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Letters to the Editor

The History of the Naval Police
Dear Sir,

I would like to express my appreciation to you for Defence Force Journal No 61. The article will go a long way in informing those of your readers who may be unaware of the history and functions of the Naval Police.

I would ask however that you make it known to your readers that the correct title of the branch is the Naval Police. The title Naval Dockyard Police lapsed in 1972 when the branch ceased to be an auxiliary force and became a branch of the Permanent Naval Forces.

J.C. Parton
Superintendent, RAN
Deputy Director Security
Naval Provost Marshal

Field-Marshal Wavell
Dear Sir;

I am an infantry officer in the United States Army currently attending graduate school at the University of California, Los Angeles (UCLA) prior to being assigned as an instructor of European History at the United States Military Academy (West Point).

Since 1978, I have been studying the life and accomplishments of Field-Marshal Earl Wavell and now plan to write my master’s thesis on his life. Convinced that Lord Wavell was one of the ablest senior commanders of World War II and, in the words of John Connell, “worthy of his place in history as one of the greatest soldiers and noblest characters of his age,” I intend to reassess Lord Wavell’s life objectively and to examine his significant achievements. I believe Lord Wavell’s service as Commander-in-Chief, Middle East (1939-1941), Commander-in-Chief, India (1941-1943), and as Viceroy of India (1943-1947) has been grossly underrated.

To help me in my project, I would be most appreciative to learn of readers with memories of Lord Wavell, and to learn about letters, documents, or photographs relating to the Field-Marshal’s life and documents, or photographs relating to the Field-Marshal’s life and career which readers would be prepared to lend for possible inclusion in this study. I will be pleased to acknowledge all source material, and will return it promptly after use. Thank you very much.

Harold E. Raugh, Jr.
Captain, Infantry
United States Army

The Foundation of the Australian Navy
Dear Sir,

I have three points to make about Mr John Mortimer’s article ‘The Foundation of the Australian Navy 1901-1914’ as printed in DFJ No. 61 November/December 1986.

First to regret the many minor errors that good proof-reading would have avoided; I counted more than a dozen. Proof-reading seems to be a persistent problem.

Secondly to say, respecting page 35, that George Reid was never a Senator and never Minister for Defence; on 13 April 1914 he was Australian High Commissioner in London.

My third and main point is to disagree with Mr Mortimer when he writes on page 38 that ‘It was now [by 1914] accepted that Australia could not rely on Britain for its maritime defence . . .’ Mortimer does not cite anything specific in support of this statement. My own reading has not thrown up any evidence that would justify it, indeed authoritative statements and newspaper comment were very much along the lines that Britain perforce remained the principal source of Australia’s maritime defence. There was of course concern and there were some doubts but doubts are the stuff of war planning. Certainly there was no ‘acceptance’ that Australia could not rely on Britain. In the event, Australia did rely on Britain and the reliance was justified.

Robert Hyslop, I.S.O.
Plotting a Course
Maritime Strike Strategy
For The Royal Australian Air Force

By Squadron Leader S. P. Longbottom, RAAF

"He who commands the sea, commands everything."  

"To the question, What shall we do to be saved in this world? there is no other answer but this, Look to your Moat."

Introduction

THE Australian continent is the world's largest island and is the only continent wholly occupied by one sovereign state. The surrounding waters carry the trade that generates Australia's economic well-being and are a moat against any potential enemy. During the only invasion threat against Australia, our national survival resulted from the maritime defeat of the aggressor's forces as they closed on our shores. Geography has determined that maritime defence is vital to Australia's national security and will remain so in the future.

The airborne maritime strike role originated during World War I and aircraft from both sides of the conflict attacked naval targets. Maritime strike operations played a decisive part in the Allied victory over the Axis forces during World War II and have been an important feature of armed conflicts since 1945. The RAAF carried out maritime strike operations in the waters around Europe, North Africa, the Atlantic, the South West Pacific, the Sea of Japan, and Korea. Mr Beazley confirmed the current importance of the maritime strike role when he noted recently:

"... the very firm commitment we have to the effective air defence of this country, with an essentially air-based maritime strike role for our Defence Force."

Maritime strike strategy evolved along two main streams, direct and indirect attacks. Direct attack against shipping evolved from the use of aircraft-mounted machine-guns and bombs against naval targets. Cannons, rockets, and naval torpedoes were adapted for use by aircraft and, later, the glide bomb was developed as a stand-off weapon. Modern technology has developed the anti-ship missile which has increased the stand-off range of the attacking aircraft significantly. The indirect strategy encompasses the aerial laying of sea-mines in conjunction with surface vessel and submarine mine delivery.

Maritime mining forms part of Australian Defence Force (ADF) doctrine and the division of Service responsibilities for mining activities is stated in Annex A to Chapter 18 of JSP (AS) 2(A). Although the RAAF has responsibility for all aspects of aerial mining, maritime strike doctrine appears to be biased towards direct attack. The aim of this article is to propose a more effective integration of direct and indirect attack in RAAF maritime strike strategy.

Development of Direct Attack Strategy

The first, though unsuccessful, airborne anti-shipping strike was the Royal Naval Air Service (RNAS) attack against the German naval raider Königsherg in the Rufiji River Delta in Central East Africa on 6 July 1915. The attacking aircraft was a steel construction Henri Farman powered by a 140 horsepower Canton Unne engine with 50 pounds and 15 pound bombs dropped from 6,000 feet. It is interesting to note that at least two other attacking aircraft were shot down by the raider's guns during later air raids while the Königsherg was undamaged by these attacks.

The first successful air attack against naval vessels occurred on 26 August 1915 when Squadron Commander A. W. Bigsworth (RNAS) sank a German submarine off the coast of Belgium. He was also flying a Henri Farman aircraft which was armed on this occasion with two 65 pound bombs. Unspecified German aircraft armed with light bombs attacked and sank naval barges and small merchant ships off Dover in late 1915. German seaplanes made several sorties with torpedoes against shipping off the
northern end of the Downs near Dover in 1917, sinking one ship.

During World War II, aircraft employed direct attack techniques in maritime engagements such as at Taranto, Pearl Harbor, Midway, and during the Coral Sea battle. The vulnerability of aircraft to naval defences remained however and led the Germans to develop the glide-bomb first used against allied shipping supporting the Anzio landing in Italy in 1944. Similar reasons led the Japanese to use "kamikaze" or "divine wind" suicide aircraft which were a very primitive form of anti-shipping missile. Current anti-ship missiles such as Harpoon, Exocet, Penguin, and the Soviet AS series of weapons have replaced the human intelligence of the "kamikaze" vehicle with machine intelligence.

The Official History of the RAAF during World War II contains an account of a torpedo attack against Japanese ships in Rabaul Harbour in 1943. This account is reproduced in part because it conveys a graphic picture of the hazards of such direct attacks and the confusion that results for the participating aircrew.

"Outside Rabaul harbour the Beauforts formed into line astern with Nicoll leading, and the pilots sent their machines at top speed over the narrow neck of land from Talili Bay into the harbour. A barrage of anti-aircraft fire greeted them. Nicoll dropped his torpedo in the northern end of the harbour and it struck a tanker, although Nicoll himself could not see the result. Shortly afterwards, with great heroism, Price attacked a little farther south, sending his Beaufort straight towards the middle of a line of cruisers from which a tremendous barrage of missiles was soaring towards him leaving dazzling trails of blue, red and orange. Price's aircraft was hit and apparently blown to pieces. Quinn, who was behind, saw Price turn in and later saw the barrage lift as his Beaufort neared the cruisers. Quinn was diving and weaving violently to avoid the searchlights and anti-aircraft fire. Greentree, the naval observer, saw a light cruiser off Keravia Bay and guided Quinn towards it. The torpedo was dropped and in the confusion Quinn, instead of making off, turned his machine back through the anti-aircraft fire again. The anti-aircraft fire was so intense that the aircraft was filled with cordite fumes.""
have altered their position in response to the targeting radar transmission. As a result, the weapon's probability of locating and attacking the correct target may be low, thus reducing the overall probability of kill for the anti-ship missile. The attacking aircraft must expose itself for longer periods at greater heights if current and accurate fire solutions are to be obtained.

During the maritime phase of The Falklands War, the Argentinians fired Exocet missiles only at targets in open waters. Even then, the missiles sometimes struck the wrong targets, such as the "Atlantic Convoyer" in lieu of HMS Invincible. Anti-ship missiles were not employed against the mass of targets moored in Falkland Sound because the missiles could not discriminate between the ships and the nearby land. The fact that Iraqi aircraft are firing anti-ship missiles successfully at supertankers in the waters of the Persian Gulf does not invalidate these lessons of The Falkland campaign. The targets are so large that the anti-ship missile radar is not confused by the nearby land. Rocket deployed chaff, hovering electronic decoys, and electronic counter-measures are being used to try to confuse the anti-shipping missiles and lure them away from valuable naval targets. There will be considerable future development in this field which will be complemented by progress in anti-shipping missile technology.

RAAF Applications of Direct Attack Strategy

Typical RAAF strategy for direct attack of shipping includes target intelligence acquisition, direction of strike aircraft to the area, and execution of the attack. Australia has no satellite surveillance system and must rely on conventional intelligence means to locate the area of the likely targets. The Long Range Maritime Patrol (LRMP) aircraft, the P3 Orion, operates initially as a search aircraft, providing details of the hostile vessels and their location.

The RAAF has three aircraft types that will be able to deliver the Harpoon missile; the F111, F/A-18 Hornet, and the P3 Orion aircraft. In the event of war, the maritime strike force would deploy to an advanced base near the targets to launch single or multi-aircraft anti-shipping missions. The attacking aircraft can target independently or rely on co-operative targeting from another aircraft in the vicinity. It should be noted that navigational errors accrue between different navigational systems and commonly cause inaccurate fire solutions.

The RAAF force structure needed to support direct anti-shipping operations includes the attacking aircraft, the armaments and the appropriate logistics organization. Both the strike aircraft and the weapons are complex and expensive to operate with a long pipeline to intermediate and depot level support. The cost of such operations is very high if aircraft attrition, crew replacement costs, and missile shot costs are considered.

Significant combat attrition would limit maritime strike operations because the RAAF has small numbers of aircraft and crews. This is especially relevant as all the aircraft involved in maritime strike have other primary missions such as strategic bombing, air defence, and anti-submarine operations. The Chief of Defence Force may have to abandon prematurely a maritime barrier campaign and conserve his remaining air assets.

Development of Indirect Attack Strategy

"Damn the torpedoes! Captain Drayton, go ahead! Jowett, full speed!"

Indirect attack strategy relates to covert rather than overt means of destroying hostile naval targets and the only conventional weapon that can perform this task is the mine. The history of mine warfare is very much older than the history of aviation but is relevant to this study because mining philosophy is not dependent on the mode of delivery. Accordingly, the role of the mine in non-aviation based conflicts will be reviewed as well as aerial mine-laying activities.

The mine is well suited for maritime warfare because it is very effective at destroying naval targets and has also a potent psychological impact. Mines are stand-off weapons as they must be assumed to have an operational life of at least six months once they are laid. During that period, they remain invisible and difficult to detect or sweep, but always vigilant. The fear of mines is usually out of proportion to the number of mines actually present.

Mine warfare originated in 1585 when Gianibelli, an Italian engineer employed by the Dutch, destroyed a floating siege bridge being used to blockade the city of Antwerp by the
Spanish commander Parma. The mine, a ship filled with gunpowder fitted with a time fuse, floated down onto the siege bridge supporting some of Parma’s best officers and some hundred troops. They all perished in the explosion. Some two hundred years later, David Bushnell, an American inventor, filled kegs with gunpowder, fitted them with contact fuses and produced mines for use during the American War of Independence. In 1777, these mines or “Bushnell’s Kegs” were floated onto British men-of-war and caused panic amongst the ships although they failed to explode. During the American Civil War, at Mobile, Alabama, in 1864, the Confederates laid a defensive minefield of 80 mines against the Union naval forces. These mines consisted of contact mines, friction mines, and torpedo mines and sank the Union ship, USS Tecumseh, provoking Admiral Farragut’s famous response. Mines sank 27 Union ships during the civil war, while only 9 ships were sunk by gunfire.

The Russo-Japanese War of 1904-1905 featured the extensive and effective use of mines, offensively by the Japanese and defensively by the Russians. The table presented below shows the Russian naval units sunk during the war and the cause of their sinking. It should be noted that some of these Russian losses may have occurred in their own defensive minefields. The Japanese also suffered mining losses from their own minefields which they had not charted accurately and could not avoid during subsequent fleet manoeuvres.

<table>
<thead>
<tr>
<th>Type of Ship</th>
<th>Total Sunk</th>
<th>Sunk by Mines</th>
<th>Sunk by Other Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battleship</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Cruiser</td>
<td>6</td>
<td>5</td>
<td>1 (collision)</td>
</tr>
<tr>
<td>Destroyer</td>
<td>9</td>
<td>4</td>
<td>5 (gunfire)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17</td>
<td>11</td>
<td>6</td>
</tr>
</tbody>
</table>

The tactical and strategic lessons of the Russo-Japanese War were well learnt by the British and German navies and naval mining played an important role in World War I. The Dardanelles naval campaign in 1915 failed because of the allies’ inability to clear the tactical minefield in the Narrows Channel under the fire of Turkish shore batteries. The British laid the North Sea Barrage consisting of 56,000 mines to blockade the German High Fleet. Lord Kitchener died when the cruiser carrying him to France, HMS Hampshire, was sunk by a German floating contact mine, a weapon type as old as Gianibelli and the Siege of Antwerp in 1585. The use of naval mines during World War I followed the pattern that had been set previously, that the mine weapon was used to counter a naval threat which could not be matched by any other means. The primitive contact mines deployed during The Great War were developed in the following 20 years to produce the magnetic influence mine, the acoustic mine, and the pressure sensitive mine.

**Post World War I Mine Warfare Experience**

Britain laid defensive mines immediately war was declared in 1939 and effectively barred the passage of German submarines along the English Channel and into the Irish Sea. The defensive field laid to the north of Scotland is credited with forcing the battleship Bismarck to route through an unmined but patrolled area whereby she was detected and tracked down. German magnetic mines sank 300 British ships in Home Waters in the first month of the war and only the chance recovery of one of these weapons allowed the British to counter the threat. During World War II, mines sank and damaged more shipping than any other single weapon type. The following table details Axis merchant shipping sunk in the UK Home Theatre:

<table>
<thead>
<tr>
<th>Weapon Type</th>
<th>Number of Ships Sunk</th>
<th>Tonnage Sunk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerial Mines</td>
<td>604</td>
<td>660,000</td>
</tr>
<tr>
<td>Direct Air Attack</td>
<td>289</td>
<td>574,000</td>
</tr>
<tr>
<td>Submarines</td>
<td>104</td>
<td>318,000</td>
</tr>
<tr>
<td>Surface Warships</td>
<td>86</td>
<td>303,000</td>
</tr>
</tbody>
</table>

The Pacific Ocean theatre witnessed the most extensive use of mines during World War II. In the South West Pacific Area (SWPA), the RAAF succeeded in interdicting the Japanese supply routes by mining harbours, their approaches, and other choke points. Typical of these activities was the mining of Surabaya in 1943 which resulted in at least 9 ships sunk, 12
damaged and the port effectively abandoned. Similar results occurred at Kavieng in 1943 and Balikpapan in 1944 with the Japanese abandoning those ports also.

In 1944, the United States used aerial mines tactically at Palau Harbour to trap 32 Japanese ships which were easily destroyed by other forces. Three Japanese salvage vessels which tried to enter the port subsequently were also sunk by the mines. Operation "Starvation" involved the aerial laying of some 12,000 mines in Japanese home waters in a four-month period of 1945. The mines sank or severely damaged more than 650 ships including 65 men-of-war, one of which was the great battleship Yamato. Japanese shipping passing through the vital Shimonoseki Straits to industrial ports on the Inland Sea decreased by 98% over the period. The Japanese stated after the war that, had the campaign started earlier, resistance may well have ceased before August 1945.

During the Korean War, at Wonsan, a mixed defensive field of 3000 primitive and modern Russian mines sank three of the mine-sweepers trying to clear the field and delayed the United Nations amphibious assault by 15 days. The rundown of American and British mine sweeping forces since 1945 was partially responsible for the effectiveness of the North Korean mining campaign which remained a constant danger throughout the Korean War. Some of the mines used were left-over from the Russian stocks of 1904-1905. The Korean experience led a senior U.S. Navy commander to state that:

"It is a basic fact that any small maritime nation, with only elementary transportation facilities, little technical experience, and a minimum of improvised equipment, can deny the use of its ports and the shallow waters along its coast to a large, modern naval force at little cost to itself, simply by the extensive laying of even elementary types of mines."

It was in North Vietnam in 1972, that the United States once again employed offensive mining. The US spent years of effort on bomb ing to interdict the enemy's supplies without success and finally mined Haiphong harbour in 1972. After this mining attack, the harbour was completely blocked until the end of the Paris Peace Talks and until the US Navy had swept the mines at the request of the North Vietnamese Government. This mining operation made a major contribution to the outcome of the Paris Peace Talks and one can only speculate on the influence that mines might have had on the war if they had been used in a similar fashion earlier.

**Current Mine Technology**

Part of the reason for the continuing success of the mine weapon has been the series of technical improvements achieved since 1918. In World War I, one ship was sunk for every 71 mines laid, while in World War II, one ship was sunk for every 37 mines laid. The increase in effectiveness by a factor of 1.91 is attributed to charge weight rising from 300 pounds to 1200 pounds and the advent of better actuating mechanisms such as magnetic, pressure, and acoustic sensors. The development of the thin film magnetometer in the sixties allowed aerial mines to be used without parachutes as well as reducing the size and power requirements of magnetic detection by a factor of at least 10.

Ship counters are now widely used in mines so that detonation is delayed until a certain number of ships have passed overhead. This causes serious complications for mine-sweeping and clearance operations, further re-inforcing the hidden menace psychology of the mine weapon. The "Captor" mine represents Western state of the art technology and consists of an encapsulated homing torpedo which is released automatically when specific ship characteristics are encountered by the mine. Open source material indicates that the homing torpedo will re-attack a ship if it is unsuccessful on the first attempt.

**Indirect Attack Strategy for The RAAF**

The indirect attack strategy for maritime defence includes both offensive and defensive mining. It is the classic way of overcoming a weakness in maritime strength and restricting the enemy's freedom of action. The waters to Australia's north, north-west and north-east are suitable for offensive mining and Australia's coastline can be defensively mined if required. To the north-west there are the Straits of Malacca, Makassar, Sunda, Sumba, Karimata, Roti, Gaspar, Siberut, and Seaflower. The harbours in this area susceptible to mining include Surabaya, Singapore, Djakarta, Bali, Kupang, Makassar, Dili, and Balikpapan. To the north
and north-east are vulnerable ports like Port Moresby, Lae, Kavieng, Manus, Rabaul, Su-karnopura, Honiara, Noumea, and Suva. The Torres Strait is also suitable for mining.

All these areas are within a radius of action of ten hours flying time of Australian airfields which could support operations by the RAAF's normal minelaying aircraft. Also, the C130 Hercules fleet can be adapted to deliver mines if required. Offensive minelaying operations are normally covert and would be carried out in bad weather or at night by single aircraft to minimize aircraft vulnerability.

Peacetime planning is needed to identify the optimum weapon load for the particular area to be mined based on its oceanographic features. These plans can be reviewed and amended as required before the operation is mounted. The aircraft carrying out the task can operate with or without logistic support depending on the length and intensity of the mining campaign. Stockpiles of mines can be established at key airfields in peacetime as most mines have a long shelf life with minimum armament maintenance. Also, the logistic problem is simplified because any general purpose bomb can be used as a mine by fitting it with a mine “Destructor” kit. Even if mines or bombs are in short supply, dummy mines can be included with drops of live mines as they will cause the same amount of hindrance to an enemy who must sweep all suspicious objects from his waters.

The RAAF force structure needed to support an indirect maritime strike strategy consists of the delivery aircraft, the weapons, and the appropriate armament support. The acquisition costs of mines will depend on their complexity while maintenance costs should be generally low. The costs of aerial mine delivery are low compared with direct anti-ship operations because fewer missions are needed and the mining aircraft loss rate is low. The overall cost of such a force structure is much less than the direct anti-shipping force structure. In World War II, the Americans discovered that aerial minelaying cost $16.00 per ton sunk compared with $100.00 per ton sunk by submarine torpedo attacks. Aerial minelaying also proved to be inexpensive in manpower terms with 3,500 tons sunk per crew member. The low cost of a mine warfare capability and the ease with which it can be concealed from enemy intelligence results in relatively cheap but effective and credible deterrence.

Aerial minelaying complements other means of laying minefields and is a joint activity which demands inter-service co-operation and liaison. This is especially true when aircraft lay mines in an area which must be crossed by friendly naval forces who do not wish to emulate the Japanese and Russian experience of 1904-1905.

There are international protocols which require all minefields to be accurately charted and declared. This need to declare a minefield’s position can be a tactical advantage because notional minefields will normally be treated as real ones until they are known to be clear. This tactic will be most effective when the enemy has a small mine counter-measures capability that is already over-committed.

The ADF must have a complementary mine counter-measures (MCM) capability for self-defence against an enemy’s mining campaign. It is traditional for western nations to run down their MCM capability during peacetime to the point where they are vulnerable to any mining attack. This was illustrated by the fact that it took the MCM resources of four western nations to clear the mines laid in the Red Sea in 1984. The Australian Defence Minister recently stated that the ADF’s MCM capability would be upgraded with new vessels and detection systems. This is timely when one considers the vulnerability of our approaches and harbours to mining operations.

**Comparative Effectiveness of Direct and Indirect Strategies**

“Command of the sea is the indispensable basis of security, but whether the instrument that commands swims, floats, or flies is a mere matter of detail.""
dangerous and more productive compared with all forms of direct attack. Torpedo missions were the most hazardous and least productive by a factor of 15 times. The study did not account for those Japanese ships which were blockaded in their harbours and unable to deliver their cargoes to their destinations. It was calculated that 12,000 land strike sorties would have been needed to neutralize the blockaded cargoes of men and material had they been dispersed. The results of the study are tabulated at Annex A.

Comparable studies by British researchers also indicate the superiority of the indirect maritime strike strategy over the direct strategy. The British study compared results obtained by the Royal Air Force from minelaying and from direct attacks on shipping during the period April 1940 to June 1943. Indirect attacks resulted in 1637 tons per aircraft lost compared to 604 tons per aircraft lost in direct attacks. Higher losses were sustained by minelaying aircraft in this theatre than by similar RAAF operations in the SWPA. This is possibly due to the more concentrated shore defences to be found in and around obvious mining targets like harbours, canals, and channels. The summarized figures are given over the page and the full tables are found at Annex B.

<table>
<thead>
<tr>
<th>Air Minelaying¹⁰</th>
<th>Vessels Sunk</th>
<th>Vessels Damaged</th>
<th>Aircraft Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>417</td>
<td>65</td>
<td>377</td>
</tr>
<tr>
<td>(422,343 Tons)</td>
<td>(194,965 Tons)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct Attack At Sea</th>
<th>Vessels Sunk</th>
<th>Vessels Damaged</th>
<th>Aircraft Lost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>130</td>
<td>67</td>
<td>742</td>
</tr>
<tr>
<td>(211,239 Tons)</td>
<td>(236,807 Tons)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Channel Dash of the battleships Gneisenau, Prinz Eugen and Scharnhorst in February 1942 further illustrates the relative merits of the two doctrines. The passage of the German ships was opposed by all the direct attack resources the British could muster and resulted in severe aircraft losses for the attacking forces. The only reverse sustained by this German naval force occurred when the Scharnhorst struck two mines and the Gneisenau was mined once. The former vessel limped into port at Wilhelmshaven while the latter continued to the Elbe estuary as planned.

When one considers that weapon developments since 1945 have resulted in a state of weapon parity for anti-shipping and anti-aircraft systems, it is very probable that the effectiveness and cost-benefit of a direct maritime attack strategy are little changed from World War II. However, while the computer chip revolution has undoubtedly upgraded mine effectiveness, mine countermeasures remain slow, dangerous and intensive of equipment and manpower. Even if there is only a slight imbalance between these two opposing systems, the effectiveness and cost-benefits of the mine weapon will have increased since 1945.

**Combined Direct and Indirect Strategies**

Although indirect attack strategy is more cost-effective than direct attack, it will not meet all maritime strike requirements. For example, aerial minelaying would have had little effect on the Japanese carrier forces and troop ships passing through the Coral Sea to invade Port Moresby in 1942. This was a case when only the direct attack strategy had any chance of success, albeit with high friendly aircraft losses. However, if the Allies had mined the departure ports and straits through which the Japanese force had to pass, such efforts might not have been needed. The lesson for military planners today is that both techniques have a part to play in a balanced maritime strike strategy. The emphasis should be on the early use of aerial mining to enhance the effectiveness of limited direct attack assets by channelling enemy forces into suitable “killing zones” where targeting is simplified. Mining can also deny vulnerable waters to the enemy and thus reduce the tasking rate for direct attack forces. This exploits the full tactical advantages of aerial minelaying.

Such a combined strategy requires efficient preparation for both aspects of any future campaign. Aerial minelaying techniques need to be practised for aircrews to gain the skills necessary to position the mines accurately and safely in
bad weather and at night. The covert nature of these techniques can expose minelaying aircraft to the risk of flying into the sea or land near the target area, as happened frequently during World War II. Similarly, direct anti-shipping techniques demand the development of the best possible tactics for use with specific weapons against different levels of naval threats.

The logistics organization must be prepared to support a lengthy mining campaign which may use many thousands of mines. During the latter stages of "Operation Starvation" against Japanese Home Waters in 1945, even the Americans could not meet the logistic demands of their mining campaign and had to omit some targets from their operations. Australia should develop some local production capability, even if it is only for simpler types of mines. Peacetime preparation should include oceanographic studies of likely target areas so that optimum weapons loads can be determined at leisure and merely updated when required in wartime. Australian ports and channels should also be surveyed in peacetime to facilitate MCM activities.

The combined maritime strategy should be related to a theoretical scenario to demonstrate its efficacy. In the event of a high level contingency, a major invasion threat to Australia might arise from the North West through the Indonesian archipelago. As political tensions increased, the ADF would be placed on alert and would position its maritime assets, including mine and Harpoon stocks, appropriately. When so directed, the RAAF would assist the RAN by laying protective minefields around Australian ports and waterways. The C130 Hercules aircraft can be adapted to satisfy this role.

After diplomatic efforts had failed and hostilities had been declared, the ADF would be ordered to lay defensive minefields in international waters through which any invasion fleet would have to pass. Although submarines and surface vessels have a large minelaying capacity, the RAAF would probably lay most of the protective fields because of aircraft speed and flexibility. If the Australian Government wished to escalate military action against the enemy, mines would be laid offensively in likely invasion departure ports by F111 aircraft or by submarine. Then the Australian Prime Minister of the day could echo the words of a famous statesman, and say:

"We are waiting for the long promised invasion. So are the fishes."

If the invasion forces succeeded in leaving their ports in force or penetrating the defensive minefields so that they still posed a threat to us, they would be channelled into suitable open water away from neutral vessels and attacked directly. Our aircraft losses would be significant but they would certainly be fewer than those resulting from a strategy of primarily direct maritime attack.

A major element of such a combined strategy is timely recognition of possible threats and positive decision making by the Australian Government and the ADF. The strategy proposed in this article would be considerably less effective if too little aerial minelaying was done too late. The laying of defensive minefields in international waters is politically more defensible than the premature employment of anti-shippping missiles because, once a minefield has been declared, the enemy must choose to enter it before he will suffer losses.

A government which directs the laying of protective and defensive minefields cannot be accused of attacking the enemy's civilian population and causing the loss of innocent lives. If direct anti-shipping strikes were eventually needed, the enemy's aggressive intentions would have been clearly demonstrated both to Australia and the international community. Such a combined strategy also would buy time which would allow renewed diplomatic efforts for a solution while the ADF builds up its strength and capabilities.

Satellite surveillance and communication technology may have an impact on any future maritime attack strategy for the ADF. While difficult to predict, changes could occur in targeting procedures and mine activation techniques. Hostile naval targets could be located by satellite imagery and instructions passed to individual mines or minefields by blue laser communication links which are reportedly being developed by the USN. If Digital Data Bus technology can be implemented in these space to sub-surface communication links, the capability exists to programme individual mines remotely so that they will anticipate the arrival of certain specific targets. Also, this remote programming process might allow mobile mines to be directed to reposition closer to an enemy's
path. Any technical breakthroughs in future mine weapon systems will allow a parallel development of mine tactics which can only enhance the value of such weapons.

**CONCLUSION**

"Now for the Services of the Sea, they are innumerable . . . it is an open field for Merchandise in Peace, a pitched field of the most dreadful fights of Warre."

Australia's dependence on her maritime environment for trade and defence results from her geography. This dependence was emphasized by her experiences during World War II. Currently, Australian defence planners appear to be developing a moat or "Maginot Line" philosophy based on our natural maritime barrier. As long as planners rely on such a philosophy, the ADF must recognize that defeat in the maritime battle means national military and political defeat.

Australia suffers today from the same weakness in naval strength as she suffered over 40 years ago and, accordingly, relies on RAAF maritime strike power to redress the balance. The RAAF's maritime strike strategy must be effective and affordable if it is to provide credible, regional deterrence. The RAAF's current maritime strike strategy emphasizes direct attack using stand-off weapons which are seen commonly as a panacea for aircraft combat attrition. There is little emphasis on aerial minelaying as a complementary indirect strategy despite the fact that the mine has been consistently more cost effective than any other maritime weapon system. This article has proposed an RAAF strategy combining direct and indirect strategies, with the use of the latter to enhance the effectiveness of scarce direct attack resources.

The integrated use of indirect and direct attack in the proposed RAAF maritime strike strategy would provide an incremental military response applicable to the different phases of a worsening political crisis. The government would be able to use this to demonstrate resolve without committing itself to an all or nothing military campaign. A drawback of this maritime strike strategy is that the government must allow the RAAF sufficient lead time to lay the necessary minefields if the enemy is to be properly impeded or controlled. Procrastination by the Australian Government would result in the enemy winning the maritime battle without firing a shot, thus negating the intent of the maritime strike strategy. The ADF would be left to fight a defensive campaign based on the protective minefields laid in Australian waters. The probability of ADF success in this attrition style battle would be low because of our limited combat resources.

Mines, albeit in their crudest form, were first used successfully 400 years ago and their impact has been felt throughout maritime history. It is only 70 years since aircraft first attacked naval targets and, although direct anti-ship attacks are still practised, they remain high risk and low yield operations. Australia must learn the lesson of history that the mine is a weapon of adversity, traditionally used by weaker maritime nations to enhance their sea power. The RAAF cannot afford to ignore aerial minelaying doctrine in its maritime strike strategy because, without it, the maritime battle may well be lost.

**NOTES**

5. Low, A.M., Mine and Countermine, Sheridan House, New York, 1940, P64.
Comparative Results obtained by Royal Air Force from Minelaying and from Direct Attacks on Enemy Shipping at Sea.
April 1940 — June 1943

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2. "?” indicates figures unavailable.

Results obtained by Royal Australian Air Force from Minelaying and from Direct Attacks on Enemy Shipping at Sea
March 1941 — April 1944

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AUFTRAGTAKTIK or Leading with a Mission

By Lieutenant Colonel Peter Bergmann, RACT

Introduction

THE German term Auftragtaktik is generally translated as Mission Oriented Tactics; (Auftrag = Mission, Taktick = Tactics) a term sometimes heard in the corridors of Russell. It sounds good, its brief and the words are familiar . . . but where did it come from and what does it mean?

The German Bundeswehr coined the word to describe a particular style of command. The concept of Auftragtaktik is popular and widely used. The translation to Mission Oriented Tactics can be misleading by focusing the reader unduly on the word tactics. I would suggest that a better term would be “Leading with a Mission”.

This article attempts to explain the German philosophy behind the concept. It is based to a large extent on my personal translations from German source materials and teachings at the German Staff College.

Background

German military writings trace the origins of Auftragtaktik back to the middle of the 19th century. At that time it became apparent to the German High Command that more emphasis was required on independent action by subordinate commanders. Fieldmarshal von Moltke is credited with the creative impulses in this direction.

At the start of this century these impulses found expression in the doctrine of the Reichswehr and since that time have filtered through nearly all German military textbooks. The term Auftragtaktik however has come into general use only after WW2.

The staggering successes of the Wehrmacht in the early stages of WW2 were largely the result of indoctrination and training of the German Commanders in the principles of Auftragtaktik.

Fieldmarshal von Manstein, one of the ablest tacticians of WW2, in his book Verlorene Siege (Lost Victories) makes the following comment.

“It has always been a particular strength of the German military leadership that it relied on, and encouraged leaders at all levels to accept responsibility, act independently and to use their initiative. That is why, at the higher levels, directions specifically avoided giving orders to the middle or lower levels of subordinate formations. We thank this style of command for being largely responsible for the successes of the German Armies in that it allowed them to sweep over their opponents whose orders often regulated the action of subordinates to the last detail.”

It was disregard for this established and proven doctrine which cost the Germans dearly later in the war. The increasingly rigid orders issued by the High Command during the latter stages robbed the commanders of their initiative and disregarded their assessments. The memoirs of various High Command staff officers place the blame for this directly on Hitler for his increasingly detailed interference in their activities.

The lessons learnt by the Wehrmacht in WW2 were not lost when the Bundeswehr was raised in 1955. The initial manpower was drawn almost completely from officers and NCOs of the former Wehrmacht. The Bundeswehr manuals and tactics reflect that experience and deserve closer study.

General

Bundeswehr publication TF/G 1004/1005, (Taktischefuhrung Gefecht = Tactical Leadership /Battle) states at para 3.

“The commander (in his orders) clearly lays down the Mission, direction and the framework of action for his subordinates.”

whilst para 4 states

“The subordinate commander has freedom of action and judgement in how he will execute his mission. His initiative is limited only by the requirement to achieve his mission and by the declared intention of his superior commander.”

German teachings elaborate on these directives and see the commanders approach as the key to successful application. The guidelines to commanders can be summarized as follows:
• The commander determines the mission, which is the most important part of his orders. The mission must be formulated clearly and accurately to ensure that the recipient clearly understands the commander’s aim.

• The commander’s intention determines the direction in which the subordinate will proceed.

• The orders must be unambiguous but detailed enough to ensure that the subordinate understands his role within the total operation. This ensures that when unexpected events demand a reassessment of the situation the subordinate will be in a position to decide if the commander’s aim is still achievable and if his (the subordinate) mission is still applicable.

• Before a commander issues his orders he must check what limitations, if any, he should impose. This requires a preliminary appreciation of:
  1.) the allocated forces,
  2.) available resources,
  3.) time and space, and;
  4.) whether the competence of the subordinate commander suffices to carry out his mission.

Should the commander come to a negative conclusion then he must either create the right prerequisites by allocating the required forces, resources, time and space or he must alter the mission.

Imposition of some limitations will be necessary at times, usually:

• Where co-ordinated action of a number of independent subordinate units/formations is planned or becomes necessary in the course of events.

• Where limitations in combat support make it necessary to co-ordinate the allocation and/ or application of such support.

The antithesis of Auftragstaktik is Befehlstaktik (Befehl = Order/Command). It is the intention of the commander to allow his subordinates as much freedom of action as possible when applying Auftragstaktik. The opposite holds for Befehlstaktik, i.e., to allow as little freedom of action as possible by prescribing in detail all steps leading to the fulfilment of the mission.

**Auftragstaktik vs Befehlstaktik**

Debate on the finer points of these two concepts feature frequently at the German Staff College. Support for Auftragstaktik is so universal as to be almost automatic. The real skill however lies in recognizing which to apply when.

Advantages of Befehlstaktik are:

• Central co-ordination of action for all levels.
• Time saving by issuing a precisely chartered course of action.
• Better control and intervention possibilities during various phases.

The prime disadvantage of this method is the fact that experience has proven that a battle seldom goes according to plan but consists of rapidly changing situations and non foreseeable factors. Particular disadvantages are:

• The danger in misplanning two levels down, with the inherent lack of detailed knowledge and lack of “on the spot” information.
• The lack of flexibility to meet unforeseen developments and time consuming preparations to implement new decisions.
• Restricting the initiative and sense of responsibility of subordinates.

The advantages of Auftragstaktik are:

• The subordinate thinks for himself within the framework of the commander’s mission.
• The subordinate is highly motivated to apply initiative and effort to achieve the overall mission.
• Short reaction time to implement decisions throughout the levels of command.
• Extensive use of local knowledge and expertise at each level.
• The decision maker is aware of the up to date situation.
• The possibility to exploit local situations immediately, without having to seek prior permission.
• Independent action to achieve the overall aim, particularly where original plans require modification or even discarding.

In the opinion of the German General Staff these are the advantages which are most likely to ensure success in battle and economy of effort.

If the circumstances require it, the freedom of action of subordinates can be severely curtailed. The superior must however ensure that it is never a feeling of infallibility on his part.
or a lack of confidence in his subordinates which leads to restrictions on their freedom of action. He must also be guided by the principle to order only one level down.

**Prerequisites**

Auftragstaktik can only be effective where uniform military perception exists. Freedom of action, within the parameters of a mission, requires uniform tactical perception based on sound application of leadership and operational principles. These prerequisites are only achieved by a long and continuing education and training process. It must be learnt that the complexity of battle prohibits tactical recipes and that there are no formulas for success in operations.

Uniform tactical perceptions must be expressed in a brief and clear military language. This requires a glossary of unambiguous tactical definitions. The number of these terms must remain limited so as not, by sheer quantity, interfere with and limit the “normal” language and thereby become a hinderance.

Auftragstaktik requires reliability of response. High demands are made on the leadership qualities of subordinates, on their initiative and on their sense of responsibility. “Leading with a mission” requires mutual trust. The subordinate must be confident that no mission will be given to him which he cannot achieve. The superior must have the courage to foster the subordinate’s initiative and trust him to achieve the aim largely on his own. This courage must include the willingness to share the responsibility for errors which his subordinate may make in good faith and with good intent. Auftragstaktik requires a clearly defined command structure and clear allocation of responsibility. The command relationships at each level must be defined and territorial responsibility must be clearly laid down.

Last but not least there is the need to accept a certain amount of risk to achieve success. In a rapidly moving battle the consequence of delay through hesitation, indecision and time wasting, by seeking confirmation “back up the chain”, are often more detrimental to success than an error. This is particularly important where the initiative on the battlefield needs to be won and held.

A reflection on these prerequisites shows that one cannot simply order or direct that Auftragstaktik is to be used. Application of this concept requires continuous education, personal example and practical application by both leaders and troops.

Nearly all orders require continuous review and updating to ensure that the pitfalls of Befehlstaktik or mind numbing routine do not replace the true leadership responsibilities.

**Dangers**

It would be unrealistic to gloss over a few of the inherent pitfalls of Auftragstaktik. The following examples are particularly relevant:

- The influence of technology;
- Lack of trust in the capability of subordinates;
- The use of the term Auftragstaktik as a cover for incompetence.

Improved technology has given new possibilities to higher command levels, (eg. Helicopters, Datalinks, TV and C3 systems to name but a few). There is the temptation to influence/command not just the next level down, but to the lowest levels. Erosion of the chain of command, a loss of incentive, imagination and sense of responsibility by subordinates will result.

Lack of trust in subordinates becomes evident through a growing loss of confidence within the higher echelons of command. Uncertainty leads to the temptation to take over. The results are once again the erosion of the chain of command, loss of incentive, imagination and sense of responsibility.

The third danger lies in the temptation to use the guise of Auftragstaktik to cover ones own shortcomings and to shirk decisions. Such action is quite unforgivable. It indicates a willingness to place the burden of blame for any failures totally on the shoulders of the subordinate. The resultant lack of trust and confidence upwards will destroy the concept.

**Summary**

The underlying essential principles of Auftragstaktik are uniform perception, predictability of response by subordinates and the striving for maximum freedom of action in the achievement of the mission.

Auftragstaktik must be understood as being a philosophy which must be ingrained in both the leaders and those being led. The concept will, in its implementation, be constantly butting into the restrictions and limitations imposed by the prevailing situation. Each situation must be considered with a view to maximizing the freedom of action of the subordinate.
Auftragtaktik gives no protection against errors or failure and requires an intensive and continuous education and training effort.

Critics of the concept are often quick to seize on the terms “uniform perception” and “predictability of response” as weaknesses, claiming that it makes the resulting tactics predictable. Such claims ignore the speed and flexibility inherent in the concept and above all the variations achieved by freedom of action and initiative.

Conclusion

Whilst the concept of Auftragtaktik is most frequently explained by reference to the battlefield, its application is equally appropriate in many everyday situations. It is for that reason that its translation to Leading with a Mission is more appropriate than Mission Oriented Tactics.

By whatever name in whatever language the concept is tried and proven. Peace time environment tends to lead to over directing of subordinates. The luxury of time and the unwillingness to take chances breeds a military bureaucrat who will be found lacking in war. Application of Auftragtaktik needs to be actively fostered from “the top down”, and by personal example at all times. It cannot be directed to exist or to be implemented, it can only be achieved by conscious practice and education.
Prospect For Infantry

By Lt Col A. J. Molan, RA Inf.

Introduction

INFANTRY has existed in one form or another since man first picked up a rock in order to strike an adversary. Since that time he has consistently sought to improve his ability to wage war on foot to the extent that the rock has changed in shape, can now be delivered at greater distances, hits the enemy more often, and when it hits, has more of an impact. The attempts by man to wage war on anything other than foot is also an enduring theme. It would seem from a study of history that any and every means to avoid using one’s feet to close with an enemy has been tried. Every conceivable type of beast of burden and mechanical device, illustrating if nothing else that man has an innovative mind and should be admired for his ingenuity, have been tried in what appears to be an eternal search for the “non-infantryman”. This process has resulted in two things. First, the emergence of, amongst others, those most intransigent, stultified sub-cultures within military sociology — the Armoured Corps and the Artillery, and secondly, the belief that a preponderance of foot soldiers within an army is generally regarded as a sign of military backwardness.

Yet any serious analysis of the approximately 30 major military engagements which have taken place since the end of World War Two, must take cognizance of the central fact that the infantry arm has played a dominant, often vital, role in the outcome of each. Many very clever and extremely biased things have been said about the concept of infantry, and about those foul weather warriors, light of foot and quick of mind, that amalgam of cat burglar, gunman and poacher — the Infantryman himself. Without allowing this presentation to sink to the level of a “Melbourne is best, no, Sydney is best” bar-room discussion, let me quote just one of those statements. Field Marshal Wavell, certainly my favourite soldier, admonishes us to be clear about 3 facts:

“First, all battles and all wars are won in the end by the infantrymen. Secondly, the infantry always bears the brunt, his casualties are heavier, he suffers greater extremes of discomfort and fatigue than other arms. Thirdly, the art of the infantryman is less stereotyped and far harder to acquire than that of any other arm.”

He then goes on to offer Military Secretaries’ branches throughout the world, the following advice:

“We ought, therefore, to put our men of best intelligence and endurance into the infantry.”

Aim

From all indications, then, past and present, there will be a place for the foot soldier and his traditional skills upon the battlefield of tomorrow. The question then becomes, if we are here to “prospect for infantry”, what will be the nature of infantry or the infantryman in the future? I will attempt to provide, if not a direct answer to that question, then at least a discussion on the multitude of factors which may influence the answer. To maintain the analogy of “prospect(ing) for infantry”, perhaps I can provide the geological strata within which each of us can find the “good oil” of the “essence of infantry” and, in our own minds, distill it. But before I do, so that we all have a common start point, I would like to look at what infantry is, and what it does, now.

Definition

That there is a need to define the term “infantry” is evidenced by the fact that the term itself is invariably qualified by an adjective. In our small army we use adjectives like: “light”, “standard”, “mechanized”, “airborne”, “para”, “ARA”, “Army Reserve”, and “ODF”. The basic definition of Infantry as those soldiers who serve on foot has been somewhat blurred recently by the plethora of ways in which infantry move in their approach to the battlefield — ships, planes, helicopters, armoured vehicles, parachutes, trucks — and by
the emergence of the concept of a combined arms team. But the absolute essence of infantry must be his loco-mobility, an ability which allows him to master difficult and close terrain, and, being the smallest target and having the best battlefield computer yet devised, to use this mobility to place his increasingly effective weaponry in the most advantageous position. To use the words of S.L.A. Marshal:

"The loco-mobility of infantry, its ability to move through every locality and fire from every position, remains the foundation stone of infantry value and no doubt an important reason for its continued existence as a viable combat arm."

Other characteristics of infantry which may contribute to our prospecting are: that infantry operations are often conducted in close, or very close, proximity to the enemy; that infantry relies on man as the basis of the weapon system; and, something that is a major determinant of the existence of infantry between wars, that infantry is perceived to be comparatively cheap.

Role

What then does Infantry do, what is its role? The ABCA organization defines the role of Infantry as shown on this slide, (Figure 1), almost entirely in terms of holding or capturing ground. The US states the role of its standard, airborne, airmobile and mechanized battalions as shown on this slide (Figure 2). Certainly more comprehensive than ABCA but perhaps still not far enough. We all know the role of infantry as expressed by our own doctrine (Figure 3). That is a fairly extensive definition which covers all the needed verbs and by implication speaks of mobility. John English, the author of a book called *Perspective of Infantry*, gives an interesting role as shown on (Figure 4). My favourite is one given by someone called John Weeks writing in the magazine *Military Technology and Economics*, and, although it does not have the stirring ring about it that our own stated role has, is probably the most comprehensive (Figure 5).

From all these expressions of current roles for infantry, the lesson that I derive is that those that limit infantry employment to the holding of ground, the guarding of tanks or the following of artillery, fail. This is because I believe that good infantry, moving even at marching pace across all types of ground in all weather, and striking at unexpected times, retains even on its own, a significant offensive potential.

The primary role of infantry will continue to be the holding or capturing of ground by destroying enemy infantry and their supporting elements.

Figure 1.
US

To close with the enemy by means of fire and manoeuvre in order to destroy or capture him or to repel his assault by fire, close combat and counter-attack.

Figure 2.

AUSTRALIA

To seek out and close with the enemy to kill or capture him, to seize or hold ground and repel attack by day and night regardless of season, weather or terrain.

Figure 3.

ENGLISH

The primary role of infantry remains to disrupt, psychologically dislocate and disorganise enemy resistance in preparing the way for a decision.

Figure 4.

* To hold ground against enemy armour and infantry attacks and provide a firm pivot for counter attack or other manoeuvre

* To dominate and control the close country

* To close with the enemy and clear his defensive positions

* To provide observation, recon and early warning.

Figure 5.
History

In considering the prospects for infantry, you are definitely asking me to be something of a futurist, and like most futurists, I will take J.F.C. Fuller's advice and begin by looking back. As a member of an army "... languishing in the somnolence of peace . . .", and with no operational experience on which to base my own conclusions, I realize that the critical reading of the lessons of past wars is one of the most fruitful means of seriously preparing for future conflict. I do agree with he who said that what we learn from history is that we do not learn from history. I am certain that this rather hackneyed quote applies to this nation as a whole. It is up to us to ensure that it applies less so to the Royal Australian Infantry Corps.

Figure 6 will assist us in looking at Infantry through the ages. It shows that this presentation is wide ranging if nothing else, stretching as it does from 600 BC to the year AD 2000. It illustrates that over the centuries, infantry has been alternately glorified and maligned, and that its growth has been spasmodic rather than continuous. But it also gives hope.

The graph begins at the bottom left hand corner of the figure at a low point for infantry in the times of the Assyrian Empire when foot soldiers were subordinate to charioteers and, in fact, I believe that combat was often waged on an individual basis of king versus king. The first significant rise in infantry fortunes came with the rise in the status of the common man in the Greek democratic state, and is illustrated by the use of the disciplined phalanx at the battles of Marathon and Leuctra. Still on the way up towards the first peak, Alexander the Great could be said to have been one of the first combined arms commanders when he gave the phalanx the pike, and used it as a base for manœuvre of lighter more mobile infantry and cavalry. At the top of the first peak, Caesar and the battle of Pharsalia proved that thoroughly trained and confident infantry could defeat a superior mounted force and led to 400 years of infantry dominance. This heyday for infantry was ended by the battle of Adrianople, half way down the first decline, where cavalry slew the Roman infantry and signified the fall of the Western Roman empire, precipitating a decline in the fortunes of infantry which lasted for a thousand years.

During the Dark Ages, cavalry reigned supreme with the Battle of Hastings, at the low point in the centre of the figure, completing the triumph of cavalry over infantry. Things looked up with the battles of Morgarten and Bannockburn, where infantry was able to rout cavalry, and the battles of Crecy, Poitiers and
Agincourt, where the infantry longbow destroyed the mounted flower of French chivalry. Continuing upwards, by 1600 the Spanish had managed to combine the mobility of archers and the protection of pikemen and thus used their infantry to dominate Europe. The socket bayonet and Frederick the Great demonstrated how drill and discipline could transform infantry into an automaton of manoeuvrability and firepower. But ironically the potency of this firepower served to lessen the efficiency of closely ordered ranks, and dispersal tactics began to be used, as illustrated by the American Revolution. At the top of the second peak, Napoleon was initially a great user of infantry, in both closely ordered ranks and as skirmishers, but as his losses in infantry increased he began to rely more heavily on his horse and artillery — a common reaction to low standard infantry.

World War One is an obvious low point on the right hand side of the figure. Probably the most apt comment on the fate of infantry in that war was made by Maj Gen F.S. Tusker, a British Officer who commanded an Indian Division in the Second World War. He speaks about the "Cannon Fodder Spiral", and I quote from a recent Combat Arms Magazine:

"The descent starts with inept or insufficient training, continues with heavy casualties born thereof, is accelerated by the large unsuitably trained drafts sent out in a hurry, is then thrust on downward at greater speed by a new low standard of planning designed to fit the low standard of skill of the infantry, then goes headlong downwards from the resulting enormous casualties and the inability to fill up with anything like trained men. And it all started with the inept training of officers and men usually trained for the last war or the last battle."

The lessons in the "cannon fodder spiral", for a country such as ours with a minimal core force concept and the inevitability of expansion, if not all out mobilization, must be acknowledged.

But following this third low point in the prospects of infantry, things have, and are, looking up. In the period between World War Two and The Falklands war, the foot soldier has gradually become more modern, mobile and mechanized. And the prospects for infantry world wide continue to improve. It may be of interest to note that a page two article in the Washington Post in 1983 pointed out that in a US heavy division of 18,000 men, there are only 1000 bayonets. Someone is quoted in the article as saying; "My biggest complaint about the Army's 16 active divisions is the lack of dismounted infantry strength." The current US light division has 2700 bayonets, but the proposed light division of nine to 12,000 men is expected to have four to five thousand troops able to be dismounted and to fight on foot. The prospects for infantry, in the home of the high technology answer, are good. There is a five year plan in train to form five such light divisions, a process described as being the most significant restructuring endeavour in the US Army in the last three decades.

But apart from the cyclical nature of the development of infantry, and the fact that the world cycle is definitely on the upswing, the thing that strikes me about infantry over the years is not the differences, but the similarities. An example of this is that during Napoleonic times, marching armies were able to cover as much as 15 miles per day for two to three weeks on end. Few Allied armies in World War Two were able to sustain a faster rate of advance in the face of roughly equivalent opposition. Certainly Patton's Third Army after the Normandy breakout, was able to average only 15 miles a day. And, would you believe it, the speed of Roman Forces, even on their great roads, was only 15 miles per day. In looking for further similarities, it is an enlightening exercise to sit down and compare the structure of Commonwealth infantry battalions during the Second World War with our own standard infantry battalion today. Many an old Digger would feel quite at home in today's modern army. And just to conclusively prove that there are consistent themes throughout the history of war, let me remind you of those famous words of that "visionary", Field Marshal Haig, when faced with the inevitability of change. "There will always be a place for the horse in war", he predicted, "especially the well-bred horse."

**Technology**

Field Marshal Haig, who presided over the demise of infantry in the "cannon fodder spiral", had his own reaction to the rapid changes that were occurring around him. Warfare does
evolve and we must be ready to evolve with it. Barry Jones tells us that the greatest force for change in our society is technology, and certainly technology is changing the face of battle and a frightening rate. In that infantry classic, *Men Against Fire*, S.L.A. Marshall points out that there has been a tendency to magnify the role of the machine in war while minimizing the importance of large forces of well trained foot soldiers. Technological solutions, and the somewhat related pursuit of a high standard of living both on and off the battlefield, are decidedly Anglo-Saxon preferences. From infantry's point of view there are two types of technology. The first type of technology provides ice-cream to the troops in the field and invites people to believe that a war can be won by aeroplanes. The second type of technology is that which gives the infantry more hitting power.

The Army Development Guide lists the effects which technology is likely to have on the field army and offers three bits of general advice. First, forces should be structured so as to be capable of deploying into small, mobile and well equipped elements. Secondly, forces should possess considerable firepower with the ability to engage targets before they can close with our troops. And, thirdly, forces should operate well dispersed, but have the ability to concentrate rapidly if required. What the Army Development Guide is talking about here is firepower, area control, mobility and dispersion. Figures 9 and 10 illustrate the effect of technology in those areas. You will see that the horizontal axis on each graph measures time from 1860 to the year 2000. The vertical axis shows something different in each case, and, please note, it is displayed on a logarithmic scale.

First (Figure 7), firepower. The bars on this chart show the pounds of projectiles that a division could hurl at an enemy in the course of an hour, all guns firing maximum rate, for each soldier involved. The trend shown here is certainly true of the infantry element of such a division. Infantry small arms are becoming lighter, firing smaller calibre bullets with very high velocity and a high rate of fire. Although these weapons do not have the range of older
types, they have great wounding power at the shorter infantry relevant ranges. But the range of infantry weapons in general is being extended with the advent of specialized "bunker busting" weapons, bullet trap grenades, grenade launchers, mortars and air defence weapons.

Whilst talking about firepower, an occurrence of some interest to infantry is the development of the anti-tank guided missile. For years tanks have been the prime anti-armour weapon and our doctrine still speaks of them as such. This was for the simple reason, that for a long time they were the only anti-armour weapon around. With the development of the anti-tank guided missile we see infantry technically capable of defeating tanks. I spoke before about the "essence of infantry". The cavalry defeating machine gun projected the concentrated essence of infantry in World War One, and it seems that the anti-tank guided missile has the ability to do a similar thing as this century draws to a close. Infantry the world over has been reinvigorated with a power to hit harder and further than ever before. Even Australia has been up with this trend with the recent purchase of MILAN. It would be rather parochial of me to express surprise that the first unit to become operational with this magnificent infantry weapon is in the Royal Australian Armoured Corps. But more importantly, the anti-tank guided missile is an element in our doctrine and we are required to use it in our theoretical tactics.

So much for firepower. (Figure 8) shows the amount of area that a battalion of 6-800 people has, and is, expected to control. It is even less precise than the previous graph, but shows that this area has increased tremendously remembering the logarithmic scale.

I merely introduce that graph because the next one (Figure 9) is a mixture of the firepower bars and the area control line, and, in fact, shows mobility. You will notice that the increase in firepower does not keep pace with the extension of the area of control, which reflects two things, the superior mobility means the availability (tracked and wheeled vehicles, helicopters) and the efficiency of modern ordnance.
you do not need to project as much weight of ordnance for greater lethality, given more efficient and smart weaponry.

Well, that is the trend of mobility, now here is what I believe is the reality. True mobility is not related to speed or to machines, but to the ability to "... stand against fire and to deliver it." While mother earth will continue to be the foot soldiers’ best friend, the armoured vehicle if properly used, will greatly increase the general mobility and overall security of the infantry. Remember, armoured vehicles only confer increased mobility on infantry on ground that is suited to armoured vehicles. The beauty of armoured personnel carriers is, however, that they most definitely limit the likelihood of infantry being killed off-handedly by shelling and air attack. Specialized mechanized infantry combat vehicles are entering service throughout the world, yet even in the case of the Bradley, where the option of remaining mounted to fight exists, it is envisaged that, in the vast majority of cases, infantry will fight dismounted. It is ironic that the substantial capabilities of the Bradley to hit hard targets out to 2000m, has sparked off a controversy on its use within the US Army. The argument now goes that having designed such a magnificent infantry combat vehicle, to use it in close proximity to its dismounted infantry is a waste. Rather it should be used as a light tank.

So even Bradley-mounted mechanized infantry may find themselves spending considerably longer on their feet in close proximity to the enemy than they bargained for. And this brings me to my next point: That the advent of all this machine conferred mobility for the humble infantryman has not decreased by a single pound the weight an individual infantryman is compelled to carry on his back. Numerous studies have shown that the ideal weight for a soldier’s load should be no more than 30 per cent of his body weight, and that his heaviest load should not exceed 45 per cent. For the 50th percentile soldier, with a body weight of 160 lbs, these figures amount to 48 lbs and 72 lbs respectively. However, based on current equipment in service and three days rations, US studies indicated...
PROSPECT FOR INFANTRY

TECHNOLOGY TRENDS

DISPERSION

Figure 10.

TECHNOLOGY TRENDS
INFANTRY

Figure 11.
that the average infantryman’s load in a temperate climate could be as high as 118.2 pounds, that is of course in an NBCD environment. In an army such as ours, with its low level of mechanization and a reliance on mounted or dismounted operations, we need to maintain the ability to march long distances with heavy loads. Now that the link, suggested by S.L.A. Marshal in *The Soldier’s Load and the Mobility of a Nation*, has been made between fear and fatigue, the carrying of such heavy weights on long marches should be considered training for the approach to battle only. The 85 mile “Yomp” of 45 Commando across The Falklands is an example of this type of operation. Because of this link between fear and fatigue, once the soldier is committed to battle, ruthless efforts must be made to ensure he is not overloaded. And the logistic system must adapt to this.

The last effect of technology on infantry forces is shown on Figure 10, and is dispersion. This line shows the amount of the forward edge of the battle area that the division is responsible for in normal disposition, and computes a measure of men per-kilometre. You can see that technology has multiplied the ability of each soldier on the battlefield and, as a result, the density of men on the battlefield has dropped dramatically. This again is only a trend indication. Perhaps these figures will make more sense — in 1800 it took roughly 20,000 men to hold one mile of front, today it takes about 1000.

You have every right at this stage to ask “So what” (Figure 11). I think that it is logical to expect that the trends indicated on these charts will continue for the foreseeable future, making manoeuvre over ground swept by modern firepower useless, making flanks of an enemy more attractive, reminding us that obscurity is an antidote to modern weaponry, and reinforcing what Liddell-Hart said, that the way to success in wars is strategically along the line of least expectation, and tactically along the line of least resistance.

The prospects for infantry, then, as a result of all these factors, is that armies, and our army in particular, must be inculcated with a sense of manoeuvre. To facilitate this, any organization from section to army group, must be structured in at least three groups, in Liddell-Hart’s “guarding”, “hitting” and “moving”. Or to modernize the terms perhaps, “suppression”, “assault” and “exploitation”.

Manoeuvre, on foot or through mechanization, must occur at every level in both attack and defence. In attack, I believe that manoeuvre should primarily take the form of the infiltration attack. The aim of all our tactical training should be to achieve this most difficult form of infantry operation with the largest infantry formations available. The conditions we should set ourselves in the ARTEP we should write, is that the infiltration attack should be by a division by day or by night, with or without artillery, tank and air support. What an infiltration attack, or “soft spot tactics” or “expanding torrent”, is, is aggressive patrolling and skirmishing by a whole division, seeping into the enemy, and expanding within its position. I believe that there is not one of the more aggressive skills of infantry groups and individuals that would not be practised in such an exercise.

What this particular prospect for infantry means for the Army is that the quality of initiative in every individual must become the most praised of all the military virtues. What it means for the trainers is that the traditional infantry skills such as weapon handling, movement, navigation, camouflage and controlled aggression, must be maintained at a commensurately high standard. What it means for commanders is that they must trust their subordinates to carry out their mission according to what the Germans for years have called AUFTRAGTACTIC, or mission oriented orders. And what it means for Government is that the Army must be provided with adequate resources to train for such operations. I believe that any infantry army, like our own, that can carry out an infiltration attack at divisional level, can do anything.

And not only manoeuvre in attack but also in defence. Our doctrine allows us a number of forms of defensive manoeuvre and that is as it should be. But because of our loco-mobility, we infantry must practice manoeuvre in what we now call area defence. In any war involving forces of an average level of sophistication, a detected section position will be a destroyed section position. We must offer our section and platoon commanders a zone of defence in which they can manoeuvre once they are detected. This can be compared with a situa-
tion where every section is, in effect, a standing or a fighting patrol in front of its own positions. We would then need to provide infantry trained in this manner with the technological aids required to develop such a position. The provision of such aids is a small price to pay because the alternative, on the battlefield of the future, will be total destruction. I mean, if Australian technology and industry can produce fuel-air explosive, anybody can!

Social Issues
One of the characteristics I mentioned earlier in relation to infantry, is that it is manpower intensive. Certainly by the time this country faces a substantial conflict some degree of expansion or mobilization of the armed forces will have occurred. The armed forces will then come to reflect much more strongly the then-current values of Australian society, and infantry even more so than other arms and services. In considering the future prospects for infantry and the society which produces that infantry, we must ask ourselves two questions. First, can a lean and hard marching infantryman “... spring fully armed and ready?...” from a society used to high standards of living. Second, can he spring fully armed and ready from a force-in-being which is elsewhere rolling in fat? Perhaps for the Australian Army there are benefits for the low state of funding which seems to be our lot. We in the force-in-being do not develop much fat nowadays.

One of the most heated debates occurring in our society is on education; its cost, standards and philosophical bias. Education teaches people how to think critically, but I do not know if our current education system does so. If it does not, or does so to a lesser degree than more traditional forms of performance oriented educational systems, infantry in the future will have a particular problem. Dixon, in his Psychology of Military Incompetence, tells us that the best military leader is the outspoken individualist. I seem to see each night on television outspoken individuals, although I suspect that what many of them are is not individualists, but the mouthpieces of “group think”. And “group think” is the last thing that our army needs. Good ideas do not come from groups — they come from well informed intelligent individuals who make decisions after taking all possible advice. So we can only hope that the educational system of our society teaches how to think, because that is the only way to prepare for the unexpectedness of war. I spoke before about the need for initiative at all levels. To illustrate this, let me quote from a review of a book on the German General Staff: “Anyone who has had dealings with the present German Forces will know how unpompous the inter-rank relationships are. The music hall image of a stiff necked unthinking German soldier seems more than unusually unkind to an organization that, for more than a century, has actively guided its officers to remember the statement made by Prince Frederick Charles to a blundering major, “His Majesty made you a major because he believed you would know when not to obey his orders.” A study of ineffective soldiers in the US Army in World War Two determined that of all factors reviewed, “an adequate education emerged as the overriding prerequisite for effective performance in military service”. That group in society least likely to break “… consisted of white single men below 22 with some college education, who had a clerical job”. I am sure that Australian Clerical Officers Association would be happy to hear that. It gives the term “an army of bureaucrats” a new meaning.

So assuming we get this young, white, educated, critical thinking, intelligent, fully-paid-up-member-of-the-ACOA into the infantry of the future, will he fight? More importantly, will he fight well? While we are looking at social issues it is worth looking at what will make the infantrymen fight well, for if he does not the prospects for infantry are bleak indeed. Gen. Tusker, whom I quoted previously, tells us that there are two things which decide fighting spirit: the idea that what is being fought for is worth dying for; and the possession of absolute confidence in skill-at-arms. Let us look at each of these important determinants of the prospects for infantry.

Human Nature
It is awfully convenient for us as infantry leaders if the enemy we happen to be fighting is of the thoroughly evil type, and eager young recruits are beating a path to our door. A large amount of the necessary motivation is provided for us, and gives us a base on which we can build real fighting spirit. Unfortunately Governments do not always involve their armies in
such wars and the support of society, or even a large part of society, is, as often as not, a luxury. In such circumstances we must provide the individual with another focus for his loyalty and that becomes the primary military group — the section, platoon, company, battalion or regiment. It is not too difficult to work out why 600 members of 2 Para were able to defeat about 2000 dug-in defenders at Goose Green without massive external support. Unfortunately, if circumstances do not provide the higher cause, loyalty to the primary group may not fully cover the gap in motivation. You can put a civilian in uniform and make him fight, but you cannot necessarily make him fight well.

What we should be able to provide our soldiers with in absolute confidence is a high standard of skill-at-arms. There are three aspects to this: the skills themselves, the equipment required and the training necessary. The skills exist in the Regular and Reserve Army, in the doctrine which has been developed over a long period and in the hands and minds of individuals. We all know that it is not an easy task to maintain those skills at a high level. Those skills need equipment, and most commentators seem to have doubts about this nation’s ability to provide even basic equipment to an expanding army within predicted warning times. Finally, to increase the favourable prospects for infantry, we need to be developing the means to train a rapidly expanding army in as short a period of time as possible. The consequence of not doing this, for infantry in particular, is the “cannon fodder spiral”.

It has been realized for a long time that mateship is an infantry principle of war. S.L.A. Marshal tells us again that “... the thing which enables an infantry soldier to keep going with his weapon is the near presence, or presumed presence, of a comrade”. We have spoken in depth about the decentralization of tactical doctrine and the individual characteristics which this calls for. For the infantry soldier, the major lesson of World War Two minor tactics was “... the overpowering effect of relatively small amounts of fire when delivered from the right ground at the right hour”. Battles are fought essentially by platoons and sections, both of which possess “relatively small amounts of fire”. These are the primary groupings for an infantryman. Good sections make good platoons, companies and battalions, and it follows that the section commander should be a prime focus for our examination of the prospects for infantry. This is because the overall operational effectiveness of the infantry arm is determined by its smallest units and their leaders. I have mentioned what I consider should be the aim of our collective tactical training, that is, the infiltration attack. At the other end of the scale, given that we can shoot and communicate, the aim of our individual tactical training should be to move alone and undetected, at night, using map and compass, over a significant distance. As I said at the divisional level, if you can do that you can do anything.

“Fire Habit”

The only other observation I wish to make in the field of small unit or individual training concerns what has come to be known as the “fire habit”. Although the principle of domination by fire is acknowledged in our doctrine, the traditional forms of individual fire training I have seen tend to lead to unnecessary fire discipline. I see a great difference between marksmanship and the “fire habit”. Every infantryman must be trained to hit a target at an appropriate range and, I suppose, that we do that as well as any other army. But Rommel was not speaking about marksmanship when he said that “... to plaster ... opponents with fire” ... was to gain a moral victory which was half the battle. He was speaking about the “fire habit”. Studies prompted by the discovery that only 25 per cent of US infantrymen in combat in World War Two were willfully using their weapons against the enemy, have concluded that “... the act of willingly firing upon the enemy should be recognized as an instance of high initiative on the battlefield, and not simply as a natural derivative of sound training”. What I am saying is that we should train for the “fire habit”. A person who has the “fire habit” can be later controlled, can be taught to fire accurately, can be taught the principles of fire and as a consequence will be able to move to give his fire effect. Perhaps we should not stress fire discipline in the early stages of training otherwise we may find ourselves in combat faced not with the problem of controlling fire, but of getting it started. I make this point particularly about an expanding army where training time will be short and standards low. Given the comparatively extensive training
of our troops for Vietnam, the problems of getting fire started was I believe not so marked.

However, to be realistic, I still find myself asking how can you do all this in the Australian Army in 1985, when sections have four or five members, when companies have two platoons and battalions have three companies? Where does your inherent cohesion at section and platoon level come from, how do we get the mutual professional interdependence essential for small unit operations? I cannot answer that question for the force-in-being, but can only hope that, with all of us knowing the importance of developing it, it will rank high in our priorities in an expanded army.

The Challenge of Expansion

I have remained purposely geographically vague in my discussion of those factors which pertain to the prospects for infantry. Australia faces a unique set of strategic circumstances and is in the unusual position of claiming to have no identifiable threat in the foreseeable future. It becomes difficult enough to decide on a force structure for the Australian Army today, much less say what the shape of the Army is likely to be in the future.

Australia has a fine infantry tradition which now stretches back 100 years. In World War One Australia sent six and a half infantry divisions overseas and from their results they were obviously well trained for the particular task in hand, and extremely well led. In April 1942 Australia was fielding seven infantry, two motor and one armoured division in Australia, and three divisions overseas — the equivalent of 14 divisions from a population of 7.2 million. At any one time during World War Two there were approximately 475,000 Australians in the AMF, or 7 per cent of the total population.

At various times in this article, I have mentioned an expanded Army, acknowledging the fact that the force-in-being, consisting as it does of a reserve and a regular component, is suitable to handle only a low level conflict, and even that with reservations. We Australian infantrymen had better get used to the idea of expansion and mobilization, from a limited expansion of the type we face for Vietnam, to general mobilization such as in World War Two. Australian infantry have had all the right characteristics throughout their history and our battle honours testify to this fact. But one character-

istic which we have rarely had, is mass. An analysis of the Normandy campaign, for example, shows that at the point of decision you need five to one to give yourself a fair chance of success. The Army Development Guide, as a basis for force structure for medium level conflict, uses six to one. Based on World War Two figures Australia could man and support (for a short period only) about 19 divisional size units in 1985, and 24 by the year 2000. God help us if we ever have to, because the consequence of such expansion seems to be a proportional drop in standard, and the price we may pay is to embark on the "cannon fodder spiral". The only prospect for infantry that would be bright in such circumstance would be promotion for those left out of battle!

Over the last couple of years I have been involved, on and off, in a more realistic study of the expansion of the Australian Army. It concerned computer modelling an expansion of the Army from our current strength to a battleworthy 250,000 men in four years.

It is possible to expand the Army from its current size to a battleworthy 250,000 in 48 months. But we infantrymen all know that the size of an Army has never been a measure of its effectiveness and in considering the prospects for infantry, I wish to make two points. The first concerns the rate of expansion, and the second concerns experience levels.

From our current strength to 250,000 men in four years is not, by historical standards, a rapid expansion. Based on the assumption that a divisional slice in 57,000 (that is the total number of men in the Army divided by the number of divisional equivalent units), and that the ARA and the Army Reserve currently partially man two infantry divisions, then the manpower is available to fully man those two divisional structures and supporting troops in the AO and the support area, by month 16. New units will then have to be brought onto the ORBAT over the balance of the 48 months at the rate of a brigade equivalent, including its share of Corps troops and support area troops, every four months. I am sure that all of us here know what a strain on personnel it would be to fill up our divisional structures, much less form a new brigade every four months.

The last point concerns experience levels. The increase in Army size, especially with a two
year conscription period, will occur mainly in the ranks of private soldier and subaltern. For example, by month 24 81,000 personnel in the Army will have served for 18 months or less. Of that number possibly 2,000 may be newly commissioned conscript officers. It is obvious that a severe shortage of senior NCO and middle level officers will occur, part of which may be overcome through accelerated promotion. In the expansion for Vietnam, the Army increased from 23,500 to 42,500 in 24 months, an increase of 78 per cent. The Farrands/Hassett Report found that between 1966 and 1972, undermanning in units was considerable, indicating that this was preferable to further dilution of experience. In the example we are considering, in the same 24 months period as the Vietnam expansion, our example expansion increases the size of the Army 150 per cent — twice that of the Vietnam expansion and we still have 2 years of expansion to go. The Vietnam experience also indicated that the maximum number of two year conscripts in the Army can go as high as 65 per cent without seriously affecting efficiency. Our expansion rate reaches this critical level in month 14 of the 48 month period. What price the prospect for Australian infantry then! I am afraid that I cannot imagine that in the short term, and by that I mean the first ten years of possessing an army of 250,000, our expanded army will have skill levels higher than we now possess in the force-in-being. The implication for us all, but especially for the Army Reserve who according to the little red book Army in the 80's, form the bulk of the expansion base, is that we must strive to ensure that our personal skill levels and professional competence is as high now as it possibly can be.

The Threat

I wish to finish by outlining what I believe to be the two greatest threats currently directed towards Australian Infantry. The first is the parsimonious attitude of society as expressed by the government of the day. This is embodied in the consistent undermanning of infantry units and training organizations, and the lack of resources of suitable training areas, large calibre ammunition and funds for the movement to, and conduct of, exercises. The second threat is not so obvious, is again related to money but is more dangerous. It is the belief in certain influential areas of Defence Central, that the only role for the Army is to guard air and naval bases, thus allowing the next war to be won in the air and on the sea. The guarding of such bases is, in fact, a legitimate task for infantry forces. However, its corollary becomes that, if that is the only task for infantry, then that is how they should be trained and equipped. I watch with interest the current civilian/academic review of the Armed Forces.

Conclusion

I mentioned at the beginning of the article that I will attempt to answer the question: what will be the nature of infantry in the future? Let me answer by saying: “it all depends on the situation”. The nature of infantry is reactive to circumstance. The nature of Australian infantry will be particularly reactive to our strategic circumstances. If our strategic environment remains benign, then the only changes to Australian infantry will be marginal. However, I do not believe that the current structure of the Australian Army is suitable for our current strategic circumstances and studies being carried out as part of the Army Development Guide, may over a long period, produce a more appropriately structured force-in-being. So until our strategic circumstances change, the nature of Australian infantry will change only marginally from what we all know. There will be redefined roles and tasks, and state of the art equipment buys, I am sure. Should a highly mechanized threat evolve in our region, given time and resources, Australian infantry will change accordingly.

However, I underpinned this presentation with the assumption that infantry, whatever its nature, is an enduring theme in war, because its inherent loco-mobility enables infantry to close with and kill the enemy. Technology enables both the closing with, and the killing, to be carried out more efficiently. To maximize the benefits of technology infantry must be imbued with a sense of manœuvre both in attack and in defence. Because of the particular psychological requirements involved in closing with and killing an enemy, motivation, force structure and tactics must be consistent with human nature. The unpredictability of the battlefield, where this closing with and killing takes place, requires a thinking soldier, and education can contribute to this. The challenge posed for all of us in preparing an expanded army to
close with and kill the enemy, requires the development of the highest levels of professional competence now.

That I believe, is the prospect for infantry. The undermanning which I mentioned, and which I am sure both Regular and Reserve soldiers are familiar with, works against the leisurely intellectual consideration of questions such as the prospect for infantry. It is an essential part of infantry soldiering to look at the lessons of history, to define where we are now and to attempt to predict where we are likely to go.

This article was written by LtCol Molan in 1985 and as such is ‘Pre-Dibb’. Most sources are acknowledged in the test but because of the presentational style of the article, detailed sources are not listed. — Editor.

LtCol Molan joined the Army in 1968 and was allocated to Infantry in 1971. Since that time he has served in the normal range of Infantry postings in IPIR, 9RQR and 3RAR, as well as a posting to the Infantry Centre as Senior Instructor, Careers Wing. His other postings have been as a helicopter pilot with 1Air Regt., a student of Indonesian at RAAF School of Languages, a staff officer in the Directorate of Combat Development (Operations Branch) and Command and Staff College. He holds Bachelor degrees in Arts (Uni. NSW) and Economics (QLD Uni). Lt Col Molan is currently SOI Pay and Allowances DSC-A (Personnel Branch).

Army Reserve and Regular soldiers of NORTHFORCE patrol a Northern Territory waterway.
Command And Control

By Air Commodore N. F. Ashworth, RAAF

Over the years the term "command and control" has been expanded to cover an increasing range of matters. The term had its origins in the Second World War where it was used to cover a set of procedures related to the control of joint and combined operations. Since then it has acquired additional meaning, gathering into its fold such things as communications, computers and intelligence, and grandiose titles like C3I.

Today, command and control can be used to cover the whole range of matters related to the control of combat operations, or it can be used in its narrower sense covering only the exercise of command authority in the joint or combined service setting. In whatever sense it is used it has taken on a certain mystique that tends to confuse the practitioner and theoretician alike.

This article is concerned with command and control as an aspect of the broader subject of command. As such it is a follow on from an article on "Command" which appeared in the July/August 1986 edition of the Defence Force Journal.

In the sense that it is used in this article, command and control is but a subset of command.

Stripped of its mystique, and leaving aside for the moment its particular military terminology, what command and control is all about is the exercise of command across organizational boundaries. Command, in turn "is the authority granted to a member of a military service to issue orders to a subordinate in the execution of his military duty". Thus command and control, in essence, deals with the means whereby a member of one organization can give orders to a member of another organization, and have those orders obeyed.

When applied to a single organization the concept of command is straightforward. Here both superior and subordinate are in the same organization and subject to a common source of authority and responsibility. However, when applied across organizational boundaries the concept of command is in need of elaboration.

For the purist, and there are many among us, command authority cannot flow from one organization to another. Here the view is that command authority is derived from the hierarchy of the organization and is confined to that organization. Also, while a person is a member of an organization his responsibilities lie with that organization first and foremost. He cannot have any responsibility to an organization of which he is not a member. Further, hand in hand with command authority must go the ability to ensure obedience through the application of sanctions. Without sanctions orders can be issued by a member of another organization but need not be obeyed by subordinates who are not subject to that organization's sanctions. Nor can the authority to apply sanctions be transferred from one organization to another.

Yet another objection to the exercise of command across organizational boundaries is that to do so would place a subordinate under the dual, and simultaneous, authority of his own and another organization. This, it is argued, goes against one of the inviolate principles of leadership, that of unity of command. No man can serve two masters.

While the exercise of command across organizational boundaries may not be as simple as within an organization, its exercise in such circumstances is neither impossible nor unduly difficult. Furthermore, in today's complex organizational environment such a device is essential to success in organizational endeavour, particularly in regard to military combat operations.

In dealing with the exercise of command across organizational boundaries two cases can be considered. These are: related organizations, and independent organizations.

The term "joint" in relation to military operations refers to an operation involving forces from two or more Services from the same country. These Services are related organizations in that, although they have a separate identity, they have a common source of command authority. In the case of the Australian Services, they are each part of the Australian Defence Force and are subject to the common authority of the Governor-General as Commander-in-Chief, and the Chief of the Defence Force.
In the case of related organizations, the exercise of command authority across organizational boundaries is conceptually quite simple and straightforward. All that is required is for the common superior authority to, in effect, issue an order requiring that certain members of one subordinate organization accept the command authority of, ie, obey orders given by, a member or members of another, also subordinate, organization. In practice, such authority is normally limited in scope and time.

With the transfer of command authority must go a transfer of responsibility. This also is conceptually simple in that the common superior authority has responsibility for both organizations. Thus he is able to transfer responsibility from one to the other while still retaining his own responsibility for the matters subject to transfer.

The term “combined” in relation to military operations refers to an operation involving forces from two or more Services of the same arm from different countries. These Services are independent organizations. Being from different, independent countries they have no common source of command authority.

In the case of independent organizations the full exercise of command authority across organizational boundaries is, from a theoretical point of view, impossible. While the transfer of authority from one independent organization to another may be possible, the transfer of responsibility is not. The head of one organization can, as can the common superior authority of related organizations, issue an order requiring that certain members of his organization accept the command authority of a member of another, independent organization. However, what he cannot do is transfer responsibility. Responsibility cannot be given away, it can only be taken away by some superior authority.

In practice what must take place in the combined, or independent, organization situation is for the ultimate source of command authority to retain the ultimate responsibility for the actions resulting from the transfer of command authority, even though that authority is being exercised by some other, independent person or body. In the case of most military Services, the ultimate source of command authority is the national Head of State. In Australia’s case, this could be translated, in line with political practice, to mean, in effect, the Federal Government.

The contention that command authority cannot be split, that each man can have only one commander, is incorrect. Normal command within the military covers a wide range of functions. When command is split what is done is to split functions, with a subordinate being responsible to one superior for one set of functions and to another for the remaining functions. While such a split may not be an ideal way to manage an organization, it is in many circumstances the only practical means of dealing with the complexities that are part and parcel of modern military activities.

At the heart of the command concepts developed to deal with joint or combined operations is the idea of giving to the joint or combined operational commander only such authority as is essential to the conduct of the operational task, while leaving matters of single Service or national concern to the normal Service or national chain of command. Further, with the normal separation that is possible between operational, or combat, activities and their in-depth administrative or logistic support, it is also normal to exclude any transfer of command authority over administrative or logistic matters. Thus the concept for the transfer of command authority in joint or combined operations is to do so only in relation to a limited range of functions that relate directly to the conduct of combat operations.

Command and control procedures in the military are based on three basic definitions, which for the Australian Defence Force are set out in JSP (AS) 1(A) — Joint Operations Doctrine, Chapter 7. These definitions are:

**Full Command** — is the military authority and responsibility of a superior officer to issue orders to subordinates. It covers every aspect of military operations and exists only within national Services. The term ‘command’ as it is used internationally implies a lesser degree of authority than when it is used in a purely national sense. It follows that no international commander has full command over forces that are assigned to him.

**Operational Command** — is the authority granted to a commander to assign missions or tasks to subordinate commanders, to de-
ploy units, to reassign forces and to retain or delegate operational and/or tactical control as may be necessary. It does not of itself include responsibility for administration or logistics.

Operational Control — is the authority granted to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time or location; to deploy units concerned and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of units concerned. Neither does it include administrative or logistic control.

In explaining the general principles of command and control, JSP (AS) 1(A) speaks of "degrees of authority". Command authority cannot exist in degrees with one type of command having in some sense a greater, or lesser, degree of authority than another. Where the three types of command authority differ is in scope, in the range of functions that they cover.

In part, the misunderstanding as to degrees of authority comes from the terminology used. To some, operational control is not a form of command having in some sense a greater, or lesser, degree of authority than another. Where the three types of command authority differ is in scope, in the range of functions that they cover.

"Command and Control" is a composite term covering a single concept. It is not two separate terms "command" and "control" with the latter being a lesser form of the former. An alternative to "command and control" could be "command, as it relates in particular to joint and combined operations".

The transfer of command authority across organizational boundaries does have, as well as some conceptual difficulties, a set of attitudinal difficulties related to status, perceived responsibilities, and organizational loyalties and prejudices. Military commanders are traditionally loath to give up authority over forces under their command, for whom they believe they have a particular and continuous responsibility. This is especially the case when the transfer is, as is normal, to a commander from another Service. While such difficulties are not insurmountable, their existence needs to be acknowledged and taken into account when inter-Service transfer of command authority is being considered.

While command and control concepts are used in the main in relation to joint and combined operations, there is no reason why they cannot be used in single Service situations as well. Any situation where command authority needs to be split, be it in the operational or the administrative arena, the concepts outlined in this article can be applied, even though in some cases the terminology should be changed to fit the circumstances. Thus, for example, the terms functional command and functional control could well be used as a more general translation of their more specific operational counterparts, operational command and operational control.

Command and Control is undisputedly of vital concern to the military. It is just a pity that the term is used so loosely to cover such a wide and diverse range of concepts, ideas and activities. In so far as it is used in relation to the assignment of command authority in joint and combined operations, the concepts are simple enough. Here command and control is merely a subset of command, which in turn is concerned with the issue and obedience of orders and the allocation of authority and responsibility related to this most basic of military activities.
The Efficient Use Of Aircrew Resources In The RAAF and RAAFAR

By Flight Lieutenant D. C. Brown, RAAF (RES).

Introduction

"It is proposed that the formation of an air force reserve be undertaken at the earliest opportunity — the importance of building up as large a reserve as possible cannot be over estimated. It is hoped that the growth of civil aviation will provide a source, from which valuable personnel may be obtained, and from which a reserve can be formed, which will be of incalculable benefit to the air force in case of emergency."

The above quotation was taken from These are the Facts, the autobiography of Air Marshall Sir Richard Williams, the founding father of the Royal Australian Air Force.

The Position Today

G.D. officers must retire at relatively young ages in the Permanent Air Force, and the recently introduced pilot scheme for G.D. members of the RAAFAR uses the same age criteria. The purpose of the present policy seems to be career path planning, and recruitment and personnel policy, rather than flight safety or operational policy.

This policy can be seen to be expensive and wasteful of the most valuable resource in the service:— qualified manpower. The present high cost of training pilots would suggest that the most cost-effective use of the money spent to produce operational pilots and aircrew, would be to fly them operationally as long as possible. Whatever rank they attain they should be encouraged to remain in the service as long as they are fit and competent to fly.

It would be an apparent waste of money to employ a highly trained and qualified pilot in a non-operational administrative role. For example, the likely (and observed) result of pilot postings to low priority administrative positions is that such pilots will exercise their earliest option to resign or retire, once they perceive their flying days to be over.

The resignation rate for RAAF pilots and flight engineers is directly linked to the demand for such people in civil aviation. The major reason of this is the desire of aircrew to continue to fly and exercise their particular skills as long as possible. In my experience, few officers join the RAAF in order to qualify themselves for civil aviation flying jobs later in life. Rather, they resign and take opportunities in civil flying, because they perceive their flying days are numbered in the RAAF. Should they wait until they are retired, they would be too old for entry into an airline.

The Problems

The problems are two fold:

- The service is losing pilots and aircrew to civil aviation, and the normal career path denies pilots the opportunity to do what they do best.
- The service is faced with ever rising costs to replace the aviators lost as above.

Conclusions

It is likely that the aircrew attrition rate would be lessened if aircrew could expect to fly on as long as their civilian counterparts. As an example, a Boeing 707 captain in the RAAF, were he a squadron leader would retire at age 45, and never fly a 707 again. He knows his civilian counterpart, flying say, Boeing 747, could expect to fly on to age 57. Obviously these retirement ages are considered safe for civilian flying, and it follows that there is no safety argument for terminating the Squadron Leader’s flying career.

Once we acknowledge that retirement ages for RAAF aircrew are not based realistically on fitness or flight safety, a solution to the twin problems of attrition and replacement would appear obvious.

Recommendations

The RAAF should institute a new branch commission of specialist aircrew, along the lines
already successfully adopted by the RAF some years ago. Under that scheme, officers at the 38/16 point, may opt to forgo their long-term career prospects in order to continue flying up to ultimate retiring age, depending on Aircrew fitness. Fighter pilots in their late forties are not uncommon, and flying instructors in their fifties have performed admirable service for the RAF in recent years. Even when these men are too old for front line squadrons, the RAF still makes good use of their formidable skills and experience.

Additionally, or even alternatively, the specialist aircrew branch should be instituted for the RAAFAR. Pilots, recently separated from the RAAF, or pilots who have flown comparable equipment, should be encouraged to join the RAAFAR as pilots, provided they are in current flying practice in airline service or general aviation. This should of course apply also to other aircrew categories. Regardless of any other factors, it must be cheaper to re-categorise an airline pilot onto his old RAAF type, than to recruit and train his replacement.

The broad objectives of the RAAFAR would thus be met, by producing a meaningful core of RAAF indoctrinated pilots, ready for rapid absorption in times of crisis. At the same time these aircrew reservists would be available to meet short term and adhoc manning shortfalls on the squadrons. Four or five reserve pilots must cost less than one regular pilot if all costs, ab initio to operational status, are taken into account.

Every Established Manning Level includes provision for replacement of members on leave, sick or on courses. These 'extra' aircrew could easily and more cheaply be represented by a small number of reserve aircrew members.

It is believed that the above proposal conforms with the original vision of Air Marshall Sir Richard Williams, as quoted in the introduction. An added benefit to the service would be the retention of "old and bold" aviators in an otherwise young and relatively inexperienced aircrew body. Such a retention of experience would have great value, both in the operational and flight safety areas, as well as strengthening morale and tradition.

Australian-assembled McDonnell Douglas F/A-18 tactical fighters from the RAAF's Operational Conversion Unit based at Williamtown, near Newcastle, NSW.
A USTRALIAN foreign policy of the 1940s and the 1950s, cannot be discussed without addressing the role played by Dr. H. V. Evatt. His personality and character, coupled with the responsible positions he held during the period, influenced Australian foreign policy, both directly and indirectly, for two decades.

John Curtin’s Labor Government took office on October 7, 1941. Dr. Evatt’s first speech in the Parliament as Minister for External Affairs, emphasised there would be no vital change in Australia’s foreign policy. Two months later he was forced by events to review that speech.

December 7, 1941, brought war to the Pacific, and changed dramatically Australia’s role in international relations. The Japanese attack on Pearl Harbor, forced the United States into the Second World War, and became the catalyst for a change in direction in Australia’s international relations.

When Japan entered the war, the major emphasis was placed on the struggle for survival. This struggle more than anything else, shaped Australia’s foreign policies. For the first time in Australia’s history, a direct threat to the security of the Continent took place. The fall of Singapore, and the loss of the Prince of Wales and the Repulse, reinforced that threat.

Australia was to be isolated from the traditional security arrangements it had always known. Reliance on the Naval and ground forces of Great Britain, could no longer be guaranteed. Australia may have to stand alone, and shoulder the responsibility for its own defence. This was accepted by the Government, as indicated by Australia’s declaration of war with Japan, some weeks prior to the United Kingdom’s declaration.

Three weeks after the attack on Pearl Harbor, John Curtin the Australian Prime Minister, made an historic announcement. His words would have a dramatic impact upon Australia’s foreign policy, and elicit much criticism from the Parliamentary Opposition. John Curtin made it quite clear that Australia looked to America, regardless of traditional links with Great Britain.

The Labor Government of John Curtin, faced the realities of the time. Britain was embroiled in a tough European war and faced invasion. The security of the Far East, rested on the bastion of Singapore, and the Royal Navy’s ships, Prince of Wales and Repulse. When Singapore fell the most obvious ally from which to seek help was the United States; a country sharing the Pacific threat with Australia. Evatt stated in the House of Representatives in early 1942, that international relations cannot with advantage be discussed apart from the war aims and the war activities of other nations.

In 1940, Dr. Evatt took the unprecedented step of resigning from the High Court Bench, to contest the Seat of Barton in the Federal Parliament. When Labor took office in October 1941, Evatt immediately set about developing the Department of External Affairs as a solid institutional base for the conduct of Australian Diplomacy. Within two months of taking office, and very little time to get the feel of his new ministerial duties, Australia plunged into its most perilous crisis.

To complicate matters, Churchill — Australian relations became very strained. Australia wanted a greater voice in the conduct of the war, particularly in the Pacific theatre of operations. Evatt did not accept that Australia should take a “back seat” in the conduct of the Pacific war, and documents of the period indicate he pushed for a greater voice in the decision making process.

Dr Evatt had been convinced for some time that the Australian Government should present a more positive image abroad. Australia had been tied too close to British policies, and needed greater independence in thought and action; particularly in matters that directly affected Australia. For example, Dr. Evatt visited Washington in the late 1930s, when he was a Justice of the High Court of Australia. He found a situation that accurately described Australia’s position in world affairs. He said:

“It galled me to find Canada, Ireland and South Africa well set-up, and playing a role...
there, and then to find Australia's representative in a cubby-hole at the end of a long corridor in the British Embassy."

In May 1942, Evatt undertook a mission to London and Washington, to put Australian views on the war to the Allied leaders. The official statements made public in Australia indicate this mission was very successful. The mission did accomplish the placing of the South West Pacific Area and Australia, under the operation responsibility of the United States. However, this would have been expedient for Churchill, because it allowed Britain to give full attention to the European theatre and India/Burma. Public statements concerning Evatt's mission assured critics that the rift with Churchill had been mended, but later events did not undertake this to be so.

Dr. Evatt was still trying to obtain a voice for Australia in 1943. On June 27, 1943, Evatt broadcast a speech over the BBC in London, referring to the conduct of the Pacific war. In his closing comments he spoke of the Dominion's efforts in the war, which has earned them the right to be heard in planning for the peace.  

Evatt believed that Australia should play its part in world affairs by forming independent policies, and not just follow the major powers in thought and action. The idea that an Imperial Secretariat be established, which would help the Dominions have a say in the foreign policies of the Empire, was quickly killed by Churchill. He did not attend the Prime Ministers' Conference in 1944, when the idea was to be discussed by the Australian Prime Minister, John Curtin. Churchill was not the type of person who would allow the Dominions of the Empire to have their say. For example, it was Churchill who thirty-seven years earlier, helped destroy a similar proposal by the then Prime Minister, Alfred Deakin.

Evatt had a difficult task trying to change the established links between Britain and Australia, into a more balanced exchange of views. Even Robert Menzies, severely conservative and a great admirer of everything British, considered that Churchill had no conception of the Dominions as separate entities. The more distant the Dominion from the Heart of the Empire, the less Churchill thought about it. However, there was a limit to the power of Churchill in these matters.

World War Two created the atmosphere for Australia's change in direction, to a greater cooperation with the United States. It also brought about a change in attitude with the Soviet Union. During World War Two, and for a short time thereafter, many Australians found Communism tolerable, if not a little attractive for some. When Hitler's armies invaded the Soviet Union in 1942, they forced the Russians onto the side of the Allies. This partnership of two opposing ideologies, co-operating for a common purpose, gave respectability to the Soviet Regime.

It followed that Australians found themselves on the same side as the Communists. This relationship must have enhanced the image of the Australian Communists, and increased the membership of the Party. However, the relationship would have been a real dilemma for the "Movement", considering their initial meeting was only held on August 14, 1941. The Movement consisted of a group of Catholic unionists who initially met to discuss the rising influence within the Australian trade unions, of a group of dedicated Communists.

The object of the Movement, was to organise the effort on the part of Catholic trade unionists, to oppose this rising Communist influence in the unions. B. A. Santamaria was considered to be the Movement's leader, and he said "that so long as a Communist Party existed, there was a need for an equally effective counter force, to preserve unionism for democracy".

It was the Movement which had the most impact on the average Australian's attitudes to Communism, and in the preparation of Australians for the tensions of the Cold War. However, the Movement was to have a destructive effect upon the Australian Labor Party. It split the Party, and out of the ashes, emerged a new organisation called the Democratic Labour Party. It was this party, and the fear of Communism, that would keep the Conservatives in office for the next two decades.

After World War Two, the Movement continued with its anti-communist campaigns, and increased its activity within the trade unions. Australia became more assertive in foreign affairs, and Dr Evatt continued to play a major role for Australia. At the Paris Peace Conference in 1946, Dr Evatt led the Australian delegation. Although Evatt and his political colleagues had often been criticised by the conservative press for being soft on the Communists, at this Conference it appeared that the Australian team was quite the reverse. The
Beasley/Gromyko clash highlights the Australian team's attitude to Communism. Mr Beasley, making a speech in reply to Mr Gromyko said "we know who you are, we call you commies in Australia".

The war also highlighted severe domestic deficiencies which had an effect on foreign policies. Australia's defence preparedness was sadly lacking prior to World War Two, and this was rectified in the post war years, by keeping a much larger and better equipped force in readiness. Alliances were sought to guarantee security, which also entailed military commitments in return. There was a general trend to rectify the ills of pre-war years in both domestic and foreign affairs.

Fear of Asian neighbours became a major point in Australia's immediate post-war relations. "Populate or perish" became a popular slogan, to justify increased white immigration. In all spheres there was a marked increase in momentum, to upgrade the areas where Australia had been reticent. The United Nations was therefore looked upon as the ideal organ for maintaining world peace. Australia was to play a major role in the United Nations throughout the late 1940s and the 1950s.

The role Australia played in world affairs through the United Nations, indicated that the pre-war isolationist thinking in Australia had all but disappeared. A new era of post-war Labor Party idealism, and concern for Australia's future security, shaped immediate post war foreign policy.

The idealistic policies of the post-war Labor Party, gave Dr. Evatt the opportunity to play a significant role in foreign affairs. Evatt was deeply committed to Labor Party policies, and coupled with his ambitious nature, he enthusiastically threw himself into the United Nations forum. In recognition of his distinguished work for the United Nations, Dr Evatt received the Grand Cross of the Legion of Honour, which is the highest civilian award that can be granted by the Government of France.

In 1948 there were allegations of Soviet infiltration into the Australian Government bureaucracy. These allegations were made by Western Intelligence Agencies, which led to the establishment of the Australian Security Organisation (ASIO). With the build up of events in the late 1940s and early 1950s, the Communist bogey would have a great psychological impact on the Australian people. With a corresponding impact on Australian foreign policy. ASIO would appear to play a major role in the controversy surrounding the Petrov defections, and the allegations that the defections were stage managed for the 1949 Federal elections.

The 1949 Federal elections saw the end of the Labor Party in office, and ushered in a new conservative Party led by Robert Gordon Menzies. Menzies stood against the nationalisation of private banks, and he made the most of the perceived Communist threat. The successful establishment of Communist governments in a number of Eastern European countries, and the Communist victory in China, helped play-up the fears of Communist expansion within Australia.

March 9, 1950, saw a Ministerial Statement on foreign policy from the new Conservative Government. The broad aims of the Menzies Government were:

"Preservation of peace and our way of life. Inseparable from these aims is the closest possible co-operation within the British Commonwealth, and with the United States of America, and other nations friendly to the Commonwealth. Support for the United Nations in its pursuit of world peace".

To achieve these aims, Menzies stated that a nation's foreign policy must be closely integrated with defence. If foreign policy fails to achieve peace, then the War Departments must take over. He also proposed to establish a Standing Committee on Foreign Affairs. The Committee would work under the Minister for External Affairs, and would give constant attention to the broad issues of foreign policy.

The Australian Government in 1950, believed that the United States and Great Britain, had not formulated precise policies for the Asian area. Coupled with the new situation perceived by Menzies, that potential aggression had shifted from the European to the Asian area. Therefore, a greater burden of responsibility for security in the South East Asian area, would rest with Australia.

Communism in China had changed the whole picture in Asia. It was believed that Communist groups within the countries of South East Asia, would increase their subversive activities, heartened by the Communist victory in China. The Soviet Union was considered to be the main culprit, and believed to be fostering the spread of Communism in Asia. For example, a state
of emergency existed in Malaya to deal with the Communist uprising there; and the defeat of the French in Indo-China, was considered to be potentially explosive.

Vietnam was considered to be the greatest danger point in 1950. Ho Chi-minh received his political training in Moscow, therefore he was a puppet of the Soviet Regime. Menzies believed that if Vietnam fell it would not be long before Malaya was outflanked, followed by the loss of Thailand, Burma and Indonesia. Australian policy was to watch for evidence of China's interference in the affairs of Vietnam.

It appears that the Asian Communist threat was the most immediate problem confronting the Department of External Affairs in 1950. An unfortunate aspect was the lack of thought given to the oppressive regimes in Asia that were not Communist. The fear of Communism overshadowed the most immediate problems in Asia. A balanced foreign policy would have given equal attention to the source of the Communist problem, making concerted efforts to eliminate the economic and political reasons behind the internal growth of Communism.

Japan was also high on the list for attention from External Affairs. Australia did not want the revival of Japan, particularly a re-armed Japan. This was a major point of conflict with the United States, because Australia did not agree with the United States policies for Japan. To counter the problem with Japan, Australia considered a Pacific Pact, and in 1950 renewed efforts toward this goal.

Both the United States and Australia believed that the Soviet Union was the major threat to world peace in 1950. The basis for United States foreign policy was to "contain the Soviet threat by counterforce measures, wherever the demand, at the constantly changing geographical and political points." This containment was initially by economic and/or political measures, and later was to include military force.

The Cold War hotted up on June 25, 1950, when the North Koreans launched a well organised attack on South Korea, along the entire length of the 38th Parallel. The United Nations Security Council adopted a resolution calling upon all members to render assistance to the United Nations to restore the peace. Australia showed its keenness to follow the lead of the United States, by being the first United Nations member to support President Truman and his sponsored resolution.

The prompt action taken by the Australian Government was in keeping with Australian foreign policy at the time, i.e. closest possible co-operation with the United States; support for the United Nations, and Australia's deep concern for Communist activities in Asia. The Australian Government placed a small Naval force at the disposal of United States authorities on June 29, 1950. The next day, June 30, an RAAF fighter squadron stationed in Japan was also committed. Australian ground forces were sent to Korea at a later date.

Menzies approached Parliament for approval, after he had taken the decision to commit forces to Korea. The interesting aspect resulting from this approach, was that the Labor Opposition gave whole hearted support to Menzies. The Parliament was overwhelmingly supportive of the United States sponsored resolution in the United Nations. This support also indicates Australia's attitude toward the change in United States policy; to use force in the containment of the Soviet Union.

The military commitment in Korea, confirms the United States attitude toward the Soviet Union, i.e. the Soviet Union represented the major threat to the free world, and is to be resisted by force where necessary. The Australian support for the United States policies, also fits into the broad aims of Australian foreign policy, contained in the Statement issued March 9, 1950, i.e. the Menzies Government was prepared to use force, when foreign policy failed to achieve the peace. It does not appear that Australia just blindly followed United States policies, but instead, it appears that both countries held similar views about the Soviet threat.

The average Australian was slow to recognise the realities of the Cold War. Australia was isolated from the political and diplomatic intrigues of the Northern Hemisphere. The issue that brought the realism of the Cold War, more forcefully home to the average Australian, was the Petrov affair in 1954. Menzies was accused of using the Petrov defections as a "Cold War" extravaganza. Critics claim that by introducing the Communist menace to the Australian political scene, Menzies had destroyed the reputations of Dr Evatt as Opposition leader and his party.

With the Petrov affair, all the pieces of the Communist jigsaw fit into place. The realities of the Cold War; that Australians had been
warned about for so long, were now evident. Once Australians became convinced of the realities of the Cold War, they were easily influenced to the threat of Communism. The memory of the whole Petrov affair, was a magnificent piece of luck for the Conservatives. No political campaign manager could have hoped for a better vote winning issue during the late 1950s and 1960s. The dramatic defection of Mrs Petrov, created considerable excitement all over Australia. Newspapers and Newsreels were eagerly scanned for the next instalment.27 Australia’s foreign policies were to remain in the hands of the Conservatives for a considerable period of time. The events of the Fifties virtually assured the Conservatives of future electoral victories.

In summary, the 1940s saw a weakening of economic and political links with Britain, which corresponded with a strengthening of relations with the United States. The 1950s brought back a balancing of the relationships between the United States and Britain, and a firm commitment to the defence of the Asian region. This commitment saw new security agreements come into being, with the establishment of ANZUS, SEATO and ANZAM. Interestingly, ANZUS, the treaty which is in focus in the 1980s, came about as a trade-off. For the implementation of United States policies with Japan, Australia’s agreement secured ANZUS, and gradually lessened the fear of a revived Japan.

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An armoured personnel carrier and its crew from 2nd Cavalry Regiment on exercise.
Mobility and Small Scale Amphibious Operations
The FOB Concept

By Major P. H. Quinlan, Royal Marines

'A nation which lives on an island cannot turn its back on the sea'. Sir Basil Liddell Hart.

Fifteen years from now, the ability of the Australian Defence Force (ADF) to react to a low-level conflict in the remote parts of Northern Australia will be greatly enhanced by the Black Hawk helicopter as the main vehicle for movement of troops within the area of operations (AO). However, there will never be enough helicopters to fulfil the land commander’s needs. In addition to providing troop mobility, the helicopters may also be involved with logistic commitments. Furthermore, the lines of communication (LOFC) along the coastline and into the interior are sparse and, in a lot of cases, non-existent. A military force operating in such a region would need to control the coastline not only to ensure that the LOFC for logistical and tactical reasons were secure, but to deny its use to any potential enemy. Control and exploitation of the coastline would require the land forces to be mobile and capable of operating along any sector of a coastline or inland waterway.

This article examines the concept of using small craft from a permanently established Forward Operating Base (FOB) to support the land forces in conducting their operations. Rather than look at this in the context of 1986, I will transpose the concept to the beginning of the 21st century as it would be more realistic to sow the seeds of thought now for what might be available in the future.

The FOB Concept

Any operation, whether on mainland Australia, the neighbouring islands or overseas at the behest of a friendly country, will rely heavily on all modes of land and air transport for tactical movement of troops and equipment. In many areas along the northern coast of Australia and on the coasts of some of Australia’s immediate neighbouring countries, the use of large ships would be restricted severely. Shallow waters, strong tides, reefs, mud flats and shifting sandbanks make a significant proportion of the coastline unsuitable for inshore operation of large vessels. The tactical and logistic support for operations in such areas would be primarily by land or air. However, the location of some of the land force units near or on a coastline may be too isolated to enable an effective LOFC to be established. Unfortunately, combat units will not always be on suitable LOFC. Moreover, air and land transport may not be viable for the following reasons:

- Roads may be blocked by enemy action, or they may be impassable during the wet season.
- Many areas along the coast and in the hinterland are inaccessible by vehicles. Furthermore, the distance from point to point by land may be many times further than by sea.
- The demand for helicopter support is likely to greatly exceed its availability. This, in fact, was one of the major lessons that came out of the Falklands War and which ultimately dictated the course of the land battle.
- Poor visibility, especially during the wet season, may restrict available flying hours.

To ensure the greatest possible tactical viability, mobility and flexibility, the ground force commander could use a dedicated force of small craft which would exploit the inshore waters and rivers. Their tasks would include:

- reconnaissance in depth along the coastline and on rivers,
- routine redeployment of units and relocation of stores and equipment,
- landing of troops on to inaccessible and insecure shores,
- resupply to outlying units,
- deployment and withdrawal of raids up to company size,
- tactical deployment of troops for counter attack,
- covert insertion of personnel for deep penetration patrols or special missions, and
• deployment of troops to establish cut-off or blocking positions.

The FOB should be self-supporting, that is to say self-administering, with its own stores and equipment, crews for the craft and capable of operating independently from a 'mother ship'. In addition to its own complement of craft, the FOB would also control and task any available small civilian vessels, such as trawlers, that may be required for operations. This is of particular importance because of the remoteness of much of the coastline of Australia and the scarcity of assets. The FOB can then make maximum use of local knowledge of the inshore waters. The FOB headquarters should be designed for a brigade headquarters. The brigade commander would be advised by the OC of the FOB on the employment of the assets to the task. The configuration of the FOB sections can be made to suit the nature of the operation. The FOB headquarters would normally be land-based and would need to be mobile and able to change locations relatively quickly should the need arise. The FOB sections should be self-contained and capable of being dispersed up to 100 km away from the FOB headquarters. This would be particularly advantageous if an outlying sub-unit required a section to be attached to it for patrolling or other tasks. The FOB’s role would not be to take over the tasks of the Special Action Forces (SAF). On the contrary, the existence of the FOB would enable the SAF to concentrate on their specialist role while the FOB would be able to react to the brigade commander’s request for tasks within the AO.

Composition
It is not my intention to suggest any particular organisation, however, I will go so far as to say that it should be a permanently manned unit. The likely tasks a FOB would be involved in would mean that teamwork and professionalism would be essential if the concept is to function to its maximum potential. In addition to proficiency in boat-handling drills and seamanship, the respective craft-handlers would need to be skilled in navigation, military skills including raiding and reconnaissance techniques, fieldcraft, and communications. Training and regular exercises with the infantry battalions would also be necessary to ensure that the amphibious skills and procedures are compatible. This capability would only be credible if it can react to a situation quickly and without having to reform an organisation every time a requirement arises. Clearly, it would not be feasible to have such an organisation to cover all the brigades in the ADF. In my view, there are two likely brigades that would benefit from the FOB:

- 3 Brigade because it is the Operational Deployment Force (ODF), and
- 6 Brigade as the formation responsible for amphibious operations in the ADF.

Capabilities of the Craft
There are effectively three types of craft that would be suitable for this concept. They are the hovercraft, landing craft, and the fast rigid raiding type craft. By the year 2000 I would imagine that technology would provide us with a reasonable selection of vehicles from which to choose. Already the landing craft and rigid raiding craft are fairly well advanced and the application of the hovercraft, I believe, is entering its adolescence and by 2000 will be a matured craft capable of meeting the requirement.

Hovercraft. The hovercraft provides an ideal vehicle to negotiate the reefs, shifting sandbanks and mud flats that are common along the Australian coastline, certainly the Northern region. The introduction of the hovercraft would make a substantial number of beaches available for potential landings. The present generation are far too big to be suitable for a FOB, but by 2 000 they should be small enough to carry a company group of infantry, have a range in excess of of 500 nm; speed of 50 knots and capable of operating in a force 4 sea state. Fuel consumption, noise factor and maintenance, hopefully, would be greatly improved by then.

Landing Craft. If the development of the hovercraft reaches expectations then arguably there would be no requirement for landing craft. That said, the landing craft is a tried and trusted ‘beast’ which should not be discarded. Both hovercraft and landing craft would be ideally suited for logistical moves, but they can be effectively used for inserting or withdrawing a company size body of men.
Rigid Raiders. These will be the workhorses for all tactical tasks. Each craft should be capable of carrying nine fully equipped troops at speeds up to 30 knots and have a duration of five hours. The craft must be capable of being manhandled up a beach by its occupants. For operations that may require an open sea passage, the rigid raiders would be stacked on top of each other at the stern of a patrol boat, any of the larger warships or a fishing trawler.

Conclusion

Parts of the Australian coastline is suited to the conduct of small scale amphibious operations. The FOB concept, based on a grouping of a headquarters, special craft and maintenance/support troops, ensures a tactically viable operational and training grouping with its own command structure, which will facilitate the development of an important operational capability. Once deployed into a AO, the FOB would provide a significant capability to the operational commander in all levels of conflict. The compensation of the FOB gives it an independent capability, thus enabling the headquarters to operate away from the land force commander's headquarters. Each FOB section can have different configurations to suit the task and can operate significant distances from its headquarters. Traditional methods of operating landing and small craft would still be required. However, coxswains would need a greater tactical awareness and knowledge, as most craft would be operating in small groups in an insecure environment.

The FOB concept would centralise a number of formations currently existing in the ADF that carry out some of the tasks identified earlier. This centralisation into one organisation would provide a flexible and mobile team that would be able to react to any crisis quickly.

Major Quintan is a Royal Marines Exchange Officer who is shortly to complete a two-year tour with the Australian Joint Warfare Establishment where he has been instructing in Amphibious Operations.

He joined the Royal Marines in 1969 and, in keeping with the global centre of the Royal Marines' badge, has seen service in most parts of the world. In addition to service with 40, 42 and 45 Commando, he was attached to HMS ENDURANCE from 1976-77 where he saw service in the South Atlantic and the Antarctic. His other duties have included involvement with the protection of off-shore installations and instruction at the Commando Training Centre in the South West of England.

A 155mm howitzer of the Regular Army's 8th/12th Medium Regiment is positioned by its Mack gun tractor.
The Navy’s “Other” Collins
Chief Stoker Percy Collins, DSM and Bar, RAN

By Michael Fogarty,

ONLY two bars to the Distinguished Service Medal have been awarded to members of the Royal Australian Navy. Both were to permanent sailors of the RAN who earned their first DSM whilst serving together as Petty Officers in HMAS Napier during the Battle of Crete in 1941. Bernard McCarthy first received his bar on 27 March, 1945, for later service in HMAS Arunta during the Pacific campaign. McCarthy died exactly 30 years after Collins was presented with his bar on 27 February 1947. Percy Collins received his bar on 9 October, 1945 for service in HMAS Strahan also during the Pacific campaign. This article concerns the naval service of no ordinary seaman — Chief Collins.

“Jumper” Collins, as he is affectionately known, was born on 22 January, 1905 — a native of Murwillumbah. Like many new entrants, Percy joined HMAS Cerberus, the cradle of the Navy, as a Stoker Second Class on 10 August, 1927. Later, in HMAS Canberra, he was advanced to the rank of Stoker a year after entry.

Later service included commissions in Penguin, Cerberus, Tattoo and Voyager. He returned to Cerberus in 1934. On 8 June, 1935 he was promoted to Leading Stoker. During the thirties his other ships included Waterhen, Swan and Yarra. It was during his commission in HMAS Yarra that he was confirmed as Stoker Petty Officer on 10 May, 1939. Shortly after the outbreak of World War II he joined HMAS Adelaide. He returned to the United Kingdom yet again to join the crew of the newly commissioned HMAS Napier. He served in Napier from 1940 to 1943. On New Year’s Day 1942, Percy Collins was advanced to the rank of Temporary Chief Stoker. He was to serve briefly in HMAS Nepal in 1943 before he joined the “Small Ships” Navy in 1943. For the next three years, until discharge on 12 February, 1946, he served in both HMAS Maitland and Strahan.

As a sailor, Percy Collins had an exemplary record of service. From 1936 to 1946 his character and good conduct ratings were of the highest order. He invariably scored an average of 70% or more. In one period, during service in HMAS Napier, he was given “straight eights”. That is, 8 out of 10 for power of command, initiative, energy and intelligence. Given that it was rare for officers to achieve “straight sevens” (for related leadership and professional qualities) Percy Collins’ service was remarkable. For a decade his ratings were “Very Good” (Superior).

His Commander (E) in HMAS Napier, G. McD. Wilson, remarked of his loyal ‘Chief’:

“As Chief Stoker ‘N’ Class Destroyers reliable, trustworthy, intelligent, loyal, resourceful and hard working. Has a sense of responsibility and has managed the Department very well. He has served me well for 10 months. An excellent man. 2½ years in ‘N’ Class Destroyers. DSM in Crete.”

HMAS Napier, the first of the ‘N’ Class Destroyers to commission into the RAN as leader of the 7th Flotilla, made quite a name for himself in the 270,000 miles she steamed during the war. Her first Commander was Captain Stephen Arliss, RN, who commissioned Napier on 28 November, 1940. After working up in Scapa Flow Napier did a brief tour on North Atlantic convoys. She then transferred to the Mediterranean theatre.

Napier, in company with her sister ship Nizam, arrived shortly before the evacuation of Crete began in May, 1941. The struggle for Crete lost, Napier became one of the units charged with the responsibility for evacuating the British Forces.

On or about 31 May, 1941 Napier left Crete with 705 soldiers on board — mostly Australians. At 0900 the expected air attacks commenced when twelve enemy planes made a determined effort to sink Napier. Of an initial bracket of 16 bombs, 14 were classified as “near misses”. Damage to the engine room and boiler room reduced speed to twenty knots. The attackers did not escape unscathed. One JU88
was shot down. In spite of the hazardous passage, no life was lost.

It was during ‘the Crete show’ that ‘Jumper’ Collins proved his mettle. The ‘London Gazette’ of 8 January, 1942 listed Percy as receiving a DSM. Curiously, it lists him as ‘Stoker Petty Officer Percy Alfred Collins, Sydney, 18665, HMS Napier’. However, his shipmate, Bernard (the Beast) McCarthy is shown as receiving a DSM (for the same battle) whilst serving in HMAS Napier. Perhaps this fact explains why allied losses were often exaggerated!

The Collins DSM citation notes that ‘... during the Battle of Crete, (Collins) was in charge of No. 1 boiler room. A heavy blast was felt, half the lights went out, the boiler water level surged violently, and a brilliant white light occurred in the furnace which cannot be explained. Collins took the necessary precautions, reduced sprayer output until the water level steadied and then worked up to nearly full power, taking the increased load caused by the failure of No. 2 boiler. This rating’s steadiness contributed largely to the general effort of keeping the ship mobile.’

This award was also listed in the Sydney Morning Herald of 9 January, 1942. Some other awards for this action included a DSM to McCarthy and a DSC to Lieutenant Max Hinchcliffe, RAN. His Engineer (also known as ‘Chief’), Commander H. G. D. Oliver, received a mention in despatches. Sadly, Harrie Oliver died in Sydney on 9 July 1986, on the eve of the 75th Anniversary of the RAN, as this article was being prepared. Percy Collins received his (first) DSM from Commander L. C. Rowland, RN, on 21 October, 1943.

The Crete Battle had earlier earned a poetic ‘tribute’ from a hapless AIF evacuee, Gunner R. Stevenson, as published in the ‘Western Mail’ on 31 July, 1941:

“Although he made it pretty bad, we gave the blighter all we had, the bullets whizzed, the big guns roared, we howled for ships to get aboard, at last they came and on we got and hurried from that cursed spot”.

This may explain the debt many soldiers owed to the Navy. One British soldier on Crete was pulled out of the bag thanks to the RAN. In gratitude, it was one reason why he later migrated to Australia and took up citizenship. Not one to stop for hitch-hikers he made an exception for Australian matelots. He would never let any uniformed sailor (with an HMA tally band) walk while he drove a car. After all, they didn’t ask him where he wanted to go when he swam out from the beach to the waiting
ships. Napier's Captain, Commander Arliss RN, had a similar apostasy. Arliss did not relish having to command Australians and made it clear on appointment as Napier's skipper. After Crete, he was reported to have cleared lower deck to apologize to her crew for his misplaced judgement earlier.

Decorations were also awarded to Percy's fellow class-mates of the 1934 Mechanical Training Course at Flinders. They included a DSC to Warrant Officer Mechanician Henry Hill and a DSM to Stoker Petty Officer William Reece — both of HMAS Perth.

Temporary Chief Stoker Collins received his Long Service and Good Conduct Medal on 19 August, 1942 — fifteen years from entry. By that stage he should have received another longevity award for he had by then been married for 10 years since 24 May, 1932. Percy felt a medal should have gone to his wife for her devoted care to their four children (two boys and two girls) whilst her sailor husband and their father was at sea for long periods.

Percy did not confine his talents to tending throttles and lubricating valves for he also showed a literary bent — writing under the sobriquet of “twin screws”, he wrote a short article for the Navy Year Book of 1944, HMAS Mark III. His article described “A Day in the Home Life of a Chief Petty Officer,” to wit:

1915 — hands to supper.
2030 — picture party fall in family proceed to local show and enter in single line ahead in order of seniority and come to anchor in seats — line abreast. When National Anthem is played, Mr C.P.O. dons cap — calls family division to attention and takes the salute.
2305 — picture party returns — duty watch to galley — draw kai.
2350 — pipe down.

From June, 1943 to March, 1944 Percy Collins served in HMAS Maitland. Chief Stoker Collins then joined HMAS Strahan on 14 March, 1944 in which he served almost until he was demobilized from Rushcutter on 12 February, 1946. Strahan, a Bathurst class corvette, was commissioned in March, 1944. She served in the South-West Pacific Area and in New Guinea. This ship carried out convoy escorts and anti-submarine patrols. Strahan saw action in Morotai in October, 1944 when she was bombed by enemy planes. Later Strahan served at Biak and Morotai. She bombed enemy gun emplacements on Kairiru Island in June, 1945, after which she engaged in escort duties between Tarakan and Morotai. In August, 1945 on her return from Tarakan, she sank an armed enemy barge, rescuing 3 survivors of the crew of 10. After the Pacific surrender, Strahan served in Hong Kong, under the command of Lieutenant W. H. Burke, RANR. By this time, on 9 March, 1945, Chief Collins received his fifth war service chevron.

On 22 November, 1945 the ‘Commonwealth Gazette’ listed a DSM first bar to Collins “for courage, endurance and skill whilst serving in HMAS Strahan in escort duties for a period of more than three years under hazardous and
trying conditions between the coast of Australia and the Philippines." His bar to the DSM had previously been announced in the 'London Gazette' on 9 October, 1945.

The Daily Telegraph of 28 February, 1947, reported that the NSW Governor, Lieutenant-General Sir John Northcott, had presented 130 decorations on behalf of the Governor-General on the previous day. Collins received his bar at that reception. His DSM is, swivel-type, marked: "GEORGIVS VI G : BR : OMN : REX ET INDAE IMP".

Looking back on his navy life, Percy Collins often wondered what became of two artful dodgers in his division, Stokers MacGregor and Luxford. He remembered they were always in trouble and it was usually through suspicions, still to be proven, of improper access to the wardroom wine store. A sense of humour was important in war as one incident revealed. Percy recalls signing for oil from a USN tanker near (Dutch) New Guinea at one stage in the war. He was queried for signing for 30 tonnes short. A 'please explain' was sought. Chief Collins replied that regulations were followed (at least he thinks they were) and tanks were sounded, etc. His last sentence said it all. "(At this stage) the war was in progress". He never heard a word more about it from the Naval Board but suspects that the necessary paperwork was adjusted at the time!

Chief Stoker Collins was less humorous about the tragic loss of life he witnessed during the war. He was full of admiration for the young "hostilities only" and "rockie" crews who soon became true professionals — indistinguishable from permanent naval force members like himself. Some of these young sailors were barely out of school, some had not begun to shave and some had not even had time to find girl-friends. They distinguished themselves for their courage and Percy, a three badged and more veteran, was humbled by their actions.

In noting his official portrait Percy is shown without his full medal entitlement. The picture fails to show his Atlantic Star. His service certificate (AS459) confirms his eligibility yet this star was not included in his medal group which the author has seen. McCarthy, a commissioning ship-mate of Collins in Napier, also served in the atlantic patrols and his medal group includes an Atlantic Star. The portrait caption also describes Collins as a Petty Officer when he is clearly shown wearing a Chief's insignia — hence, "twin screws". While Chief Petty Officers now wear an eight-buttoned coat, one could be forgiven for believing that a war-time Chief had four buttons on each cuff if the portrait is any indication.

Percy Collins now lives a life of quiet retirement with his wife. He has exchanged seagulls for kookaburras. The author was privileged to meet him in the spring of 1986. He is a charming man, still alert, and full of old fashioned decent courtesies. He believes in simple virtues and the true values of life. In his eighties, the strength of his character and wisdom is still evident.

On leaving the Navy in 1946, he avoided the limelight. He offered that he has only marched in one Anzac Day since demobilization. He was content to leave the sea behind him and devote his time to his wife and young family. Percy worked in a factory before retirement and for many years his working companions did not know of his deeds and only learned from a visit to the Australian War Memorial, where his portrait was for a time on display, as Percy had never felt the need to tell them.
Still modest, he is plainly uncomfortable with notions such as gallantry and bravery pointing out that his awards were merely for ‘service’. To him, everyone on Crete was a hero and they should have all got medals. He insists that he drew his ration on behalf of his engineering crew. Nevertheless, he has been judged by history. In view of that double display of service, Percy Collins was a distinguished sailor indeed — perhaps, the forgotten ‘Collins’ of the Royal Australian Navy. In the seventy-fifth year of the RAN, it is appropriate that the doubly distinguished service of Chief Stoker Collins should now be remembered — Lest We Forget.

Michael Fogarty served in the Defence Forces before joining the Public Service. He is a member of the Naval Historical Society of Australia and has recently completed an article on the only other Australian sailor to be awarded a bar to the DSM, Mr B. D. McCarthy, RAN. This article was recently published in Sabretache, the journal of The Military Historical Society of Australia, Vol. XXVII, July/September, 1986, No.3.
Weightload Walking Rediscovering The Fitness Wheel

By Captain S.J. Rudzki, ALES

Introduction
The Army quite rightly demands that its members be “fit”, but this begs the question, “fit” for what? Fitness can be defined as the ability to delay fatigue and is composed of several different elements; speed, strength, endurance, power and flexibility. These have obvious implications in the military environment.

Fitness is activity specific and this article will argue that our current Physical Training Test (PTT) and the training modes it encourages are inappropriate for true service needs.

Historical Perspective
Arms throughout history have had to be “fit”. The elements of fitness most required were strength and endurance. In antiquity the Roman Legions marched 20 miles-a-day. Napoleon’s Armies advanced across Europe on foot, and our own Army used walking as a means of conditioning our troops during both World Wars.

Australian Battalions in WW2 marched from Ingleburn to Bathurst before embarking for overseas, a distance of 240 kms.

Some Basic Physiology
In the laboratory the objective measure of fitness is termed VO2 MAX; the maximum rate of oxygen uptake by the lungs. The higher the VO2 MAX the “fitter” the person.

In simple terms in a person with a high level of cardiorespiratory fitness there are changes in the body’s metabolism allowing a greater extraction of oxygen from the blood and hence a greater supply of oxygen to the working muscle.

Oxygen is required for the metabolism of fat, which is the primary endurance fuel. This is the so-called aerobic metabolism which is such a fashionable term today.

If the work rate exceeds the supply of oxygen, energy is obtained from carbohydrate sources and utilized without oxygen; so-called “anaerobic” metabolism. The end product of anaerobic metabolism is lactic acid. Lactic acid inside muscle cells inhibits the contraction of muscle proteins and is considered central to the development of fatigue.

Hence the “fitter” person will be able to deliver more oxygen to working muscle and thus spare his carbohydrate stores thus avoiding fatigue for a much longer period.

There are also changes to the heart; it becomes bigger in volume and the stroke volume (volume of blood pumped with each beat) increases. The heart rate slows because the increased stroke volume allows the same volume of blood to be pumped per minute with fewer beats.

The Physical Training Test (PTT)
The PTT is used as our basic test of fitness. It is composed of three parts:
- a 5km run — testing aerobic fitness; and
- a series of heaves — testing strength; and
- sit-ups — ? (possibly testing anaerobic fitness)

As a result of the PTT most physical training is directed towards achieving a pass in PTT. Consequently most unit PT programmes utilize running as their major form of exercise.

As mentioned earlier “fitness” is activity specific and the requirements of different corps are not well served by these training methods. Artillery requires strength and endurance in its troops, lifting shells and man-handling guns. Infantry require endurance and speed to carry heavy weights for long periods and then fight through a position. Other corps have specific needs not fulfilled by this “general” fitness training programme we currently have.

This reliance on the PTT has led to a distortion of the relative value of other modes of conditioning such as swimming, cycling, rifle exercises and most importantly walking.

In practice I see soldiers who have difficulty in passing their PTT’s and yet are described by their commanders as being excellent in the field. This would indicate that the PTT is not the most appropriate method to test the fitness of a field force soldier.

I propose to demonstrate that weight load walking is the superior method of conditioning.
troops and that tests of endurance involving long marches are more suitable to the real needs of the service.

**Disadvantages of Running**

During running, large forces act through the various joints of the body. The knee is subjected to a force equal to three times body weight during running. Whereas in walking the forces are slightly in excess of body weight.\(^2\)

The implication of these large forces on the joints is an increased tendency to injury. A study of U.S. Marine Corps recruits undergoing basic training revealed a lower leg injury rate of 26% in males and 62% in females.\(^3\) Other studies have detailed the numerous injuries sustained by runners.\(^4,5\)

This tendency to injury is also governed by other factors such as footwear, running style and weight (heavier people put larger forces through their joints and hence are more prone to injury). Women because of anatomical features such as a wide pelvis and increased Q angle\(^*\) at the knees, find running more difficult.\(^6\)

A major problem with runners is the "fervid" intensity, almost fanaticism, which many people bring to this particular form of fitness training. Running seems to stir extreme passions. Many runners have come to revere their regimen with mystic adulation. They dismiss the risks, the injuries and the miseries as the price that must be paid for fitness.\(^6\)

This is the so-called "no pain, no gain" school of thought, all too prevalent within the forces.

Running is appropriate for those who have the innate style and ability to perform this activity. It is obvious that many soldiers (especially females), who are called upon to run, appear uncoordinated and ungainly and whose running styles predispose to injury.

Running in boots poses special problems, because of the rigidity and lack of shock absorbancy of boots. Boots are designed for walking; to run in them places undue stress upon the feet and knees and invites injury to these structures.

Another problem we face in the services is the problem of "overtraining". Too often unqualified personnel push soldiers too hard, too frequently, and cause minor strain injuries which are not given time to heal. These minor injuries compound and become chronic relapsing injuries which respond primarily to rest, a treatment which is often difficult to achieve within the military environment.

The American College of Sports Medicine\(^7\) states that to maintain a level of fitness you require 3-4 40 minute sessions of vigorous activity per week. Training on alternate days allows time for the body to heal its minor injuries and enables athletes to stay competitive and not to be troubled by nagging injuries.

**Weight-Load Walking — The Alternative**

The Israeli Army\(^8\) have abandoned the traditional western methods of fitness training, ie. running and calisthenics. Instead they choose weight-load walking. Why?

The Israelis face many of the same problems we do. They have an active and hostile opponent, they are a small country with a limited manpower resource, and the majority of their army is composed of conscripts and reservists. They re-evaluated their training methods with the aims of:

- achieving high levels of fitness without the significant attrition attendant with traditional regimes; and
- to find a method whereby this achieved fitness could be maintained when troops returned to their reserve status.

These dilemmas are similar to our own.

The Israelis conducted intensive research to develop a training programme which could fulfil these aims and discovered some interesting facts. Firstly they showed that weight-load was as effective (and potentially more efficient) in improving objective measures of fitness; secondly it caused fewer injuries and thirdly, that by encouraging a convivial approach to endurance marching the troops developed a positive approach to their training.

**What is Weight-Load Walking?**

The Israeli research revealed the importance of weight in the conditioning process. Briefly there are usually 3 factors considered when studying runners in the laboratory; duration, speed and slope. The combination of these 3 factors determines the work rate and it is work done that determines the oxygen demand and hence oxygen required.

Shoenfeld et al\(^9\) discovered that by keeping the duration and speed of walking constant, he could improve the VO2 max of his subjects by

\(^*\)Q angle is the angle between the line of the tibia and the line of the patellar tendon.
steadily increasing the weight-load. This effect had already been demonstrated by Borghols who showed there was a linear relationship between increase in weight-load and oxygen uptake, heart rate and pulmonary ventilation within the weight-load range of 0-30 kilograms.

Thus added weight, with constant speed and duration, improved VO2 max in a linear fashion.

In another study Shoenfeld et al tested this method on Israeli army recruits.

Shoenfeld took 44 subjects (mean age 18.8 years) and marched them at 5 km/hour for 30 mins a day for 5 days a week. 32 subjects walked for 3 weeks with a 3kg pack (group A), 6 marched for 4 weeks with the same weight (group B) and a further 6 marched for 3 weeks with 3kg and in the fourth week with 6kg (group C). The results are summarized in table A below.

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<tr>
<td>ADAPTED FROM SHOENFELD ET AL JAMA</td>
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<tr>
<td>MAY 23/30 1980</td>
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<tr>
<td>VO2 max mls/Kg/min (Mean values)</td>
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<tr>
<td>Initial</td>
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</tr>
<tr>
<td>Group A (N=32)</td>
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<tr>
<td>Group B (N=6)</td>
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<tr>
<td>Group C (N=6)</td>
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Adapted from Borghols et al European Journal of Physiology No. 38 1978.
Thus in the group that carried the extra weight for only one week the percentage improvement was doubled with no increase in training time between Groups B and C.

These improvements were of the same order as achieved by Pollock\textsuperscript{12} who took 20 weeks to achieve similar results in a group of sedentary men using walking only as the conditioning mode. Pollock compared his results with those of others who used running as a conditioning mode. This comparison is summarized in Table B below.

Thus Pollock achieved a greater \% improvement in his group than any of the studies that used running as their mode of conditioning. In addition Pollock noted that the drop out rate in his group was only 25\% compared to reported rates of 30-40\% in those studies that used running. He felt that this was due to a number of factors, including increased group cohesiveness developed whilst walking, decreased orthopaedic problems and a more tolerable work rate.

**Discussion**

The increased popularity of running which has swept the Army since the advent of the PTT, has had a number of effects. It has made the Army fitter, but at a price.

Overuse injuries of the lower limbs have increased dramatically (shin splints, achilles tendonitis, plantar fascitis etc.). Much PT is directed by persons who have no formal training in exercise techniques and correct warm-up procedures, especially the sub-unit level.

Injury statistics\textsuperscript{13} at a unit RAP revealed that an average of 42\% of all my patients during the FEB-NOV 84 period had an orthopaedic problem. During the JUL-NOV period there were 456 consultations with the RMO regarding orthopaedic injuries. So much for the myth of the fit and healthy population the Army allegedly is.

The rehabilitation of overuse and orthopaedic injuries is difficult. They respond primarily to rest and physiotherapy and have a tendency to return if the soldier re-embarks on the training regimen that provoked the original injury.

With many soldiers on restrictions, staffing shortages occur and the inevitable conflict arises between operational requirement and the need for appropriate rest. In a climate of manpower shortages, the emphasis should clearly be on the conservation of manpower, rather than the gradual attrition of our soldiers (and officers).

In practise the Israelis acknowledged a fundamental truth;\textsuperscript{14} training time is valuable. They utilize only one training period per day (constant duration) walk at 5km/ph (constant speed) and increase the work rate by increasing the weight load. Thus by steadily increasing the weight load over a period of weeks they steadily increased the level of fitness of their troops.

To achieve similar increases utilizing running you would have to either:
- run for a longer period of time or
- run faster.

Obviously b. is soon reached and a. is limited by the constraints of time. Thus by using a running regime in a fixed time period, a plateau is quickly reached and fitness level is only maintained, not improved, by persistent training. There is no additional benefit to be gained running 5 times a week instead of 3 times a week, in fact daily running is likely to predispose to injury because of the lack of lay days to allow for recovery of minor injuries.

The Israelis go further in their recruit training\textsuperscript{15}. They have no formal PT sessions, but recruits are required to march in full combat

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<tr>
<th>Investigator</th>
<th>Mean Age yr</th>
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<th>Duration weeks</th>
<th>Days/week</th>
<th>Activity</th>
<th>VO2 max mls/Kg/min Pre</th>
<th>VO2 max mls/Kg/min Post</th>
<th>% Improvement</th>
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<td>40.2</td>
<td>15</td>
<td>20</td>
<td>3</td>
<td>Run</td>
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<td>45.5</td>
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<td>Run</td>
<td>29.4</td>
<td>36.0</td>
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<td>Bjure</td>
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<td>Run</td>
<td>28.0</td>
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<tr>
<td>Pollock</td>
<td>48.9</td>
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<td>Walk</td>
<td>29.9</td>
<td>38.9</td>
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Adapted from M. L. Pollock
Weight-load walking has a number of advantages over our present system. It is as effective, if not more effective, in improving fitness than running, as demonstrated by Pollock. It causes fewer injuries, as walking is a natural action and the forces acting through the joints are smaller.

It is more suited to the needs of the service as the majority of our troops will move by foot in a combat situation, as the British demonstrated in the Falklands Conflict. The Infantry soldier must be capable of covering large distances with all of his equipment on his back. The feet are the only reliable means of transport in war and should be developed as such. Total reliance on wheeled transport is a false belief.

Weight-load walking requires no special equipment to be purchased by the soldier, and can be carried out any time by utilizing standard army issue equipment.

The current Battle Efficiency Test (BET) is a good concept. It is abused by the "Gung-Ho" notion of running the current 15 Km distance in less than 2 hours. Soldiers rarely run into battle especially when they are carrying 30-40kg of equipment. If they ran into battle with full equipment they would be exhausted and not fit to fight.

It is far harder to march at 7.5km/hr for 2 hours than to run at the same speed. The maximum sustainable walking pace is about 6-7km/hr with 5km/hr being a speed which can be maintained for long periods of time. The standard Israeli march is 25km in 5 hours with combat kit and the paratroops must complete 75km in 15 hours to qualify for their maroon berets.

Weight-load walking offers a more physiologically sound method of training our troops. It is simple, effective and proven in battle. Weight-load walking is an effective, if not more effective, in improving fitness than running. It causes fewer injuries, as walking is a natural action and the forces acting through the joints are smaller.

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**Recommendations**

The PTT should be recognized for what it is; a basic test of fitness. It should not be allowed to dictate training methods to the degree it now does. Its replacement with a more appropriate test is highly desirable but this is beyond the scope of this article.

There should be a large scale shift in physical training emphasis away from running and towards weight load walking. The 5km run should be replaced by a 5km walk in full battle order (ie. fully laden packs of approx 30kg) in one hour. Work effort can be increased or decreased by changing the weight load.

The endurance marches should be introduced. The current BET is inappropriate because the soldiers are not properly laden and many abuse the concept of running. The BET should be modified to become a 25km march in full kit (30kg pack) in 5 hours followed by a range shoot or some other skilled task.

The introduction of annual or bi-annual long marches should be seriously considered. These would be along Israeli lines of 75km in 15 hours, again in full battle order. Formal strength training should be adopted for arms corps. This would mean the reintroduction of regular rifle exercises and the purchase of large quantities of small hand weights to enable whole platoons to undergo open air circuit training.

The prime elements required by all armed forces are strength and stamina. Our current physical training orientation does not provide for these. We are producing thousands of middle distance runners and overwhelming scarce medical resources with orthopaedic injuries.

Weight-load walking offers a more physiologically sound method of training our troops. It is simple, effective and proven in battle.

**NOTES**

13. Rudzki S: Statistical Review 3RAR FEB-NOV 84 R506/1/1 dated December 84.
15. Shoenfeld Y & Bar-Kharma A: IBID.
HEROES AND GENTLEMEN: COLONEL TOM PRICE AND THE VICTORIAN MOUNTED RIFLES
by Winty Calder.
Published by Jimaringle Publications.
Price $25.00 + $4.00 postage.

Reviewed by J. P. Buckley, OBE, ED.

WHEN I joined the Army in the late 1930s I remembered many of the older serving officers speaking of the legendary Tom Price, the father of the volunteer mounted infantry which were the foundation of the Australian Light Horse.

Colonel Tom Price, an Australian had served with the British Force in India before he returned to command the Victorian Mounted Rifles until 1902. Later he served in Queensland as the commandant of the Commonwealth Military Forces. Even in Brisbane in 1939 his exploits were still spoken of with respect and admiration.

The author Winty Calder is well qualified to write this story. She is the grand-daughter of Colonel William Braithwaite, who was a foundation member of the Victorian Mounted Rifles and its senior volunteer officer until 1903.

1985 is the centenary year of the formation of the VMR so it is most appropriate for this excellent publication and its associate “Glimpses of Colonel Tom” a collection of speeches, addresses and letters by Tom Price, to be published this year.

The foreword is written by the Honorary Colonel of the 8/13 VMR Hon. Sir David Fairbairn, who describes Winty Calder’s many forebears, who served in the regiment and the various theatres in which it fought.

It is a most absorbing narrative very well presented and illustrated by some excellent historical photographs, maps and outstanding tables. Some of our early senior officers are described with great accuracy and detail. The reader will gain much knowledge about some of legendary early Army leaders e.g. Generals Gordon, Hoad, Hutton, Chauvel, Kirkpatrick, and Legge to mention only a few.

The research involved in writing this book could only be described as pains taking and brilliant, it covers a period in which Australian military history is very limited or forgotten.

Winty deserves commendation for this fascinating story about the beginnings and later performance in battle of the mounted soldiers.

I could write pages in reviewing this book; but I hope I have said sufficient to indicate to the reader that it will provide entertainment, knowledge and interest to all those fortunate enough to have a copy.

Winty Calder has made a substantial contribution to Australian military history, in particular to our mounted soldiers in the centenary year of their formation.

Field Marshal Earl Roberts, speaking of the Victorian Mounted Rifles said:
“Like heroes on the Battlefield, gentlemen everywhere.”

I strongly recommend this excellent story.

THE WAR DIARIES OF ‘WEARY’ DUNLOP
by E. E. Dunlop.
Published by Thomas Nelson, Sydney (Hardcover $35).

Reviewed by Hugh V. Clarke.

THIS is an extraordinary book by a man who is a legend in his own lifetime and one held in reverence by the survivors of those men who people his diaries.

The diaries themselves and the fact that ‘Weary’ Dunlop was able to preserve them (along with a wireless set) despite the most intensive vigilence by his captors are a tribute to his heroic determination. Discovery of far less innocuous records of events of POW days invariably resulted in execution.

Already a distinguished surgeon in England when he enlisted in the 2nd AIF in November 1939, Dunlop’s war had taken him through the desert, Greece and Crete before he landed in Sumattra for the desperate stand against the Japanese in February 1942.
Captivity followed and thus began a saga from which 'Weary' was to emerge with the stature of an incomparable leader, administrator, surgeon and hero.

At Bandoeng in April 1942, among the prisoners under his care was an Englishman, LA/C Bill Griffiths, blind with a shattered face, hands amputated and a broken leg. A Japanese captain ordered his guards to bayonet Griffiths but Dunlop interposed his own body. After a tense few moments the Japanese officer relented. In October 1946 Bill Griffiths appeared with 'Weary' Dunlop on a television program in Sydney.

Colonel Sir Laurens van der Post in his foreword to the book describes how Dunlop pilfered a wireless set from a handcart in front of a Japanese office and brazenly smuggled it into the camp under the eyes of the guards. "He did it as lightly and easily as if he were merely extracting a rugby football from another ruck on an international rugger ground where he had played for Australia and acquired considerable fame before the War."

On 4 January 1943 Dunlop Force, consisting of 878 Australians under the command of Lieutenant-Colonel E. E. Dunlop AAMC departed from Java for Singapore and from there on 20 January by train arriving at Bampong in Thailand four days later. From Bampong they went to the Konyu area where some 3000 British troops were showing clear signs of complete breakdown from semi-starvation, disease and overwork.

As commanding officer of his group, Dunlop’s qualities of leadership and his skill as a surgeon were to be unremittingly tested as work on the railway accelerated. His diary entries record in detail deaths, cholera epidemics, operations and torture and his own rare moments of despair. They record also the incessant movement of men up and down the line and his constant struggle to protect the sick from being drafted into work parties.

This reviewer remembers ‘Weary’ being described as ‘King of the River’ months before he met him. Dunlop was repeatedly bashed and was twice under a count-down to execution. In spite of this, his courage and commanding physique compelled a certain grudging respect from his captors.

At Hintok in March 1943 Dunlop was having one of his many battles to prevent sick men being sent to work on the line. His diary records the confrontation with Hiroda: “I invited him to make good his threat to shoot me (rifles were trained on me). ‘You can shoot me but then my 2 I/C is as tough a man as me, and after him you will have to shoot them all. Then you will have no workmen. In any case I have taken steps to one day have you hanged for you are a black-hearted bastard!’ ”

Although the author would be the last to admit it the diary entries often go beyond the mere recording of events. There are flashes of poetry and literary excellence. The multi-faceted character of the man emerges frequently revealing his determination, compassion, the sense of loss of his fiancee Helen, his unquenchable sense of humour and acute powers of observation.

The diary entry for 10 April 1944 records: "Deaths: 1 An amazing story of a ‘geisha’ whom came per barge for the pleasure of Commander Kukaboo! It seems that on the way in she was apprehended by Ometz and was enjoyed by Ometz and three British other ranks for the sum of 15 ticals."

The book is over 400 pages and all of it compelling reading not only for all Australians but for anyone interested to discover the heights to which the human spirit can reach.

Sir Edward Dunlop CMG, OBE, KSJ, FRCS, FRACS, FACS, D Sc Punjabi (Hons) was Australian of the Year 1977 and has been involved deeply in the Colombo Plan, the Australian-Asian Association and many other areas of community service at home and abroad.


Reviewed by Brig F. W. Speed, OBE, ED.

THIS is a worthwhile book that narrates in a single volume the part taken by Australia as a nation in World War 2. Its value lies in its examination of the political, military, indeed national aspects of the war: and the lessons for the future that can be drawn from it. It is of significance both to those who are concerned to provide a defence against a possible aggressor, but to the people who want Australia kept out of another war.
The book is a fresh edition of an earlier work published only three years ago, and when so many people are indifferent to the problems that confronted three successive governments, or blase about the bravery of those who served in the fighting units and the merchant marine, its re-publication, revised, is a courageous move on the part of a different publisher.

As to the qualifications of the author, John Robertson is Associated Professor in History in the Faculty of Military Studies, University of New South Wales, at the Royal Military College, Duntroon. Necessarily the writing is concise: however, this presents some difficulty in comprehension, and it is not possible to absorb the content in a short space of time.

The author devotes considerable attention to the many political aspects of Australia’s involvement — ‘political’ in the sense of pertaining to the state, its government, and policy, not in the pejorative definition — and of the dilemma posed by Japan’s warlike behaviour in Asia and the central Pacific. Inevitably, therefore, the many military operations in which its three armed services were engaged have been greatly condensed, to the point where the actions of individual fighting units are omitted, but not so that there is any doubt of the ability, motivation, and devotion of those units and their individual members. Moreover, the efforts of the supporting elements and civilian infrastructure are well, if briefly, covered.

Conscious no doubt of the breadth of the regions involved, the author provides, in the space of two short-chapters, a review of events in the years 1918-1939, and in a third a most useful outline coverage of the war 1939-1945. Though this summary is clearly written, unfortunately there are small defects. One is that some of its paragraphs seem out of sequence, inappropriately separated from others with which they connect. Thus the reader has to back-track in order fully to grasp the sense. Then there is a minor error where the infantry battalion of the 2nd AIF is described as having four rifle companies when in fact there were three.

Turning to ‘Politics and Command 1939-1942’ the author describes the effect the war of 1914-1919 and the intervening years 1919-1939 had on the early actions of the Government, and the factors that were to be considered. Not the least of these was the pro-British sentiment of the Prime Minister, R. G. Menzies, which was to a certain extent in conflict with growing nationalism. He then goes on in more detail to the governmental events of the remaining couple of months of 1939 and the years 1940-1942. He brings out well the conflict of thought that developed over the Army’s employment, and the reasons for the dispersion of the Navy and Air Force over considerable distances. It was towards the end of this time that the Menzies Government was defeated, and Labor under John Curtin took over. The author, as is to be expected, presents a balanced picture of a difficult period. Here — and later — the lessons are not spelt out, but while bearing in mind the considerably different circumstances of the present and the immediate future, useful indicators can be deduced.

In the separate chapter on The Japanese Threat 1939-1941, there is an interesting observation that has relevance to the present time. The author says of Japanese strategic policy “Rather than being a major, primary target for expansionist Japan, Australia perhaps was closer to being an item in American-Japanese imperial rivalry; and he goes on to examine the extensive body of historical writing about American-Japanese relations before Pearl Harbor. The student of history has only to substitute “USSR” for “Japan” and “Soviet” for “Japanese” to gain a perspective of the problems facing Australia today.

The next chapter, titled ‘A New War?’, is curious. It was Curtin, the Leader of the Opposition, who called the entry of the Japanese a new war, while others saw it as an extension of the European conflict or of the East Asian affair that was of longer duration. Here the text is a mix of time present and time future, disturbing the thematic flow in such a way that the reader tends to become disoriented chronologically. However, by persevering one does obtain useful insights into Japan’s political objectives and Australia’s reactions.

The jump to the entry of Japan into the war, is not to dismiss the campaigns in the Middle East theatre which vitally involved the Army and to a less extent both the Navy and Air Force. Though covered but briefly, the report is again well balanced and pays tribute to the fighting efficiency of the armed services. Two points, however, need to be made.

It is rather too glib to say that “Australians provided the infantry force to Tobruk for only the first few months of the siege”. The period
of siege was from April to December 1941 — almost a full eight months. True, the relief began after four months but continued piece-meal for another three. During the latter time the relieving units were not fully effective, and even then one battalion in a total of over a thousand Australians remained until the siege was raised.

Similarly, it is true in part to say that after the evacuation of Greece and Crete, “the 6th Division was ruined as a fighting division for the time being” and “saw no more action in the Middle East although several of its units did.” In fact, the divisional cavalry regiment, two infantry battalions, and the pioneer battalion, together with some smaller units, augmented the 7th Australian Division and took a very significant part in the difficult operations. Small points no doubt, due in the main to an initial careless choice of words, but misleading nonetheless.

The account of the debacle of Malaya and the islands to the south and south east is one of the highlights of the book. Full attention is given to the political background, with particular mention of the growing concern of Curtin and his government for the fate of Australia, and the dogged adherence of Churchill to the “single strategy for the global conflict: to beat Germany first and, initially, to fight a holding war against Japan.” The author then departs from his earlier brevity in reporting campaigns. He covers this affair in considerable detail, clearly yet succinctly.

A chapter is devoted to the threat of the invasion of the Australian mainland by Japan. By the time the Japanese forces had captured the Dutch East Indies (now Indonesia), and a substantial Japanese fleet was operating in the southern area of the central Pacific, Australia’s lack of defence preparedness was patently critical. A number of assessments made of the capacity of the Japanese to invade or at least intrude, caused the Australian Government to accelerate defensive measures which, though inadequate, at least seemed to ensure that a Japanese attack would be strongly resisted. Hence the appreciations made in that crisis period of 1941-1942 are of value in indicating the problems that face present and future governments, and the nature of the force required to be a deterrent to a potential aggressor. That Japan’s southward thrust began a bare three months before is a warning for the future. Also instructive is the section dealing with America’s decision to come to the aid of Australia, and the arrival of the Americans very soon thereafter.

The author makes a quite detailed analysis of the co-operation the Australian and American three services, with their quite different organization and tactics, and of the Australian national infrastructure. An understanding of this cooperation, seen in the perspective of the many exercises held since under ANZUS, could be very useful if that treaty should ever have to be invoked. In so doing, it needs to be borne in mind of course that the parties to ANZUS are committed to consult together in an emergency, not immediately to assist each other actively, and that a major virtue of the treaty is the defence cooperation that has occurred in peace-time, and should continue to occur in the future.

There are other matters that will be of interest to different people: the part that Britain played in the early stages of the war; Curtin’s difficulties with Churchill; MacArthur the General, and his relations with Curtin the Prime Minister; J. B. Chifley’s take-over of the prime ministership in May 1941; the part played by the Australian Army in ‘fostering-in’ the US Army and the latter’s reluctance to be assisted; the substantial part played by the RAN and RAAF in support of American forces in the early stages of the war and later. These facets are all covered in the official history, but here they are brought together in summary in the one volume.

The author adequately deals with the last years of the war when Australian forces became redundant to America’s Pacific war effort, and MacArthur’s determination that the re-capture of the Philippines and the invasion of Japan should be a wholly American triumph. Moreover, by early 1943 it had become apparent that Australia could not maintain the forces — of twelve divisions and seventy-three air force squadrons — that had earlier been contemplated; and, in the face of the strongly growing strength of the US forces in the Pacific, any chance of asserting the independence of Australia within the alliance had faded.

The difficulties were compounded by the dispersion, already noted, of the RAN and RAAF units and personnel; and, the reluctance, perhaps even refusal, of Churchill to permit their repatriation. He was faced with the growing disparity between the forces of the USA and
the British Empire, and, with justification, was stubborn in the extreme.

Here again, the author does not attempt to state the lessons. But, as is indicated in the introductory part of the book, his aim was to present a document, an over-view, that could be read by professional and amateur, each to his or her own purpose. This the author has achieved.

**CHAUVEL OF THE LIGHT HORSE**
by A. J. Hill
Published by Melbourne University Press
Price $25.00.

Reviewed by J. P. Buckley, OBE, ED

IT is a pleasure to read of the exploits of General Sir Harry Chauvel who has been neglected by Australian authors.

The book has been recently re-advertised by the Melbourne University Press.

Chauvel was the greatest of Australian Light Horsemen. He was the first Australian to be promoted to the rank of Lieutenant General and the first to command a Corps. The British authorities had no hesitation in placing its formations under his command — an unique honour at that time.

Hill has reached Chauvel’s life with dedication and ability. The story has been presented and expressed with taste. It grips the reader from the outset and retains its interest until the end.

I know of many senior officers of World War II who regarded Chauvel as their prime teacher, during their formative years, from the end of World War I until his retirement in April 1930.

At the age of 75, Chauvel was still being asked for advice by the Government. When Sir Brudenell White was killed in 1940, Prime Minister Menzies had conflicting advice about who should become Chief of the General Staff. He approached Sir Harry Chauvel for a recommendation. Chauvel had no hesitation in recommending Vernon Sturdee.

Chauvel, as well as being a great soldier, was a sound Christian gentleman, who was always proud and devoted to his faith. He was a Church Warden at Christ Church, South Yarra, Victoria for 25 years. His sword hangs on a wall together with a tablet commemorating his service to his Church.

It may be of interest to readers to know that Christ Church, South Yarra has several other connections with the Army:—

- Lieutenant General Sir Edmund Herring attended services there during his lifetime and was one of its most devoted servants. He was Chancellor of the Diocese of Melbourne for over 40 years.
- Major-General Sir Julius Bruche, ex-Chief of the General Staff was also well known as a member of the Church. There is a tablet commemorating his service.
- Lieutenant General Sir Sydney Rowell ex-Chief of the General Staff was a member and his military funeral service was held there. Many other distinguished officers have been, and continue to be, associated with Christ Church.

I like the sympathetic manner Hill exhibits when he writes about Chauvel and Morsehead. Hopefully, he will continue writing, there is still plenty of scope for biographies about Sturdee, Berryman and Northcott, to mention only a few.

As usual the Melbourne University Press has produced a first class publication. Under its Director, Peter Ryan, it continues to set a high standard for quality work.

Any reader interested in Australian Military History should have a copy of this book on his bookshelf.

**CONFISCATING THE PRINCIPLES FOR WHICH AMERICAN DEMOCRACY FUGHT: SOME COMMENTS ON A CONCEALED EPISODE OF WORLD WAR II**

Reviewed by Andre Kuczewski, McGill University, Montreal, Canada.


The premeditated act of consciously offering refuge to a law breaking fugitive fleeing the stern mandate of justice is widely recognized throughout the civilized world as a capital felony punishable under the strict provisions of the penal code. Yet following the Second World War, several United States government agen-
cies, including the State Department, the Federal Bureau of Investigation and the Office of Strategic Services (the nation’s first major clandestine fact finding organization and harbinger of the Central Intelligence Agency), knowingly carried out actions which contravened this convention of human behavior.

After many years of thorough and diligent research, John Loftus has written a shocking account of an extraordinarily bizarre operation which led officers of the United States to act in direct defiance of presidential orders when they secretly smuggled well over 200 East European war criminals into the nation. The author of The Belarus Secret is eminently well qualified to discuss the sordid details of this nightmarish drama. Having served as a federal prosecuting attorney in the Office of Special Investigation of the Criminal Division of the Justice Department (commonly referred to as the Nazi war crimes unit), Loftus was in the very able position to locate and analyze evidence which explained precisely why high ranking American personnel readily granted sanctuary and immunity from prosecution to individuals who had once belonged to the Nazi puppet regime governing the Byelorussia, or Belarus, region of the Soviet Union.

The intrigue which Loftus discovers had their tragic origins in the tension filled atmosphere of Russian-American confrontation during the immediate post war era. In 1945 a top secret division of the State Department began hiring these dastardly thugs ("who had guided the SS Einsatzgruppen — the mobile killing squads — across a good part of Eastern Europe; who had assisted in the mass murder of thousands of Jews; whose atrocities had even sickened some of their German masters"), with the eventual intention of recruiting them for behind the lines guerrilla warfare against the Soviet Union. (p. 6). This unprecedented operation was a closely guarded covert manoeuvre unknown to Congress, the American people and, until very recently, even to some of the highest echelons of the foreign intelligence gathering community. It was bitterly ironic that America’s newly discovered private mercenary army comprised of soldiers who, only a few months earlier, had served with the German Wehrmacht defending the Third Reich against rapidly advancing United States troops.

When plans to employ the services of the Byelorusians proved unsuccessful, the blue-print was scrapped and the collaborationists were promptly rushed to the United States and allowed to settle there. Between 1948 and 1950, more than 200 of these Nazi sympathizers, together with their families, arrived in South River, a tranquil suburban settlement of the outskirts of New Jersey’s sprawling manufacturing belt. Paradoxically, most of the Belarus relocation areas were situated on the edge of large concentrations of Jews who had miraculously escaped the dreaded onslaught of Adolf Hitler’s “Final Solution.” The story of illegality and abuse, however, were far from over. For the next thirty years, both the FBI and CIA mounted a massive and elaborate cover-up to prevent any possible leak of the Belarus secret into the open.

All this, of course, begs one fundamental question: why did the United States, a democratic nation which throughout the entire span of the Second World War expressed horror and outrage with everything the Nazis stood for, suddenly reverse course and find itself supporting those with whom it had been locked in a mortal life and death struggle a few years before? This unsavory state of affairs, conjectures Loftus, “arose initially out of what were perceived to be the legitimate needs of national security.”

Imbued with the anticommunist spirit of the Cold War, intelligence officials decided to fight fire with fire — to enlist Eastern European Nazis with anti-Soviet backgrounds in a guerrilla and propaganda war against the Soviet Union. These Americans were not evil or vicious; they believed that moral ends justified immoral means. (pp. 157-158)

Perhaps an even more salient observation is served by asking how it was that average men of good will, ordinarily law abiding and ethical under normal circumstances could, at a moment’s notice, engage in such depraved practices? Once again the key to the puzzle seems to lie with the prevailing ideological climate which hovered over the globe after 1945. “The Belarus conspiracy was a product of the Cold War and confrontation between the United States and the Soviet Union.”

Rightly or wrongly, the American people and American policymakers were convinced that Stalin was determined to dominate the world
and tailored their actions to meet the perceived threat. Anything that made trouble for the Russians and permissible — including the enlistment of Nazi collaborators. Critics were isolated as appeasers, enemies of the state, or, in the heyday of McCarthyism, “soft on communism.” (p. 158)

The Belarus Secret is an admirable book with an excruciatingly painful message. It is bound to attract widespread attention among specialists, general historians, and the larger public. It will bring new life to the discussion of Cold War America and it will sharpen and clarify the debate and problems of responsibility in a new way. No one with intelligence is ever going to look at America with quite the same eyes as before.

Peter Sekuless and Jacqueline Rees.
Published by Rigby.

Reviewed by John Buckley, OBE

His Royal Highness, the Duke of Edinburgh, has written the foreword to this outstanding publication which is a credit to the authors, the publisher and the Returned Services League.

Extracts from the foreword include:
“It is a remarkable story of single-minded dedication to two objectives. To perpetuate the memory of those who lost their lives on active service and to ensure the welfare of the wounded and aged “mates” and the support of dependants and orphans.”
“The RSL has helped to shape modern Australia and I commend this book to all Australians who are interested in their history and in the development of their national identity.”

His Royal Highness is President of the British Commonwealth Ex-Services League and he has been most interested in the magnificent achievements and dedication of the Australian Returned Services League.

This book tells the story of what the League has done for veterans and their dependants; whilst always remembering those who made the supreme sacrifice. This is no idle comment from the writer. I admire the unique service of the RSL to Australia — no other organisation has approached its contribution in so many diverse and varied ways. It is a great Australian institution and its destiny has been guided by so many outstanding and gifted leaders at both State and Federal levels.

I am proud and humble to be a member of such an elite body of men and women who above all else, are determined to serve Australia and particularly its handicapped veterans, war widows and dependants.

Everything about this book is quality — its authenticity, its narrative, its excellent photographs, even the paper used.

It examines the influence of the League on government policies, defence, immigration, repatriation, employment, social security — to mention only a few. Anything detrimental to the well being and safety of Australia gets an immediate reaction.

The 300,000 members can be proud of “Lest We Forget” it is a book which every member should have and it will have great appeal for non members. The book is one of the most treasured stories on my well stocked bookshelves. Make sure you get a copy before it is too late. Need I say more — except to repeat my congratulations to the authors, the publisher and the officers of the League, who have combined to produce such a masterpiece.
Contributions of any length will be considered but, as a guide, 3000 words is the ideal length. Articles should be typed double spaced, on one side of the paper, and submitted in duplicate.

All contributions and correspondence should be addressed to:
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(062) 65 2682 or if unanswered 65 2999

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