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Defence Force Journal
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:
The Managing Editor
Defence Force Journal
Building G, Room 4-25
Russell Offices
CANBERRA ACT 2600
(062) 65 2982 or if unanswered 65 2999

Published by the Australian Government
Publishing Service, Canberra, for the Department of Defence.

© Commonwealth of Australia 1984
ISSN 0314-1039
R 82/1097(4) Cat. No. 83 1042 7

Printed by Ruskin Press, North Melbourne
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THE NEWS MEDIA AND MILITARY OPERATIONS

Dear Sir,

When I wrote my article on the Media and Military Operations as a project at the Australian Staff College, I did not intend to become involved in lengthy public debate on the subject some years later. I chose to write on this topic because I perceived that the Australian Army was somewhat apathetic and haphazard in its approach to the issue and I saw a need for positive and urgent change, particularly if the Army was to withstand modern media pressures in war. I stand firmly by the conclusions and recommendations of the article and would hold that events in The Falklands and more recently in Grenada have served to reinforce my findings.

I am unmoved by the type of personal vilification embarked upon by Mr John Stackhouse (Sep/Oct issue) and as a consequence dismiss it without further thought because it fails to recognise the real issues of the problem. I also believe that the energies of concerned media representatives and the PR Corps would be better spent if they were directed more towards solving the Army's current PR problems instead of denying their existence.

P. J. FITZPATRICK
Lieutenant Colonel RA Sigs

Dear Sir,

I must comment on Mr Stackhouse's letter in the September/October issue of the Defence Force Journal about the exchange in the May/June issue involving Lt Col Roylance's reply to the article in the January/February issue by Lt Col Fitzpatrick on the News Media and Military Operations.

I believe Lt Col Fitzpatrick's article was a sincere attempt to describe our Army's capacity to present itself to the public. It is lamentable that it has drawn no constructive comment, only self-justification on the part of Lt Col Roylance and unpleasantness and erroneous comment from Mr Stackhouse.

Mr Stackhouse claims to have spent some months trying to see Defence questions from a Serviceman's point of view. He credits Lt Col Roylance's colleagues in the PR branch with invaluable assistance for his efforts. Mr Stackhouse then suggests that journalistic skill can be equated to the medical, dental and engineering professions and that like these professions, journalistic skill is generally seen by the Army as being essential for the function of the Service in peace and war. What nonsense! To state that journalistic skills are seen by the Army as essential to its functioning is a rash generalization and patently false. In that context Mr Stackhouse may have failed to perceive the Serviceman's point of view despite his efforts and Army PR assistance.

For Mr Stackhouse to also suggest that accreditation is a non-issue astounds me. It is perhaps the most pertinent issue related to the formulation of Army doctrine covering public relations in war. The United States invasion of Grenada is a clear example of the inability of the media to regulate itself — some 400 media representatives expected to accompany the initial invasion force of less than 2000 troops.

Mr Stackhouse further suggests that accreditation must be used to protect correspondents, give them access and confer some status. He misses the point. It is quite pompous for him to suggest that accreditation would exist mainly to protect journalists and confer status upon them. Let there be no doubt that while an accreditation system should in no way be designed to restrict access, its primary function should be to maintain the security of the military operation and, more particularly, ensure the safety of the troops involved.

A problem exists and it should be constructively addressed by Army. Perhaps the best way to express the issues is to reiterate Lt Col Fitzpatrick's recommendations. I also believe a solution is to be found within them:

The current practice of appointing trained journalists to public relations appointments should be terminated and these positions should be filled by regular career officers (GSO).

Formal doctrine should be promulgated for public relations in war.
A system of accreditation should operate for journalists attached to Australian forces in war.

Censorship in war should only be involved to protect items of long-term intelligence value.

P. PRIEDE
Major RAAC

Dear Sir,

Several years ago I overheard a regular contributor to DFJ remark that if one enjoyed denigration, insult and belittling criticism then submitting a controversial article to DFJ was a very good way of attaining satisfaction. I see by the tone of Mr Stackhouse’s letter on LTCOL Fitzpatrick’s article in DFJ No. 38 that times have not changed. Stackhouse neither does himself nor his trade any credit by resorting to calling one of your contributors ‘naive’ and ‘blimpish’ etc. As Stackhouse is no doubt aware from the Letters to the Editor of the Bulletin, it is very rare for an author to get all the facts accurate enough to satisfy every expert. If one also expresses an opinion . . . well you deserve all you get.

However, on the matter of the Army’s PR methods, it would appear that LTCOL Fitzpatrick has a valid argument. Can anyone give me a satisfactory explanation of why we need to commission PR people at all? Does the Army need to hand them the rights and authority that their rank confers on them? Certainly the Army needs computer technicians, lawyers, teachers and all sorts of specialists—maybe even PR experts, but are they required to be commissioned officers with the same authority as the GSO etc officer? As Peter Charlton so rightly pointed out, specialist PR officers cannot acquire the breadth of military experience necessary to understand unit morale, the effects of hardship and danger etc, which would appear to be a prerequisite to successfully understanding how the Army functions as it does. For goodness sake, it’s hard enough for the professional GSO to gain anywhere near enough experience these days! So, do we need PR specialists with media backgrounds commissioned into the Army or do we need career GSO to be given some media training then appointed to PR jobs? I opt for the latter solution.

I have read LTCOL Fitzpatrick’s article once more and all the subsequent correspondence on it and I am at a loss to understand the apparent depth of feeling it stirred up. Perhaps there is a great deal more to journalism than there would appear to be to a casual observer. Perhaps the solution is for the Army to stick to writing non-controversial articles on purely military matters and for Stackhouse to stick to writing corrections and retractions for the Bulletin.

Finally, I think Robert Townsend had it right when he said that PR was essentially a dishonest business as you are either trying to promote something in which the media is not interested or you are trying to mislead about something gone wrong. If you are doing something worthwhile the working media will find out and if something goes wrong (and they find out) try honesty. The trouble is that with the media we have to deal with in Australia honesty may not be enough.

ALISTAIR POPE
Major
HQ Trg Comd

Dear Sir,

I have read the article by LTCOL Fitzpatrick and the subsequent correspondence and I agree there is much to be done in the way of Army PR.

I am an advocate of the GSO category taking over some PR staff officer appointments but not until such time as the Army, indeed the entire ADF, embarks on a program to ensure that those so appointed have a more informed understanding of, and mature attitudes toward PR than those reflected in correspondence so far to the DFJ. That is, that those appointed know how to do the job and know the operation of the media.

Ignorance of another Corps or service, however, is not confined to PR. ‘They don’t know how to use us or our information,’ says an associate in SASR. ‘They don’t get the best out of what we offer,’ says another in RAE. This, though sad, is at least some consolation.

In the case of PR, however, I believe there has been a failure to adequately address the serious problem of their own internal PR and the education of the GSO category. Senior officers who ‘want’ such and such an item to appear on TV or in the local newspaper but who overlook the fact that the item is not newsworthy and that they don’t command the
local media, too. Unit duty officers reluctant or even refusing to answer PR officer questions relating to unit misadventures thus fuelling claims of more Army cover-ups.

PR is a function and responsibility of command. The PR Service can only offer advice, which, thankfully is becoming more and more accepted. PR is also the responsibility of every member of the Army including Unit PRO. It does not only include media liaison and it certainly doesn't mean the number of times a unit is mentioned in Army Newspaper.

Better PR involves such seemingly trivial things like less Skylarking in the back of trucks, no waiting in highly public areas like airports waiting for Commonwealth cars with hand or hands in pockets or cigarette in the other. It involves less speeding both in self-drives in general or to and from camps adjacent to residential areas.

Finally, not all PR officers are lapsed journalists and some DO put up a pretty good show at their psuedo officer status as national journalism awards and reports from all-corps courses like the JSC bear testimony. If, however, we are to take this emotional comment to another conclusion, surely not all the 84% of career officers who leave the services before 20 years are lapsed officers and psuedo Telecom, BHP, TNT or other company executives?

P. C. SMITH
Captain
RAEEC (PR)

BATTLE OF LONG TAN
Dear Sir,

I wish to bring to your attention a number of inaccuracies contained in your six line editorial comment on page 48 of the Sep/Oct 83 edition of the Defence Force Journal.

The casualties in the Battle of Long Tan were:

a. Australian:
   (1) KIA 18, and
   (2) WIA 21.

b. North Vietnamese:
   (1) KIA 245, and
   (2) WIA 350 (estimate).

These figures have been taken from the official After Action Report and are also readily available from a number of Army Newspaper articles and unit histories that have been published over the years.

The actual Battle of Long Tan took place to the East of the 1 ATF position at Nui Dat and not to the North.

Long Tan Day, the eighteenth of August, has been commemorated by 6 RAR every year since 1966. Long Tan Day is not officially recognized as a Commemoration Day for the Vietnam War as seems to be suggested in your comment.

I am aware that the Vietnam Veterans Association were considering the eighteenth of August as their Commemoration Day, but to the best of my knowledge no decision has been made by them concerning this matter.

I offer these comments in the interests of accuracy and not in order to be critical in any way. I am personally opposed to Long Tan Day being adopted as a Commemoration Day by the Vietnam Veterans Association as I do not believe it is appropriate.

P. J. LANGFORD,
Lt Col, RAR.

AUSTRALIA AND THE MILITARY BALLOON
Dear Sir,

In my article, Australia — And The Military Balloon (DFJ, Nov/Dec 1983), space limitations precluded mention of the observation balloons operated by the Royal Australian Navy during the 1914-18 War. Perhaps I may be permitted to supply the following addendum.

Accounts of the genesis of Australian naval aviation all too often omit the fact that the RAN used balloons in 1918 during anti-submarine patrols in the Adriatic Sea. Also, it is not generally known that an Australian, Lieutenant P. Roach-Pierson, Royal Naval Air Service, participated in the first experiments to ascertain the possibility of balloons being operated from front-line warships.

As a point of interest, the first specially equipped balloon ship, HMS Manica, went into action at the Dardanelles on 19 April 1915, six days before the Anzac landing at Gallipoli. The balloon's spotting and gun ranging operations were so successful that Manica was joined by a second balloon ship, HMS Hector in July, and a third, HMS Canning relieved Manica in October. As an outcome of the Dardanelles campaign, two balloon ships, HMSs Campania (which also carried aircraft)
A Caquot Type M kite balloon, with the observers in the basket, about to ascend from HMAS Huon.

and Menelaus, joined the Grand Fleet in early 1916, and Roach-Pierson was a balloon observer aboard the latter ship.

On 8 June 1916 a Drachen-type balloon aboard Menelaus was transferred to the quarterdeck of the battleship, HMS Benbow, in Scapa Flow. When the warship was under way, the balloon was sent aloft with Roach-Pierson and Sub-Lieutenant C. A. Beck, RN. This was the first time a balloon had been towed at height from a capital ship steaming at full speed. The experiment, which lasted for over an hour, is recalled in detail by Captain Roach-Pierson in the Australian monthly publication, Sea, Land And Air, November 1919.

As from 1 April 1918 the British balloon unit came under the control of the newly formed Royal Air Force, subsequent to the amalgamation of the Royal Flying Corps and the Royal Naval Air Service. A month later several Caquot Type M balloons — the prototype of which was designed in 1915 by the French army officer, Captain Albert Caquot — were made available for service with naval

HMAS Parramatta at speed, streaming its Caquot anti-submarine balloon, during an Adriatic Sea patrol in 1918.
units operating against German submarines in the Adriatic Sea, between Italy and Albania.

The Caquot balloons were taken aboard several destroyers, including HMASs *Huon*, *Parramatta* and *Yarra*, whose identification, or pennant, numbers were 50, 55 and 79, respectively. The captive balloons were towed at speed from the aft decks of the destroyers, and operated at various heights up to 305 metres (1000 feet); the maximum ceiling of the Caquot was 1280 metres (4200 feet). In the event of the airborne observers sighting or detecting an underwater shadow of a submarine, they would then direct an accompanying killer destroyer to the target area. This technique was a development of the procedure used by Lieutenant O. A. Butcher, DSO, on 12 July 1917 when he guided his own balloon-towing destroyer, HMS *Patriot*, in a successful attack against a submarine, U.69, which was destroyed by *Patriot*'s depth-charges in the North Sea. Details of the RAN balloon operations are described by A. W. Jose in *The Official History Of Australia In The War Of 1914-18*, Volume IX, *The Royal Australian Navy*.

The accompanying photographs highlight this little known RAN episode in the history of Australian military aviation, and may be of interest to your readers.

To round off Australia's military balloon history, it should be mentioned that Australians were among those who manned RFC and RAF observation balloons during the 1914-18 War. In his delightful book, *Memoirs Of An Old Balloontatic* (William Kimber, 1972), Goderic Hodges recalls his association with one such Australian. Also, *The Balloontatics* (Jarrods Publishers, 1970), by Alan Morris, contains numerous accounts of the "balloon busters" — the fighter pilots of all nationalities who specialised in shooting down balloons. Captain A. H. Cobby, Australian Flying Corps, appears in the text on several occasions but, surprisingly, is not recorded in the appendix containing the list of those who shot down the most balloons. Cobby was not only the leading AFC air ace with 29 aircraft to his credit, but his destruction of 13 balloons established him as Australia's greatest "balloon buster".

KEITH ISAACS,  
Group Captain, RAAF (Ret)
FIELD MARSHAL
SIR THOMAS
ALBERT BLAMEY,
GBE, KCB, CMG, DSO, ED.
1884 – 1951

COMMEMORATION OF CENTENARY OF BIRTH

By Army Historical Staff

THIS year (1984) marks the centenary of the birth of Australia’s first and only Field Marshal — Field Marshal Sir Thomas Blamey, GBE, KCB, CMG, DSO, ED.

During 1984 the military service of Field Marshal Sir Thomas Blamey will be especially remembered — reminding older generations and informing younger generations of the magnitude of that service.

Sir Thomas Blamey’s life spanned the two World Wars and his service to the nation during those Wars represented the service of a totally dedicated Army Officer — determined that whatever external influences might be brought to bear, the Australian Army would remain a visible, efficient and united fighting force.

Thomas Blamey entered World War I as a professional military officer, having been commissioned in Melbourne in 1906. He served at Gallipoli, first landing there on the original ANZAC day in 1915. Blamey ended the War, aged 35 years, as Brigadier General, Chief of Staff to the Commander of the Australian Corps, Lieutenant General Sir John Monash. Monash later wrote: ‘Some day the orders which he drafted for the long series of history making operations will become a model for Staff Colleges and Schools for military instruction. They were accurate, lucid in language and always an exact interpretation of my intention.’

Following World War I Blamey continued full time military service until 1925 when he became Chief Commissioner of Police in Victoria, an appointment he held until 1936. He was knighted in 1935. During the period 1925 to 1937 Blamey retained his military links through service in the Militia — commanding 3rd Division from 1931 to 1937.

In 1938 Blamey was brought back into public life by the Government, in preparation for the impending war. Initially he served as Chairman of the Manpower Committee and Controller-General of the Recruiting Secretariat. When war was declared in September 1939 he was
immediately appointed General Officer Commanding 6th Division, the first division raised in the 2nd Australian Imperial Force (2nd AIF). This formation was dispatched overseas in January 1940, destined for service in the Middle East. By the end of February 1940 the 2nd AIF had been expanded to a corps — comprising 6th and 7th Divisions, under Blamey's command.

Blamey commanded the 1st Australian Corps in the Middle East, then the Anzac Corps in the ill-fated Greek campaign. In April 1941, just before the Allied withdrawal from Greece Blamey was recalled to Cairo to take up the appointment of Deputy-Commander-in-Chief, Middle East.

Following Japan's entry into the War, Blamey was recalled to Australia. The Australian Army was now required to defend its own nation and territories, as well as continue its commitment in support of Britain.

The task awaiting Blamey on his return to Australia was the command of all elements of the Army in the newly created appointment of Commander-in-Chief, Australian Military Forces. To this task was added that of the operational command of Allied Land Forces, South West Pacific Area. The demands of this latter appointment subsequently required Blamey to work from Port Moresby, to oversee Allied operations.

Even with the benefit of hindsight, and the exhaustive analyses now available, it is difficult to appreciate fully the diplomatic, political and military complexities which confronted Blamey in his dual command appointments during the three years 1942 to 1945. The breadth of Blamey's responsibilities during this period is unique in the annals of Australia's military history. Indeed no senior wartime operational commander anywhere faced such a diversity of tasks for such an extended period.

Blamey relinquished his appointment as Commander-in-Chief in November 1945 and was placed on the Reserve of Officers on 1 February 1946. On 7 June 1950 General Sir Thomas Blamey was transferred to the General List of the Active Citizen Military Forces, and on the following day he was promoted to the rank of Field Marshal. He died on 27 May 1951.

The Military capabilities of Field Marshal Sir Thomas Blamey were undoubtedly developed and refined through the unique circumstances experienced during the two World Wars. Operational service in Gallipoli, the Western Front, the Middle East, Greece, and New Guinea is a record of military experience which few could emulate. Nevertheless, Blamey's greatest military attributes, those of total dedication to the cause and an unshakeable belief in the fundamental principles of war, do not depend on previous experience or the 'luck of being on the spot'. These are attributes to which all Servicemen may aspire.
STRESS, COMBAT AND TACTICAL DECISIONS

By Dr. M. G. King, HQ Logistic Command
Professor G. V. Stanley, Department of Psychology, University of Melbourne
Professor G. D. Burrows, Department of Psychiatry, University of Melbourne.

Introduction

A RECENT report suggested that whilst the performance of modern battlefield instruments is well understood, the performance of man in the battlefield had been neglected. With regard to the ability of man to sustain long periods of operations "... very little research has been done in this area..." In fact the factors which contribute to the deterioration of performance have been the subject of considerable research. It is possible, however, that the results may not have been interpreted in terms relevant to the military, and the implications may not have been brought to the attention of military personnel.

To redress this problem, the present article will put before the military audience some of the practical conclusions which can be reached by combining psychological and military experience. In particular, this article will focus upon the difficulty of an officer in a decision-making role under combat conditions. Pre-hostility training programs which may affect the officers' decision making capability will be discussed.

The Concept of STRESS

The influence of external factors upon performance is usually considered under the heading of "stress". However, the notion of stress has been so poorly defined, particularly in the recent literature, that it has become almost meaningless. Military writers tend to use the word stress to mean the cause or result of any change in performance, or simply any difficulty. For example, "Stress is caused by a situation in which adjustment is difficult or impossible to overcome but the motivation to overcome the situation is strong".

Although the word "stress" has often been used very loosely there are working definitions which have been agreed upon and validated. The Selye concept of stress centres upon chemical changes in the body in response to demands, and is usually measured by physiological indices such as increased levels of adrenal activity. It is generally accepted that these changes in body chemistry, the physiological dimension of stress, are under the influence of psychological factors. This understanding emphasises the importance of the way an individual interprets his environment: "there is a potential for stress when an environmental situation is perceived as presenting a demand which threatens to exceed the person's capabilities and resources for meeting it...".
Under conditions which are generally agreed upon to be stressful, that is to cause stress in the individual, performance on a variety of tasks is usually adversely affected. Prolonged exposure to stressful conditions places long-term health at risk. However not all demands are stressful. Another, quite different response can occur in a demanding situation. People can be raised to the peak of their abilities and they may perform very well indeed. This response to a demanding or challenging situation can be called “arousal”.

The distinction between stress and arousal is important. Both concepts relate to a person’s response to his environment and the demands placed upon him. Stress relates to elevated fear levels or a diminished belief in one’s ability to cope. It usually results in a poorer performance on both simple reaction tasks, and on difficult intellectual decision making tasks. Arousal is a more useful response to a demand. It is associated with increased alertness and optimum performance. A self-report test which distinguishes between these two responses has been developed.

Do Military Leaders Suffer From Stress?

Before the predicted effects of stress upon an officer’s performance are discussed, and before we consider how to approach the potential problems, we should first consider the evidence that a position of command may expose the individual to stress. The studies referred to below have been selected to illustrate various aspects of the stress/arousal response in different military situations.

Both stress and arousal are highly dependent upon the individual’s assessment of the situation, and his evaluation of his ability to cope. The stress/arousal distinction can also be seen in two types of physiological response to a demanding situation. Two measures showed different response patterns and the differences could be interpreted in terms of the individual’s performance. Specifically, on a US Navy Company Commanders’ course, senior Navy enlisted men were faced with a demanding leadership role. Serum cholesterol levels and serum uric acid levels were monitored before, during and after the course. In terms of reported job stress on a day to day basis, significant correlations with cholesterol levels were reported. Furthermore, cholesterol concentrations at the first day of the course discriminated between the successful and the unsuccessful subjects on the course. Doubts about coping were shown to have physiological consequences. On the other hand the uric acid levels were elevated in the men in response to their anticipation of and early experience with the novel and challenging aspects of their work.

Although the above study did not refer to officers, it illustrates the point that a position of command can produce, even in peacetime conditions, stress in some individuals and the more useful arousal response in others.

During the Vietnam hostilities a number of studies were conducted to monitor the effects of combat upon individuals. In one study a group of two officers and nine enlisted men were monitored for a chemical measure of stress (urinary 17-OHCS). There were three phases in this study: the mean level before a specific perceived threat; the mean level on the day of an anticipated attack; the post-attack levels over three days. The results showed significant differences in stress levels for the enlisted men compared with the officers. As Bourne put it: “Although all members of the group are equally exposed to the realistic dangers surrounding them, this (difference in stress response) suggests either an inherent difference in the psychological adaptive capacity of the two officers, or that their assigned role in the group provides additional stresses which cannot be as easily dealt with as those confronting the enlisted men . . . The data supports the latter hypothesis”.

Bourne explained that enlisted men were generally required to perform tasks in which they were highly trained and which tended to be of a mechanical nature such as building defences and maintaining equipment. Their concern in combat or in the event of an attack on the camp revolved around the satisfactory performance of these tasks.

Unlike the enlisted men, the officers were primarily influenced by radio messages. They were required to make rapid decisions about the means of handling difficult radio commands. Bourne suggested that the demands created by this situation could not easily be dealt with. These demands tended to keep the officer in a state of at least mild conflict with either his superiors, his subordinates, or both. The officer needed to remain constantly alert for new instructions which may call for new and unique patterns of behaviour that he could
never be sure how to accomplish. In terms of the model presented in this article, the officer's role could be regarded as stressful.

Ambiguity and uncertainty are likely to generate the key psychological component of stress, which involves doubts about coping. Bourne concludes that this situation "... leads them (the officers) to take extreme personal risks". A well publicised event in The Falklands war involved a British LtCol taking extreme personal risks. Could this have been a decision taken under the influence of extreme stress?

The study of men under combat conditions illustrated two important points about stress. First, the effect of a threatening environment does not necessarily produce in men the non-coping stress response; stress is dependent upon the subject's overall perception of his situation, and this in turn is influenced by the individual himself. Second, the study gives some clues about the nature of coping strategies under stressful situations. These will be discussed in greater detail later.

Bourne’s study showed that individual differences are great. Even under real-life battle conditions, major differences in the stress response occurred. It should not be assumed that all officers will become stressed, or that all ORs will feel comfortable when faced with death — the important interpretation is that officers are susceptible to stress and that individual differences are important. These differences will be very important when controlled peacetime studies are set up to show the effects of stress. Even under the most realistic trial conditions large numbers of the subjects may not in fact experience serious levels of stress, and therefore performance may not be affected. The frequently-quoted exercise on sleep deprivation, Exercise Early Call" was intended to study the effects of this so-called "stressor" on various performance tasks. However, the trial failed to reproduce the urgency of life-death operations, and this is reflected in the number of ways in which the trial instructions were not followed. When the reader is considering the results of such a trial, he should always raise for himself the issue: did the trial actually produce stress in all (or any) individuals? In what objective way was this stress demonstrated? Since arousal also affects performance, what was the relationship between trial conditions and arousal?

The Effects of Stress on an Officer's Performance

The reality of serious stress-related breakdown under combat conditions is not in doubt. The above cases were selected primarily to illustrate the point that "sub clinical" cases of stress are likely to occur in officers during military operations. It has also been demonstrated over most of this century in the psychological literature that stress tends to result in diminished performance. Let us examine exactly what this may mean to an officer in the field.

An officer’s role in the field requires tactical decisions to be made in formulating an appreciation. In making an appreciation there will be an enormous number of factors to consider. The first problem is that of identifying the relevant factors.

Hellyer suggested that the officer should not decide on a final course of action "until he has considered all factors which appear relevant in some detail". The more open the officer’s mind is to alternative courses of action, "the more likelihood there is that a fresh, non-standard solution to the problem may be discovered, but at the same time the number of items of information which have to be sifted will increase in proportion to the 'openness' of the approach". 6

Admitting that the task of giving deliberate consideration to all possible factors would be in practice impossible, Hellyer suggested that many of the decisions to delete factors and information are done by the (experienced) officer "quite unconsciously". The unconscious components of the process were used to explain the difficulties that students of tactics find in committing their thought processes to paper. "It should always be made clear to students that the written appreciation is only a poor reflection of the mental appreciation which it summarizes ... The fact that it is difficult to reproduce the mental appreciation process on paper does not mean that it should not be attempted." 7

Hellyer appeared to be satisfied on balance with the demands of the task in a tactical exercise, and he seemed to be convinced of the ability of men to deal with these decisions. The present article will present an alternative consideration of the demands placed upon an officer. The assumption that satisfactory per-
formance can be expected of an officer under actual combat conditions will be discussed.

The difficulty of clearly writing down the processes involved in reaching a tactical decision is a clue to a very real difficulty that Hellyer did not entertain. It is possible that the decision maker cannot write down his logical processes because they do not exist. The human “working memory” is quite limited. Psychological experiments using a wide range of situations indicate that only a limited number of items of information can be processed at the one time. For example, in a real-world situation of solving HSC physics problems, it was shown that essentially all students understood all the principles involved. They could solve problems which used just one “rule” or factor at a time. If the number of factors for consideration reached 5, then essentially all students failed on the item. There was a linear increase in the difficulty of the problem, the chance of an incorrect answer, as the number of factors increased from 1 to 5°.

In the case of an officer making an appreciation, considerably more than five factors are relevant. It would therefore be improbable that his answer will include an evaluation of most factors. However, accepting that the working memory is already overloaded with data, it is probable that there will be insufficient additional space for self-monitoring and self-checking. From the above argument, it is to be expected that the officer will inevitably reach a simplistic solution to a tactical problem. His solution will probably not have included much of the necessary data. He will probably be unaware of his short-cuts and his omissions, and to the extent that he is aware of logical gaps, he may put these down to unconscious processing of the data. He will probably be quite pleased with his performance. However, when writing down his appreciation, he will become frustrated and confounded to find that he cannot reproduce his logic. Large gaps, illogical jumps, and ignored data will be in evidence. The expected result is that he will complain of the difficulty in assigning his thoughts to writing.

We would argue that his thought processes were far from logical, and that little attention was paid to most of the data. The difficulties raised by Hellyer are viewed as an expected consequence of the limitations of the human mind under even optimum conditions. What about the effects of combat conditions on the decision process? This question could be changed to ask what will be the effect of stress?

Given that the intellectual capacity of the human diminishes under stress, then even fewer factors will be dealt with in the officer’s decision processes in combat. This proposition is recognized in the USSR approach to combat preparation. “The first casualty of stress . . . will be clear and reasoned thinking. The last thing to go . . . will be well rehearsed drills. It is here that drill and repetition score over intellect, wit and initiative.” 10 p76. The Russians consider the British system of relying on initiative as a poor substitute for a carefully worked and detailed plan. They see their Military Doctrine as the accumulated wisdom and experience of generations of competent Soviet soldiers.

PREPARING FOR STRESS

Thus far it has been established that officers are likely to experience stress in combat conditions. This stress may be due to a combination of factors such as noise, physical discomfort, sleep deprivation, and the threat of death. However, from Bourne’s summary, it appears that an additional factor which contributed to stress in the officers under study was the requirement to make decisions. It has been reported that the mental fatigue following an attention-demanding task is essentially similar in its effects to stress.11 That is, the effects of making decisions may be to reduce the ability to make further mental calculations. The irony is that those who have to make decisions (the officers) are probably stressed, partly because of the need to make decisions. Under combat conditions tactical decisions may be faulty as it has been established that under stress a human is less capable of making competent decisions, and of making the most appropriate use of relevant factors. What can be done to reduce the impact of stress upon an officer in the field?

Reducing the “degrees of freedom” in Decisions

The Soviet military recognizes that stress is a likely result on the battlefield, and that stress diminishes the officer’s ability to make complex decisions. One aspect of their approach to
limiting the deleterious effect of stress on their military effectiveness is to reduce the demand upon officers for complex decisions. The officer's training is aimed at making his task more simple. He is taught a number of ways of dealing with problems, and in battle he decides only which of his pre-learned alternatives to employ. The Soviet officer is not generally expected to produce fresh, non-standard solutions.

Overlearning the Steps

An important component of the simplification process is making sure that each step of the pre-learned plan is a well rehearsed drill. Training should be geared to producing a complex set of reflex actions which do not depend upon intellectual effort. This makes all actions much more automatic and therefore less demanding. This process of overlearning and grouping of data does occur with practice, however the number of trials required to achieve automatic performance may be very high, perhaps in the thousands.

Selection of Personality Characteristics

In general social isolation is regarded as stressful, and group support reduces stress. In the field, the officer's role may separate him from the support of his fellow officers. However not all officers have to make decisions under combat conditions. Not all people succumb to stress under the same circumstances. There is thus the possibility of selecting more carefully those officers who will be most likely to face the task of decision making, in isolation from their colleagues, under threatening conditions. The problem of dealing with social isolation under difficult conditions has been studied in the case of bomb disposal experts. These men need to make some choices and carry out difficult tasks in isolation, rather than in groups. It was found that successful bomb disposal experts tend to be social isolates in their private lives as well as in their work. They prefer to work on their own, and they score high on personality measures of "unconventionality".

Further research would be required to demonstrate whether or not these characteristics are compatible with the other attributes of a successful arms officer. The findings do indicate that certain personality characteristics are appropriate for coping with potentially stressful conditions. The generally-agreed upon concept of group support during danger is not necessary for selected personality types. Do we make any effort to suit the man for the job by this type of procedure. Perhaps officer training programs could be deliberately designed to distinguish those who can cope with the difficulties of social isolation.

Stress Habituation

Repeated exposure tends to reduce the impact of a stressful situation upon most individuals. This has been most clearly and most frequently demonstrated in the study of parachutists. On the first jump, extreme stress is evident, and thinking processes are seriously impaired. After a number of jumps, extreme calmness and alertness is noticed. The chemical dimension of stress also shows a return to normality after repeated parachuting practice. One stress training approach might be to expose our officers to unexpected pressures and ambiguous demands on a regular basis to help them to develop their own coping skills. Such stress exposure would continue from officer cadet academy right through their career.

An unfortunate side-effect of a stress-exposure regime is that continual stress appears to increase long-term physical illness risks in certain susceptible individuals. An example is found in a study which covered 11 years and an initial population of 184,122 Caucasian enlisted men in the U.S. Navy. Working conditions were classified as stressful or not using an independent rating system. The group classified as high occupational stress had hospitalization rates of at least twice that of other occupational groups. Apparently the repeated exposure to these conditions did not result in stress reduction for the susceptible group of individuals in the high stress conditions. This study implies that to achieve low group morbidity rates it is necessary to have a low stress environment.

The relationship between physical health and ability to cope with stressful conditions is also illustrated by a study of bomb disposal experts. Those who had been decorated for acts of extreme courage were found to be distinguished from their colleagues by their superior physical (and psychological) health. On a scale of "hypochondriasis" most of the decorated operators returned zero scores. They appar-
ently had no mental or physical complaints at all.

In the British Army, over the period 1973-1977, officers experienced only 60.5% of expected deaths from ischaemic heart disease compared with that expected for a population of males of similar age structure.\textsuperscript{16} Considering the effect of stress on physical health, the heart attack rates in British Army officers can be taken to suggest that either (a) the stress-susceptible individuals who become ill have been eliminated from this group, or (b) as a group these men are not currently experiencing stress at the average levels found in the general population.

To choose between these explanations would require further investigation. But if the “low stress” proposal were found to be correct it may mean that by protecting the small proportion of susceptible men (those who would die from heart trouble) the British Army is giving only limited opportunity to the majority to develop their coping skills. Under critical conditions we could perhaps expect a serious breakdown in decision-making capacity.

**Anxiety Management Training**

It has been suggested that a moderate amount of anxiety is caused when a person imagines himself in a stressful situation, and that with a suitable training program this level of anxiety can be reduced. It is further suggested that this mental rehearsing of the stressful situation can enable the person to better cope with the real-life event. A typical stress management program uses positive statements which are repeated in response to anxiety feelings or negative thoughts. Examples\textsuperscript{17} of positive statements are:

a. I CAN COPE WITH THESE FEELINGS.
b. I'M NOT DOING SO BAD REALLY.
c. I AM GOING TO STAY HERE COME WHAT MAY.

The value of the positive statement approach to stress management has been reported for civilian volunteer subjects flying in a light aircraft with the door open.\textsuperscript{18} The group who had received the positive statement training program reported significantly less stress than the control group. Furthermore the positive statement group reported significant reductions in flight apprehension after a 4.5 month follow-up.

The application of a civilian experiment to military combat conditions is a large step. Even in taking the step from volunteers to civilian anxiety patients, long-term improvement due to a positive self-talk program has been disappointing.\textsuperscript{17} The value of this approach to stress reduction awaits verification in the military setting.

**Exercise**

There is evidence that exercise has a beneficial effect upon mood state, including tension and anxiety, that is, stress. These improvements have been found for subjects immediately after exercise\textsuperscript{19} or following a regular exercise program.\textsuperscript{20} It was also observed that the most competent, least stressed, bomb disposal experts were the most physically fit.\textsuperscript{15} Finally, Bourne\textsuperscript{6} noted that the soldiers who were coping (the ORs) were busy with physical activities. Taken together, this evidence suggests that physical fitness and physical activity may be associated with lower stress responses to crisis situations.

It would be too easy to conclude that if officers were very fit and very active they would avoid the experience of stress. However this proposition has not yet been proven. A matter of concern is that exercise itself can be stressful, and physical activity can interfere with decision-making on difficult tasks. Whilst there is little question that exercise influences stress it remains unclear how exercise and activity might affect an officer’s performance.

**CONCLUSIONS**

The role of the officer in the NATO styled army is crucial. He is relied upon to make a number of tactical decisions in the field. The present paper has questioned the ability of the human being to manipulate the large number of factors that may be involved in a tactical decision, especially if the officer is affected by even mild levels of stress.

It has been suggested that for a number of reasons, an officer in the field is a likely candidate for stress, and part of this stress may be due to his need to make important decisions. The expected outcome is that faulty decisions may be made.

From a study of the military and the psychological literature, it has been possible to raise a number of possible approaches to stress management for officers. Although the pro-
posed methods of preparing officers for stress are speculative and need refining before being applied in military training programs, taken together the six methods of preparing for stress give a coherent profile of the characteristics of a combat officer. If the military intends to rely upon officers to make decisions under critical situations, then these men should be well trained to the extent that they “know their work backwards”; they should be fit and active, they should be self-sufficient, quite accustomed to uncertainty and ambiguity, and able to imagine positive outcomes of difficult situations.

REFERENCES

DR KING is a psychologist and physicist employed by the Department of Defence, HQ LOG COMD. His interests include the physical and psychological factors affecting military performance. He is an officer in the ARES.

PROF STANLEY served in 15 Psych Unit, Western Command, 1960-1965. In 1964-65 he was DAD Psych, Western Command. He has been Professor of Psychology at the University of Melbourne since 1975. His research interests include human information processing and personality adjustment.

PROF BURROWS is Professor of Psychiatry, Austin Hospital, University of Melbourne. Among his many research interests is the study of stress organizations.
IF I WERE THE MINISTER

or midnight machinations of a military map
map-maker

By Major C. J. Mitchell, RA SVY

If I were the minister — I would establish a military presence in every federal and state mapping organisation. Each military adviser to the head of department would foster an ARES network within the department so that I might integrate these resources more readily in the event of mobilisation. The supply to Army of mapping intelligence and co-ordination of short-term technician exchanges would form part of the adviser's responsibilities.

If I were he — I would insist that my forces exercised and trained on existing mapping and made use of map supplements — particularly aerial imagery — rather than special productions that might not be available at a time of national crisis.

If I were he — I would not allow map-makers to check their own product in the field. I would have military users “trial” the product just prior to publication and would make available a map-maker to resolve any anomalies. This peacetime activity would familiarise my forces with use of maps, remote regions of the continent and terrain appreciation. To maintain terrain appreciation among my map-makers, I would send them on every exercise to gather mapping intelligence.

If I were he — I would “user trial” air charts in a similar manner.

If I were he — I would replace traditional map reading instruction with map use experience under supervision, overlayed with map appreciation (limitations, applications, supplements).

If I were the minister — I would have a highly inflated notion of my potential to influence such things.

ANNUAL AWARDS 1983 (ISSUES No. 38 TO 43)

The Board of Management of the Defence Force Journal has awarded the prizes for the best original articles of the year to:

1st Prize ($200) — The First Indo-China War by Captain M.L.J. Hamilton-Smith, RA Inf (Issue No. 43)

2nd Prize ($75) — The Israeli Invasion of Lebanon by Captain D.E. Lewis, RA Inf (Issue No. 40)
A n aura of mystery has often surrounded the shipwreck on the reef off Moresby’s Ela Beach. Some rumours had her as a German raider which ran aground in the first world war. However, she was British owned and British built, but still retains an amazing historical background. Like many great heroes Pruth became more famous in death than life.

The S.S. Pruth was constructed by J. L. Thompson and Sons Ltd at Sunderland, in the north-east of England, during 1916 for the Hain Steamship Company. Officially listed as a “steel screw schooner” she boasted a 400’ length, 53’ breadth and 26’ depth. Unladen the vessel weighed 2945 tons and had the capability to carry some 1753 tons of cargo.

With a cargo of galvanised iron, barbed wire, automobiles and oil, she began her final journey from San Francisco in November 1923. At Samarai there was a stop to pick up some copra and at Moresby it was planned to onload more.

The evening of 30 December 1923 was gusty and squally from the south-east as the ship edged towards Basilisk Passage. Captain Hudson constantly consulted his charts as he cautiously poked along looking for the correct passage into the harbour. A sudden very strong gust of wind on the port side, which could not quickly be corrected at the wheelhouse, forced Pruth aground on Nateara reef. The position then did not appear serious and all aboard thought the grounding was only going to be a temporary embarrassment.

A heavy south-east swell began straining the vessel that night pushing her into a more critical position. Anchors were run out to check the

Lloyd's of London received wireless messages on both Jan 1 and 2 from Port Moresby. The latter read:— “British steamer Pruth still aground. Anticipate refloating high tide (Jan. 4), providing weather favourable.”

Marine authorities at Port Moresby offered to give assistance but Hudson felt that he could move off under his own power at an appropriate high tide.

The refloat attempt on January 4 was unsuccessful and the master considered the risk too great for a large steamer to approach and assist. He requested as an alternative a tug from his Brisbane agents. Ten days later the Coringa arrived with diver and salvage gear.

In the meantime a temporary wharf had been hastily erected on nearby Manubada Island and a dump made there for drums of fuel. The small schooner, Lotus, while assisting operations caught fire and was completely gutted. One of the Papuan crewman suffered severe burns and later died.

By January 19, due to further unfavourable weather, Captain Hudson in desperation began jettisoning cargo and fuel coal overboard. Anything to lighten the load and lift the vessel. No. 1 and 5 holds were both leaking but with the pumps keeping the water flow under control. The ship was also “hogg'd” (caught in the centre and sagging at each end) near both the engine room and cross bunkers.

Four days later Pruth’s fate was sealed. Adverse conditions had by now driven her 600’
Further onto the reef. The position was hopeless. Lloyds were notified by the owners: 'We have abandoned her.'

During the 1930's the Pruth remained firmly manacled off Ela Beach. To locals, visitors and tourists in transit she became known as "The Moresby Wreck". It was also some time during this decade that her salvage rights were purchased by Mr G. A. Stewart of Napa Napa.

In 1940, as war clouds loomed on the Asian horizon, Pruth was nearly sold to the Japanese for scrap. Prime Minister Menzies, in person, was informed of the intended sale by the Administrator and intervened on Defence advice. Metal of all kinds was then in great demand. The 15" steel propeller shafting from Pruth went to Australia in 1941, among 200 tons of other scrap metal, aboard the Macdhui. With German expansions the rest of the world was also gearing up for war and the stripped, rusty old ship on the reef was soon to serve a special purpose in the forthcoming south-west Pacific conflict.

The last quarter of 1942 saw a large influx of allied bombers into the New Guinea theatre of war. Japanese shipping was considered a prime target to prevent the build up of men and supplies on the northern shores of PNG. Skip bombing and strafing was being considered for such planes as the Mitchell B.25, A20 Havoc and Beaufighter. These revolutionary new attack procedures required constant practice to perfect and the most convenient target for the Moresby squadrons was the S.S. Pruth.

The old ship was battered with bombs, strafed with cannons and riddled with machinegun fire. At least three aircraft came to grief in the surrounding water while practising attacks against her. An American Mitchell as well as an Australian Beaufighter and Havoc. The former two struck a mast while the latter had premature explosions of 20lb. fragmentation bombs. All accidents incurred loss of the crews with only two of the four escaping from Beaufighter A19-73 when the tail broke off on impact with the sea.

During this time it is recorded that Generals George Kenney and Ken Walker (then heads of the U.S. Army 5th Air Force) visited Pruth by rowing boat. Their plan was to study at close hand the effects of their pilots' handiwork. Both noted that the instantaneous 1/10 second fuses were more effective against her rusty slab sides. Even near misses cut holes two to four square feet in area. General Ken Walker, who earlier had strongly advocated delayed fuses, lost his bet to Kenney and was forced to row the boat back to deep water and the attending motor boat. (Ken Walker was lost two months later — Jan. 5, 1943 — in a B.17 daylight bombing raid over Rabaul.)

The rest became history. The skills developed against Pruth proved a resounding success in
The real thing. American Mitchell B25's skip bombing Japanese shipping. A second after this snap was taken the vessel in the foreground was hit and destroyed. (One of the most dramatic photos of WW11). # Note the bomb in mid air.
Papuan lakatois (double canoes) sail around the Pruth in the early 1930's.

such actions as the Battle of Bismark Sea. Convoys broken, warships destroyed and armies without food or equipment. The Allied drive back through the islands was to continue for another three years. Much of its speed due to a rusty, forlorn old hulk which nobody ever thought would be of any use again.

The last enemy air raid on Port Moresby, No. 113, was at 0345 on September 20 1943. There were only two enemy bombers. In an almost poetic gesture, one of the aircraft, possibly in error, dropped a stick of bombs near the Pruth which missed! Perhaps a fitting farewell to a grand old lady that had contributed so much to thwart their plans.

Parts of the Pruth may still be seen at low tide on Nateara reef today. It is hoped that an appropriate plaque will be mounted at Ela Beach in the near future to remember this grand old ship as well as the Australian and American aircrews that lost their lives practising against her.

Prologue. This story would not have been possible without the enthusiasm and invaluable assistance of Bruce Hoy, Curator of the Aviation, Maritime and War Museum, Port Moresby.

1943 and an American B.26 Marauder skip bombs the PRUTH. Note the strike splash (arrowed) and rear aircraft machine gun lower left.

Bob Piper has been with Defence for ten years, the last four as RAAF Historical Officer. Prior to this he lived in Papua New Guinea, where his interest in writing and photography first commenced.

As a private pilot he has a natural interest in aviation and specialises, in military history, of both sides, during World War II in the South West Pacific.

Many of his carefully researched articles are based on actual incidents and the reactions of those involved. The original participants have been located where possible and contributed to the stories.
By Lieutenant Commander L. H. Pyke, RANR

Introduction
This article presents mastery learning as a concept and analyses the problems of assessment considerations in training in the Royal Australian Navy. It proposes for mastery concept in today’s educational systems for naval training.

Background
Mastery learning is based on the theory that, given sufficient time and suitable instructional conditions, most students can and will learn well most of what they are taught. (Dolly and Merrideth, 1977).

The basis of mastery learning is to push the normally distributed achievement curve to a positively skewed curve of assessments. In practice, the majority of students should reach levels of competency which were previously obtainable by the top 20% of students.

Bloom (1968) and Block (1971) propose that almost all students can master what they are taught. Mastery learning caters for individual differences, mainly by using the time element in instruction.

This concept is of importance to experienced educators since it can produce a better product if it is used correctly. We should now analyse how that can be done, particularly for skills training and the courses for right arm rates in the navy.

Instructing
An individual can be held responsible provided:

- one knows what one is supposed to do,
- one knows what one is doing, and
- it is within one’s personal control to regulate what one is doing.

Self development of an individual can come about by everyday instruction and contacts. It is a slow process and should be carried out by the lecturer’s own example. Payne (1974) shows how assessment methods can be used to mould behaviour of lecturers.

The lecturer should bear this in mind when instructing a student. The following principles should apply:

- Have a timetable. How much skill do you expect of the student and when?
- Breakdown the job. List the important steps and pick out the key points.
- Have everything ready — the right equipment, materials and supplies.
- Have the work place properly arranged, just as the student will be expected to keep it.

The following are four important steps on how to instruct effectively. They are also designed to educate the student to pass the information on:

Step 1
Prepare the student. Put the student at ease, find out what the student already knows, get the student interested in learning the job. Place in correct position.

Step 2
Present the operation. Tell, show and illustrate one important step at a time, stress each key point, instruct clearly, completely and
patiently, but no more than the student can master.

Step 3
Try out performance. Have the student do the job, correct errors, have the student explain each key point as the student does the job again. Make sure the student understands and continue until you know the student knows.

Step 4
Follow up. Put the student on his own, designate the person to whom to go for help, check frequently, and encourage questions. Finally taper off extra coaching.

These important steps in instruction are the fundamentals of the concepts of mastery learning. They also indicate the importance of time in the learning process, especially in the attainment of skills such as the training for Quarter Master Gunner (QMG) and Marine Technical Propulsion (MTP).

Time
Since time is a variable in a mastery learning approach, some students will complete the course in less than the “normal” time, while others may need extra time. This extra time must be made available by increasing the length of the course or by making more instructional time available during the course.

Either way there will be a cost — time cannot just be created. By improving the quality of instruction and student motivation, much time can be saved compared with a traditional system. In practice it appears that a mastery learning strategy is faster when students are motivated with ideal learning conditions, environment, lecturers, and with clearly stated objectives in instruction. Curriculum development in Navy right arm rate training is now restructuring courses in objective format.

Objectives
Instructional objectives are a foundation of the mastery learning concept. Lecturing may be individually-based or group-based and assessment may be lecturer-paced or student-paced, or combinations of these strategies. In all cases the course content should be clearly set out, usually by defining student performance objectives. These objectives should:

- state precisely what the students should be able to do,
- describe the conditions under which the students must show competence, and
- state the standards of performance expected of the student.

Courses are usually subdivided into small units, and unit tests are constructed to help the student assess performance on unit objectives (Bloom, 1956). Alternative instructional resources or correctives are then compiled so that students who need extra help in the unit may receive it after due assessment. The new lecturing guides being developed for all courses for the Naval Reserve training curricula are designed to outline the resources which are required for each unit.

Assessment
In practice, mastery learning strategies improve student learning by:

- telling students exactly what they will be expected to learn,
- helping students when and where they have learning difficulties, and
- giving students sufficient time to learn.

Mastery learning caters for a student’s desire to attain objectives and does not necessarily imply continuous assessment. That is, the unit tests are used primarily for diagnostic purposes as well as for final gradings. Final assessment, after the student has completed several units, may help avoid the “test and forget” criticism frequently levelled at continuous assessment.

Evaluation of each unit should be based on criterion-referenced test at the end of each unit, at the end of the course, or at other convenient times. The assessment of the student is thus based on actual performance rather than by comparing him with other members of the study group, as in norm-referenced tests. (Theobold, 1974).

Ideally, the only grade granted to the student will be that of pass — logically at the top level “A”, since the level of performance will be at least as high as that achieved by an “A” student in a non-mastery learning approach. A failure grade cannot be awarded, since that would be in defiance of the beliefs on which mastery learning is based.

Since time is a variable in the mastery learning concept and some students can take a longer time than others, the concept must be adapted to the normal yardsticks of educational institutions — the term, the semester, the year. Consequently it may be convenient to award an incomplete grade (I) so that students may con-
tinue their studies in subsequent sessions, while retaining credit for those parts of the course already completed. It may be appropriate to introduce a more detailed form of student assessment in order to provide comprehensive information on a student’s achievement.

Mastery learning would appear to provide several benefits, particularly for skills training in the navy. Implementation will require changes in attitudes and will incur resource costs which should be outweighed by benefits of mastery learning, individualized instruction, defined objectives and criterion-referenced tests. (Groff, 1974)

Criterion Assessment
A criterion-referenced test identifies an individual’s status with respect to an established standard of performance. It is used to assess whether a student possesses a particular competence. Criterion-referenced tests are especially useful for monitoring student progress in an individualized instruction system and for diagnosing specific areas of weakness. More importantly, criterion-referenced testing provides a way of building content meaning into test scores. It tells us what the student can do.

Ideally, such tests should indicate achievement in a certain field of endeavour such as being able to control an aircraft in steep turns, or being able to joint pipes. As such, the lectures and unit tests leading to this achievement can be grouped into modules. This type of course structure is becoming common in skills training such as that used in navy right arm rates courses.

Modules
A modular approach to curriculum development involves the systematic identification and description of self contained sections or content. A typical module can be described as a self contained instructional programme covering a distinct part of a course of study. A set of modules usually comprises a career study and is implemented in learning package which usually contains at least the following elements:

- Statement of the objectives of each module.
- A pre-test to determine his areas of learning need.
- Learning activities to assist the student to achieve the objectives.
- A post test to evaluate the student’s performance in the segment.

Depending on the type of material, the learning package may contain instructional information or it may direct the student to other sources of the information, e.g., books, video tapes, special training equipment.

Criterion-based assessment on each module or part of a module records progress of the student during the time available, usually for the information of the student and lecturer alone.

In practice, it is found when such methods of lecturing are used — mastery learning, individualized instruction, criterion-referenced assessment, self-paced learning — students do compare their progress with that of colleagues. So, in effect, norm-referenced assessment is used, de facto.

For example, a group of trainee pilots may be undertaking training modules at their own individual pace, with the set criteria determining their own mastery of each module. However, discussions between the trainees generally revolve around such questions as: “How many hours did you take to go solo?” or “How many stalls did you have to do before the instructor passed you?” Such data is then compared informally within the trainee pilot group thus setting unofficial norm-referenced standards. It might be pointed out here that the mastery of a set of modules leading to a pilot’s licence can take anything from two weeks on two years or more, depending on the application by the individual trainee.

These experiences indicate that modular type training is a logical extension of the mastery learning, criterion-referenced test system. Modules are considered useful building blocks for courses and provide flexibility in such courses as (OXP) and (C & S).

Personalised System of Instruction (P.S.I.)
A further logical extension of mastery learning principles is provided in the Keller Plan of Personalised System of Instruction. (Keller 1968 and 1974, and Hess 1977). There are several characteristics of this plan:

- It is orientated to mastery of the subject. The student remains at a level until mastery is attained. Assessment is done by short tests, and the student must embark on a new effort of study until passed by a test or retest. It has been found (Johnston and O’Neill, 1973) that if students are only given the option of being assessed at A level
mastery, they may perform at that level. They must perform at a lower grade if the expectations of the instructor are lower. The criterion set by the instructor is thus seen as an important influence on student achievement, particularly when skills are being imparted as in many courses in the Navy — for example, transfers from Seaman to Able Seaman and Leading Seaman.

The student's progress is set by the student. Self pacing means that a subject can be mastered to the criterion level before the next subject is attempted. Slow students may take a longer time and able students can master the subject in a shorter time. Thus students have a freedom of movement to work at their own pace.

- Advanced students are encouraged to assist new students. This proctorial system helps prevent the student from becoming isolated. A proctor can minimize procrastination when a student is operating alone on a learning package. (Bijou, et al, 1978). This method is used with considerable success with tertiary and postgraduate students. (Pyke 1978).
- Objectives are clearly stated and available resources are outlined in the study guides. It has been found that the use of study objectives improves performance by 15-20 per cent. (Ruskin and Ruskin, 1977).
- Study techniques may be enriched by use of other resources such as guest lecturers, video tapes, films and lecture-demonstrations. Attendance may be voluntary and assessment is not usually based on these resources.

This personalised system of instruction or Keller Plan develops the mastery learning principles of Block, Bloom and Carroll (op cit) to a self paced personalised approach. Lecturers are mainly used as catalysts and for motivational purpose.

Reinforcement of learning is the principle used here. (Skinner, 1954). Similarities can be found in programmed textbooks, teaching machines and computer-based instruction. A typical example is the pilot development of panel beating courses now being carried out at Carine Technical College in Western Australia where much use is being made of films and video tapes. Feedback systems are two-fold — to the student, to motivate and to direct; and to the lecturer, to improve performance. (Harris and Ligouri, 1974).

Assessment can be by incremental tests leading to a final grade — A, when mastery is achieved. These reinforcers can be administered through the agencies of the lecturers or proctors, by programmed instruction.

**Programmed Instruction**

These methods use various media to assist the drills and reinforcements of the personalized system of instruction. Learning is made more efficient by minimizing the time delay between stimulus, response and reinforcement. Smith and Moore (1962) say that the traditional classroom is an environment where subjects such as arithmetic suffer from a meagre diet of necessary instruction and reinforcement.

Skinner (1954) states that “Weakness of technique emerges in the disguise of a reformulation of the aims of education. Skills are minimized in favour of a vague achievement — educating for democracy, educating the whole child, educating for life, and so on. These philosophies do not in turn suggest improvements in techniques. They offer little or no help in the design of better classroom practices.” (Smith and Moore, p.27). Programmed instruction based on Skinner theories does offer present teachers an attractive and flexible alternative which can supplement instruction, remedy learning problems and supply necessary drills to establish desirable behaviours. More recently, computer display peripherals and audio visual techniques make programmed instruction more attractive for skills courses such as boat pulling and sailing.

Klaus (1962) shows that the learning programme uses a standardized approach for each media:

- Specific objectives are expressed in clear behavioural terms.
- The course outline covers the material to be learned.
- Units are developed in self contained modules with tests giving cues to the learner how to modify behaviour.
- The programme is validated on groups and the instructional programme is modified to improve responses.
- The programme is flexible and can be portable. It can be used where a student has a desirable learning environment.
MASTERY LEARNING AND ASSESSMENT IN NAVAL TRAINING

Programmed instruction and sibling teaching machines were expected to mechanise education, but Glaser (1965) criticises this by pointing out that this meant doing by machines what was formerly done by people. However, we can draw hope from an observation by Skinner: “Students will learn without teaching, but the teacher arranges conditions under which they learn more rapidly.” (Skinner in Glaser, 1965).

Programmed instruction is seen as an aid to teaching — an educational tool which is designed to tune the learning environment to a state of maximum performance. Mastery learning and its assessment system uses programmed instruction to feed back results and achievements.

New technology is now producing more attractive packages as powerful facilitators for mastery of subjects which require extensive drill and reinforcement. A learner may not necessarily be held back because of low teaching competency. A prime example of the use of this technique is Computer Assisted Instruction (C.A.I.) which is currently being considered for a broad range of courses in naval skills training.

Computer Assisted Instruction (C.A.I.)

Programmed instruction using computer peripherals such as visual display units and speak-spell machines is a method of providing course content instruction by simulation, games, tutorials, drill and practice. Individualized instruction is given on each visual display unit. Students must be proficient in each unit or module of instruction before continuing with subsequent modules. Feedback is given by the computer in the form of error messages and remedial prescriptions. After failure to reach criterion, remedy is undertaken with a repeated test until mastery is achieved. (Lawler et al 1974).

In an exercise “Computers in the Community” held at the WA School of Mines, Kalgoorlie, members of the community achieved mastery of programming in Basic within two weeks. Subsequently they mastered Advanced Basic for interaction with the computer terminals at every available opportunity. Assessment by criteria assured that all those who attempted the course were able to pass Basic Programming at the required level. (Pyke, 1967).

Two types of C.A.I. can be distinguished (Chambers and Sprecher, 1980):
- Adjunct C.A.I., which supplements an existing learning situation.
- Primary C.A.I., which is a stand alone, method of teaching, i.e., a machine, such as a word processor, is used solely for individual instruction.

Both these types can be used in mastery learning and some systems such as PLATO (Magidson, 1978) have multiple programmes and the peripherals include graphics, animation and voice output. Kulik et al (1980) described such a machine as a “Patient tutor, scrupulous examiner and tireless scheduler of instruction.”

Such machines can be seen as a boon to lecturers in their assessment of mastery learning skills. The computer-aided instruction gives more freedom for personal interaction with the students.

An evaluation by Kulik et al (1980) indicates that a course can be covered in about two thirds of the time taken by a conventional teacher. Chambers and Sprecher (1980) stress advantages:
- Individual students are involved in the learning process.
- Reinforcement is systematic and immediate.
- Lecturers are free to devote more time to personal interaction.
- Remedial work can be done much easier with the tireless repetitions of a computer.

However, such C.A.I. methods require retraining of staff, a desirable compatibility in the computer hardware and languages being used, and a high purchase cost of hardware and software. This task is now being tackled actively as programmes and software like PLATO become available to Navy training.

C.A.I. may evolve as a primary delivery method for a mastery learning curriculum and assessment. Group-based lecturer-paced models of instruction are still predominant (Brandt, 1976), but use of C.A.I. techniques, even as an adjunct, may force the group-based self-paced system to the fore.

At assessment level the computer can be used as a testing and recording tool in a mastery learning strategy. This use can relieve lecturers of clerical burdens so that they can interact with students.

It is increasingly evident that C.A.I. will play a stronger role in education, especially as video
Recommendations

1. That mastery learning concepts be introduced into the education system for all skills instruction in the navy.
2. That assessments of mastery learning programmes be based on agreed objectives — especially for navy right arm rates.
3. That teaching guides prescribe instructional materials including audio visual, computers and peripherals, and video discs.
4. That evaluation of mastery learning programmes be continuous, in order to improve the programmes as new technologies become available to navy training.

Conclusion

Mastery learning is gaining acceptance as an improvement on the traditional norm-referenced system of education. When it is used more, and as improved technologies are used as aids, it may produce its own norm references in assessments, particularly in skills training.

Better educational resources are needed to support a mastery system in navy skills training courses. Methods of individualized instruction can be used as ancillary learning models to improve performance and assessments in the mastery model.

Training for skills in the Royal Australian Navy will be enhanced with a self-paced, mastery learning modular system of course design.

BIBLIOGRAPHY


INTRODUCTION

ONE of the questions often posed is why and how the rank of Warrant Officer eventuated. This article is an attempt to trace the history of the rank from its inception to the present day. It is not a scholarly treatise on the rank but rather a reasonably detailed history of it from its inception.

The rank of Warrant Officer is a very old one. The first reference that I can find of it is in the late 17th century, during the reign of Charles II, when it appeared in the Royal Navy. The rank appears to have been given to senior sailors like the Gunner and possibly the Master, although I have been unable to confirm the latter. The rank would seem to have been given to professional senior sailors who were responsible to the Captain for the sailing and maintenance of the ship.

The Captain of a Royal Navy ship in those days and up until the Napoleonic Wars, was very often a soldier not a seaman. It was the duty of the ship's Master to sail, navigate the ship and to lay it alongside the enemy. The Captain then fought the enemy ship. Likewise with the Gunner; he was responsible to the Captain for the sailing and maintenance of the ship.

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British Army Origins

The rank of Warrant Officer was introduced into the British Army in 1879. Army Circulars issued on 20 January 1879 constituted a class of Warrant Officers known as Conductors of Supplies and Conductors to perform subordinate duties of the Commissariat, Transport and Ordnance Store Departments of the Army.

The Secretary of State for War was given the authority to appoint, by Warrant, such officers whose relative position in the Army was senior to all NCO's but inferior to commissioned officers. The rank of Conductor (of Supplies or Stores) was a new rank and only used in some of the logistic departments of the Army.

At this time the Commissariat and Transport Departments consisted of a body of officers, attached as required, to units of separate corps. Hence the institution of a rank between that of a commissioned and non-commissioned officer could be seen as an attempt within the Army to assist in subordinate tasks which would otherwise have been done by junior subalterns.

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The then Under Secretary of State for War wrote to the Treasury setting out the reasons for the introduction of the Warrant rank. These were:

In view of the short service system then in operation in the Army an increasing proportion of the available forces of the country would consist of:

• men who were not habitually serving with the Colours but only called up when required, and

• men who are only serving with the Colours for so long as may be necessary to qualify them to pass as trained soldiers into the reserve.
It was clearly indispensible, therefore, that the 'permanent' portion of the Army — that is, NCO's — upon whom in large measure the duty of maintaining discipline among Reservists (when called up) and training of (passing to the Reserve) fell should be in the highest state of efficiency. NCO's should be picked from men upon whom thorough reliance could be placed and their terms of service should be such as to attract the best men in the rank and file to come forth for promotion and to look to the Army for a permanent career. The Secretary of State was convinced that contemporary inducements were not enough — pay, promotion and pensions were insufficient. He proposed to institute a class of Warrant Officer intermediate between commissioned officers and NCO's. This class would include all RSM's and other Sergeant Majors and NCO of analogous or similar rank. Warrant Officers would attract enhanced rates of pay and general conditions of appointments and promotion prospects. Such men would be offered adequate remuneration for duties performed and substantial prospects for NCO's and lower ranks.

To summarise, it would seem that the rank of Warrant Officer was introduced to recognise those men who were specialists in their own field and who, for what ever reason, could not be commissioned. In the Army they were the Conductors of Supplies or Stores, the Master Gunners, the technicians and senior clerks. Later the rank was extended to those who were responsible for the discipline and training within the Army. Basically the Airey report recognised a need to give these men a status that their employment within the services deserved.

In the early days those promoted were all specialists of one kind or another and their promotion was a recognition of their value to the Army. This system still applies in the United States. It certainly applied in the early days of our Army although the distinctions have become somewhat blurred with the passage of time.

The Royal Warrant for Pay and Conditions of 1899 sets out in great detail those soldiers who were eligible for appointment to warrant officers. There are too many to list them all here but the following are typical examples:

- Conductors and sub-conductors, Army Ordnance Corps
- First class staff sergeant majors
- Master gunners
- Bandmasters
- Schoolmaster, after eight years’ service as such, but only if approved for warrant rank
- Sergeant-major instructors, and Assistant apothecary, Hong Kong Regiment.

Some interesting extracts from this Royal Warrant are mentioned below:

- A soldier below the rank of sergeant will not be eligible for appointment to warrant rank, nor was a soldier over the age of 40 years except under special circumstances when the age limit could be increased by the Secretary of State to 45.
- Rates of pay for warrant officers of the period varied from five to seven shillings per day. A conductor, Army Ordnance Corps received six shillings, a staff sergeant-major five shillings and sixpence. Sergeant-majors of infantry and military foot police received five shillings, but a sergeant-major of foot guards received five shillings and two pence. The real aristocrats of the warrant rank were the armament sergeant-major and the armourer sergeant-major who each received seven shillings per day.
- Pay increments for length of service were in vogue in 1899 but it was said, “would not be granted to a warrant officer unless he has performed his duties with zeal and ability”.
- Retired warrant officers in receipt of a pension were liable to be recalled to the colours in times of emergency up until they attained the age of 55.
- A warrant officer could be discharged at his own request before completing 21 years’ service but would not be eligible for a pension until he had completed at least 18 years’ service.
- Age for compulsory discharge varied from 45 for warrant officers of cavalry and line regiments to 60 for Bandmasters on home service. The Secretary of State could discharge a warrant officer at any time prior to the age fixed for his retirement.
- The widow of a warrant officer was eligible, in certain circumstances, to be granted the sum of £20 (Pounds) per annum but only provided she was in dire necessity. Children
“born in lawful wedlock” could be granted compassionate allowances of five shillings per year.

**Australian Experience**

Military Order No. 169 dated Monday, 27 July 1903 laid down the scheme of organisation of the Military Forces of the Commonwealth. It lists in great detail the establishments of the Commonwealth Military Arms. Warrant Officers were rare in our early days, particularly in the Arms. Light Horse Regiments and Infantry battalions boasted only one Warrant Officer each and he was the RSM. There were no Warrant Officers shown on the establishments of the Artillery or Engineers.

Even in the Services, Warrant Officers were scarce but there seemed to be more of them around than in the Arms. In the Army Service Corps, Supply Columns attached to Light Horse and Infantry units had two each. In the Australian Army Medical Corps, bearer companies had one Warrant Officer on posted strength but his role was not defined. As one would expect there were more Warrant Officers employed on Headquarters and in the Military Districts of the time and generally with the Army Service Corps.

Medical attention for Warrant Officers and their families in the early days of our Army was far more civilised than it is today. They were not required to attend sick parade until 10 a.m. If they were too sick to attend the parade they were visited in their homes. The catch was that they had to reside within two miles of barracks or headquarters and the illness or injury had to be due to their service. They were provided with separate accommodation in hospital wherever practicable. Wives and children up to 14 years of age received attention in their quarters or could attend sick parade if not living in quarters.

The elite of the Australian Army in its infancy and in fact right up to the early days of World War II when it was disbanded was the Australian Instructional Corps. These officers, warrant officers and senior NCOs were the pick of the Permanent Army in those days. Their role was to train the Army which in those days consisted of a tiny Permanent Army and a large (by Australian standards) Volunteer Militia. They were not in the strength of units but attached to them to organise and supervise training. They were particularly instructed not to interfere with the running of the units to which they were attached but to ensure that unit members were trained in their various roles. Military Order 230 of Wednesday, 7 October 1903 states: “... the capabilities of the Officers and Non-Commissioned Officers of the Instructional Staff will be gauged by the success which attends their efforts in enabling the Militia or Volunteer Brigades Regimental Staff and Company Staff to carry out their duties in a satisfactory manner.” Their success is measured by the performance of the AIF and Militia in two World Wars. A Warrant Officer posted to the Australian Instructional Corps could say that he had reached the pinnacle of his profession and was treated with the greatest respect by all ranks. I can vividly recall a former CO of mine speaking with a respect bordering on awe of the AIC Warrant Officers he had under his command at a small army school outside Sydney at the start of World War II.

In the early days, Warrant Officers in the Permanent Forces could only be appointed by the General Officer Commanding whereas Warrant Officers in the Militia and Volunteer Forces could be appointed by their Commanding Officers subject to the approval of the District Commandant. Even in those days not all Brigade or Regimental Sergeant-Majors were Warrant Officers. They could be and more often than not were Sergeant Major (A Rank). This confusion of appointments lasted for many years and was still in vogue for many years after the end of World War I.

There were two levels of Warrant ranks in the Australian Instructional Corps (AIC). They were:

- Warrant Officer — Garrison Sergeant Sergeant-Major
- Warrant Officer — Class 1. Staff Warrant Officer Instructor
- Warrant Officer — Class 1. Staff Warrant Officer Instructor

Entry to the AIC was difficult; candidates had to pass medical, educational and military examinations, been highly recommended by their CO and under 35 years of age.

In 1904 there were four classes of Warrant Officers. As a matter of interest they are listed below in their classes:

- **Class 1** Conductor, Army Ordnance Department
  - Master Gunner, First Class
  - Military Staff Clerk, First Class
- **Class 2** Master Gunner, Second Class
By 1921 the classes of Warrant Officers had been reduced to the present two. An amendment to AMR&Os during 1921 details the appointments relating to each rank. Unfortunately the list is far too long to reproduce here but includes such interesting appointments as Master of Steamer (a WOl) and Saddler QMS (a WO2).

I have not been able to determine whether the four classes of Warrant Officers listed above refer to their ranks as we know them today or to the actual appointment they filled. I suspect the latter. There seems to have been only two actual ranks, that is Warrant Officer Class 1 and Warrant Officer Class 2 in the Australian Army. There was a Warrant Officer Class 3 rank in the British Army for a time but I can find no evidence of it ever having been used in the Australian Army.

In 1917 Military Order 557 detailed the badges of rank for other ranks. Warrant Officers Class 1 were to wear the Royals or if they were gunners, a crown and wreath and gun for Master Gunners 1st class and the Royal Arms and gun if Master Gunner 2nd class. A Bandmaster wore a large Lyre. As a large number of sergeants also wore a crown as a badge of rank this must have lead to some confusion. For more comprehensive details of badges of rank there are a number of good reference books available.

One of the anomalies of rank during both World Wars was that a Warrant Officer in the PMF could be granted a commission in the AIF but would still retain his PMF rank. For example, a Warrant Officer Class 1 could be appointed a Lieutenant in the AIF. He therefore had the PMF rank of Warrant Officer Class 1 and the AIF rank of Lieutenant and the two ranks continued side by side until the termination of his appointment in the AIF when he reverted to his PMF rank of Warrant Officer Class 1. A man could be promoted in his PMF rank whilst still holding an AIF commission but this was rare. He could also be promoted in his AIF rank but this was also not common and all one could hope for was to be promoted honorary captain or major in most cases. In 1919 Warrant Officers with overseas service in commissioned rank in the AIF were no longer required to further qualify for promotion provided:

- promotions were made as vacancies occurred,
- they had satisfactory service overseas, and
- COs provided a certificate of competency.

In 1923 MBIs laid down the procedures by which Warrant Officers in the AIC could be appointed as Officiating Area Officers. These instructions were amplified by MBIs in 1925. Warrant Officers Class 1 holding honorary commissions were to be given first consideration for appointment as Area Officers. If no Warrant Officer Class 1 with an honorary commission was available then a Warrant Officer Class 1 could be appointed. Warrant Officers Class II were not appointed as Area Officers unless they so desired. Once again preference was to be given to those Warrant Officers holding honorary commissions. The MBI went on to state: "... It is desired that every endeavour be made to encourage Warrant Officers holding honorary commissions to accept the positions of Officiating Area Officers."

The 1925 MBI A57 listed the methods of address of Warrant Officers. They were not to be addressed as "sir, mister" or by their rank but by the appointment currently held "... with such abbreviation, if any as is in accord with custom of the service". The title "mister" was only to be used when a Warrant Officer held an honorary commission. When writing to a Warrant Officer, number, appointment, rank, initials and name in that order were to be used.

In 1935 instructions came out giving permission for Warrant Officers in the Militia Forces to wear Sam Browne belts and to carry a sword. This order of dress had previously been restricted to Warrant Officers Class 1.

In 1939 new rates of pay for the Army were promulgated and once again make interesting reading. Rate of pay for Warrant Officers Class 1A (the senior rank in the AIC and
AAOC Workshop Sections) received from £379 (Pounds) to £418 (Pounds) per annum; a Warrant Officer Class 1 from £327 (Pounds) to £441 (Pounds) per annum. Even at this late stage it paid to carefully select your corps. The best paid Warrant Officers were those in the Australian Survey Corps and the Engineers. Also in 1939 consideration was given to retaining the services of Warrant Officers of the AIC beyond the normal age of retirement. This was subject to the following conditions:

- The Formation Commander certified that it was in the interests of the service as well as that of the soldier to do so.
- The member had to be physically and mentally fit and was efficient.
- The member’s CO had to certify his willingness to retain the soldier under his command.
- He could be retired before the end of his extension.
- He was required to take his furlough before the extension expired.

As mentioned elsewhere in this article, a man promoted to Warrant rank was considered to have reached the pinnacle of his profession. He was listened to with great respect by all ranks and his word was generally held to be law. One ignored it at one’s peril. Between the wars they were the backbone of our tiny force and the bulk of the training and administration fell on their shoulders. It is of course largely up to the Warrant Officers themselves to maintain the status the rank deserves and for which it was originally constituted. Only by their actions and their behaviour can the prestige of the rank be maintained.

Acknowledgements

I would like to thank those people who have assisted me in writing this article. They are:

My former Commanding Officer, Colonel H. M. Lander, AM, who tasked me with writing the article in the first place. My comment on being given the job: “Why me?” His reply: “Why not indeed!”

P. Beaven of the Army Historical Branch, Ministry of London, who provided the information on the introduction of the Warrant rank into the British Army.

The Senior Librarian and staff at the Defence Regional Library, Melbourne, for their cheerful and untiring efforts to provide much of the early information.

Brigadier M. A. Austin, DSO, OBE, for his encouragement and information during the early days of writing this article.

All those nameless persons who provided me with a wealth of information, most of which I have been unable to include in this short article but all of it extremely interesting and all of it increasing my knowledge of the service in which I was privileged to serve for so long.

Ex WO2 Robert Michael Cook enlisted in the Australian Regular Army in December 1956 and saw service as an infantryman with 1 RAR in Malaya from October 1959 to September 1961. Following a transfer to the Intelligence Corps in 1962 he was posted to a variety of Intelligence Units and saw service in South Vietnam and Laos. He was posted to CARO in January 1977 and was discharged from the Army in December 1980.
AN ENSIGN IN THE PENINSULA WAR,
W. F. K. Thompson (Ed). Michael Joseph,
349 pp. $49.95.

Reviewed by Major P. A. Pedersen, BA, PhD.

ALTHOUGH debate continues on when the
decline of Napoleon’s prowess as a general
began, the overriding importance of the ‘Span­
ish Ulcer’ in explaining his eventual humiliation
is seldom disputed. Indeed Bonaparte himself
attributed his ruin to this campaign which
commenced at the end of 1807 when a French
Army crossed Spain to occupy Lisbon after
the Portuguese refused to join his Continental
System against Britain. In May 1808, the
Spanish people, disturbed at the entry of
additional French troops into their country,
openly rebelled as Napoleon forced the abdi­
cation of the Bourbon monarchy in favour of
his brother Joseph and Murat brutally sup­
pressed a violent uprising in Madrid. Spanish
and Portuguese missions sought assistance
from Britain which responded by despatching
Sir John Moore’s expeditionary force to north­
ern Spain. After the defeat of his Spanish ally
at Zornoza, Gamonal and Tudela, Moore was
compelled to retreat in appalling conditions to
Corunna where, in desperate fighting, he suc­
cceeded in embarking his force aboard waiting
naval transports. His death cast a pall over a
great achievement. Greater still were the
achievements of his successor who cleared the
French from the Iberian Peninsula in the six
years the war lasted. He ranks second only to
the Duke of Marlborough as the finest of
British military commanders. His name was
Arthur Wellesly, the Duke of Wellington.

The campaign forms the subject of an
extensive bibliography, the chief works in
which are Sir William Napier’s six volume
account, published in 1852 and Sir Charles
Oman’s history, appearing in seven volumes
between 1902 and 1930. Covering the opera­
tions in meticulous detail, they left little unsaid,
but the narrative was sometimes turgid and,
of necessity, had to be digested in small doses.
Reflecting the interest still generated by the
conflict is the number of works written by
modern military historians such as Peter
Young, Michael Glover, Anthony Brett-James
and the redoubtable David Chandler, while the
numerous biographies of Wellington devote
considerable space to it. C. S. Forester’s his­
torical novel, The Gun, brought the war,
particularly the vicious guerilla struggle, before
a general readership. There has been no short­
age either of published diaries and letters of
the combatants of which Curling’s Rifleman
Harris and Kincaid’s Adventures in the Rifle
Brigade are probably the best known.

An Ensign in the Peninsula Wars is the most
recent of these personal accounts. It consists
of the weekly letters to his family and occa­
sional diary entries of John Aitchison who
joined the 2nd Battalion, 3rd Regiment of
Guards, now the Scots Guards, in 1805 and
fought with this unit at the siege of Copenhagen
in 1807 before accompanying it to the Penin­
sula in 1809. Except for an eighteen month
interlude in London, he remained with the
Guards throughout the campaign. Ironically,
Aitchison was a reluctant soldier, entering the
army only to please his wealthy father who
purchased him a commission — but not in the
artillery as he would have preferred. A diary
entry for 26 March 1811 betrays his true
feelings towards his profession: “. . . it does
not seem to me so likely to promote what I
suppose every man has in his view, viz ad­
vancement in the world.” This attitude must
have been well concealed from outsiders
because Aitchison served for over forty years
before retiring with the rank of general and a knighthood. Then aged sixty-eight, he felt able to relax his previously unswerving devotion to duty and allowed himself the luxury of a wife!

The editor of his letters, Brigadier W. F. K. ‘Sheriff’ Thompson, enjoyed a career half as long but just as rewarding. He commanded the Airlanding Light Regiment artillery in Italy and at Arnhem and the 61st Light Regiment in Korea. On retirement he became military correspondent of the Daily Telegraph, was President of the Military Commentator’s Club (founded by Liddell Hart) and until his death in 1980, a member of the Council of the Institute for the Study of Conflict. According to the blurb, Thompson completed a “great amount of original research into naval and military history from 1779 to 1830”.

The imposing credentials of Aitchison and Thompson and the momentous historical canvas of their subject might be expected to make the reviewer’s task a delightfully educative and exciting study. On the contrary, this reviewer felt an exasperation which intensified with every page turned. Obviously Aitchison can be exonerated from the numerous shortcomings of this book. He had no idea that his letters and diaries would be made available for public consumption over one hundred and fifty years after he wrote them. Instead, it is ‘Sheriff’ Thompson who must bear the blame for a work which adds little to existing knowledge of the Peninsula campaign. He has been neither ruthless in his excisions from some letters nor judicious in his selection of others.

Put bluntly, Aitchison’s correspondence should never have been published at such excessive length. His expatiation on his long wait for promotion might have allayed the concern of a proud father, anxious for his son’s advancement, but for the rest, it forms an enervating distraction. Reinforcing this criticism is Thompson’s failure to explain the intricacies of promotion under the purchase system. Consequently several steps during Aitchison’s laborious rise to captain defy understanding. Also meant for his father, the owner of a large Scottish estate, were Aitchison’s comments on agriculture in the Peninsula and the unfavourable comparison he drew with rural Scotland. The frequency of this digression soon diminishes its novelty. Nine letters were written while he recovered in Belem Military Hospital from a wound received whilst carrying the colours at Talavera in July 1809. These contain mainly gossip, much of which is contradictory. On one point he is disarmingly frank: “I am now quite well as to spirit, and I am still of the opinion . . . (the Army) is the worst profession that any young man can follow.”

It is obvious that Aitchison was an extremely literate officer who responded to the frightfulness of battle with a sense of humanity which, one feels, surprised even himself. The steadiness of his men under “the tremendous cannonade” genuinely moved him for he “could not believe they could be brought to remain without emotion, when attacked, not knowing from whence.” After the terrible retreat from Burgos in November 1812, he wrote feelingly of the sick and wounded soldiers abandoned by the roadside to die in freezing torrential rain. This was the fault of a parsimonious government which Aitchison accused of denying Wellington the necessary means for transporting them: “What must be thought of a government so stinting in comfort — may bare justice — to the defenders of their country . . .”. How fortunate that there was no censorship of mail during the campaign!

Aitchison’s remarks on several senior commanders make interesting reading. Major General Sir John Murray, who obtained his position through political patronage, was “that fool”. He let the French retreat intact across his front after their ejection from Oporto, allowing Soult to make a clean break. After this fiasco, Murray “was recommended the benefit of English air”, but re-emerged bigger than ever four years later when he raised the siege of Tarragona, leaving all his guns and stores for Suchet. “. . . imbecility and indecision” characterised the long flank march of Wellington’s second-in-command, Sir Thomas Graham, across northern Spain to Vitoria which began in May 1813. Aitchison’s criticism of his limited administrative capacity and the indolence of his staff are the only really provocative judgements in his letters for they represent a striking departure from the accepted view of Graham.

His generous praise of Wellington is occasionally vitiated by derogatory comment. Aitchison condemned the Duke for besieging Burgos with inadequate means and his decision to use two divisions without experience of such operations. The defenders inflicted heavy cas-
ualties and, after five weeks, Wellington was forced to desist. His persistence may have been attributable to the undoubted political and military advantages accruing from the fall of the town but Aitchison was convinced his overconfidence was the cause:

"It will show that the most noble minds and greatest heroes are liable to overrate their own talents or, by being intoxicated with success, to commit themselves from inconsideration."

The defeat at Burgos numbed the spirit of Wellington's army. Indiscipline set in and in at least one instance subordinate commanders disregarded his orders. Thompson asserts that the men temporarily lost faith in their leader. In a letter meant only for divisional and brigade commanders, Wellington blamed the irregularities on the "habitual inattention" of officers to the welfare of their men and played down the hardships endured. Some units released the letter as a general order, prompting an outcry which Aitchison joined. As always, Wellington, who offered neither explanation nor apology, dismissed the rumblings as the work of "croakers".

Wellington's attitude was generally well-founded for he knew that most of his critics were ill-informed. He was a master of deception and as the frequent speculation in Aitchison's letters indicates, often deluded his own officers as well as the French. But despite the Duke's dissembling, with what authority could Aitchison, an ensign whose perception of events was limited to their effect on his company, reasonably comment on the intentions of the C-in-C? Consequently, his correspondence and diaries must inevitably contain major errors and unjust contumely. He was barely able to grasp the strategy that the fundamental problem facing him forced Wellington to adopt. The Duke commanded Britain's only effective army, which, including the Portuguese brigade in each British division, never exceeded 80,000. Clearly, no risks could be taken against the French who rarely had less than 250,000. As Chandler says, from the outset he realised that his army's role would be to sustain the remnants of the Spanish and Portuguese armies and, above all, the partisan and guerilla war.

Wellington presented his opponents with an insuperable dilemma which has bedevilled commanders in similar circumstances since. The guerillas, under such famous leaders as Martín Díaz, Longa, Mina and Palarea, inflicted, often in the gristliest fashion, half the 200,000 casualties suffered by the French on the Peninsula. To contain them, they had to disperse their forces in garrisons and punitive columns, leaving only a fraction for the conventional battle against Wellington. Conversely, if the French concentrated to force his retirement through sheer weight of numbers, they relinquished their control of the countryside. The retreat after his triumph over Victor at Talavera in 1809 illustrated Wellington's strategy. He knew that the combined armies of Ney, Soult and Mortier were moving against him. According to Aitchison, however, the withdrawal "diminished in a considerable degree the credit for Generalship which he acquired by the brilliant success that attended his former operations". This was quite unfair.

Similarly, Aitchison's treatment of the great battles of the war is purely narrative with analytical commentary at a premium. He omitted the essence of the plan to clear Oporto in May 1809: Wellington's delusion of Soult into believing that he would make an amphibious landing north of the Douro River to attack the town in rear rather than crossing before it. There was no appreciation of the Duke's shrewd deployment of Hill's 2nd Division on the reverse slope of the Cerro Medelin at Talavera, from where it was immune to direct fire but able to lace the French with devastating volleys when they reached the crest. Commandant Henri Lachouque writes that these were Wellington's usual defensive tactics and they were always implemented on ground of his own choosing. Busaco in September 1810, produced some refinement as he had a track constructed below but parallel to the crest, enabling him to move his forces during the battle unseen by Massena. This victory permitted Wellington to retire in good order to the famous lines of Torres Vedras, just north of Lisbon, which 10,000 Portuguese peasants had spent nearly one year building. With no hope of breaching these defences, Massena withdrew his half-starved army to Spain. During the next eighteen months, while Aitchson was in London, Wellington reduced the frontier fortresses of Ciudad Rodrigo, Badajoz, Almeida and defeated Masséna at Fuentes de Onoro.

Wellington's mastery of manoeuvre was clearly evident as he followed the French
through the open Spanish gateway. Even Aitchison recognised his brilliance at Salamanca in July 1812, where he redeployed his line during the battle to face south instead of east. Marmont was thus moving across Wellington's front and not on his flank as he imagined. The entire weight of the Duke's army fell on his hapless opponent and wreaked disastrous losses. The memory of Burgos which followed was dispelled by the rout at Vitoria in June 1813. Aitchison missed the true texture of this operation: "That most complex of battlefield manoeuvres, a convergent attack by several columns through difficult country." The skill with which Wellington crossed the Bidassoa, Nivelle, Nive and Ardour rivers to carry the war deep into southern France was also overlooked. The main Nivelle crossing was directed against the junction between Clausel's and D'Erlon's corps while the Ardour, 300 yards wide, was bridged by some thirty boats anchored end to end in a swift current. Finally, Wellington smashed Soult at Toulouse in April 1814. By now his moral ascendancy was so great that he could march Beresford's corps beneath the French ensconced on the Calvinet Heights, inviting upon himself the same retribution he had exacted at Salamanca. Aitchison missed this battle because the Guards were investing Bayonne. It hardly mattered. His praise of Wellington the battlefield commander was based on his achievements rather than an appreciation of his tactical ability.

If the subtleties of strategy and tactics were often beyond him, Aitchison certainly felt the effects of Wellington's concern for administration and logistics. His nine years in India had taught the Duke that a sound supply system was essential for the successful prosecution of a war in inhospitable terrain. In principle, his system would not be anachronistic today. Unlike the French, he established magazines as he advanced and paid for all supplies to avoid alienating the peasantry. After stores were moved by barge to intermediate depots about fifty miles in rear, oxcart convoys carried them to forward supply depots some ten miles behind the front where regimental mule trains assumed the duties of collection and distribution. All this took time because the British Army was used to operating in the comparatively luxurious conditions of Flanders. Nevertheless, the system had been perfected by 1811 as an astounded Aitchison noted on his return to the Peninsula. Such was Wellington's attention to detail that he had had 800 carts manufactured in Portugal to a design suited to the primitive roads.

The Duke decentralized medical care by establishing regimental hospitals, eliminating the need for sick men to undertake long journeys to base areas for treatment. He encouraged the acceptance of greater responsibility by senior NCOs and sought a commensurate increase in their pay. Wellington reduced the size of baggage trains and together with the Duke of York, introduced the first British corps of military police. He insisted on the thorough training of his army, particularly the Portuguese, for whom he made Beresford responsible. He was rewarded by their great contribution to final victory. Despite his tough discipline and frequent disparagement of his troops, Wellington was an exceptional leader who held the complete trust of men like Aitchison. Visiting a hospital at Albuera, where Beresford had just won a costly victory, one wounded soldier told him: "If you had commanded my Lord, there wouldn't be so many of us here." Seeing the piles of dead on the glacis at Badajoz in April 1810, he broke down and wept.

Punctuating Aitchison's letters and attempting to bind them with a sense of continuity are editorial passages by Thompson. One senses that he struggled with the pen for his writing is quite pedestrian, a sort of literary version of the endless plodding on the Peninsula. Such a style is able to cope with descriptions of the course of a battle or the tactical significance of terrain but it becomes tedious when applied elsewhere. Nevertheless, Thompson's coverage of the broader themes of the war is more than adequate. He understood the vital importance of British naval supremacy which guaranteed Wellington's lines of communication with England, enabled him to supply his advance to the Pyrenees in 1813 through the Biscay Ports and allowed the launching of occasional distractions from the Mediterranean. The threat posed by American privateers after the United States' declaration of war on Britain is also recognised.

Yet it is surprising that Thompson neglected the discord amongst the French marshals. Napoleon, trying to run this 'sideshow' from Paris, was unable to impose his authority on
them and prevent their rivalry growing to the point where duty was forgotten. Sault saw himself as King of Andalusia and acted accordingly. Masséna's comely mistress accompanied him disguised as a hussar officer. Ney feuded with both of them while Joseph's Chief of Staff, Jourdan, was obeyed reluctantly. Joseph himself was an object of derision. The inability of these men to work in complementary teams presented Wellington with an opportunity he was now slow to exploit.

Whatever the criticism of Thompson's editing of Aitchison's correspondence, it is almost insignificant compared to the ghastly editing of the book as a whole. Several sentences contain no verb. Poor grammar and punctuation render obscure the meaning of entire paragraphs. One notable example consists of a single sentence containing five subordinate clauses. Prepositions and conjunctions are frequently omitted: after Orthez, Wellington held a conference to agree the steps rather than to the steps. Passages in the text are repeated as footnotes while some units and commanders shown in the otherwise well-drawn maps are not mentioned in the accompanying notes. Thompson is nothing if not an extremely versatile speller. Is it Oroposa or Oropesa, Escorial or Escorial, Kemp or Kempt, or most shamefully, Coldstream Guards or Coldstream Guards?

This book is grossly overpriced at $49.95. It needs reducing to half its present length and then thorough editing by a proofreader who understands the basic rules of grammar. Some knowledge of spelling might be useful too. While their attraction might be increased by this drastic remedial surgery, Aitchison's letters could still make no legitimate claim to rank alongside the standard works on the war and Wellington, the architect of victory. But one conclusion is incontestable. The principles of war were as relevant then as they are today and the consequences of abandoning them just as catastrophic. Perhaps it all goes to show the folly of those "experts who dismiss the study of the great campaigns as an exercise in futility". Then again, ignorance is bliss.

Major Pedersen graduated from RMC Duntroon in 1974 and is currently posted to regimental duties, 5/7 RAR. He holds the degrees of Bachelor of Arts and Doctor of Philosophy from the University of New South Wales and has contributed previously to the DFJ. His study of Monash will be published at the end of 1984.

BOOKS IN REVIEW

The following books reviewed in this issue of the Defence Force Journal are available in various Defence libraries:

Hetherington, John Blarney: The Controversial Soldier, Canberra, Australian War Memorial.
Price, John E, They Proved to all the Earth, John Price Pub, 1981.
Wardlow, Grant, Political Terrorism, Cambridge University Press, 1983.
AUSTRALIA'S AMPHIBIOUS INCAPABILITY?

By Lieutenant Commander A. W. Regan, RANR

'You know, an amphibious landing is not a particularly difficult thing, but it is a touchy and delicate thing, and anything can go wrong. In some ways, from the land fellow's viewpoint it is one of the simplest operations. You put your men in boats and as long as you have well-trained crews to take the boats in, it's the simplest deployment in the world — the men can go nowhere else except to the beach'.

General Dwight D. Eisenhower

Introduction

There is no easy way to ensure Australia's security. This country has about 37,000 km of coastline which is vast compared to its population concentrated in a number of 'population islands' on the coastline. This presents special problems to the structure of the Australian Defence Force (ADF).

The structure of the ADF must be determined by the strategic outlook. It is assumed by many Australians, including some members of the ADF, that the core-force maintained in low-threat times, contains the essential skills and doctrines, the necessary equipment and adequate numbers of trained men that would permit expansion of the force when required.

A yawning gap has developed in an important area of the ADF capability — the crucial place of a national amphibious force in a viable maritime defence capability; whether it be for Continental Defence, Forward Defence or any other concept of defence. The RAN and the RAAF can strike at enemy forces but they have little capability to project maritime power inland, other than by a short duration air strike. Because of the composition and training of the Australian Amphibious Squadron, Australia cannot be perceived as being able to conduct Eisenhower's 'touchy and delicate' task of an amphibious operation of moderate difficulty.

A potential aggressor should be placed in a position of 'disproportionate response in terms of cost in money and for material and/or manpower but also in terms of forcing him lengthy lead-times for acquiring and developing offensive (and related defensive) capabilities with which to threaten us'. This concept requires a maximum perceived flexibility and mobility posture from the ADF which can be provided, in part, by a healthy Australian Amphibious Squadron. This article proposes that Australia has an amphibious incapability which must be corrected by meaningful training and a restructuring of the Squadron which is currently comprised of:

a. One Amphibious Heavy Lift Ship (LSH), HMAS Tobruk; and
b. Six Landing Craft Heavy (LCH).
National Policy

Several types of amphibious operations are recognized by Australia (and most other countries with an amphibious capability), namely:

a. amphibious assault,
b. amphibious tactical lodgement,
c. amphibious raid,
d. amphibious clandestine operations,
e. amphibious demonstration, and
f. amphibious withdrawal.

Amphibious operations are joint operations involving a variety of ship types, landing forces, weapons and aircraft in a co-ordinated effort to project maritime power inland. This embodies the requirement for mobility and flexibility so essential when gaining maximum benefit from a diminishing defence budget.

Australian Amphibious Force Composition

An amphibious force is a joint force which is trained specifically for amphibious operations. This force can only be constituted by a commander who has the authority to place elements of one Service under the command and control of another Service. This commander is the Initiating Authority and he issues the Initiating Directive which constitutes the amphibious force: in Australia's case, this is the Chief of Defence Force Staff (CDFS) or a Joint Force Commander (JFC) appointed by CDFS.

Single service contributions, common to all countries with an amphibious aspiration, may include some or all of the following:

**RAN.** Capabilities required from the RAN are:
- Amphibious ships with ship to shore air and surface movement systems, including ships with suitable sealift capabilities.
- Escort vessels to protect the amphibious force. This may include capacity to provide air, surface, and sub-surface defence and mine countermeasures.
- Offensive support.
- An underway replenishment group (URG).

**Army.** Capabilities required from the Army are:
- A landing force which can be variously structured.
- Supplementary landing craft.
- A terminal organization to relieve the Amphibious Beach Team (ABT) when the landing site is secured.

**RAAF.** Capabilities required from the RAAF are:
- Air defence and offensive medium range support operations.
- Rotary wing air transport support.
- Fixed wing air transport support within the amphibious operating area.

**Joint Units.** Units required simultaneously from the three Services are:
- A beach reconnaissance and underwater demolition capability provided by RAN Clearance Diving Teams in conjunction with Army personnel. This should also include RAAF reconnaissance aircraft and a RAN hydrographic survey element.
- Personnel for a Supporting Arms Co-ordination Centre (SACC).
- An Army ABT with a RAN landing craft control and medical element.

Single Service Capabilities. The RAN amphibious capability is postulated as being inadequate. Except in a high threat situation, the Army and Air Force can provide the support required. The only doubt is the ability of the RAAF to provide air defence support.

Australian doctrine states that a naval officer commands the Amphibious Task Group (ATG) until the Landing Force is securely established ashore. He should be able to employ recognized guidance such as the Principles of War incorporated into ADF doctrine. He is a strategist and a tactician who traffics in inponderables and is guided, consciously or unconsciously, by the Principles of War which are a collection of basic considerations.

Let us look at the guidance the Principles of War provide to today's Australian Amphibious Commander.

**Principles of War**

After experience in World War II, two principles were added to Captain J. F. C. Fuller's original eight. The ten principles are:

a. Selection and Maintenance of the Aim,
b. Maintenance of Morale,
c. Offensive Action,
d. Surprise,
e. Security,
f. Concentration of Force,
g. Economy of Effort,
h. Flexibility,
i. Co-operation, and
j. Administration.
If any of these principles are not achieved in an amphibious operation, it is probable that the operation will fail — an amphibious operation is, in the words of Eisenhower — 'a touchy and delicate thing'.

**Application of 'The Principles' by an Australian Amphibious Squadron Commander**

Overview

'The principles' when used by the commander, should be used in the context that Clausewitz states as the purpose of the principles:

'by total assimilation with his mind and life, the commander's knowledge must be transformed into a capability'.

No currently serving RAN officer has recent experience in the high command of an ATG and to date none are receiving such experience even at a low level.

**Selection and Maintenance of the Aim**

In most naval operations, the selection of the aim does not particularly concern the commander at sea.

Any intermediate aim is unlikely to be selected in low-threat situations. Should a new Initiating Directive be required to reflect a change of aim, it could require reforming the small amphibious force. Reliable strategic communications would make it unlikely that a full and timely discussion on the change of aim could not take place which would minimize the disruption to the maintenance of the aim.

The Australian Amphibious Squadron is reduced to a planning transit speed of 8.5 knots due to the speed of the LCH and any change in the aim would have serious repercussions on the amphibious force plans.

A re-appreciation of the situation is the right of the scene-of-action commander, but in an Australian amphibious operation, the consequences of such a re-appreciation could be immense and beyond the capability of the ATG Commander in HMAS Tobruk or an LCH to appraise. The selection and maintenance of the aim must be achieved by a higher authority than the ATG Commander who can only assist to the best of his ability.

**Concentration of Force**

The Concentration of Force principle in a modern naval arena means concentrating superior firepower against an enemy. This firepower will need to be obtained from units other than those of the Amphibious Squadron.

The ADF has only limited assets to provide this firepower which has been of importance in landings such as the World War II assaults on many of the Marshall Island Group, and post-war in Korea, at Suez, and in the Falklands.

Of particular concern is how an Australian ATG could obtain vital air cover without an aircraft carrier. Only luck would place the Amphibious Objective Area (AOA) within range of established ground based fighter aircraft and therefore adjacent to an Australian population centre!

With the present structure of the ADF, it is unlikely that an Australian amphibious force commander could realize the principle of Concentration of Force.

**Co-operation**

The substance upon which an amphibious operation depends is co-operation. Inter-service rivalries have no place in an amphibious task.

Many joint exercises have been conducted, and compatibility of RAN and Army material and procedures has been achieved. RAN and RAAF amphibious force doctrine compatibility will require astute planning as it is not practised at this time.

Admiral of the Fleet, Lord Cunningham, who had unrivalled experience of systems of high command explained:

'Under a "Supremo" the heads of the three Services tend to drift apart. Without one they have to get together, and if they settle and loyally strive after the same object, they are bound to get agreement'.

The principle of Co-operation will depend upon the untested skill of an Australian amphibious commander to avoid inevitable festering inter-service rivalry.

**Economy of Effort**

Due to the paucity of assets, the requirement for economy of effort of the amphibious squadron is essential. Extreme care must be exercised in assigning such a small amphibious force to any task.

An amphibious operation, because of the nature of concentrating precious assets in a small area, becomes an ideal nuclear target which allows an enemy to employ an economy
of effort in preventing the operation. The Australian Amphibious Squadron is not capable of implementing the procedures required to minimize the effects of such an attack and assist in persuading interoperability with the Amphibious forces of our major allies who will be prepared for nuclear retaliation; this is of great importance in 'wave' landing procedures.

Careful planning for an amphibious operation is mandatory to achieve the principle of Economy of Effort. There is little excuse for Australia to be denied this principle provided opportunities are given to exercise all procedures as required by present doctrine.

Security

'Security' encompasses any measures necessary to provide freedom of action, thus permitting full use of the capability available and deny the enemy any advantage from surprise.

During an embarkation or landing phase, secure operating areas are essential to the Amphibious Squadron. Limited self defence is available, and it is doubtful that an amphibious ship could withstand a well planned, concerted attack. The Falkland Islands campaign provides examples of the vulnerability of ships engaged in amphibious tasks.

Australia cannot afford to have an amphibious ship damaged. The formation of a Seaward and Harbour Defence organization within the Naval Reserve may produce insight into the problems involved with this subject — a pilot scheme is planned to commence in the near future.

The Amphibious Squadron can only achieve the principle of Security with assistance from the three Services.

Surprise

The principle of 'surprise' requires comprehensive intelligence, security and speed of execution. This is a means available to the Amphibious Commander to attempt to redress a disparity in strength. Napoleon recognized the importance of surprise in his military axiom:

'Action, action, speed'.

Any site selected for an amphibious landing must be carefully evaluated as to its suitability. Gathering intelligence on beach gradients, nature of hinterland, ability of the site to support the equipment to be landed, and much more is essential to correctly assess the suitability of the landing site. In collecting this intelligence, the principle of 'surprise' may be lost should the enemy detect and correctly appraise such intelligence gathering activities.

This limitation can be assuaged by judicial use of sophisticated reconnaissance aircraft (available in the RF-111) and modern survey photogrammetric techniques (available in the Army) to process the information. The technique has not been exercised in support of an amphibious operation within Australia.

Hovercraft can land forces speedily and can be deployed from a ship which may not be recognized as part of the present Amphibious Squadron. These craft, which are unavailable to the RAN, can be deployed unfettered by many navigation dangers and approach the beach at speeds of approximately 60 knots. This would enhance the maintenance of surprise. Conventional landing craft are slow, vulnerable to enemy retaliation and require intricate knowledge of tides, navigation hazards and local intelligence. They do, however, have a substantial carrying capacity for their size.

The principle of 'surprise' can only be a 'hoped for' goal for the Amphibious Commander.

Flexibility

Conditions alter rapidly in a maritime environment; the plans of the Amphibious Commander must remain flexible. The loss of an asset may require an immediate adjustment of plans.

Satisfying the requirement for rapid change and maintaining the aim is the principle of 'flexibility'.

Little opportunity has been provided for any Australian amphibious commander to exercise flexibility of judgement. Any loss of scarce amphibious assets immediately results in a questioning as to the viability of the Australian amphibious operation. Except for limited experience with HMAS Jervis Bay and HMAS Stalwart, no opportunity has been gained to ensure amphibious procedures are flexible enough to cope with a variety of ships which may be required in an essential complementary sealift role.

Circumstances will decide if the principle of 'flexibility' can be achieved; experience in exercising this principle, vital to The Falkland
Islands campaign, is lacking in the Amphibious Squadron.

Offensive Action

Offensive action is the backbone of five of the six amphibious operations — once broken, the operation will probably become the sixth — a withdrawal under unfavourable circumstances. Supporting elements of the RAN and RAAF will be required to provide offensive operations. No experience exists within the amphibious squadron in co-ordinating such vital support.

The Australian Amphibious Squadron, without the assistance of an aircraft carrier, will find offensive action projected from the air a necessary, but probably unattainable requirement.

Administration

The complex nature of an amphibious operation necessitates complicated command and control procedures — an adequate standard of administration to manage the operation is vital. The Amphibious Commander and his staff must possess a breadth of knowledge to encompass the administration of the three Services and civilian infrastructure. The management style employed by the Amphibious Commander will comply with classical Situational Theory. Administration to formulate and implement plans must be capable of withstanding rapid change and this necessary ability has been attained.

Morale

"The small size and compact leadership of the Corps, along with other factors, permitted the establishment of high morale and this in turn has contributed to a state of constant and instantaneous readiness to perform any given task within its power'.

—a U.S. Marine Corps Officer

This comment refers to the essential ingredient of the personnel in an amphibious operation — high morale.

An often long and unpleasant journey faces the landing force embarked in amphibious ships. The Falkland Island assault force was able to maintain high morale after an 8,000 mile voyage. Available support facilities in Australian ships, such as canteens, refrigeration capacity, cooking facilities and others are fully extended in performing the necessary role of maintaining morale. The Australian Amphibious Squadron could not undertake a long deployment and arrive in the AOA with a high morale existing in the landing force without amenities support.

Capability Conflict with Doctrine

Whilst the 'principles' can be used for guidance, the Amphibious Commander should caution against using it as a check list. Inevitably, not all the 'principles' will be able to be maintained, however, the abdication of one or more must be balanced and viewed objectively whilst keeping the Initiating Directive in sight.

Particularly opposite to this article is that the Amphibious Commander is highly disadvantaged in the balance of the 'principles' due to asset limitations and training shortfalls. Of the ten 'principles', he can rely on achieving perhaps three to five in a low-threat environment amphibious operation which will consume a major proportion of the ADF capability — this is undoubtedly unsatisfactory.

Sealift. Former United States Chief of Naval Operations, Admiral Thomas B. Hayward stated:

"Without adequate and reliable sealift, none of our military plans are executable.'

The sealift capability of the Australian Amphibious Squadron is not practised except under relatively easy circumstances. This lack of training and capability could place all our military plans in jeopardy.

What is to be Done?

The cause of our amphibious incapability is the lack of recognition by the ADF and the Government of the importance of a viable amphibious force.

Defence officials have stated that in any future conflict it will be a 'come as you are war'; the ADF should concern itself with transforming its present amphibious incapability into a capability.

Because amphibious subjects attain low ranking in defence considerations, useful training is not provided to the Amphibious Squadron. The following are avenues open to alleviate the problem:

a. Concentrate the required RAN fleet support around the amphibious core to test, and rectify where required, doctrine
practised by the Australian Amphibious Commander.

b. Hire selected merchant ships for short periods to practise amphibious procedures under the direction of the Australian Amphibious Commander.

c. Operate Air Force assets in the amphibious support role to test doctrine practised under the direction of the Australian Amphibious Commander.

These measures will highlight inadequacies which will be stepping stones to improvements.

Until such time as a second major amphibious ship is obtained, it is doubtful that Australia will ever get around to conducting meaningful amphibious training. A ship such as the Surveillance and Army Support Ship designed by Carrington in Newcastle is urgently required to continue amphibious training whilst the other major ship is employed performing sealift roles.

**Conclusion**

"Al ain't sellin' excuses... Al's selling whiskey."

Attributed to Frank Nitti, Al Capone's 'enforcer'.

An amphibious force, even in a low or no-threat situation will comprise a large percentage of the ADF capacity. To structure meagre and valuable assets around a RAN amphibious core, the commander of which will find difficulty in applying basic doctrinal procedures due to shortfalls in training and hardware, requires an urgent reappraisal of that situation.

Churchill once growled that history would always wonder how the fate of two great empires was tied up in some 'god-dammed things called Landing Ships.' The Australian public should ask the same question of the ADF and the Government about Australia's fate — whilst it can.

**NOTES**

1. Isely J. A., and Crowl P. A., *The U.S. Marines and Amphibious War*, Princeton, New Jersey, 1951, p.6. This statement was made by General Dwight D. Eisenhower in a media interview after World War II. He did not witness an opposed landing during his military career. This statement, in effect, praises his planning staff.


3. Numerous definitions exist to describe an amphibious operation. The definition presented in this essay conforms generally to U.K. concepts.

4. In exercising higher command positions, J. M. Collins argues that successful commanders never knowingly violate the Principles of War unless they evaluate the risks and estimate expenses.


6. Nations vary in their perception as to the Principles of War. For example, the U.S.S.R. recognizes five 'principles' whilst the U.S. employs 10 'principles' many of which differ from Australia's.


8. Isely, op cit, pp. 253-309.

9. Mobility of the Mirage fighter force and the required support units is satisfactory; a major limitation is the range of the aircraft.


11. Economic restraints tend to indicate that the cultivation of this expertise with the Australian Naval Reserve will be delayed until the commencement of a pilot study planned to operate in the Brisbane Port Division in 1984.


13. Beach intelligence tasks will necessarily vary in type and scale as dictated by the operations they are to support.


15. Capabilities of hovercraft are being increasingly documented, and the speed quoted is taken as being typical of the types evaluated by the United Kingdom and the United States. These craft can be deployed from a variety ship types and trials are continuing. Some air cushioned vehicles are used operationally at this time.

16. The Australian series of Joint Service Publications is essential in providing guidance in this context.

17. Staff officers to the Amphibious Task Group Commander do have a high and demanding workload, even in the small Australian Amphibious Squadron.


19. Various authors and defence officials postulate that the greatest threat Australia faces today is a low-threat, protracted activity scenario aimed at destroying the Australian economy.


21. Admiral King USN who controlled the majority of the Allied Landing Ships, had different priorities to Churchill.
CURRENT DEFENCE READINGS

Readers may find the following articles of interest. The journals in which they appear are available through the Defence Information Service at Campbell Park Library and Military District Libraries.

NO FIRST USE; A HISTORY. Weiler, Lawrence D. Bulletin of the Atomic Scientists; Feb 83: 28-34 Examines the history of the no first use issue, discussing various disarmament treaties and agreements between the United States and the Soviet Union since 1948. The author concludes that any significant change in nuclear policy must come from outside the government.

COMMON SENSE AND NUCLEAR PEACE. Zacharias, Jerrold R.; Gordon, Myles; Davis, Saville R. Bulletin of the Atomic Scientists; Apr 83: 1-13 Discusses the necessity to dismiss and thus avoid nuclear warfare.

NUCLEAR WEAPONS IN EUROPE. Holloway, David. Bulletin of the Atomic Scientists; Apr 83: 17-24 Asks various questions about nuclear weapons in Europe, including whether they have a useful military role, and the political reasons that lie behind their deployment.

COMBINED OPERATIONS — THE SWEDISH APPROACH TO DEFENSE. Ries, Tomas. International Defense Review; Apr 83: 413-420 Examines Sweden’s defence policy and its emphasis on combined operations to deter and, if necessary, defeat hostile invasion forces.

MILITARY REFORM AND THE ART OF WAR. Canby, Steven L. Survival; May/June 83: 120-127 Claims that United States and Western military inferiority is purely self-inflicted, for the defence build-up is input not output oriented.

THE SOVIET SS-20 DECISION. Garthoff, Raymond L. Survival; May/June 83: 110-119 Identifies the considerations leading to the Soviet Union’s deployment of the SS-20 missile system in and near Europe.

NUCLEAR WEAPONS IN EUROPE. PLANNING FOR NATO’S NUCLEAR DETERRENT IN THE 1980s AND 1990s. Thomson, James A. Survival; May/June 83: 98-109 An important issue is the ability of NATO leaders to manage the doctrine of flexible response. Two other such issues are the modernization of short range (or battlefield) nuclear systems and the future of the dual-capable tactical aircraft.

A NUCLEAR-WEAPON-FREE ZONE IN EUROPE. Blechman, Barry M.; Moore, Mark R. Scientific American; Apr 83: 29-35 A proposal to ban nuclear weapons of all kinds from a strip of land on both sides of the East-West boundary in Central Europe is viewed as a politically feasible approach to reducing the risk of nuclear war.

INTELLIGENCE AND CRISIS FORECASTING. Handel, Michael I.; et al Orbis; Winter 83: 817-847 Gives an introduction to divisions of intelligence work — acquisitions, analysis and acceptance; papers on forecasting; warning dilemmas, theories and their uses; surprise, perceptions and military style; dealing with the unexpected.

MARE LIBERUM. Allen, Scott United States Naval Institute Proceedings; Jul 83: 45-49 The way to freedom of the seas is for the West to assist the voting bloc of the Southern Hemisphere nations to realise the benefits of free, safe and secure sea-lanes.

NEW TACTICS, NEW WEAPONS WILL DERIVE FROM THE LEIBANON CONFLICT. Smith, Martha Military Electronics-Countermeasures; Jan 83: 116-117 (4p). Gives impressions of PLO, Syrian and Egyptian performance against Israeli Deputy Director of Military Intelligence.
The First World War marked a new development in the process of Australian myth-making, with the rise of the soldier as a popular focus of national identity. But many of the traits held to be characteristic of the men of the AIF — individual resourcefulness, hardy independence, a sense of "mateship", and egalitarian disregard for authority figures among them — formed elements of earlier stereotypes in Australian folklore such as the miner of the Goldrush era, the bushranger and the bushman. There is accordingly a strong case for arguing that the "Digger" figure produced by the 1914-18 War incorporated the images of earlier folk heroes rather than simply displaced them.

A neat illustration of the contention that the Anzac legend formed part of an historical continuum is provided by the Lalor family. The story of Peter Lalor (1827-1889), the leader of the 1854 miners' revolt at Ballarat and later Speaker in the Victorian Parliament, is well known. His part in the Eureka Stockade is a legend in itself, so that his name is inextricably bound up with the tradition that has subsequently grown up around the incident. It is noteworthy, therefore, that a grandson of this champion of the rights of Ballarat goldminers should have played a prominent, if short-lived, part in the momentous events of the Gallipoli landing of 1915.

That a representative of the Lalor name was present at the landing did not escape the notice of the chief architect of the Anzac legend and official historian, C. E. W. Bean. Perhaps seeing the grandson, Captain Joseph Peter Lalor, as an embodiment of the notion that Gallipoli was inheriting or succeeding to the traditions of earlier periods in Australia's past, Bean meticulously recorded Captain Lalor's actions from early in the morning of the landing until his death late in the afternoon of that first day. By so doing he was in no way distorting the historical record, for Lalor's part in the fierce fighting on the left of the Anzac position was undoubtedly significant by itself, but it did serve two purposes. And it also provided a quite colourful element to the narrative of the landing, for the story of Captain Lalor's life and death had about it a strong sense of romance.

Born in August 1884, he was the eldest child of Peter Lalor's only son, Dr Joseph Peter Lalor of Richmond, Victoria. He attended Xavier College, Kew, as a boarder in the years 1893-99, and then left school for over a year, returning again in 1900. A restlessness of soul caused him to drop out again mid-way through his final year and, it is alleged, make his way to work on the London docks. Other accounts claim he enlisted in the Royal Navy but later deserted, a circumstance which Bean noted was not without its irony when, a few years later, as an aide-de-camp in Western Australia, "he had more than one interesting meeting with naval officers, who little dreamed of his story." After serving two years in the French Foreign Legion in Algeria, he reportedly made his way to South America where he fought through an unspecified revolution before returning to Australia. As one account put it, "Wherever trouble and fighting were to be found Captain Lalor was to be found until he..."
came to Australia” and gained an appointment in the permanent military forces.\(^2\)

Whatever the true facts of Captain Lalor’s past, it is known that he was back in Melbourne by 1908 — perhaps prompted to attend to family matters following his father’s death in September 1907. His military career in Australia commenced in June 1908 with his appointment as a lieutenant in the Senior Cadets, where one of his young cadet charges was the future Lieut.-General Sir Stanley Savige.\(^3\) In May 1909 he received an appointment as second lieutenant in the 1st Battalion, Victorian Rangers, and the following year he sat examinations to qualify for permanent appointment in the commissioned ranks of the Administrative and Instructional Staff. Being successful in these he was allotted for duty in Western Australia.

Initially he was stationed at Kalgoorlie, where he became engaged in instructional work associated with the universal training scheme of 1911. At this time, on 4 January, he married at the Roman Catholic Church, Subiaco. His bride was Hestor Loughrey, daughter of James Charles Loughrey and niece of Dr Bernard Loughrey, a well-known medical practitioner of Lower Hawthorn, who had cared for his brother’s family after James died in May 1891.

The following year Lalor was given temporary rank of captain and became brigade-major of 22nd Infantry Brigade centred on Perth. During this period also, he began to write about aspects of the military profession; one article on the system of battalion training used at Kalgoorlie appeared in the *Commonwealth Military Journal* in July 1913, and a revised version of his paper dealing with mobilization of an Australian field army, which won Second Prize in the Army-sponsored Gold Medal Essay competition, was published in the October issue that same year.

In November 1913 Lalor was transferred to Queensland as brigade-major of 2nd Infantry Brigade at Brisbane. He was subsequently promoted substantively to rank of captain on 1 June 1914, little more than two months before the outbreak of war. Despite having so recently left the west, he was promptly transferred back to command the two infantry companies raised in that State to supplement the AIF’s 12th Battalion.\(^4\) The early training of these companies was carried out under his direction with the 11th Battalion in Blackboy Hill Camp, outside Perth.\(^5\)

Lalor’s companies joined up with their predominantly Tasmanian unit a few days after the AIF arrived in Egypt. At Mena Camp near Cairo, Lalor was commander of “G” Company, and later “D” Company after the establishment of AIF battalions was reduced from eight rifle companies to four. The unit history of the 12th Battalion records that at the Gallipoli landing:

As soon as the 11th Battalion were clear, the boats returned for “D” Company, and Capt. J. P. Lalor (or “Little Jimmy”, as he was affectionately called by his men, on account of his diminutive figure) was among the first to get in. He almost seemed to be enjoying himself, in spite of the hostile rifle and machine-gun fire, which was increasing every minute, and cheered the men as they rowed by singing, “It’s a Long Way to Tipperary”.\(^6\)

Once on the beach at what became known as Anzac Cove, Lalor rallied his men and had them drop off their heavy field packs before making off through the scrub in the direction of Walker’s Ridge. The historian of the 12th Battalion records an incident which occurred after they had gone about 150 metres, recounting that:

Lalor sighted a Turkish sniper concealed in a bush and quickly pulled him out by the leg. The sniper made frantic signs to indicate that he had not fired at our men, and pointed to his rifle which was clean, but one of the men nearby discovered his ramrod with a piece of rag in it covered with powder. Lalor detailed one of the men to take him back to the beach, but it is very doubtful whether he reached there as the escort arrived back in a very short time.\(^7\)

From Bean’s narrative we have it that half of Lalor’s company were by 7 a.m. digging themselves in on Russell’s Top in a position just where the ridge began to narrow to The Nek and beyond which rose the long spine of the Baby 700 feature. Lalor was at this time supposed to be in reserve but about 8.30, accompanied by Major S. B. Robertson of the 9th Battalion who had joined him, he began an advance up Baby 700 in the wake of a party of the 11th Battalion who had gone in this direction an hour or so earlier. The objective was reached but the Australians were soon driven back almost to The Nek, and fighting sawed throughout the day with the
crucial Baby 700 hill actually being taken and lost three times.

At about 3.15 p.m. Lalor led his men across Malone’s Gully onto a spur on the farther side of the feature and took up a line under Turkish fire from their left. It was here that he was joined by a party of the 2nd Battalion under Captain L. J. Morshead (later to become a corps commander in the Second World War). In what was obviously a highly-excited state of mind, he greeted Morshead with the words “It’s a ——! . . . Will you come in on my left”, and after babbling about the fate of his colonel and one of his pals added again, “Oh, it’s a ——!” The stress of combat had clearly begun to tell, though Bean observed by way of mitigation that “responsibility of that long day had rested as heavily upon Lalor as upon any officer in the force . . .”

Morshead complied with Lalor’s request by left-forming his men to take up the desired alignment. It was, evidently, shortly after this that Lalor, standing up to get a better view, decided to order a charge to deal with Turkish fire being directed at the position from lower knolls. He barely called out “Now then, 12th Battalion” before being struck in the head by a Turkish bullet and killed.

The circumstances of Lalor’s death gave rise to instant mythology. His widow’s sister, Bernice Loughrey, wrote from Alexandria in Egypt where she was working with the Red Cross, to say that a minister who had been with Australian forces at the Dardanelles claimed to have seen his body after the fight was over; six dead Turks were around him, his own revolver was empty, and a great dead Turk was lying across him. “The minister said his sword must have accounted for the seventh, and that he must have had a splendid fight and a glorious death.”

As the historian of his old school observed:

It was a gallant death, the sort of death Australians at home thirsted to hear about. Poets played on the symbols of Eureka and Gallipoli: “For the people at Eureka, for the king at Sari Bair.” . . . The school, and with it Catholic Australia, found a deeper comfort in their hero. Joe Lalor was Australian and Catholic and Irish. Dying gallantly on what was already being acclaimed as the true birthday of the nation, he legitimatised their cultural and religious differences. . . . And they proudly proclaimed that between independence and loyalty, between heroics and religious conviction, there were no contradictions.

While not detracting from the sentiments which Lalor’s end evoked, the veracity of accounts of his death are somewhat open to question. Central to this matter is the sword which he was reported to have carried on the day of the landing. That he had such a weapon in his possession seems beyond question. Bean states:

He carried with intense pride a family sword, from which he would not be parted. He had it with him — in spite of all regulations — on this morning . . ., its bright hilt wrapped in khaki cloth.

A Family Relic

The 12th Battalion history also mentions it, describing it as “a fine old sword (a family relic) bound round with hessian to prevent it glistening in the sun”.

R. R. James, in his 1965 book on Gallipoli, reproduced a Turkish account which he felt provided a “clue to Lalor’s death”:
An Australian officer with a sword in his hand was seen ordering a party of about 30 soldiers to attack a group of 20 to 25 Turks who had got very close to them. Noting this, the Turkish troops stood up and charged the attacking Australians. This fight lasted one minute only; a large number of the enemy and a few Turks were killed. The rest of the Turkish troops followed up this first by firing at the retreating enemy and then running after them.13

Unfortunately for the theory that this statement details Lalor’s last moments as seen from the Turkish side, Bean is quite unequivocal that by the time of his death Lalor had already dropped his treasured sword. Hours later, it is claimed, the sword was found back at The Nek by Lance-Corporal W. H. (“Harry”) Freame of the 1st Battalion, a man who enjoyed his own claim to fame within the AIF by being half Japanese.14 Freame reportedly lost the sword again during further fighting on dusk a few hours after its owner was killed.

In a strange twist of circumstances, one further account claims that the sword was retrieved from possible Turkish capture by another member of the AIF, Private J. (“Snowy”) Howe of the 11th Battalion claimed sixty years after the event that:

My mate Clive De Mole picked up Lalor’s sword, brought it back to the beach and gave it to a naval officer.15

In what constitutes the curious coming together of two notable stories of the War, Clive Moulden De Mole (1886-1934) provides a link with a different episode concerning his brother Launcelot Eldin De Mole (1880-1950), the Australian designer of a 1912 version of an armoured fighting vehicle. The De Mole “tank” became the centre of a controversy in 1919 when his claims lodged with the British royal commission on awards to inventors were rejected on the grounds that his design had not influenced development of the British machines that took to the battlefield at Delville Wood in September 1916.16

Clive De Mole was a member of the 11th Battalion during the Anzac landing, and elements of this unit were certainly engaged in the same sector as Lalor so the claim regarding the sword is plausible. Wounded and evacuated from Gallipoli, De Mole re-embarked for active service in November 1916, was commissioned in the final stages of the war, and although he returned to Australia he later went to live in England and died there.

Despite the symbolism of the sword, the story behind it and its actual significance seems now lost to history. It would be particularly fitting to have been able to record an association with Captain Lalor’s famous grandfather and events at Ballarat sixty years before. Unfortunately there are no traces of links of this kind. Although another of the miners’ leaders named Ross is mentioned as having “sword in hand” when Peter Lalor, as “Commander-in-chief”, swore his followers to a solemn oath on Bakery Hill, Lalor himself carried a rifle on this occasion.17 And during the military and police assault on the stockade four days later, Lalor is described as directing the miners’ defence “revolver in hand” until receiving the wound that cost him an arm.18

A family belief that Joseph Lalor had been in possession of a dress sword given him by his father-in-law offers a more useful clue to the sword’s origins, for it is known that his wife’s uncle was Andrew Loughrey, a teacher with the Victorian Education Department and law graduate of the University of Melbourne. He went to New Zealand in 1880, entering partnership in a Christchurch legal firm and serving as a member of the House of Representatives 1887-89 before his death in September 1913. An enthusiastic volunteer, he was instrumental in forming the Canterbury Irish Rifles in 1886, serving as a captain in the corps until it was disbanded a few years later.19

The belief that Joseph Lalor’s sword held links with the incident at Eureka nonetheless persisted. Dr H. V. Evatt reportedly raised the matter of the sword’s whereabouts at one stage, this possibly providing the impetus for inquiries which are known to have been made during the Second World War. In 1944 Alfred Stirling, the Australian Liaison Officer to the British Foreign Office, received a request from Canberra — possibly from the War Memorial — to initiate the return of Peter Lalor’s sword from Turkey. The Australian High Commissioner, S. M. Bruce, raised the matter with his Turkish counterpart in London and a telegram was sent to Ankara with the ambassador guaranteeing that a search would be made of every war museum in the country. This inquiry was apparently fruitless, though Bean later published the claim that the weapon was “said to be in a Turkish museum”.21
The death of Joseph Peter Lalor on Gallipoli was not the extinction of the Lalor line in Australia, as he left an infant son named Peter Bernard, born in Perth in April 1913. The young Peter Lalor attended Xavier College, as had his father, from 1921 to 1930, then entered Melbourne University where he was active in the University Rifles. He graduated with degrees in Arts (1934) and Law (1935), and went to England to further his studies at Oxford. With the outbreak of the Second World War he enlisted in the King’s Royal Rifle Corps, and saw special commando service and action in the North African campaign before being killed in September 1943; “Peter Lalor, son of Joe who died so publicly at Gallipoli, died less noticed as a paratrooper at Dieppe”.

A younger brother of Captain Lalor, Peter Anthony Richard Lalor, served as medical officer at the Royal Military College, Dunrobin, for four years from 1911. In the years before his death in 1927 a Jesuit priest presented him with a sword said to have been used by his grandfather at Eureka. Although he was always sceptical of this claim, the sword is now in the possession of his own grandson. Its existence raises other possibilities regarding the ultimate fate of the “family relic” carried ashore at Gallipoli.
A SYSTEMS APPROACH TO MASTERY LEARNING

WHERE DO THEY LEARN TO MASTER MASTERY LEARNING?

By Major B. D. Copeland BA, BEdSt, RAAEC

INTRODUCTION

MASTERY Learning has always been an integral part of Education and Training. The activity is basic to all human development. Children acquire language by mastery learning. In society generally, skills are developed in self-organising ways, directed by success and failure, approval and disapproval.

In Education and Training, activities are structured formally to maximise student effort and success in completing a systematic progression of skills.

With the rapid onset of the New Technology, computers will become a major consideration in Education and Training. There will be a greater need then ever before for Course Designers/Developers to master the application of ‘Mastery Learning’. Courses will need to be prepared with regard to the development of computer programmes for computer assisted/managed instruction.

It will be contended that the Course Designer/Developer needs to gain proficiency in the many facets of Mastery Learning. If this area of skill is not to be trivialised, then specialists in Course Design/Development need to be employed.

Aim

The aim of this article is to examine the importance of Mastery Learning to effective Course Design/Development with regard to the anticipated requirement for preparing computer programmes.

Background

This article has been prepared in conjunction with five (5) articles that have appeared in the Defence Force Journal. These are:

- ‘A Programme in Problem Solving’ Defence Force Journal No 14 Jan/Feb 1979;
- ‘A Module in Fault Finding within Technical and Administrative Systems’ Defence Force Journal No 34 May/June 1982; and

Each of these articles leads progressively towards a discussion of Mastery Learning through Computer Assisted/Managed Instruction.

Focus

In these articles there has been particular focus upon promoting the skills of Decision Making through Mastery Learning.

Originally, the emphasis had been towards promoting the generalised skills of Decision Making which could be applied across all skill boundaries. However, with the expected future use of computers in Training and Education, the skills of Decision Making have acquired a new importance.

In the preceding articles, a number of elements have been raised that are relevant to the present article. These include:

- an extended series of categorised problems used for Mastery Learning (DFJ No 14);
- an inventory of Educational and Training skills (DFJ No 32);
- categories of systems in which all Decision Making takes place (DFJ No 32);
- fault points within systems (DFJ No 34); and
- the future need to rationalise courses for effective application of computer programmes (DFJ No 41).
Future Aspects
Each article forms part of a proposed system of Course Design and Development. In further submissions to the Defence Force Journal, the following aspects will be examined:
- the application of ‘thinking systems’ to implementation of the Task Analysis phase of the Training System;
- the organization of a course module in terms of the appropriate systems; and
- fault points in the Training Systems.

The Training System
The approach taken throughout is that while the Training System is the only framework that offers the mechanism for effective conduct of Training, there are areas of expertise that still need to be expanded. These include:
- Decision Making,
- Systems, and
- Mastery Learning.
If there is a detailed understanding of these discrete areas, then the Course Designer/Developer and Computer Programmer will be further supported in producing “comprehensive, valid and reliable” Training Programmes.¹

Allocation of Tasks
At the present, the Training Officer plays a central role in the Training System. The member is in direct liaison with operators and instructional staff.
In the future, the computer programmer must inevitably play an increasing role in the development of Training. From this, a number of questions arise as follows:
- Will the Training Officer be required to prepare the ‘raw material’ for submission to the computer programmer?
- Are techniques of preparation to be developed to give maximal guidance in the application of learning theory? and
- Will this task involve a specialist separate from the Training Officer?

Mastery Learning
What is ‘Mastery Learning’? This is a process by which students acquire and reinforce skills of a given type through successful completion of a range of exercises, promoted in terms of given conditions and standards.
These exercises have been formulated in terms of:
- simple to complex;
- known to unknown;
- progression of skills;
- availability of exercises for instructor explanation and student practice;
- principles of human learning behaviour;
- systematic manipulation of variables;
- scenarios involving the person in the actual job situation;
- a revision component built into the day-to-day progression of skills;
- component skills of Decision Making;
- systematic progression through the systems, sub-systems and processes under consideration;
- maximal expansion of the skills that may be developed from any core activity;
- a systematic identification of fault points in a system;
- maximal student activity;
- recency and frequency in presentation of skills;
- anticipated student difficulties; and
- levels of entry.
It would be most appropriate if the Course Designer/Developer were able to give maximal practical support, so that the programmer, by default, does not come to dictate the form that computerized learning will take.

Poor Course Design
A course will be poorly designed if the Course Designer/Developer and Instructor are unable to develop effective programmes in Mastery Learning. In such courses, the following defects may occur to a greater or lesser degree:
• The instructor talks too much.
• The students listen too much.
• There are not enough exercises for effective mastery of skills.
• There is limited awareness of the component skills or the progression of skills through all the exercises available.

At times there appears to be a misguided idea that mastery exercises should be designed to establish levels of ability. Hence exercises tend to be unnecessarily complex and designed to tax the student's ability rather than promote confidence, mastery and smooth transition to the next skill.

Perhaps this is the result of a carry over to "criterion referenced testing" of the principles of "norm referenced testing".²

In Mastery Learning, individual exercises should not be intended to establish levels of ability. The Training System is not concerned with the distribution of grades according to a normal curve, as an end in itself.

If exercises are arranged in terms of "simple to complex" order then the capable student completes more exercises at increasing levels of difficulty. All students would complete the minimum number of exercises necessary to achieve the terminal skills.

Exercises

There are three types of exercises that may be produced for computer programmes. These are:

• the series of simple exercises arranged in a progression;
• compound exercises developed through systematic manipulation of variables; and
• a combination of both.

Simple Exercises. These may be used to promote learning through completion of literacy and numeracy skills as well as the component skills of Problem Solving and Decision Making. Simple exercises may be useful in Education and Training where a skill is developed and tested across a number of contents. Double-checking, for example, may be promoted through exercises involving a roll book, a ration return, a cash book balance, and an ID check.

Compound Exercises. These may be used to promote the integration of component skills in a simulation situation. Through the programme, the student is faced with the systematic manipulation of variables. In a situation involving fault finding in a vehicle engine, a fault may be programmed together with combinations of action commands. The student is required to provide progressive input to locate the fault through systematic checking. Some modern computer games are based upon this technique.

A Combination of Both. The compound exercises may be developed as a progression so that the student is exposed to a number of different contexts involving the integration of the same basic skills. Young people in pin ball parlours are exposed to a progression of hand-eye exercises as they pass from "Star Wars" to "Space Invaders" and "Pac Man". All skills of Decision Making could be promoted in a more systematic and deliberate way within any given job context.
Skills of Decision Making

All Decision Making within an organisation must inevitably take place within systems — tactical, technical, administrative and human. All Decision Making involves an appreciation of the real situation. Within the Defence Force, the Appreciation provides a check list of steps to be taken. More basic to the Appreciation are a number of component skills in Decision Making as follows:

- preparing diagrams so that systems may be put down in pictorial form;
- drawing the correct/most probable conclusions from the evidence provided;
- knowing what evidence is necessary to enable a particular conclusion to be drawn;
- establishing the range of causes of a situation;
- establishing the range of effects of a given action;
- applying probability to the prediction of outcomes;
- checking and double checking the accuracy of a given conclusion;
- setting down the steps involved in a process with skilled use of concurrent activities;
- selecting options in terms of criteria/factors; and
- locating of faults.

All of these are basic to the Appreciation and computer programmes. If Decision Making is to be promoted in Computer Assisted/Managed Instruction, then it may be necessary to give increased emphasis to such component skills through all programmes in Education and Training.

Skills and Sub Skills

At present, in Education and Training, the use of computers tends to be limited to recall of knowledge. Moves are being made towards promotion of appropriate reasoning skills. The PLATO computer system, for example, involves the development of a range of job related skills.

However, this means that skills and sub-skills have to be 'absolutely identified' in any given job area. There are three types of skills that may be identified and these need to be developed together where possible. These skills are:

- hands on skills,
- decision making skills, and
- literacy and numeracy skills.

It is contended that any Training System will suffer if the Course Designers/Developers are unable to promote effective Decision Making in given courses. In some courses, the Decision Making component is minimal. However, this will vary in terms of systems involved.

Awareness

Critics of this approach have the habit of quoting the minimal Decision Making involved in stripping a rifle or using a typewriter. There is a tendency to ignore the formal Decision Making involved in other areas such as:

- Leadership
- Tactics, and
- Car mechanics

Others deny the importance of promoting Decision Making skills, pointing out that such a need had not been identified in Task Analyses. Perhaps those involved need only to be made aware of the component skills for the need to arise. Those involved in Task Analyses are not infallible.

The deficiency will be brought into sharp focus when Training and Educational personnel work to elevate computer programmes above mere recall of knowledge.

Development of Tasks

Student activity may be promoted through completion of an extended series of categorized "exercises/problems". At the phase of Task
Analysis, the appropriate tasks are established for a given course area. These tasks may be developed in two ways as follows:

- basic exercises involving completion of activities, selection of options, computation or recall; and
- problems involving tasks framed into a scenario to be solved through Appreciation and application of Decision Making.

Benefits of Generalized Skills

If the generalized skills of Decision Making are promoted, then students gain a theoretical and practical background upon which to base their own instructional practice at a later stage in their careers.

Future instructors could well be limited by over-emphasis on the ‘hands on’ skills. They may also find themselves at a loss to come to terms with the instructional aspects of future computer programmes in Computer Assisted/Managed Instruction.

Recommendations

For any organization faced with the onset of New Technology, the following recommendations are made in relation to Mastery Learning:

- that consideration be given to the practical application of all aspects of Mastery Learning; and
- that suitably qualified personnel be directed in consultation with the Training Officer and Computer Programmer to prepare course material in a Mastery Learning framework.

Conclusion

Promotion of the skills of Mastery Learning should be of benefit to all those involved in Education and Training. As precision in the management of Mastery Learning increases, there should be a corresponding expansion in application to all skill areas. Accordingly there should be an increase in the application of computer programmes to courses in Education and Training. In this area, we need all the input we can get.
ENCOUNTER WITH A NON-FATAL MULGA SNAKE BITE

By P. A. Rosenzweig, BSc.Hons, DipEd, ARES.

At 0030 hours on Wednesday, 14 January 1981, the team of the Medical Platoon, Adelaide University Regiment, put their training to the test when a female Corporal was bitten on the right ankle whilst sleeping by a King Brown (Mulga) snake, *Pseudechis australis*, during the unit's annual field exercise held near Mount Plantagenet on Worumba Station, Hawker, SA. As Major I. R. G. Too-good, the Medical Officer attached to AUR for this and the following annual exercise, was later to say of the Medical Platoon, "The trained RAP staff showed considerable medical competence, and the organisation of this facility... is second to none."

To their credit, the girls were remarkably well composed, considering that they were standing not more than a metre away from a very deadly and very agile 1.4 metre Mulga snake. It appeared pensive as it lay curled up at the foot of the cot, staring arrogantly at the array of soldiers in various forms of nightdress standing in front of it, conceivably considering its chances of a hasty withdrawal. As the duty medic for that night, I was summoned at 0030 after only fifteen minutes' sleep, and was met with an eerie stalemate in the girls' tent, both the girls and the snake seemingly frozen, neither wishing to be the first to move.

Being an experienced herpetologist, I was preparing to capture the envenomer to protect the envenomee and the ankles of her friends from further indiscriminate grazing, when the CSM suddenly appeared demanding vengeance. I was not prepared to spend vital minutes informing him that some 25-40% of bites are the result of provocation by people not experienced in dealing with snakes, so I used his rifle to pin the snake to the cot, and then, while the CSM maintained pressure, removed the offending head with a bayonet.

Meanwhile, Sgt D. J. Sweeney, the Medical Sergeant of AUR at that time, and a doctor in civilian life, had been rostered as Duty Sergeant that night, and upon hearing panic-stricken feet running past the orderly room tent accompanied by mutterings of "snake, snake", immediately aroused the RMO and prepared the RAP to receive the patient, who was one of 473 treated by the RMO, Sergeant and six medics during this two-week exercise.

Within a remarkably brief ten minutes after envenomation, the offending ophidian had been terminated, a pressure bandage applied, the doctors alerted, and the patient stretchered across to the RAP, and within a further ten minutes, she had been fully diagnosed, assessed and given the appropriate treatment, including antivenom.

After observation until daylight, the patient was taken aboard Iroquois helicopter 380, on exercise with AUR from RAAF Amberley, and the RMO, Sgt Sweeney and myself accompanied her to Whyalla Hospital. After 48 hours' observation she was discharged from the hospital, and returned to camp on the
afternoon of Friday 16th, none the worse for wear after her confrontation with a member of probably the most dangerous species of snake in Australia, after the Taipan and Fierce Snake.

The Snake

The Mulga snake is a dark tan coloured snake which attains an average length of 1 1/2 metres, although it may reach up to 2 1/2 metres. It is semi-nocturnal in habit, and is known to be particularly active at night during hot weather, and hot it was at Worumba in January 1981. Even at night, the warmth was such that most people slept on top of their sleeping bags rather than inside them; one person paid a price for this comfort.

The venom produced by the Mulga snake has a relatively low toxicity compared to other venomous snakes, but the incredibly high yield produced makes it potentially extremely dangerous. It produces an average venom yield of 180 mg, which well exceeds that of the Taipan (120 mg) and even the deadly Indian Cobra (169 mg). One specimen is even recorded as having produced a maximum yield at one time of an extraordinary 600 mg, enough to kill almost 16,000 20 g mice. In fact, with an LD₉₀ of 1.91 mg/kg, only 115 mg would be required to kill a 60 kg human compared with the average yield of 180 mg.

This, together with the second greatest average fang length of any Australian snake, its aggressive and unpredictable temperament, and its habit of chewing the bitten area, makes the Mulga snake potentially as deadly as the Fierce Snake or Taipan, and a bite from this species must be regarded as an extremely life-threatening situation.

Signs, Symptoms and Treatment

The patient had obvious local signs of envenomation. There was intense burning and stinging on the medial side of the right ankle associated with two erythematous puncture marks 14 mm apart, and this, combined with a 1.4 metre snake curled up at the patient's feet, left little doubt that envenomation had indeed occurred. There was slight local oedema, but paraesthesia did not develop until 90 minutes after envenomation.

Initial first aid treatment comprised a firm elastic crepe bandage to the right leg, which was later replaced with a more functional air-splint. Within twenty minutes of being bitten the patient was in the RAP and had been pre-medicated with 50 mg of intravenous Phenergan, had received tetanus prophylaxis, and an infusion of Polyvalent antivenom in Hartmann's solution had been commenced.

She showed no major systemic signs of envenomation until 0200, 90 minutes after having been bitten, when she developed mild shivering, some tightening of the chest, and blurred vision, having had slow pupil reactions until this time. These signs are indicative of the gradual onset of neurotoxic paralysis, but this seems to have been successfully prevented by the antivenom, as these signs soon resolved and there were no further signs of paralysis such as slurred speech, ptosis or diplopia.

There was progressive drowsiness during the night, but when aroused the patient was alert and oriented. Two hours after the bite she developed a dry cough, dyspnoea and bronchospasm, presumably in reaction to the antivenom, however these were resolved with a small dose of adrenalin (0.5 ml, 1/1000).

She did not develop haemoglobinuria or any other features of a coagulopathy, nor was there any hypotension or local necrosis. Mulga snake venom is known to be strongly myolytic, but the antivenom effectively countered this action, and there was no local damage apparent even months after the event.

Discussion

Reports of Mulga snake envenomation are scarce: one fatal case involved partial respiratory paralysis, renal failure and cardiac arrest, while in the other non-fatal case, there was coagulation disturbance and local tissue necrosis which necessitated amputation of the thumb. In the present case, the patient was fortunate enough to have been diagnosed and treated within the remarkable timespan of twenty minutes after being bitten, so there was very little chance for the development of any serious complications.

It was also fortuitous that the Medical Platoon had an ampoule of antivenom on hand. Antivenom had been requested by Major Toogood in mid-November 1980, but he was advised that there was no entitlement as we would be less than 30 minutes by air from a hospital equipped to treat snakebite. This was Hawker Hospital, but as they had no full-time doctor present while we had two, it was seen
by both to be mutually beneficial that we hold their antivenom for the duration of the field exercise.

This liaison occurred on Tuesday 13th, and the benefits of this cooperation were reaped in the small hours of the following morning.

Had we not obtained this loan, we would have been faced with two options: to hold the patient under observation until daylight when she could be evacuated by air to Hawker en route to Whyalla Hospital, or to evacuate her by road over a tortuous track to Hawker which would have taken well over an hour at night. Aeromedical evacuation was not possible since the pilots stood down after a 12 hour period of duty. In either case, had the patient’s condition deteriorated at any time, there would have been little that could have been done other than to monitor and sustain respiration.

The Corporal was very fortunate to be in the capable hands of the AUR Medical Platoon, who proved themselves to be a very competent “specialist service which can react to the demand at any time”. The remarkably rapid response of the Platoon members to provide first aid within ten minutes of being bitten, and to commence medical treatment within a further ten minutes, surely enhanced the patient’s prospects, and ensured that she did not suffer any complications as a result of being bitten by one of Australia’s deadliest snakes.

NOTES

The author Sgt P. A. Rosenzweig, has an Honours degree in Zoology, and has recently completed a Diploma in Education. In the Army Reserve, he is the Medical Sergeant of Adelaide University Regiment, and was a Private Med Asst in the Medical Platoon at the time of this incident.
By Group Captain D. B. Nichols RAAF (Rtd)

SOME officers who attended the Short Law Courses held for RAAF Commanding Officers at Point Cook in years past may remember a passage given them on the duties of Tribunes in the army of Imperial Rome. It read:

Now it was the especial function of a tribune to supervise the camp and army and see that it was properly entrenched and patrolled; to order ever-watchful sentinels, so that the enemy could not effect anything by stealth; to have the troops who were in camp listening for a word and intent for a command; to lead them to exercises, to appoint their stations, to collect the keys of the gates, to visit the watch, to attend to the provisioning of the troops, to sample the provisions, to repress the frauds of the corn-measurers, to listen to the complaints of the men, to chastise their offenses within the limits of his authority, to inspect the invalided, to take charge of the wounded, and above all to administer to the soldiers the solemn oath.

That passage clearly reflected the paternalistic approach to the command of units in the British and Australian Forces. Although paternalism in the RAAF was being undermined by technology as well as by more modern industrial techniques, the quotation gave a satisfying sense of history to traditional methods of man management. The military profession had its continuing verities. The link between the armies of the Roman and British Empires was provided by Balthazar Ayala who, as the title page of his book published at Douay in 1582 indicated, was the Judge Advocate General of the Royal Army in the Low Countries.

Ayala’s text was full of references to classical authors. It has only recently become evident, through the wealth of modern works on history, that the Roman techniques were revived not merely as a display of scholarship but through military necessity. The Army to which Ayala belonged was called “Royal” to distinguish it from the forces raised by those Netherlanders who had rebelled against Philip II of Spain. It was also an Imperial Army. In 1582, Philip’s empire in Europe included Spain, Portugal, the Low Countries, Southern Italy and Sicily and, abroad, the whole of the New World. The link between the Roman and British Empires was through the Spanish Empire.

Money was in short supply in Europe in the sixteenth century despite the volume of gold and silver flowing in from the Americas through Spain. Soldiers were at the end of the long channels of distribution. They frequently received no pay for months. Unless held by the prospect of booty or other incentives, their only recourse was to forgo their pay and desert or try to obtain it by a mutiny. There were no uniforms in the sixteenth century and, in his own country, it was easy for a soldier to fade into the populace. In foreign countries, it was more difficult. The English Army which Leicester took to the Low Countries in 1585 to fight the Spanish was constantly troubled by desertion. The enemy co-operated with deserters by furnishing them with safe conducts to ports from which they could get a ship home.

Several factors made desertion a lesser problem than mutiny in the Royal Army. It was a composite force of Spaniards, Italians and Germans and service in a distant province acted as a restraint. The wealth of Philip II made the recovery of arrears a reasonable
possibility. Mutinies in the Royal Army were, in fact, invariably successful and their very success encouraged repetition. So far as Spaniards were concerned, the circumstances of life in Spain also helped. For decades those who hoped to make their fortune or live an exciting life had a choice between the New World and the Imperial Army. Cortez preferred the former. Many others preferred military service. They could expect to be stationed in Italy or the Netherlands, both richer and more interesting countries than Spain. The North African outposts were unpopular and gained a reputation similar to that subsequently acquired by Siberia. The prospect of returning home without arrears of pay or booty after years of service was unattractive.

Mutinies became frequent. Parker lists details of over 40 between 1572 and 1607. They were essentially an early military form of industrial action. A leader and a counsel to help him were elected. A list of grievances was drawn up. The men were kept in touch with the details of the negotiations and the terms of settlement were cleared with them. The electo was also responsible for discipline and held power of life or death over the mutineers. When the arrears were paid, the men contributed to a fund which would take the electo to another country away from retribution. His safe conduct was always a condition of settlement. Although mutinies affected operations, they were not designed to impede them. Sometimes they were deferred until the conclusion of a successful seige or skirmish.

Arrears of pay were always the primary grievance but, with the unsatisfactory state of conditions of service, there were others. Food was poor and expensive, medical treatment sometimes unavailable and frequently incompetent and discipline uneven, uncertain and occasionally too harsh. Chaplains were often missing when a dying soldier wanted the last rites. Parker credits Alexander Farnese, the Duke of Parma, with initiating the development of effective medical, legal and chaplaincy services.

Farnese was regarded as the finest soldier of his day and it is a reasonable inference that, like many other outstanding commanders before and after him, he redressed such of his men’s grievances as he could as quickly as possible.

Ayala was Farnese’s Judge Advocate General. Through the duties of the tribunes, he emphasised to senior officers of the Army the need for them to act as responsible commanders in their man management as well as in their military dispositions. Listen to your men’s grievances. Take charge of the wounded. Don’t neglect the invalid. Sample the food. Look for frauds in its supply. Do not exceed your authority in awarding punishments.

These injunctions were directed at the maestres de campo who commanded tercios. They were the equivalent of tribunes who commanded camps or legions. Perhaps captains were also expected to take heed. Warfare in the Low Countries took the form of seiges and skirmishes rather than battles between armies. Companies sometimes operated independently or in mixed groups below tercio size which took advantage of the differing skills of Germans, Italians and Spaniards. Some excelled with the pike or arquebus; others with the sword or lance.

Ayala addressed other remarks to all officers: “if a tribune or cen­turion or any other person makes a false return of the numbers of the troops and intercepts the extra pay...” Several other devices used in Leicester’s Army for squeezing the system were mentioned by contemporary English authors: arranging for stand-ins at a muster parade to answer for deserters or other absentees; failing to record the death of soldiers and continuing to draw their pay; withholding the pay of their men and, when they became restive, sending them on particularly dangerous missions.

Thomas Digges, Leicester’s Muster Master General came to the conclusion that it was probably the most unbridled and disorganised force ever mustered by the English nation. It was not until the next century that England developed first a new model army and then a standing army. It was the Dutch under Maurice of Nassau and the Swedes under Gustavus Adolphus who built immediately on the foundation laid by Spain.

The contrast between the Spanish and English Armies in the Netherlands spotlights some of the problems encountered in the evolution of the modern army. Delbruck has traced in detail “the polarity between individual combatants and tactical bodies in the system of warriorhood”. The transition from knights and footsoldiers who fought as individual warriors to cavalry and infantry who fought as a disciplined group was a fundamental pre-
requisite. It began with the serried ranks of the Swiss mercenaries. It developed with the tercio, the sixteenth century counterpart of the phalanx and the legion.

New or revived forms of command and discipline became essential for self-preservation as well as success. In another passage which may also be remembered from Point Cook days, Ayala wrote:

And, lastly, it was in olden days an especial duty of generals and tribunes and centurions, when in summer camp, to make the recruits who had recently joined march up and down and over and over again in squads, and shout and take up positions and submit to authority and obey the word of command and form in close order, or make a wedge or a phalanx, and follow the standard and accustom themselves to endure weariness and heats and vigils. And all this in order that they might not encounter the enemy without plan or governance, or be beaten and retreat, and that every one might know his place in the ranks, in such sort that by daily use their instincts would tell them what was to be done and left undone, without any outside impulse or command.  

Regrettably, no one has yet complemented Delbruck’s work by tracing the influence of revolt, religion and empire on the transition from feudal levies to tercios and regiments through mercenary companies. An aspect which does not need researching is the inadequacy of a purely mercenary approach to military service. While revolt and religion played their part in the evolution of the British Army, the longest and strongest influence was empire. It is reflected in the values so readily identifiable in Ayala which were passed on to the Australian Forces. The influence of empire has now ceased. Will paternalism remain as a legacy or wane with empire?

NOTES
2. The commission of Philip appointing Ayala as the “judge advocate general” is printed at Vol I of the Carnegie Institute reprint and translation at p.iv.
4. At the time, many thought that the flow of bullion was inexhaustible. Sir Roger Williams who fought for several years in the Spanish Army as a free lance and later against it with the English Army referred in his writings to “the Spanish with their infinite Indian treasure:” The Actions of the Low Countries (1618, Cornell, 1964) p. 35.
5. Leicester admitted to a loss of 500 men in two days; Webb, note 3, p. 76.
8. For more details, see Parker (A), note 3, pp 185-206 and (B), note 3, pp 106-121.
9. Parker (B), note 3, p. 112.
10. Ayala, note 1, p. 181.
13. Parker (B), note 3, pp 86-103.
14. This theme is developed in volume 3 of H. Delbruck, History of the Art of War translated and published by Greenwood Press in 1982.

Group Captain Nichols is currently a Visiting Fellow at the Strategic and Defence Studies Centre, Australian National University.
BOOK REVIEW

BLAMEY: CONTROVERSIAL SOLDIER:
A Biography of Field Marshal Sir Thomas Blamey.
By John Hetherington.
Published by the Australian War Memorial.
Reviewed by J. P. Buckley, O.B.E.

It is appropriate that the 1973 edition of this book was reprinted to coincide with the 100th anniversary of the birth of Australia's only Field Marshal. Born at Wagga Wagga on 24th January, 1884.

Sir Alfred Kemsley, the Chairman, and members of the Blamey Memorial Committee deserve great credit and commendation for their continued dedication and effort to ensure that Sir Thomas Blamey's efforts and achievements are not forgotten by the public. The reprint of this book is but one example.

Hetherington has written a classical story. It is one of the best, if not the best, biographies about a distinguished Australian since the end of the War. Nothing is overlooked in the book — even Blamey's few weaknesses are given full cover — too much in one or two instances.

It was due to Sir Frederick Sheddon, Secretary Department of Defence, that Blamey was brought into the Higher Defence machinery just before World War II. The brilliant Sheddon had been a long time admirer of Blamey's talents for command. Fortunately, Sheddon had considerable power and influence with Prime Ministers Lyons, Menzies and Curtin. On the outbreak of war Blamey was appointed to command the A.I.F. Indeed, he was the only Allied commander to hold the top appointment from the beginning to the end of the war.

The painstaking and thorough research involved in writing the book is excellently expressed and presented by Hetherington. Full cover is given to all aspects of Blamey's life, from his early schooldays in Wagga Wagga, until his funeral service which brought the City of Melbourne to a halt for several hours.

It is widely believed that Sir Thomas Blamey was the only Australian General who could have coped with the determination of Wavell, Wilson and Auchinleck to break up the A.I.F. into small detachments under British command in the Middle East. Likewise, he was able to prevent MacArthur doing the same thing in the South-West Pacific.

Blamey possessed toughness, endurance, ability, determination and strength of character to a marked degree, which enabled him to fight off any unreasonable demands from his political or military masters.

Some young academics have tried to derogate Blamey's magnificent contribution to Australian and indeed Commonwealth defence, which shows up their own lack of ability to analyse generals and campaigns, or are they just "knockers"? There is some doubtful writing now, by a few, who have little or any knowledge of the happenings in the war years and no sense of period.

I commend John Hetherington's book to academics, soldiers and the general reader. It should be included in the study of Australian history in all secondary and tertiary institutions. Hopefully, all Australian libraries have a copy of the book!

I should like to mention that a Memorial Service was held at the Blamey Memorial in Melbourne on 24th January 1984 to celebrate the 100th anniversary of his birth. This most successful and widely attended Service was arranged by Colonel, Sir Alfred Kemsley, who at the age of 88 is still the torch bearer for the commemoration of Blamey, Herring and others. The dedication, endurance, tenacity and hard work of Sir Alfred is incredible in this field, and has not been excelled by many, if any, other public figures.

A similar service was held at Wagga Wagga at the same date and time. The Chief of the General Staff, Lieutenant-General Sir Phillip Bennett attended and addressed the gathering.

In conclusion, the great majority of the A.I.F. gave Blamey affection and respect — even more with the passing of the years. In five hours 20,000 people filed through the Shrine where he lay in state. Over 300,000 lined the funeral route to Fawkner. Many old "diggers" had tears in their eyes. I know
because I was there, outside Victoria Barracks, Melbourne, watching the emotional procession pass by.

Let Prime Minister Menzies have the final summing up of the Australian Field Marshal:—

"From the beginning to the end of 1939-45 my confidence in him was unbroken."

The great wartime Prime Minister John Curtin expressed like sentiments.

On the 100th year of the birth of Field Marshal Sir Thomas Blarney, G.B.E., K.C.B., C.M.G., D.S.O., Ed., let us honour and remember his outstanding contribution to the history and defence of Australia. Our thanks are also due to the late John Hetherington for so ably putting it all down on paper for future generations to read, enjoy, admire and take pride in the achievements of our great soldier.

"LEST WE FORGET"

THE UNNECESSARY WAR
By Peter Charlton, Macmillan, Sydney, 1983.

Reviewed by Major C. A. Mayes, Ed(RL)

THE study of Military History is a compulsory subject for advancement by all Army officers. It may be enjoyed, tolerated or disliked but cannot be ignored. It is often difficult to correlate information gathered by various historians on any given campaign. All authors tend to some degree to be influenced by nationalism, politics or religious beliefs or by an involvement with one side or the other.

It is therefore refreshing to study Major Peter Charlton's latest book, "The Unnecessary War": Written with almost forty years' hindsight, he has succeeded in avoiding the traps of the historian as set out above. Except perhaps that the book was obviously written by an Australian.

It would be interesting for instance to have a similar volume written by an American. But then perhaps an American may have completely missed the theme. This reviewer picked the scenario of two egocentric generals dominating an unprepared, inept home government using soldiers, OUR soldiers in their grand quests for personal power.

This is even more remarkable in that on the other side of the world one had exactly a reverse situation. Churchill's ruthless domination of his generals was at times only held in check by the leaders of the USA and USSR.

It is well brought out by Major Charlton, as it has been by others, that Australia was ill equipped for this war. He goes deeper though into reasons than any other author. Various governments regularly rejected advice from a pitiful few who were sounding alarms prior to 1939. Just how short sighted, even stupid, governments can be is well documented in Chapter One.

As stated earlier in this review, Army officers are compelled to study Military History. One conclusion drawn from the study of this work is — "should not politicians and senior public servants also have to qualify?" Major Charlton clearly points out that General Blamey virtually did as he wished, and he was permitted to do this because there was no one qualified to control him. Junior generals who dared to differ were sacked. Post-Blamey, some of those sacked men rose to the top job in Australia's military thus displaying that they had the expertise but were held down by one man.

Finally, the object of Military History. What do we learn from "The Unnecessary War", how may this knowledge be stored for possible future use, is there any part which we may use now. These answers must come from you the reader. I can only recommend you study (not just read) this volume which is a brilliant precis of Australian involvement in the South-West Pacific campaign.


Reviewed by Jeff Popple, BA (Hons), Department of Defence

IN the early hours of 18 August 1943, 560 four-engined bombers of RAF Bomber Command dropped 1,795 tons of high explosive and incendiary bombs on the small German town of Peenemunde.

Although aware of the great importance attached to the bombing raid, the bomber
crews were not briefed on the purpose of the Peenemunde establishment they were to attack. Likewise the German night-fighter pilots sent to defend the establishment were largely ignorant of its existence, with most never having heard of Peenemunde before.

Peenemunde was in fact the site of the secret German V-2 experimental station and the residence of most of the key technical personnel associated with the V-2 project. It had not been until Spring 1943 that the Allies became fully aware of the work being carried out at Peenemunde. At a tense War Cabinet meeting on the night of 27 June it was decided to bomb Peenemunde in mid-August, utilizing a large-scale precision bombing attack.

Although planned by professional staff officers, the raid was carried out by, vigorously opposed by, and ultimately affected, ordinary people caught up in the vortex of war. Martin Middlebrook has worked diligently to ascertain the facts about the raid, and has tracked down many of the participants, from both sides, assembling hundreds of individual accounts in a gripping narrative. Through these accounts we follow dozens of individual encounters between night-fighter and tail-gunner, bomb-aimer and factory worker, bailed out bomber pilot and local resident, as the raid unfolds.

Middlebrook also considers the unique and controversial aspects of the raid, the planning clashes over the raid's format, the use of a Master Bomber, the moonlight diversionary attack on Berlin, the German use of the newly introduced Wilde Sav tactics, and the operational debut of the ME110S upwardly firing 20 mm cannons.

On the whole, Middlebrook provides a good account of the raid and of the early history of Peenemunde and its two leading lights, General Dornberger and Walter von Braun. He does tend, however, to put a somewhat confident gloss on the results of the raid. It was not quite the outstanding success expected, as the two main targets, the experimental works and the production works, only suffered structural damage, leaving the vital machinery and equipment intact, while most of the third main target, the technical and scientific personnel, survived the devastation of their housing estate. (The only key member of the technical staff to be killed in the raid, was Dr Walter Theil).

Further on the negative side, aiming errors led to bombs destroying the nearby forced labour camp, killing many of the foreign inmates.

The raid did result in the delaying of the V-2 programme for two months, and some reduction in the scale of production, but this fell short of the complete stoppage of the V-2 production programme envisaged by Air Ministry experts when they planned the raid. Also, it is interesting to note that, despite the initial success of the diversionary raids, those few German fighters that did arrive during the final stages of the British attack, managed to account for nearly 30 of the 40 British bombers lost on the mission.

'The Peenemunde Raid' is a well-presented book, with the footnotes sensibly positioned and the author of each interview extract acknowledged and their role stated. Some informative photographs and illustrations add to this excellent, and very readable, account of an interesting raid.

POLITICAL TERRORISM, by Grant Wardlaw, Research Criminologist Australian Institute of Criminology, Cambridge University Press, 218pp.
$42.50 ISBN 0 521 25023 3
$14.95 ISBN 0 251 27147 9

Reviewed by Brigadier M. H. Mackenzie-Orr

AFTER assisting a young dentist to try and identify the remains of one of my young Captains, which I had earlier collected from a bomb scene; after trying to comfort a tough Corporal of the 1st Royal Tank Regiment who had just seen his S/Sgt Bomb Disposal Officer blown apart in the tiny post office in the tiny village of Pettigoe; I was as strident as any in demanding the most severe of security measures to reduce terrorism in Northern Ireland. Grant Wardlaw's book is a valuable treatise on political terrorism because, whilst he is clearly aware of the strong responses inspired by terrorist acts, he is also concerned to identify the dangers of over reaction; the cure which may become more dangerous than the disease.

"Terrorism is a moral problem." Whilst it is easy for those directly involved to defend or reify the morality of their activities, the detached, uninvolved observation and com-
mentary of academics, sociologists, and people with concern but no direct responsibility for the events they study can contribute a perspective which is all too easily lost in the hysteria which follows particularly spectacular acts of terrorism.

Dr Wardlaw draws widely on the writings of those listed in his comprehensive bibliography. His book commences with an attempt to define the slippery word terrorism having described its long and well documented pedigree. He discusses in detail the anti-authoritarian terrorism and the terrorism of the state or authority itself against those it governs. There is no doubt that in terms of the numbers who suffer from the effects of terrorism the majority are victims of the state or governmental variety. If Solzhenitsyn is to be believed the large majority of the inhabitants of the USSR remain obedient to their rulers because they have every reason to be terrified of the consequences of disobedience. A large number of states maintain their control over the populace by employing methods not recognisably different from those of militant groups who seek their overthrow. Is a population subject to arrest without trial, banned from association and intimidated by large forces of para military police better able to enjoy individual liberty than one subject to sporadic attacks on their representatives or infra-structure by relatively small groups who prefer the bullet to the ballot?

Dr Wardlaw offers no solutions. He advocates a greater public debate of the issues and his book is nicely structured to lead to such an outcome. Part One provides a comprehensive introduction to the definition, history, theory, operation and effects of terrorism whilst Part Two identifies the basic policy issues which Dr Wardlaw believes should be the subject of informal public debate in terms of general principles. The issues include counter terrorist policy options, the symbiotic relationship between terrorism and the media, the roles and relationships between the police and the defence force, national and international legislative responses and the role of intelligence agencies. He includes additional chapters on hostage incidents, the potential role of behavioural science research and a final attempt at predicting the "future of political terrorism".

Many factors influence my belief that political terrorism is a growing problem. They include the developments in transport and communications which facilitate transnational terrorism and the projection of its effects into every corner of the world; the availability of increasing numbers of increasingly powerful weapons as major nations upgrade the equipment of their military forces and the superseded weapons disperse to the 'third world' countries as 'aid' which they readily 'trade' for more useful currency; the surrogate use of political terrorism by major powers as a cost effective alternative to the debilitating efforts involved in protracted low level wars or the unacceptable devastation of conventional war. The American Marines and French parachutists in Beirut suffered more fatal casualties as a result of two terrorist type truck bombs than did the much larger British Force during the entire Falklands war.

Dr Wardlaw provides few answers but he certainly provides some interesting topics for debate.


Reviewed by Group Captain Peter Rusbridge, RAAF

We are all used to Generals writing their memoirs, in which they explain to us in great detail why they believe their campaigns to be significant. However, some military campaigns are truly memorable because relatively humble participants in those campaigns write about their experiences and their achievements. The motive for these writings is usually pride.

This book is one of several which show that the Gallipoli campaign was special in this way. Sergeant Lawrence, an unusually literate man, has written a small classic. He doesn’t write much about the grand strategy, or even about tactics. Instead, his diary concentrates on the day-to-day difficulties and privations cheerfully borne by the diggers on that desolate peninsula.

His descriptions are brimming with pride. Usually, it is quiet and subdued, but sometimes it is triumphant and open, almost marvelling and exulting in the achievements of the Anzacs.
Such pride flows from the sort of determination, motivation and achievement which comes from below, rather than that which is exhorted, demanded or imposed from above. This incandescent spirit reminds me of reports about Eisenhower visiting troops in the last hours before D Day. "Stop worrying, General," said one GI, "You just leave it to us, and we'll do the job for you OK." Later on, when pinned down in the surf by German machine-gun fire, an equally spirited GI shouted to his mates, "Well, what are you going to do? Stay here all day till you die? Let's get inshore and get this show on the road."

This book abounds with that sort of spirit. I guess it is the spirit of Anzac. It's almost as though, at Anzac, Australians made up their minds how they were going to conduct war. The troops themselves seem to have decided spontaneously how they were going to react to the enemy, to danger and death and to the conditions in which they fought. That those decisions were manifestly good has resulted in the continuation of the Anzac spirit today.

Sergeant Lawrence's book leaves an ineradicable impression of what it must have been like in those far-off days. There are echoes in the narrative which could not be conveyed in any other way — not even by the highly-acclaimed film.

Strong images abound whilst reading it. Two of the most memorable are associated with the nearby island of Lemnos, to which units were selectively withdrawn for rest and recuperation, rather than with the actual campaign.

The author describes his first day on Lemnos, during which he climbs a hill behind the camp. He daydreams for a while, marvelling at the peace and tranquillity of the surrounding scene after the hell of Anzac. With his glasses he looks through the haze back at Gallipoli and imagines the toiling, the digging and the killing going on only a few short miles away. Yet, being a cheerful and well-adjusted young man, he doesn't brood but takes pleasure in still being alive and in anticipating an enjoyable walk down the hill to a hearty tea.

His second vivid description is of his arrival back at Anzac. The ship reaches the peninsula at about 8 o'clock at night. The sky is dark, but not so dark as to conceal the black ridge tops rearing up from the water's edge against a faintly luminous horizon.

From the relative peace of the sea, the author can hear the crack of rifle fire and the thuds and crumps of shellbursts and mines. However, it is the sight of thousands and thousands of twinkling lights which capture his attention. These lights extend from the shore to the ridge tops. They are candles, burning in the diggers' dugouts and visible only from the sea.

These and other images are conjured up tautly and directly. The text is simple, lucid and pulls no punches. Nothing is left to the imagination.

From the strategic point of view, Gallipoli was a failure. However, the sacrifice of the dead and wounded serves an enduring purpose for Australians, which books like this will help perpetuate.

I suspect that, in time, this will become a most important historical document.

THEY PROVED TO ALL THE EARTH, by John E. Price. Published by the author, 1981. pp 119, $8.00.

Reviewed by Jeff Popple, B.A. (Hons), Dept. of Defence

The producing of this book has obviously been a labour of love for John Price. He is the author, publisher, and distributor of this unusual source book on the Boer War, and his fascination for the subject is evident on every page. It is not surprising to learn that the book is the end product of "copious correspondence, graveyard fossicking, persistent photographing, quantitative questioning and relentless researching".

This book is meant for the Boer War historian or enthusiast only, as it is simply a source book of Victoria's dead in the South African War. In it, Price lists the names of 262 Victorians who died in the conflict, and states their rank; number; the unit they belonged to; previous military service; place of birth; locality of next of kin; where, when and how they met their death; where originally interred; where now buried; any awards or decorations received; and notes on the above information. The book is illustrated with photos and a map showing the movements of the Australian Contingents during the War.