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Contents

5. Intelligence and National Security
   Lieutenant Colonel C.W. Orme, RAAC

13. Maritime Casualty Estimation
   S. B. Boyd and N. M. Burman, DSTO, Department of Defence

19. The Influence of the Army Reserve in Facilitating Social Change Within the Australian Defence Force
   Lieutenant Colonel T. P. Hodge, RFD

27. Common Induction Training
   Captain R. J. Worswick

31. Learning to Lead
   Major E. J. Stevenson, RAAC

43. Harnessing the News Media During Conflict
   Wing Commander A.E. Dowse

53. Laverton: A Historic and Significant Airfield
   Melissa Weller, RAAF Museum, Point Cook

67. Book Reviews
A Townsville-based RAAF Caribou assisting in the delivery of rice to drought-stricken PNG

Photograph by Corporal Darren Hilder
Integrated sensor and weapon suite

Tiger

The New Generation of Attack Helicopter

eurocopter
Identifying the threats facing society has always been the task of the intelligence services.
The fundamental task of government is to provide national security. To achieve this it must identify the basic values that its society wishes to protect, and determine how to protect them. The threats to a society can be external, from competing nations or enemies; or internal, from groups with political aims to overthrow the Government. However, national security is not necessarily the protection of a state’s territorial boundaries, nor the repulsion of foreign attack. In some cases a nation may be required to sacrifice some of its territory, or renounce some of its claims, in order to preserve another, more intrinsic element of that society.

Identifying the threats facing a society is the task of the intelligence services. Sun Tsu identified the link between intelligence and security when he wrote: “the reason the enlightened prince and the wise general conquer the enemy… is foreknowledge.” He said that this knowledge must be obtained from “men who know the enemy situation”. Intelligence services supply such people who study all information available, from any source, covering a range of issues including economic, political, military, technological, cultural or diplomatic. They attempt to determine trends and future intentions and to provide a guide to action for governments to achieve their national aims and objectives. Intelligence is of most use before conflict, when nations are in “competition” with one another; when the broadest strategies can be pursued, be they diplomatic, economic, or military. The early identification of threats, coupled with appropriate responses, provides the basis for providing national security. Most wars are preceded by secret warfare between intelligence services in search of information concerning the other’s intentions, structure and dispositions. In this way many wars have been avoided, while unfortunately, the failure of intelligence has led to wars beginning.

National security is concerned with the preservation of the values and ways of life a society considers important. It takes many forms but most of these have similar characteristics. Echoing the words of Bismark, Lord Palmerston once noted that “England has no eternal allies… and no perpetual enemies… only eternal and perpetual interests.” In light of this description it is possible to describe national security as the protection and development of a nation’s interests. These interests may be difficult to define, and may change over time. They may also include such vague considerations as freedom, equality, territorial integrity and free enterprise.

Translating these notions into a concept of national security is not easy. It raises issues of national power and the relationships of those elements that make up national power. Some strategists and political scientists have attempted to categorise national power by examining the elements that contribute to a nation’s strength. Paul Kennedy, in the introduction to his book *The Rise and Fall of the Great Powers*, linked the success of a nation state to the “interaction between economics and strategy”. He argued that the “triumph of any one Great Power… or the collapse of another, has usually been the consequence of lengthy fighting by its armed forces.” He goes further to say that the results of these wars have been driven by a nation’s ability to wage war for extended periods and therefore overwhelm their opposition in a war of attrition. The key element in the equation has been the economic capacity of a nation to sustain a long war. Kennedy’s thesis focuses on the outcome of wars as a measure of success, with the relative economic strength of nations being the key determinant to their ability to succeed in war. What Kennedy fails to do is attribute sufficient importance to a nation’s intelligence capability as a determinant of success.

National intelligence services provide information to governments to allow them to accurately assess the intentions of friends, competitors and enemies. Although Kennedy focuses military and economic capability as the main determinants of success, it does not take into account the ability of nations which have been fundamentally weaker, both economically and militarily, to defeat and gain long-term ascendency over their rivals. An example is Israel. Over the last 50 years Israel has been able to maintain its national security against the threats posed by surrounding Arab nations who have been able to achieve vastly superior military ratios in their favour, and amass greater economic power, yet have failed to defeat Israel. The Israeli success can be attributed to a range of factors, of which the foremost could be argued to

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**Intelligence and National Security**

*By Lieutenant Colonel C.W. Orme, RAAC*
be its intelligence efforts. Arab failure underpins the importance of intelligence as a key element in any formula which attempts to define national power or national security.

Intelligence services are responsible for collecting, evaluating and distributing assessed information concerning foreign strengths, motives, plans and intentions. They are also responsible for denying access to that same information concerning their own nation. They must advise the policy makers of the strategic picture and provide clear guidance before it becomes necessary to mobilise military force. In democratic societies they aim to prevent war before it occurs or accurately predict when a war is likely to commence. In this way intelligence acts as a combat multiplier which can greatly assist a nation overcome a materiel inferiority. The intelligence cycle is the process by which information is collected, analysed and disseminated. The first stage is the determination of what information is required. With the vast amount of information available it is critical to the economy of the process and its ultimate success that agencies look for the right information. The information overload is akin to looking for a needle in a haystack, and therefore it is important to be looking in the right haystack.

Once the information requirement is determined it is necessary to collect the information. Until this century human intelligence (HUMINT) was the most important means of collection. HUMINT includes information from open sources such as books, periodicals, newspapers, radio and television broadcasts, diplomatic sources or travellers. Open source material can provide useful background information but generally fail to indicate specific information about the plans and intentions of adversaries. At this point other forms of intelligence take over. This may include covert actions such as espionage. However, the recent trend has been to more technical means of collection. These include signals intelligence (SIGINT), photo reconnaissance from aircraft and satellites, remote sensing, aerial thermography, spectral pattern recognition, and microwave sensing. Of these SIGINT is probably the best known and has been practiced since the advent of electronic communications.

The most famous success in the use of SIGINT have been from the Admiralty in the First World War and Room 40, where German naval codes were broken. Of even greater importance were the successes of SIGINT in the Second World War with the breaking of the ENIGMA codes and the subsequent ULTRA intelligence. There has been some debate in recent times about the value of SIGINT. While SIGINT offers a plethora of information concerning detailed locations of battalions, pilots’ names and relatively low grade information, the advent of computer technology has rendered codes virtually impossible to break, leading to a situation where the vast quantity of information collected defeats the quality of the intelligence produced. There is also the problem of disinformation or deception using SIGINT as a means to achieve this.

After the information is collected it is analysed. It is this process of analysis that converts information into intelligence. It is important to understand that information can be considered to be a fact, whereas intelligence is the interpretation of a number of facts which are coalesced into an assessment of what those facts might mean. Analysis of information provides the recipe for success as well as failure for intelligence services. Accordingly it is worth exploring analysis further to come to better understand the strengths and weaknesses of intelligence in providing national security.

There are many examples of countries which, although in possession of all the facts needed to indicate another nation’s hostile intent, failed to understand or successfully interpret that information. Eliot Cohen identified one of the reasons for failures of analysis as “mirror imaging”. As an example he cites Sherman Kent’s defence of an inaccurate assessment of the Soviet’s intentions to deploy missiles to Cuba: “the (US) estimate of what was reasonable for the Soviet Union to do was a lot better than Kruschev’s, and therefore he was correct in analysing the situation as it should have been seen by the Soviets.” In this problem, analysts drew conclusions from information based on their assessment of the Soviet’s intentions to deploy missiles to Cuba: “the (US) estimate of what was reasonable for the Soviet Union to do was a lot better than Kruschev’s, and therefore he was correct in analysing the situation as it should have been seen by the Soviets.” In this problem, analysts drew conclusions from information based on their assessment of what they believed the other nation should do, rather than determining what another nation would do.

It is a truism that intelligence does not exist in a vacuum and this leads on to the third element in the intelligence cycle, dissemination. The dissemination of intelligence to the right user, and in a timely fashion, is the key to the success of the intelligence services. It is one thing to have determined an enemy’s intention, it is another to have that information delivered to the appropriate agency and have that agency or government respond accordingly. It is at this point that the relationship between intelligence and national security becomes apparent.

Intelligence and national security are joined in what will be termed the national security planning process. The national security planning process can be described as the integration of economic,
diplomatic, military and intelligence efforts to fulfil the objectives of the government in power. The process, although it aims at providing a rational response to the demands of national security, is also the victim of political interplay, bureaucratic competition, national prejudices and the baggage of history. One of the most important elements of the process is the identification of the threats facing a nation. The threat is the major component and it drives all other elements. Therefore the organisation that provides the threat analysis is arguably the key player in the process.

Different countries have integrated intelligence into their security planning process in different ways, with differing results. Most of these have resulted from differences in the analysis of information. In the old West Germany the final assessment of intelligence was restricted to the country’s political leadership. This system worked well, but relied heavily on a highly experienced political leadership. This was also the case during the Second World War in Britain, where Winston Churchill personally, and his cabinet in general, consistently reached more accurate assessments than the intelligence analysts. A similar situation existed in the former Soviet Union where the final assessment remained in the hands of the Politburo. The key point to note is that it is at the executive level that intelligence and national security are combined.

The mechanisms by which intelligence reaches the executive differ from nation to nation. One of the issues of general concern is the competition between the gifted amateur and the intelligence bureaucracy. It is clear that current intelligence bureaucracies are capable of identifying what is going on, due to their technical surveillance resources. However, they have proved less capable in identifying the intent of the target. The major weakness of most intelligence bureaucracies this century has been their inability to produce accurate long-range assessments. One reason identified for this is that the best long-range intelligence estimates have been made by individuals and the worst by the committees on which current intelligence bureaucracies are based.

A good example of accurate long-range assessment is provided by the American Homer Lea. In *The Valor of Ignorance* (1909) and *The Day of the Saxon* (1912) he described the essential elements of the major conflicts of the 20th Century, including the identification of the landing beaches used by the Japanese in their invasion of the Philippines. Other prophets of future trends in warfare were ignored, to their native country’s detriment in this century. Writers such as J.F.C. Fuller, Liddell Hart and de Gaulle predicted the rise of mechanized warfare but were largely ignored at home. Major Pete Ellis, of the US Marine Corps, was another who developed an estimate of future warfare in 1921 which became the foundation for successful US amphibious operations in World War II. Having identified these luminaries, it must also be said that there have been a large number of professionals and amateurs predicting
different trends for the future. The secret lies in
determining who is going to be correct, and to what
degree. The similarities between long-range
assessments and gambling are obvious; the difficulty
for governments is that the stakes are immeasurably
higher!

Intelligence may provide the assessment, but it is
incumbent on the Government to take the action
required in response to that assessment. Walter
Laquer agreed with Plotinus’s saying: “Knowledge, if
it does not determine action, is dead to us,” especially
in regard to intelligence. However, he also identified
the complexities of intelligence when he identified the
vague and overlapping distinction between military
and political intelligence. He described the absence of
a clear dividing line between the two as “untidiness”,
but also said that the decisive issues in the recent past
have been political rather than military, and that these
are unlikely to change in the near future.

A good example of the link between intelligence
and national security planning is demonstrated by the
case of the US in the period leading to World War II,
and in the post war period. America’s emergence as a
world power in the early part of this century led it to
consider a global strategy in defence of its interests.
These interests included the traditional goal of the
defence of the US mainland, as well as the defence of
America’s possessions in the Philippines. This
strategy was formulated by a Joint Army-Navy Board
consisting of four members representing the Army
General Staff and four from the General Board of the
Navy, that drafted common plans to ensure the
coordination of the two services in war. This largely
ad hoc body amounted to the highest level of national
security planning for the US. No other formal
mechanisms, short of the President and his cabinet,
were available to coordinate or correlate the range of
issues which would impact on national security in the
years leading up to the war. Apart from individual
service intelligence branches there was little
coordination of intelligence matters which may have
assisted the President to come to a better
understanding of world affairs in the lead-up to war.

Until the late 1930s US planning focussed
primarily on the Japanese threat to the Pacific, relying
on the American fleet to perform its traditional
defensive role. Plan Orange foresaw little possibility
of coalition warfare, placing the burden for meeting
the Japanese expansionism squarely upon American
forces. When Hitler demonstrated his intentions in
Europe, and also signed the Anti-Comintern Pact with
Japan in 1936, it became clear that the plans based on
American-Japanese conflict were increasingly
unrealistic. As a result contingency plans were
produced to take into account the possibility of war in
Europe coupled with a Japanese threat to the
Philippines. The resulting plans, code named
Rainbow One to Five, were approved by the Joint
Army-Navy Board in June 1939.

The German invasion of France in the Spring of
1940, as well as Germany securing naval bases in
Denmark and Norway, led the US to focus away
from protecting the Western Hemisphere from a
possible future invasion of successful Axis forces.
Concluding that America did not possess sufficient
forces to defeat such an invasion and prosecute an
offensive campaign in the Pacific, planners called for
a defensive posture with respect to Japan. Roosevelt
directed that joint US-British operations should be
planned, leading to the “Europe first” strategy which
saw success in Europe as a precursor to full-scale
operations against Japan. This strategy called for
considerable forces and resources to be earmarked for
Europe, leaving only enough forces for a defensive
posture in the Pacific. Under the auspices of Plan
Rainbow Five, the bulk of forces would go to the
European theatre. Roosevelt was convinced that the
major threat facing long-term security was the
success of Germany and therefore the main effort had
to be on Europe. The US Army would protect the
frontiers of the Philippines but no additional forces
would be allocated. Europe would come first. Thus,
the national security planning process was responsive
to, and in many ways driven by, the intelligence
assessment of the nature of the ensuing war. History
has shown that at the strategic level the assessment
was sound; but that this strategy did have failings.
One of these was an understimation of the Japanese
capability in the Pacific. This was to be realised with
significant consequences at Pearl Harbor.

The reason for the US being caught out at Pearl
Harbor can be directly related to its inability to fully
appreciate the need for wide-ranging intelligence. It
did not have a centralised intelligence agency and was
calculated unawares by the attack, “even though there
was considerable evidence available to indicate
Japanese intentions”.

Also, its existing intelligence procedures were inadequate to the challenges faced
by the US as an emerging global superpower. The US
had simply not appreciated the important role it
would play on the world stage; isolationism could not
be sustained and the US needed the trappings and
machinery of power. The effect of Pearl Harbor was
to galvanise the US and force it to address the
relationship between intelligence and national
security. This US response, both during the war and
in the ensuing decades, makes a useful case study to

AUSTRALIAN DEFENCE FORCE JOURNAL NO. 129 MARCH/APRIL 1998
demonstrate how intelligence and national security are closely linked.

Although the Rainbow Plans mentioned earlier were prepared before WWII, in general the US maintained a strong isolationist position. Some individuals, such as William Donovan, were advocates of the US taking a greater role in world affairs in order to guarantee international stability and security. To achieve this Donovan suggested that the US should be aware of other nation’s capabilities and intentions through overt and covert means. At the outbreak of war the US was still without an effective national intelligence agency and Donovan was tasked by Roosevelt to build such an organisation, which was eventually to become known as the Office of Strategic Services (OSS). The US turned to the British security service for their model. Donovan visited Britain, a country more than happy to assist, knowing full well that they needed the vast resources of the US for the successful prosecution of the war. In turn Donovan was equally impressed with the British approach to intelligence and sought to imitate their organisations and methods.

In 1941 Donovan was appointed head of the Office of the Coordinator of Information (COI). This organisation was established to look at international military affairs and to report directly to the President. The COI was initially dogged by bureaucratic competition with the other security organisations such as the FBI and the military. However, the debacle at Pearl Harbor demonstrated the need for a centralised agency and led to a truce in the internal competition of the intelligence and security agencies. The result was the transformation of the COI to become the OSS in June 1942. The OSS was able to collect and analyse intelligence while remaining secret and answerable to the President alone.

The OSS received mixed reviews for its performance during the war. Many of their operations failed, whilst others were so bizarre as to defy belief. Although Donovan had lobbied Roosevelt for the creation of a centralised intelligence agency in peace, Truman was not convinced and as a result the OSS was disbanded in September 1945. Although disbanded as an organisation, the capabilities resident in the OSS were not. Operatives active in the Research and Analysis Division were assigned positions in the State Department, while those familiar with espionage who wished to remain on government service went to the War Department. However, the onset of the Cold War led Truman to reconsider his position and in late 1945 the Eberstadt Report recommended the establishment of a national security council, containing a central intelligence agency as an essential part of an effective government. In 1946 the Central Intelligence Group (CIG) was created. It was limited in its ability to be independent as it relied on funds from the Secretary of State, Navy and War who supervised the CIG through the National Intelligence Authority (NIA). The problem was finally addressed by the National Security Act of 1947 which created the Central Intelligence Agency (CIA).

The National Security Act saw the US attempt to integrate all those elements of national power and national security, to provide the mechanisms for government to effectively address the problems of domestic and international security. These elements ranged from economic assistance through diplomatic initiatives to the application of military force. The result of the National Security Act was the creation of the security establishment that still functions in America today. Central to the Act was the creation of the National Security Council (NSC) whose purpose was to advise the President on the “integration of domestic, foreign, and military policies relating to national security” as well as to “assess and appraise the objectives, commitments and risks of the US in relation to our actual and potential military power.” This organisation appealed to Truman who had long envied the British superiority in coordinating all branches of government. In the British wartime government Churchill formed the apex of military and political planning. As Prime Minister he presided over the War Cabinet, which considered both military and political topics. Holding the position of Defence Minister as well, Churchill ruled over the Defence Committee in which representatives most involved in the war held seats. These included the Minister of Foreign Affairs, three civilian cabinet ministers in charge of the War Office, the Admiralty, and Air Ministry, and the three military chiefs of the services. The service chiefs formed a Chiefs of Staff Committee that held the authority for issuing instructions to the forces.

Although membership of the NSC changed over the years the key players were the President, Vice President, the Secretary of State, and other members who could be invited (such as the heads of the Joint Chiefs of Staff, and CIA). The original intention was that the NSC would operate in a similar manner to the British War Cabinet; though over time each president shaped it after his own image. As its founder, Truman was clearly a supporter of the NSC and mandated that all options concerning major issues in national security should be directed through the NSC. Under Eisenhower, the power of the NSC grew even more with weekly meetings becoming the rule. The
Council focussed on long-range policy making, leaving shorter term issues of immediate importance to either the President himself or one of his Secretaries of State.

The establishment of the CIA by the National Security Act was a significant moment for the US, a nation that had no history of established intelligence centres in peace and which had an abiding fear of big government that might threaten civil rights. By its original mandate, the CIA was subordinated to the NSC and was directed to coordinate, not supervise, the activities of other agencies. It was to advise the NSC on intelligence issues, make recommendations regarding coordination of intelligence activities and collection, and correlate, evaluate, and disseminate intelligence. It was also to “perform such other functions and duties related to intelligence... as the NSC may from time to time direct.” While the CIA was responsible for operations overseas, the FBI was responsible for domestic intelligence and security. The basis for this division of labour was the British model which saw M15 responsible for counter-intelligence in Britain and M16 responsible for operations abroad. It has been argued by Fitzgibbon that this simplistic arrangement was the cause of many future organisational and jurisdictional battles, not to mention inefficiencies, and was inappropriate for the Cold War world, where hostile intelligence activities were not so clearly delineated. He states: “As an intelligence organisation it would appear to have been... frustrated by an almost unbelievable and clumsy structure, also based on ancient, legalistic modes.”

Through the vehicle of the NSC the intelligence estimates of the threats to the US formed the basis of strategic military plans. These early plans, variously named Pincher, Broiler, Fleetwood and Wringer, were based on assessments coordinated by the CIA. In this way we can see how intelligence was integrated into the national security planning process. The overall effect of these reforms was to put strategic military planning on a wartime footing in peace. The changing nature of the post war world and the demands of the policy of containment led to new demands on the apparatus of government. As Boll points out: “Maintaining America’s national security during periods of peace as well as during war could henceforth be the single most important item of national concern.”

While the CIA was the first centralised intelligence agency created after the war, it was not the last. Under a subsequent presidential order, the National Security Agency emerged in 1952. Its function was to provide centralised coordination, direction, and control of all SIGINT and COMSEC. In 1961 the Defense Intelligence Agency made its appearance, in part to ensure that the President and other key policy makers had alternate sources of information. Its responsibilities included review and coordination of all Defense Department intelligence resources, with its head reporting to the Secretary through the Joint Chiefs of Staff. The creation of these separate organisations were an attempt to not only achieve the best intelligence available, but also to provide checks and balances to that advice. The organisations were not designed to operate in competition, although that may have well been the result on many occasions; rather they were to complement one another’s strengths whilst leaving the executive authority in the hands of the President.

It can be argued that the National Security Act of 1947 established a structure for national security planning of the first order. Indeed the Dulles Report of 1949 argued that the US could create the best intelligence service in the world on the basis that “free men could be more efficient than unfree.” The intelligence organisations were coordinated by the CIA, the military was under the unified control of the Joint Chiefs, and the President had the National Security Council to provide him the advice he needed to make decisions and determine policy. However, the mere presence of these organisations was not a guarantee of success. The key role played by intelligence in this process is highlighted by the many fiascos which plagued the US throughout the 1950s and 1960s. The bomber gap, the missile gap, the Bay of Pigs and the Cuban Missile crisis all serve as examples of the failure of the intelligence services to get it right, leading to threats to national security. Also, throughout the early years of the CIA the assessment of Soviet military capabilities and intentions remained the most important topic for US intelligence. The heavy emphasis on Europe was not surprising but it did overlook the prospect of war in Korea.

This article has taken a broad view of intelligence and its relationship with national security throughout the 20th Century. The rub of the issue in terms of the relationship between intelligence and national security remains the conundrum that is intelligence. Intelligence is about looking at observable data, often incomplete and only in half light, to determine what is going to happen next. Almost by definition it must fail. If it correctly predicts the political or military initiative of another nation, and if as a result of that a course of action is adopted to counter that initiative, and that initiative does not then take place, it is open to accusations that the assessment was incorrect in the
first place. However when intelligence fails to predict an event or course of action, inquiries and committees are established, and with the benefit of hindsight, determine how they could have got it wrong. It is almost a case of being damned if you do and damned if you don’t. The key measure of success for intelligence is the extent to which it is able to influence policy. Although Frederick the Great wrote “If you know the enemy’s intentions beforehand one could always defeat him, even with an inferior army” his record does not bear this out, for there is much that can go wrong even if the enemy’s intentions are known. The fundamental issue is that whilst intelligence provides a significant contribution to national security, unless the other elements of national power are in place then there is little chance of success. This echoes our earlier theme raised by Kennedy that, in the end, success is a function of strategic and economic strength and intelligence is just one of the components which comprise national power.

NOTES
1. Kennedy p.xvi
2. loc. cit.
3. Cohen p.76
5. Cohen p.78
6. Kennedy p.19
7. Laquer p.xxi
8. loc. cit.
9. Boll p.4
10. ibid., p.9
11. ibid., p.10
12. West p.2
13. Boll p.60
14. Fitzgibbon pp.324-328
15. ibid., p.327
16. Boll p.79
17. Laquer p.311

Lieutenant Colonel Craig Orme entered the Royal Military College Duntroon in 1978 and was commissioned in the Royal Australian Armoured Corps in 1981. He served in 1st Armoured Regiment from 1982-84 as a tank troop leader, a period which also included detachments to 3 RAR as a Rifle Platoon Commander in Malaysia in 1982 and as a Guided Weapons Troop Leader in the United Kingdom with 16/5 Queen’s Royal Lancers in 1984. From 1985 to 1988 he served in the Second Cavalry Regiment in various appointments in a Sabre Squadron and as the regimental Operations Officer and Adjutant. In 1989 he served with the United Nations Iran/Iraq Military Observer Groups in Iran and returned to Australia as the Aide de Camp to the Chief of the General Staff. A tour as the Officer Commanding Long Tan Company at the Royal Military College, Duntroon was followed by attendance at the Australian Command and Staff College in 1992. In 1993-94 Lieutenant Colonel Orme was the Australian Exchange Tank Squadron Commander, serving as the Officer Commanding C Squadron in the 4th Royal Tank Regiment in Osnabruck, Germany, followed by a tour as the Officer Commanding G Squadron in the 1st Royal Tank Regiment in Tidworth, UK. On return to Australia he was the Second in Command of the School of Armour and on promotion in mid-1995 became the Senior Career Adviser at the Directorate of Officer Career Management. Lieutenant Colonel Orme was appointed the Commanding Officer of 1st Armoured Regiment (Tank) in December 1996.
Casualty being treated during a crash on deck exercise

Photograph by PO Chris Woods
A method is presented whereby estimates of injury to personnel in a confined multi-level steel structure, such as the interior of a ship, may be made by the simple application of overlays to a scaled drawing of the structure. The injury thresholds used in this project were derived from blast tests carried out in the 1950s and 60s, recent mathematical modelling of human/blast interaction, and from results derived from the Ship Survivability Enhancement Program (SSEP) trials held on the former HMAS Derwent in late 1994.

The capability to accurately predict personnel casualties is vital to the efficient planning and execution of both real and simulated ADF operations. In particular, battle casualty estimates, i.e. numbers of personnel killed and incapacitated (including type, number and severity of injuries), are vitally important to the effective planning of short-and long-term medical support requirements, including numbers of medical personnel, facilities, equipment and stores.

At present there is no systematic capability for the prediction of casualties on ships of the RAN resulting from a range of regional battlefield threats. It is understood that current ADF casualty evaluation methods for explosive warhead effects on naval platforms are based on a mixture of limited overseas information, RAN experience and best guessing. As a consequence, there is limited confidence in our ability to accurately predict medical support requirements, which may accordingly be providing either an expensive, logistically inefficient and wasteful overestimate or a dangerously inadequate underestimate of resource requirements.

This article details the first part of the development of a systematic method which can be used for the prediction of RAN fleet battlefield casualties resulting from a range of ship threat engagements from explosive filled munitions threat effects.

Blast Effects

Readily available data on casualty effects resulting from explosive blast loading are based largely on experiments carried out in the 1950s and 60s. The great majority of these experiments were performed by US Defense Agencies and Laboratories which studied simulated nuclear explosion blast loading effects on dummies in the open air, as well as shock tube experiments against a range of small to medium sized animals. A significant outcome of these experiments was the generation and publication of a range of survivability curves which relate the nature and extent of personnel casualty effects to the combination of blast overpressure and impulse experienced by the test. These curves can be used to predict the level of injuries, ranging from Primary blast injuries like temporary to permanent hearing loss, lung, bronchial and gastrointestinal rupture, up to Tertiary injuries such as major bone breakage and death due to "whole body translation" i.e. the effect of being bodily lifted and thrown against a solid object. The above data was generated exclusively for free field conditions, i.e. personnel in the open, and care must be taken when extrapolating/interpolating these results to predict weapons effects in enclosed structures.

Baker further normalised these experimental curves to include variations due to altitude, atmospheric pressure, and body weight. These types of curves can provide the basis for the prediction of battlefield casualties based on the use of a number of basic assumptions, i.e. simulations occur at sea level and an atmospheric pressure of 101.3kPa, and for the calculation of pressure induced whole body translation an average sailor is assumed to weigh 70kg. For whole body translation the terminal velocity of a standard body due to dynamic blast pressure loading was calculated using a simplified model of a human (a cylinder of appropriate height...
and width) with approximate mass and drag coefficients. The resulting terminal velocity is used to evaluate whole body translation personnel casualty levels.

To evaluate the casualty levels due to strikes by regional weapons on naval combatants it was decided to use a range of explosive filling masses from 0.5kg to 100kg (representing the range from gun launched projectiles to Anti Ship Missiles) at distances from the detonation position of 0.1m to 40m. The computer program CONWEP was used to evaluate blast pressure as a function of time and distance for the identified warhead explosive filling levels. Values of peak overpressure and impulse were extracted from the Baker normalised casualty curves for eardrum rupture, lung damage, skull fracture and death and then used in conjunction with the weapons blast pressure effects curves to evaluate the maximum range at which each of the injuries would be expected to occur. Values were plotted for each casualty type to produce a set of injury threshold curves, see Figure 1.

These curves allow a mathematical model to be produced which has parameters that vary for different explosive filling masses. The equations allow evaluation of the range of damage thresholds for any warhead explosive mass and can be used to generate damage extent for any specific warhead type. These results are directly applicable to crew on ship weather decks for either external weapon detonation, or internal weapon detonation where structural damage breaches the weather deck. However, for crew positioned below decks these thresholds require some modification to reflect the containment influence of ship compartments and structures on blast propagation. The method used to modify these open field damage threshold effects for internal ship structures is presented in the next section.

These mathematical models are used to generate a series of scaled overlays for a specific warhead type. These overlays are used with a similarly scaled drawing of a Naval platform to define the extent of each personnel damage type centred on the detonation position. With a knowledge of the personnel distribution within the platform, available from the ships crew watch and station bill, estimates of casualty levels for each blast injury threshold can be made.

Figure 1. Injury Threshold Curves
Extensive analysis of wartime ship explosive damage incidents has shown\(^1\) that for blast induced structural failure, the extent of vertical damage is typically half that in the horizontal direction. This effect is primarily due to the decks being generally thicker and stiffer than compartment bulkheads, restricting vertical damage and associated blast propagation. Realistic damage thresholds are accordingly generally defined as circular regions in the horizontal plane and elliptical in the vertical plane, with the resulting 3D damage volume represented by an ellipsoid.

In analysing the results of the Ship Survivability Enhancement Programme (SSEP) trial Walsh\(^4\) confirmed these earlier findings and found that for larger warheads the area affected by the blast in the horizontal plane also encompasses the extent of fragment spread; the Fragment Damage Zone (FDZ). In the vertical plane the FDZ extends beyond the primary blast area, as it does with the smaller munitions in both planes. Based on these results Walsh generated formulae for radii of blast and fragment zones which differ in both the vertical and horizontal directions.

In comparing Bakers’ results for open field and Walsh’s data for shipboard damage effects, it is obvious that the range for the onset of skull fracture and death due to blast generated whole body translation appears to be relatively small when compared to other explosive munition damage effects. These other effects include primary fragmentation due to the munition warhead and secondary fragments and debris both from the warhead and the ship structure. In general, primary fragments from fragmenting munitions are spread through a narrow arc of approximately 40º distributed about the perpendicular to the warhead/missile longitudinal axis (the main beam spray). However, due to the forward motion of the warhead/missile the arc of the main beam spray is vectored forward to an extent dependent on the warhead terminal velocity, typically 15º.

Since the bearing and remaining angle of a munition warhead, relative to the ship, will vary with every incident, it is difficult to conceive a simple representation to denote personnel fragmentation damage effects for a wide range of munition/ship engagement orientations, as well as incorporating the possible variation in the horizontal and vertical extent of fragment damage. If, however, for a given weapon, we consider a large number of randomly oriented strike strikes, detonated at a single position on the ship, the extent of the total 3D FDZ will be defined by an ellipsoid volume with dimensions defined by the extent of the fragment beam spray. When rotated in 3D space the main fragment beam spray produces a conic section with a calculable volume, and the ratio of this conic section relative to the total FDZ volume is typically 0.22.

Accordingly, for randomly oriented warheads, crew within the FDZ volume have a 22 per cent probability of a crew member suffering fragment incapacitation, and the product of the number of crew within the FDZ and the incapacitation probability defines the number of personnel affected. That is, 10 crew within the FDZ fragment spray volume for a randomly oriented warhead indicates that in a typical engagement two crew will be incapacitated by fragments.

Walsh also found that there is an area, which he called the Total Destruction Zone (TDZ), surrounding the warhead detonation point, within which there was total destruction of all equipment and fittings, and suggested that anybody within this area would almost certainly be killed. Typically the TDZ extends well beyond the death and skull fracture ranges generated from blast effects alone, and it is reasonable to totally replace these casualty levels with the TDZ.

Walsh also suggested that within an area with a radius of approximately 1.5 times the TDZ, defined as the Combat Incapacitation Zone (CIZ), any crew member would be injured and rendered incapable of functioning in a combat role within five minutes of warhead detonation (similar to the infantry 5 Minute Assault Casualty Criterion). Walsh found that the compartment walls were utterly destroyed and, along with debris generated by the blast from equipment and fittings, were translated horizontally with the expectation of inflicting serious Secondary personnel injuries. The CIZ closely delineates the range where 50 per cent of the crew would be expected to suffer lung damage due to blast effects, and to reduce the number of overlays these two damage thresholds are considered to coincide.

Walsh defined a set of equations which describe the TDZ, CIZ and FDZ in both the vertical and horizontal directions. These equations allow the three close in blast effects to be replaced by the TDZ, CIZ.
and the FDZ. For ease of use, the two zones for 50 per cent Eardrum Rupture and Lung Damage Threshold were considered to coincide, and are replaced by a single zone. There are now four curves, see Figure 2, to describe the four zones which can be used to predict the onset of injury.

These new values can be used to create overlays to cover those casualty levels for a range of equivalent TNT masses or specific warheads. Figure 3 shows a typical overlay for an explosive mass > 1Kg on a Representative Ship Plan. Since these results have been derived for personnel in the open, some adjustment is necessary to reflect the influence of ship compartments and structures on the extent of blast propagation.

Further analysis of the results of the SSEP ship trials indicates that for internal ship warhead detonation, injuries to personnel beyond the CIZ would only occur if the CIZ intersected a compartment or passageway, or if a blast route existed from these areas to adjacent compartments/passageways through an open or unprotected doorway. Accordingly, the 50 per cent eardrum rupture and lung threshold and eardrum rupture personnel casualty levels can only be applied for internal detonations and internal personnel dispositions where an open or weak blast route was available to adjacent ship areas. Application of the weapons effects overlays will require some care to follow possible blast routes and identify internal ship personnel damage effects.

Cautionary Comments

The extent and severity of personnel injury levels generated by this estimation method is based on extensive explosive event test data, however, the generated information is not exact due to both the interpolation and extrapolation of this data as well as the many assumptions and simplifications used. Thus, although the templates define boundary levels for specific personnel incapacitation for a given warhead, variations in ship construction (e.g. the presence or absence of doors, weak bulkheads and passageways)

Figure 2. Modified Injury Curves
Figure 3. Typical Overlay for Explosive Mass
> 1Kg on a Representative Ship Plan
will certainly effect the exact position of the damage boundary. Accordingly, the extent of the predicted damage effects will vary gradually towards, and often beyond, the template boundary and should be considered as an approximation rather than defining a sudden transition.

It must be stressed that the ranges for eardrum rupture and lung damage threshold are derived from free-field pressure values. It is known that pressure regimes within a structure such as a ship can be very different to the open air situation, depending on the geometry of the structure and the location of the detonation within that structure. An interim method has been described for evaluation of internal ship personnel casualty effects beyond the CIZ limits by following simple blast routes to gauge the damage extent. More work will be needed to properly quantify the pressure and impulse within a ship structure, using appropriately instrumented dummies, to improve the accuracy of these techniques.

Although this method is readily applicable to any battlefield scenario, it must be stressed that the TDZ, CIZ and FDZ are the direct result of ship based experimental data and may not be applicable in a non-ship environment.

### Future Development

This method has been implemented in a document for use by medical support planners in the Office of the Surgeon General ADF (OSGADF), Headquarters Australian Defence Force. This manual system is the first stage of a plan to provide OSGADF with a computer based automated system which will provide not only casualty information, but will:
- list injured personnel;
- provide medical materiel requirements; and
- indicate treatment time limits and consequences of failure to treat.

### Conclusions

A simple evaluation method has been demonstrated which can be used to predict shipboard threshold levels for a range of personnel incapacitation criteria, based on the blast and fragmentation effects of typical explosive filled projectile and missile warheads.

The identified method can be used to produce warhead effects templates which, when overlaid on an identically scaled drawing of a ship, can predict numbers and types of personnel casualties.

The application of this technique provides the basis for the planning of immediate and longer term first-aid and patient care requirements, including numbers of medical personnel as well as stores, equipment and facilities.

This method has application outside of the maritime environment.

### NOTES

2. CONWEP - Conventional Weapons Effects program Version 2.00, 1991, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS, U.S.A.

### ACKNOWLEDGMENTS

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Introduction

It is often suggested that defence force reserves serve as a bridge between the military and the civilian community, a link between the host society and an institution very different from that society in its structure, composition and values. The reserves being seen to occupy a position somewhere in between, straddling both but not quite one or the other, it is said that they provide the linkage which ensures that “the military does not become socially unrepresentative and ideologically narrow in its social, political and other perspectives” while at the same time, through their historical and contemporary links to the wider community, also providing the military with a critical path into the community.

Consistent with this notion of a bridge, the reserves are the medium in a relationship which works in two directions. From the defence force side, the reserves bring to the community the benefits of their military training, whether these be skills which transfer directly to the civilian workplace or other benefits such as physical fitness, secondary skills such as first aid, or disciplinary training. It has also been suggested that the reserves fulfil an educative role in that their presence “in the workplace, in civilian organisations of many kinds and in the wider community leads to greater public knowledge and understanding of the armed forces”. While not denying that the regular or permanent members of the armed forces are also citizens, the reservist is considered to be closer to the community and hence in a better position to foster and encourage community support and to raise the military’s profile and community acceptance.

The Reserves as a Leavening Influence

From the other direction, reservists are said to bring to the defence forces a range of best practice civilian management, professional and trade skills acquired in their day-to-day lives, skills which the defence forces have not had to pay for. These are skills such as medical and legal specialisations which may be of use during hostilities but which are not cost-effective to maintain in peacetime on a full-time basis. Such benefits are manifest and readily acknowledged. It has also been suggested, however, that the reserves have a critical social influence on the military. According to Coates & Smith, the presence of “civilians in uniform” within the military means not only the importation of skills from the community but also what is referred to as a leavening influence. Through reservists, they maintain, “regulars will be more exposed to ideas and attitudes that are held by the community at large”, an influence which would serve to “reduce the natural conservatism of armed forces and militate against any tendency toward isolation from the rest of society.” Janowitz expresses it in terms of “an infusion of the sensibilities of civil society” for the purposes of properly embedding the military within the community. Because the reservist is principally and primarily a member of the broader civilian community and only secondarily or, as Huntington puts it, “temporarily” a professional soldier, motivations, values and behaviour will often differ greatly from those of the career professional.

There is a dividend in this difference, however, in that the reservists will have fresh ideas and attitudes “leavened by (their) day-to-day involvements in the civilian community” and will bring that outlook to the military. For example, it has been suggested that the presence of reservists has facilitated changes in attitudes within the forces on issues such as the role of women. From a social point of view, the reserves would therefore appear to be a critical factor for the survival of the military which, unless it makes an effort to understand, embrace and participate in the social changes happening around it, will not cope with these changes and may become regarded as a costly irrelevance. The reserves not only serve to moderate the different outlook which inevitably develops within an institution which emphasises its uniqueness and puts itself above the norms of its host society, but will also be a catalyst for the changes which must occur. If, as it must, the military is to get closer to the community (and it will be the military, not the...
community, which will have to shift), much will depend on the leavening influence of the reserves to facilitate acceptance of the need for change and to introduce the new ideas and attitudes.

A Challenge to the Concept of the Leavening Influence

With so much, then, of the future of the defence force riding on the capacity of its reserves to stimulate and facilitate change, it is appropriate to take a closer look at this concept of a leavening influence. What impact do reservists actually have in facilitating social change in the defence forces? Where the institutional relationship between regulars and reservists has for so long been subject to strain and uncertainty, and where it is almost “a law of nature that regular forces will tend to be dismissive of reserve forces or at least downplay their value”16, do the reserves have any capacity to influence regulars? And what evidence is there, some 20 years after the Australian Army began the process of integrating its reserve and regular forces, of any adaptive changes in that Service which could be attributed to the influence of its reserves?

This article seeks to challenge the concept of the leavening influence. It does so on two grounds. Firstly, it questions the assumption that there are fundamental differences in attitude, motivation and outlook between the reserves and the regulars. It will be argued that in many significant ways it is difficult to differentiate regulars and reservists, that the two groups belong to essentially the same military subculture, and therefore that the capacity of the reserves to stimulate change is limited. If there is little difference between them, the question is what new ideas or attitudes could the reserves bring?

The second part of the challenge is that the capacity of the reserves as agents of influence is limited by the nature of the relationship with their regular counterparts.

While regulars and reserves share much in the way of background, motivation and outlook, it is a similarity the regular member appears reluctant to acknowledge. The reservist’s “defence force” will include his regular counterpart but the regular’s will not include the reserve. If the Reserve is not accepted as belonging, what potential or credibility does it have to effect change?

The focus of this article is principally on the Army Reserve. Because the Royal Australian Navy and the Royal Australian Air Force maintain only relatively small numbers of reservists who are generally integrated individually or in small numbers into full-time operational and support units, and because the majority of Navy and Air Force reservists are former full-time members who do not have a training obligation17, it is questionable whether the Navy and Air Force Reserves provide any significant link between the Australian Defence Force and the community.

Regulars and Reservists: Fundamentally Different or Substantially the Same?

The value of the reserves as a leavening influence is predicated on their being different. If they are to reduce the natural conservatism of the military and limit its isolation from society, they must by inference have more liberal and socially aware ideas and attitudes and they must be capable of bringing that different outlook to bear on their permanent counterparts.

There are indeed differences between regulars and reserves. Smith reports that at all ranks, Army Reserve officers are distinctly older on average than regular officers.

There are also higher rates of female participation in the Army Reserve (17 per cent, compared with 9.5 per cent for the ARA) and of educational attainment (with 41 per cent of the ARes completing Year 12, as opposed to 22 per cent of ARA).18 While there has been little comparative attitudinal research, Furry19 reports that Army Reserve attitudes about serving alongside homosexuals are more liberal than those of the ARA. There was also a major difference between the ARA and ARes in attitudes about working with women (just over 50 per cent of ARes officers and 61 per cent of ARes soldiers preferring to work in mixed gender units, compared with 39 per cent of ARA officers and 35 per cent of ARA soldiers), a difference Furry attributes to the fact that the majority of ARes members work in mixed gender civilian employment organisations.

Reserves Not Representative of Society

At the same time, there is much to support the argument that the defence force reserves are really just variants of a single “warrior culture.”20 Notwithstanding the noted gender, education and officer age differences, both groups are essentially drawn from the same young, male, English-speaking-background segment of the community, and for this reason the same concerns about representativeness arise. While female participation may be higher in the reserves, at 17 per cent it could hardly be argued that women have an effective voice or are being heard.
Like the ARA, the Army Reserve also has the problem of under representation of minority ethnic groups which, together with an over representation of recruits from rural areas, led Smith to suggest that the Army Reserve was somewhat unrepresentative of Australian society as a whole. Arguably then, without the representation of minority groups the reserve forces will, as Bergin et al suggest of the regular forces, be much more likely than the civilian community to support ethnocentric views. Even were the defence forces to be more receptive to multicultural views, it seems unlikely that this would be the message the reserves would bring.

One other factor on which the reserves fail to reflect the community structure is in relation to civilian employer. While 74 per cent of Australian wage and salary earners are employed in the private sector, only 42 per cent of surveyed ARes officers and 58 per cent of soldiers were not Commonwealth, State or Local Government employees. Undoubtedly the availability of paid leave for defence reserve training increases the attractiveness of reserve service for public servants. However, the public servant’s interest in reserve service could reflect a similar need for institutional affiliation that attracted them to civilian service. Whatever the reason, the figures mean that almost half of the reserve work in a civilian environment itself not representative of society on many factors including race, ethnicity, geographic location, education and socioeconomic level.

To the extent that it is true to criticise public servants as being out of touch, it will also be true for half of the reserve forces.

### The Institutional Similarities of Regulars and Reservists

As well as resembling the regular forces demographically, the reservist also has a strong desire to identify or affiliate with the military institution. One quarter of the Army Reserve soldiers in the survey reported by Furry indicated that trying Army life before applying for the Regular Army was an influence on their decision to enlist, while one third said that help in gaining entry to the ARA was a factor. Institutional or intrinsic reasons such as “Doing something for my country” and “The challenge of military training” were the most cited reasons for joining, and some 92 per cent of ARes officers and 84 per cent of soldiers made it clear that the Reserve was regarded as more than just a job.

Other recent research has reached much the same conclusion. Full-time and part-time Army survey respondents having similarly ranked 16 reasons for military service, it was concluded that both groups served for essentially the same vocational or institutional reasons. It was evident that there was a strong institutional culture in the reserve forces and that, for both groups, institutional values were associated with a strong commitment to long-term service. Full-time and part-time values were very similar and the two groups were closer than they thought in their ideas about the meaning of professional service. It has also been noted that in other respects the reserves have tended increasingly since the Second World War to emulate regular service, giving rise to common training, officer production and subsequent officer training, particularly within the Army.

With the reserves sharing so many of the identifying characteristics, cultural values and norms of the military institution, it is difficult to avoid the conclusion that they are substantially the same as the regulars and are part of that institution. This could perhaps explain why, despite the reserves constituting 40 per cent of the total ADF and 52 per cent of the Army, there is still little indication of any social change within the military which could be attributed to the reserves, and why the ADF remains a substantially separate institution from Australian society. From the reservist’s point of view, the Glenn Review’s description of a reservist as a “citizen in uniform” does not capture the strength of his/her commitment and identification with the military. Part-time service is clearly more than just a hobby or compensation for under-employment in the primary job. While Army reservists acknowledge their lack of preparedness in their current reserve roles, they still overwhelmingly believe that the reserves have an effective role in the defence of Australia and that they could make a worthwhile contribution to that task. Clearly, they regard themselves as integral to the ADF, more like “soldiers in suits” than “citizens in uniform”.

Such views are not generally shared by the regular forces. As noted earlier, the relationship between regulars and reserves has not been smooth. Neither has understood or been inclined to understand what motivates the other, the differing circumstances under which they serve or the limitations of these circumstances. It has been a relationship characterised by paternalism, jealousy and obstructiveness, and, in so much that it has militated against finding a suitable role for the reserves in the
ADF, could be counted as one of the major obstacles in trying to turn the Total Force concept into reality.37

Because of the limited nature of their involvement with the military, reserve forces are not regarded by their regular counterparts as professional.38 US National Guardsmen and reservists are commonly deprecated as “weekend warriors” and criticised as lacking dedication, commitment and military professionalism.39 There would be little reason to doubt that similar views expressed by the ARA over 20 years ago regarding Citizen Military Forces soldiers as pretentious and less than competent40 would not also be held of the Army Reserve today. More recently, Sigma Consultancy’s survey of the perceptions of full-time members’ attitudes towards the Army Reserve reported a lack of empathy, limited understanding of reservists’ values and commitment, and little appreciation of the advantages part-time personnel could bring to the defence forces.41 The regular member tended to equate the reservist’s competence with his/her military rank, not appreciating that many reservists in the lower ranks were people with successful business or professional careers.32 The full-timers did not perceive the reserve forces as credible in terms of role or performance and saw integration as a threat to their professional standards and status.

The regular soldier’s belief that the reserve service is not real soldiering has been accepted as at least part of the explanation for the low rate of transfer from regular service to the reserves.43 Addressing this issue, Sigma Consultancy found that, apart from those leaving full-time service to put the Army completely behind them or to dedicate more time to family or the new civilian career, full-time members were essentially unwilling to be involved in something that was not credible or in which their skills would not be valued.44

If the prevailing perception of the reserves is that they lack professionalism, competence and credibility, they are unlikely agents of change. In social psychology terms, the regulars and reserves, at least as far as the regulars are concerned, constitute two separate reference groups. From the regular’s point of view, theirs is a closed, exclusive in-group for whom “we” or “us” does not include the reserves. The regular soldier’s views of the reserves are generally something acquired when joining the regulars and adopts its norms, attitudes and stereotypes. Because their relationship with the reserve group is essentially in conflict, they will hold negative attitudes and stereotypes of the reserves. Under Kelman’s theory of attitude change, the reserve will have no influence on regular soldier’s views because the reserves are not perceived as being either a powerful or attractive source and because their message does not fit with regulars’ existing values and cognitions.45 This was demonstrated by the experience with the Ready Reserve. While it may have been hoped that contact between regulars and a more capable, better trained Ready Reserve would have ameliorated some of the regulars’ negative feelings about the reserves, the majority of regular Army officers and soldiers surveyed up to 1995 remained opposed to the Ready Reserve46,47 and continued to justify their views in terms of established stereotypes.48

**Conclusion**

It has not been the intention of this article to question that the defence force reserves provide a bridge between the military and the community. It is clear that through the reserves there is an ongoing and mutual exchange of skills and knowledge of benefit to all concerned. The reservist also has something of a dual ambassadorial role, representing community interests when in uniform and fostering community understanding and acceptance of the military in the civilian workplace.

However, the reserves are not agents of social change. I have sought to challenge the view that, through their contact with the community at large, the reserves bring to the military fresh ideas and attitudes and thereby facilitate change. This challenge has been on two grounds. Firstly, it has been argued that the reserves, seeking to identify with and striving so hard to be like the regulars, see themselves as members of the same military subculture. Certainly, they share much in the way of background, motivation and attitudes, to the extent that it is doubtful whether the reserves are much less “socially unrepresentative and ideologically narrow”49 than the regulars. From this point of view, reservists are not fundamentally different from regulars and do not have a particularly different outlook to bring. Secondly, it has been argued that because the reserves have such poor standing with the regular service, they have limited capacity to initiate change on social issues within the military. As Smith notes, the sociology of the ADF has changed (albeit gradually and under external direction) to reflect developments within Australian society50 but there is no indication that any such change can be attributed to the influence of the reserves since the process of integration commenced.

What of the future? As the movement toward integration of regular and reserve components accelerates, any capacity the reserves may have for social bridge building seems likely to diminish. The
Glenn Review concedes that integration will ask more of the part-time members51, a commitment which can only be met at some cost to their civilian employment and their family. As their military commitment increases and their skill levels rise, the part-timers move closer to the military institution and at the same time away from the community. Particularly as the “revolving door” movement between full-time and part-time service increases, any difference in values and attitudes will become blurred. At this point surely, the bridge will begin to crumble. Unless at the same time the integrated ADF has been moving to embed itself more firmly within Australian society, there will now be a gap between them. The newly integrated defence forces may need to look for direct links with the community through strategies such as outsourcing (e.g. the Commercial Support Program) and the civilianisation of non-core business to span the gap.

If the role of the reserves to date as facilitators of social change has been unclear, their future role is uncertain. The reserves themselves are on the threshold of major structural, functional and social change. While such change may well resolve many of the reservist’s problems in trying to occupy a difficult intermediate position between the military and the community52, it will inevitably bring others.

NOTES
17. The 1994 Defence White Paper (Commonwealth of Australia, op cit, 1994, pp. 74-75) reports that on June 1994 figures the Navy Reserve at 4,495 members represents 5.1 per cent of that Service, some 3,500 of this number being inactive reservists. The Air Force Reserve, at 4,419, represents 19.9 per cent of the RAAF, over 67 per cent of Air Force reservists being inactive. For Army, the 28,912 reservists represent 52.3 per cent of that Service, the overwhelming majority (87.5 per cent) of whom were active reservists.
18. ibid, 1992, p.14, p.21 and p.22. In relation to the age difference, it could also be suggested that the older Army Reserve officer, rather than having a liberal leaning influence, may bring to the military the more conservative values that are commonly associated with age. Certainly if, as Dixon (1976) suggests, conservatism is associated with a commitment to custom and tradition, the reservist as a member of a unit with strong historical community links may be as resistant to change as or unlikely to sponsor change as his regular counterpart. (Dixon, N.E., On the Psychology of Military Incompetence, Futura, London, 1976, p.102.)
22. Bergin, A., Hall, R., Jones, R. & McAllister, I., The Ethnic Composition of the Australian Defence Force: Management, Attitudes and Strategies, Working Paper No 11, Australian Defence Studies Centre, University College, University of New South Wales, ADFA, Canberra, May 1993, p. 9. While relative to the ethnic/racial composition of the civilian population in the 15-54 age group, the ARes at 45% shows a higher representation than the regular forces which range between 25-36%, recruits from non-English speaking backgrounds are still significantly under represented.
24. Furry, R.C., op cit, November 1995, Table 2 at p. 5.
27. Submission by the Defence Reserves Association to the Joint Standing Committee on Foreign Affairs, Defence and Trade, reported in: The Parliament of the Commonwealth of Australia, Officer Education: The Military After Next, Joint Standing Committee on Foreign Affairs, Defence and Trade, AGPS, Canberra, October 1995, p. 126.
29. With reference to its Army Manpower Control Study Stage I Report on ARA attrition/retention issues, Sigma Consultancy suggests that “the institutional culture of the military has remained strong, even over a period where the growing occupational nature of military service may have been expected to have been a threat to the culture” (Sigma Consultancy, op cit, March 1996, p. 17).
33. As reported by Furry (op cit, November 1995, p. 13), only 25 per cent of ARes officers and soldiers thought that their training had prepared them well for duties in their current ARes posting.
35. Millar, T.B. (Chairman), op cit, March 1974, p. 82.
37. While the suggestion that the Regular-Reserve relationship has been an impediment in resolving a role for the reserves, the link between defining a role and failure to turn the Total Force concept into reality is made by Coates & Smith (op cit, 1995, p. 3).
40. Millar, T.B. (Chairman), op cit, March 1974, p. 81.
42. This comes as no surprise considering Furry’s (op cit, November 1995, Appendix E) report that “Doing something different” was the most frequently cited reason (92.6 per cent) of ARes soldiers for joining, and the fourth highest reason (85.2 per cent) for ARs officers.
43. Smith, H., op cit, 1992, p.11. Smith cites Wrigley’s (op cit, 1990, p.330) figures showing only 5-6 per cent of Army Reservists with prior regular service compared with 50-60 per cent in the US Army Reserve.
44. Sigma Consultancy, op cit, March 1996, p. 34.
46. Salter, J.S., 1995 Soldier Attitude and Opinion Survey – Miscellaneous items, WP 14/95, 1st Psychological Research Unit, Department of Defence, Canberra, February 1996.
47. Salter, J.S., 1995 Officer Attitude and Opinion Survey – Miscellaneous Issues, WP 17/95, 1st Psychological Research Unit, Department of Defence, Canberra, February 1996.
48. As reported by Hodson (Hodson, S.E., Internal Report on Regular Army Soldiers’ Attitudes Towards Employment in the Ready Reserve, 1st Psychological Research Unit, Canberra, June 1994, p. 8) many ARA soldiers believed that RRes soldiers were not committed to the Army and were only interested in the tax-free pay, education benefits and job search assistance. Such views were strong even among those regulars with whom the RRes more closely worked. These views have been attributed to the perception of the RRes as a threat to ARA job security.
49. These are Pinch’s words, cited earlier (See note 1).
52. Smith, H., op cit, 1992, p. 16.

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These are Pinch’s words, cited earlier (See note 1).
Smith, H., op cit, 1992, p. 16.

Lieutenant Colonel Hodge is an Army Reserve officer currently serving with the Reserve Staff Group. Having enlisted with 3 Psych Unit in 1972 and been commissioned with 12 Psych Unit in 1975, he subsequently served with OCTU 2 Training Group, Headquarters Training Command and 1 Psychological Research Unit before taking up his current posting. He is currently completing a Master of Defence Studies degree at the Australian Defence Force Academy.
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Reserves make a valuable contribution to the community.

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Common Induction Training

By Captain R. J. Worswick

“We will increase the number and effectiveness of combat troops by strengthening the contribution of reservists or part-time soldiers. Most reserve personnel will have an initial six weeks full time training”.

The plan to revitalise the General Reserve as part of Restructuring the Army (RTA) has generated the need for a better training standard for Part-Time soldiers. It was determined that one way to raise the training standard was to provide better induction training for Part-Time soldiers. Induction training is that required to prepare a soldier to serve in a unit and is comprised of recruit (i.e. all corps soldier skills) and initial employment training (IET) (i.e. specific to corps soldier skills). Having Part-Time soldiers complete the same induction training as Full-Time soldiers (i.e. Common Induction Training or CIT), would raise the present training standard for Part-Time soldiers, better preparing them for service within an integrated Army. Two pilot courses have been conducted at the 1st Recruit Training Battalion (1RTB), one in March/April and the other in July/August 1997, using Full-Time and Part-Time soldiers enlisted to infantry and artillery. As planning for the first CIT course unfolded, and subsequently during the two trial courses, a number of significant issues were encountered that directly impact on the present method of soldier training and development in the Army. This article will look briefly at the evolution of the CIT recruit course to provide a background for a detailed discussion on aspects that impact on soldier training.

Evolution of the CIT Recruit Course

The CIT pilot course attempted to transform the current 12-week recruit course by reducing it to six weeks. Time was made up by the removal of revision periods and administrative activities (e.g. leave, duties, etc.) resulting in 85 per cent of the 12-week course being taught over six weeks. The CIT pilot course provided valuable information with regard to course content and training assimilation by recruits. Most importantly, the course proved to be so physically intense and mentally demanding that there were assimilation problems not usually encountered during the normal 12-week course. This is because there was no time available for revision in the six-week course. It was also discovered that the quiet times during the 12-week course (such as duties and free time on weekends) allowed the recruits to physically recover and mentally “recharge their batteries”. This quiet time also assists training assimilation but again is not available in the six-week course.

The course content for the second CIT trial was markedly different to the pilot course. A training advisory panel consisting of a number of corps and command RSMs examined the results of the pilot course, the TMP for the current 12-week course and the doctrinal basis for soldier training, the Manual of Land Warfare Part 3 Volume 1 Pamphlet 8, All Corps Soldier Training Requirement (MLW 3-1-8). The resultant finding was that recruits were receiving training beyond that required of an individual all corps soldier. This led to a reduction in the amount (not nature) of training to allow more time for revision and proper assimilation of knowledge. The resultant product was a six-week and three day course which accounted for 75 per cent of the instructional periods in the 12-week course. From the outset then, CIT can be seen to have significant ramifications on soldier training in the Australian Army.
two weeks long. To achieve a common standard and at the same time produce a sufficiently trained (all corps) soldier, it was determined that approximately six-weeks recruit training would be required. In planning CIT, it was determined that the minimum commitment a Part-Time soldier will have to make is six-weeks. This means that Part-Time soldiers may not necessarily complete their IET training immediately after they complete recruit training.

IET training varies in length between corps and like the recruit course, Part-Time soldiers would be unable to complete a present IET course in its entirety due to time constraints. Again it was determined that training would have to be adapted to fit within a six week time frame. For many of the technical corps this presents a significant problem, and a great deal of effort has been expended to ensure that each corp can best tailor its existing course to meet their units’ needs, within an approximate six-week time frame.

**Delivery of Training** To cater for the needs of Part-Time soldiers, a degree of flexibility must also be incorporated into the delivery of training to meet time (and resource) constraints. Modularisation of IET training is also being examined to allow Part-Time soldiers that can’t complete their training in six weeks, to attend two three-week modules instead (or three two-week, etc). Modularised competency based training would provide the flexibility to meet the requirements of Part-Time soldiers, whilst still providing the same level of training compared with Full-Time soldiers. Regardless of the method of delivery, the reduction in length of both recruit and IET courses due to time constraints means that an amount of training must be transferred. The concept of “training transfer” is central to the success of CIT and will impact significantly upon the Army.

**Training Transfer** When compared to present induction training, under CIT Full-Time soldiers will have a shortfall in their training when they arrive at their units. This is not a new concept, as all soldiers require further training in their units before being deemed Private (proficient), otherwise known as PTE(P). CIT means that the amount of training that must be made up will increase and it will be the responsibility of units to provide this training (both all corps and corp specific) for their soldiers. The best hypothetical examination of the logic behind training transfer is physical training. Prior to CIT, recruits were required to pass the BFA to march out of 1RTB. However, an infantry soldier was not recognised as being “proficient” until 18 months after the completion of IET’s. Why then should a recruit/IET be expected to be at the same level as a soldier who is PTE(P)? If the time for a C Pass in the 2.4km is 10 minutes, hypothetically speaking then it is logical that 1RTB get all recruits to a standard of 12 minutes, corps schools get them to 11 minutes, and units get them to 10 minutes.

As a result of Project Dunlop, the concept of training transfer was initiated in 1996 with regard to physical training. Project Dunlop determined that there was an alarming rate of lower limb injury amongst recruits, particularly females, and that this was caused by poor physical fitness upon enlistment, and a physical training regime that did not allow for a progressive development from an initially low starting level. As a result of Project Dunlop, 1RTB altered its physical training programme so that recruits were only required to complete a 2.4 km run (this was when the 5 km run was the distance for the BFA), and in conjunction with PTIs at the corps schools, progressive physical training was developed.

The concept of training transfer requires the identification of an end state, and determining a path to reach this end state. MLW 3-1-8 provides the end state by listing the competencies that a soldier must be proficient in. However, soldier training in the Australian Army is deficient because although an end state is identified, there is currently no uniform path to proficiency due to lack of coordination between recruit, IET and unit training responsibilities. In other words, there was no training continuum for all corps and some corps specific soldier skills. Training transfer and the continuum of training is crucial to the success of CIT because when CIT becomes the only method of entry into the Army, units may be responsible for up to 40 per cent of all corps soldier training.

**All Corps Soldier Training** The need to transfer training prompted an examination of soldier training requirements. The doctrinal basis of all corps soldier training is laid down in MLW 3-1-8, which details the all corps competencies a soldier requires to be PTE(P), and for progression through the ranks. However, examination of the doctrine reveals what can best be described as a training imbalance, which has shaped the conduct of CIT and will have far-reaching implications for the Army. The imbalance is that in the two years that it takes an infantry soldier to become PTE(P) (three months recruit training, three months IET training and then 18 months on the job in a unit), 90 per cent of the all corps training competencies are achieved in the first three months of the soldier’s career, before the completion of recruit training.

**Continuum of Training** Another significant finding was that there was no formal continuum of training and assessment that would take a soldier from 90 per cent trained at the completion of recruit training, to completely trained in all corps.
competencies as per MLW 3-1-8. The degree to which training in specific competencies continues in IET schools varies considerably depending on corps. There is no synchronous between the recruit TMP and the various corps IET TMPs, therefore soldier training is neither continuous nor progressive. The most telling example of no training continuum is the F89 LSW, which is currently not taught at 1RTB. Most corps schools do not provide formal instruction on the F89, which means that the first time a soldier is formally tested on the F89 is when that soldier is giving lessons on it during his/her Subject One for Corporal. However, MLW 3-1-8 states that a trained soldier must be able to “apply fire with selected Service weapons”. Theoretically then it would seem that a significant proportion of soldiers deemed to be PTE(P) are not so.

**Competency Log Books** The requirement to transfer some aspects of all corps and corps specific training produces the requirement for a formal method of accounting for a soldier’s proficiency in training competencies. However, this method already exists and is used by some corps, and extensively by the Navy. It is the competency log book, which is a record of training that follows soldiers through their career, formally documenting the attainment of training competencies. The competency log book is crucial to the success of CIT as it identifies the training a soldier needs before being deemed PTE(P). It is particularly important though for Part-Time soldiers, who may take up to two years to complete all of their recruit and IET training.

Competency log books will have a far-reaching effect when introduced, and not just with respect to induction training. The continuum of training required for a soldier from recruit to RSM will be documented in the competency log book. Why should a soldier have to attend an entire Subject Course, if some of the competencies required at the completion of the course had already been achieved and formally recorded in their competency log? This is particularly relevant for Part-Time soldiers who could complete an IET or Full-Time subject course by modules, with the qualification formally recognised when all training competencies are recorded as attained in the competency log.

The competency log book can also provide information for determining pay and allowances for soldiers. For private soldiers, the competency log would provide formal documentation of attainment of the training competencies for PTE(P). If a soldier’s competency log book shows that he/she has achieved the training competencies required for PTE(P), why should this soldier not receive the higher pay level? This would also apply if a performance-based pay system based not on time in rank but on qualifications gained, was introduced. The competency log book would also provide flexibility for soldiers changing corps or re-enlisting by documenting competencies already attained, and therefore identifying the training shortfall that would have to be achieved to make that soldier competent in their new corps.

**Training Continuity** The introduction of CIT means that there must be a continuity between the completion of recruit training and the commencement of IET training. A recent examination showed that on average, soldiers wait 17 days to start their IET course, although the soldiers that entered 1RTB on 18 August 1997 that were selected as ECN 345 Rigger will have had to wait 86 days before starting their IET course. This is inefficient use of training time, and must certainly have a negative impact on the morale of soldiers who find themselves “bashing dixies” whilst waiting to start training. Batching and mustering (i.e. recruiting soldiers to specific corps to start their IET course on a certain date) at the point of enlistment would alleviate this problem, although this may not be practical.

A proposal currently being examined is the feasibility of holding soldiers who have completed recruit training at 1RTB until there are sufficient numbers to commence an IET course. In other words, 1RTB would be batching and mustering to the Army. The advantage of this is that with the development of a training continuum and competency logs, these soldiers could be trained and tested in specific competencies whilst waiting to start IET training, therefore reducing the training transfer and making up some of the training that IET schools could not tailor into their six-week course. In this case it is not unrealistic to assume that some soldiers will leave 1RTB as qualified or more qualified than their counterparts who completed the 12-week course.

**Unit Training Cycles** As Land Command units will be responsible for up to 40 per cent of the individual training requirements for Full-Time soldiers due to the transfer of training from training establishments, CIT will effect unit training cycles. The “embedding” of Part-Time soldiers into the establishment of Full-Time units results in further individual training liability, to provide revision and continuation training for these Part-Time soldiers during periods of Full-Time service. This will impact on present training priorities, with less emphasis on collective training (i.e. field exercises) because of the requirement for individual training. Unit training cycles are likely to resemble those of the Vietnam War era, with greater time spent on (formal) individual training and development in barracks and less time spent in the field.
**Throughput** CIT will significantly impact on the throughput at 1RTB and IET schools. The net training liability (NTL) for these schools will increase, with 1RTB estimating that its NTL will increase three fold. It is reasonable to expect that Part-Time soldiers will make up the larger proportion of trainees during the November - February period, when the majority of Part-Time personnel will be on leave from their usual employment, or on study break. During the remainder of the year it can be expected that Full-Time trainees will be in the majority. This scenario is similar to the RRes scheme and the similarities between CIT and RRes are in some cases, indiscernible.

**RRes Revisited?** There are many similarities between CIT and the RRes. The aim of improving the individual readiness of Part-Time soldiers remains unchanged. A study conducted in May/June 1997 found that the Part-Time soldiers likely to be recruited for CIT will be from the same backgrounds as the RRes. The conditions of service for GRes soldiers undergoing CIT may be improved (as it was for the RRes) and the opportunity for transfer between the Full-Time and Part-Time Army as the RRes experienced, will most certainly be a feature of the new “One Army” concept. The majority of training will be conducted during the November - February period as was the case with the RRes. Although Part-Time soldiers that complete CIT will not undergo a year of full-time training, under RTA it is proposed that they be embedded in Full-Time units to provide the expansion capability.

**Screening** The success of CIT strongly depends upon correct and comprehensive screening procedures being conducted at the point of enlistment. Screening is used to determine an individual’s physical, medical, psychological and personal suitability to undergo recruit training. The intensity of the CIT course places greater demands on recruits with less scope for back squadding, particularly for physical training deficiencies and/or injury. The most important finding of Project Dunlop was that there was a positive correlation between poor starting fitness level and the likelihood of a recruit not finishing training. This correlation was proven by a study conducted at 1RTB that determined that a recruit who cannot pass a pre-training fitness assessment (PTA) (consisting of a “beep stage test”*, 15 pushups and 45 situps) had a greater than 50 per cent chance of not completing recruit training, and in the case of female recruits, had a high likelihood of suffering permanent lower limb injury. This was confirmed on the CIT pilot course, where of the four recruits who did not pass the PTA, three failed to complete the course and the fourth was unable to commence IET training due to stress fractures. After the pilot course it was decided that successful completion of the PTA at the point of enlistment would be a pre-requisite for CIT.

**Conclusion**

The advantages of CIT and the resulting changes to soldier training are perhaps greatest for Part-Time soldiers. Better training and resources will improve the quality of individual soldiers and units, and allow for integration of Part-Time soldiers into Full-Time units. Modularisation of training and developmental courses will allow Part-Time soldiers to undertake the same courses as their Full-Time counterparts, many of which are currently denied to them. Most importantly, the common standard of training will allow Part-Time soldiers to transfer to the Full-Time Army, and vice versa. This exemplifies the “One Army” concept upon which RTA is based.

CIT is inevitable and it will impact on the way that Army trains its soldiers. It will necessitate a change in the emphasis from collective to individual training and many units may think that the basically trained soldiers they are receiving from IET schools will not be as good as their predecessors, and that this will impact on the operational effectiveness of their units. What they must realise is that no soldier that has marched in to a unit has been “proficient”. From the preceding discussion it can be seen that CIT acknowledges what training hasn’t been done, quantifies it, and now makes sure it’s done properly.

**NOTES**

2 Periods allocated to revision and administration activities were not included in calculations.
3 The figure of 18 months is drawn from the author’s experience whilst posted to 1RAR. INDMAN Volume 1 Instruction 0101 states that a soldier is eligible for PTE (P) after completing a minimum of 12 months service after the completion of IET training.
4 The F89 was introduced into the CIT Recruit Course after recommendations by the training advisory panel.
5 From the HQTC-A Recruit/IET Plan Training Year 1997/98 correct as at 16 May 97.
6 The beep stage test is a 20m shuttle run. An audio tape emits a “beep” sound every time the runner should turn to commence the next shuttle. As the test progresses the beeps get closer together. The standard of 7.5 for recruits is equivalent to a pass in the BFA for a 40 year old. (i.e. 1200m in 6 minutes 30 seconds).

Captain Worswick graduated from ADFA with a Bachelor of Science Degree (Hons). He served as Platoon Commander and Company 2IC with 1RAR from 1993-95 during which time he was involved with Operation Solace. From 1996-97 Captain Worswick was Adjutant of 1st Recruit Training Battalion. He is currently posted to AST Headquarters and studying a Masters of Defence Studies through Deakin University.
Learning to Lead: A Contextual Model for Educating and Training Leaders

By Major E. J. Stevenson, RAAC

In the billions of acts that comprise the leadership process, or parts of it, a pattern can be discerned that makes possible generalizations about leadership, generalizations that in turn would underlie an effective general theory and serve as a guide to the successful practice of leadership. The answer will not be found in conventional wisdom and the hoary adages about leadership - that leaders are born and not made, or made and not born, they must be trained, or cannot be trained, that they have to exhibit certain physical qualities like imposing height or unusual endurance or commanding voice, or mental qualities like memory for faces and names or unusual intelligence, or magical qualities... leadership... is a function of complex biological, social, cognitive, and affective processes, that it is closely influenced by the structures of opportunity and closure around it, that it may emerge at different stages in different peoples’ lives, that it manifests itself in a variety of processes and arenas...

James MacGregor Burns

Introduction

Leadership is an elusive art, an influencing process that must be learnt over time and, as Burns indicates above, involves the dynamic interaction between the leader’s intrinsic knowledge, skills and attitudes, and external factors such as the environment in which the leader operates. As a complex phenomenon, despite numerous books on the subject, scholars of leadership have made limited progress in developing a widely accepted model of how leaders actually lead. If agreement cannot be reached on how the process works, what hope is there for educators to be able to teach leadership to those aspiring to lead?

Nearly everyone who commands, controls or persuades other people, has a view on how leadership should be instilled in others. While the methods they propose vary, most have concentrated on engendering specific desirable traits using what could be termed a “cook book” approach - identify the ingredients of a good leader, mix them judiciously in a leader aspirant and you can produce a Nelson, Napoleon or a Slim. But success with this technique is not guaranteed and evidence of it consistently producing good leaders has been erratic.

Furthermore, most of the existing models of leadership are not supported by reality because, in concentrating on a leader’s traits, behaviour or espoused vision, they have tended to be too narrow in their description of the complicated process. What is needed is a more holistic description of leadership, a strategic look at the intricate variables described by Burns, because it is only by standing back and viewing the process in its entirety that the true nature of the leadership phenomenon can be identified.

Historical Development

For the purposes of this article, leadership is defined as, “...the ability to get others to do what you want them to do, because they want to do it.” The key aspect of this definition is that it is an influencing process where the followers are committed to the leader’s goals and have a genuine desire to work together to achieve some activity. Over the years a number of approaches have evolved to describe leadership and a short description of the main ones will serve to introduce the reasoning behind the proposed model.

Trait Approach

Up until the 1950s, researchers believed that leadership could be understood by identifying two things, the different physical or personal traits exhibited by leaders and followers, and the qualities of good and bad leaders. The concept was, if a common set of traits could be found in good leaders, for example integrity, courage or decisiveness, those aspiring to be leaders need only emulate the important traits, and avoid the less desirable ones.

However, research failed to clearly establish any universally accepted correlation between specific traits of a leader and his or her performance, although...
a reasonable correlation was found between leadership and intelligence. Fiedler also found a correlation between intelligence and effectiveness, but qualified his findings by indicating that the results were highly situational. Unfortunately, for many years the influence of the situation remained understated in early research as entire schools of leadership searched for a panacea to the leadership conundrum. It was also discovered that traits were not a reliable indicator of a successful leader because some people clearly demonstrated many of the desirable traits, yet they did not live up to expectations when placed in a position of leadership, for example Major General Neil Ritchie in North Africa in 1942. Conversely, some very good leaders with few of the more overtly popular traits were particularly successful, Mahatma Gandhi for instance.

To complicate the issue, in many cases what are often described as traits are in reality a set of learned behaviours. For example, courage is frequently touted as an admirable trait in a leader, yet there is no indication that people are born courageous, rather it is either learned over time in response to external pressures such as fear of failure in front of followers, or it is forced on the leader by virtue of the circumstances. This is supported by recent psychological research which suggests that people are actually only born with five intrinsic traits, introversion/extroversion, neuroticism, degree of agreeableness, conscientiousness and openness to experience.

### Behavioural Approach

Dissatisfaction with the Trait Approach led a second school of researchers to suggest that an evaluation of the leader’s actions may hold the key. Although a number of studies were undertaken, the most famous group of researchers were at Ohio State University. They looked at (Figure 1) the effect on task completion of the interaction between consideration for subordinates and initiating structure (the level of direction provided by the leader).

Despite early results supporting their hypothesis that high consideration and high initiating structure provided the best indicator of good leadership, it was not replicated in later experimental work. Although consideration for workers and the leader’s degree of direction to them are an aspect of leading, researchers were beginning to realise that factors other than consideration had an influence on the leader’s effectiveness; for example they began to realise that the task itself and working conditions warranted serious consideration.

![Figure 1 - Ohio State Leadership Styles](image-url)
The search for a more accurate description of the leadership process led Blake and Mouton to develop the Managerial Grid, which was later refined to the model at Figure 2. Blake and Mouton felt that a leader’s style was based on balancing a concern for people with a concern for production.

Despite extensive development, all the behavioural models were still concentrating on aspects of leadership, not the whole phenomenon. However, they did have some utility in that under certain circumstances, they could model some leadership behaviours. The search for a more accurate model therefore continued.

**Contingency Approach**

From the late 1960s, a third major approach emerged when research indicated that leader behaviour was not the sole explanation for the leadership process. It was termed the Contingency Approach and leadership was described using “situational modifier variables”, the key elements of which House defined as task, environmental and individual. It was based on the earlier inspirational work by Fiedler, in which he examined the influence of the leader’s style and the situational aspects, concentrating on leader-member relations, task structure and positional power. Models in the Contingency Approach advocated that there were more than two variables influencing the leadership process, and that any examination of leadership must allow for the complex interaction between these variables under a variety of situations.

A number of models have been developed, but space precludes their discussion in this article.
However, one that is pertinent to the model introduced later was developed by Hersey and Blanchard, and based heavily on the Ohio studies. Hersey and Blanchard looked at situational theory and introduced a new variable - consideration of the task being performed. They believed, “The leadership style of an individual is the behaviour pattern that a person exhibits when attempting to influence the activities of others...” See Figure 3. One of their main hypotheses was that the leader becomes more relationship oriented, rather than task oriented, as the group members’ maturity increases. They later went on to develop the model to incorporate an “effectiveness” dimension which made it tri-dimensional, thereby allowing for situational demands and supposedly making it more predictive of the leader’s behaviour. This model is important because it emphasised that the leader’s behaviour is dynamic, where previous models lacked flexibility in this area. In a third version of the model Hersey and Blanchard incorporated a bell curve pattern of directive behaviour which described leadership styles ranging from delegating in the low end of the spectrum, through supporting, coaching and directing at the high end (Figure 4).17

In his book The Competent Manager, Boyatzis presents the results of a study to identify which personal characteristics correlate with effective managerial performance.18 Although he was directing his research at managers, many of the competencies required of an effective manager are similar to those required of an effective leader. The competency based model he developed for his study has become known as the “onion ring” model and, like previous leadership models, depicts the art of influencing as the demonstrated behaviour resulting from the interaction between the manager and his or her environment.19 His interpretation of the decision making process has a number of advantages over earlier models in that it allows for the central influence of critical skills and values on the manager’s performance. It also has the advantage of incorporating a wider range of situational factors than previous models, thereby providing the manager with more complete information for his or her decision making.

Of all the models examined for this article, Boyatzis came the closest to depicting the process of leadership, although even his model had a number of serious weaknesses. An integral part of a manager’s work is managing people, yet Boyatzis seems to ignore this critical element in his model, and he does not allow for the complex interaction between the individuals being managed. Furthermore, the interface between the variables in the model is not as
clearly delineated as the model suggests, as all the factors have an effect on each other, with the extent of that effect varying depending on the situation. Similarly, the task is not necessarily part of the organisational environment as it can exist as a dominant factor in itself, and the reasoning why traits and motives are surrounded by self-image, which is linked rather unusually with social roles, is not clear. A manager will have a variety of important values and attitudes which will colour his or her behaviour, for example, integrity, responsibility and selflessness - none of which are true traits or values. There is also no mention of the manager’s knowledge, a critical aspect in either managing or leading. But perhaps the strongest criticism of Boyatzis’ model is that, like the earlier leadership models, it provides a limited description of some of the more important competencies, not how an individual actually manages or leads.

In summary, many of the above models concentrate on specific aspects of leadership and although each has some merit under certain circumstances, most do not weather accurate testing and scrutiny. In particular, existing models do not encompass all the activities involved in leading and tend to ignore many of the external influences on the followers. The search for a more comprehensive model therefore continues amidst exhaustive debate between the proponents of the various approaches. A more holistic model will therefore be suggested.

A New Model of Leadership

In essence, leadership is the behaviour resulting from the dynamic interaction between a set of key competencies and the context within which those competencies operate. This phenomenon may be described in the model at Figure 6.

At the centre of the model are the essential competencies required of a leader, the knowledge, skills and attitudes most often taught on leadership courses. Despite the inference to the contrary within earlier leadership models, the competencies are dynamic, constantly developing and maturing with time and experience. Furthermore, they are contextual and therefore subject to the nuances of a combination of the organisational context, group dynamics, physical environment and the nature of the task being performed. To claim that a single aspect of leadership controls the whole process is misleading and it is therefore not surprising that previous models had difficulty describing leadership outside the parameters of their conception in the laboratory.

Figure 4 – Situational Leadership
The concept of a holistic approach to leadership is not new as many pundits have articulated certain aspects of it in the past, but the emphasis on the leader’s behaviour resulting from the marriage of internal and external variables is somewhat evolutionary. As it may generate some debate, a brief discussion of each of the variables is warranted.

**Competencies**

In the report *Enterprising Nation: Renewing Australia’s Managers to Meet the Challenges of the Asia-Pacific Century*, Karpin et al, list a number of definitions for a “competency” including:

*An underlying characteristic of a person (which can be a motive, trait, skill, aspect of one’s self image or social role, or a body of knowledge which the person uses) that is necessary for the successful performance of a particular job.*  

The competencies in the model are more than the sum of their parts and this is why the model depicts a capability to lead, not simply a collection of learned behaviours. It is also recognised that the competencies required of a leader are not solely restricted to leadership, as they may be learnt and used in other areas such as management, marketing or teaching. Unlike previous models, it is not so much a case of which individual competency is needed - intelligence, physical dexterity or oral skills, as all may be needed to varying degrees, it is a matter of which combination of competencies orchestrate behavioural responses at a particular point in time. The key determinants of the appropriate response are the extrinsic circumstances impinging on the leader, and all need to be taken into consideration, if only for a very brief period. This is one area where previous models were lacking.  

Competencies should not be confused with tasks, as competencies underpin tasks. Furthermore, tasks can change, whereas the underlying competencies evolve over time and remain largely unchanged. An example of the type of competencies required of a leader may be seen in those proposed by the Management Charter Institute in the United Kingdom.  

Competencies therefore form the core of leadership and occur in the three key areas discussed below.

**Figure 5 – Boyatzis Model**
Knowledge

The content of leading - the knowledge that leaders must have - is almost always thought of as more important as a determinant of leadership effectiveness than the process of leading. Such things as knowing the state-of-the-art-theories and practices in a profession; understanding human behaviour, situations, environmental stress, and future trends; having a grasp of the technical information and even an imputative understanding of what all these new ideas mean for the profession or organization one is leading, these are the real essence of leadership, the stuff that separates the real people from the quiche makers.

Joseph Rost 24

Knowledge of oneself, one’s profession or trade and more particularly, one’s followers is required. Rost’s statement is only partially correct as technical knowledge is but one aspect, a good leader can also use the knowledge of his or her followers to achieve the aim. In the context of the model, knowledge is “learned information” and differs from intelligence, which, although it is not a mandatory requirement, would be an advantage. Knowledge provides a leader credibility, status, and a degree of expertise, it boosts his or her confidence and allows the leader to understand what is happening around him or her and respond accordingly. Langenbach also believed:

Knowledge cannot be as easily equated with performance (as skills). One can know something, but not act on it. If knowledge is required for a certain performance, it must be learned before the performance can be expected. Knowledge can be viewed as affecting the capacity for changing performance. 25

Knowledge supports understanding and allows reasoning by permitting the leader to comprehend all the external influences, decide appropriate actions and behave accordingly. The gaining of knowledge should also be seen as a continuum, maturing and growing with each leadership experience.
The knowledge should be contextual as far as possible, for example, schools similar to the “Outward Bound” style, facilitate leaders gaining knowledge of their own values by placing them under stressful physical conditions to help them “find” themselves. Conger conducted studies into the effectiveness of this type of generic training and concluded that, other than providing a knowledge of outdoor roping techniques, the leadership lessons learnt were often not related to performance in the workplace and therefore of limited value.

Skills

A skill is a practiced ability and Baker believes that leadership skills may be:
- conceptual
- communicative
- human relations/interpersonal
- counselling
- decision-making

Similarly, Hersey and Blanchard believe technical, human and conceptual skills are needed. Like knowledge, the skills are dynamic and are learned through a combination of experiences and structured lessons and, although some skills dominate the leadership process at various stages, no single leadership skill is applicable in all situations.

Attitudes

Attitudes are elusive. Typically attitudes are inferred states of mind or predispositions. Certain behaviours can reflect certain attitudes, and vice versa.

The Australian Army’s School of Instructional Training described attitudes in a 1986 document as, “An internal frame of mind which tends to affect an individual’s choice of action toward some object, person or event.” Attitudes are difficult to measure directly but key indicators of attitude can be observed, for example a positive attitude may be evidenced by adherence to instructions, enthusiasm for completing assigned and implied tasks, and the absence of fraud. Attitude is closely linked with skills and knowledge and tends to operate at a higher order of magnitude. At the Chief Executive Officer level, where a leader is often removed from direct interaction with his or her followers, a leader’s attitude may be more important than his or her detailed subject knowledge or communication skills.

The most important aspect of attitude is a leader’s values. Values inspire and shape the leader’s behaviour by providing motives, goals, reason, conviction and direction, the will to continue with a task long after some people have surrendered. For the exceptional leader, it is the essence of the vision which gets extraordinary things out of ordinary
people. In research conducted in both New Zealand and Australia, Blyde and Bebb found that, "...77 per cent of executives strongly agree that developing as a leader starts on the inside with one’s values, motives, and assumptions." 31

**Behaviour**

Behaviour is the way a leader acts or reacts in a given situation and is the key to integrating the diverse variables in the model. In effect it is the conduit between the essential competencies and the external contextual variables. The behaviour is continuous, can be modified through learning from experience or practice, and may be either voluntary or involuntary. Behaviour has either been the missing ingredient in previous models, or only one narrow aspect of behaviour, such as leader-follower relations, has been considered.

Based on the work of Kurt Lewin, Kolb et al, presented a model of the learning process behind behaviour.32 They saw it as a continuous, four-stage cycle which allows individuals to conceptualise and ultimately extrapolate ideas based on critical reflection on experiences. They also believed that the process was continuous as the individual frequently evaluates and re-evaluates the learning.

Although there are many ways of learning to lead, the importance of Kolb’s model is that it provides a theoretical construct for learning leadership behaviour.

**Organisational Context**

The human being is by nature a motivated organism. The organization is by nature structured and controlled. It is the function of leadership to modify the organization to provide feedback for individuals to realise their motivation potential for the fulfilment of their needs and to contribute to the accomplishment of organisational goals.33

A leader does not operate in isolation, he or she is subject to the support and constraints of his or her parent organisation. Key aspects of the organisational context affecting a leader include the culture, hierarchical structure, and the organisation’s vision, mission and goals.

**Culture**

Any culture - national, bureaucratic, or organisational - emerges out of its particular history, geography, technology, and philosophy. No two are alike.34

Kolb et al, describe organisational culture as “...a pattern of shared values and beliefs that produce certain norms of behaviour.”35 They state that strong cultures are characterised by:

a. People in the organisation can easily identify the dominant values.
b. The selection processes target people who are likely to fit into the culture and find it satisfying.
c. Socialisation and training convey to newcomers the “ropes” they need to learn.
d. Employees who do not fit the culture or produce in accordance with its values are sometimes fired.
e. People within the company are rewarded for acting in accordance with the dominant values of the organisation.
f. By their behaviour, leaders and managers send clear, consistent signals about desired values and norms.
g. Managers measure and control what is important to the culture.36

Culture therefore has a strong impact on the leader’s behaviour by creating, as Stoner et al describe, “The set of important understandings, such as norms, values, attitudes, and beliefs, shared by organisational members”.37

**Hierarchical Structure**

Most organisations operate within a strict hierarchical structure, particularly the military. This can assist the leader by providing a clear delineation of responsibilities, positional power, avenues for advice and issue resolution, and access to resources not otherwise available to an individual. Coupled with culture, it has the potential to save time, reduce confusion, avoid overlapping and may help generate a respect for the overall worth of the task being undertaken.

**Organisation’s Vision, Mission and Goals**

Finally, a leader’s own vision, mission and goals are likely to be influenced by the organisation’s and this is likely to effect his or her leadership style.

**Group Dynamics**

Group dynamics is the study of the interplay of ideas, forces and actions within a group. A leader needs to be aware of group dynamics and take into consideration the forces and strengths acting on a group when making decisions. As with Organisational Context, the group undertaking a task is likely to have its own group norms, goals and expectations, which may or may not mirror the parent organisation’s. Contrary to what some anarchists and
nihilists may claim, group synergy studies show that groups are generally more efficient or productive than individuals. The actions of a leader who moulds the group’s activities to make them more effective is not always a sinister manipulation of power.

A leader needs to take into consideration that the group creates a sense of belonging and social interdependence, power, experience, interdependence, and structure, and his or her behaviour should be adjusted accordingly. In summary, humans are social beings and perform better when group dynamics are utilised effectively.

Task

The term “task” applies to the action or actions to be undertaken by the group and is normally qualified by time, function and or location. All tasks are not the same and different leadership behaviours may be required. For example, the task may range from easy, through medium to complex, it may need to be done now, soon or later, and completed in the short-, medium- or long-term. To further complicate the issue, the task may also be classified as either:
- important and urgent;
- important but not urgent;
- not important but urgent;
- not important and not urgent.

All these types of tasks necessitate a range of reasoned behaviours from the leader and show that the nature of the task has a larger impact on the leader than intimated by previous models. Most earlier models seem preoccupied with aspects of the leader’s qualities, paying insufficient heed to the situational variables, and omitting discussions on the nature of the actual task being performed. There may be a number of reasons for this, the model’s proponents may have preferred to concentrate on the generic qualities of a leader, qualities operating across a variety of tasks and situations, or they may have believed that their particular model’s value lay in a sound replication of one aspect of the process. While these may be true, consideration of specific aspects, without considering the task to be performed, is a limited view of the total process of leadership.

Physical Environment

Undertaking tasks in the relative comfort of an office is likely to be different from completing the same tasks in the central Australian desert. The physical environment normally affects a leader’s behaviour and includes the geography and weather related to the conduct of the task, the physical resources, for example computer equipment, budget, specialist tools, and even the availability and nature of the human resources. T.E. Lawrence’s resources in uniting the Arab Tribes in the First World War differed markedly from those available to Norman Schwarzkopf in his leadership during the Gulf War. The physical resources available to a leader have a marked effect on the task being performed and the leader’s behaviour in influencing his or her followers. Why earlier models ignored available resources is not known.

Significantly, the Dynamic Capability Model is applicable at varying levels depending on the position of the leader - at the “operational” level on the shop floor, at the “theatre” level in the realms of middle management and at the “strategic” level in the Chief Executive Officer’s domain. The model also has utility for a number of specific uses, for example:
- it provides a relatively simple visual conception of a complex process;
- it has the ability to accommodate an infinite variability of operations;
- it provides points of comparison for leadership discussions/behaviours in different circumstances, or different leaders in similar circumstances;
- it has the potential to aid prediction.

Initial Testing

To examine the model’s validity, initial testing was conducted on cadets undergoing initial officer training to be leaders at the Australian Defence Force Academy. Each year the Academy conducts a four day leadership activity near Canberra for officer cadets from the Navy, Army and Air Force in their second year of study. The activity is called Exercise Leadership Challenge II and consists of small groups of up to 10 cadets completing 22 physical and mental leadership tasks around a 60 km circuit. Each cadet, whether male or female, must carry 30 kgs of personal field equipment with them. The stated exercise objectives are for cadets, “To apply attitudes, knowledge and skills of teamwork and leadership; to lead and be an effective member of a group in a challenging environment.”

An analysis based on a combination of individual cadet questionnaires and personal interviews was
undertaken to evaluate the cadets’ leadership experiences. The theoretical framework for the analysis centred on identifying what influenced the leaders’ behaviour and to some extent, why. The questionnaire was designed to establish the effects and content of the learning process, while the interviews were aimed at determining the differences in the decision making process between successful and unsuccessful leaders.

The preliminary data indicated that the Dynamic Capability Model accurately described the cadets’ leadership experiences on the Exercise. Cadets believed that when they were placed in a leadership role they would examine the task, identify what resources were available, consider the constraints impinging on the activity, make a plan, then direct and monitor the group based on previous learned experiences. Their behaviour conformed to Kolb’s model (Figure 5), that is, reflection on concrete knowledge and skills experiences, followed by formation of abstract concepts and generalizations, resulting in the application of concepts in new situations.

Effective leaders explained that they based their decisions on past successful leadership activities, ineffective leaders had difficulty identifying what had influenced their behaviour but frequently cited “instinct”; an instinct that invariably proved wrong. Not surprisingly, the more the successful behaviour had been practiced, the more effective the outcome. Two further elements about the quality of previous behaviours were evident, leaders were most successful when the previous task undertaken closely resembled the current activity, and behaviours that taught flexible problem solving activities were normally more valuable in complex problems.

The cadets were specifically questioned about the external factors affecting their behaviour. The majority agreed the group dynamics, physical environment, the task itself and to some extent the organisational context influenced their leadership style. More importantly, the cadets could not identify any other external variables that influenced their behaviour.

Further testing of the model in the private and public sectors is continuing, with studies currently being undertaken with leadership consultancy firms, the Commonwealth Scientific and Industrial Research Organisation and St Mark’s National Theological Centre. Initial indications of the model’s universal validity are encouraging.

Learning to Lead

It is possible to teach leadership using the Dynamic Capability Model because it breaks the leadership process down into its component parts. Someone charged with inculcating leadership in individuals need only teach the model’s key components and create an environment conducive to learning leading. In effect, the model acts as an integrating framework, drawing all the component variables of leadership together to present a holistic view of the process.

The validity of each of the components in the model has already been established in leadership research. Firstly, there exists a wealth of literature on what elements make up the knowledge, skills and attitudes required of a good leader. Secondly, the external variables for each leadership situation are given and therefore it is possible to teach prospective leaders those contextual aspects applicable to their future leadership roles. The aspect of which behaviour is appropriate is more complex. Fortunately there are a range of existing models to indicate how a leader should act in a specific leadership situation. Based on the integrating framework provided by the Dynamic Capability Model, a leader should select the most appropriate actions for a given situation, for example Hersey and Blanchard’s Situational Model may indeed be the best guide to behaviour under certain circumstances (providing the model is not considered in isolation). However, caution should be exercised in not using the same model in every leadership situation as the variables will undoubtedly change with the situation.

Conclusion

The leadership process is a complex phenomenon which, despite the best efforts by those aspiring to master its intricacies, remains an elusive, almost magical art that often defies understanding. Various approaches have tried to explain the process, the Trait, Behavioural and Contingency schools for example, but often theories developed in the laboratory do not survive testing in the real world. This may be due to the fact that each of the approaches tended to concentrate on specific, though popular aspects of the leadership process, rather than taking a holistic view of how a leader behaves.
In essence, leadership is the behaviour resulting from the dynamic interaction of a set of essential competencies, and the context within which those competencies operate. This interaction may be depicted in a simple model, the Dynamic Capability Model, which shows leadership operating within three concentric circles. In the centre are the competencies required of a leader, the knowledge, skills and attitudes most often taught on leadership courses, in the outer circle are four situation dependent, external variables, and in between, a behaviour circle which acts as the two-way conduit between the two.

Leadership is a learnt behaviour involving critical reflective thinking over a period of time. Rather than teaching leadership theory in isolation, it needs to be inculcated as a continuum, not through a “cook book” approach of memorising certain traits or skills, but through an understanding of the external and internal variables mentioned above. The model can be used to teach leadership to those aspiring to lead because it allows the leadership process to be broken down into its component parts, each of which can then be taught in the most appropriate context.

NOTES
2. L.M. Jarman, The Major General Sir James Harrison Memorial Lecture: 29 November, Royal Military College Duntroon, Canberra, 1990, p. 120.
6. ibid., p. 337.
16. Hersey and Blanchard, pp. 128-129.
17. ibid., p. 257.
19. ibid., p. 35.
23. ibid., p. 106.
33. Bass, op cit., p. 43.
36. ibid., p. 367.
37. Stoner, Freeman and Gilbert, op cit., p. 182.

Major Stevenson has contributed to the Australian Defence Force Journal on a previous occasion. This article is based on the work he is undertaking for his Doctoral Thesis at the Australian Defence Force Academy, where he is in his second year of part-time study. Major Stevenson is currently posted to Army Headquarters where he has been seconded to the team managing the transition of the Defence Reform Program within Army.
Harnessing The News Media During Conflict

By Wing Commander A.E Dowse

“There is inevitably going to be extensive media coverage of any modern conflict. The public will demand it; it is an essential part of maintaining support for our efforts in the war, and we the military might as well get used to the idea and work out how best the process can be managed for the national good.”

Introduction

Before 1990, military planners considered study of the media as somewhat of a peripheral activity. Since then, the attention given to the impact of the world’s media of foreign and security policies, particularly on the successful application of military power, has increased dramatically. The media’s ability to influence public opinion, particularly through its use of instantaneous reporting and powerful imagery, together with the importance of public support to a nation, makes it a powerful player in the development of foreign policy and military strategies.

The development of technology has made information an essential component in the conduct of war, thus the military is obligated to develop skill in utilising that component as a combat multiplier. This obligation is widely understood in the military as it applies to information warfare and the development of technical capabilities associated with command, control and intelligence systems. However, the development of skill associated with the management of public information is at least as important. This skill necessarily involves consideration of the media and how best to utilise the power of the media in the event of conflict.

The Government-Media Relationship

Independence of reporting by the news media is imperative in a liberal democracy. Thomas Jefferson wrote that “our liberty depends on freedom of the press, and that cannot be limited without being lost”.

The news media has such a significant role in a democratic society that it is commonly considered as the “fourth estate” of government in the US.

The Government relies on the news media to inform and interact with the public, which in turn helps the media draw audiences and raise circulation. This relationship benefits both parties, yet invariably it is contentious. Both the Government and the news media have an obligation to serve the public interest, although they often have divergent views of that interest. This conflict can be attributed to two factors: the media’s role as a “watchdog” and the potential for private interests to influence both institutions.

The media’s role as a government watchdog is based upon its need to be certain of the truth of what is reported and to protect society from the power of government, instead of simply acting as an information conduit. This role raises the issue of a democratic society’s need for open and informed debate versus its need for secrecy in the conduct of an effective national security policy. An ideal populist democracy would feature such open debate of policy matters, although populism is not entirely achievable in that the media and public “do not have the knowledge of national security issues, nor the supporting intelligence information to make an informed decision”. Thus, the intelligence and analysis capabilities of the Government provide an underlying source of much conflict between Government and the media.

Both Government and media can be influenced by private interests. Government’s private interests are entirely political, with foreign and security policies often influenced by the proximity of an election. Information release to the public may be controlled on the basis of its political sensitivity and consequent perceptions of the Government’s performance, rather than on national security grounds. The media’s private interests relate to competition, in that circulation and audience share can outweigh the need to serve the public interest. A more sinister side of the Australian media is that its private interests could be affected by media ownership, which will be discussed later in this article.

The remainder of this section will examine the nature of the news media, control of the news agenda, the public opinion influence and the media ownership issues affecting the Government-media relationship.
The Nature of the News Media

The news media must attract and retain its audiences attention to maintain competitiveness. This necessity manifests in confrontational, sensational and shallow reporting, as well as the dominance of imagery. Images may convey powerful impressions to the audience, although context and analysis are needed (and often neglected) to explain them. Whilst television is more at fault than the print media in this respect, television is the dominant means of disseminating news to the public. Moreover, television provides a fixed format of short news stories – foreign policy issues are generally allocated only three to four minutes of a news bulletin. These stories are necessarily episodic, giving little background to the piece. The print media provides relatively greater depth and is more reflective and organised, but whether an individual reads articles in that depth is entirely discretionary. Thus, the public may form an opinion from a simplistic television news item, but feel disinterested in further investigating the matter in any detail.

The development of global media networks, particularly satellite, has increased the timeliness and volume of news information. In the absence of the media’s capacity to analyse this information, the increased speed and volume do not greatly enhance understanding of foreign and security policy issues by the media or the public. The news media is less interested in the cause of acts than the acts themselves, and places more importance on a desire to influence government actions than on promoting understanding of international affairs. Television news organisations, in particular, often present complex, political situations in personal and emotive terms that appeal to audiences without providing a foundation for critical analysis. The media is not entirely to blame here, as the problem can also be attributed to the lack of discussion by successive governments on strategic policy. The problem of media’s focus on entertainment and audience share at the expense of news quality and enlightenment has the potential to create tensions between nations.8

Who Sets the Agenda?

The primary contributors to the news agenda that affect security and foreign policy are events, the Government and the Opposition. In this context, events include the actions of foreign governments, as well as conflicts and crises. The media shows great interest in the views of elected officials. In particular, public information releases from the Government arefavoured more than most sources because of ease of access, media’s need to maintain a relationship with the Government and the usefulness of citing and challenging authority.9 In this respect, the government has a significant role in setting the news agenda. Opposition press releases are alsofavoured in that they provide a valuable source of conflict and fuel media’s government watchdog role. The Opposition party source provides open debate on economical and ideological issues. However, defence and security policies commonly receive bipartisan support, which limits their press coverage.

Secondary sources of news, including interest groups and broader social participation, normally only receive coverage when conflict in Parliament acts as a catalyst. Two examples of this phenomenon involve US media coverage in the Vietnam and Gulf Wars. Although the poor public support of the Vietnam War was widely attributed to the US press, the discussion was sustained by opposition to the war in Congress. In contrast, very little debate over the US involvement in the Gulf War was reported after Congress passed a resolution to support the administration.10 Despite the existence of a modest opposition to the Gulf War by interest groups, less than one per cent of all Gulf War coverage in the US media referred to domestic dissent.11 Considering media’s dependence on domestic opposition, the most successful indicator of effective public information strategy by a government is favourable media coverage even when opposition (both political and in public opinion polls) would appear to warrant more critical media treatment.12

The media has a significant role in the news agenda. Regardless of who sets the agenda, the media has the opportunity to critique the news material. Critique may comprise the way in which stories are presented, the priority given to a story, the time given to opposing views and the choice of independent analysts. Concerning the latter method of critique, two extreme cases during the Gulf War are of note: the majority of US television networks employed retired servicemen to act as independent analysts,
whereas the Australian Broadcasting Commission utilised an academic who was clearly sympathetic to the Iraqi cause and was critical of Australia’s support for the Coalition intervention.13

Additionally, the media is capable of setting the agenda itself by drawing attention to overseas conflicts. Approximately thirty conflicts currently are taking place worldwide, a figure that has remained fairly constant since the end of World War II.14 With financial and air-time constraints, the media cannot cover more than a handful of these. The media’s often arbitrary choice of which conflict to cover, together with its powerful visual messages to take action on humanitarian grounds, has an inordinate effect on foreign policy in democratic societies. The real-time global reporting capabilities of the media may pressure Governments to make policy decisions that are “hasty, ill-conceived, damaging to future options or tempered by domestic opinion rather than long-term state interests”.15 Thus, the Government must resist pressure to react to media deadlines, but should base policy on analysis and prepare strategic media strategies to deal with unanticipated events.

Public Opinion

Public opinion provides an indicator of a nation’s support for government actions. This support, or national will, is the key to successful implementation of foreign and security policies, and is a precondition of any decision to use military force. The Government uses the media to inform, influence and gauge the opinion of the public.

The traditional model of a democratic society features a press that conveys the policy approaches of the Government, and later indicates the results of those approaches. The political leaders then may be judged and held accountable retrospectively for their actions by the public. The modern news media, however, advocate a model in which the public evaluates each new issue, decides what is to be done and authorises its leaders (via polls or on-line surveys) to take appropriate action.16 This model is referred to in various references as populist diplomacy, teledemocracy and the new world order but, regardless of what you call it, the limitations outlined make such an approach impracticable. The essence of this argument is whether the Government elite are leaders or followers. A leader who wishes to survive the next election might follow the opinion of the public. However, a true leader is one who is aware of the benefits and disadvantages of particular options, and uses the media to influence public opinion.

The earliest view of the Government’s use of the media to influence public opinion is conversion theory. Conversion theory suggests the public are easily led by propaganda. If a news source is clearly positively or negatively biased, an individual will accept or reject the message accordingly without absorbing the arguments used. However, conversion theory is widely dismissed in modern democratic societies.

The commonly accepted model for the use of media to influence the public is the two-step theory, in which information is modified according to the individual’s socialisation.17 Even the best informed members of the public will often not evaluate the arguments of an issue, but will align on the basis of ideology or partisanship.18 Thus, the importance of bipartisan support of foreign and security policies is undeniable if public support is to be maximised. However, if public support simply followed partisan lines, a majority government would feel quite secure in proceeding with its strategies. Public support is usually far less predictable.

Polls provide a useful indicator of public support, and can strongly influence government actions. During the lead up to and conduct of the Gulf War, about 2500 opinion polls relating to the crisis were publicly released in the US.19 The US Government used these polls to gauge support, as well as to modify its military and media strategies. However, polling is not an exact reflection of public opinion and can itself be influenced by the choice of words used in questions (as well as whether the respondents are an accurate reflection of society). For example, two polls taken simultaneously in November 1990 produced two vastly different results: the Washington Post and Gallup polls on the topic of whether force should be used against Iraq showed 70 per cent and 32 per cent support respectively.20 Opinion polls taken during the Gulf War also revealed two other effects: that support for offensive action increased with political awareness, and that some level of polarisation along partisan lines exists.

The influence of the media and public opinion polls on government is not always as might be expected. Following the graphic footage of Somalis dragging the body of a dead US serviceman through the streets of Mogadishu in 1993, US public opinion polls reflected a strong demand to commit forces in strength to punish those responsible.21 Despite the power of the video images and the weight of public opinion, the US administration realised that escalation would not be successful in the long term and withdrew its forces. Although this situation demonstrated the power of the media to influence government, more importantly it is an excellent...
example of a government taking public opinion into account but basing its actions on sound analysis.

**Media Ownership**

The matter of ownership of media in Australia is one of great debate in government and media organisations. The debate comprises two issues: diversity of media ownership and foreign control. Both issues have significant implications for national security.

Media organisations have progressively concentrated in past decades to the present situation in which only a handful of organisations controls Australia’s television and print media. The three main players in Australian media are PBL, News Corp and Fairfax, with the latter under increasing threat of being subsumed. In 1991, former Prime Minister Mr Fraser advised a parliamentary committee that: "If there are only a few [media companies] the power of the media is enormous. But if there are only one or two, the power is sufficient, I think to rival the power of the Parliament itself".22

The impact of media concentration is that more information presented to the Australian public is effectively controlled by a select few. This situation has the potential to reduce the objectivity of reporting, as well as to increase the power of the media to influence the news agenda and present a uniform bias on news issues.

Most of the Australian media is foreign owned, or at least effectively foreign controlled. Additionally, much of the news material that affects foreign and security policies is sourced from the international media. The Australian Government faces a conundrum in that foreign ownership of the media cannot be constrained if diversity is to be retained. Given that much of the news content is foreign sourced in any case, maintenance of foreign ownership limits would appear contradictory. Thus, the Media Alliance suggests that foreign ownership limits should be relaxed to ensure diversity, on the condition that foreign investors commit to enforceable charters of editorial independence.23

The importance of local editorial influence in Australia’s media is critical to national security. The “jingoistic” bias associated with reporting armed conflict is inherent in the media and reflects the public support of the nation. Kalb wrote that “when America goes to war, so too does the press, wrapped in the flag no less proudly than the troops themselves”.24 Any loss of editorial independence would result in an Australian media that is indifferent to public support of the nation at war. Two factors remain that reduce the impact of a foreign controlled media on national security. Firstly, media owners realise that editorial independence is essential if the media is to retain affinity with its audience.25 Secondly, the international media that provide foreign-sourced news are primarily controlled by US and UK interests, which minimises the potential for conflicts of interest on national security issues.

Another issue in media ownership is the global trend for governments to reduce expenditure on (or privatise) public media. Publicly funded, independent media provide the educational arguments on foreign and security policies that is generally lacking in the commercial media. Perversely, the objective nature of such educational reporting may actually detract from the public support that the government is attempting to maximise. The coverage of the Gulf War by the ABC is such an example, where by the ABC was criticised for being objective in comparison with the jingoistic reporting of the commercial news media. Similarly, the BBC was accused of non-patriotism for an impartial report on the civilian casualties in the Amariya bomb shelter in Baghdad.26

The news media’s ability to instantaneously report matters globally has altered the thinking of security and military planners. Not only does the media evoke public support on humanitarian grounds for military intervention in countries such as the former Yugoslavia, Somalia and Cambodia, it also sets constraints on the level of force that the military may use. Moreover, the media and public’s scrutiny of armed conflict impose considerable political sensitivity to the risk of taking and inflicting casualties, which has a significant effect on the willingness of governments to commit themselves to military intervention. Badsey describes this influence as the media age, which features pressure for multilateral responses to global crises and the difficulty of mounting an effective response.27

With national will being critical to the success of military power, the military must implement an effective public information policy during armed conflict.

**Evolution of Public Information Policy**

Public information policy addresses the inherent contention between the military’s desire to control information and the media’s wish to report events according to their own discretion. The rationale behind current public information policy can be
attributed both to the unfettered press coverage in Vietnam and the contrasting press management exercised by the British in the Falklands. Following the successful media management in the latter conflict, Lieutenant Commander Humphries, a member of the US Naval War College, wrote in 1983 that:

_“To maintain popular support for a war, your side must not be seen as ruthless barbarians.”_

_“You cannot allow the public’s sons to be wounded and maimed right in front of them via their TV sets at home.”_

_“You must, therefore, control correspondents’ access to the fighting”_

Only months later, a public affairs policy was put in place for operations in Grenada that echoed Humphries’ paper. This policy kept the press out of the area of operations for two days after the invasion. Media organisations immediately complained about the lack of access to Grenada, resulting in creation of the Sidle Commission in 1984. The Sidle Commission formalised the approach of media control by establishing a concept of accredited reporters who would form a pool whenever military action was being planned. This pool would accompany and be supported by the military force and submit reported information on a shared basis. This approach was transformed into an ABCA paper that, in 1985, was the foundation for an ADF paper that eventually developed into ADFP 41 – Defence Public Information Policy during Periods of Tension and Conflict. ADFP 41 outlines the ADF Public Information Policy, which is based upon a system of accredited correspondents established under the Defence Media Advisory Group, and features the use of public information plans and media support capabilities.

The pool system was utilised in the US invasion of Panama in 1989. Although the operation was a success for the US military, the small media pool was constrained in movement and was unable to file any reports for more than ten hours after the invasion. This situation was viewed by the media as somewhat of a failure, as the reports filed by accredited correspondents were released some time after news of the invasion had been leaked.

In the case of the Gulf War, news was controlled largely by the release of material at coalition briefings. The fact that 38 of the 43 days of the conflict were fought in the air, with reporters generally unable to obtain any better information than that provided at briefings, made the military’s job of controlling information release much easier. Only correspondents accredited with the coalition countries that committed significant ground forces were able to accompany those forces. Of over 1400 media personnel in Saudi Arabia during the crisis, only 100 were able to spend any time with the combat forces - many of the others might as well have stayed home to watch the briefings.

The accredited correspondent and pool arrangements provide the media with a good source of official information. However, the competitive and “search-for-the-truth” nature of media organisations means that they will also commit resources to non-accredited reporting. Thus, any significant conflict will involve a “media circus”, where journalists attempt to target direct and independent sources of reporting. These sources were generally not possible in the Gulf War, except for CNN reporting from Baghdad. A better example was in Somalia, where the pool journalists accompanied the initial amphibious lodgement were upstaged by the presence of numerous television crews recording the event at the landing site. In this respect the Gulf War is more the exception than the rule, in that most (particularly intrastate) conflicts will offer easy access to non-accredited correspondents. This fact fuels the belief by many in the media that those who defy the pool system get better rewards than those who conform to it.

The Military-Media Relationship

Over the last decade, the ADF has placed greater emphasis on media awareness in professional military education programs. Conversely, despite involvement in the Defence Media Advisory Group, the Australian media has very little knowledge of defence. The paucity of military knowledge in the media can be traced to the period following the Vietnam conflict. During this period, many media organisations in Australia and the US reduced military expertise as part of a wider rationalisation of analysis capabilities to concentrate on news reporting. In Australian media organisations, defence issues are normally handled by journalists with general government responsibilities, and the media must rely on external commentators (academic or ex-military) for any in-depth analysis. The poor military knowledge of the media might appear inconsistent with the audiences interest in conflict. However, this is not to say that the media is not interested in reporting conflict, but that its lack of understanding of military operations results in a poorly informed public.

The Gulf War is a good case study for examining the media’s knowledge of the military. An extreme example is that involving the Associated Press, which sent its drama critic as its representative at the
coalition media briefings.\textsuperscript{31} This choice was probably more due to a lack of qualified journalists at AP than a misunderstanding of the term theatre of operations. The poor knowledge of the reporters in the media briefings was reflected later by Brigadier-General Neal, who said that the press had never asked any of the difficult questions for which he had "spent four or five hours preparing each day during the Gulf War".\textsuperscript{32}

Although both the military and media benefited from the Gulf War, much controversy followed. The Government criticised CNN for its objective coverage, while media organisations complained of censorship and disinformation in coalition briefings. This contention can be attributed to an attempt by both sides to position themselves better in future conflict.\textsuperscript{33} However, the media should recognise that the censorship imposed by the military is minor compared to the censorship that media effectively brings upon itself through its ignorance of military operations and the political presumptions behind conflict, as well as its poor analysis of available information. Unless the media develops such capabilities, it will be destined to provide superficial coverage derived largely from official sources in future conflicts.

Censorship

Censorship is difficult to implement at a national level, particularly as legal options and the D Notice system are not well suited to the protection of short-term operational security matters. Additionally, censorship of the international media is virtually impossible. Thus, the essence of military public information policy is that censorship, if required, must occur in theatre. The use of accredited correspondents is based upon trust more than censorship, and public information policy must avoid unnecessary censorship that might lead to speculation.

The primary purpose of media censorship in armed conflict is to maintain operational security, which relates to protection of information concerning the activities of friendly forces. Censorship of operationally sensitive material is largely time-dependent and, considering the global and real-time telecommunications used by the media, is essential in modern conflict. Accredited correspondents are required to sign an undertaking to comply with security guidelines and to submit reports to the military for review. The main danger to operational security remains the non-accredited reporter with a satellite dish. However, the media are well aware of the importance of operational security and experienced journalists usually understand what news is acceptable. For instance, the US media censored itself in coverage of Iraqi SCUD attacks during the Gulf War, in recognition of the fire adjustment value of time and geographical references.\textsuperscript{34} Any media organisation that is found to cost lives of its nation’s service personnel through a breach of operational security would not only face loss of accreditation but, more importantly, be castigated by the public. In this respect, self-censorship by the media serves its competitive interests as much as any duty to the public.

Censorship is also used to maintain public support, which is a purpose not so well accepted by the media. Cohen suggests that whereas the human costs of war may be pictorial, the political imperatives are not so easily conveyed by the media; thus, government management of information in a theatre of war is essential to the use of military power.\textsuperscript{35} In fact, the use of censorship to sustain the nation’s morale is increasingly becoming more important than the maintenance of operational security.\textsuperscript{36} The management of information to maximise public support is discussed later.

National interest is a concept that is not appreciated by the Australian media. The briefing document for the Treasurer, Mr Costello that was compromised by the Australian media in July 1997 illustrates this point. The publication of the document’s contents was intended to provide political embarrassment and thus attract audience/reader attention, but had much more damaging effects on the national interest than on any political target. The implication for military operations is that the media may be committed to censorship of operational security where otherwise they might “get our troops killed”, but anything else generally is considered as “open slather” regardless of national interest implications.\textsuperscript{37} Therefore, the primacy of media’s competitive interests must be considered in public information planning.

Media Campaign Strategy

If effective news management is a multiplier in the application of combat power, then a strategy to identify and prioritise the objectives of the media campaign would be worthwhile. Figure 1, which borrows from the concept of Warden’s targeting strategy, provides a universal model of the media campaign objectives in armed conflict. In order of importance (and thus the priority in which they should be targeted), the objectives for the use of the
media are: strengthening national will, reducing the adversary’s national will, building international support, signalling and deception.

**National Will**

A high national will is the most valuable asset a nation can possess, as it is the foundation of the nation’s commitment in a conflict. The Government’s roles in building national will are to justify the worthiness of conflict, to demonstrate that other non-military options have been addressed and to solicit bipartisan support. An example of successful media management by the US Government involves President Bush’s portrayal of Saddam Hussein as Hitler to justify US intervention against Iraq. In this case, popular opinion was manipulated by humanitarian themes and demonisation of the adversary, rather than the more complex underlying political objectives. Thus, the US Government was able to take advantage of the media’s inability to analyse the complex and played to their strength of portraying issues in simple humanitarian images.

The military has a significant responsibility to maximise national will in the planning and conduct of operations. This responsibility comprises a humanising role and a dehumanising role. The humanising role is the use of public relations to depict the military forces as part of the nation’s community, and thus build patriotism. The dehumanising role is the management of news to demonstrate the effectiveness of military forces and weapons while avoiding any show of human loss or suffering. US national will was effectively manipulated in the Gulf War, with accredited correspondents performing the first role and the military’s selection of bomb targeting videos accomplishing the second. In this case, national will was maximised because of the limited number of casualties taken by coalition forces and the limited access by the media to record images of human loss and suffering.

**Adversary’s Will and International Support**

The global nature of modern media enables the targeting of an adversary’s national will to reduce their resolve in conflict. Appropriate use of information may prompt opposition within the adversary’s nation to suggest that their actions and policies are unjust or that they face significant losses in military action.

International support of a nation’s or coalition’s actions is also important, in that international opinion can influence the national will of countries on both sides of the conflict. The global media may even be the only effective weapon system used by the commander of a peacekeeping mission. International opinion is also a major factor in the formation of a multilateral response to a crisis. In the conduct of multilateral operations, media management must address the national will of all countries involved in the coalition force, which may be difficult if the nations involved have differing societal standards or expectations.
The effect of public information on the national will, the adversary’s national will and international support is a complex subject. A one-sided conflict may increase the national will if limited casualties are taken, and decrease the adversary’s resolve to sustain higher losses. However, such a situation may also raise opposition against the dominant nation internationally and in pacifist sections of that nation.

Signalling and Deception

The media is an important mechanism of signalling a nation’s intentions and potential responses to an adversary. For instance, the US Government’s failure to signal its likely reaction to Iraqi threats in July 1990 resulted in Iraq’s invasion of Kuwait. This failure should be compared with the successful signalling by the US in September 1990 that an Iraqi invasion of Saudi Arabia could provoke use of nuclear weapons.

Deception, or disinformation, may be used to mislead an adversary and thus gain a military advantage. Deception may be implicit (misleading) or explicit (lying). A good example of implicit deception is the public relations coverage of amphibious landing training prior to the ground phase of the Gulf War, which was simply a feint for the main invasion.40 Disinformation may also be used to directly affect public opinion, an example of which was the explicit deception employed by the Iraqis in relation to the coalition’s destruction of a “baby milk factory”. ADFP 41 advises against the use of explicit deception (lying) to the media in public information policy, because of the damage that such actions would have on credibility and military-media relations. Additionally, ADFP 41 identifies that deception is an intelligence activity that should be kept separate from the public relations function.

Media Management in Future Conflict

The Gulf War provided numerous lessons and is often presented as a model for media management in future conflicts. However, conditions such as the military’s ability to manage information release because of the media’s limited access, the international support for the coalition and the uneven match of forces makes the Gulf War more an exception than the rule. Media management would be more difficult in a more typical scenario that involves intrastate conflict, easy access by non-accredited correspondents, guerrilla warfare, the use of ground forces with undefined front-lines, greater casualties and greater difficulty in achieving political objectives.

Regardless of the nature of a future conflict, the objectives shown at Figure 1 remain the same, although they may require different strategies to achieve. The success of media management in future armed conflict depends on the application of a sound public information strategy, which should provide incentive to media organisations to commit to the accredited correspondent scheme. Additionally, military commanders must consider likely media interest in their operations and be aware of the public opinion implications of their actions.

Conclusion

The information war is not confined to the military’s command, control and intelligence systems. This war is also waged in the public domain, in news reports that are presented on television, radio and in print. National will, the foundation of any nation’s power, is directly and critically influenced by the manner in which public information is presented. Thus, it is in the interest of the Government, including the military, to possess strategies to effectively manage public information, whilst not infringing on the media’s imperative for independent reporting.

The relationship between the Government and the media is based upon the Government’s release of public information. As the media has little analysis capability, the manner in which the media influences the public depends largely on the level of opposition to that information. A significant characteristic of the media that should be considered in public information strategies is that the media’s competitive interests can potentially outweigh its commitment to the public interest.

Effective public information management by the military is essential during conflict, when national will is most important and the inherent contention between the military and media regarding the control of information becomes prevalent. The ADF public information policy provides a formalised system to provide public information via accredited media correspondents. Military public information strategies must recognise, however, that the media will seek to obtain independent reporting in theatre by the use of non-accredited correspondents.

This article has proposed a universal model to identify media campaign objectives that should be applied in public information planning for conflict. These objectives, in order of priority, are strengthening national will, reducing the adversary’s national will, building international support, signalling and deception. Targeting these objectives
in a media campaign during conflict should allow the power of the media to be harnessed.

NOTES
8. For instance, the Australian media’s interest in human rights problems in Southeast Asia and reporting of our own racial intolerance are potential causes of tension.
27. Badsey, op. cit., p. 3-4.
30. For instance, CNN had its ratings boosted during the Gulf War to 11.7 in the US, far greater than any of the commercial networks and more than 10 times its normal rating.
31. Kennedy, op. cit., p. 121.
32. ibid., p. 10.
37. Carney, loc. cit.
39. In the one notable instance where human losses were shown by the media at the Amariya bomb shelter, coalition targeting was constrained to limit any further detraction of public support.
40. O’Heffner, op. cit., p. 244.

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Wing Commander Andrew Dowse graduated from the RAAF Engineer Cadet Squadron in 1984 with a degree in Communications Engineering and now holds a Master of Information Science. He currently is the Deputy Director, Information Operations Requirements in Australian Defence Headquarters. This article was prepared as an essay for the RAAF Command and Staff Course in 1997 and does not necessarily reflect ADF policy.

New National Defence News Program

A new half-hour Defence news program, “Defence Watch” is now being broadcast by Sky News nationally on Foxtel and Optus Vision. The program, which features tri-service news and reports, a job profile as well as reports from DSTO goes to air on the second Tuesday in each month at 8.30pm with a repeat broadcast on the fourth Tuesday of the month.

The first “Defence Watch” went to air in February and featured reports on:

- the Army’s work building social amenities for the Aboriginal community at Bulla in the Northern Territory;
- the RAAF’s recent air training exercise southwest of Darwin;
- DSTO’s development of metal fragment proof vests for use in Australian environments;
- the Navy’s Spectacle Island Museum in NSW;
- disabled Army sailor Graham Raynor’s participation in the recent BT Global Challenge aboard the Yacht Time and Tide;
- the recent reunion of a Rwandan student and a Corporal involved in the Australian UN peacekeeping force in Rwanda;
- a job profile of life in the RAN’s Band unit;
- the Army’s new infantry vehicles being trialed in Queensland; and
- the recent recovery of the remains of seven Australian Airmen lost in PNG during the Second World War.

The third program in the “Defence Watch” series goes to air on Tuesday 14 April.
Whilst operations officially ceased on the RAAF Williams (Laverton) Airfield in September, 1996, the departure of a single jet Vampire from the airfield on February 12 last year effectively signified the end of the airfield’s longstanding service to the Royal Australian Air Force.

Laverton Airfield has been utilised by the RAAF for more than 70 years. During this time, a vast array of aircraft, including Hawker Demons, Beauforts, Hercules, Anson A4-1s, Wapitis, Bristol Bulldog fighters and jets such as Vampires, Sabres, Meteors, and Canberras, have used this important facility. However, Laverton Airfield’s true significance does not lie solely in the variety of aircraft which have utilised it, but rather its often underestimated role in the development of the Royal Australian Air Force’s capability levels. It is important to recognise, for instance, in relation to the contribution which this airfield made to the early development of the RAAF that for more than ten years this airfield, together with those at Point Cook and Richmond, represented the RAAF’s only “permanent airfields” and for the most part of these ten years, remained the main support of Air Force operations.

Through an examination of the range of its uses over the airfield’s past, this article will serve to illustrate that this facility has made an important contribution to the history of the Royal Australian Air Force. The significance of aircraft operations away from Laverton as a home base, will be considered as well as the activities which actually took place on the airfield itself. At the same time, this study will also attempt to provide some explanation for the airfield’s closure by a review of post-war and more recent changes within the Royal Australian Air Force. It must be emphasised, however, that by no means is the following an exhaustive account of the Air Force’s operations from Laverton.

Laverton base was established in the mid 1920s largely to accommodate No 1 Aircraft Depot and its operations. Originally it had been envisaged that a Stores Depot would be located at Point Cook. Once, however, the cost of constructing a railway from Laverton to Point Cook and in particular, a railway bridge across Skeleton Creek to the south of Laverton had been calculated, it was deemed more cost effective to purchase land close to the railway at Laverton and develop another base there. The 160 acre site acquired in 1921 was able to accommodate a landing strip. Taking into consideration the major responsibilities of the Aircraft Store Depot – the construction, overhaul and testing of aircraft – the capacity to provide for an airfield was an important attribute of the location.

In the mid to late interwar period, Laverton Airfield was extensively used for a variety of purposes. A unit which utilised the airfield frequently after relocation to Laverton in March, 1926, was of course No 1 Aircraft Depot. As this unit was primarily concerned with the assembly, test and delivery of new aircraft, Laverton was the departure point from which many aircraft test flights were conducted. Among the number of notable “first test flights” carried out from Laverton over the course of the interwar period was that of the first British Bulldog single seat fighter (May, 1930), the first Westland Wapiti (May, 1929), the first Hawker Demon aircraft (May, 1935) and significantly, the first Australian assembled Moth (October, 1935).

Associated with No 1 Aircraft Depot’s (1AD) activities, Laverton Airfield served as the point of departure and return for a significant and remarkable flight for the Royal Australian Air Force in 1927. In July of that year, three aircraft which together had established a Northern Survey Flight within 1AD in the previous year, departed Laverton on a journey around Australia and through much of its centre. When the party returned to Laverton in early September, they had flown across 11 890 miles, visited 48 places (including Tennant Creek, Broome,
flying exercises. By mid September of 1939, No 12 Squadron undertook in May a concentrated flying program which had by the end of the interwar period, was No 12 Squadron. Shortly after its formation at Laverton in February 1936, Laverton Airfield also served as a site of departure for air exercises which ultimately resulted in an attack upon it during a simulated bombing raid. Given that at the time of the flight Australia was renowned as apparently one of the worst mapped countries in the world, the completion of this journey should also be considered as constituting somewhat of a feat.

With the formation of No 21 Squadron, as a Citizen Air Force Squadron, in April 1936, Laverton Airfield also received considerable use. Together with its function as a site from which night flying was carried out, in the late interwar years, Laverton Airfield was the location of at least one ground and air exercise (in 1937) which had some 80 000 kilometres and had photographed 8 900 square kilometres working in areas such as Cairns, Cooktown, and Cloncurry. Aside from the large area which had been successfully photographed, the importance of this flight was as stated in the survey report prepared for Parliament, that this had been “...the largest aerial work ever undertaken by the Royal Australian Air Force, and that it was the largest operation carried out by the Air Force away from its base.” The North Australia Survey Program, although varying in its organisational form, continued to involve the RAAF and utilise Laverton Airfield as one of its main points of departure and return until only several months before the outbreak of World War II. Whilst the Program had involved eminent figures such as Sir Herbert Gepp (in a flight associated with the program in 1935), and had witnessed some truly heroic efforts in the mapping of Australia’s north, its overriding importance really became apparent later in World War II when the maps produced by the Program served as the most current available to guide military operations.

On a different note, Laverton Airfield on November 10, 1934, played host to an impressive air display, being one of the many celebrations for the occasion of the Centenary of the State of Victoria and City of Melbourne. In the company of official guests including the Duke of Gloucester, the Governor, Lord Huntingfield, and Premier of Victoria, a tremendous crowd of spectators which official estimates numbered between 200 000 and 250 000 watched around forty aircraft participate in the display. It featured inverted flying performed by Moth aircraft of No 1 Flying Training School and aerobatics and “crazy flying” presented by Instructors of No 1 Flying Training School. A further highlight of the display was that during an air drill performed by No 1 and No 3 Squadrons when the aircraft formed a letter “H” as flying training on Anson aircraft with “around the clock operations”.

For several years in the interwar period, Laverton Airfield also served as a point of departure and return for flights connected with the North Australian Survey Program. In 1935, a North Australia Survey Flight comprising No 1 Squadron Personnel and aircraft was established which conducted photographic work for the North Australian Aerial Geological and Geophysical Survey Program. On 29 April, 1935, the North Australian Survey Flight party departed Laverton not returning until 16 September. Whilst the party did experience considerable difficulties with one of the aircrafts’ engines, by the time the party returned to Laverton, they had covered some 80 000 kilometres and had photographed 8 900 square kilometres working in areas such as Cairns, Cooktown, and Cloncurry. Aside from the large area which had been successfully photographed, the importance of this flight was as stated in the survey report prepared for Parliament, that this had been “...the largest aerial work ever undertaken by the Royal Australian Air Force, and that it was the largest operation carried out by the Air Force away from its base.” The North Australia Survey Program, although varying in its organisational form, continued to involve the RAAF and utilise Laverton Airfield as one of its main points of departure and return until only several months before the outbreak of World War II. Whilst the Program had involved eminent figures such as Sir Herbert Gepp (in a flight associated with the program in 1935), and had witnessed some truly heroic efforts in the mapping of Australia’s north, its overriding importance really became apparent later in World War II when the maps produced by the Program served as the most current available to guide military operations.
a mark of respect to the Duke of Gloucester. As the numbers in attendance suggest, the 1934 Air Display held at Laverton Airfield had stimulated much interest in the general public and as the following press comment indicates, this display also made a definite impression on those who did attend: “They [the planes] did everything a bird could do in the way of flight. They did more: for they flew, in perfect control, upside down, and who ever saw a bird do that?”

In direct connection with the Centenary Air control, upside down, and who ever saw a bird do flight. They did more: for they flew, in perfect planes] did everything a bird could do in the way of impression on those who did attend: “They [the comment indicates, this display also made a definite in the general public and as the following press

the 1934 Air Display held on Laverton Airfield, it is also extremely significant that the winner of the Centenary Air Race between London and Melbourne first landed their aircraft at Laverton on 23 October 1934, after crossing the race finish line over Flemington Race Course.

Finally, during the interwar period, the airfield was not devoid of its share of mishaps. On the weekend of 13 and 14 August, 1938, (a Citizen Air Force Weekend) an Anson A417 collided with boulders, whilst attempting to take off on the north east corner of the airfield. Similarly, in 1936, a Demon aircraft landed awkwardly on the airfield.

Over the course of the Second World War, Laverton Airfield served as an important facility from which many important support operations were carried out. No 1 Aircraft Depot (No 1 AD) heavily utilised the airfield during these years to assemble, test and deliver thousands of aircraft to meet the needs of the war effort. Between December 1939 and February 1941 the Depot Test Pilot flew 190 of the first 237 Wirraways brought into service in a total of 576 sorties. The test flights not only illustrate the degree to which No 1 AD utilised the airfield during the War but, as Wirraways constituted “the RAAF’s first line fighters” at this time, also indicate the importance of the activities carried out from Laverton. Further confirmation of the airfield’s frequent usage by 1 AD is the fact that in 1944, there were 60 pilots employed within the Test and Ferry Squadron of 1 AD, all of whom were expected to be competent at testing and flying “all 20 different types” of aircraft dealt with on a monthly average by this Squadron. Moreover, the airfield was utilised by the Squadron on completion of all other duties when the Ferry Pilots and accompanying crews departed 1 AD to transport the aircraft to forward areas, such as Townsville and Port Moresby.

No 21 (City of Melbourne) Squadron continued to operate from Laverton Airfield until late 1940, when it relocated on an active service role in the war. In the first six months of 1940, No 21 Squadron flew Anson aircraft from Laverton conducting anti-submarine patrols. More historically significant from the perspective of the Squadron is that in December 1939, three of four Ansons that were involved in No 21’s first operational assignment, supporting a convoy around Victoria’s coastline, originated from Laverton.

Once World War II started, the airfield also became a departure point for No 2 Squadron’s major occupation at this time – conducting search patrols to ensure the safety of convoys in southern waters; although airfields including those at Ceduna, Mallacoota and on Flinders Island were progressively used as advanced operating bases whilst aircraft were away from Laverton. Much activity upon the airfield was also stimulated when in mid 1940, the Squadron began to make its conversion to Hudson aircraft. In late September of 1941, four of No 2 Squadron’s aircraft departed Laverton on what constituted a very significant flight. Basically, this flight was linked to an agreement made by Australia in early 1941 that it would support the Dutch in defending their islands enveloping the Banda Sea in the event that Japan went to war and as such allowed the No 2 Squadron deployment to observe airfields along the route, undertake comprehensive reviews of their deployment bases and conduct patrols in their future area of operation.

The formation of 1 Air Performance Unit (APU) on 1 December, 1943 also served to encourage flying activity and thus further utilisation of the airfield. As one of the Unit’s major responsibilities was to undertake “full scale flight testing” in concurrence with laboratory research carried out, this function alone necessitated considerable use of the airfield. An indication of the level of activity requiring usage of the airfield by 1 APU is provided by the fact that during the first month of this Unit’s existence, the Commanding Officer reported that “at present there are 32 aircraft allotted to the Unit for testing purposes, and with the present strength of personnel [104] it is not possible to carry out the duties efficiently.”

From the latter part of the Second World War (mid 1943) until mid 1946 Laverton Airfield also provided the point of departure and return for No 37 Squadron’s frequent transport flights. During this period, No 37 Squadron carried out routine courier flights – Darwin via either Perth or Alice Springs being one of a number of common destinations. The importance of these flights, especially given the
environment of war, can be ascertained by the cargo this Squadron typically transported – “urgently required” aircraft spares, and personnel, either travelling on pressing work related business or undertaking compassionate leave. In early 1944, when the passenger ship which usually crossed Bass Strait was required for Naval service, 37 Squadron also operated from Laverton twice each weekday to Launceston transporting Air Force, Army and Navy personnel.

In addition, from early 1943 until shortly after the end of World War II, Laverton Airfield functioned as a point of departure and return for No 67 (General Reconnaissance Squadron) aircraft. This Squadron was based at Laverton in April 1943 and was one of the two Squadrons in the south responsible for carrying out anti-submarine patrols, continuously in the first few months of 1943, and providing reconnaissance. Given Australia’s reliance at this time on merchant vessels for the provision of munitions and essential overseas supplies, the importance of the airfield’s direct contribution for 67 Squadron’s convoy escorts around the south eastern coastline should not be discounted.

In similar fashion to No 21 (City of Melbourne) Squadron, No 100 Squadron also used the airfield for a short period of time in the Second World War before proceeding to undertake front line service. From early July until early September, 1942, No 100 Squadron was based at Laverton and its Beauforts carried out enemy submarine patrols along both the south coast of NSW and Victoria. Of greater historical significance is that this Squadron was directly involved in one of the final air battles of the Milne Bay operation, after several Squadron aircraft moved from RAAF Base Laverton. On 7 September, 1942, six of No 100 Squadron’s Beauforts, together with 3 Hudsons from No 6 Squadron, 8 Kittyhawks from No 75 Squadron, 8 Kittyhawks from No 76 Squadron and 3 Beaufighters of No 30 Squadron, were engaged in an attack upon a destroyer and cruiser near Cape Karitahua on Normanby Island. Whilst the Kittyhawks flew above providing top cover, “the Hudson aircraft steered towards the target area and attempted to hit the destroyer’s stern.” Two of the three Beaufighters executed their torpedo runs – failing to hit any of their targets. Whilst the attack was not successful in that neither of the enemy ships had received serious damage, its importance should be viewed in the light of the fact that the combined approach undertaken by the involved Squadrons was the first operation of this nature conducted by the
RAAF.  The six Beauforts involved in this operation had arrived at Milne Bay on 5 September after leaving Laverton only on 1 September.  

Further affirmation of Laverton Airfield’s importance in the Second World War is provided by the improvements which were made to the key components of this facility in this period. Subsequent to a visit made by members of the Joint Committee on War Expenditure to Laverton, in September 1941 the Committee outlined to the Prime Minister that whilst construction of runways would prove a costly undertaking the benefits to be obtained would in the end outweigh this expense. Two central considerations in the Committee’s stance were the state of the airfield’s surface in particular and the RAAF’s use of the airfield in general. The outcome of the Committee’s expressed opinions – the decision later made to build two concrete runways and a perimeter taxiway upon Laverton Airfield. This work, in line with many improvements made for the war, was completed during early 1943.

The period of time between the conclusion of the Second World War and September 1996, when the RAAF’s operations on Laverton Airfield officially ceased, is one which mirrors the RAAF’s overall postwar development and is characterised by great change. In October 1945, the RAAF had 317 regional and mainland airfields within its command. Plan “D”, however, which officially represented the general outline of the RAAF’s postwar development from 1947, held that only 133 of these 317 airfields were still required. After a review of the expense required to improve these 133 airfields to satisfy minimum criterion, twelve airfields were then regarded as of the highest importance. Whilst the airfields situated at Schollfields, Port Moresby, Canberra and significantly, Laverton, were not considered to have equal operational priority as the select twelve bases (located mainly in the north), these four airfields were, nonetheless set aside for “improvement”.  

Despite much change in the time leading up to the closure of Laverton Airfield, air displays at Laverton airfield were an enduring and popular feature of Laverton base’s activity. A number of these air displays are particularly noteworthy. On 20 September 1954 for instance, Laverton Airfield was the site of an air display signifying both the end of Air Force Week and Battle of Britain Day, with an estimated crowd numbering somewhere between 45 000 and 50 000. Amongst the attendees who witnessed flying by Vampire jet fighters, a Lincoln bomber and notably, the first Sabres to be received by the RAAF, was the then Chief of Staff, Air Marshal John McCauley. On 18 April 1971, Laverton Airfield again hosted an air display to help celebrate the 50th anniversary of the Royal Australian Air Force, on what could only be described as a grand scale. During the two and a half hour display, the RAAF’s then newly acquired Phantoms carried out a simulated strike on ground targets, whilst the Delta’s aerobatic team provided a marvellous flying demonstration. No less exciting to view was the aerobatic display carried out notably, by visiting RAF Lightning aircraft, which apparently “skidded in small circles, at 600 mph, around the airfield like dirt track riders”. Estimates suggest between 160 000 and 170 000 were present at the airfield on this important occasion. More recently, on 17 March 1985, an Open Day was held coinciding with the State of Victoria’s 150th Anniversary celebrations. Whilst the day itself was overcast, cool and wet, literally thousands still attended and witnessed an impressive air display provided by the Roulettes, a Mirage, HS 748 and F111 among other aircraft. In relation to this day, the following statement made by the then Officer Commanding of RAAF Laverton, Group Captain J. Gazley, provides some indication of the changes taking place within the Air Force and their subsequent impact upon the RAAF in general and RAAF Base Laverton in particular:

“In recent years the budgetary situation has forced the RAAF to concentrate almost exclusively on essential operational tasks with the result that Open Days are held less often than they used to be. This is unfortunate as previous Open Days at Laverton invariably generated a level of public interest which was not surpassed at similar functions held elsewhere in Australia.”

For an entirely different reason, Laverton Airfield was involved with many civilians in late December 1974 and early January 1975. As part of an evacuation process for Cyclone Tracey, Hercules aircraft transported large numbers of civilians from Darwin to Laverton in the immediate weeks following the natural disaster. Since the end of the Second World War, Laverton Airfield has been the site of a number of unfortunate incidents; on a more tragic scale than those referred to in the interwar period. On 11 October 1968, for instance, a Navy Vampire aircraft conducting air sea
exercises from Laverton, aborted its takeoff which resulted in the deaths of the crew.\textsuperscript{71} Before coming to rest ablaze only 20 yards from the Geelong Melbourne Road, the Vampire jet drove through the end of the runway, hit the nearby railway line, ran through both a railway cable and wire fence and nosed towards the ground.\textsuperscript{72} In comparison, on 22 October, 1963, a far less serious incident took place when a U-2 Aircraft (of the USAF Detachment then situated at Laverton) was forced to make a “wheels up” landing owing to a mechanical fault.\textsuperscript{73} Whilst precautionary measures were taken to assist the landing, namely in the form of a “foam path” applied to the runway, the U2 landed causing only partial damage to the aircraft and the pilot escaped uninjured.\textsuperscript{74}

No 21 (City Of Melbourne) (Fighter) Squadron (formerly No 21 (City of Melbourne) Squadron) experienced a change in its status in the early 1960s which quite significantly reduced flying activity on Laverton Airfield. Between April 1948 and April 1960, this Squadron, operating as a reserve fighter Squadron, utilised the airfield when both its permanent and to a lesser extent, Citizen Air Force personnel carried out their flying training, including some night, cross country and instrument flying.\textsuperscript{75} The 16 day Citizen Air Force Camp of September 1950, over the course of which a concentrated flying program was conducted, illustrates the extent to which No 21 (City of Melbourne) (Fighter) Squadron used the airfield.\textsuperscript{76} In early 1960 however, this Reserve Squadron’s flying was discontinued (as was the flying for its four sister reserve squadrons) as a result of a policy change stemming from in part, the economic expense which the Reserve Squadrons’ flying entailed and a lack of resources for the provision of technical support.\textsuperscript{77} The impact which this policy change made on the level of activity upon the airfield can be established by the fact that when the Squadron was informed of the change in January, almost immediately two of the Squadron’s Vampires were conveyed to storage and by the end of the last week in February, (this representing the Squadron’s final full flying month), only five aircraft remained.\textsuperscript{78} Since 1960, some limited flying has been carried out by No 21 Squadron in Caribou aircraft as a component of its maintenance training program and more recently, in the 1980s, in a Vampire jet for the purposes of a group restoration project.\textsuperscript{79} For the most part, however, No 21 Squadron’s use of Laverton Airfield for flying had finished in 1960.

A change of defence policy to No 1 AD’s major function of aircraft repair in early 1961, also diminished the level of flying activity at Laverton Airfield. Whilst a large number of aircraft were either relocated to storage or rather, simply scrapped by 1AD in the immediate post-war years in line with demobilisation, it is important to acknowledge the degree of flying which No 1AD’s post-war operations stimulated, especially given their historical significance.\textsuperscript{80} For instance, in May 1947, a 1AD Pilot conducted the first official flight test for acceptance of the first Vampire jet assembled at 1AD.\textsuperscript{81} Similarly, in May 1952, the first Meteor assembled in Australia was flight tested by 1AD at Laverton.\textsuperscript{82} More in keeping with its maintenance role, in 1950, Laverton Airfield was also the point of return for a crashed Beaufighter retrieved by a party of 1AD personnel from Ceduna, South Australia.\textsuperscript{83} In May 1961, however, the 1AD Aircraft Repair Squadron closed down (No 2 AD’s Aircraft Repair Squadron at Richmond also suffering the same fate); the outcome of a change in policy largely on account of the prioritisation of No 3 Aircraft Depot’s activities – sustaining the new F111 aircraft at Amberley.\textsuperscript{84} Notwithstanding the fact that aircraft engines were serviced at 1AD until 1968, this Depot’s long established use of Laverton Airfield effectively ended in 1961, when Aircraft Repair Squadron closed.

Despite closure of No 1AD’s Aircraft Repair Squadron in May 1961, in September 1962, Laverton hosted important foreign guests. During this month, a U-2 Aircraft, detachment of a USAF Weather Reconnaissance Squadron came to Laverton.\textsuperscript{85} A more recent development having a marked effect upon the extent of flying on the Airfield was the relocation of the Australian Research Development Unit (ARDU) (formerly APU) to Edinburgh in 1977. With the exception of the period September 1946 to October 1948, when APU (which became ARDU in September 1947) was temporarily located at Point Cook while the Unit’s establishment at Laverton was refitted, Laverton Airfield was utilised extensively by this unit after World War II.\textsuperscript{86} In spite of the prevailing atmosphere of demobilisation in the immediate post-war years winding down many wartime operations, the APU continued to carry out many flight trials, including some for the benefit of bodies outside the RAAF. In April 1946 for instance and as requested by the Department of Civil Aviation, APU conducted a course of tests to establish the suitability of the Anson Mark Aircraft for Civil Aviation purposes.\textsuperscript{87} No less significant, however were the test flights carried out to establish complex performance data for newly serving RAAF aircraft; a series of these types of tests undertaken in November 1945 supplied data for cruise control charts for Squadron aircraft.\textsuperscript{88} Whilst some of ARDUS’s flying
was increasingly carried out from the new airfield at nearby Avalon after 1953, much flying activity stimulated by ARDU was still apparent at Laverton; involving such aircraft as the Sabre, Canberra, Dakota and Sycamore Helicopter (in the late sixties) as well as the Macchi, Iroquois, Kiowa, Macchi and again, the Canberra and Dakota aircraft (in the early to mid seventies). In early 1977, however, ARDU relocated to Edinburgh, SA. This unit’s departure represents a turning point in the history of the airfield’s existence in that after this time, home base flying by a full-time squadron no longer took place.

After ARDU’s departure until the airfield’s eventual official closure in 1996, Laverton continued to serve as a military airhead for Victoria. For many years, Laverton served as a major base for visiting aircraft to Victoria and had been a base of major aircraft movements with a busy Air Movements Section. In 1987 for instance, it was anticipated that the Air Movements section would deal with 930 turnarounds. Hercules aircraft which flew into Laverton several times a week on their transport flights, (these flights referred to as “The Southern Service”) greatly contributing to this flying activity at Laverton. Additionally, in connection with Laverton base’s role as a military airhead, both Orion and Falcon 900 aircraft utilised the airfield. During the late 80s FA-18 aircraft also occasionally used the airfield as one of their stopover points. Whilst unrelated to Laverton’s role as a military airhead, it should be acknowledged that as recently as 1991 and 1992, the airfield was utilised by Hawker De Havilland to conduct flight tests on Macchi aircraft as part of this company’s “Life of type Extension” project.

The end of 1992 brought with it a number of changes which signalled the fast approaching end of the RAAF’s use of the airfield. At the end of 1992, No 1 Flying Training School, based at Point Cook, closed down. For at least thirty years, No 1 Flying Training School had used Laverton Airfield as a satellite airfield to support its training programs. One example highlighting the use of the airfield by this Flying Training School is that in the mid 1960s, BFTS’s (the previous abbreviated name given to No 1 Flying Training School) usage of the airfield involved two or three parallel runways in operation at the one time. At the end of 1992, the airfield’s Control Tower ceased to operate providing more compounding evidence of the conclusion of the Air Force’s use of the airfield for flying activity.
DH Vampire parked on the hardstand at Laverton
Photograph by courtesy of the Central Photographic Establishment RAAF Williams
earmarked for relocation, including the RAAF Central Band and Defence International Training Centre, would now remain at Laverton, the airfield would, nevertheless close.108 More specifically, as to the long-term future of the airfield, the Defence position was that it would either be leased or disposed of – this action predicted to take place sometime between January 1993 and December 1994.109

Whilst in August 1992, there was some evidence to suggest that the local Werribee Council would campaign for the airfield to remain open (in the hope that the National Air and Space Museum would be established at Laverton and use the airfield) this effort later proved unsuccessful.110 In early 1995, when the RAAF revealed the planned relocation of Logistics Command Headquarters from St Kilda Road to Laverton, the irreversible status of the airfield was also apparent in Air Marshal Fisher’s statement that despite this development, “RAAF Williams would not be a flying base” and that “the RAAF [would] sell the airfield for light industry usage.”111 Further substantiation of this position has been supplied most recently in the inclusion of the airfield on the listing of ‘Planned Future Disposals’ within the Defence Efficiency Review.112

Why Did the Airfield Close?

In seeking explanations for Laverton Airfield’s closure the fact that its basic function, essentially, the enabling of aircraft operations had largely passed once ARDU relocated from Laverton, must be viewed the most significant. During the interwar years, and assuredly throughout the Second World War, Laverton airbase represented the main air base on Australia’s southeast coast; an air base from which much of the RAAF’s test and training exercise flying was conducted.113 Since the 1960s, however, when developments affecting the airfield’s usage, such as the conclusion of Reserve Squadron Flying and more recently, ARDU’s relocation to Edinburgh, began to become evident the importance of the airfield progressively diminished. The decreasing importance of the airfield is for instance, reflected in the recommendation made in 1973 that if the activities involving flying were relocated, the airfield should then simply be disposed of.114 For this reason, the absence of any resident flying units at Laverton, noted in 1987, undoubtedly carried some consequence in the decision made only four years later to close the airfield.115

The influence of the RAAF’s prioritisation of its northern facilities should also be considered in the attempt to interpret the airfield’s closure. Whereas in the 1950s Air Force policy held for reasons of economy that forces should be maintained largely in the south and move to defend the north when so required, since 1991 the RAAF’s policy has been to actually relocate operational forces to the North.116 This move has necessitated substantial development of the Air Force’s northern infrastructure.117 The establishment of an operations area in Darwin and the construction of RAAF Base Scherger, anticipated to be complete by the year 2000, are indicative of the RAAF’s recent focus upon the north.118 The degree to which this emphasis has affected RAAF facilities in southern Australia, such as Laverton, is revealed in the following statement that “...in order to provide those strategically important facilities” (referring to a “chain” of bases to be developed across the north), “it is essential that there be an ongoing review of activities in southern Australia, to identify where items are either no longer relevant to our present and foreseen strategic circumstances, or could be undertaken more efficiently. Some contraction in the number of bases in the south might be necessary, if sufficient priority is to be accorded to development of northern infrastructure...”119 For this reason, there is a direct relationship between the development of the Air Force’s northern facilities and the decline of southern bases, including Laverton.

To a large extent, the controversial issue of airspace, together with the restricted length of the airfield’s runways provided plausible explanation for the closure of Laverton Airfield. Towards the end of the airfield’s service to the Royal Australian Air Force, there was considerable pressure from Civil Aviation for the RAAF to either cease to occupy, or alternatively, decrease the airspace which it utilised over Laverton.120 During the early 1990s airspace from Altona around Point Cook to Point Nepean in the South, around Laverton to Meredith in the West and to Torquay and Moriac in the South West was quarantined for the RAAF’s aircraft to operate from Laverton.121 Whilst airspace does not appear to have been an issue in the early years of Laverton base’s operations, the advent of jet aircraft, easily covering distances in much shorter periods of time than earlier aircraft, presented an increasing problem for both regular operations carried out by the RAAF and Civil Aviators, whose airspace was often encroached upon.122 ARDU’s activities, for instance, were often affected by this problem.123 Moreover, the airspace from ground level to 25 000 feet to the South West of Melbourne, which was essentially only for the
RAAF’s use, proved a considerable hindrance to civilian flying activity into both Tullamarine and Essendon and additionally, across Port Phillip Bay to Moorabbin Airport. In regard to the influence of the runways’ shortfall upon the closure of Laverton’s Airfield, it should be recognised that owing to their limited length, C130 Aircraft could not take off from or land at Laverton without adhering to a set restricted weight, whilst Boeing 707 aircraft, could not be accommodated by the airfield. The fact that Laverton’s airfields were so short in length also required ARDU’s increasing use of the longer runway at nearby Avalon after 1953, particularly for Mirage test flying. Whilst the restriction which applied to C-130s did not apparently substantially affect their “routine operations”, the existence of this limitation combined with the increasing issue of airspace undoubtedly served as factors influencing the decision to close the airfield. 

A final contributing factor for the closure of Laverton Airfield can be found in the prevailing circumstances within the Air Force characterised by restricted funds and the need to operate more cost effectively. In the face of increasing personnel and operating costs there has been no accompanying real growth in Defence spending. These circumstances have forced the Air Force to strive for even further efficiency. As the closure of Laverton Airfield was accepted as a means of deriving personnel savings, its closure can be directly linked to current Air Force Resource Management constraints.

At present, the airfield is held in ownership by the Australian Property Group. Despite its official closure late last year, the airfield has nonetheless since then been utilised by several external organisations; namely, “Driveskill International” and “Stay Upright Motorcycle Techniques”. In addition, both Toyota Motor Corporation Australia and Audi have also used the airfields for short periods of time to conduct various performance tests on their latest vehicles. Following considerable advertisement both in the overseas and national press, offers are in the process of being made for the airfield. In the recent past, it was anticipated that bids above six million dollars for the airfield would be made. Regardless of the final sum paid for the airfield, its future use would appear to most likely lie with industrial and commercial aims.

Despite Environmental test results which have revealed some contamination within the airfield, there is also a more remote possibility that it could be used for sporting, recreational, residential or a combination of purposes.

Laverton Airfield has given the Royal Australian Air Force time honoured service. From the RAAF’s early beginnings until its closure, the airfield has been a site from which a multitude of Air Force related activities have been conducted. In the interwar period, the airfield served as a departure and return point for a series of flights which successfully mapped vast distances across northern Australia. It was also during this time that 1AD Test flying and flying training and search missions carried out by 21 Cadre Squadron also ensured substantial use of the airfield. Furthermore, in 1934, the airfield was the venue of the publicly well received Centenary Air Display and first landing place for the winner of the London to Melbourne Centenary Air Race.

During World War II, Laverton Airfield was an extensively used facility, from which both temporarily and permanent based Squadrons, many of which played an important protective role against enemy attack upon Australia’s southeastern coastline, operated. Both No 1AD and No 1APU in particular, heavily utilised the airfield over this period to help introduce and maintain wartime aircraft.

From the end of the Second World War until its official closure, Laverton Airfield experienced a number of changes in its standing largely as a result of new priorities and cost cutting measures. Despite these changes, the airfield during this time, continued to stage well attended, large scale air displays and was well utilised by Units / Squadrons including: ARDU, No 21 Squadron, 1AD and more recently, various transport and miscellaneous aircraft. Owing to this great past, when the eventual final transfer of ownership is made, the Royal Australian Air Force will hand over a significant and historic airfield.

NOTES
2. C.D. Coulthard-Clark, The Third Brother, North Sydney, Allen &Unwin, 1991, p.119. *It should also be acknowledged that an Experimental Section in Sydney (between 1924 - 1930) and a temporary base at Bowen (between 1926 - 1928) were also in operation at the specified times.
3. ibid, pp.128-129.
4. Sir R. Williams, These are Facts, Canberra, AGPS, 1977, p.140.
7. Sir R. Williams, These are Facts, p.140.
8. SQNLDR R. Christensen, No.1 Aircraft Depot From the beginning, Laverton, RAAF Publications Unit, 1994, p.20.
9. ibid, pp.12, 15, 17.
11. Sir R. Williams, These are Facts Canberra, AGPS, 1977, pp.188, 190-193. *In reference to the number of places visited on the journey, it should be acknowledged that the number quoted includes places visited twice.
13. Sir R. Williams, These Are Facts, p.188.
15. ibid, pp.14, 21.
17. ibid, p.34.
20. ibid, p.429.
21. ibid.
22. ibid, pp.429-430.
23. ibid, pp.431-439.
24. ibid, pp.431, 439, and SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, Laverton, RAAF Publications Unit, 1994, p.17.
29. “Scott wins Centenary Air Race”, in The Age, 24/10/34, p.11.
31. SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, Laverton, RAAF Publications Unit, 1994, p.19.
32. ibid, p.25.
33. ibid.
34. ibid.
35. “An Aircraft went back to the War”, Wings, 3/10/44, p.28 in ibid, p.31.
36. ibid, SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, p.28 and compiled by the RAAF Historical Section, Units of the Royal Australian Air Force, A Concise History - Volume 7, Maintenance Units, Canberra, AGPS, 1995, p.2.
37. W.H. Brook, From Demon to Vampire: The Story of No 21 (City of Melbourne) Squadron, Glen Waverly, Demonvamp Publications, 1986, p.54. *This Squadron also conducted its submarine patrols from advanced landing grounds at Mt Gambier and Yanakie.
38. ibid, pp.52, 318.
40. ibid, p.108.
41. ibid, pp.115-116.
43. “Summary of Events” (for December 1943), No 1 Aircraft Performance Unit, Operations Record Book, Laverton, p.2.
45. ibid, pp.62, 63.
46. ibid, p.63.
47. G. Odgers, Air War against Japan, Canberra, Australian War Memorial, 1957, p.141 and compiled by the RAAF Historical Section, Units of the Royal Australian Air Force, A Concise History - Volume 4, Maritime and Transport Units, p.85.
48. G. Odgers, Air War against Japan, pp.140, 142. *Compiled by the RAAF Historical Section, Units of the Royal Australian Air Force, A Concise History - Volume 4, Maritime and Transport Units, p.85 and, J Bennett, Highest Traditions, Canberra, 1995, p.109. *No 67 Squadron though based at Laverton, also operated from Yanakie, Mallacoota, Warrnambool and Bairnsdale. In addition, the Squadron later subdivided to form two flights which operated on an interchanging basis from Laverton and Mallacoota.
52. ibid.
53. ibid, and N.M. Parnell & C.A. Lynch, Australian Air Force since 1911, p.81.
56. ibid.
57. ibid.
58. ibid, ‘Runways at RAAF Stations Laverton and Point Cook’, Notes on War Cabinet Agenda No: 246/1943, dated 5/6/43, and SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, Laverton, RAAF Publications Unit, 1994, p.28.
61. A. Stephens, Going Solo, p.50.
62. ibid.
64. ibid, and W. H. Brook, Demon to Vampire: The Story of No 21 (City of Melbourne) Squadron, Glen Waverly, Demonvamp Publications, 1986, p.251.
67. ibid.
69. Message from Group Captain J.G. Gazley, Officer Commanding RAAF Laverton, RAAF Base Laverton Open Day Brochure, 17/3/85, p.3.
70. Interview with Air Commodore I. Ashbrook, 3/5/97.
71. J. Darmody, “I’m in trouble - then crash. Navy pilot, RAAF man killed”, in The Age, 12/10/67, p.3.
72. ibid.
74. ibid.
75. W. H. Brook, Demon to Vampire: The story of No 21 (City of Melbourne) Squadron, p.224.
76. ibid.
78. W. H. Brook, Demon to Vampire: The Story of No 21 (City of Melbourne) Squadron, p.260.
80. SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, Laverton, RAAF Publications Unit, 1994, pp.32,33.
81. ibid, p.33 and RAAF Base Laverton Open Day Brochure, 17/3/85, p.16.
82. SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, p.41.
83. ibid, p.39.
84. A. Stephens, Going Solo, Canberra, AGPS, 1985, p.393 and SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, p.60.
85. SQNLDR R. Christensen, No 1 Aircraft Depot: From the beginning, p.60.
86. A. Stephens, Going Solo, p.434,* The Aircraft Performance Unit (APU) became the Aircraft Research and Development Unit (ARDU) in September 1947.
87. Summary of Events (for April 1946), No 1 Aircraft Performance Unit, Operations Record Book, Laverton, p.63.
90. A. Stephens, Going Solo, p.447.
91. Interview with Air Commodore I. Ashbrook, 3/5/97 and with Group Captain J. Baker, 22/5/97.
92. Interview with Group Captain (Ret) R. Gretton, 17/5/97.
94. ibid, p.207, Interview with Air Commodore I. Ashbrook, 3/5/97 and Group Captain (Ret) R. Gretton, 17/5/97.
95. Interview with Air Commodore I. Ashbrook, 3/5/97.
96. ibid.
97. A. Stephens, Going Solo, p.158.
98. ibid.
101. ibid.
102. ibid, Recommendations, “Term of Reference IV”, p.7.
103. ibid, “Summary of Committee Activities”, p.2.
104. ibid.
105. ibid, p.3.
106. ibid, and interview with Air Commodore I. Ashbrook, 3/5/97.
107. Consultative Committee on the Future Use of Defence Property at RAAF Williams Laverton and Point Cook, September 1992, Annex G, G2-G3 Table 1: Laverton. “This update also outlined the Defence Position in terms of Point Cook Base’s future use.
108. ibid.
109. ibid, Annex G.
111. N. Protyniak, “RAAF base boost”, in Werribee Banner, 15/2/95, front page.
115. ibid, pp.207, 271, Appendix 2, “Visits to Defence Facilities”.
117. ibid.
118. ibid.
120. Interview with Air Commodore I. Ashbrook, 3/5/97 and supplementary information, dated 23/5/97 provided by Air Commodore I. Ashbrook.
121. ibid.
122. ibid.
123. ibid.
124. ibid.
131. Interview with OC, RAAF Base Williams, Group Captain D. McCardle, 6/4/97.
132. ibid.
133. ibid.
135. ibid.
136. ibid. and oral interview with O.C. Williams, Group Captain D. McCardle, 6/4/97.
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Reviewed by Major Darren Kerr

In the late 1920s, Josef Stalin began a colossal social engineering project to transform the Soviet Union’s largely rural and illiterate society into that of a modern industrial state with a powerful arms industry. This project would bring about the birth of the modern Soviet state, a state which would rise to be a world superpower before disintegrating under its own internal problems. However, it would be a birth accompanied by untold suffering among the Soviet people.

Bitter Waters: Life and Work in Stalin’s Russia is an autobiographical account of life in the first two decades of Stalin’s rule. Gennady Andreev-Khomiakov was a writer of short stories who was sentenced in 1927 to 10 years in the Gulag for “counter-revolutionary activities”. He was released in 1935 and obtained a job in the forest industry, a position in which he would experience first-hand the corruption, inefficiency and brutality which was so much a part of the Stalinist era. Captured by the Germans during the Second World War, he did not return to the Soviet Union at the war’s end. Rather, he stayed in West Germany (later moving to the United States) where he wrote this book and several other autobiographical pieces. During his lifetime (he died in 1984), his works were only published for the Russian emigre community. Bitter Waters is the first of his works to be translated into English.

Bitter Waters is a fascinating, albeit occasionally difficult, read. Andreev-Khomiakov writes with honesty, humour, energy and insight. His observations on Stalinist society reveal much on how the system did or didn’t work – and how the cunning and resourceful could work around it to achieve real outcomes. It was a system that set unrealistic goals and brutally punished those who failed to achieve them, the only option was ingenuity, dishonesty and manipulation. Andreev-Khomiakov writes of a period of which many outsiders have heard much but of which few can truly comprehend. A time in which incredible development occurred, but at the cost of massive waste – both of material and of lives.

While Andreev-Khomiakov is telling his story, he is actually speaking for those who had no voice. He reveals clearly the love that Russians feel for their land – his poetic descriptions of the steppes are memorable – but also the distress that was felt by many Russians at what amounted to no more than a rape of the land in the name of development.

While the book covers a distressing period in Russian history, Andreev-Khomiakov manages to fill the book with vibrant humour. Similar to many of the best Australian POW books, bleak and painful moments are defeated by the stoicism and good-nature of those who would otherwise have no choice but to curl up and die. In the final analysis, this is a positive book about the inner-strength of the individual who can rise above brutality and hardship as long as they retain their humanity in the face of a system that would dehumanise them. A very worthwhile read.

CLOSE QUARTER BATTLE by Mike Curtis, published by Transworld Publishers 40 Yeo Street Neutral Bay NSW 2089, RRP $39.95, 395 pp with eight double pages of photos in colour, no maps. Complete glossary at end of book, in hardcover with dust jacket in colour.

Reviewed by Flight Lieutenant (Retd) H.S. Brennan RFD JP

After receiving and before reading this book my first thoughts were that here was another personal account of one man’s experiences in the S.A.S. as I had already read both Bravo Two Zero by Andy McNab and Stand By – Stand By by Chris Ryan, however it did not take long to realise that Mike Curtis has given us a description of Specialised Army Service in much more detail than either of the other two books which would fall into the same category.

Close Quarter Battle gives the reader a comprehensive insight into Curtis’s early life as a coal miner in Wales and goes into great detail to describe his lifestyle before joining the British Army and being accepted into 2 Parachute Regiment initially where he saw service in the Falklands War, followed by various stints in other trouble spots throughout the world. To me it would appear that the author carried a diary with him as his description of military engagements appear in minute detail whether it is in
training or during actual active service, it would appear that in reading the book his narrative is not just from memory.

On leaving the Parachute Regiment and being successful in joining the S.A.S. his Service career covered many operations including the jungles of South America and deserts of Africa, the invasion of Kuwait by Saddam Hussein which action is covered at some length and mention is made of the loss of S.A.S. Members under the control of Andy McNab.

Mike Curtis describes in great detail the training of S.A.S. personnel both in Britain and overseas in joint operations with the Americans and Norwegian people but throughout the book he does not fail to refer to his parents and his wife and two daughters which indicates that he was not only a professional soldier but also a family man with consideration for his close relatives.

In my opinion the book is well worth obtaining and reading as the author’s style makes the story interesting from start to finish and I would express the opinion that the book is a valuable asset to anyone interested in S.A.S. training and operations and I would compliment Mike Curtis for the job he has done by putting it all down on paper and composing a very interesting account of his and his fellow soldiers exploits during their period of service.

KOKODA TRAIL – A WALK IN THEIR FOOTSTEPS by Andrew J. Stone, published by Australian Military History Publications
13 Veronica Place LOFTUS NSW 2232.

In paperback format with coloured frontispiece
102 pages, numerous photographs and map with location index at back. Priced at $20.00 including postage from the Publisher

Reviewed by Flight Lieutenant (Retd) H.S. Brennan
RFD JP

This little book, and that only refers to the size not the scope and detail covered by the author, is a result of an adventure training trek along the old original Kokoda Trail used by Australian Servicemen during the 1935-45 War and retraversed by Andrew Stone and 19 other currently serving members of the Australian Army including a father and daughter combination.

The book is broken up into 20 chapters covering their arrival at Port Moresby then each segment of the trek and finishing up with the travel back home, plus a Preface and Epilogue and several character references of some of the participants. Reading Andrew Stones’ accounts of the trek makes one realise just how much circumstances have changed since the cessation of hostilities in 1945, as it would appear that the local inhabitants of the area made the Australians most welcome wherever they passed through or stopped at a village en route. Because it was a walking tour each person had to carry their own essential supplies of food in the form of Army Combat Rations plus other necessities and as Andrew was the official medic he also had medical supplies to carry. According to the narrative they only had one resupply drop during the trek covering 18 days, this was by plane which landed and disgorged packed rations etc., instead of war-time parachute drops which may or may not have landed in the approved area, however from the authors’ description of the track and the jungle climate the changes have not been very great, the biggest change being the lack of hostilities. Apparently once used weapon pits are still visible even after 50 years, I would have thought that with the rapidity of jungle growth nothing would have been left but it would add to the interest of anyone contemplating a similar trip.

Counting the cover photograph there are 47 illustrations including a map, personal photographs or photographs taken during the trek. Included in these is a photograph of the War Cemetery at Bomana situated about 30 kms from Port Moresby and containing the earthly remains of Australians lost in the 1939-45 War. The Cemetery is apparently extremely well kept and this photograph is the first of the Cemetery which I have ever seen. The only comment which I might make is that it is a pity the snapshots are in black and white, some of them especially the Cemetery would have been outstanding had they been in colour.

From my point of view A Walk In Their Footsteps makes very interesting reading especially for those who have some knowledge of the Kokoda Trail and for the younger ones who have only heard about it from their fathers or grandfathers. At the price of $20.00 it is a very economical buy and well worth keeping. I recommend the book without reservation.