for strategic mobility. Although numerically a large transport fleet, it can be seen (Table 1) to consist entirely of light and medium types with no heavy lift capability. Given the close association between military and civilian organs in the PRC, the civil air fleet numbering over 400 aircraft of the light and medium class could also readily augment the military fleet. It has been estimated the air transport capability of the PLA is limited
to a division at light scale, without tanks, heavy transports or weapons larger than mortars. No strategic transport capability for large-scale operations beyond the PRC is available to the PLA. Tactical delivery of assault units and equipment, supply missions, or other transport support could be provided on a moderate scale, but the absence of true STOL aircraft or specifically designed tactical types for military application is restrictive. The maintenance of air-superiority would of course determine the ability of transports to freely use airspace and airfields during hostilities.

Aircrew Proficiency. Closely linked to consideration of aircraft and weapons in determining capabilities is aircrew proficiency. Basically, the PLAAF and PLANAF approach to pilot training and development is modelled along Soviet methods, a legacy of the days prior to the ideological rift. Continued reliance on this approach is to an extent governed by the commitment to Soviet originated aircraft. Since the days of the Korean War, the Chinese pilot has repeatedly been shown to depend on inferior tactics and to be significantly less proficient in combat situations than his adversaries. Soviet training technique was further demonstrated as sub-standard to Western methods during the Vietnam and Yom Kippur wars. Where opposing aircraft types have been regarded as fairly evenly matched (for example F-86 Sabre/MiG-15 in Korea and Mirage III/F-4 Phantom/MiG-21 in the Middle East) pilot experience and tactical training has often underscored success or failure in combat. In combat situations requiring discipline and decisive action, Soviet-style pilot training is inferior. Reliance on standard, predictable manoeuvres and restrictive close ground control does not encourage pilot initiative. Furthermore, as the Belenko/MiG-25 incident revealed, the pilot may be largely ignorant of the extent of capabilities of his aircraft. Whereas the Soviet air forces may overcome some of these shortcomings through higher performance aircraft and weapons, the PLA does not share this benefit. Frequent concentration on ideological “purity” and the foremost priority of political considerations over the development of professional pilots only aggravates this condition. Indoctrination has rendered the Chinese pilot largely ignorant of developments in technology and convinced him of the superiority of his weapons. By comparison with Western standards, the professionalism of the PLA pilot would be significantly inferior.

Further Modernisation

Deficiencies can be identified in virtually every aspect associated with air power.Cumulatively their effort is substantial. The significance of the limitations has become more profound as technology has bounded ahead. Air power as an absolute requirement in modern conventional warfare has been repeatedly demonstrated to the PRC and an appreciation of this fundamental would be basic to military doctrine, although not always obvious in practice. China now openly admits that its forces are outdated and inadequate to cope with the paramount threat of the USSR. The permitted run-down of the air forces has however brought the realisation that it would have been less costly to have ‘kept-up’ than it will to ‘catch-up’ with technological improvements. Necessary further modernisation will, as before, be largely dependent on the prevailing politico-economic climate.

In the aftermath of the smashing of the ‘gang-of-four’ in late 1976, the emergence of a conservative leadership under Hua Kuo-feng can be discerned. The role of the PLA in this hierarchy has increased since the tumult of that year following its assistance in resisting radical pressure. A Long March veteran, General Chang Ting-fa, has been appointed commander of the PLAAF. Political unrest has continued in some provinces where purging of the radical influence of the ‘gang’ has been resisted, necessitating a stepped-up campaign against ‘anti-party cliques’. Economically, despite an abundance of natural resources, coal and steel production has declined. In the agricultural sector, the worst drought since the communists came to power is threatening harvests which could in turn lead to food rationing and additional expenditure on foreign purchases. Political repercussion from popular discontent is a possibility. Other sectors of the economy require modernisation and the people have been promised social benefits and a better living standard. These demands will affect the size of the defence budget allocated for further modernisation.
Some priority for improvements to the air forces of the PLA within this allocation is in evidence. One of a series of national conferences on defence conducted in February 1977 was devoted to aspects for "the modernisation of national air defence." A campaign aimed at improving the efficiency of the PLA by encouraging professionalism, which would be a positive step in up-grading the air forces, was also launched in February.

Recognition of the threat of the USSR implies acceptance of the superiority of its air power. Coping with the threat would necessitate modernising both the PLAAF and PLANAF. Defence of China's coastal waters and 'recovery' of territorial possessions as stated criteria for upgrading the navy may also include developments for the PLANAF. Lead-time before any improvements to the air forces could be applied would be significant. Reliance on indigenous resources of technology would further prolong the time span. Importation of foreign technology, whilst more immediate, would create a drain on limited foreign exchange holdings. Some modern technology in the form of Rolls-Royce Spey military aircraft engines and French Super Frelon and West German BO-105 helicopters has already been imported, but reliance on foreign supply does little to alleviate problems of inadequate research and development capabilities in the PRC which has hampered development of an independent modern military posture to now. Political pressure to design and build weapons systems within the PRC will meet opposition from the PLA in its bid for the most advanced technology available. Such technology may have to be purchased abroad but could be assembled in the PRC, as with the Spey.

Speculation on further modernisation of the PLAAF and PLANAF is difficult. Political, economic and military considerations will affect not only the size of the defence budget but also any priority assigned to improving individual capabilities within the air forces. Based on current indicators however, areas where concentration may be applied can be discussed. Modernisation of all aspects would be inconceivable. Rationalisation of improvements both within the air forces and PLA as a whole can therefore be expected.

Air Defence. Any Soviet (or other) invasion of the PRC would rely initially on air-superiority and an attempt to destroy the PLAAF and PLANAF would come in the early stages of the offensive. Currently, the achievement of this goal would be comparatively simple. The PRC's lack of modern all-weather fighters is a vulnerability requiring immediate attention. Apparent failure of the 'Sino-A' program may be only partially overcome by speculated Spey re-engining. Developed well before the Spey was available to the PRC, major airframe modification to accommodate the new engine would be required. The same would apply to re-fits of the MiG-21. The Spey will obviously be fitted to a fighter aircraft, but whether this will be a modified current type or complete new airframe is not known. Western military aircraft powered by the Spey include the USAF A-7s and RAF F-4s. Purchase of these airframes would be unlikely due to political pressure in both the PRC and the Western countries. New AI radar with greater search and 'lock-on' ranges (USAF F-15/Eagle AI radar can 'lock-on' at 100nms) and both a short and longer range AAM would be required for the new air defence fighter. Improvements to surveillance radars to provide low-level coverage and the ability to function effectively under hostile ECM, together with improved SAM and radar-tracking AAA weapons would be further improvements for a modernised air defence system.

Tactical Air. Conventional attack on the PRC would consist primarily of mechanised infantry and tank divisions deploying over relatively long distances. Interdiction and close air support are therefore important elements of the PLAAF's tactical air power. The F-9 indicates a move toward role specialisation but further improvements in ground attack capability are required. Further development of the F-9 is unlikely due to its design limitations, but Spey re-engining is a possibility. Otherwise a new attack aircraft may be developed. Interest has been shown in the VSTOL Harrier, which would have an attack role with both the PLAAF and PLANAF. Precision guided weapons and a stand-off delivery have achieved prominence with the world's major tactical air forces and would suit China's requirements. Anti tank weapons including armed attack helicopters to cope with a mechanised thrust and an offensive ECM capability to counter
Soviet air would also offer advantages. Modern airborne ground attack further demands specialised navigation systems, target acquisition (including laser designation), cannon, rockets and 'smart bombs', at least some of which the PRC may be able to import. Of lesser priority, but nevertheless necessary, would be battlefield reconnaissance improvements and new tactical transports. Satellite reconnaissance, which the Chinese are apparently developing, may fulfil some requirements of the former.

Maritime Air. To counter the vulnerable coastal flanks, an airborne ASW capability compatible with surface vessels is an obvious requirement. Although the Super Frelon comes in an ASW variant (as used by the French navy) the PRC is not believed to have received that model although such a ship-borne aircraft is a conceivable necessity. If the PLANAF were to receive the Super Frelons the Omera-Segid radar-fit would provide a good surface-surveillance capability which could be embarked on naval vessels.23 Medium range fixed wing patrol aircraft for fleet ASW support and territorial waters surveillance are not yet available. Whilst existing transport aircraft platforms may be readily converted for this role, electronic equipment would have to be locally developed or purchased overseas. Availability of this sophisticated equipment on the international market is limited, as is the indigenous research and development potential. For fleet air defence, an immediate deficiency is the absence of ship-borne weapons systems. Overcoming this shortcoming would place less reliance on airborne cover. The US is currently placing more emphasis on dispersible smaller carriers for ship-borne VSTOL combat and support aircraft and the USSR has modified its dependence on land-based naval air power toward similar carriers. Depending on whether the PRC adopts a similar theory, future fleet air cover could either come from a new air-superiority fighter or an aircraft such as the Harrier. Should the PRC opt for development of a true 'blue-water' navy, a ship-borne capability for both ASW and air-defence would be necessary. Retention of a coastal-defence strategy would diminish this requirement. In either case, modernisation to provide airborne ASW and fleet air defence is necessary for the PLANAF.

Strategic Air. An upgrading of strategic air power with new manned bombers would probably be a low priority in both the nuclear and conventional forces modernisation programs. Current fixed missile sites are vulnerable and there are reports the Chinese may be concentrating on building a submarine launch capability to improve the survivability of its nuclear deterrent force. An air-launched missile would further aid the deterrent strategy, but unless the TU-16 could be utilised, costs of developing a new bomber would be prohibitive given the range of other areas for necessary defence expenditure. Development of an air-to-air refuelling capability would give strike aircraft additional range and permit increased weapon loads and greater flexibility.

Air Transport. Modernisation of the military transport fleet is probably also a low priority. As already discussed, an isolation of specific threat areas and the high force levels which permits concentrated permanent deployment of forces lessens the requirements of the air transport fleet. Reinforcement would be necessary during conflict and in this field no heavy lift transports are available to the PLAAF. However, diverting limited expenditure for such a development would probably be viewed as unwise. Tactical transport aircraft to replace old Mi-4 and An-2 types would provide further advantages to the PLA, but again higher priorities exist in the modernisation program.

Encouragement of professionalism in the PLA, within the realms of political acceptability, should produce improvements in effectiveness, particularly within the air forces. With Mao dead, questioning of his sacred doctrines of People's War is more acceptable due partly to the move for modernisation under the realities of modern conventional war. A more flexible and aggressive defence capability based on sophisticated conventional weapons rather than manpower and the elevation of improved tactical doctrines and professional ability over political considerations may be accepted. Acquisition of new aircraft will allow the application of experience and previous lessons in developing new tactics for the air forces. New trainer aircraft would also permit the evolution of the PLAAF and PLANAF pilot to fill the more sophisticated
roles conferred by modern aircraft and weapons. An ability to cope not only with new Soviet but also Western tactics would require a complete overhaul in current training methods. China may purchase an advanced trainer aircraft overseas rather than commit limited technological facilities required for higher priority development. The effectiveness of the Chinese pilot would be significantly increased in the light of these conceptual and material changes.

With the wide range of deficiencies afflicting the air power of the PLA it is now realised that commitment to a program of constant development is favourable to a sudden effort following a period of neglect. Improvement of military capabilities and technological capacity is considered urgent. Essentially, the PLAAF and PLANAF are defence oriented forces, as is the whole force structure of the PLA. Even the nuclear force is primarily defensive with no offensive first strike capability, relying instead on a second-strike ability for deterrence. Any improvements to the air forces will probably be to upgrade their defensive qualities and thereby deter attack and should not be interpreted as indications of aggressiveness. Although some elements may pose potential threats to neighbouring nations, Chinese armed actions would unlikely be employed for expansionist purposes save in those areas encompassing the PRC's territorial claims. Political, economic and military constraints limit the threat potential of China beyond its current borders. Whilst the PRC remains vulnerable to air attack and suffers from deficiencies in its air power, modernisation will be pursued but the defensive force structure should not alter. An overriding consideration in the prospects for further development however is the maintenance of a favourable political and economic climate as disruptions in these sectors will reflect in defence modernisation programs. With appropriately stable conditions though, significant improvements to the capabilities of the PLA's air power can be expected.

NOTES

1 As the PLA is the generic term for all forces in the PRC, the terms PLAAF and PLANAF have been used herein. Other descriptions such as PRCAF or CHICOMAF are, strictly speaking, not correct.
4 Ibid., p. 55.
5 Ibid., p. 61-66.
6 Fraser, op. cit., p. 17.
9 At the provincial level, the percentage of military professionals in political positions declined from two thirds to less than one half. Central committee representation fell from 41 to 33, and Politburo membership from 4 to 1. See Scalapino, R. A., “The CCP’s Provincial Secretaries,” Problems of Communism No. 4/76, pps. 18-35.
10 Furlong, op. cit., p. 562.
11 Mainly due to the low “g” envelope of both gunsight and missile and the inability of the infra-red head to “lock-on.” Aviation Week and Space Technology, 10 March 1975, p. 17.
16 Only one type, the Kiangtung FF Class Frigate, has two twin-battery SAM systems.
17 Fraser, op. cit., p. 24.
19 Aviation Week and Space Technology, op. cit., p. 16.
20 Associated Foreign Press (AFP), Peking, 6 February 1977.
21 Associated Press (AP), Tokyo, 26 February 1977.
22 Furlong, op. cit., p. 662.
23 Ibid., p. 561.
The Army—what is happening??
'I wish I could get transferred back to the old army'

Warrant Officer I D. K. Watts
Royal Australian Infantry
"I wish I could get transferred back to that old army"

By an old soldier

IN writing this article, I intend as far as possible to avoid the use of terms and words favoured by a large number of staff officers which I am sure are only designed to confuse or send one on a frantic search for the 'Concise Oxford'. The views expressed are purely those of the layman and are based on practical experience and observations.

There exists today, a distinct need for ALL ranks to take a long hard look at what is happening to our modern army. Perhaps you will find that in some way, regardless of rank, you are contributing to the decline which is occurring.

Let us firstly deal with that subject which none of us know enough about, and some don't even know where to start; management.

One must admit that the publications on leadership are very good indeed and a lot can be learned from them. Let me point out however that a lot of situations are not covered in the pamphlets — nor of course could they be.

It is possible, indeed probable, that everyone has heard examples in which Private A receives an answer to his question as follows:

- "Don't bother me now, I'm in the middle of a game of cards."
- "See me after lunch." (The NCO or officer is off on the 'booze').
- "I'm damned if I know, see if you can find the CSM and ask him."
- "You're becoming an admin problem Private A, stay out of this office."
- "Ha, Ha, you don't know the answer to that? How ever did you get into this unit? You're a fool!"
- "I'm only a Captain. How could you expect me to make a decision on that?"
- "Can't you read? This office is out of bounds!"
- "Don't ask me, go and ask your platoon staff."
- "Oh, I don't know."
- "Look it's time to finish work, see me tomorrow."

I'm sure that these examples, or something very similar, have happened in your hearing. Ask yourself, was it right? Should you, if you were the answering party, have done something different? The answer should be more than obvious. What ever happened to, "I don't know, but I'll find out and let you know", (and doing so)? A favourite quotation often used is, "Ignorance of an order is no excuse for non-compliance." Very good, but let us look at just a few small factors. MBIs, AROs and Defence Instructions are by necessity kept in the Orderly Room, and rightly so. The Orderly Room is out of bounds. Perhaps a solution can be found to this small problem!

Instruction about the contents of these publications (not as night training when everyone is nearly asleep) may be one form of solving the problem.
As a result of the type of situations outlined, it should be obvious that many and varied things happen to the soldier (or NCO/Junior Officer) as a result of asking a question and not getting the assistance or answer required:

- "It's no good talking to that bloke, he is a fool."
  - This is obviously bad for loyalty and discipline.
- "I can't get any help here, I'll ask Pte B in X Coy. He is an old soldier, he has been in 18 months, he will know."
  - The result here will be, wrong 'drum', and a lack of confidence in staff.
- "Well that means that I can't speak to anyone but my own platoon staff. I wonder when they come back from leave?"
  - This will obviously develop a lack of confidence in NCOs and Officers in general.
- "I can't get leave! Damn them, I'm off over the hill."
  - What will follow here of course is loss of pay, CB, detention and a completely wrong attitude to the service.

These attitudes are not comprehensive and are not intended to relate to the earlier examples given, they highlight those attitudes that may develop and the further problems that may arise.

Many times we have been told or told a junior, "keep the troops informed." Have WE kept the troops informed?

In defence of some service members who have 'fobbed off' a question by a junior, I am the first to agree that there are some who deserve just that, however that elusive talent called commonsense should prevail at all times.

If you are gaining the impression that I contributed to the idea of being Mr Nice at all times — I don't. I'm a firm believer in the old army idea of members doing as they are told and not having to have a debate before a task is carried out. Of course, it is assumed that the order is legal and the application of control is in keeping with the task requirements.

Another type of situation that frequently occurs, unfortunately, is the lack of decision by the decision-maker. This drastically affects the junior member and at times senior members who are subjected to this attitude of, fortunately, a minority group. When we are promoted, many and varied responsibilities go with the new rank and I suggest that we should not forget those responsibilities which we had prior to promotion. Further to this, if you are loath to make a decision on a matter, particularly one on welfare, remember how this could adversely affect the soldier waiting for the decision. Why does this sort of thing happen and why is it allowed? Is it lack of knowledge? Is the member worried that promotion may be held back? Or, simply, is he not being allowed by superiors to make decisions?

Let us look at each one of these factors. If it is lack of knowledge then I suggest one of two answers:

- gain the knowledge; or
- the level of rank held is too high.

If it is felt that promotion may be held back then this is obviously non acceptance of responsibility. Not being allowed to make decisions by superiors is true in some cases and of course the subordinate can not be held responsible for this. Perhaps a word is in order here to those responsible for this problem. We train in peace for war. The section commander makes the decisions during his section attack not the company commander. If subordinates are not allowed to make a decision, commensurate with their rank and position, we are not training them correctly and are subsequently wasting time and money and at times placing undue stress or hardship on the soldier who waits, not very patiently, for the decision to be made.

Let us now look at some vital differences in our "level of soldier" now, to the one of the past. The way of life, let us say, 20 years ago in the community, was far different from today. Let us look at our most valuable asset — the soldier. To do this we will make use of a small chart which is by no means comprehensive.

From this chart certain things emerge as points worthy of note. The old soldier, who one assumes is at least a senior sergeant by now, seems to be suffering under a system
which is hell bent on removing him or her from the service. One can only assume that all that experience can be done without! However, I feel that if this situation is allowed to continue at the present rapid rate, the army will suffer greatly.

The young soldier should not be subjected to the 'sausage-machine' type instruction. Personal, individual advice should be constant even during (so called) off duty hours.

The soldier of years ago rarely owned a motor vehicle and if he did invariably carried out the majority of his repairs. He also knew how to wash and iron his clothes and if by chance he didn’t, he was shown. The young soldier of today has a car or a motor bike, (or access to one) and pays garages lavish amounts for repair. He or she also enjoys, it would seem, spending a deal of money in laundro-mats and dry cleaning establishments. We must surely remember that this young person is destined to be the NCO of tomorrow. Shouldn’t we be paying more attention to this member’s needs? I think so, and of course there is a vast field of subjects to be considered but if your mind is churning over we are on the way. The training of the serviceman I will discuss further on in the hope that I can initiate some new and revamp some old thoughts on that topic.

For now, let us consider the morale of our army. It is not as good as it could be and I believe that one important function that affects morale is administration. Here are some examples of incidents that may have occurred in the administrative field:

- “I should fix that TRA claim for Pte Jones, but he can wait till I fix the CO’s removal claim. It will only take me a few days.”
- “No Sir, there is nothing urgent left outstanding, all the work is up to date. I’ll be back in about a fortnight from this course.” (His pending tray is full and at the bottom of the tray is a notification of allocation of a married quarter for a soldier with a family who is in a TRA situation).
- “I put that leave application away somewhere last fortnight, now where was it?”
- “That application is no good, send it back and have him do it again.”
- “This return isn’t all that urgent, it can wait with all that other stuff in my tray.”

These examples of course are very brief, and, we must realise that there is a lot more to administration than the prompt and efficient compiling and processing of the ‘paper war’. All soldiers can be seriously affected by inefficiency in the office and I’m sure that the overall result in the unit is a lowering of morale and frustration for the individual.

It is appreciated that clerical work compiled by subordinates should be checked, but are

<table>
<thead>
<tr>
<th>Subject</th>
<th>Performance then</th>
<th>Performance now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Mainly sub standard by today’s levels but could carry out most tasks required of him.</td>
<td>Usually about AACE 2 level or above. The higher the rating the more trouble with carrying out a task.</td>
</tr>
<tr>
<td>Medical</td>
<td>Very Fit. Refusal rate on enlistment and/or early illness, very small.</td>
<td>Fit. Refusal rate on enlistment high. Incidents of early illness at moderate level.</td>
</tr>
<tr>
<td>Practical Aptitude</td>
<td>Very good, a majority of country dwellers. A lot of common sense. Willing to work, given a task could usually carry it out well. Worked well under pressure.</td>
<td>Good, a majority of city dwellers. Not a lot of common sense. Mainly need constant supervision when given a task. Tends to ‘give it away’ under stress.</td>
</tr>
<tr>
<td>Leadership Potential</td>
<td>About 50% fair, (25% good, bordering on excellent).</td>
<td>About 40% fair, (20% good, 10% bordering on excellent).</td>
</tr>
<tr>
<td>Dress and Bearing</td>
<td>Good. Constant instruction and advice given.</td>
<td>Fair. Some instruction given. Bad examples set by some NCOs and officers.</td>
</tr>
</tbody>
</table>
you one of those who gleefully attack the member's honest attempts at staff duties with great slashes of the red pen and not enough explanation? In addition to this we quite often find that the checker re-phrases a paper and in doing so deletes the message or lessens the impact. Ask yourself, what is wrong with straight down-to-earth English? Do we have to use fancy, flowery or unpronounceable and sometimes not understandable words? The answer is simple — NO.

Do we pay sufficient attention to the individual to try and anticipate his needs? Do we make an honest effort to improve the administrative functions of the unit in an endeavour to make things better for the soldier? When you write a letter for typing ask yourself this, is it correctly laid out and is it legible? Quite a number of people scrawl on paper and it would seem that portion of their army training was carried out in medical school. I have seen an actual case of a person who, when asked by the typist what a particular word in the draft was, could not read his own handwriting.

I hasten here to say that it is realised that not all office staff conduct the affairs of the unit or soldier in the manner I have briefly portrayed, but only one 'fly in the ointment' is needed in the stream to successfully disrupt the flow.

Another aspect of administration that affects the soldier is those members of the administrative staff who adopt a "I know about it, you try and find out" attitude. How many soldiers are told of respective entitlements to which they may be due? How many NCOs, both senior and junior, have missed out on HDA because of this, or because a clerk or staff officer didn't want to go to the trouble of compiling the forms? How many have missed out on meal allowances when they have been sent on a task over meal periods?

Let us think about another poor individual. This fellow is dispatched on posting, (let us say from a unit in Melbourne to a unit in Sydney), however the unit is actually situated at Ingleburn. He arrives, a complete stranger to Sydney, at Central railway station which is as far as his ticket takes him. He then attempts to get to his new unit and the only way that he can do this is by paying fares from his own pocket. We know that he can claim for this outlay, providing he had the money in the first instance, but should he have to? How long does this claim take? This type of occurrence happens with frequent monotony and naturally enough the last impressions of a unit are often those best remembered. The soldier's attitude when posted again will be "here we go again", to say the least.

I do not write on this particular matter from hearsay, but from actual practical experience and if you haven't had a similar situation occur, then all I can say is, that you are extremely lucky — so far.

I could go on and on about the effects of poor administration because it is seen daily, and the fault is not always at unit level. Too many times pieces of paper become bogged down in the quagmire of the higher formation. The aim here is only to highlight some of the administrative aspects which have an effect on the morale of the soldier (no matter what rank level he may be). Perhaps it is time that we all had another look, or the first, at the principles of administration and exercised common-sense in their application!

Discipline also plays an important part in the morale of the soldier and possibly the best analysis of this subject is contained in AMR & O 304. I commend the reading of this order to all ranks. Let us look at some of the things that not only have occurred but are possibly still occurring within some units. These should give food for thought on just a few of the disciplinary problems affecting our army today,
and in turn, the morale of the soldier and subsequently the unit.

The following are some of those problems that I refer to:

• A soldier is awarded 168 hrs detention and 7 days CB. The CB is conducted on his release from detention. This is WRONG.

• Pte A is a single soldier and is awarded CB; Pte B is a married soldier charged with the same offence and is awarded a fine of $10. Why should there be this discrimination? The fact of the soldier being married is incidental, he has an obligation not only to his wife and family but to his job and unit which he should have considered.

• A soldier on CB is allowed a period of time daily for his wife to visit him. Conjugal rights? Perhaps we could have another soldier stand in for him on his CB — nonsense!

• Only the single living-in member grabbed for weekend duty. Poor management.

• No sub-unit orderly NCO mounted during the quiet hours. Apart from the unit duty sergeant or officer, (who may be anything up to a mile or more away from the soldier’s barrack), who does the soldier report to in an emergency and who administers immediate control of the area?

• A soldier submits a redress of wrongs against an award of 14 days CB. If it is accepted, why does it take 14 days for the answer to be given to the soldier?

— Quite a number of times soldiers are not advised about this matter and in some cases the NCO who does advise the soldier is spoken to harshly by his superiors, as the opinion would seem to be that it makes them look in the wrong. No one is infallible. In addition to this, using this example, the soldier has been compelled to undergo a punishment which, at its expiration is found to be illegal.

Of course there is much more to discipline than being paraded at an orderly room. Let us consider dress. At one time most, if not all soldiers, were extremely proud to be seen in uniform and in turn took great pains to ensure that the uniform was correctly worn — particularly when in the public eye. Soldiers were very quickly chastised for breaches of dress regulations not only by the military police but by junior and senior NCOs as well. These days the following attitudes have emerged:

• Don’t correct that soldier as he doesn’t belong to your unit or sub-unit.

• Soldiers walk down the main street of suburbs and cities with no headdress.

• All ranks are encouraged NOT to wear uniform in public.

• Of a minority who do wear uniform outside the unit area a large percentage of these members do not wear it with pride which is obvious by their appearance.

• Work dress is supposed to be dirty so it doesn’t matter if you are in Woolworths, Coles or the butcher shop in filthy uniform, and a lot of people quickly point out that it is perfectly all right to be in the public bar like that because the civilians do it.

These are but a few of the things noted on dress in this modern army and they are not restricted to any one rank level. It is obviously long overdue that something is done to correct this decline. Perhaps there was a lot of truth in the statement made by a senior officer who was posted to an ARes unit and wore mufti each day. When the parade night was at hand he was heard to say, “Well, I’d better put on my disguise”. Of course he was referring to his uniform.

We are very ‘big’ on training and, employing the systems approach, maintain that we are training most efficiently. Nothing is further from the truth! Most of our present day instructors do not have the depth of experience necessary to enable them to be fully efficient instructors. In fact, with all the wonderful new terminology being employed they are leaving a great number of students floundering in the dark. Pamphlets are being re-written and in many cases valuable background information has been left out. This has happened progressively over the years, the drill manual being a classic example.
Shooting, of course, is a subject that comes in for a lot of discussion and apart from the multitude of writings produced, (which in the main is nothing but repetition), the standard of shooting remains the same — poor. Perhaps there is a reasonably simple answer to this problem; train the soldiers correctly. I would suggest that if you can find IT Vol 1 Pam 3 (303) and study the shooting lessons contained in it, you will find a marked discrepancy between that pamphlet and the current SLR pamphlet. Not all the lessons in the old publication can be applied to the new equipment; however, there is still a lot of value to be gained by applying those old lessons. In addition to this, of course you can not expect a soldier to shoot well when he attends the range annually.

Our wonderful exercises still leave the soldier cold and unemotional as, most if not all, are designed to test commanders at varying levels. No doubt many COs will disagree with this. However, I can assure you that this is the soldier’s outlook and if you, as the commander, could infiltrate to the lower level you would quickly agree. The fundamental cause for this is lack of information, lack of realism and no incentive. I would suggest that more thought should be given to the employment of the soldier on the activity.

From time to time we read of a selected few from units taking part in adventure training. Why not all? It is not impossible. This of course leans toward variety and I would suggest that training staff be encouraged to produce programmes with as much variety as possible contained in them. A soldier working is, with few exceptions happy; but the fellow who is subjected to 40 minutes drill, weapon cleaning and mess duties every day becomes more-than-bored and invariably will wind up in trouble.

Perhaps as a start in the right direction, ask this question of yourself; are all your soldiers proficient, not only at their level but also at the level of the other elements in the unit? To quickly amplify this, do all your riflemen know the mortar and how to lay and fire it?

It is obvious that a lot can be done in this field. I mentioned earlier instruction on MBIs etc. This I believe should be done.

In conclusion, you may say that I haven’t been specific. I could have written many more examples in each case, but surely that should not be necessary as the examples I have related reflect fairly closely, and hopefully accurately, some of those things affecting our army today. Admittedly, the soldier of today is much different from the one of yesterday, but I feel that handled and trained correctly he or she will be a more than worthwhile soldier, fully capable of carrying on the limited but proud traditions of our armed forces. If you wish to argue any of the contents of this writing, be my guest. If I have made you think about our problems I have achieved my aim. If you agree with me don’t discuss it in the pub in your dirty work dress — all ranks get out and do something to fix it.

* * *

When the military man approaches, the world locks up its spoons and packs off its womankind.

Don Juan, Man and Superman, George Bernard Shaw, 1856-1950.
AN ACCOUNT OF
THE BATTLE OF ISANDHLWANA

Captain D. G. Burke
Royal Australian Armoured Corps

"NOW IT'S TOMMY THIS AN' TOMMY
THAT AN' TOMMY 'OWS YER SOUL, BUT
IT'S A THIN RED LINE OF 'EROS WHEN
THE DRUMS BEGIN TO ROLL"
Rudyard Kipling 'The Thin Red Line'.

Introduction

RECruit training, for all its grand reputation of turning footloose youths into men held no special interest for me during that memorable summer in 1969, when with about 400 similar National Servicemen I trained for seemingly endless hours and days under the blood-boiling sun at 3 TB Singleton.

The single and most inspiring event which occurred to me at that time was when we were informed we would be shown a film ‘ZULU’.

The single and most inspiring event which occurred to me at that time was when we were informed we would be shown a film ‘ZULU’. The reasons were not told to us; I didn’t care and filed dutifully into the cinema to take my place among the multitude of green bodies.

To the roar of ‘PARADE ATTENTION’, we straightened and listened whilst our Company Commander extolled the virtues of the film we were about to see.

It was a tale to steel the heart, the story of a great fight and courageous soldiers. For the first time I felt proud to be a soldier, and the story of Rorke’s Drift sparked in me my first real interest in soldiering.

The story of Rorke’s Drift is known to every soldier in the Army, mainly through that film but I wonder how many realise it was the aftermath of a massacre that had claimed 3,500 lives. Part of a war that was the last major challenge offered by the black population to the European and it was the beginning of the end for a great nation — The ZULUS. The battle was ISANDHLWANA.

The massacre of the British at Isandhlwana became the victory by the British at Rorke's Drift. To this day details of the battle are sketchy and fragmentary. Victorian society seems to have swept the earlier battle into the long forgotten closet of military defeats and selected Rorke's Drift in its place. The forces that failed so badly at Isandhlwana were portrayed as those who had fought so magnificently at Rorke's Drift.

It is my intention in this paper to attempt to shed some light on those events — not to denigrate the defenders of Rorke's Drift but to give an account of the disaster that precipitated their heroic stand.

Background

Incredible as it may seem, land hunger was the main reason the Zulu war took place. In a country as big as Africa peopled by so few Europeans, one wonders how these events originated, but it is not so incredible when one looks more closely at the Boer family who lived (much to their dislike most of the time) under British rule from Durban.

The Boer strove for Laaker lewe, the sweet life, and to achieve this he required a farm, cheap labour and physical security. These things he would not achieve by being confined to the coast and the major settlement at Durban, so in the 1830s a series of treks took place that broke the coastal barrier and pushed
European civilisation far west from the coastal plain to the Orange Free State and the Transvaal.

The Boer idea of a farm was about 6,000 acres, preferably twice that, to allow room for winter and summer grazing. A boy was of marriageable age at 16 so it is easy to see that a single Boer family would produce a demand for 100,000 acres in 25 years to maintain their 'sweet life'.

The Boer did not enjoy manual labour and used cheap native labour; this he usually obtained by cajoling the natives and setting them on his farm.

The third condition for the 'sweet life', physical security, was unobtainable in the 1870s and the Boer did not feel at all comfortable when confronted with the borders of Zulu land hosting a well disciplined standing army of 20,000. His inherent isolationism caused by the size of his farms did nothing to make the Boer a happy man in those days and as both the Boer and the Zulu counted wealth in terms of cattle, border raids by both sides were common.

In 1875 Britain annexed the Transvaal to stop the Boers encroaching on Zulu land and forced Cetshwayo (Cetewayo), the Zulu king to negotiate directly with the British over border violations by the Boers.

The Boers of the Transvaal produced a document claiming it to be signed by Cetsh-
wayo’s father and giving them a large slice of Zulu land, but as both he and his father before him were illiterate, he was unimpressed. The British government appointed a court of inquiry to resolve the matter and this found that the Transvaal Boers had no legal claim to any part of Zululand.

Here the matter should have ended and both sides continued to live in harmony but the Boers were not satisfied and with them they had a powerful ally — Sir Bartle Frere, the High Commissioner of South Africa.

Since his arrival in Africa, Frere had been increasingly irritated by the independent Zulu state and declared that Cetshwayo’s maintenance of such a large army could only have bloody results for the Europeans. In the court of inquiry he saw his chance to cripple the Zulu power and was flabbergasted at the inquiry’s conclusions. He pressed Britain for more troops and was supported in these moves by the Commander of British Forces in South Africa, Lord Chelmsford. Finally the government relented and agreed to send more troops on the condition that they were not to be used aggressively.

The scene was now set and Frere needed only the excuse to use the forces at his command to teach Cetshwayo the lesson Frere felt he deserved.

In July and October 1878 two incidents occurred which provided Frere with the catalyst he needed, although they were minor in a colony as new to European rule as Natal with an uncivilised kingdom on its borders.

The wife of Sirayo, a Zulu Induna, had fled from Zulu land to Natal with her lover. Two of Sirayo’s sons had crossed the Tugela River, dragged her back and executed her. This incident was witnessed by the border guards and duly reported to the Governor of Natal who requested the sons be handed over for punishment.

In October a survey party from Natal were inspecting the Tugela for crossing sites and were spotted by a party of Zulus as they waded about in the shallows. The Zulus demanded to know their intentions and detained them for about an hour before releasing them. No one was harmed but the Zulus stole their pipes and handkerchiefs.

Frere seized on these incidents and used them to back up his claim that the Zulus were a high and immediate threat to the safety of Natal. In November Chelmsford reported that he was now ready to enter Zulu land, “should such a measure become necessary”. It was all Frere needed and on the pretext of declaring the findings of the court of inquiry on the land dispute he requested Cetshwayo to assemble the principal Indunas.

The Indunas had scarcely digested the good news of the court’s findings when, without the authority of Britain, the ultimatum was delivered.

“Frere demanded, within a space of 20 days, the surrender of Sirayo’s sons, 500 head of cattle for the delay in delivering them, and a further 100 head of cattle as atonement for the survey incident. In addition Frere decreed:

- that Cetshwayo should disband the Zulu army and put an end to the nation’s military system;
- that the king should allow missionaries to return to Zulu land without restraint or condition;
- that he should receive a British resident.

If these demands were not met within thirty days, Cetshwayo was to understand that the British Army was to invade to enforce them.”

“The powers delegated to Sir Bartle Frere were considerable and only loosely defined. They unquestionably gave him the right to resort to military force to settle any internal question that might arise, and they also gave him the right to deal with contiguous non-Crown territories on local issues. The document he now issued went far beyond such steps. Without clear authority, without sufficient justification and in the teeth of the respected and strongly expressed desires of the colonial office he had committed Her Majesty’s Government to an invasion of an independent country.”

It was an invitation to war by premeditated insult and the Indunas refused to deliver it. Also there is no evidence that the king even received any more than a garbled version from messengers.

Not that it mattered much for the first British forces moved into Zulu land four days before the stipulated period of grace expired.
The Zulu

The Zulu Army in 1879 was a considerable force by any estimation, but although Lord Chelmsford was in possession of more detailed information on his enemy than any previous commander in a native war, he appears to have grossly underestimated the Zulu.

The Zulu Army was drawn from the entire male population between 16 and 65 without exception. The basic unit was referred to as a corps or regiment but more rightly consisted of a clan commanded by an Induna, and this could be subordinated into companies led by a lesser Induna.

The standard formation required four subdivisions:

CHEST
LEFT HORN
RIGHT HORN
LOINS.

These were not of standard strength but depended on the numerical strength of the families and clans from which they were composed. The strongest of these sub divisions was the CHEST, which in battle closed at once with enemy and held it fast. The two HORNS raced out and surrounded the enemy until the horns met, whereupon both HORNS turned in and worked back to the centre. The fourth unit, the LOINS, consisted of a large reserve which was placed behind the CHEST and remained seated with backs to the fight so as not to become excited. The commander took station on any convenient elevation from whence he could communicate with all parts of the field by runner, sending the reserves in whenever the enemy threatened a breakout.

The formation, although simple, required considerable training to enable the mass movement of upwards of 20,000 men at top speed over broken ground and still maintain perfect alignment.

The camp

As stated previously, Chelmsford was aware of these facts and the need for him to fortify each of his camps had been impressed upon him by the Boers who had clashed with Zulus previously. Chelmsford issued detailed SOPs to each of his subordinate commanders in the form of a manual of Zulu tactics and counter measures. These included the order to leaguer the wagons and dig fortifications at each camp.

Chelmsford’s forces entered Zululand on 11 January 1879 by three of the four main border trails. The right column under Colonel Charles Pearson of the 3rd East Kents crossed the lower drift of the Tugela on the coastal plain to strike north by way of an old mission station at Eshowe. The second column under Colonel Richard Glynn of the 2nd Battalion, a Crimea veteran, crossed at Rorke’s Drift, on the Buffalo River and moved East. The left column commanded by Colonel Evelyn Wood struck South East across the head water of the Blood River, a tributary of the Buffalo. A reserve column under Colonel Anthony Durnford waited in reserve at the fourth crossing, the Middle Drift, about halfway between Lower Drift and Rorke’s Drift. (Map 1).

Durnford, acting on local information of dubious source, immediately set about moving his force to a defensive position on the Zulu side of the Tugela River. Chelmsford only managed to stop him in time and sent him a rebuke beginning, “Unless you carry out the instructions I gave you it will be my unpleasant duty to remove you from your command”.

After this Chelmsford ordered Durnford to split his column and leave part at the Middle Drift in Natal and proceed with the rest of his force to join the central column. He would then be under the command of Col Glyn and unable to act independently. It was this force of Col Glyn’s, accompanied by the General Commanding, Lord Chelmsford, that figured in the massacre that followed.

On the 20 January, Lord Chelmsford picked his next camp. Isandhlwana was by all respects a good campsite. Chelmsford himself was to write later, “I consider that there never was a position where a small force could have made a better defensive stand”.

The site lay on the south western Spur of the Ngutu plateau. At the foot of the spur separated by a humped pass stood a tall stony outcrop, or kopje. The force would have its back to the wall of the spur with the sharp escarpment of the Ngutu plateau on its left. To its front looking east towards Ulundi was a wide plain laced with forking rivulets. This stretched for eight or nine miles to a series of hills, the Nkandhla and Isipezi. On the
southern side across a six mile plain stood another range incorporating the heights of Malakatas and Inhlazatye.

An impi charging the camp from any direction save one would be visible for 15-20 minutes before it could close. A picquet posted at the northern end of the spur where it joined the plateau could cover the single blind approach.

The defensive position was strong. Although dominated by the edge of the Ngutu escarpment this was no failing in the face of a foe that lacked artillery. Major C. F. Clery, Glyn’s personal staff officer, proceeded to lay out the camp.

The camp was arranged in a line parallel with the spur of Isandhlwana (Map 2). Lonsdale took his two battalions of Natal Native Contingent (NNC) towards the Ngutu escarpment to form the northernmost wing of the camp. Aligned at orderly intervals along the front of the spur looking back from Lonsdale’s tents to the track were the 2nd battalion of the 24th, then Lt Col Harness and his artillery, followed by the volunteer units and finally, across the track and nearest the outlying kopje, the 1st Battalion of the 24th. Behind this line and the spur were the column command post and the tents of Chelmsford’s staff.

Whilst the tents were springing up at the new camp, Chelmsford rode towards the Nkandhla hills to ensure that the area was clear of Zulus. The area was empty and by 6 pm he was back in camp but by no means convinced that those ranges towards Ulundi were clear of Zulus.

Intelligence had been received that the main Zulu impi had mustered and were to leave the royal kraal at Ulundi some 90 miles distance on the 17th January. He realised that he would come into contact with the main impi shortly after the 20th and that those hills, the Nkandhla and Malakatas could well be concealing a large number of warriors who would doubtless use them to conceal their approach. For this reason he issued orders for a thorough search of those hills at first light on the 21st.

Two groups set out on this task. A composite group of 150 horsemen of the Natal police and irregulars led by Dartnell of the Natal Mounted Police, were to search the Nkandhla. Lonsdale with both battalions of the 3rd regiment NNC to search through the Malakatas and work upstream until he met with Dartnell.

By four in the afternoon, Lonsdale had emerged from the hills after some rough going in thorny country. He was seven miles from Isandhlwana and could see Dartnell’s force resting on a hillside of the Nkandhlas three miles from him. On conferring with Dartnell he decided to stay with Dartnell overnight and attack a Zulu force of approximately 200 which Dartnell’s horsemen had located in the eastern hills of the Isipezi. Dartnell had also sent a messenger to Chelmsford telling him of his intention not to return to camp and to attack in the morning. He also asked for a small reinforcement. Lonsdale himself moved back to Isandhlwana to secure rations for his natives.

Chelmsford refused the request. Dartnell, like Durnford before him, had acted contrary to his instructions. Meanwhile the situation facing Dartnell had changed dramatically and the force of Zulus appeared to be reinforced towards last light and he estimated them now to number possibly 2,000. It was certainly too big for him to handle so he sent another messenger to Chelmsford telling him of his intention not to return to camp and to attack in the morning. He also asked for a small reinforcement. Lonsdale himself moved back to Isandhlwana to secure rations for his natives.

To understand what went through Chelmsford’s mind in the early hours of the 22nd when he received Dartnell’s second messenger, I believe, is the key to the whole conflicting account of the battle.

It would appear on the information received it was just what Chelmsford wanted. He was convinced that the whole Zulu impi was moving to attack him. He had picked Isandhlwana camp precisely for that purpose. Although he had not fortified his camp or leagured his wagons, he had 12 Imperial Infantry battalions at the camp capable of beating any attack. On the face of it he only had to close in his lines and wait the attack. Only the waywardness of Dartnell and Lonsdale spoilt the picture, but as they realised the strength of Zulus approaching them they could be relied upon to withdraw back to Isandhlwana.

Chelmsford’s decision was astounding. Having earlier refused to reinforce Dartnell, he now resolved to reinforce him urgently and
with almost half the force at the camp, namely, six of the 12 Imperial Infantry battalions. In addition he had not only ordered Glyn to command the reinforcement but decided to accompany the force himself, thus depriving the camp of both its senior officers. Chelmsford also remembered Durnford waiting at Rorke’s Drift and send a message ordering him to move at once to Isandhlwana.

Chelmsford and Glyn left at 3.30 am on the 22nd and the Officer in charge of the camp, Lt Col Pulleine, never saw Chelmsford before he left, only learning of his responsi-
bility second hand. At 10.30 am Durnford arrived with his force and met Pulleine. The two must have eyed each other warily as Durnford was senior to Pulleine but Chelmsford had left Pulleine in charge of the camp with no mention of any change when Durnford arrived.

Pulleine at this time, had the camp standing to as at 8.05 am, a horseman had galloped in stating a force of Zulus were advancing from the NE across the Ngutu Plateau. No further word was heard from the standing patrols for over an hour, then a messenger reported the Zulus had retired to the NE and NW in three columns.

Durnford and Pulleine inspected the thin lines of men spread out by the gaps left by the troops taken with Chelmsford and Durnford suggested as the last reports indicated the Zulus were retiring, that the men have breakfast.

They had barely finished breakfast when another horseman arrived stating there were Zulus on the Plateau. Pulleine sent an Officer up to the Plateau to determine exactly what had been seen and this Officer reported to Durnford that Zulus were departing east towards Chelmsford.

Durnford decided to take all his force and cut off any advance of the Zulu force which he reasoned would be moving to reinforce the main impi facing Chelmsford. Pulleine argued that Chelmsford stated he was to defend the camp, not to go out chasing, but Durnford left.

To begin with, Durnford kept to the trail Chelmsford had taken, but when he passed the conical kopje, he veered west to the Ngutu escarpment. The landscape was empty. He also sent a small group along the Plateau to the NE. Soon this group spotted a small party of Zulus herding some cattle along and they gave chase. One of the horsemen, outstripping the others, galloped up a rise and reined in suddenly. There in a ravine which had been hidden from view, closely packed and sitting in utter silence and stretching as far as the eye could see were over 20,000 Zulu warriors. The main Zulu impi had been located. Immediately the impi surged out of the ravine and started for the lip of the Plateau at a trot.

The fight

Dartnell meanwhile, after spending a fearful night, was embarrassed to find the Zulus had disappeared and was compelled to report this fact to Chelmsford, who now sent orders to Glyn to work the reinforcements to the north of Dartnell and start searching for the enemy. A substantial war party was soon located and attacked. In the ensuing fight, Chelmsford learned from captives that the force that had worried Dartnell the previous night was of local origin and not part of the main impi.

Chelmsford was now forced to take stock of the situation, there were only two alternatives:

a. The Zulu army had not yet reached the eastern edge of the plain in its march from Ulundi.

b. It had already passed the head of the plain to the north or south.

As the north had the only covered approach the corollary to b. was that the Zulu army was above the camp on the Ngutu plateau.

Shortly after 10 o’clock, Chelmsford received Pulleine’s first message which pointed strongly to that conclusion, “Zulus are advancing strongly from left front of camp — 8.05 a.m.”

Chelmsford then made an incredible decision. He decided to establish a new camp and move Pulleine’s force forward to him. This decision he made even though firing could be heard from the camp, but Chelmsford showed no alarm, and when the firing died away, he presumed that the force he left at camp had beaten off any attack.

Chelmsford was proceeding to his new camp when at 2.45, after receiving conflicting messages from Isandhlwana as to the situation there, he decided to ride back and was told by stragglers that the camp had fallen. “I can’t understand it”, said Chelmsford, “I left a thousand men there”.

Durnford was more than two miles from camp when he saw the Zulus. The entire skyline of the escarpment from his near left back to the spur itself suddenly filled with warriors. As he watched, momentarily mesmerised, their ranks thickened, poised on the rim for a brief spell then poured over and deluged the plain. Durnford was directly in
the path of the LEFT HORN. He wheeled and retreated fighting his way back to a small donga to the right front of the camp.

Pulleine could only be ignorant of the size of the force facing him, (the impi was still not visible from the camp), to account for what he now did.

Pulleine had sent a company, 1\text{/}24th under Captain Cavaye, up the spur to a position approximately 1,000 yards from camp to support the NNC position and a platoon under Lieutenant Dyson another 500 yards to the left. Possibly in the belief that he could halt the Zulus at the spur, he now sent F Company of the 24th under Captain William Mostyn to join Cavaye’s Company and the NNC on the right. (Map 2).

By the time Mostyn got into position, the NNC had seen enough of the enemy and headed back to camp so it was left to the infantry companies on the spur to contain the RIGHT HORN. It was impossible to stop them, as Cavaye and Mostyn began to withdraw in good order.

Had Pulleine formed the British troops in a square at the camp with the NNC and irregulars in the centre, he may have been able to keep up sustained fire to halt the hordes, but the splitting of forces begun by Chelmsford was now further compounded as Pulleine sent Captain Younghusband’s C Company from the camp to reinforce Cavaye and Mostyn.

The defences of the camp were now stretched dangerously thin for Pulleine had still not drawn in his lines to plug the gaps. The three infantry companies were on the left, holding well, and on the right, Lieutenant Pope with G Company 2\text{/}24th. To his left, Capt Wardell’s H Company and next to them E Company under Lieutenant Porteus. Between these three Companies were gaps of 200 yards and between the left and right Companies, a 300 yard gap.

This gap was crucial as it had formed the angle of defence and into this gap the two artillery pieces were placed. The two Companies of the NNC which had fallen back from the spur, now found themselves about 200 yards in front of the guns. This then was the disposition that Pulleine had to await the onslaught.

A rocket battery, which Durnford had left behind in his retreat, was overwhelmed and all but three killed. The situation steadied as the Zulus fell under the withering volleys from the British redcoats.

This was the situation Pulleine had expected, he now knew the nature of the force attacking him, and for a while it looked as if the battle was going well, the front ranks of the impi began to waver and dozens of Zulus were falling. However, the impi had completed the encirclement of the camp and two regiments were in a position to cut off any retreat.

For a quarter of an hour the vast impi was held at bay by the volley fire, then slowly the fire began to slacken. Ammunition in the firing line was running low. The Company officers were aware of the situation and had sent their runners to the regimental ammunition wagons to obtain more ammunition.

Pulleine in his initial movement of the Companies had sent them to their new positions with only their first line supply of 40 rounds per man and now the Companies were separated from their immediate reserves of 30 additional rounds by over 1,000 yards. Runners were confused in locating their Company wagons and the Quartermasters insisted on only issuing ammunition to their own unit runners and sent others packing. More time was lost as the ammunition lids were held in place by two steel bands and six screws.

By some oversight there was a shortage of screwdrivers and more precious minutes were wasted as men tried to prise open the boxes with bayonets.\textsuperscript{10}

At last the inevitable happened, Durnford’s men in the donga ran out of ammunition and could prolong their resistance no longer. Leaping for their horses they withdrew through the right flank of Pope’s Company to join the other mounted men assembled at the camp. The Ngobamakhosi and Umbonambi now freed from the Durnford’s fire, leaped to their feet and pounded forward.

G Company was outflanked by this advance and wheeling to meet this new threat lessened the pressure on the CHEST to their front. The beating of shields and stamping of feet was taken up by all the Zulu warriors and the war cry, “USUTHU” rang out from more than 20,000 voices.
The sight and sound were too much for the wavering NNC at the vital point forward of the guns and as one, they cast aside their weapons and fled back through the gap between Cavaye and Porteous.

From this point onwards all order and cohesion was lost. It was hopeless. The NNC had left a gap 300 yards across and the Umcijo and Umhlanga came pouring through. Thousands of Zulus rushed through and first Cavaye and then Mostyn were taken from the rear. E and H Companies were overwhelmed as the great wave of the Umhlanga and Umcijo, hardly pausing, assegaied the British infantry piecemeal.

On the extreme left of the line, Younghusband with C Company was given a moment's grace and withdrew his men up across the back of the camp onto the slopes of the hill. For a short time they fought a savage fight, then they were overwhelmed.

By 1.30 p.m., barely an hour and a half since the impi had come into view, there was only one man alive in camp. This soldier retreated alone up the side of Tsandhlwana with a good supply of ammunition and killed any Zulu who came near. This went on till late in the afternoon, when he too was killed.

Those who had tried to retreat from the camp quickly found the road to Rorke’s Drift thick with Zulu and many were butchered or drowned trying to cross the Buffalo river.

By late afternoon, the orgy of looting, burning and mutilation ceased and the great impi retired to their home kraals. The mightiest force that black Africa had fielded had won a crushing victory, but at a terrible cost. Never had a Zulu army sustained such casualties.

“An assegai has been thrust into the belly of the nation,” said Cetshwayo when he heard the news.

Of some 1,800 men at Isandhlwana at the start of the action, approximately 350 found a way to safety, the majority of them NNC. The six companies of the 24th Foot Regiment, comprising 21 officers and 581 other ranks died to a man. The Zulu had washed their spears. (Figure 1).

The day’s toll was not yet over. As Chelmsford was riding back to Isandhlwana a red glow could be seen on the horizon. Rorke’s Drift was burning.

**Conclusion**

Whilst writing this paper, I have tried to present an unbiased account of the main factors concerning the battle. I feel, however, that an opinion is warranted if one is not prepared to sit on the fence.

The disaster at Isandhlwana was not misfortune or a quirk of fate, but bad leadership. I state this, for the British proved at Rorke’s Drift, and time and time again throughout the Zulu war of 1879, that a small force could overcome any attack by a far numerically superior force simply by fortifying their position, closing their lines and using the massed firepower of their Martini Henrys.

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**ISANDHLWANA, 22 JANUARY 1879**

**Units Engaged and Casualties**

<table>
<thead>
<tr>
<th>Corps or Department</th>
<th>Engaged Corps or Department</th>
<th>Officers NCOs and Men</th>
<th>Killed Officers NCOs and Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>3</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>N/5 Royal Artillery (2-7 pounders)</td>
<td>2</td>
<td>70</td>
<td>1</td>
</tr>
<tr>
<td>Royal Artillery, 2 rocket tubes</td>
<td>1</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Royal Engineers</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5 Companies</td>
<td>16</td>
<td>403</td>
<td>16</td>
</tr>
<tr>
<td>1st/24th Regiment</td>
<td>16</td>
<td>403</td>
<td>16</td>
</tr>
<tr>
<td>1 Company</td>
<td>16</td>
<td>403</td>
<td>16</td>
</tr>
<tr>
<td>2nd/24th Regiment</td>
<td>5</td>
<td>178</td>
<td>5</td>
</tr>
<tr>
<td>Army Service Corps</td>
<td>—</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td>Army Hospital Corps</td>
<td>1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Army Medical Department</td>
<td>1</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Mounted Infantry</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Natal Mounted Police</td>
<td>1</td>
<td>10</td>
<td>—</td>
</tr>
<tr>
<td>Natal Carbineers</td>
<td>1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Newcastle Mounted Rifles</td>
<td>2</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>Buffalo Border Guard</td>
<td>1</td>
<td>8</td>
<td>—</td>
</tr>
<tr>
<td>Sikali’s Horse, 5 troops</td>
<td>5</td>
<td>257</td>
<td>1</td>
</tr>
<tr>
<td>1st/1st Regiment NNC</td>
<td>6</td>
<td>240</td>
<td>2</td>
</tr>
<tr>
<td>1st/3rd Regiment NNC</td>
<td>10</td>
<td>200</td>
<td>8</td>
</tr>
<tr>
<td>2nd/3rd Regiment NNC</td>
<td>10</td>
<td>200</td>
<td>9</td>
</tr>
<tr>
<td>No 1 Coy Natal Native Pioneer Corps</td>
<td>1</td>
<td>10 known</td>
<td>not known</td>
</tr>
</tbody>
</table>

**Note:** The NNC casualties represent Europeans only. 471 natives were also killed, bringing the grand total to 52 officers and 1,277 other ranks.

**FIGURE 1**
Chelmsford underestimated the Zulu Army in every respect. He did not fortify his camps, even though he stressed the fact in SOPs. By accompanying the central column he hampered Glyn’s command to the point where in fact Chelmsford was making the decisions. He failed to adequately scout the Ngutu plateau, I believe because he refused to accept that the Zulus would move so fast. He should have briefed Pulleine thoroughly as to the situation prior to moving out, and he should have detailed the command structure after Durnford’s arrival.

Defenders of Chelmsford state he never left the camp, but took the camp with him and Pulleine’s force was simply away from Chelmsford and have accused Durnford of leaving Pulleine. However, it is questionable whether Durnford would have felt he was not still an independent agent after not being instructed to take command of the camp.

Once again, I stress that in my opinion, Chelmsford misinterpreted information given him based on his estimation of the Zulus and nothing changed this opinion that the Zulus were to his east and at some distance. This error in estimation was compounded by his action, transmitted to his subordinates and accounts for the way in which Durnford and Pulleine initially reacted. Having said this, it may provoke further discussion.

Footnote:
Because of the shortness of this paper I may be accused of inaccuracy. For those sufficiently interested, the best account by far of the Zulu war and Isandlwana is Donald R. Morris’ “The Washing of the Spears”. Two other books should be read however, as they present conflicting views to those expressed by Morris. They are:

Alan Lloyd — The Zulu War — 1879
David Clammer — The Zulu War (David and Co.)

For the account of events which precipitated the quarrels between the Zulus and the boer:

Eric Walker — The Great Trek, should also be read.

NOTES
2 Chieftain.
3 The Tugela formed the border of Natal and Zululand.
4 There is no evidence to suggest that they were ever expelled by Cetshwayo.
5 Lloyd, Alan, The Zulu War — 1879, Hart-Davis.
7 Kruger — The Boer leader impressed strongly upon Chelmsford not to underestimate the Zulus and to fortify each camp.
8 Royal Kraal — Cetshwayo’s home.
9 Zulu Army.
10 Chelmsford was to issue an order for the rest of the campaign that screws were to be loosened at all times.

H.M. Minesweepers Prompt and Jason were built, launched, commissioned and operated together. They were chummy ships and much friendly rivalry existed between them. One day, Prompt struck an acoustic mine. While she was settling down in the water with upper deck awash she signalled Jason:

First Again.
INTRODUCTION

OPERATIONAL experience in the South West Pacific during World War II drove home the importance of tactical naval air power provided by carrier borne aircraft. As a result, the Royal Australian Navy was structured around this capability in 1949. The validity of the concept has been continually demonstrated in major maritime operations and exercises since then. This organic air capability, which is the focus of our Navy, could disappear in 1985 when HMAS Melbourne is expected to reach the end of her life.

How the capability is replaced will be the most important decision made for our maritime capability in this and the next decade. It will be a major determinant of the structure of Australia's defence force until well past the turn of the century.

This article seeks to show the importance of the maritime element in implementing Australia's defence strategy, the need for tactical air power as a basic component of the maritime forces and the reason why such air power can best be provided by carrier borne aircraft. Options for providing carrier borne air power are then discussed and a way ahead is suggested.

STRATEGIC CONSIDERATIONS

The Government White Paper on Defence states the requirement for Australia to shift to a more self-reliant defence strategy, and indicates the importance of the maritime aspects of that strategy.

Factors such as geography, population size and distribution, infrastructure, industrial capacity and resources distribution combine to create enduring features in our physical environment.

Our country is an island continent, with an extensive maritime resource area. We have no land frontiers. Except in the Torres Strait area, any approach to our continent would involve a transit of the open ocean, by sea or air. Any confrontation or conflict would be, initially at least, maritime in character. The population is relatively small and is largely urban, coastal and concentrated in the south-east. Defence infrastructure or relevant civilian infrastructure are still limited in the north and west.

Not only geography, but our reliance upon seaborne trade, dictates a maritime strategy. Virtually all our overseas trade and much of our interstate trade is carried in ships. Significant interference with our overseas and coastal trade could call into question the ability of many segments of our defence force to continue operating. Even in the event of war, Australia would be dependent on trade for its continuing existence.

Historically the most serious threat Australia has faced was not directed at the continent but was the Japanese move to cut our lines of supply in 1942. Short of nuclear 'blackmail' disruption of our sea lines of communication may well be the only form of serious threat which Australia alone might face from a regional power in the long term.

AIR POWER IN MARITIME OPERATIONS

Strategic Maritime Air Operations

Air power is fundamental to maritime operations, and both strategic and tactical air power are called for. Strategic air operations would be normally carried out by F111 and P3 Orion
aircraft which Australia has for this purpose. Carrier borne aircraft could assist but the value of fixed wing carrier borne aircraft in strategic maritime air operations is a subsidiary consideration in the argument for such aircraft and is not discussed further.

Maritime tactical aircraft provide an ability to undertake a multitude of tasks. These include tactical reconnaissance, surface strike, anti-air and anti-submarine warfare.

Tactical aircraft can extend the fleet’s horizon from about 20 to 400 nautical miles — they can prevent shadowing aircraft from locating and reporting our fleet. They can strike beyond the range of enemy surface missiles and they can be selective in the weapons they employ and the targets they attack.

For attacks against ships, the introduction of modern ‘smart’ weapons has meant that a small number of aircraft can carry out the strikes that once needed many aircraft.

The arguments in favour of gaining and maintaining a measure of tactical air superiority in any military situation are so generally accepted that it seems unnecessary to elaborate on them here. Suffice if to say that a combination of tactical fighter aircraft, missiles and guns is necessary for the air defence of shipping.

WHY CARRIER BASED AIR POWER?

The paper so far has argued the importance for Australia of a maritime strategy and the need for tactical air power in such a strategy. Accepting these arguments, it is necessary to show why the aircraft providing tactical maritime air power need to be carrier based.

There are three fundamental properties of carrier based air power which combine to give it a unique quality not otherwise available; this is of special relevance to a nation with Australia’s characteristics. These properties are base mobility, proximity and the organic nature of the air power.

Base Mobility

Modern aircraft can be very quickly deployed. Such deployment is, however, valueless unless they are to operate from a base complex equipped with internal and external communications, command and control arrangements, accommodation, facilities for its own defence, workshops and stores necessary to operate modern aircraft and a logistic train to support them. A carrier is a mobile base, additional defence being provided where necessary by destroyers in company with logistic support coming from underway replenishment ships.

It is fundamental to the understanding of the value of carrier air power to distinguish between the ability to fly aircraft and the ability to operate military aircraft effectively in an environment which may be hostile.

The maritime ‘tactical area of operations’, to borrow an Army term, is poorly defined, difficult to forecast and subject daily to major change of location. Because of this mobile nature of maritime operations, a mobile base for the accompanying tactical air power is a basic requirement.

A decision to deploy or position a carrier task force can be made at short notice and with the knowledge that the decision can be reversed at a moment’s notice. The force can be held clear where its presence is not provocative. The ability of a carrier to stay in an area and threaten without commitment is of special worth.

Because naval air power — base, aircraft, defences, communications, logistic train and integrated organisation — is mobile as an entity, a carrier task force can be effective immediately on arrival in the area.

Its mobility makes it possible for a carrier to avoid detection, to evade or to withdraw from an area. This is particularly important in low level situations where a water gap of some miles may provide security.

Proximity

The value of proximity of the tactical air base to the area of operations is not peculiar to maritime operations. The drawbacks in providing tactical air defence or ground support aircraft from a base hundreds of miles distant from the forces supported are as self evident as they are significant. The Navy would make good use of any tactical aircraft available from land bases in the vicinity of operations, but such bases could be hundreds of miles away from much of our coastal waters and even more distant from operations in the outer reaches of the mooted Economic Zone or our ocean approaches.
Organic Nature of Carrier Air Power

The third and special property of carrier based air power is its close integration into the tactical organisation of the force with which it operates. It is an integral part of the total force—a vital organ without which the force as a whole cannot function effectively.

The prime benefit of organic air power is rapid reaction. The high speed of modern aircraft and missiles, coupled with the difficulty in achieving long range detection, can result in a very short period between initial detection and missile delivery/impact. Swift reaction is thus crucial to success. Because of the large ocean area in which our maritime forces operate, this swift reaction can only be achieved if the aircraft are provided as an integral element of the force.

During combat operations, aircraft from within a naval force can be fully briefed on the tactical situation. This is not possible if aircraft are provided by some outside authority. As that authority is distant, there can be a clash of priorities and there will be command, control, communication and transit delays and misunderstandings. Experience has shown time and time again that the quick reaction and flexibility so necessary for the application of tactical air power at sea will not be achieved if the aircraft are provided as an integral element of the force.

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The Advantages Summarised

Carrier based aircraft are the only means of providing quick reaction air power at sea. Well organised, it will result in an aircraft with the right weapon load in the right place at the right time.

STRATEGIC RELEVANCE

The above arguments may be agreed and the tactical importance of carrier borne air power accepted, yet the strategic relevance of these advantages be questioned. An argument for carrier borne air power based on some hypothetical battle or situation can be challenged on the grounds that the event is unlikely to occur.

The linch-pin of the argument for carrier borne air power is that it would be valuable in any situation in which Australia were required to display or use military force.

Any conflict would be initially maritime in character and it would necessarily remain so unless the maritime elements of our defence force were defeated. It is quite possible that a threat which was wholly maritime in character could develop and persist.

The carrier with her aircraft is ideally suited to provide a capability in circumstances ranging from friendly display of power in our region up to and including war-time operations. Should we lose this capability, it would take over a decade to regenerate. Strategic developments are unlikely to grant us such a breathing space.

OTHER IMPORTANT CONSIDERATIONS

Satellites

As mentioned earlier, an advantage of a carrier is her ability to avoid location by an enemy. Satellite surveillance by the super powers is reducing the ability of large ships to remain undetected, but it has by no means made the oceans an open book. A single satellite will “sweep” a particular strip of ocean only once every day and a half. Satellite ocean surveillance systems are enormously expensive. A six satellite system to allow a single sweep of an area every six hours would cost of the order of $250m a year for satellites alone, assuming the ground stations were available. They certainly do not provide the up-to-the-minute data needed in tactical situations. Countermeasures to reduce their effectiveness are available. It is debatable whether a power possessing the necessary technology would deploy a satellite surveillance system over our...
region and make the data from it available to a power in the region.

**Ship Vulnerability**

The vulnerability of aircraft carriers is sometimes quoted as a serious disadvantage. This vulnerability is said to exist because a carrier can be sunk by a relatively small number of modern powerful missiles.

A proper assessment of vulnerability is complex and needs to take account of the ability of opposing forces to detect and identify the target, to transfer that information from reconnaissance units to strike units, and to penetrate defences and achieve hits on the target.

A task force with an integrated defence system which includes tactical naval air poses a serious problem for an attacker. For example, a missile firing ship or patrol craft would have to survive the air attacks from tactical naval air to which it would be open before it reached a position to release its missile. Its reconnaissance would also have to survive the attacks of naval fighter aircraft for it to receive target information. The missile would then have to successfully defeat the force’s missile, gun and electronic defences.

Vulnerability to submarine attack is not great if there is an adequate level of Long Range Maritime Patrol support, which harasses the submarine and allows the carrier to avoid submarine probability areas. This is combined with the use of speed and evasive steering, and the anti-submarine measures of tactical aircraft and escorting destroyers.

Figures to show the vulnerability—or lack of it—of aircraft carriers are difficult to deduce. To the extent that World War II figures are relevant, statistics compiled from a number of different sources show that only 11 per cent of allied carriers were sunk, compared with about a 33 per cent of cruisers, 36 per cent of destroyers and 37 per cent of submarines.

Any Australian carrier force could be expected to have such reconnaissance, strike and defence capability that the carrier’s vulnerability to any regional threat would thereby be small.

Space precludes further discussion of vulnerability. As a generalisation, large ships have a greater capacity for damage control and survival than smaller ones.

These brief comments have been included to dispel the oft-held but poorly developed view that considerations of military vulnerability apply peculiarly to large ships.

**Concentration of Force**

A questionable assertion is that a carrier attracts a significant force to ensure her protection. Whether a carrier is present or not, warships normally operate together to achieve concentration of force, a fundamental principle of war. In the process, ships also benefit from mutual protection. If a carrier were present in a naval task group the ships would enjoy not only the benefits of concentration and mutual support, but the further advantages of quick reaction aircraft for reconnaissance, strike and air defence.

Take away the carrier and you indeed remove the requirement for her escort. You also remove the power focus of the whole task group, both in defence and offence. In an attacking role, the ships remaining have nowhere near the same capability for offence or for repulsing opposition counterattacks. In a defending role, ships without tactical air power may well be forced to wait for the enemy to bring the battle to them.
high landing and launch speeds and weight. Such features as catapults, arresting gear and deck strengthening would be necessary.

Although the initial aircraft outfit for the first few years could be our present Skyhawks and Trackers, it would be but a short time before they required replacement by an aircraft such as the projected US F18. This aircraft, which could be used for Fighter/Strike/Reconnaissance looks like the smallest modern conventional carrier aircraft likely to be then available. It would be a very expensive aircraft in a field where all is expensive. Such an aircraft and the carrier to go with it are considered to be beyond our means in current circumstances.

Recent development of VSTOL (Vertical/Short Take Off and Landing) technology has resulted in a type of aircraft which can be operated from much shorter runways than conventional aircraft—in the extreme a 'pad' not much larger than the aircraft.

For many missions from a ship the take-off weight of the aircraft plus fuel and ammunition would exceed the lift available from the vectored thrust of the jet engine. A Short Take-Off using the full deck run of the carrier would therefore normally be employed so that wing lift can be added to that of the engine. When part of the fuel and weapons load had been expended vectored thrust alone would provide sufficient power to permit a Vertical Landing.

VSTOL, or perhaps more correctly STOVL (Short Take Off Vertical Landing) operations from ships are still being developed. An interesting concept under trial in Britain is the 'ski jump', an inclined ramp to be fitted to the bow of a carrier. At the end of its deck run the aircraft would be launched with a slight upward trajectory in a manner similar to a skier on a jump. This novel feature, if proven in trials, could increase the payload of a vectored thrust aircraft by almost a ton.

When compared with a carrier designed for conventional aircraft operation, a carrier capable of operating VSTOL aircraft would be smaller and simpler. Aircraft similar to the Sea Harrier to be carried by the 19,500 tonne Invincible recently launched in UK, the AV8B advanced Harrier being developed for the US Marines, or some combination of these two aircraft, could be carried.

Such aircraft would be less expensive than the latest and most powerful in the world inventory. But given weapons like the Harpoon anti-ship missile with a range of over 50 miles and the medium range Sparrow air to air missile, it would represent a formidable total weapon system. It could provide a considerable margin of superiority within Australia's region of interest. The majority of the benefits of carrier air power can thus be reaped at a cost we should be able to afford.

A VSTOL carrier and aircraft would be much cheaper to operate than a conventional carrier with aircraft, and would require less manpower.

A further advantage of an aircraft which can launch and land vertically is the greater flexibility in ship operations. For a conventional aircraft launch or land-on the carrier must turn into wind. This is time consuming and often tactically undesirable. An otherwise high speed transit can be drastically slowed if the wind is unfavourable and an intensive flying programme must be carried out.

The VSTOL carrier would also operate helicopters, initially the current RAN Sea King.
OPTIONS AVAILABLE TO ACQUIRE A CARRIER

The cost differential between a carrier built in Australia and such a ship built overseas can be expected to be even greater than merchant ship cost differentials. It is therefore likely that a carrier built in Australia might prove too expensive compared to a similar ship designed and built overseas.

As mentioned earlier, the British Invincible is planned to operate VSTOL aircraft. Concepts based on merchant ship hulls and smaller warship hulls have also been suggested. Italy and Spain, both competent shipbuilding countries, are taking an active interest in VSTOL carriers and France is contemplating construction of a ship of about 20,000 tonnes which could also operate VSTOL aircraft.

The US Navy is planning a carrier of about 50,000 tonnes as a ‘transition’ ship. Such a ship would be capable of operating conventional aircraft during the expected transition to VSTOL aircraft. The US Navy will take this step late in the century if VSTOL Research and Development results in high capability aircraft satisfactory for their purposes. A 50,000 tonne ship would be too large for our purse or our manpower, but a smaller US built
ship perhaps based on their Iwo Jima class or their earlier projected Sea Control Ship is a possibility.

There are thus several options available to obtain a VSTOL carrier which will need study in detail.

**SHIP CHARACTERISTICS AND COST**

Discussion through the paper and the realities of defence economics point to a complement between 12 and 22 aircraft and a ship somewhere between 10,000 and 25,000 tonnes with a maximum speed of about 28 knots and a range of about 10,000 miles. The type of ship and her precise characteristics would be refined during the Investigation phase of the Project, mentioned later. The costs and capabilities of a helicopter only ship would also be investigated.

The acquisition of a second carrier would be a matter for later decision depending on the circumstances at the time.

Capital costs of the carrier are still to be refined, but if these were spread over about nine years as could well be the case, the total ship project cost would not consume more than 5 per cent of the total defence capital expenditure in those years, even allowing relatively pessimistic projections. Amortising the capital cost over a thirty year life would result in an annual burden of less than 0.5 per cent of the total defence budget at present levels.

This is not to suggest that the procurement costs of a carrier should be lightly regarded. Nor is the cost of providing aircraft, and operating both ship and aircraft overlooked.

What is put forward is that a simple carrier with competent aircraft carrying modern weapons could be procured within the funds which can reasonably be expected to be available for Australian defence. This could be done without taking such a huge bite of defence funds as to push many other important naval or other capabilities totally out of the force structure.

**THE WAY AHEAD**

Following the Government’s statement in the Defence White Paper that it proposes to institute funded project development at an appropriate time, the first step was to issue a world wide invitation to Companies to register interest in funded carrier Project Investigation. The approval of the Minister for Defence for this action was given on 12 September 1977.

After consideration of the responses to this invitation, funded contracts for Project Investigation could be awarded to selected Companies if the Government decides that the time is appropriate. No funds have yet been approved for any stage of the Project.

The output of Project Investigation would be a number of significantly different costed options for presentation to the Government for decision in early 1979. A decision to proceed with design and subsequently with construction should make it practicable to introduce a carrier into service in the mid 1980s if this should be the Government’s intention.

**SUMMARY**

The primary requirement for increased self reliance which Australia is seeking to achieve in its defence strategy necessarily calls for a defence force which can operate with substantial independence in our own environment. The island nature of our country, its dependence on trade and its wide ocean approaches call for a strong emphasis on maritime strategy in our overall defence posture.

Given the size of our ocean approaches in relation to the total air power likely to be available to us, we cannot hope to gain the air superiority necessary for the conduct of seaborne operations in more than a relatively small area. Because the maritime area most important to us may shift on a day to day basis, it is necessary that the base providing tactical air support be mobile. Without this base mobility the reaction time necessary for effective use of tactical air power cannot be achieved.

Carrier borne air power therefore forms a fundamental part of the Navy of our oceanic island nation. Without this critical element of our defence force independent operations of our seaborne forces would be severely circumscribed; our maritime lines of supply upon which the defence force and our national economy so heavily depend could be easily broken.

The strategic and tactical arguments in favour of seaborne air power for Australia are clear. It is a capability we can and should afford.

Reviewed by
Squadron Leader A. S. A. Mumford
Department of Defence, Canberra

SOMEONE once said that Man will not only endure, he will prevail. Those words symbolise the spirit of this latest in the list of personal accounts of captivity in the Democratic Republic of Vietnam. Despite its colourful title the book is an unembellished record of eight years captivity. Unlike some of its more sensational predecessors it contributes substantially to technical literature on the subject of captivity in war and it discusses in an Asian context those two thorny politico-military questions, POW status and code of conduct.

Admiral (then Commander) Denton was shot down and captured during an attack on North Vietnam's Thanh Hoa Bridge. The thirteenth member of US aircrew to be captured in the DRV, he and his fellow POWs found themselves classed and treated as 'war criminals'. Deprived of military and even human rights they were subjected to a regime of appalling, often crippling and for some, lethal torture applied to coerce them into collaboration in the international anti-war effort. Unfortunately, US policy at that time was to keep silent on the POWs, on the grounds that publicity would complicate their release, a 'Catch 22' situation by any measure.

To all intents forgotten by their Government, the POWs were nevertheless obliged to conform to the US Military Code of Conduct. Evolved following investigation into Korean War POW collaboration, the Code was based partly on the assumption that the captor nation would honour its responsibilities to the 1949 Convention relating to the treatment of POWs. Considering the origins of the Code, and the well-documented French experience at the hands of the Vietminh, the wisdom of that assumption is somewhat questionable. The most controversial Code provision from the POW viewpoint was Article Five. This article provides that apart from name, rank, service number and date of birth, a POW “will evade answering further questions to the utmost of (his) ability”. Further, a POW “will make no oral or written statements disloyal to (his) country or its allies or harmful to their cause”.

What happens, Denton asks, when the utmost is reached and a POW is broken, not once but repeatedly by systematic degradation and torture? When this pressure is applied not to obtain specific military information but for biographical details, is it better to violate the Code and answer, or to die, as some did, over a virtual trifle? Many times the answer itself proved irrelevant, a reply being required solely to preserve the oriental 'face' of the interrogators. A POW's worth to his country is his nuisance value inflicted upon his captors. Denton implies that a dead POW is worth nothing in those terms, a point well worth taking. Out of necessity the POWs evolved the 'bounce back' principle, subsequently ratified by the US authorities. This principle is worthy of examination by Australian authorities, if it has not already been so, as a realistic solution to the POWs dilemma.

Those who saw the so-called Hanoi March on TV at the time will be interested in Denton's description of it from the participants viewpoint. The March proved to be a serious miscalculation by the DRV, caused a split between the Party and the Army, and weakened the international anti-war effort. Denton speculates that had serious pressure, such as the December 1972 B52 raids, been applied on
Hanoi in retaliation, ceasefire negotiations may well have begun then. The effect of those raids on North Vietnamese morale was substantial, affecting even senior prison officials. Denton believes the attacks were decisive and could have occurred years before. That, too, is an arguable point.

Denton is suitably modest on the personal act of courage for which he was decorated on release. Forced to appear before international film and TV cameras in 1966 for propaganda purposes, and under threat of immediate punishment if he ‘misbehaved’, he re-affirmed support for his Government’s stand in the war. As he did so, he repeatedly blinked the word ‘torture’ in morse while staring at the cameras. Incredibly, although severely ill-treating Denton for his statement, the North Vietnamese apparently did not discover his ruse until his citation was made public in 1974.

The array of camps and adjuncts to the Hoa Lo Prison, nick-named with grisly humour the Hanoi Hilton, takes some study to put in geographic perspective as the narrative unfolds. The POW methods of communication and the exercise of command and control by the senior POWs, despite almost total solitary confinement, are monuments to ingenuity. Denton’s interview by Wilfred Burchett, who needs no introduction, makes interesting reading. From Denton’s account, and those of Korean War POWs much earlier, Burchett apparently fulfilled the same functions for the North Vietnamese in POW interrogation as he had fifteen years earlier for the North Koreans. Admiral Denton’s book gives a realistic picture of POW conditions Australians could expect in any future Asian conflict. It is recommended as required reading for all those whose employment places them at risk of capture in war.

The author begins with a comprehensive introduction in which he traces the problem in outline so that the reader obtains a quick concise picture of the problem before reading the selected documents in the body of the book. This is a good plan and I felt helped me to gain more from the book. The documents are used to trace the problem as objectively as possible and to trace the historical background. This is most important for the Irish saga is steeped in history and this aspect plays a vital part in understanding the basis of the troubles.

A slight criticism here. I found that some of the early documents used were difficult to understand and they needed several readings; be that as it may, the reader can easily begin to understand how hatred built up.

Religion as such is not the root cause of the troubles. Professor Carlton relates the old joke about the Ulsterman who was asked if he went to church: “I’m an atheist,” he replied, “but, by God, I’m a Protestant atheist!” That just about sums it up.

To understand how such hatred and bigotry has survived over the centuries the reader must appreciate two things. Firstly in the eyes of a great many Irishmen the reasons for bigotry exist today and secondly the ballad, so appealing to the sentimental Irish nature has enormous significance and has been perhaps the greatest single influence in ensuring the perpetuation of bigotry through generations. These are sung by children as soon as they are old enough, as well as by grown men and women. How often will an Irishman in his cups break into song and how often will the songs be of the Troubles? Dominic Behan’s ballad “The Patriot Game” is one of the ballads included by the author and although a modern one, is very significant. It gives the reader an idea of what heady stuff the ballad is. One verse is particularly poignant.

“My name is O’Hanlon, I’m just gone sixteen
My home is in Monaghan, there I was weaned
I was taught all my life cruel England to blame
And so I am a part of the patriot game.”

The young Irish child in Ulster is taught to hate and steeped in the ‘Patriot Game’ from the cradle to the grave. Participation in the IRA or the UDA probably does start for many youngsters as just a game. It takes little to
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Drift from game to brutal, violent reality. Death or prison follow for some and martyrs are made. Ballads are written and sung about these events and so bigotry is perpetuated. The documents show that where time is a healer for some, for Ulster it has been successfully made a perpetuator of hatred.

In conclusion, the author offers examples of how events may possibly progress given certain situations. They are interesting and complete the picture, showing just what and awful dilemma exists in Ulster. There is no answer to the Ulster problem and the future is gloomy to say the least. The politicians waiver. The British Army is on a hiding to nothing and the ballads of bigotry or patriotism according to your views, continue to be written and sung by young and old alike. This book is a good, concise account of a terrible national dilemma and I commend it to anyone who wants to know something of the 'how' and 'why' of Ulster problems but not of course, the answer. It would take a brave man to attempt to propose that in print.


Reviewed by Mr R. E. Wright, Defence Central

Since the early 1960s, German maritime historians have earned themselves a high reputation. This book is the latest example of their work translated into English, and it is a new edition of the original 1971 German publication. Much extension and revision has been undertaken to incorporate the results of post 1971 research.

In essence the book details all combatant and auxiliary vessels which served the Imperial Japanese Navy (I.J.N.) between 1869 and 1945. The technical details given for each ship or class are: Builder, date of build, displacement, length, beam, draught, machinery, shaft horsepower, speed, fuel, radius, armament and complement. Where appropriate, details are given of armour plating, reconstruction and rearmament. The most salient points in the vessels' career are listed, and in certain cases comments are made on the success achieved by the design or certain of its features. In addition to its good coverage of the better known vessels, this book is particularly noteworthy for its comprehensive treatment of minor combatants, auxiliaries and requisitioned merchant ships.

The book is heavily illustrated by some 200 photographs and 400 well executed line drawings. A number of the photographs come from a relatively little used source, namely the Netherlands Navy Archives, and they may have been originally taken for intelligence purposes before World War II. The authors have not, however, been able to uncover a photograph of the Shinano. Laid down as a 'Yamato' class battleship, this vessel was converted while building into an aircraft carrier. Shinano was sunk on its first non-operational voyage and seems not to have been recorded in any known photograph.

Among the line drawings, the most interesting are those of unbuilt capital ships. One drawing shows a 1903-4 design for a large but lightly armoured battleship, having its main armament in four turrets, all on the centreline. Other reference works depict the design as less of a 'Dreadnought', and when it finally evolved into the Satsuma the vessel was no more than a 'semi' or 'intermediate Dreadnought' battleship, carrying a secondary battery of 10 inch guns in addition to the main 12 inch armament.

Two points detract somewhat from the book. The layout can be confusing. Each page is divided down into two columns, and across into ships or classes. This causes discontinuities which are sometimes not clearly demarcated and which tend to bedevil reading down left hand columns. Non-Japanese warships are not included in the otherwise excellent index which means that it is not possible, for example, to quickly check the involvement of particular Allied warships in the fates of Japanese vessels. Among the submarine pages, however, readers will find that Arunta sunk RO.33, Ipswich and Launceston were involved in sinking RO.110, and Deloraine was involved in sinking I.124.

New Zealand readers will find that Kiwi and Moa are credited with I.1, and that Tui was involved in sinking I.17. In another fate the authors describe the sinking of the destroyer Hayate on 11 December 1941 as the first Japan-
ese warship to be sunk in World War II. Given that the I.J.N. lost midget submarines at Pearl Harbour, this is surely too great a stretching of the practice that submarines are 'boats' not 'ships'.

* Warships of the Imperial Japanese Navy is an encyclopaedic reference work of high standard. It is more suited to checking the details of individual ships than to general reading. Possession of a copy is essential to historians specifically interested in the I.J.N. and is highly recommended to those interested in naval history who wish to have in their library a single reference covering the I.J.N. *

* Available in Australia through Thomas C. Lothian Pty. Ltd., 4-12 Tattersalls Lane, Melbourne, Vic. 3000.


Reviewed by Captain A. Dupont, Department of Defence

'RESUMENES DE ESTRATEGIA', published by the Argentine School of National Defense, is a bibliography of works relating to defence and strategic matters. It is in fact more than just a bibliography, because each reference is accompanied by a short summation of its contents and major arguments. The works listed were published over a ten year period (1965-1975) and include books and journal articles from a variety of countries and authors written in several languages.

General Goyret, the Director of the School of National Defense, points out in his preface to the book that the volume and range of literature on strategic and defence topics has grown steadily since 1945. 'Resumenes' is, therefore, a welcome initiative by its editor Captain Mitchell, to gather a selection of works which the student of strategic affairs, or even the general reader, may pursue further after having decided that a particular article is pertinent to his interests. The synopsis that accompanies each work enables the reader to decide whether an article is worth pursuing without actually having to go to the trouble of acquiring and reading through it. First in order to ascertain its content and therefore its relevance, some facts about the book:

- There are 566 works referred to in about 270 pages.
- The authors represented range from Harold Brown, Arthur Schlesinger Jnr., Bernard Brodie and Richard Nixon, to Herman Kahn, André Beaufre, Lin Piao and our own Robert O'Neill and Geoffrey Jukes.
- The subjects they write about have a common theme, but reflect the diversity and complexity of strategic affairs in the world today, topics discussed include nuclear proliferation, detente, the philosophy and psychology of war, conflict, Soviet naval strategy, arms control and many others.
- In keeping with the international nature of strategic affairs we find many areas of world represented in the selections made by Captain Mitchell. They are the US, the USSR, the UK, France, Italy, W. Germany, Switzerland, Spain, Portugal, Australia and Latin America.

Although this book is a more than useful and for those interested in strategic matters, there are some improvements which could be made. The Index of Authors and the Index of Titles are separated, one at the front and one at the end of the book, thus making it difficult to relate the two. There is no system of referencing or indexing the actual contents of each work other than the Index of Titles. Sometimes the Index of Titles does not give sufficient indication of a book's or journal's contents, and the titles are listed chronologically (i.e. when they were published) and not under subject headings. So if a reader is looking for works on China he would have to go right through the whole Index of Titles as there is no classification or grouping of works on China.

A problem that may confront the Australian reader is that some of the works listed are not available in English. While of course this adds to the international appeal of a book like 'Resumenes de Estrategia' it may diminish its value for those who are not multi-lingual. An English version of the book entitled "Abstracts on Strategy" will be available soon.
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